

Scientific Editors:

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# KNOWLEDGE MANAGEMENT: PROJECTS, SYSTEMS AND TECHNOLOGIES

Proceedings  
of the 10<sup>th</sup> International Conference  
on Knowledge Management: Projects,  
Systems and Technologies

November 23 – 24, 2017  
Bucharest, Romania

**Coordinators:**

Toma PLEȘANU  
Constanța BODEA  
Daniel GHIBA

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Established in 1991, AMERILEX is one of the oldest Romanian IT&C company offering a wide range of technology products, solutions and services. We offer complex national coverage IT&C services and solutions for different public and private projects.

Our clients belong to different **Public Institutional** – Administration, National Security, Education and Energy and **Private** fields, such as Industry, Telco, Banking, Commerce.

AMERILEX aims to cover all the IT&C services sectors with a complex team and specialized departments Sales Team, Logistics, Support Team, Presales, Finance, Software, and Networking.

AMERILEX has a team of 35 devoted specialists that reached more than EUR 8 Mil turnover during current FY.

AMERILEX is one of the oldest and most stable HP first tier partners in Romania. The collaboration contract with HP started in 1992. AMERILEX has a direct partnership with Microsoft, as well as excellent business relationships with industry leaders such as CISCO, NOVELL, Fujitsu, VMware etc.

Certifying AMERILEX specialists on different services and hardware products is one of our permanent concerns. As a result, AMERILEX is currently:

- HP Inc Platinum Partner (printing, computing systems)
- HPE Gold Partner (servers, storage, networking, data center networking, etc.)
- HP Inc si HPE authorized service partner
- Certified Microsoft partner, etc.

and holds also many other certifications on different products and brands according to our service activity.

AMERILEX has important clients requiring very specific support. AMERILEX already provides products and services for some of the most representatives of the public and private sector, such as: Ministry of Justice, Ministry of Defense, Ministry of Foreign Affairs, Ministry of Internal Affairs, Romanian National Bank (BNR), Romanian Commercial Bank (BCR), ING Bank, etc.

AMERILEX sold thousands of hardware units to commercial banks and other financial institutions, but also to relevant companies of other commerce and industry sectors (Metro Cash & Carry, Michelin, Lidl, IKEA, DHL, Urgent Cargus, etc.). The hardware marketed by AMERILEX includes a large number of servers, storages, PCs, printers, plotters and scanners as well as networking equipment.

One of the key indicators of AMERILEX service activity is the quick response and the constant presence at customers' sites. AMERILEX has a lot of contracts requesting immediate on-site intervention. This is presently solved using exchange units from AMERILEX's own warehouse. All existing customers address their claims directly to AMERILEX's service department.

AMERILEX continue to focus on large accounts projects, offering turnkey solutions and full warranty and post-warranty support. AMERILEX focusses on providing support and service for the whole range of HP Inc and HPE products according to the Reseller Agreement directly concluded with HP Inc and HPE.

### **TECHNICAL SUPPORT**

Through its certified support technicians, AMERILEX offers also complete support (hardware and software) for HP Inc and HPE equipment and Microsoft products.

Support activities are available on-site or on-the-bench. The AMERILEX support team assures permanent response ability and problems solving for different users and customers. AMERILEX offers solutions for a wide range of hardware issues, peripheral equipment and systems settings and even system configuration for Microsoft platforms (Windows for desktop & laptop, Windows Servers). For all HP Inc and HPE products, AMERILEX provides also installation, configuration and network design.

Taking into account the volume of direct sales registered in the last years, AMERILEX maintains an exchange units stock covering all the possible defective units according to HP Inc and HPE statistics and to our own experience. AMERILEX repair processes respect all IPC standards and are ISO 9001 certified.

### **SUPPORT PERSONNEL**

All our service engineers are specialized in computer technology and have experience in manufacturing and support. All AMERILEX support engineers are trained in HP Learning Center. AMERILEX support staff holds a wide range of certifications for HP Inc and HPE products, passing exams in HP Inc, HPE or Person VUE testing centers.

All technical staff receives special training for HP Inc and HPE products. The number of support engineers will be increased as the need increases, in order to cover all the necessary on-site and remote locations.

The company management ensures a strong technical, financial, operational and quality control. A complete policy is implemented regarding documents flow control (invoices, delivery documents, stocks, account receivables, account payables etc.).

Through constant pursuit of development, Amerilex aims to contribute, as a trustful business partner, to the development of a secure and rewarding networked society. Amerilex aims to realize it by continuing to accelerate its efforts within the IT&C market while working together with its customers to develop their businesses and support to solve social issues.

## Reinventarea tehnologică – HP Inc.



Schimbarea este singura constantă a lumii în care trăim. Evoluția rapidă a tehnologiei și impactul ei social pozitiv constituie unul dintre motoarele acestei transformări.

De mai bine de 75 de ani, Hewlett Packard s-a aflat în prima linie a inovatorilor de tehnologie, brevetând nenumărate patente tehnologice, și contribuind semnificativ la creșterea calității felului în care ne desfășurăm activitatea, la muncă sau acasă.

HP Inc. a luat ființă la 1 Noiembrie 2015, desprinsă din Hewlett Packard Corporation și este responsabilă de inovația în materie de echipamente de imprimare, copiere și scanare, de computere personale de tip desktop, laptop, tablete, stații grafice, precum și accesoriile și consumabilele aferente acestora.

Reinventarea tehnologică abordează mai multe aspecte:

### Infrastructura IT livrată ca serviciu

“IT as a service” nu e un concept nou. În contextul limitărilor bugetare, al dinamicii necesităților resurselor de IT, precum și al scurtării ciclului de viață al tehnologiei, el devine o abordare alternativă din ce în ce mai concretă în mediul privat. În plus, e complementul perfect al abordării de tip Cloud și SaaS (Software as a Service). În condițiile în care o organizație înțelege avantajele de securitate ale păstrării datelor într-o locație alta decât sediul acesteia și beneficiază din plin de resurse de procesare și stocare de top, exact pe măsura necesităților punctuale, mai e doar un pas mic de făcut până la provizionarea ca serviciu a dispozitivelor de acces la aceste date. În administrația publică, intuim că adoptarea Cloud-ului, cel puțin a celui Public, mai are multe hopuri de trecut, mai ales de natură de reglementare. Pentru partea de infrastructură de tip IT Client, de creare și acces la conținut, HP Inc. vă propune un model flexibil de provizionare dinamică a resurselor de imprimante și computing personal, aplicabil chiar și în contextul legislativ/de achiziții curent în sectorul public. Cele două componente principale aici sunt:

- A) HP Managed Print Services
- B) HP DaaS (Device as a Service)

Ambele pot fi combinate în ceea ce numim EUWS – End User Workspace Management, HP fiind singurul producător mondial de tehnologie capabil să ofere soluții integrale de infrastructură IT Client.

- A) HP Managed Print Services conține următoarele:
  - Echipamente. Acestea se pot cumpăra (capitaliza), se pot închiria, sau pot fi utilizate cele existente, parțial sau integral. HP deține cel mai vast portofoliu de platforme și tehnologii de imprimare și scanare, de la echipamente pentru uz casnic, pentru birou și până la echipamente de uz industrial sau format mare, majoritatea integrabile într-o soluție de tip MPS.
  - Consumabile. La HP – un avantaj client net al serviciului de imprimare îl constituie modul în care consumabilele originale se comandă, se livrează și se raportează.

- Servicii:
  - o Analiza mediului actual de imprimare și design al flotei optime
  - o Implementare
  - o Instruire a utilizatorilor și a personalului IT
  - o Finanțarea echipamentelor
  - o Centrul de Suport Client
  - o Portal Service
  - o Mentenanța echipamentelor
  - o Livrare proactivă a consumabilelor
  - o Colectare și reciclare a consumabilelor folosite
  - o Administrator de proiect dedicat
  - o Monitorizare și raportare
  - o Urmărire a inventarului și locației echipamentelor
  - o Adăugare sau relocare de echipamente
  - o Reactualizare tehnologică

Toate acestea sunt împachetate sub forma unui contract de servicii integrate, facturabile în diverse moduri, toate având la bază utilizarea serviciului, respectiv numărul de pagini imprimate.

Abordarea cu siguranță nu este nouă, și piața abundă de oferte de Managed Print Services.

Din postura de leader al pieței de imprimare, abordarea HP MPS și-a conservat niște atuuri semnificative, reflectabile în beneficii client - despre care se va vorbi în prezentare.

B) HP DaaS (Device as a Service) conține următoarele:

Echipamente. HP deține poziția de lider de piață la toate categoriile de echipamente personale de acces pentru uz comercial (vs casnic), respectiv laptop-uri, PC-uri, Thin Clients, Workstations și tablete. Acest lucru face foarte facilă alcătuirea unei liste de platforme standard (product basket) și a unei politici de alocare a echipamentelor în funcție de profilul utilizatorilor finali.

Finanțare. Entitatea HP Financial Services, prin produsele de finanțare a tehnologiei HP, oferă avantaje comerciale imbatabile în raport cu soluțiile standard de finanțare. Detalii în prezentarea dedicată HPFS.

### Servicii de infrastructură computing

Sunt două categorii principale de servicii:

- *Servicii de la distanță*, de tip Service Desk – un singur punct de contact și asistență de la distanță asupra oricărui incident de natură hardware sau software (limitat conform unei liste detaliate) apărut la oricare dintre stațiile de lucru.
- *Servicii de On Site Support* – ce implică intervenția la sediul beneficiarului în vederea remedierii prin reparare/reinstalare/reconfigurare sau înlocuire a stațiilor de lucru sau a aplicațiilor.

În condițiile unei repartiții teritoriale foarte extinse, combinate cu lipsa personalului IT în fiecare dintre locații, un serviciu de tip PSMS aduce avantaje operaționale imediate, într-o abordare contractuală flexibilă și economică.



## FOREWORD

*The papers reunited in the present volume have been submitted to the KM-10: The 10<sup>th</sup> International Conference “Knowledge Management – Project, Systems and Technologies”, Bucharest, Romania, 23-24 November 2017, hosted in Bucharest by “Carol I” National Defense University.*

*Throughout the last decades, a wide variety of organizational practices have been proposed to support the acquisition, storage, retrieval, application, generation, and review of the knowledge assets of an organization in a controlled way; despite this, it is often unclear how these practices relate to one another in their contribution to organizational performance.*

*In the information era, rather than physical assets or resources, knowledge is the key to competitiveness. What is new about attitudes to knowledge today is the recognition of the need to master, manage and use it like any other asset. This raises issues not only of appropriate processes and systems, but also of how to account for knowledge in the balance sheet.*

*The management literature of these last few years suggests a variety of practices meant to support the creation, storage and transfer of information and knowledge. Knowledge Management (KM) is a relatively new subject matter, being integrated in the curricula of some North-American universities and debated in a few dedicated journals starting with 1995.*

*As a new scientific area, there are at present quite many schools of thought referring to Knowledge Management, which therefore accounts for the difficulty or even impossibility to set the conceptual framework of this domain, starting from a unanimously accepted definition for it. As a consequence, the approach to the matter differs with each school or even author.*

*KM can be regarded from the following perspectives:*

- *The techno centric perspective, stressing technologies, especially those contributing to knowledge enlargement and sharing;*
- *The organizational perspective, seeking to answer questions such as: How should the enterprise is designed to facilitate the knowledge processes inside it? Or, which organizations work best and based on what processes?*
- *The ecological perspective, regarding the human interactions, the identity, knowledge and environment factors as a complex adjustment system.*

*In addition to the above, as the topic is becoming more consistent and gaining ground, more and more academic debates are taking place in the epistemological area, emerging both at the theoretical and practical level of Knowledge Management. Outstanding standardization institutions in the United Kingdom and Australia produced reference documents in a common attempt to outline the conceptual framework and scope of the subject, but so far all of them have been only slightly accepted or insufficiently grasped and adopted.*

*The papers gathered in this volume are all meant to facilitate communication between international multidisciplinary teams. This year’s Knowledge Management Conference itself provides – as its organizing committee has stated – a forum for discussion of topics related to the development of Knowledge Management and related subject matters.*

*The mission of the International Conferences on Knowledge Management is to facilitate communication between international multidisciplinary teams. The Conference provides a forum for the discussion of topics related to the development of knowledge management and related disciplines.*

*The main areas of interest proposed for the submission of the papers cover the following sections:*

- *Knowledge, Learning and Cognitive Systems*
- *K-Organizations*
- *KM Projects*

*Finally, we would like to thank to all participants who shared their expertise with colleagues during the conference. We also hope that the papers included in this volume will give new ideas to the readers in their quest for solving various problems.*

*The publisher is honored to inform the authors and readers that the previous Proceedings of the International Conference on Knowledge Management: Projects, Systems and Technologies are indexed in the BDI - RePEc - Research Papers in Economics, IDEAS (<http://ideas.repec.org>), EconPapers (<http://econpapers.repec.org>) and Economists Online.*

*The conference would not have been possible without the joint effort of the organizing committee (Security and Defense Faculty / “Carol I” National Defense University, the Academy of Economic Studies and the Project Management Romania Association) and the evaluating board, to whom we are deeply grateful.*

*Professor Constanța BODEA, PhD,  
Professor Toma PLEȘANU, PhD,  
Professor Daniel GHIBA, PhD,  
Chairs of KM-10, 2017  
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# KNOWLEDGE TRANSFER PARTNERSHIPS

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◇ **Abstract:** *A great deal of efforts are put into reducing the width and depth of the Valley of Death, but sometimes other factors in the industry are overlooked, from marketing, design, production and retail to investments and regulations, which have to be aligned in order to accelerate the introduction of a new product or service.*

◇ *The knowledge transfer partnerships can lead to extraordinary research using real data in the real world, they can help companies in the most pragmatic ways and can offer valuable career experience to the key people involved. This paper presents some considerations on the Knowledge Transfer Partnerships.*

◇ **Keywords:** *Key Enabling Technologies, Manufacturing Readiness Levels, Valley of Death, Missing Middle*

## DEFINITIONS

### *Technology Readiness Levels (TRLs)*

Achieving the EU objectives regarding competitiveness and growth requires the covering of technological development from basic research all the way to viable commercial solutions available on the market. This means the covering of the technological preparation degree from level 1 to level 9 (figure 1). The TRL scale<sup>1</sup>, is applied by many public and industry stakeholders to assess the maturity of evolving technologies (materials, components, devices, etc.).

### *Technology Readiness Assessment (TRA)*

A Technology Readiness Assessment (TRA) is a systematic, metrics-based process that assesses the maturity of, and the risk associated with, critical technologies to be

used in Major Defense Acquisition Programs (MDAPs)<sup>2</sup>. A TRA focuses on the program’s “critical” technologies, i.e., those that may pose major technological risk during development. TRLs can serve as a helpful knowledge-based standard and shorthand for evaluating technology maturity, but they must be supplemented with expert professional judgment.

### *Manufacturing Readiness Levels (MRLs)*

The MRLs offer a common language and standard for<sup>3</sup>: the evaluation of the production maturity of a technology, a product or production process; the understanding of the level of production risk to produce a system or technology of transition to a system; the

<sup>2</sup>[http://www.apcorp-us.com/images/TRA\\_Deskbook\\_2011.pdf](http://www.apcorp-us.com/images/TRA_Deskbook_2011.pdf), accessed 27.10.2017.

<sup>3</sup><https://www.directives.doe.gov/directives-documents/400-series/0413.3-EGuide-04a/@@images/file>, accessed 27.10.2017.

<sup>1</sup>[https://www.nasa.gov/pdf/458490main\\_TRL\\_Definitions.pdf](https://www.nasa.gov/pdf/458490main_TRL_Definitions.pdf), accessed 27.10.2017.

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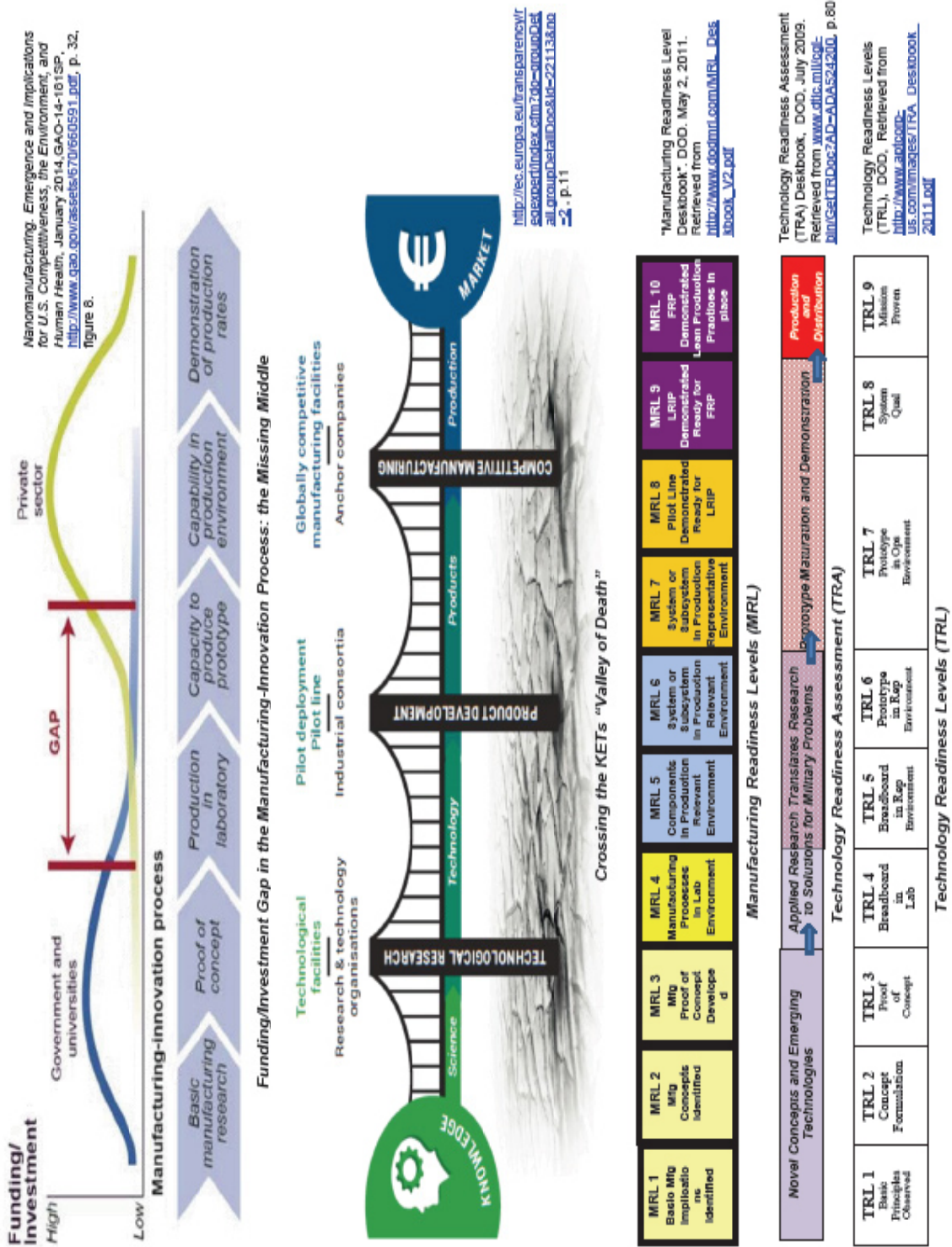


Figure no. 1. Definitions (KET, TRL, TRA, MRL, Valley of Death, Missing Middle)

## Lifecycle of a venture

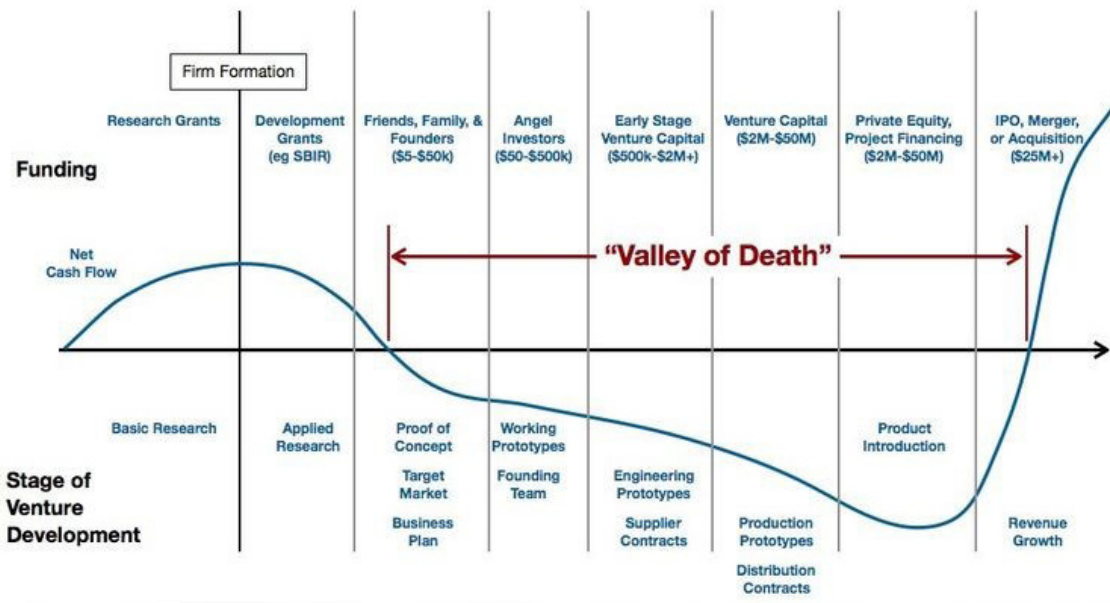


Figure no. 2. *Lifecycle of a venture*

Source: <https://www.greentechmedia.com/articles/read/into-the-valley-of-death#gs.Fwbd0aI>, accessed 27.10.2017.

integration of the production process in the acquisition process; the establishment of the agenda for the production risk management; the obtaining of production maturity at critical decision points in the acquisition; the identification of potential risk zones through independent production evaluations.

### **Key Enabling Technologies (KETs)**

In the conception of the new research, development and innovation plan of the European Union “Horizon 2020”, the industrial competitiveness can only be ensured on the basis of Key Enabling Technologies (KETs). Their development and application must be done through a concentration and specialization of efforts at European level. Horizon 2020 lists the following KETs: *nanotechnology, micro and nanoelectronics (including semiconductors); industrial biotechnologies; photonics; advanced materials; advanced production technologies.*

The new plan starts from the idea that Europe has a very good scientific research, but its exploitation through industrial technologies and products with great market impact is achieved with difficulty, with delays and this profoundly affects the competitiveness of European companies. These generic technologies are in various maturing stages, and Europe’s competitiveness in one field or another is different.

For this reason, emphasis is now placed on innovation, for the creation of new products and fabrication technologies. In this race to recover competitiveness, the **Key Enabling Technologies (KETs)** represent an essential vehicle.

The terms *Valley of Death*<sup>4</sup> and *Missing Middle*<sup>5</sup> emerged in order to suggestively

<sup>4</sup> <http://ec.europa.eu/transparency/regexpert/index.cfm?do=groupDetail.groupDetailDoc&id=22113&no=2>

<sup>5</sup> *Nanomanufacturing. Emergence and Implications for U.S. Competitiveness, the Environment, and Human*

emphasize the financing / investment deficit in the innovation - production process. The term *Valley of Death* was used in the famous poem by Alfred Lord Tennyson “The Charge of the Light Brigade” (1854), that described the tragic charge of the British cavalry across an open field during the Battle of Balaclava in the Crimean War, in which 278 of the 607 soldiers participating in the charge were killed or wounded. *On 25 October 1845 the commander of the British troops involved in the Crimean War (1853-1856) issued an ambiguous order that his subordinates erroneously interpreted, from here a disastrous charge of the light cavalry against the well defended Russian artillery. The British cavalry was butchered while galloping through the so-called “valley of death”, facing artillery and musket fire from three directions*<sup>6</sup>.

### **THE VALLEY OF DEATH AND THE MISSING MIDDLE**

*The Valley of Death*, concerns the gap in support (typically, a lack of access to capital) that characterizes the transition of an invention from the point of validation in a laboratory environment to prototype demonstration in a non-laboratory environment (prior to acquisition by industry as a commercial product)<sup>7</sup>.

The term *Missing Middle* was used in order to emphasize the lack of financing / investment that can emerge with regard to innovation in manufacturing for achieving the production capacities and for establishing / homologate industrial production processes.

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*Health*, January 2014, GAO-14-181SP, accessed 27.10.2017 on <http://www.gao.gov/assets/670/660591.pdf>

<sup>6</sup> <https://www.historia.ro/sectiune/general/articol/sarja-cavaleriei-usoare-de-acum-160-de-ani>, accessed 27.10.2017.

<sup>7</sup> United States Government Accountability Office – *Nanomanufacturing. Emergence and Implications for U.S. Competitiveness, the Environment, and Human Health*, Report to Congressional Requesters, January 2014 GAO-14-181SP, accessed 27.10.2017 on <http://www.gao.gov/assets/670/660591.pdf>, p. 25.

Another important support setback can be the absence of an industrial consortium capable of supporting innovation within an industrial sector and of facilitating the successful covering of the intermediary steps of production development, a pre-condition for achieving new production fluxes.

The valley of death refers to a deficit in financing or investment that can emerge after the research step for a new technology and its initial development - for example, when technology requires supplementary tests to the ones carried out in a controlled environment in the lab. A financing / investment deficit at this stage can impede the further development of this strategy.

The valley of death refers to the serious financial risks that newly established companies are confronted with, because they struggle to grow from small teams to viable commercial limited companies. All long the steps occurring in the valley of death, the companies invest money in the hope of achieving success<sup>8</sup>.

### **KNOWLEDGE TRANSFER PARTNERSHIPS**

The valley of death is even more obvious in the case of competitive manufacturing which is based on competitive, world level production facilities. These depend on a multitude of factors that influence the transfer of knowledge into products, from governmental policies (financing programs, fiscal policies, etc.) to entrepreneurial and innovation culture. The existence of various categories of companies interested in innovation and involved in the global competition, as well as of a flexible academic environment, represents favorable conditions. European countries have very good scientific research facilities, but their valorization through industrial technologies and products with a great impact upon the market is achieved with great difficulty, with long delays and this profoundly

<sup>8</sup> <https://www.greentechmedia.com/articles/read/into-the-valley-of-death#gs.Fwbd0aI>, accessed 27.10.2017.



affects the competitiveness of European companies. These generic technologies are in different stages of maturity, and Europe's competitiveness in one field or another is different. For this reason, attention is devoted to innovation for the accomplishment of new products and manufacturing technologies. In this race to recover competitiveness, key enabling technologies (KET) represent an essential vehicle. In this case, startup enterprises are confronted with a difficult combination of challenges. On the one hand, project teams need funds in order to begin to transform their advanced knowledge into industrial processes which will produce new deliverables and, on the other hand, there is the challenge of financed startups that try to attract investments for the industrial size installations and equipment necessary for the use of these emerging processes.

The key solution for crossing the bridge over the Valley of death (figure 1) is represented by the knowledge transfer partnership, composed of: A - a business partner in need of knowledge, B - an academic partner possessing knowledge and C - the "associate" who transfers knowledge. The main purpose of this partnership is the transfer of knowledge, the configuration of basic research and its application to the needs of the business.

The knowledge transfer partnership helps each partner obtain what they want, be it the partner who models his/her career by obtaining the desired training and experience (C); in some cases, the associate can work together on a doctoral thesis during their partnership. There usually is a specific budget dedicated to the associate's professional development), the researcher receiving their prioritized and written papers (B), as well as helping the company benefit from the transfer of commercial knowledge (A)<sup>9</sup>.

Beside the financial capital, there are also three other forms which, at different

moments, can be significantly more valuable: the physical capital (physical resources that somebody has already purchased or organized), the intellectual capital (acquired and organized knowledge and skills) and the social capital (someone's social network or access to someone else's "stocks").

While the balance sheet of a startup may clearly show where it stands regarding its financial and physical capital, it does not say anything about the intellectual capital and the social capital. And yet, in order for enterprises to avoid their own early disappearance, they more or less depend on the knowledge, experience and capacity to manage the wealth of their company and their social networks in order to discover, guide and obtain the critical resources that they will need in order to succeed.

Supporting the success of small companies that promote key enabling technologies requires more than financial or physical capital; we must make sure that these companies have access to the best knowledge and experience and to the suitable social networks.

We need organizations that will offer new initiative in key enabling technologies. These organizations have to achieve critical masses of researchers and engineers from all over the country, to whom they are to provide training and guidance programs from top entrepreneurs, investors and corporations, in order to explore together the commercial potential of their research.

These training and guidance programs will allow for the creation of instruments and techniques to be used by industrialists and political decision makers in order to understand the emergent industries and to develop intervention, promotion and action strategies. They will also allow better informed decision-making regarding policies and investments, better awareness and engagement with regard to standards and regulations and the creation of successful evolution strategies at company, sector or industry levels. Emphasis is placed on the combination of entrepreneurial networks -

<sup>9</sup> <https://engineerimpact.wordpress.com/2014/02/15/knowledge-transfer-partnerships-disseminating-embedding-and-using-research-for-real/>, accessed 27.10.2017.

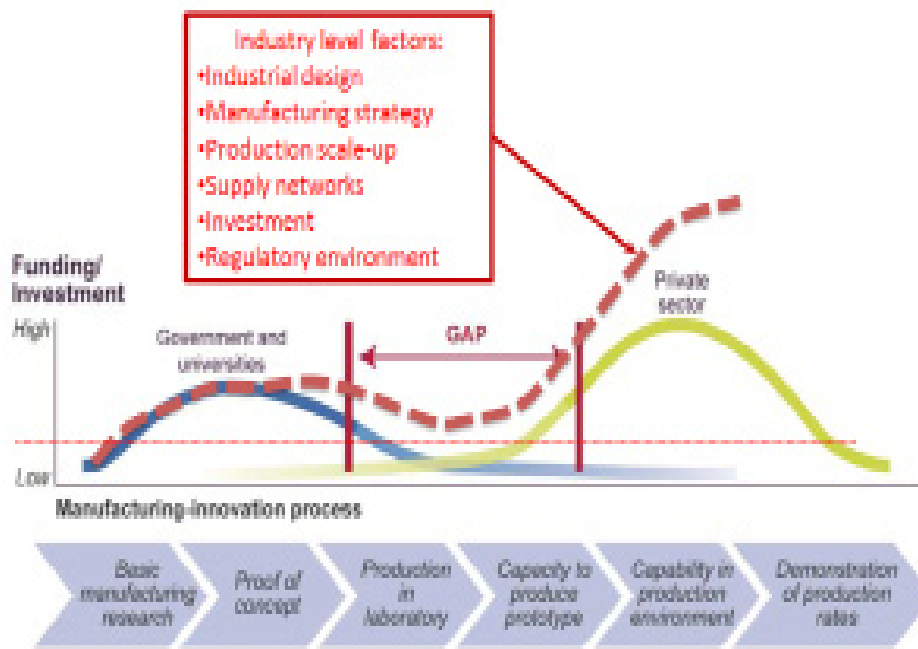


Figure no. 3. Successful navigation of emergent barriers, enablers and inhibitors depends on an understanding of industrial level factors

Source: Adaptation after United States Government Accountability Office–Nanomanufacturing. Emergence and Implications for U.S. Competitiveness, the Environment, and Human Health, Report to Congressional Requesters, January 2014 GAO-14-181SP, accessed 27.10.2017 on <http://www.gao.gov/assets/670/660591.pdf>, p. 32.

critical intellectual and social capital that new enterprises need before using the financial capital. In order to ensure for companies the transition from startups to durable businesses, the financial capital can be the last form of capital formation. Investment in the infrastructure that supports the intellectual and social capital in these emergent enterprises can be a more valuable and a more critical intervention<sup>10</sup>.

One solution can even be to establish within universities start-up incubators that provide resources to young companies, helping them survive and grow during the early phases, exactly when they are the most vulnerable. These resources often include a cash investment, as well as spaces for offices and consultancy.

Also, the National Research, Development and Innovation Plan (PNCDI III) should seriously consider the way in which it will offer emergent enterprises the suitable capital to succeed in commercializing their new research discoveries. We envisage a potential lack of financing or investments that may characterize the middle stages in the development of a new technology or product (*Valley of Death*) and a similar lack of adequate support for the approach or development stages of a manufacturing process (*Missing Middle*) (figure 3).

## CONCLUSIONS

A great deal of effort is put into reducing the width and depth of the Valley of Death, but sometimes other factors in the industry are overlooked, ranging from marketing, design, production and retail to investments and

<sup>10</sup><https://www.greentechmedia.com/articles/read/into-the-valley-of-death#gs.mt8PC10>, accessed 27.10.2017.



regulations, which have to be aligned in order to accelerate the introduction of a new product or service.

Well managed knowledge transfer partnerships can lead to extraordinary research, using real data in the real world, can help companies in the most pragmatic ways and can offer valuable career experience to the key people involved. These partnerships would facilitate:

- supporting educational programs designed to ease the exchange of opinions, to share lessons learned and to provide business solutions;
- the creation of unique connecting opportunities between the knowledge providers and product providers, which strengthen the current relations and builds new ones;
- the ability to capture value from the new industries based on science and engineering. University research worldwide and the emergence of startups that develop innovative technologies lead to new ideas and opportunities that need to be effectively transformed into products and services, if the latter support successful companies and industries;
- the exploitation of new ideas and technologies from the perspective of science, technologies, management and economy;
- the establishment of connections between suppliers in the industry and professionals from Europe and from the rest of the world, presenting the newest products and services;
- the creation of growth opportunities for companies on the European market.

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# THE COMPLEX RELATIONSHIP BETWEEN INTERNATIONAL HUMANITARIAN LAW AND THE RESPONSIBILITY TO PROTECT: FRAGMENTATION OR NORMATIVE UNITY

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◇ **Abstract:** *The Responsibility to Protect (R2P) has been the subject of a sustained debate in the United Nations, among states and scholars, and within civil society. This debate has a venerable lineage, going back to humanitarian interventions and attained more exigencies in the past twenty years due to severe humanitarian crises. The apparent failure of the international community to appropriately act in response to these challenging situation has led to the inception of the concept that states have a responsibility to protect the basic human rights of their own people, and that the international community has a responsibility to intervene when actor states fail to do so. Responsibility to protect is a concept developed by the International Commission on Intervention and State Sovereignty, and further refined in The Responsibility to Protect Report. International Humanitarian Law (IHL), consisting of a range of international treaties and customary laws, combined with the international instruments of International Human Rights Law (IHRL) and the emerging universal reach of human rights instruments across international borders, are of particular significance to R2P. Egregious human rights violations and our common humanity require that the R2P should take precedence over sovereign values and national interests. Ultimately, state practice should enable the continuous evolution of R2P concept into a rule of customary international law and a compelling mechanism in ensuring the protection of human dignity and rights.*

◇ **Keywords:** *responsibility to protect, R2P, international humanitarian law, humanitarian intervention, jus cogens, international normativity.*

In order to comprehend the international framework that defines the normative discussion about the responsibility to protect (R2P<sup>1</sup>), it is imperative to elucidate the notion of humanitarian intervention and to take into consideration the international legal milieu. Humanitarian intervention can be defined as the forcible intervention by a state or a group of states, including by military means, in the domain of sovereignty of another state in order to bring an end to egregious violations of human rights that the territorial state is not able or willing to prevent. As for the legal context, two principles of international law are of unequivocal pertinence on this topic, both enshrined in the first Chapter of the

UN Charter: on the one hand the protection of human rights (Article 1(3))<sup>2</sup> and, on the other hand, the prohibition of the use of force, Article 2(4)<sup>3</sup>. Both principles have also been embedded in corresponding norms of customary international law. The International Court of Justice (ICJ)<sup>4</sup> has confirmed the

<sup>2</sup> UN Charter Article 1 (3): *All Members shall refrain in their international relations from the threat or use of force against the territorial integrity or political independence of any state, or in any other manner inconsistent with the Purposes of the United Nations.*

<sup>3</sup> UN Charter Article 2 (4): *All Members shall refrain in their international relations from the threat or use of force against the territorial integrity or political independence of any state, or in any other manner inconsistent with the Purposes of the United Nations.*

<sup>4</sup> The International Court of Justice hereinafter 'ICJ'.

<sup>1</sup> The Responsibility to Protect hereinafter 'R2P'.

prohibition of the use force in its jurisprudence, *exempli gratia*, the *Corfu Channel case*<sup>5</sup>, the *Nicaragua case*<sup>6</sup>, the *Oil Platforms case*<sup>7</sup>, and it has been recognized in international practice and discourse as a norm of *jus cogens*<sup>8</sup>, or a peremptory norm of international law<sup>9</sup>. The ICJ jurisprudence clearly demonstrates that the Court refused to accept the possibility that a right of intervention by force could be consistent with international law. The Court stated that “whatever be the present defects in international organization”<sup>10</sup> the right of intervention by force cannot find a place in international law. The ICJ has also claimed that the use of force is not the appropriate method to monitor or ensure observance of human rights<sup>11</sup>.

<sup>5</sup> ICJ (1949), Judgment on the *Corfu Channel case* (United Kingdom of Great Britain and Northern Ireland v. Albania), 9 April, <http://www.icj-cij.org/docket/index.php?case=1>.

<sup>6</sup> ICJ (1986), Judgment on the case concerning *Military and Paramilitary Activities in and against Nicaragua* (Nicaragua v. United States of America), 27 June, <http://www.icj-cij.org/docket/index.php?case=70>.

<sup>7</sup> ICJ (2003), Judgment on the case concerning *Oil Platforms* (Islamic Republic of Iran v. United States of America), 6 November, <http://www.icj-cij.org/docket/index.php?case=90>.

<sup>8</sup> Ronzitti, Natalino (1986), “Use of Force, Jus Cogens and State Consent”, in Antonio Cassese, ed., *The Current Legal Regulation of the Use of Force*, Dordrecht, Nijhoff, pp. 147-166.

<sup>9</sup> Hannikainen, Lauri (1988), *Peremptory Norms (Jus Cogens) in International Law. Historical Development, Criteria, Present Status*, Helsinki, Finnish Lawyers’ Publishing Company.

<sup>10</sup> ICJ (1949), Judgment on the *Corfu Channel case* (United Kingdom of Great Britain and Northern Ireland v. Albania), 9 April, <http://www.icj-cij.org/docket/index.php?case=1>, para. 29.

<sup>11</sup> ICJ (1986), Judgment on the case concerning *Military and Paramilitary Activities in and against Nicaragua* (Nicaragua v. United States of America), 27 June, <http://www.icj-cij.org/docket/index.php?case=70>, para. 268: “In any event, while the United States might form its own appraisal of the situation as to respect for human rights in Nicaragua, the use of force could not be the appropriate method to monitor or ensure such respect. With regard to the steps actually taken, the protection of human rights, a strictly humanitarian objective, cannot be compatible with the mining of ports, the destruction of oil installations, or again with the training, arming and equipping of the contras. The Court concludes that the argument derived from the preservation of human rights in Nicaragua cannot

With respect to human rights violations, it is customarily acknowledged that all states have an international obligation to respect human dignity and to abstain from perpetrating egregious violations of human rights such as genocide, torture, slavery, systematic racial discrimination or relentless and pervasive privation of the rights and freedoms of their citizens. ICJ has recognized this obligation as *erga omnes* obligation on several occasions: the *Avena and Other Mexican Nationals case*<sup>12</sup>, the *Application of the Convention on the Prevention and Punishment of the Crime of Genocide*<sup>13</sup> and the Court’s judgment on the *Ahmadou Sadio Diallo case*<sup>14</sup>.

Furthermore, this obligation has been entrenched and clearly stated in international and regional human rights conventions, and additionally clarified by the monitoring bodies of these international instruments. These human rights treaties, notwithstanding, do not allow or even acknowledge the possibility of the use of force by another state, nor by a regional organization or the United Nation, to enforce respect of human rights. In this particular regard, the International Law Commission, in its articles on State Responsibility<sup>15</sup>, emphasizes that the reaction that actor states may have to grave violations of international obligations, *owed to the international community as a whole*, including

*afford a legal justification for the conduct of the United States, and cannot in any event be reconciled with the legal strategy of the respondent State, which is based on the right of collective self-defense.”*

<sup>12</sup> ICJ (2004), Judgment on the *Avena and Other Mexican Nationals case* (Mexico v. United States of America), 31 March, <http://www.icj-cij.org/docket/index.php?case=128>.

<sup>13</sup> ICJ (2012), Judgment on the *Application of the Convention on the Prevention and Punishment of the Crime of Genocide* (Republic of Guinea v. Democratic Republic of Congo), 19 June, <http://www.icj-cij.org/docket/index.php?case=103>.

<sup>14</sup> ICJ (2012), Judgment on the *Ahmadou Sadio Diallo case* (Republic of Guinea v. Democratic Republic of Congo), 19 June, <http://www.icj-cij.org/docket/index.php?case=103>.

<sup>15</sup> International Law Commission (ILC), (2001), *Draft Articles on Responsibility of States for Internationally Wrongful Acts*, [http://untreaty.un.org/ilc/texts/9\\_6.htm](http://untreaty.un.org/ilc/texts/9_6.htm).

egregious violations of human rights, must be *lawful* and *consistent* with the UN Charter<sup>16</sup>.

The concept of responsibility towards others has an extensive *intellectual pedigree*<sup>17</sup>. A former UN High Commissioner for Human Rights considers that a “*feeling of being answerable*” cautions us regarding the undisputable certainty that we all have a responsibility for the rights of others, and not just our own<sup>18</sup>. The same problem, viewed from a philosophical angle is expressed as: “*His/her you-ness*”<sup>19</sup> will assure that he/she “*feels responsible*” and “*answerable*”, and will protect that ascendancy “*against all attacks*,”<sup>20</sup> leading to the accomplishment of “*a morally responsive subject*”<sup>21</sup>.

The responsibility to protect is placed in a kind of *no man’s land* between the boundaries of the international system’s responsibility towards state sovereignty and territorial integrity and the respect for human dignity and protection of human rights. R2P as a norm reaffirms the responsibility and obligation of state actors to protect their citizens, both inland and outside the limits of their respective national boundaries, under the generous *chapeau* of the idea of *the common heritage of mankind* within international law<sup>22</sup>.

<sup>16</sup> Francioni, Francesco (2005), “Balancing the Prohibition of Force with the Need to Protect Human Rights: A Methodological Approach”, in Enzo Cannizzaro and Paolo Pacchetti, eds., *Customary International Law on the Use of Force. A Methodological Approach*, Leiden and Boston, Nijhoff, p. 272.

<sup>17</sup> ensure observance of human rights, *Towards Normative Consensus on Responsibility to Protect*, 2007, Griffith Law Review, p. 195.

<sup>18</sup> Royal Palace Amsterdam, Ceremony of the Erasmus Prize, 9 November 1999, Address by Mary Robinson, UN High Commissioner for Human Rights, p. 3.

<sup>19</sup> *You-ness*, as a philosophical concept, plus *consciousness* equals *identity*.

<sup>20</sup> Kallen, Horace M, (1942) , ‘*Responsibility*’ , 52 *Ethics* , p. 363, in Chataway, Teresa, *Towards Normative Consensus on Responsibility to Protect*, 2007, Griffith Law Review, p. 191.

<sup>21</sup> Keating, Paula, (2004), ‘*The Conditioning of the Unconditioned: Derrida and Kant*’ , 3 *Borderlands e-Journal 1* , p. 8.

<sup>22</sup> See Baslar, Kemal, (1998), *The Concept of the Common Heritage of Mankind in International Law*, Martinus Nijhoff.

Legal doctrine and international state practice has developed, throughout time, several means of reconciliation concerning these two apparently conflicting norms – R2P and humanitarian intervention. In accordance to the first doctrinal trend, *international legal positivism*, humanitarian intervention is only allowed when specifically authorized by the Security Council, pursuant to the provisions of Chapter VII. A *verbatim* interpretation of the UN Charter text and a prohibitive outlook on *opinio juris* and international jurisprudence constitute the foundation of this conclusion<sup>23</sup>. A plethora of natural law theories argue that, when the state actors fail or, are in themselves the wrongdoers and inflict egregious human rights violations upon the population, the international society at large has the right and perhaps the moral obligation to become involved. *Ergo*, according to this doctrinal approach, humanitarian intervention is legitimate, even in the absence of the authorization of the UN Security Council. Although these two views seem to be positioned at the opposite sides of the spectrum, a third one, the *realist-constructivist theory*, argues that in the evolution process of the international law, the *formal breach*, for humanitarian purposes only, of the UN Charter prohibition on the use of force<sup>24</sup>, can prompt a new practice legitimizing humanitarian intervention as a collective response generated by the members of the international community acting in concert as “*trustees of the general interest*”<sup>25</sup>. Humanitarian intervention would then be in accordance to international law, as its self-professed purpose would be to carry out *erga omnes* obligations and stop international proliferation of crimes, even without the

<sup>23</sup> Joffe, George, (1994), “Sovereignty and Intervention: The Perspective from the Developing World”, in Marianne Heiberg, ed., *Subduing Sovereignty. Sovereignty and the Right to Intervene*, London, Pinter, pp. 62-69.

<sup>24</sup> Francioni, Francesco (2005), *ibid.* p. 272.

<sup>25</sup> Cassese, Antonio, (1999), “Ex iniuria ius oritur: Are we Moving towards International Legitimation of Forcible Humanitarian Countermeasures in the World Community?”, *European Journal of International Law*, Vol. 10, No. 1, pp. 23-30.

Security Council's express authorization<sup>26</sup>.

If one would review the defining moments in the creation of the R2P concept, most definitely the two major statements made in 1999 by the Secretary-General Kofi Annan, would be on top of any self-respecting list<sup>27</sup>. In both addresses he emphasized the equal importance of international human rights and state sovereignty. In his *Millennium Report*<sup>28</sup>, he called upon the international community to persevere in pursuing a new consensus that could resolve the conflict between state sovereignty and the moral obligation to protect all people against grave violation of human dignity and human rights.

The second relevant moment was generated by the above-mentioned statements that motivated the Canadian government to require the International Commission on

<sup>26</sup> Picone, Paolo (1995), "Interventi delle Nazioni Unite e obblighi erga omnes", in Paolo Picone, ed., *Interventi delle Nazioni Unite e diritto internazionale*, Padova, Cedam, pp. 517-578.

<sup>27</sup> Annan, Kofi A., *Two concepts of sovereignty*, published in 1999 in *The Economist*.

<sup>28</sup> In the section titled "for consideration by the Summit", the end of the *Millennium Report* stated: "The following values, which reflect the spirit of the Charter; are—I believe—shared by all nations, and are of particular importance for the age we are now entering: **Freedom**. Men and women have the right to live their lives and raise their children in dignity, free from hunger and squalor and from the fear of violence or oppression. These rights are best assured by representative government, based on the will of the people. **Equity and solidarity**. No individual and no nation must be denied the opportunity to benefit from globalization. Global risks must be managed in a way that shares the costs and burdens fairly. Those who suffer; or who benefit least, are entitled to help from those who benefit most. **Tolerance**. Human beings must respect each other, in all their diversity of faith, culture and language. Differences within and between societies should be neither feared nor repressed, but cherished. **Non-violence**. Disputes between and within nations should be resolved by peaceful means, except where use of force is authorized by the Charter. **Respect for nature**. Prudence should be shown in handling all living species and natural resources. Only so can the immeasurable riches we inherit from nature be preserved and passed on to our descendants. **Shared responsibility**. States must act together to maintain international peace and security, in accordance with the Charter. The management of risks and threats that affect all the world's peoples should be considered multilaterally."

Intervention and State Sovereignty (ICISS)<sup>29</sup> to consider methods in order to determine new international consensus on more beneficial responses of the international community to egregious violations of human rights and threats to international security. The result, stated in the R2P report, marked a significant repositioning from the established *non-intervention norm*, indicating a neoteric view to the application of the "provisions concerning human dignity"<sup>30</sup>.

The R2P concept has a unique ontogeny in the history of human rights since the adoption of the *Universal Declaration of Human Rights*, and encompasses the following crucial elements: *responsibility to prevent*, with the specific goal to address both the root and direct causes of internal conflict and other man-made crises that place populations at risk; *responsibility to react* intending to respond to situations of compelling human

<sup>29</sup> *International Commission on Intervention and State Sovereignty* hereinafter 'ICISS.'

<sup>30</sup> Report of the International Commission on Intervention and State Sovereignty, para.1.35 *The defence of state sovereignty, by even its strongest supporters, does not include any claim of the unlimited power of a state to do what it wants to its own people. The Commission heard no such claim at any stage during our worldwide consultations. It is acknowledged that sovereignty implies a dual responsibility: externally – to respect the sovereignty of other states, and internally, to respect the dignity and basic rights of all the people within the state. In international human rights covenants, in UN practice, and in state practice itself, sovereignty is now understood as embracing this dual responsibility. Sovereignty as responsibility has become the minimum content of good international citizenship;* and para. 1.36 *This modern understanding of the meaning of sovereignty is of central importance in the Commission's approach to the question of intervention for human protection purposes, and in particular in the development of our core theme, "the responsibility to protect," which is introduced and explained in the next chapter;* and para. 2.14 *The Charter of the UN is itself an example of an international obligation voluntarily accepted by member states. On the one hand, in granting membership of the UN, the international community welcomes the signatory state as a responsible member of the community of nations. On the other hand, the state itself, in signing the Charter, accepts the responsibilities of membership flowing from that signature. There is no transfer or dilution of state sovereignty. But there is a necessary re-characterization involved: from sovereignty as control to sovereignty as responsibility in both internal functions and external duties.*



need with appropriate measures, which may include coercive measures such as sanctions and international prosecution, and, in extreme cases, military intervention and, last but not least, *responsibility to rebuild* directed to provide, especially in the aftermath of military intervention, full assistance with recovery, reconstruction and reconciliation, and to address the causes of the harm that the intervention was designed to terminate or thwart<sup>31</sup>.

In the wake of the destructive and overwhelmingly incomprehensible events of 9/11 a general perception engulfed the international society that the UN was unable to overcome the growing unilateralism with respect to collective security<sup>32</sup>. The Secretary-General responded by appointing, on the 3<sup>rd</sup> of November 2003, a High-level Panel on Threats, Challenges and Change. In the report issued by the Panel entitled *A More Secure World: Our Shared Responsibility*, the High-level Panel advanced the principle of “*our shared responsibility to protect*” to deal with the collective security issue, and made a number of recommendations for UN reform.<sup>33</sup>

Next on this list of crucial importance events in the R2P evolution were the thematic consultations on the “*Freedom to live in Dignity*,” that resulted in the “*Draft Outcome Document of the High-level Plenary Meeting of the General Assembly*” for the UN World Summit in September 2005, when further consideration of the endorsement of the R2P doctrine was recommended. In paragraph 138 of the document was clearly stated that: “*each individual State has the responsibility to protect its populations from genocide, war crimes, ethnic cleansing and crimes against humanity*,” emphasizing furthermore in paragraph 139 that world leaders are encouraged “*to take collective action, in a timely and decisive manner, through the*

<sup>31</sup> *Ibidem*, *Synopsis, The Responsibility to Protect Core Principles*, p. XI-XII.

<sup>32</sup> Teresa Chataway, *Ibidem*.

<sup>33</sup> See UN GA/59/565, *A More Secure World: Our Shared Responsibility*. Report of the High-level Panel on Threats, Challenges and Change, 2 December 2004.

*Security Council, in accordance with the UN Charter, including Chapter VII, on a case by case basis and in cooperation with relevant regional organizations as appropriate, should peaceful means be inadequate and national authorities manifestly failing to protect their populations from genocide, war crimes, ethnic cleansing, and crimes against humanity and its implications, bearing in mind the principles of the Charter and international law*”<sup>34</sup>.

The 28<sup>th</sup> of April 2006 represented another significant moment when the Security Council restated, in the *Resolution 1674*, its commitment to “*the provisions of paragraphs 138 and 139 of the 2005 World Summit Outcome Document regarding the responsibility to protect populations from genocide, war crimes, ethnic cleansing and crimes against humanity*”<sup>35</sup>.

On the 31<sup>st</sup> of August 2006, the *Resolution 1706* of the Security Council called for the deployment of UN peacekeepers to Darfur, and thus, for the first time, the R2P principle was applied to a particular context.<sup>36</sup>

The authorization of the use of force by the Security Council in order to protect the Libyan people against human rights violations by their own government has been interpreted as evidence of the international acceptance of the R2P. Significantly, Secretary-General Ban Ki-moon, stated that the *Resolution 1973* “*affirms, clearly and unequivocally, the international community’s determination to fulfill its responsibility to protect civilians from violence perpetrated upon them by their own government*”<sup>37</sup>. Though, many academics concluded in a more cautious manner, evidencing, on the one hand, the extremely special circumstances of the Libyan situation,

<sup>34</sup> *Draft Outcome Document of the High-level Plenary Meeting of the General Assembly 30905.pdf*, paras. 138 and 139.

<sup>35</sup> *Protection of Civilians in Armed Conflict*, available at [www.un.org/docs/sc/unscresolutions06.html](http://www.un.org/docs/sc/unscresolutions06.html).

<sup>36</sup> *Reports of the Secretary-General on the Sudan*, available at [www.un.org/docs/sc/unscresolutions06.html](http://www.un.org/docs/sc/unscresolutions06.html).

<sup>37</sup> UN (2011), *Statement the Secretary-General on Libya*, 17 March, available at <http://www.un.org/sg/statements/nid=5145>.

enabling the Security Council to act<sup>38</sup> and on the other hand, the total lack of any claim made by the Council itself that it had acted on the basis of the responsibility of the international community to protect, as a normative concept<sup>39</sup>.

As previously mentioned, the Security Council has authorized, on several situations, the use of force for the purpose of civilian protection in cases of humanitarian crises. In a number of circumstances, military intervention was decided *with the consent* of the government of the state actor in question. This was the case of East Timor where the Security Council, by unanimously adopting Resolution 1246, established the United Nations Mission in East Timor (UNAMET); and, the afore referred to, Resolution 1706 concerning the situation in Sudan, in which the Council recalls “its previous resolutions 1325 (2000) on women, peace and security, 1502 (2003) on the protection of humanitarian and United Nations personnel, 1612 (2005) on children and armed conflict, and 1674 (2006) on the protection of civilians in armed conflict, which reaffirms inter alia the provisions of paragraphs 138 and 139 of the 2005 United Nation World Summit outcome document”<sup>40</sup>.

There were cases where the interventions were impelled and completed without the express support of the state’s actor government. This occurred in Somalia in 1992, where there was no government in place, and the Resolution 794 stated that “acting under Chapter VII of the Charter of the United

Nations, authorizes the Secretary-General and Member States (...) to use all necessary means to establish as soon as possible a secure environment for humanitarian relief operations in Somalia”<sup>41</sup>; then, the Security Council’s Resolution 918 from 1994, called UN Assistance Mission for Rwanda<sup>42</sup> and the Resolution adopted by the General Assembly in December 1992, concerning the situation in Bosnia and Herzegovina<sup>43</sup>, and the Security Council Resolution 748 in 1992, with respect to the situation in Libya<sup>44</sup>, were embarked upon without the support of the ruling regimes of the respective states.

Although the consent of the national government of the state actors “is not legally significant when it is authorized under Chapter VII of the UN Charter”<sup>45</sup>, the mere existence of such consent has, in practice, helped a great deal in expediting the resolution of the Security Council.

NATO’s intervention in Libya represents an illustrative example of international state practice, authorized by the Security Council, of accepting derogation from the prohibition of the use of force in favor of the protection of human rights, through humanitarian intervention.<sup>46</sup>

The example gains new meanings in relation to state practice, as the intervention in Libya was decided against the will of the

<sup>38</sup> Alex Bellamy, J. (2011), “Libya and the Responsibility to Protect: The Exception and the Norm”, *Ethics & International Affairs*, Vol. 25, No. 3 (September), pp. 263-269.

<sup>39</sup> Chesterman, Simon (2011), “Leading from Behind?: The Responsibility to Protect, the Obama Doctrine, and Humanitarian Intervention after Libya”, *Ethics & International Affairs*, Vol. 25, No. 3 (September), p. 279-285; see also Welsh, Jennifer (2011), “Civilian Protection in Libya: Putting Coercion and Controversy Back into RtoP”, *Ethics & International Affairs*, Vol. 25, No. 3 (September), pp. 255-262.

<sup>40</sup> UN Security Council, *Resolution 1706 (2006) Reports of the Secretary-General on the Sudan*, 31 August 2006, S/RES/1706 (2006), available at: <http://www.refworld.org/docid/453786b60.html>.

<sup>41</sup> UN Security Council, security Council Resolution 794 (1992) [Somalia], 3 December 1992, S/RES/749, available at <http://www.refworld.org/docid/3b00f21137.html>.

<sup>42</sup> UN Security Council, *Security Council resolution 918 (1994) [UN Assistance Mission for Rwanda]*, 17 May 1994, S/RES/918 (1994), available at: <http://www.refworld.org/docid/3b00f2093c.html>

<sup>43</sup> UN General Assembly, *The situation in Bosnia and Herzegovina: resolution / adopted by the General Assembly*, 18 December 1992, A/RES/47/121, available at: <http://www.refworld.org/docid/3b00f08b14.html>

<sup>44</sup> UN (2011), *Statement the Secretary-General on Libya*, 17 March, available at <http://www.un.org/sg/statements/nid=5145>.

<sup>45</sup> Simon Chesterman, (2011), “Leading from Behind?: The Responsibility to Protect, the Obama Doctrine, and Humanitarian Intervention after Libya”, *Ethics & International Affairs*, Vol. 25, No. 3 (September), pp. 279-285.

<sup>46</sup> Francesco Francioni, *Ibidem*.



government in place. This state practice, constituting evidenced in support of the examples mentioned above, can be appraised from two different normative viewpoints: on the one hand, the dynamic development of the law of the Charter concerning the rationalization of the use of force; and on the other hand, the continuous advancement of customary international law on this particular subject-matter.

In light of the increasingly normative role assumed by the UN, it can be affirmed that the Security Council has a new role of a *law maker*,<sup>47</sup> as in the case of the establishment of international criminal tribunals under Chapter VII of the Charter, or, better said, of an interpreter of the international law, as in the Libyan case, in which it the law was thusly interpreted so as to clearly demonstrate that the killing of civilians by the *Qadhafi regime* constituted a breach in maintain peace, pursuant to the provisions of the Chapter VII of the UN Charter.

A broader and more comprehensible interpretation of the general meaning of *a threat or a breach of the peace* may legitimize and further substantiate authorization for collective intervention under Chapter VII even in situations of internal conflict or humanitarian catastrophes, which have no factual consequences on international peace.

The analysis of the advancement of the UN Charter in the direction of a greater augmentation of the Security Council powers constitutes an attempt to determine more clearly the conditions that may prompt the recourse to force under Chapter VII in order to protect civilians from grave violations of human rights. A legal right has emerged allowing the Security Council to decide on military enforcement measures to protect the civilian populations of a state. *“This legal right has been formed by evolutionary interpretation and the informal modification of the UN Charter by subsequent practice of the Council, through its extensive interpretations and application of what constitutes ‘a threat*

<sup>47</sup> *Ibidem*.

*to the peace’ under Chapter VII (Article 39) of the UN Charter”*<sup>48</sup>.

A more compelling, and from a legal perspective, a more controversial issue is whether a norm of customary law is also evolving allowing humanitarian intervention *without* the authorization of the Security Council<sup>49</sup>.

Humanitarian initiative represents the reaction of the international society to international unlawful acts, constituting grave violations of international law and international human rights law, *exempli gratia*, genocide, ethnic cleansing and extermination of noncombatants, famine and crimes against humanity, which all constitute grave transgressions of international obligations *“owed to the international community as a whole”*<sup>50</sup>.

It comes not as a surprise that opinions have been formulated in the general direction that *“R2P is just another name for humanitarian intervention”*<sup>51</sup>. This asseveration, that R2P is conceived to be about more than just coercive military intervention for humanitarian purposes, is evidently proved by the R2P’s primary concern on prevention, non-military forms of intervention and post-conflict rebuilding, in addition to military intervention. On this subject, there is little equivocation that the R2P provides a more comprehensive and integrated practice to conflict prevention, and the prevention of human rights violations and mass atrocities, than previous approaches to humanitarian intervention. The layered construction of the R2P norm, with the inclusion of *responsibilities to prevent and rebuild*, clearly validates the fact that the

<sup>48</sup> Amnéus, Diana (2012), *“Has Humanitarian Intervention Become Part of International Law under the Responsibility to Protect Doctrine?”*, in Julia Hoffmann and André Nollkaemper, eds., *Responsibility to Protect. From Principle to Practice*, Amsterdam, Pallas Publications and Amsterdam University Press, pp. 157-171.

<sup>49</sup> Francesco Francioni, *ibidem*.

<sup>50</sup> *Ibidem*.

<sup>51</sup> Gareth Evans, *“The Responsibility to Protect: Ending Mass Atrocity Crimes Once and for All,”* Brookings Institution Press, 2008, pp. 44 , 56.

core of the doctrine remains committed to the subject matter of military intervention.

The International Law Commission's (ILC)<sup>52</sup> codification of the law on state responsibility emphasizes that flagrant violations of international law are not the sole preoccupation of the state or states actor directly involved. Contrary to general opinion, it predicates that they constitute a collective concern of the *international community as a whole* and, therefore, any state other than the *injured state* can be an agent for the enforcement of the international responsibility emergent from the violation of such obligations.

Article 40, paragraph 1, of the draft articles on State responsibility reads as follows in respect to the notion of *injured state*: "*For the purposes of the present articles, "injured State" means any State a right of which is infringed by the act of another State, if that act constitutes, in accordance with Part One, an internationally wrongful act of that State*"<sup>53</sup>. In accordance with the *verbatim* interpretation of the Article, "*injured State*" means a state whose legal right has been infringed by the wrongful act of another state. Although the definition of the injured state may sound like a truism, it requires further clarification, even if it were only for the sake of absolute clarity. *Per definitionem*, the injured state constitutes the right-holder in this new paradigm and can be interpreted as the traditional and fundamental relationships between actor states. Therefore, one might inquire whether Article 40 itself is to be interpreted as a legitimately secondary rule of international law in terms of the application of rule, as Article 37 of the draft articles provides that "*the provisions of this Part do not apply where and to the extent that the legal consequences of an internationally wrongful act of a State have been determined by other rules of international law relating specifically to that act*"<sup>54</sup>.

These legal provisions give substance to the idea of *erga omnes* obligations as stated by the International Court of Justice in its 1970 judgment in the *Barcelona Traction Case*<sup>55</sup> and subsequently underpinned by the idea of an heightened responsibility for international crimes, as elaborated through the crucial contribution of the *Special Rapporteur Robert Ago*<sup>56</sup>, that was rightfully included in the ILC Articles and labeled as "*serious breaches of obligations under peremptory norms of general international law*"<sup>57</sup>.

Article 48 of the ILC *Draft Articles on Responsibility of States for Internationally Wrongful Acts*, constitutes an incomplete normative construct as it entitles any state other than the injured state to "*invoke*" the international responsibility of a state committing or allowing the commission of atrocities in its territory but it does not go as far as to admit the existence of a right to "*enforce*" that responsibility by coercive measure, including the use of force.<sup>58</sup> The following paragraph of the Article 48 stipulates that any state other than the *injured state* may claim from the responsible state: "*(a) cessation of the internationally wrongful act, and assurances and guarantees of non-repetition in accordance with article 30; and (b) performance of the obligation of reparation in accordance with the preceding articles, in the interest of the injured State or of the beneficiaries of the obligation breached*"<sup>59</sup>.

Finally, Article 50 of the ILC Articles restates that countermeasures adopted against

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Yearbook of the International Law Commission:- 1980 Document: vol. II(1), 1996, Article 37 p. 138.

<sup>55</sup> ICJ (1970), Judgment on the *Barcelona Traction* case (Belgium v. Spain), 5 February, <http://www.icj-cij.org/docket/index.php?case=50>.

<sup>56</sup> A/CN.4/318/Add.5-7 Addendum - Eighth report on State responsibility by Mr. Roberto Ago, Special Rapporteur - The internationally wrongful act of the State, source of international responsibility.

<sup>57</sup> ILC (2001), *Draft Articles on Responsibility of States for Internationally Wrongful Acts*, [http://untreaty.un.org/ilc/texts/9\\_6.htm](http://untreaty.un.org/ilc/texts/9_6.htm).

<sup>58</sup> *Ibidem*, p. 126.

<sup>59</sup> *Ibidem*.

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<sup>52</sup> The International Law Commission, hereinafter 'ILC'.

<sup>53</sup> UN Doc. ILC A/51/10, extract from the Yearbook of the International Law Commission:- 1980 Document:, vol. II(1), 1996, Article 40, p. 139.

<sup>54</sup> UN Doc. ILC A/51/10, extract from the



the responsible state shall not intrude upon “the obligation to refrain from the threat or use of force as embodied in the Charter of the United Nations”<sup>60</sup>.

It should be seriously considered the fact that the ILC Articles were adopted in the aftermath NATO intervention in Kosovo and in the wake of a lengthy discussion on the lawfulness of the use of forcible intervention to stop massacres in situation where the UN Security Council was unable or unwilling to intervene<sup>61</sup>. Customary international law, as interpreted pursuant to the ILC provisions, did not regard the threat or use of force as a legitimate countermeasure that would determine a state to refrain from committing large scale infringements of international humanitarian law.

The recalibration of the R2P articulation, shifting from the “right to intervene” to “humanitarian intervention,” is significant due to the fact that it acknowledged that the focus has to be on the beneficiaries of the doctrine rather than the rights of the intervening states. The need to incorporate the often overlooked elements of *preventative effort and post-conflict assistance* is symptomatic in this respect. As for the interpretation of the word “right”, from the expression “right to intervene”, proved to be problematic as it “loaded the dice in favor of intervention before the argument had even begun”<sup>62</sup>. Doctrinarians go as far as to affirm that the proper use of language, in order to prevent the abuse of the doctrine by those coveting the use of humanitarian arguments for the justification of interventions that are anything but, is “one of the two key strategies” adopted by the R2P “for preventing future Rwandas and Kosovos”<sup>63</sup>.

The idea that certain wrongful acts

constitute a breach of obligations owed to the international community as a whole represents an evident tendency of dissociating from the traditional structure of international law, as a law of mere coexistence, and symbolizes the evolution of the international legal order toward a law of interdependence and moral and intellectual solidarity<sup>64</sup>.

The fundamental criticism to the adoption of forcible countermeasures outside the constitutional framework of the UN Charter is the potential destructive effect on the guarantees of peace and security set out in the Charter and the likelihood of abuses of humanitarian intervention. To counteract this risk, a set of principles are called for in determining the conditions under which a digression from the traditional path of international legality may be legitimate and desirable in order to stop or impede the unabated continuation of humanitarian catastrophes.

The first principle constitutes the *imperative necessity*, requirement that must be interpreted in accordance with two dimensions: the exhaustion of alternative options to save the lives of innocent people, for instance diplomatic and economic sanctions, and the necessity of overcoming the legal interdiction of the Security Council inability to act, *id est*, the general prohibition of the use of force and the principle of sovereignty and non intervention.

The second principle in the general evaluation of a customarily “illegal” military intervention for compelling humanitarian reasons can strategically contribute to the progressive development of international law is the condition of *coherence*. Coherence represents not only a moral condition: it is a *legal* prerequisite to the extent that the constitutive process of a new customary norm of international law the elements of *opinio iuris*

<sup>60</sup> *Ibidem*, p. 131.

<sup>61</sup> Francesco Francioni, (2005), *Ibidem*.

<sup>62</sup> ICISS, ‘The Responsibility to Protect: Supplementary Volume’, International Development Research Centre, Canada, December 2001, pp. 16-17.

<sup>63</sup> Alex J. Bellamy, ‘Whither the Responsibility to Protect? Humanitarian Intervention and the 2005 World Summit’, *Ethics and International Affairs*, Vol. 20, No. 2, 2006, pp. 143–169.

<sup>64</sup> Francesco Francioni, and Bakker, Christine, *Responsibility to Protect, Humanitarian Intervention and Human Rights: Lessons from Libya to Mali*, 2013, The Transatlantic Relationship and the future Global Governance, Working Paper nr. 15, ISSN 281-5252, p. 12.

and consistency of practice is needed<sup>65</sup>. Non authorized acts of humanitarian intervention cannot be conceived out of state actors practice that, for their own benefit support or disregard the same massive violations of human rights by other states against which the improved and more lenient rule of humanitarian intervention could be invoked.

A third principle is *proportionality*, claiming that the use of force be stringently confined to the scope and intensity to what is absolutely necessary to achieve the stated goal of protecting the life and security of innocent victims, and to set a precedent in order to promote the main objective of augmenting the legitimacy of the international system by allowing an exceptional recourse to force to stop absolutely unpalatable atrocities.

The monitoring and full implementation of the proportionality principle, ultimately constitutes the purview of the Security Council, in situations in which the resort to force takes place under the specific authorization of the UN, or upon a specific acting international organization, such as NATO, and, in case of unilateral intervention, upon the intervening state, which would remain accountable for the legality of its use of force under the proportionality principle<sup>66</sup>.

The importance of finding international agreement on the legality of humanitarian intervention has never been more obviously necessary and this quest specifically addresses the evolution of the legality of military intervention for humanitarian purposes in the expectation of forming conclusions regarding legality of the R2P's *responsibility to react*.

The evolution and further development of R2P as a international norm can be a significant advancement in the evolution of sovereignty as responsibility, or obligation, of states to protect vulnerable populations. The operationalisation of R2P in a context that "*rigorously upholds international law and fulfils our responsibility to protect innocent civilians from genocide,*

*crimes against humanity and war crimes*"<sup>67</sup> requires further action and clarification.

## CONCLUSIONS

There are undeniably a plethora of unanswered questions concerning the development of the R2P and its complex relationship with international humanitarian law. We can rightfully conclude that R2P differs from previous articulations of humanitarian intervention in that it: clearly articulates humanitarian intervention decision making criteria; allege that an inability to intervene in one situation should not be used to justify not intervening in another; confines the use of force by way of humanitarian intervention to situations of substantive or indisputable large scale loss of life; acceptance by United Nations, that confirms the legality of humanitarian interventions through the declarations of the Security Council in which they find genocide, war crimes, ethnic cleansing or crimes against humanity, that occur within the borders of a state actor, as a threat to international peace. *Summatim*, it is fair to say that the R2P contributes in a positive way on the existing doctrinarian opinions on humanitarian intervention.

As for R2P, it is necessary to secure increased recognition by the Security Council as to the evolution of R2P as an international norm, and its crystallization into a *jus cogens norm* and a *customary international law norm*.

And, finally, the intrinsic relation developed in international practice between R2P and international humanitarian law, represents the most valuable argument that contradicts the fact that humanitarian intervention represents a return to semi-colonial practices dividing the world into the civilized, democratic and human rights observing, and the *un-civilized, un-democratic* and in violation of human rights abusing, do not offer the doctrine its due value,

<sup>65</sup> *Ibidem*.

<sup>66</sup> *Ibidem*.

<sup>67</sup> Secretary-General's of the UN address to the General Assembly, New York, 21 September 2004.

because in this particular case the R2P constitutes evidences and universal acceptance that certain aspects of *un-civilization* can constitute a threat to international peace.

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## ONLINE MODELS BASED ON TRUST AND REPUTATION

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◇ **Abstract:** *Computational simulation is used to build theoretical models in social sciences. Unlike other methods, it is possible with the help of simulation to formalize complex theories about processes, to form experiments and to observe the appearance of some. Almost all scientific researches in this sphere are representations of social phenomena at a certain level. For example, in the economic area the representation is much more formal and often expressed in statistical terminations and mathematical equations. They succeed in giving consistency and generality much easier than verbal representation.*

◇ **Keywords:** *trust model, computational modeling*

### MARSH MODEL

Trust is an important factor in uncertainty (the decision maker does not have information to determine the probability of condition conditions and variables are partially controllable) and risk (a probability of variables is associated). As a new form of business activity, Internet shopping involves more uncertainty and risk than traditional shopping. The e-commerce site must be designed and structured to provide a first positive impression. It gives consumers a first impression of confidence in the seller and this impression also has a strong influence on the development of the consumer's initial confidence.<sup>1</sup> The importance of trust is particular in e-commerce due to the high degree of uncertainty and risk present in most transactions. Today, in the e-business world, trust is the main component between the customer and the merchant. Although many researchers have recognized that trust is a very important requirement for the growth of e-commerce, so far, the true concept of consumer confidence in the electronic environment has not reached maturity.

Marsh's research<sup>2</sup> is among the first in which trust is divided into three different aspects: basic trust, general confidence and situational confidence. He considers the basic trust as the total trustworthiness of the evaluator, derived from his entire past experience.

Overall confidence is the general confidence in the assessed agent without any situational clue, and the situational confidence depends on the situation and the context in which the agent evaluated. In order to determine situational confidence, the factors of cognition, utility and importance in Marsh's model are introduced. The elementary equation for calculating situational confidence is:

$$T_x(Y, \alpha)^t = U_x(\alpha)^t E(T_x(Y)^t) \quad (1)$$

where:

X - the evaluating agent ;

Y - the agent evaluated ;

$\alpha$  - the situation;

$U_x(\alpha)^t$  -the utility X derives from the situation  $\alpha$ ;

<sup>1</sup> S., Bandyopadhyay, J. Rees, & J. M. Barron, *Simulating Sellers in Online Exchanges. Decision Support Systems*, Boston, 2010, pp. 500-513.

<sup>2</sup> P. S. Marsh, *Formalizing Trust as a Computational Concept*, University of Stirling, 1994, pp. 27-98.

$T_x(Y)^t$  -the utility X derives from the situation  $\alpha t$ ;

$E(T_x(Y)^t)$  - estimate the basic confidence of X for Y at time  $t$ .

Knowledge, as a binary variable, indicates whether the evaluating agent knows the rated one or not, and the importance, as a real number in the  $[0; 1]$  range, indicates how important the situation is for the evaluating agent. However, this solution produces some meaningless behaviors of the evaluated agent.

For example, negative utility and negative estimation of core trust produce a positive value of situational confidence (relation 1). In order to determine whether the evaluating agent should cooperate with the evaluator, the cooperation is based on the perceived risk, the perceived competence and the estimation of the overall confidence and the importance of the situation as in the following equation:

$$I_x(\alpha) = \frac{risc\_percept_x(a)}{competenta\_percept_x(Y,a) + E(T_x(Y))}$$

Where the perceived risk is not formalized. Again, this relationship leads to some meaningless behaviors. During the assessment of an agent's trust, this model only considers the evaluator's experiments, does not take into account the interactions and experiments of other agents with the evaluating agent.

### THE MODEL OF ESFANDIARY AND CHANDRASEKHARAN

In the trust model proposed by Esfandiary and Chandrasekharan, two mechanisms of acquiring knowledge are proposed. The first mechanism of acquiring knowledge is based on observation and uses Bayesian networks in this respect. In making the acquisition of trust, learning is reduced to statistical considerations. The second confidence-building mechanism is based on interaction, the same approach used in Lashkari<sup>3</sup>. There are two main interaction

<sup>3</sup> M., Kukar, T., Drifting, *Concepts as Hidden Factors in Clinical Studies*, Proceedings of 9th

situations: the explorer protocol where the agents ask others about places known to develop confidence level and the query protocol where the agent asks for other trusted agents' advice. To work with the information from the witnesses, each agent produces a graph in which the nodes are represented by the agents than the arcs (a, b) represent the confidence of the agent a in b.

The graph contains no arcs for which the trust value is unknown. In such a chart, there are the possibility of cycles that artificially decrease the level of trust and at the same time different ways that provide conflicting values of trust.

To solve this problem, instead of using a single trusted value, the model uses a confidence interval determined by the minimum value, ie the maximum value of all non-cycle roads that bind two agents.

The model's authors propose a trust-building mechanism using institutions, which makes them call it institutionalized trust.

### YU AND SING MODEL

The model proposed by Yu and Sing brings in the plan the information stored by an agent about direct interactions as a set of values that reflect the quality of the interactions (what they call Qos). Only the latest interactions with each partner are considered for Qos. Each agent is defined by a lower or higher level of trust in close correlation with the service quality offered by the agent.

Using archived information, in agreement with Dempster-Shafer's<sup>4</sup> evidence theory, an agent can calculate the likelihood that his partner will perform a service. There are two kinds of information that can come from interviewed witnesses about a target agent. If the targeting agent is one of his or her knowledge, it will provide information about it, if not, referrals about the target agent will be

Conference on Artificial Intelligence in Medicine in Europe Protaras, Cyprus, 2013, pp. 27-32.

<sup>4</sup> J., Dezert, *Foundations for a new theory of plausible and paradoxical reasoning*, Information and Security, Texas, 2015, pp. 13-57.

returned. These referenced queries can provide the desired information, or may generate further references. References generate valid information that is considered if it is close to the boundary depth of the reference chain. The set of reference chains generated by a query is referred to as a TrustNet. This model does not combine direct information with information from agents. If direct information is available, this is the only source considered to determine the trust of the target agent. Only when direct information is not available, the model uses information from agents.

### **THE AFRAS MODEL**

The main feature of this model conceived by Carbo<sup>5</sup> is the use of fuzzy sets to represent reputation values. Once a new fuzzy set showing the degree of satisfaction of the last interaction with a nominated partner is calculated, the old reputation value and the new value of satisfaction are gathered using a weighting aggregation. The weights of this aggregation are calculated from a single value called remembrance or memory. This factor allows the agent to place more emphasis on the latest interaction or the old reputation value. If the satisfaction of the last interaction and the reputation attributed to the partner are similar, the significance of previous experiences is increased. The notion of reliability of reputation value is modeled by fuzzy sets. A large fuzzy set for the value of a reputation represents a high degree of uncertainty, while a small fuzzy set implies a value of trust. Recommendations from other agents are gathered with direct experience. The weight given to each factor (the old value of the reputation and the new opinion) depends on the reputation it recommends. Recommendations from a person with a good reputation have the same degree of confidence as a direct experience, and the opinion of an agent with a bad reputation is not taken into

account. In order to calculate the reputation of those who recommend, the agent compares the recommendation received with the actual behavior of the person who recommends after the interaction and increases or diminishes his / her reputation accordingly.

### **DISADVANTAGES OF MODELS BASED ON TRUST AND REPUTATION**

Most models are based on insights lacking theoretical or empirical support. As Marsh said<sup>6</sup>, “we start with the intuitive ideas of how experience-based trust works.” Most models based on trust and reputation are the result of agent interactions. This means that an agent’s strategy is either co-operation or non-cooperation. The binary result of agent interactions simplifies the coding process of the system, but discoveries can be damaged, which may be unrealistic. Some models based on trust or reputation make unrealistic assumptions about models, it is assumed that agents are honest to share information about the experience with other agents, and agents are eager to share their experiences. In fact, there is a level of noise in posted feedback and honesty in sharing experiences because they are not guaranteed. This is indicated by the e Bay user poll “users hesitated negative feedback because of the seller’s fear of partner trades. Many users choose either to give positive feedback to problematic transactions or leave no feedback”<sup>7</sup>. Consumer behavior to give positive feedback to problematic transactions is like a liar. The action of leaving no feedback is the same as when you do not share information about the experience of transactions with others. Most trust and reputation models are not made to face a large amount of missing data (other buyers choose not to provide any feedback). In addition, if

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<sup>6</sup> P.S., Marsh, *Formalizing Trust as a Computational Concept*. University of Stirling, Stirling, 1994.

<sup>7</sup> G., Zacharia, A., Moukas, *Collaborative Reputation Mechanisms in Electronic Marketplaces*, Proceedings of the Thirty-second Annual Hawaii International Conference on System Sciences-Volume 8, 6, January 05-08, 1999, p. 8026.

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<sup>5</sup> J., Carbo, *Trust management through fuzzy reputation*, International Journal in Cooperative Information Systems. v1 i12, pp. 135-155.



there is not a proper mechanism there, they actually share agencies to support the lack of information and to provide information to those who do not. In this case, a rational agent prefers not to import and choose a free strategy of coercion. But trust and reputation can still be explored for many years by researchers in order to define models that represent the e-market as realistic as possible.

## CONCLUSIONS

The procedure for developing a consulting system involves a construction model for it, and the fact that social phenomena are simply too complicated to be analytically malleable has led to the use of computational simulation. Computational modeling of social aspects has developed with multi-agent systems. These models have been derived from a subdomain of artificial intelligence called Distributed Artificial Intelligence (DAI). Multiagent Based Simulation (MABS) is mainly used in social contexts. However, compared to other approaches such as traditional ones, discrete event simulations, object-oriented simulation and simulation of supply chain dynamics, MABS has an interesting number of properties that make it useful for other areas as well. MABS supports the maintenance of simulation modeling, simulation of proactive behavior, parallel computation, and dynamic simulation scenarios. It is known that MABS is also useful in simulating technical scenarios. In particular, technical simulation systems involve complex interactions between people and machines. Modeling based on agents with simulation is a new approach to modeling agent interaction in autonomous systems. Some researchers have gone so far that they claim that ABMS (Agent-Based Modeling and Simulation) is a new science. The high computational level makes possible an

increasing number of applications. ABMS is a new modeling paradigm and is one of the most exciting modeling practices. Agreed-based modeling has become widespread because we are experiencing increasingly complex phenomena in the world at interdependence levels, and the model is becoming more complex from this point of view.

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## MODELING RESOURCE IN E-COMMERCE

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◇ **Abstract:** *Building online trust is an essential component for sellers to succeed in a digital environment, where transactions are more impersonal and anonymous, to affect customers' intentions so that they can buy as many products as possible.*

◇ **Keywords:** *reputation model, trust, economic modeling.*

Trust is a complex social phenomenon, and social science provides an important basis for formalizing confidence.

Various researchers have used the definition of trust<sup>1</sup> as a basis for conducting trust-related research, but few have noticed that the definition is brief because it does not define any source of their vulnerability, nor does it categorize the structure of confidence required by the situation<sup>2</sup>. Changes in the online environment have led to new definitions and interpretations of the concept of trust, as follows:

- The concept is highlighted by Reinartz<sup>3</sup> as follows:

"Trust means the desire to achieve action, a desire based on positive expectations about the actions of others."

- Mayer defines trust as follows:

"An individual's desire to be receptive to the actions of another individual, a desire based on the expectation of a positive result from a

certain action of the second individual, the importance to the first regardless of the ability to advise or control it."<sup>4</sup> Trust is complex, of different dimensions, a context-dependent construction.

- According to Nah and Davis<sup>5</sup>, customer confidence in the context of e-commerce can be defined as follows:

"The customer's trustworthy desire to be vulnerable to the online seller's actions (the one you need to trust), engaging in an online exchange relationship with him."

- Rotter<sup>6</sup> defined trust as "waiting," Mayer<sup>7</sup> defined trust as a "will to be vulnerable".

A typical definition is: "Trust is a psychological state that includes the intention to accept vulnerability based on the positive expectation of someone else's intentions

<sup>4</sup> R., Cohen, K., Regan., T., Tran: *Sharing Models of Sellers amongst Buying Agents in Electronic Marketplaces.*, in: Proceedings of the 10th International Conference on User Modeling - Workshop on Decentralized, Agent Based and Social Approaches to User Modeling., 2005, pp. 234-240.

<sup>5</sup> Kukar, M.: *Drifting Concepts as Hidden Factors in Clinical Studies.*, in: Proceedings of 9th Conference on Artificial Intelligence in Medicine in Europe, AIME 2003, Protaras, Cyprus, pp. 176-181.

<sup>6</sup> Rotter.,J.; *A new scale for the measurement a interpersonal trust.* Jolrrnal of Personality, 35(4):651-665, December 1997, pp. 102-178.

<sup>7</sup> A., Abdul-Rahman, S., Hailes, *Supporting Trust in Virtual Communities*, Proceedings of the 33rd Hawaii International Conference on System Sciences-Volume 6, January 04-07, 2000, p. 6007.

<sup>1</sup> S., Boon, J., Holmes, *Cooperation and Prosocial Behavior*, The Dynamics of Interpersonal Trust: Resolving Uncertainty in the Face of Risk, Cambridge University Press, 1991, pp. 190 – 211.

<sup>2</sup> M., Claypool, P., Le, M., Waseda, and D. C., Brown, *Implicit Interest Indicators*, Proceedings of the 6th International Conference on Intelli-gent User Interfaces, Boston, 2000, pp. 33-40.

<sup>3</sup> W., Reinartz, W., Krafft, M. and W.D., Hoyer, *The customer relationship management process: its measurement and impact on performance*, Journal of Marketing Research, Vol. 41, 2004, pp. 293–305.

or behavior. “Trust has been defined as a co-operation with game theory, building an important framework for formalizing interpersonal trust from a decision-making perspective. Luhmann<sup>8</sup> came up with the idea of “system trust,”<sup>9</sup> and Zucker<sup>10</sup> examined the evolution of the trust mechanism in the US economic system, and identified three confidence-building models defined as a concept built as follows:

- Process-based - where trust is built on older interactions.
- Characteristic - where trust depends on social similarities such as culture, age and gender.
- Institution-based - where trust is built on a formal social structure including membership in a subculture and an intermediary mechanism such as rules, laws, government functions, and banks.

### CARTER’S MODEL

The main idea of Carter’s<sup>11</sup> reputation model is that the reputation of an agent is based on the degree of fulfillment of the roles assigned to it by society. If society believes that they have fulfilled their roles then they will be rewarded with a positive reputation, otherwise they will be punished with a

negative reputation. Each society has its set of roles. As such, the reputation attributed to these roles only makes sense in the context of that company of agents. According to the author, it is impossible to generalize the reputation calculation. The author formalizes the set of roles within a company of agents that disseminate the information and propose methods for the degree of satisfaction of each role. A company in which information is exchanged is a company in which agents seek to exchange relevant information with each other in the hope that they will meet the demands of users. Five roles have been identified:

- Provider of social information.

Users should contribute regularly, with new knowledge about their friends, the company of agents. This role exemplifies the degree of connectivity between the agent and his company. Every recommendation made by a user has an associated value. The value indicates the power of the recommendation and is the product of the time and reputation factor of the referrer. The extent to which the role of provider of social information is fulfilled by the user is calculated as the sum of all the values distributed in the range [0; 1].

- Content Provider.

Users should provide the company with knowledge reflecting their area of expertise. The degree of satisfaction is reflected by the quality of the information agent belonging to that human user. The quality of an agent is measured taking into account how much the subject of the agent’s information is approaching the user’s interest. It underlines the idea that users who develop information agencies related to their area of expertise will produce content related to their better quality interest than those who do not.

- The role of interactivity.

Users are expected to use the system on a regular basis. Without this participation the system becomes useless. The degree of satisfaction of this role is calculated as the ratio between the number of operations made by a user in a given period and the total number of

<sup>8</sup> A., Jøsang, R., Ismai, C., Boyd, *A survey of trust and reputation systems for online service provision*, Decision Support Systems, v.43 n.2, March, 2007, pp. 618-644.

<sup>9</sup> Zhou, R, Hwang, K. *Power Trust: A Robust and Scalable Reputation System for Trusted Peer-to-Peer Computing*, *IEEE Transactions on Parallel and Distributed Systems*, v.18 n.4, April 2007, pp. 460-473.

<sup>9</sup> Zhou, R, Hwang, K. *PowerTrust: A Robust and Scalable Reputation System for Trusted Peer-to-Peer Computing*, *IEEE Transactions on Parallel and Distributed Systems*, v.18 n.4, April 2007, pp. 460-473.

<sup>10</sup> Carter, V., Gray,E., Seigneur,J., Jensen J., *Using Trust for Secure Collaboration in Uncertain Environments*, *IEEE Pervasive Computing*, v. 2 n. 3, pp. 52-61.

<sup>11</sup> Kukar, M., *Drifting Concepts as Hidden Factors in Clinical Studies.*, in: Proceedings of 9th Conference on Artificial Intelligence in Medicine in Europe, Protaras, Cyprus, 2003, p. 67.

operations made by all users in the system at that time.

- The role of the feedback manager.

Users are expected to provide feedback on the quality of the system. System qualities include speed, ease of use, stability and quality of information. Users are assumed to fulfill this role by providing such information.

- The role of longevity.

Users should be encouraged to maintain a good reputation for promoting system longevity. The degree of satisfaction of this role is measured by the average reputation of the user.

Since reputation is calculated as a weighted sum of the degree of satisfaction of each role, the values are totally dependent on the characteristics of the community of agents. The reputation value for each agent is calculated by a centralized mechanism that monitors the system. So the value of each user's reputation is a global measure shared by all observers.

### **THE MODEL OF CASTELFRANCHI AND FALCONE**

The model proposed by Castelfranchi and Falcone is a clear example of a cognitive confidence model. The basis of their model is the close relationship between trust and delegation.

They argue that trust is the mental background of delegation. In other words, the agent's decision  $x$  to choose a task for  $y$  agent is based on a specific service of beliefs and purposes, and this mental state is what we call trust.

To create a trusted mental state, the agent should have the following basic beliefs:

- Convincing competence.

Agent  $x$  must be convinced that agent  $z$  can even perform the task.

- Being convinced of addiction.

Agent  $x$  thinks that agent  $y$  is required to perform the task or that it is better to rely on agent  $y$  to do it.

- Convincing mood.

Agent  $x$  is convinced that  $y$  can perform the task, but agent  $y$  will even do it. In the case of an intentional agent, convincing the provision must be articulated and supported by two other beliefs:

- a) Convincing desire.

The agent thinks that  $y$  has decided and intends to do the action to achieve the goal  $g$ .

- b) Convincing persistence.

The agent that  $y$  is stable in his intention to act  $c$ .

Convincing competence and belief in addition form what the model's authors call the basic trust, and together with the conviction of mood, form the reliability. Supported and implied by previous beliefs, there is a new conviction, that of fulfillment.

- Convincing fulfillment.

If agent  $x$  believes in agent  $y$  in relation to goal  $g$ , he decides:

1. Not to give up the objective  $g$ .
2. Do not relate to him personally.
3. Not to seek alternatives for purpose  $g$ .
4. Let  $g$  reach through agent  $y$ .

Concluding, trust is a set of mental attitudes that characterize the mind of the  $x$  agent who prefers another agent  $y$  to act  $c$ . Agent  $y$  is a cognitive agent, so agent  $x$  thinks agent  $z$  intends to carry out the action and will persist in that.

### **ABDUL-RAHMAN AND HAILES MODEL**

Researchers Abdul-Rahman and Hailes suggest a rooted pattern of trust in social trust in reality, based on the oral spread mechanism. These authors share trust in 3 types:

- Interpersonal trust that is specific to the context and depends on the direct trust one agent has in one another.

- Impersonal trust that is based on structures and is known as institution-based trust.

- Dispersion trust.

In fact, only interpersonal trust is modeled by forming four categories of trust levels such as: very reliable, trusted, distrustful, and very mistrustful. For each evaluated agent and

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each context, in a set  $Q$ , the evaluator agent maintains the pair of numbers corresponding to the experience of each trust category. The direct trust of the rated one will be the highest number in the corresponding pair. If there is an uncertain value among the links, it is attributed to general confidence with one of the words “Most Good and Some Evil” or “Equal Quantity of Good and Evil”. Before combining the confidence of the assessment with the referral agents, the evaluated agent adjusts each control recommendation agent based on the difference between his/her assessment and the one who recommended it. Each evaluated agent maintains a set of  $R$  rules that includes context information and recommendation adjustments for each agent. Based on the  $R$ -set information, the evaluator agent calculates the amount of testimonies from the recommended agents. After each experience with an evaluated agent, the experience is used to update the set  $Q$  and set  $R$  respectively. The confidence base value is not directly used to form the trust value of the evaluated agent, instead it is used to calculate the semantic distance (involving the choice of an agent type) used to adjust the testimony of the agent who recommends it.

### THE SEN MODEL AND SAJJA

Sen and Sajja propose a reputation-based trust model that uses a minimal number of witnessing agents and takes into account information from direct and observed interaction. An agent needs to ask for witnesses to assess the provider's choice. The following inequality is used to calculate the minimum number of control agents  $q$ , which result from satisfying the relationship:

$$\sum_{i=\max(\lfloor \frac{q}{2} \rfloor, \lfloor \frac{q}{2} \rfloor + 1)}^p \frac{C_{N-1}^i * C_l^{q-1}}{C_N^q} \geq g,$$

Where:

$N$  - population of buyers,

$p$  - population of sales agents,

$i$  - the number of cheeks that is less than or equal to  $N / 2$ ,

$g$  - represents the probable approximation, [ ] – full part.

Agents use cognitive learning to know how to estimate the reputation of a provider by interacting directly with the provider, or by observing interactions between other agents and the provider. Only direct interaction offers an accurate presumption of reality. Learning through reinforcement is the mechanism chosen to update the reputation value. Due to information disruptions, the rule used to update the reputation value when a new direct interaction occurs has a greater effect than the rule used to update the value when a new observation occurs. The reputation value varies between 0 and 1. A value greater than 0.5 means a good provider and the value less than 0.5 is a poor provider. Agents can question other agents about the performance of a particular partner. The answer is always a boolean value that indicates whether the partner is good or not. In this model, the subset of agents to be interrogated are randomly selected from the group of possible agents, although the authors argue that it is easier to add a quick selection whose process is based on a trusted mechanism. Since the objective of this model was to study how agents use a person's reputation for choosing a partner from many, agents only use agent information to get a final reputation value. The direct interaction of the evaluator is not integrated in the evaluation of the testimonies evaluated to obtain the value of the reputed valuation.

### CONCLUSIONS

In the future, in e-commerce, the main actors will be smart agents due to their reactive, proactive and social features. They must be able to determine what other agents can interact with at any time with confidence. These agents will seek to do good business by negotiating with suppliers, providing advice in decision-making, doing transactions, all on behalf of the beneficiaries. This will dramatically reduce online shopping by human factors.

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# MODELS OF DIGITAL MARKETS

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◇ **Abstract:** *The rapid growth of the Internet and its growing popularity has prompted many companies to enter the market online, leading to an increase in the number of e-commerce sites. To make their website pay-per-view, companies have begun to consider how to provide users with the most powerful elements of many products. As a result, consultancy systems have developed and been applied in e-commerce.*

◇ **Keywords:** *models, e-commerce, consulting.*

E-commerce can be viewed both as a complementary way alongside the traditional one and as a new way of doing business. Even if the emergence of e-commerce determines the development of new business models, models already verified and applied are involved. For example, auctions are one of the oldest models widely used worldwide. E-commerce models are the most discussed, being often the least understood in the web world due to changes in traditional patterns and non-recognition of new ones. These models are implemented in different ways, with the possibility of combining different models as part of web strategies.

In this context, two major, predominant, types of e-commerce have emerged:

1. "business-to-consumer (B2C)": Online transactions are made between merchants and individual consumers.

2. Business-to-business (B2B): Businesses are made through online transactions with businesses.

There are already many models for doing business on the Internet. They can be ranked according to the number of suppliers, service providers to customers, as follows:

- 1 to 1 (e-shop),
- more to 1 (e-mall),
- more to many (e-auction).

There is thus a chain of services in which

each element can be dominant. A first element is the supplier of products or services, the second is the Internet service provider, which can make available from space on the web page up to the possibility of integration into an e-mall. The third element of the chain is the client, having a certain professional training, own interests and preferences. This customer may be a consumer (B2C), another business (B2B), public administration (B2A- Business to administration) or a B2E business to employees in the context of internal business transactions. In general, a few Internet business models: the e-shop, the e-mall, the e-procurement, the e-auction, the virtual community, e-service provision, information brokerage, advertising models.

## ELECTRONIC SHOP (E-SHOP)

The basic idea of e-commerce is to translate the physical, material business into the website. Thus, the company presents its product catalog as well as its services over the Internet. Products are generally offered at different price categories, taking into account the customers' tendency to test the quality, speed and efficiency of delivery before deciding to buy more expensive products. Products suitable for Internet marketing are usually those that can be described easily and

do not require the use of tactile sense: airline or concert tickets, books, software, tools, spare parts, certain foods or even cars. Services usually complement the product offer but often circumscribe to a wider sphere.

#### **The universal store (e-mall)**

An e-mall offers a common front for multiple e-shops and can be done using different transaction patterns, depending on the type of service the mall owner wants to offer. It is also the owner who deals with mall marketing, so choosing the right mall by customers is an essential decision. The right mall by customers defines as a mall with a strong network with a good marketing strategy with an appropriate presentation from which to access the e-shop, with an adequate store structure and offering services such as providing current regional information, through several routes.

### **ELECTRONIC PUBLIC PROCUREMENT (E-PROCUREMENT)**

Public procurement through the B2B model is applicable if government bodies or large organizations launch calls for bidding for the purchase of goods or services. The range of typical auctions includes services from construction and investment goods to studies and other extensive works. Public procurement over the Internet may include electronic negotiation, contracting, and collaborative bidding, for example. For this model to be available to small organizations, platforms or consortia have been set up where vendors are working together to get better deals from manufacturers. For example, the fashion industry is an important user of these consortia.

### **ELECTRONIC AUCTION (E-AUCTION)**

Bidding products and objects on the Internet has proven to be a very successful model. It can be used for both B2C and B2C e-commerce and, because it is an area

of great interest, can also be integrated into regular e-shops. Products sold by electronic auction may be last-time, over-the-counter, or fluctuating stocks or valuables for specialized collectors and include, from materials, metals and agricultural raw materials, to unique art objects. For example, hardware firms sell by well-known specialized electronic auctions, both new and used products. Like an e-mall, an electronic auction usually includes more sellers. The auction operator develops the mechanisms for placing the auction object, bidding (usually by e-mail), and can additionally offer payment and delivery services. The auctioned e-commerce model is found in both B2C and B2B. If reference is made to the B2C model, the most popular eBay auction site is eBay (<http://www.ebay.com>) which allows individuals to bid on second-hand and new consumer goods. The model is relatively simple; the bidder offers the product for sale, specifies the minimum bid price and a period of time for bidding. Buyers bid, and finally the product is in the possession of the highest bidder. The actual purchase is made through direct contact between the seller and the buyer. From a technical point of view, auction sites act as forums where users authenticate and act as seller or buyer. In the B2B area, the model is a little more complicated, highlighting two major auction categories, the so called "forward auctions" and "reverse auctions".

### **FORWARD AUCTIONS**

Direct auctions open at the seller's initiative; the seller company publishes the offer of products and services it offers to bid for potential buyers either on the Web on their own site or on an e-marketplace portal. The model is very similar to the B2C auctions. The direct purpose of the auction is to earn revenue by selling the products at the best price. The indirect goal of the auction is to broaden the database of potential customers. Participating in the auction involves registering the participants (company name and contact details, field of activity, etc.) in

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the seller's database; the seller thus obtains, with minimal effort, data about his potential customers, data he can later use in marketing and promotional actions. It is a substantial indirect income, essentially money-saving the seller would give to electronic mediators to get data about companies operating in a particular field. The cost of organizing the auction is low, using already built electronic communication channels.

## REVERSE AUCTIONS

Reverse auctions are initiated by the buyer, the company that needs the purchase of a particular product or service with certain well-defined characteristics at the best price. The direct purpose of organizing the auction (the only one) is to identify the company that can deliver the products and services closest to the desired ones that meet all the requirements of acceptance, quality and budget specified. From the point of view of the auction object, there are two categories:

- bidding to buy a large volume of similar products with clear specifications in order to obtain the best price. This model is also called e-procurement. This category generally includes computer and telecommunication equipment, office supplies and consumables, raw materials required for the production process, but also services (transport, telecommunication). Once the winning provider is declared, the medium or long term procurement framework contracts between the two partners are usually concluded.
- bidding to purchase a unique product or service. The primary goal is not to get the best purchase price but to identify the company that can produce and deliver the product most suited to the requirements. This is the case with special production equipment, aggregates, special industrial machines, and software solutions for example. Once the winning provider is declared, a specific sale-purchase contract (the so called "spot" contract) is usually concluded between the two partners.

## PROVISION OF E-COMMERCE SERVICES

Services that support e-commerce are not offered exclusively by Internet providers, which generally reside in hosting web pages or providing Internet access. For example, there are e-mall stores run by manufacturers, sellers, Internet providers, web designers, or associations. There are also external electronic services such as management, information, data processing, consulting, integration of delivery services, which can be provided in the various e-commerce variants. Obviously, any of the links in this value chain can provide electronic services and can become the turnkey market in the specific market. Activities can focus on attracting as many participants as possible into a chain link so as to create a strong B2C (e-mall) structure or a B2B platform.

## INFORMATION BROKERAGE

Competent information is needed throughout the value chain of service providers. This need can no longer be met by familiar search engines or catalogs so that established database owners have migrated to the Web by offering indexed archives for periodicals, patents and market information, as well as specialized scientific literature. Some of these commercial services are provided for a fee, either on a subscription basis or through electronic money such as e-cash or cybercash. Units and research agencies have been set up to create semantic detection mechanisms, but human-based information services, such as experts in the field, remain services of major importance to the business world. Depending on the nature of transactions and interactions, the following e-commerce mechanisms<sup>1</sup> are defined:

1. Business-to-Business-to-Consumer (B2B2C): an e-commerce model where a business partner provides several products

<sup>1</sup> Jøsang, A., Ismai, R., Boyd, C. *A survey of trust and reputation systems for online service provision*, *Decision Support Systems*, v. 43 n. 2, March, 2007, pp. 618-644.

or services to a client partner who maintains their own customers.

2. Consumer-to-Business (C2B): an e-commerce model where individuals use the Internet to sell products or services to organizations or individuals looking for sellers to offer the products or services they need.
3. Consumer-to-Consumer (C2C): an e-commerce model where consumers sell directly to other consumers.
4. Peer-to-Peer (P2P): technology that makes it possible for a computer on a network to share data and processing power directly with another; can be used in electronic commerce such as C2C, B2B and B2C.
5. Mobile commerce (m-commerce): Ecommerce transactions and activities conducted in a wireless environment.
6. Location-based commerce (l-commerce): m-commerce transactions targeting individuals in specific locations at a specified time.
7. Intrabusiness EC: an e-commerce category that includes all internal organizational activities involving the exchange of goods, services or information between different units and individuals within an organization.
8. Business-to-Employees (B2E): an e-commerce model where an organization delivers services, information or products to its own employees.
9. Collaborative commerce (c-commerce): an e-commerce model in which individuals or groups of individuals or groups communicate online.
10. "E-learning": delivering online information for training or education purposes.
11. E-exchange: a public electronic market with many buyers and sellers.
12. Exchange-to-exchange (E2E): an e-commerce model where formal electronic exchanges connect with each other for the purpose of exchanging information.
13. E-government: an e-commerce model in which a government entity buys or supplies goods, services or information to

businesses and individual citizens.

The features of a confidence-based model built to implement a multi-agent, competitive digital market system should be able to provide an effective confidence measure that meets the following criteria:

Consider intelligent agents who have recently joined the system and can provide them with a confidence rating.

Use interaction trust, witness reputation, role-based trust, or other trust sizes when available.

Every intelligent agent must be able to collect information and calculate reputation values.

The trust model must be scalable for a large number of intelligent agents that might be present in the system.

The trust model must maintain normal and effective operation in environmental change situations.

The model should be able to adapt to the different areas of application a system can have.

The trust model should be robust against possible cheating agents.

The main idea of trustworthy systems is that past experiences of an agent's behavior can be used to predict its future actions.

## CONCLUSIONS

Digital content based content filtering systems build a profile of user preferences by observing a user's behavior to predict which information will be selected or rejected. Each user acts independently. Preferences are associated with the content of the selected items. Methodologies have been developed that automatically identify, select and integrate information in order to detect potential buyers for a particular product or service. To achieve this, a set of intrinsic features of information sources such as: last update, customer interaction frequency, target group diversity, and full quantitative attribute information are used.



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## **DEFENSE RESOURCES MANAGEMENT THROUGHOUT THE LIFE CYCLE OF MILITARY SYSTEMS**

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◆ **Abstract:** *Achieving real performances in the field of integrated quality approach throughout the entire life cycle of armament products and systems requires comprehensive knowledge of the quality management process, of industrial practices and technics as well as technical specialized personnel. This paper presents some considerations on the defence resources management throughout the life cycle of military systems.*

◆ **Keywords:** *resources management, life cycle, system, acquisition, configuration management.*

### **NATO POLICY ON SYSTEMIC INTEGRATED QUALITY APPROACH THROUGHOUT THE ENTIRE LIFE CYCLE**

The defense capabilities depend on the quality of the defense systems that integrate products, parts, hardware, software, facilities, humans and basic processes, quality that is achieved by an integrated systemic approach throughout the entire life cycle of the armament product/system. According to the NATO policy, the quality management system is a continuous process that involves multiple participations, which supports the development, provision and sustaining of the acquired military armament systems, from conception to

decommission. The general aim of this policy is to acquire complex armament products and systems that meet the specified requirements from the entire life cycle perspective, by implementing the integrated management system. This policy provides the framework for an integrated systemic approach intended to obtain the quality of the products and services throughout the entire life cycle. Achieving real performances in the field of integrated quality approach throughout the entire life cycle of armament products and systems requires comprehensive knowledge of the quality management process, of industrial practices and technics as well as technical specialized personnel.

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It is important that these constituted project management teams (PMTs) to be established as clearly as possible for an efficient employment of the means and resources necessary throughout the entire life cycle in order for the quality management to be implemented efficiently and effectively and for the project's goal and performance objectives to be achieved.

The responsibilities and hierarchy of the participants within the PMTs must be defined at the outset of the project and updated as the projects progresses, in every stage, so that the following should be ensured by the project management, the team's efforts respectively:

- all parties involved cooperate and their interests are taken into consideration;
- the life cycle planning is documented and performed;
- the Quality Plan considers the acquisition strategy and measurable objectives in the quality field;
- there is a common understanding of the project's aim and performance objectives, as well as its means and resources to be accomplished;
- it is used a terminology common to all participants in the life cycle;
- data are collected and assessed and corrective and preventive measures are initiated. The user's feedback may constitute a real database that may be eventually used for a further change of the project/product/system and for influencing the evolution of the future improvement projects;
- there are delivered products/systems which are compliant with the agreed/specified technical and functional requirements.

Achieving the objectives undertaken for setting and developing the necessary military capabilities resides in a rational policy of allocating the necessary resources according to specific objectives, programs and projects: the acquisition of necessary equipment and systems by implementing the objectives engaged for operationalizing and sustaining the forces participating in international missions in the theater of operations.

The modernization of the defense acquisition management, by harmonizing the methods and practices used with those of the NATO and EU member states requires the implementation of a package of regulations, instructions and internal procedures that assure a unitary and coherent management of the decision process regarding the operational requests, resource planning along the entire life cycle of the armament systems, development of acquisition procedures, performing specialized audits, as well as controlling for the purpose of a continuous performance improvement.

By the Management Integrated System of the Defense Acquisitions<sup>1</sup> are implemented a series of instructions, politics, principles and basic procedures concerning assigning responsibilities in terms of establishing requirements, resource allocation and acquisition programs management, analyzing several feasible options based on risk analysis before starting a program of acquisitions; the structure of the the acquisition process on distinct phases and analyzes every decision point; the reduction of costs and the risk of accomplishing the performance parameters established by each analysis decision point. Thus, the acquisition contract is considering a fair dealing and a risk equitable sharing between Ministry of National Defense and the producer and supplies an offset package in the benefit of national industry. The costs, fulfillment diagram, performance parameters are established at the beginning of the acquisition program, and then they will be reviewed and adjusted throughout the implementation of the program.

## SHORT PRESENTATION OF CONFIGURATION MANAGEMENT

The term of configuration management (CM) refers to complex systems of equipment or components and signifies to apply management methods in order to maintain the coherence of the system or its components

<sup>1</sup><http://www.dpa.ro/despre/sistemul-integrat-de-management-al-achizițiilor-pentru-aparare/prezentare-generală>

when some parts of it are affected by different changes.

All the components of developing the system project form an identifiable elements configuration which can be modified only through a systematic and well-informed approval process. Identifiable elements could be requests sets, specifications, manuals, modules or parts descriptions, drawings, software, hardware, testing plans and any other product that can be identified and that contributes to get the final result of the project.

According to SR EN ISO 10007 =2005 the configuration management represents technical and organizational activities that include stage identification, control, evidence and configuration auditing. This standard represents the Romanian version of the English text of ISO 10007/ 2003 international standard. The purpose of this standard is to develop the mutual subject understanding, to promote the configuration management use and to help organizations in applying the configuration management in order to improve their performance.

Configuration management is a management subject that technically and administratively directs the development, production and life cycle sustaining of a configuration element. It is an integrant part of life cycle management in close interaction with the other management subjects implied in the product life cycle namely: documentation management, logistic systems management, maintenance management, information management, that together can contribute to accomplish the following configuration management objectives:

- to document and assure the complete visibility of the present configuration of the product and the achievement of its physical and functional conditions;

- overall understanding of the theme subject and encouraging the management team, organized as an acquisition entity able to apply management configuration in order to improve its performances. The project work team must use the correct documentation any time,

according to the nature of developed processes.

The “Entire lifetime of the system” concept implies the fact that management system applies throughout the product (project) development process namely since the first document jointly agreed between customer and client appeared (for exemple the Mission Needs Document) used as a base to develop the later system development project.

According to SR EN ISO 10007 standard, the configuration management is selectively applied as required in the military technique contracting parties’ activities throughout lifetime system and for every product set. The contracting party must implement an internal management system of the configuration in order to assure the control of all media configuration documents and representative physical parts contained in the product.

The internal configuration management system consist of the following elements: configuration identification, configuration control, configuration verification and audit.

The contracting party must implement the requirements mentioned in the contract for the designed product and must assure the common agreement of all the subcontracting parties. It is compulsory for the contracting party to have a *configuration management plan*, designed in such a way as to be in accordance with the specifications, the domain, the degree of complexity and the stages of the product lifecycle/the designed system. This plan needs to be in full accordance with the aims of continuous improvement that also include an analysis of the identified issues as well as the starting point of preventive/corrective steps which are necessary in order to prevent their reappearance.

Configuration management planning *consists in:*

- the objectives of configuration management programme for each configuration management element;
- organizing the configuration management and the relations within it;
- the process managers’ responsibilities and authority regarding the configuration

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- management;
- the configuration management resources (tools, techniques and applicable methodologies);
  - the co-operation with both national and foreign partners (program managers, contracting parties etc.);
  - the configuration management policies, the processes, the procedures, the applicable methods, registering, reports and continuous improvement processes;
  - the monitoring of the purchase procedures and of logistic support.

## LIFECYCLE

The concepts related to the lifecycle are related to one or more of the next four domains:

- a) time - it refers mainly to lifecycle stages;
- b) operation - it refers mainly to lifecycle processes;
- c) resource - it refers mainly to lifecycle participants;
- d) organization - it refers mainly to system management.

The system lifecycle (from designing the system until its retreat/elimination/destruction...) is divided into four stages meant to ensure a proper framework for the project. Each stage ends in a decision-making phase within the project. Throughout each and lifecycle stage there can be found processes adjustable to the whole organization or to a certain project (see ISO 10006 *Quality management -- Guidelines to quality in project management*<sup>2</sup> and ISO/IEC 15288:2015 *Systems and Software Engineering — System Life Cycle Processes*)

The organizations of the participants to the lifecycle are responsible for establishing, researching, maintaining and improving the economic efficiency of processes. Organizations are free to apply international standards, when they are needed, so as to adapt processes to the organization structure,

<sup>2</sup><http://magazin.asro.ro/standarde/can/4/U35/75795916>

to objectives and business strategy. Such standards can also contain the criteria for a successful process implementation.

The implementation of quality management system (according to SR EN ISO 9001:2015) allows a wholesome approach of all processes during a lifecycle span, their improvement and controlled execution being under constant supervision. These processes include planning, analysis, audit, measuring and monitoring activities, revising capability, reliability, corrective and preventive actions, as well as constant improvement of the efficiency level.

## LIFECYCLE PARTICIPANTS

The participants directly involved in the processes and activities of the lifecycle stages can be generically named: user, buyer (purchaser), owner, supplier and personnel responsible for ensuring governmental quality.

**The user:** has the primordial responsibility to define its requirements accurately and completely; not only the operational and delivery requirements, but also those related to the availability of the product, logistics, personnel training, the environment, the success of the mission and the costs during the lifecycle.

**The buyer** has the responsibility to:

- to facilitate the requirement process through:

- rendering the user's necessities into accurate technical and functional requirements;
- adopting the interests of all the other interested parties in the product's/system's life cycle;
- taking into account all national and international regulations, including those referring to the environment;
- the resulting demands are reflected in the project documents (for example the

contract) and also in all the management processes of the project;

- to ensure the preparation of the contract which:

- gives sufficient liberty to the providers to furnish commercial products/services;
- allows the buyer to trust the provider's activities and the product/service provided;

- to guarantee the conformity with the contract stipulations, including the cost and schedule/delivery time;

- to ensure the management integration with commercial and engineering practices;

- to ensure the existence of a coordination and implementation strategy for quality management;

- to ensure the continuous application of quality management activities to all the processes in the life cycle;

- to ensure data collection and the initiation of corrections/corrective/preventive actions, as well as any necessary modernization works. The feedback from the user in particular can create a database that can be used to further modify the product and improve future projects;

- to evaluate the risks associated with the product and the provider in cooperation with other members of the project management team;

- finally to provide the contract acceptance of the product/system.

The Owner is considered as a participant in the life cycle only when he is the buyer or provider and/or owner. Otherwise, he is considered as interested party.

The Provider has the responsibility to fulfil the contract requirements including those parts of the contract which can be subcontracted. This includes responsibilities such as:

- ensuring there is no uncertainty regarding the interpretation of contract requirements;
- planning all the necessary and applicable processes for the corresponding stages of the product's/system's life cycle;

- controlling the quality of the products/services;

- guaranteeing that only the products and services in accordance with the contract requirements are provided for customer acceptance;

- providing the customer with evidence and assurance that:

- all necessary steps are taken in order to approach or eliminate any risks;
- the requested preventive and corrective actions are performed;
- the products and services fulfil the contract requirements.

In accordance with the endeavours to integrate in the Euro-Atlantic structures, Romania has developed its own national system of Government Quality Assurance (GQA). The activities associated with this system include the evaluation of the quality management system in potential providers and the supervision of the contract activities at an appropriate level.

The main aspect of GQA is to make sure that all contract requirements are fulfilled by the provider. The role of the personnel appointed responsible for quality management, usually the national quality assurance representative (NQAR), is to support the government quality assurance for the buyer as follows:

- making sure the contract paragraphs related to quality are formulated in a suitable manner (they contain AQAPs – [The Allied Quality Assurance Publications (AQAP)], and other documents) and they are respected;

- taking part in all quality management system evaluations of the provider so as to enter it in the „Accepted providers' list”;

- ensuring the application of all quality management actions to the provider's as well as all the subcontracting parties' processes and guaranteeing that the results are reported to the project management team, as agreed.

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## CONCLUSIONS

The current stage in the modernization of the Romanian Army also implies the optimization process of the Integrated Defense Acquisition Management System (SIMAPA). Thus, it is obvious that the use of the concept of system engineering provides an effective tool in the management of programs and projects typical for the acquisition of complex systems, necessary to the national defense system.

The current policy regarding research and development in the field of military tactics, is aimed at directing research towards a broad perspective, through the participation in large-scale programs, usually with external cooperation, within which, by means of transferring cutting-edge technologies, the general level of performance of the research and development activity is increased and national industry is improved.

Obtaining real performance in the integrated approach to quality during the whole life cycle of the armament products and systems requires complete knowledge of the quality management process, from the point of view of industrial practices and methods, as well as of the specialized technical staff.

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# CHARACTERISTICS AND DEFINING TRAITS OF THE CONTEMPORARY SECURITY ENVIRONMENT

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◇ **Abstract:** *Today's world offers a contradictory image wherein coexist economically prosperous regions, characterized by stability and tendencies to integration, and instable, economically underdeveloped regions, which are on the brink of disintegrating. In this context, global threats have yet to disappear – they have not vanished, only mutated.*

◇ *The threat of war has been replaced by myriad risk factors the importance of which varies from a situation to another, from a region to another. Instability has spread to Europe itself, not remaining contained to its traditional areas of the Near and Middle East, Asia and Africa. Therefore, conflicts have become explosive and are bringing about a whole series of internal and international crises with social, ethnic, religious and economic roots.*

◇ **Keywords:** *security environment, conflict, power factors, globalization, coherent action.*

## INTRODUCTION

The contemporary security environment is characterized by substantive transformations, which call for adapting the classical criteria for analyzing the international security.

Although a “clash of civilizations”, as suggested by Samuel Huntington<sup>1</sup>, has been contradicted by the evolution of the international relations after the ‘90s, and the dramatic tilting of the balance of power through devastating wars, like those of the XX<sup>th</sup> century, is deemed highly improbable to occur in the short and medium term, the international environment is far from presenting a state of security even close to the level of expectations. The new challenges to the international security, generated by the superposition of such phenomena as globalization, on the one

hand, and the fragmentation of nations, on the other hand, add to the already long list of classical regional risks and vulnerabilities. There still are traditional sources of tension, but their development patterns are influenced intrinsically by the advent of new risks, both unconventional and cross-border, such as terrorism, organized crime and the proliferation of weapons of mass destruction.

However often met in the political speeches and in official documents issued by both national states, and international security organizations, the area-specialized literature offer few definitions of the *security environment* that can convey the largely accepted meaning of the concept.

Thus, there are currents of opinion that consider the security environment as being “a relation-based concept, that supposes a permanent adaptation and adjustment of a set of internal parameters (socio-economic, political, military, legal, cultural and moral)

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<sup>1</sup>Samuel P. Huntington, *The clash of civilizations and the remaking of the world order*, Samizdat Publishing House, Bucharest, pp. 164-273.

to the characteristics of the international environment, a process with a continuous dynamic, oriented towards the preservation of the space, ideals and common values and, at the same time, towards finding a balance, both stable and unaffected by threats and risk factors.<sup>2</sup> At the same time, studying the area-specialized literature reveals the fact that this concept is approached by some authors from the systemic angle of the concept of networking, where “the driving effort of knowledge, in this new era of rapid and massive growth of connections and mutual determinations, needs be focused on identifying and evaluating the impact elements and area, so of the effects of the concept of networking<sup>3</sup>.”

From this standpoint, two characteristics are specific to the security environment, *integrality*, manifested as tendency of subsystems and processes towards integration, and *fractality*, respectively, which stands for the tendency towards fracturing, towards breaking down of units and the (re)construction of new types of systems, which can constitute themselves in parts of the former system or elements opposed to the whole.

Yet, in our opinion, the most suitable definition of the *contemporary security environment* is the one that describes it as “the totality of systems, factors and processes, political, economic, social, informational and military, which interact creating a space characterized by some constants and a lot whole more variables. The constants constitute in those basic signposts that ensure stability, coherence and functionality to the systems, while the variables result from the said systems’ being part processes...”<sup>4</sup>

<sup>2</sup> Mircea Mureșan et al, *European security and the beginning of the third century*, The Publishing House of the “Carol I” National Defense University, Bucharest, 2006, p. 41.

<sup>3</sup> Gheorghe Văduva, PhD, *The symmetry, dissymmetry and asymmetry of the current military conflicts*, The Publishing House of the “Carol I” National Defense University, Bucharest, p. 6.

<sup>4</sup> Eugen Bădălan, Valentin Arsenie, Gheorghe Văduva, *Essay on strategic art*, The Military Publishing House, Bucharest, 2005, p. 314.

## THE SECURITY ENVIRONMENT – SYSTEMIC TRANSFORMATIONS

Approaching the unconventional risks in the aftermath of the bi-polar antagonism imposes the necessity of new types of international solidarity. The profound transformations of the begging of century are in a relation of direct proportionality, both with the growth in the role played by the international community in preventing conflicts, managing and resolving crises, and with the geographic expansion of the democratization process.

Just as well, the recent years’ transformations of the European and global system, as well as of the actors inside the system, tend to blur more and more the classic distinction between internal and international politics. The fact that problems internal to some countries raise current international preoccupations, and that the internal politics of most states come under the close scrutiny of the major powers demonstrates the interweaving and mutual conditioning of the internal and external policies, having the consequence of deepening interdependence, projecting the interests of some internal groups onto the international arena, maintaining disputes between actors as to the unipolar or multipolar character of the future global security and continuing the process of restructuring and adapting the main regional and global security organizations to the end of adequately responding to new challenges.

It so becomes evident the tendency of the pillars of power towards enhancing the importance of the structures they control, to the end of establishing an advantageous position in the new security structure and, implicitly, in the competition for the affirmation and consolidation of the new centers of power that are bound to determine the world’s evolution and the new world order.

The democratic world “*tends to become, paradoxically, forevermore exclusivist and interventionist*” which makes a necessity of the rethinking such fundamental values

as independence and sovereignty, concepts that, in turn, will have to be promoted in an environment that tends to negate them more and more in their classic sense.

No doubts that we witness evident and perceptible changes in the security environment, changes that can assist us in building a reasonably valid image of the system for the short term. At the same time, the medium and long term evolutions insofar as security remain uncertain and difficult to anticipate. However, as long as the states remain the central element of the international system, it is expected that their perception as to the threats to their security, and the responses to those threats, remain relevant for any type of security analysis.

### **TRAITS OF THE CONTEMPORARY SECURITY ENVIRONMENT**

The globalization, the European and Euro-Atlantic integration, the continuous preoccupation of the Russian Federation for obtaining a decision role in international issues, the forevermore pregnant affirmation of Asian countries in the international arena, the concerns regarding the stabilization of Afghanistan, the unanimous adoption by the UN Security Council of an Iraq resolution and the interest expressed by the interim government of Iraq in the continuation of the international support for ensuring country's stability, on top of which one might add the fact that many divergences are present in the Balkan region, the situation in the Middle East, marked by a diversity of disputes – political, economic, ethnic and religious –, threats, conflicts (open and potential), the Black Sea region that remains an area of strategic and major economic importance, with many latent conflicts that will not be given viable solutions in the foreseeable future, are but a few elements that characterize the evolution of the current security environment.

The globalization process, which can be defined as transnational integration, sees a continuous development, aspect proven

be the two historic processes from 2014, of the two security organizations, NATO and the UE, as well as by the perspective of developing rapports between the two. In their midst, there are manifest tendencies towards a “globalization of security” through the mechanism of involvement by the American military, coalitions and NATO in different parts of the world.

All these evolutions of the security measures are developing in two major dimensions, one *reactive*, through launching and engaging in military interventions against risk-generating states, and a new dimension, “*anticipative and preventive*”, linked to the approach in an extensive manner of the risk sources, through starting partnership formulas.

At the same time, the traditional clashes between interests in area considered of vital importance are superimposed on this background and contribute to the widening of the contemporary space for insecurity. Thus, violent conflicts within and between states, fed by ethnic and religious intolerance, the exacerbation of nationalism and vengeful stands are possible and more probable in the underdeveloped and developing parts of the world, where the states' governmental capacities are wanting or, in some cases, we talk of failed states altogether.

It can be appreciated that the current security environment presents the following traits:

- a) The dissolution of the bi-polarity and the advent of a new phase. During this period, only the United States have proved the capabilities and the real possibilities of efficiently involving themselves in managing the major issues of the human kind, being considered the sole superpower, political, economic, financial and military, both credible and viable. Under these circumstances, the characteristic of this period is the uni-polarity;
- b) The more evident affirmation of the European Union as stability and progress factor, the accelerated development

of China in the economic and military realms, as well as the diplomatic offensive of Russia, the inactivity of which, towards the major world issues, seems to have come to an end, suggest that the new international security system is heading towards multi-polarity;

- c) The advent and consecration of non-state international actors. Having as main traits the lack of a well-defined location, very specific rules and norms of conduct, and obeisance to values other than those of the national state, these actors tend to control and manage the emblematic realms and sectors of power: ultra-developed technology, economy, finance and, not least important, energy resources;
- d) The appearance of new tendencies in the development and functioning of international political, economic and security institutions and organizations:
- Going from the collective defense to collective security requires not only new concepts, but also new structures and adequate action methods. As such, NATO has developed and is perfecting its integration and cooperation strategy, in parallel with consulting the Russian Federation on the issue of Ukraine, concomitantly with assuming responsibility beyond its area;
  - The appearance of tendencies of managing crises on regional bases. Such organizations as the UN or the OSCE encourage the assumption of mandates for carrying out international missions by regional coalitions or organizations.

Under such circumstances, it becomes evident that, besides the politico-military strategy and politico-economic alliances that are being built today to the end of promoting the national security interests, the political system of the international relations needs undertake some adjustments:

- The reformations of the international and regional political institutions, their adaptations to the new geopolitical perspectives;

- The re-launching of the credibility and authority of the political institutions. Of these, the UN plays a salient part in promoting an international relations system that has as core values democracy, tolerance, acceptance of diversity and coexistence of democratic civilizations and cultures, the encouragement and support of those state that promote democracy and peace;
- The restructuring of bureaucracy, transparency and decisional efficiency in the international institutions;
- The re-defining of new values and goals of the international politics as requested by the disappearance of the bi-polarity and by the new geostrategic challenges by the neoliberal globalization;
- The re-affirmation of a new philosophy of the international relations, founded on the principle of multi-polarity. This perspective is one with a very promising future, as long as the US and the other world powers enter a competitive political partnership;
- The redefining the role played by NATO, so as it does not contradict or overlap with the missions of other international institutions;
- The durable political resolution of the conflicts in the Middle East, especially of the Israeli-Palestinian conflict and of the situation in Syria;
- The active solidarity of the developed state with the countries from the underdeveloped regions. The mobilization of financial and economic resources for the countries in need, poverty being, at the moment, the second gravest international social ill. The sustainment of assisted development, based on principles, political, humanitarian and economic, of the underdeveloped regions of the world;
- The promoting of an international policy paper that defines the fight against terrorism as a priority of the international political relations and that offers political, economic and military instruments with

which to exert pressure to the end of deterring the real and potential allies of the international terrorism;

- A political will of the democratic states of curtailing all relations with dictatorial political regimes or political movements with terrorist potential.

The XXI<sup>st</sup> century has opened a new era in international politics, era in which the security and implicitly competition for the affirmation and the consolidation of the new actors occupy the central role in determining the evolution of the world order. The peace, security and stability of the European and Euro-Atlantic region, solidly implemented through common action and, at the same time, independent of the two organizations – NATO and the UE – impose, in the current conditions of grave threats to human liberty and existence, taking into consideration of complementary priorities that will consolidate and give the world the chance of a wide cooperation, of a unencumbered development. Among these priorities, we appreciate that it is necessary to take into consideration at least the following three elements:

- Coherence in actions by NATO and the UE, to the end of offering a more efficient framework to their efforts, a more successful fighting against international terrorism, weapons of mass destruction and the spread of organized crime;
- Consistence of the actions, military and civilian, political, economic, social, diplomatic, scientific, cultural and other, by NATO and the UE, dedicated to reinforcing stability and security on the continent, its progress and prosperity;
- Realization of political accords on long term among the states of the two organizations, to the end of working together more closely for combating serious dangers and threats in the international security environment.

The complementarity of these priorities is more than necessary, given the fact that insofar as Europe and the UE, at least among three of the grandees, but among new members

too, divergences exist that impinge upon *The common defense and security policy*, upon *The initiative regarding capacities*, affecting the future development and, thus, the common, efficient approach of the terrorism issue.

## CONCLUSIONS

The complexity of the international security environment has led many researchers to the conclusion that today “security can no longer be analyzed in terms of deciding on policies, capabilities and intentions of a state, but vulnerabilities, risks, dangers and threats to security have taken on a more systemic importance”<sup>5</sup>.

This statement leads us to the idea that the contemporary security environment has a complex structure the evolution of which is dependent upon myriad factors, national, regional and international.

On the other hand, while during the Cold War era the main threat was considered to be the potential military confrontation between the two blocks, with its apogee – the nuclear exchange, at this turn of the millennium, the security agenda of these international actors evidences a major shift a paradigm, the preoccupations expressed in security studies and speeches including new and multi-faceted concepts such as: individual’s security, energetic security, environmental security etc.

Thus, becomes apparent, in our opinion, another defining characteristic of the current security environment, which is the permanent re-evaluation of the methodology for analyzing the security, as well as the shift in paradigm becoming manifest in time. Along this line, we witness an extension of the definition of security, from the military security indicator to a whole security agenda (human, social, political, economic, ecological, military and others).

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<sup>5</sup>Alexandra Sarcinschi, *New elements in the study of the national and international security*, The Publishing House of the “Carol I” National Defense University, Bucharest, 2005, p. 5.



In conclusion, we appreciate that the security environment is an integrative environment, which can be defined as an outcome of the evolutions, historical, military, cultural, economic, institutional, geopolitical, that impact upon the human community and upon the individual, as subject and object of security. Faced with so many geopolitical, strategic and technological changes, with the complexity of asymmetric and cross-border threats, the implementation and evolution of the concept of continuous European security and cooperation environment have proved to be a necessity. The concept calls for dynamism and an increased capacity for managing crises, peace-making, conducting humanitarian operations or non-combatant evacuation operations.

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## HYBRID WAR AND SMALL ARMS RESURRECTION

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◇ **Abstract:** *Being a more fashionable expression than a new concept, hybrid war proved to bring back in the contemporary conflicts foreground, weapons that were initially designed for anti-tank battle and tended to be considerate obsolete. Return to fight in the built-up areas facilitates the resurrection of these small arms and light weapons that present specific features, adapted to this type of war. Accessibility, maneuverability, low acquisition cost and the easy to obtain them from the black or grey market through the social media application lead to a resurrection of this category of weapons.*

◇ **Keywords:** *hybrid, warfare, threats, small arms, light weapon, ATGM.*

The hybrid war is more a fashionable expression than a new concept, though the “the new advanced technology and sophisticated weapons and platforms used in conjunction with a non-standard, complex and highly adaptive, volatile foe, in a very fluid operational environment, require a “more” comprehensive, inter-institutionalized and interagency approach.”<sup>1</sup>

There is actually a very intense and large spread debate among the military specialist with the subject of hybrid war, and even it started more than 10 years ago, is still attractive and open but I think that things are wandering around the same issue, which was mentioned by the secretary of defense Robert Gates in 2009: “I think that this debate between conventional and irregular is quite artificial. Most of the people that I talk to are now increasingly talking about, instead of one or the other, a spectrum of conflict in which you may face at the same time an insurgent with an AK-47 and his supporting element with a highly sophisticated ballistic missile, where you – where you have what we have

been calling in the last year or so complex hybrid warfare. And so you really need to be prepared across a spectrum to deal with these capabilities.”<sup>2</sup>

For sure hybrid war is not a conventional war, is not a conflict that you can deal with the same means and tactics, as 25-30 years ago, implies more adaptive tactics and procedures, but is still not something new. “Proponents of hybrid wars struggle to provide a meaningful unifying definition of the concept because hybrid war actually does not have a distinct nature and it is not a separate form of war.”<sup>3</sup>

Hybrid war concept is actually, in my opinion a smoke curtain, cast in the public eyes, through the use of mass media, in order to negate the involvement in a conflict. This concept allows the actors not to declare the war.

Hybrid war represents the sum of all military experiences, lesson learned and

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<sup>2</sup> US Secretary of Defense Robert Gates, DoD News Briefing, april 2009, on <http://archive.defense.gov/Transcripts/Transcript.aspx?TranscriptID=4396>, accessed on 19 sep.2017.

<sup>3</sup> Dr Chris Tuck, Hybrid War: The Perfect Enemy, 25 april 2017, on <https://defenceindepth.co/2017/04/25/hybrid-war-the-perfect-enemy/>, accessed on 20 sep.2017.

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<sup>1</sup>Sorin Costel Balan, *Hybrid war- old, but new(what is new and what is not)*, Editura UNAP, Volumul 1 al Conferinței Strategii XXI - “Schimbări strategice în securitatea și relațiile internaționale”



procedures updated and combined with the ultimate technologies, applied in a specific, selected manner in order to achieve an objective, in a timely and desired perspective.

It combines all types of operations at different operational levels, from propaganda, insurgent and secession movements' sponsorship, diplomatic pressure through strategic communication, political bribe and strategic economical acquisitions to cyber attack, terrorism support, migration control and influence, asymmetric fighting procedures and tactics and all of this supported with the all available media in order to divert the everybody attention.

Hybrid war is use of everything from a basic IED (Improvised Explosive Device) to a stand off capability as ultimate missile launcher. Certainly, what the hybrid war is not, is not the conventional war.

Consequently the hybrid actors will act in accordance with their intimate interest, using all available weapons. Not being a conventional army, the TOE (Table of Equipment) will be an improvised one, with a mixture of equipment and weapon.

Aside from the situation when they come into possession of heavy conventional weapons, by different means (theft, capture, etc), from state actors, the hybrid actors will be with predilection equipped with small arms. Even if they captured heavy equipment, the logistic burden would be too heavy for them.

According to the Small Arms Survey, which uses 1997 UN Panel of Government Experts classification, the small arms or light weapon is "civilian, private and military weapons that fire a projectile with the condition that the unit or system may be carried by an individual, a small number of people or transported by a pack animal or a light vehicle."<sup>4</sup>

Analyzing the Panel's list, we will find under the light weapons listed the anti-tank guns, recoilless rifles and antitank missile and rocket systems

Looking onto the recent and ongoing conflicts we can easily notice that conventional armies, representing legitimately or not a state actor are confronting non- state, irregular force. If the state actors have access to all kind of weaponry, including armor, heavy artillery and even aviation, non-state actors, acting as proxy sometimes, will use with predilection small arms and light weapons, some of them belonging to the latest generation.

This asymmetric fight between David and Goliath has developed in the last years, new tactics and procedures, in order to avoid the strength of the enemy and strike him in its weakness and re-enhanced the importance of urban fight and use of anti-armor weapons.

Anti-armor weapons along with improvised explosive devices are responsible for most of the losses and casualties caused in the conflict in Syria and Iraq. "Anti-tank guided missiles (ATGMs) such as US manufactured BGM -71ETOW system have been one of the weapons effectively employed from this high ground against loyalist targets [...]. In addition to the TOWs however, there are also European-made Milan missiles in use, along with Russian 9M 113 Konkurs, 9K 115-2M Metis and 9M 1333 Kornet systems...."<sup>5</sup>

Beside the lack of logistical abilities to support heavy equipment, there are some other characteristics that determine the hybrid actors to have predilection for small arms use, especially those with large destructive effects.

First feature of this type of light weapon, which makes them favorite among the hybrid actors, would be *the accessibility*. From the world wide ubiquitously RPG-7, or newest RPG-30, (which intent to be a solution for the latest armor active protection systems, like Trophy), to the ultimate Anti-tank Guided Missile (ATGM) system Kornet, SPIKE or Javelin used in the latest conflicts, all are easy to be accessed. The easy accessibility is determined on the one hand by the low cost

<sup>4</sup> Definitions of Small Arms and Light Weapons, on <http://www.smallarmssurvey.org/weapons-and-markets/definitions.html>, accessed on 20 sep. 2017.

<sup>5</sup> Scott Stewart, Anti-tank guided missiles pose a serious threat, 30 apr. 2015, on <https://worldview.stratfor.com/anti-tank-guided-missiles-pose-serious-threat>

of majority of these weapons, even in cases of market high demand.” The price of a good quality Russian AK-47 assault rifle has almost doubled in the past 10 months from around \$1,100 to \$ 2,100. A rocket propelled grenade (RPG) launcher cost \$900 last March and a single grenade was priced around \$100. Today an RPG launcher is worth \$2000 and each grenade \$500”.<sup>6</sup>

One the other hand, the accessibility of anti-tank weapons an IED component materials is influenced also by the largely existence of them on the grey and black market. Some of these weapons came into the possession of the hybrid actors through the help of state actors who imported them legally and then slipped them off to the hybrid actors. “Indeed, Swiss government has been quite upset that hand grenades and other weapons it sold to the United Arab Emirates have shown up in the hands of Syrian rebels.”<sup>7</sup>

In the some view, the powerful but relatively small arms guns, like RPG and ATGM are easy to get also via social media applications. Beside other important roles that social media plays in the hybrid war – like propaganda, recruitment, tactical information and so on- it is used also for selling the weapons, by advertising them on the Facebook and later negotiate and set the details through instant messaging of Whatsapp.” However, experts say that the most common way to trade is to use Facebook to advertise the wares on offer or wanted items, and then the messaging service Whatsapp – also owned by Facebook- to negotiate over price and delivery.”<sup>8</sup>

Second characteristic, that brought the small arms back in the contemporary conflicts foreground are related to urban fight, another

feature that was reborn due to the modern warfare, fashionable called hybrid war.

Urban war needs weapons which can be used both in confined space and from a stand off distance, and also can be easily hidden. Small arms are perfect adapted to this kind of fight. They can be used from a high nearby terrain, due to the newest targeting capabilities, and also on the streets of built up areas. They can be easy hidden and this helps maneuver in hide and employment. Due to their small size they are difficult to discover, especially before firing and this provides them a huge advantage in terms of surprising the enemy and timely firing.

Being a more fashionable expression than a new concept, hybrid war proved to bring back in the contemporary conflicts foreground, weapons that were initially designed for anti-tank battle and tended to be considerate obsolete. Return to fight in the built-up areas facilitates the resurrection of these small arms and light weapons that present specific features, adapted to this type of war. Accessibility, maneuverability, intuitive use, low acquisition cost and the easy to obtain them from the black or grey market through the social media application lead to a resurrection of this category of weapons.

In conclusion, even if the hybrid war is not a new type of war, being just an adaptation of it at the modern times and technology, it still causes mutations and changes in the way of fighting. Trying to overcome the overwhelming technological advantage, the hybrid actors adapt and use whatever comes in to their hands. Not having direct access to the newest technologies and products, they go back to the arms they can obtain. This is the reason why the RPGs and ATGMs, in all their variants, are present in all ongoing conflicts.

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<sup>7</sup> *Ibidem*.

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# VISUAL LITERACY IN PUBLIC COMMUNICATION

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◇ **Abstract:** *The huge amount of images that we are witnessing in public communication requires visual literacy on behalf of the receiver in order to act as an informed consumer. This ability is also of paramount importance in the training of professional communicators who produce and operate with visual messages.*

◇ **Keywords:** *public communication, human evolution, power of images.*

## INTRODUCTION

The use of images in public communication is quite significant nowadays. Due to the technological advances which facilitate image production and broadcasting, we are actually witnessing an impressive ascent of the visual elements. The fact that any user of digital technology can create and share graphics, photography and film, has led to an inflation of visual products in the public sphere. Critics even talk about a future society tending towards the visual at the expense of verbal communication.

## IMAGE POWER

The power of images<sup>1</sup> resides in their multiple social functions, developed throughout human evolution. Images are persuasive and effective because they are perceived instantaneously and more intensely as compared to verbal language. Humans

think, dream, talk, recollect things and events in terms of image, and it is said that 80% of our perceptions are of visual nature. Our first impressions in facing reality are also visual most of the times. It is a fact that images draw viewer's attention, consequently mass media mainly function in accordance with the famous dictum: *A picture is worth a thousands words*. The “EyeCatcher” element is critical in the receiver's decision to pay attention to a message, especially in an society flooded with information, where the individual is no longer willing to explore content if the meaning is not revealed to him at first sight. Images can encode rules and signal hazard or prohibition. Graphic symbols have become an economic, universal form of language. Artistic images fascinate, excite and delight the viewer, their beauty and craftsmanship has been admired throughout centuries. Images can also have a huge emotional impact. They are processed and interpreted faster than the text by the human brain. When we browse through a magazine, we first look at the pictures, then at the title and only if it seems interesting, do we read the text. Recurring images also make us remember past experiences, and generate new ideas and

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<sup>1</sup> Karl-Heinz Bartling, *Visuelle Kommunikation – die Macht der Bilder (Teil I)*, 15. Dezember 2015, in: *Markenkommunikation*, <https://cleop.com/cleop-academy/artikel/visuelle-kommunikation-die-macht-der-bilder-teil-1/> (accessed 20.09.2017).



associations. Images inspire us, influence our decisions and consumption behaviour, and they can increase our sensitivity to advertising. Images are recognizable. Visual memory is deeper than verbal memory, images become longer lasting memories as compared to words. Images are also credible; by instinct, we are more inclined to believe what we see with our own eyes, rather than what we are told.

As a consequence, visual communication is present in all mass communication, where sometimes new, alternative realities are created. Images synthesize ideas, which means that in many cases words are superfluous and communication is carried out through simple gestures or facial expressions.

Images do not lie, but they can be manipulated to deceive. Images carry ideas, their role is to be expressive so as to convey information along with verbal communication. Images can be "translated" into words and words can be "translated" into images. Images tell stories and motivate the receiver to take action. Images are complex constructs, ambiguous to some extent in what they convey. Humans' natural tendency is to fill in the missing information in the frame. Thus, visual communication builds on image power.

### **THE PUBLIC NATURE OF THE VISUAL**

Visuals have a public character because from ancient times humans have engaged in visual communication. The relative ambiguity of visual language, however, explains the need for verbalisation and the domination of linguistic codes in the history of civilization. Visual language can be considered a universal human code at an elementary level.

Visuality has been omnipresent throughout history and we should say that its influence is deeper, but less obvious than the one exerted by oratory. Perhaps that is why the study of the visual is directed towards an artistic end, or often associated with material things. Therefore, architecture, design, fashion, utilitarian and mystical symbolism could not exist in the

absence of the visual component. The public nature of visual communication derives from the simple fact that sight is a sense, which means one has instant access to images, unlike in the case of the verbal code, which is exclusively acquired through education.

By way of sight the individual receives not only useful information for their orientation in the surrounding environment, but also a large part of the social and cultural norms. Through visual signals, the individual communicates his presence and their degree of social integration. It is difficult and inexact to restrict visibility only to the images built with communicative intentionality, as long as the presence of any element in our visual field can be invested with communicative value. Due to technology, visibility evolved towards the full and faithful rendering of reality. The recording, rendering and receiving of constructed images have evolved with the emergence of each visual medium. The main functions of the image, namely, to attract attention, to establish power relations, to evoke or to invoke things in absentia, to explain or to delight through visual representation have become manifest diachronically and account for the diversity and overlapping of distinctions in the visual domain. Visuality is ubiquitous in public communication, irrespective of the communicative purpose of the images (*i.e.* artistic, utilitarian, explicative or persuasive).

### **IMAGES IN PUBLIC COMMUNICATION**

Public communication is that form of communication unfolding in the public sphere, in a formal context, where the interlocutors play their social roles and there is high social distance between the sender and receiver.

The sender has authority and dominates the communication process, is perceived and acknowledged as an expert, is credited with competence, is supposed to have the skills, knowledge and power that the receiver is interested in.

The receiver is a relatively large and often heterogeneous audience. The social distance separating the sender and receiver prevents the latter from interrupting the issued message, from asking for clarifications or expressing opinions on what is transmitted. As a consequence this kind of communication often lacks feedback.

Messages are public and accessible to a wide audience, in contrast with private or confidential messages. In public communication facial expressions and gestures border on the artificial, since the conversational framework is pre-established and spontaneity is almost excluded. In the public sphere, we usually witness staged communication and from this artificiality springs the distortion of the communication in the direction of the spectacular.

### **PRODUCTS AND VISUAL MEDIA IN PUBLIC COMMUNICATION**

A mandatory component of public communication, images are present in most products offered on mass communication channels. Often accompanied by texts and slogans, images convey emotions and information through visual suggestion. The relationship between text and image in public communication products is multifaceted, oscillating between the extreme situation in which the text dominates the image, to the other extreme, in which the image dominates the text. There are few exceptions in which the image and the text are perfectly balanced in the content of the message. Both printed and online newspapers can no longer be conceived in the absence of images. If there is a relative balance between text and image in quality broadsheets, tabloids abound with provocative images. Photojournalism, for instance, combines word power with image impact. Newsfeeds join article summaries with photos. National Geographic photo-reportages are famous all around the world. The photo with the Afghan girl, for instance,

has become emblematic. Images dominate the text in both quality and scandal press. The demand for private pictures has generated an infamous specialization in the field: paparazzi. Television news and reports become credible through image impact. Advertising relies on image, advertisements and commercials are witty and seductive, posters have become bigger, banners are visible from a long distance. Long text advertisements have become obsolete. Catalogues and brochures promote goods and offers by means of photography. Packaging is increasingly colorful, and all goods must be packed in an appealing manner. Packages can sell goods as the a cover can sell a book. Books with non-graphic covers are hardly ever found in bookstores. Yet, the picture does not tell us how reliable a product is or how good a book is, but it can be fascinating, even if it is only a two-dimensional representation of reality.

The image-text relation is complex in terms of the message conveyed. Sometimes the connection between the two is simple and transparent, other times they complement and enhance each other in subtle ways. There are situations in which the picture and the accompanying text are deliberately placed in contradiction, the picture conveying something „different” than the text. This technique is intentionally used in pamphlets or satirical texts. An image that intentionally shows the opposite of what the text says is an artistic choice. A purely decorative image with a short text could be seen as an embarrassing editorial solution. In public communication, the tone is generally neutral and objective because in formal communication the purpose of the messages is to combine the image with the text in a convergent manner.

### **VISUAL EDUCATION**

The construction and interpretation of public messages require socio-communicative competence. The production and proper interpretation of images in public communication imply certain specific skills.

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Nowadays, visual literacy is one essential socio-communicative skill.

## VISUAL LITERACY

Visual literacy can be defined as the amount of skills that enable effective social communication via images. It is partly related to media literacy, which involves the competent and effective use of mass media, and includes visual elements to a large extent, but does not cover the whole field of the visual. Visual literacy further overlaps with aesthetic competence, which refers to the production and reception and of visual art works.

Mention must be made that visual literacy is built upon the physiology of sight, since a blind person cannot perceive reality through his eyes and cannot visually observe and evaluate the environment. But visual literacy also involves mental and intellectual faculties, as we “see with the mind, not with the eyes”. Only those visual perceptions that are properly interpreted and understood can mould attitudes and behavior, or influence decision-making.

Visual literacy involves both receptive and productive skills, similar to reading and writing, but the balance is strongly tilted towards the spectator role, and often visual creativity is subsumed under the category of art. Visual literacy includes processes such as the interpretation of visual information, the production of visual messages, as well as the ability to convert visual information into verbal information and vice versa. The interpretation of a visual messages involves the ability to recognize the sender’s intentions, in other words to understand what an image is supposed to convey. Sometimes it is not so easy to identify the topic of an abstract drawing and it is possible to mistake pictographic or stylized writing elements for decorative elements. Let us just think how cryptic Maya writing is or how embellished Arab prayers are. Another aspect depending on the general knowledge of the receiver is the interpretation of the message hidden in images with imaginary topics that do not have a real

counterpart. Understanding visual information is achieved through learning, by knowing the basic elements of visual communication. Unlike verbal language that is sequential and discursive, visual language is simultaneous and figurative. Visual literacy requires the skill of “reading” the visual messages. This stage involves the interpretation and evaluation of visual messages.

The production of visual messages is an omnipresent socio-communicative skill: everyone has drawn at least one indicator arrow, a sketch, a circle in the sand, geometric shapes, even if they claim to be bad at drawing. Therefore, it is obvious that the production of images involves varying degrees of performance; anyone can draw a line to indicate something, but not everyone can paint Mona Lisa.

Visual communication is in connection with social interaction and requires, as any communication process, that both the sender and the receiver know the code. Feedback in visual communication is often verbal, especially in everyday situations. We can even talk about language conversion, about the verbalization of the visual when we describe a picture or when we are talking about a movie. Literature abounds in descriptions of visual experiences. The gradual conversion of the verbal into the visual can be seen in the fact that anyone can draw a smiley face, but not anyone can draw the portrait of a suspect following witnesses’ description. The cognitive prerequisites of visual literacy are experiences and skills from several other areas of human activities such as art, aesthetics, communication, psychology, sociology, philosophy, semiotics, medicine or linguistics. Visual literacy is rooted in our natural reaction to visual stimuli and has evolved along with the diversification of visual means of expression. Due to the media and multimedia exposure nowadays, the visual literacy of the contemporary individual is obviously a sum of skills acquired through education. It is important to emphasize that any socio-communicative skill is closely related to a certain cultural environment, both temporal-

ly and geographically. The various assessment standards of visual literacy can be traced in art trends and in the evolution of mentalities regarding the taboos in the representation of human body. (For example, a current Playboy cover is provocative, but the same picture would have been considered obscene 20-30 years ago).

Visual literacy contains three components: 1. Visual thinking, 2. Visual learning and 3. Visual communication. *Visual thinking* refers to the intellectual and emotional capacities of the individual, to their understanding of images, in other words, to visual stimuli processing and meaning construction. *Visual learning* involves social interaction and focuses on the importance of visual experiences for the psychological and intellectual development of the individual; it also includes the effectiveness of the visual signal reception. *Visual communication* refers to the manner in which the message is constructed in accordance with the visual code so as to be perceived and appropriately decoded by the receiver, to influence their behaviour. Visual communication also deals with signal transmission and information transfer. These three components co-exist, intertwine and affect each other: thought, learning and visual communication are inter-conditioned.<sup>2</sup>

By extension we can talk about a visual type of thinking if we start from the premise that humans predominantly think in images and we can talk about ways of learning visually. Additionally, there are visual individuals, who perceive especially visual information, by comparison with the auditory ones or those inclined to learn through abstract notions.

Visual literacy gives an individual the appropriate social behavior in interpreting the circulation of visual messages. Effective interpretation means understanding why an

image was produced and broadcast. However, mention must be made that "perfect" interpretation does not exist. To assess visual messages means to be aware of the characteristics of an image, to understand the intentions of the sender and to discerningly use the information visually received. The dissemination of visual messages in a social communicative context should use images in ethical and aesthetic terms, abiding by the existing social norms and conventions.

## CONCLUSION

The purpose of developing visual literacy is to turn the receiver of the visual message into a well-informed, active and critical decoder. They should be able to interpret the content of the images, to appreciate their informational value and, last but not least, to aesthetically assess the production and management aspects of visual messages. The development of visual literacy requires enhancing the skills needed for the reception and production of images, and integrating them with transversal competencies. Visual education involves the acquisition of basic knowledge on visual representation methods and visual media techniques, awareness and interpretation of the messages conveyed. Developing the socio-communicative skills requires an integrated approach to informational flows so as to understand the contribution of visuality to cognition.

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# INTERNATIONAL INTERVENTION, BEHAVIORISM AND TRADITIONALISM: THE CASE FOR A TRADITIONALIST APPROACH TO INTERNATIONAL RELATIONS

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◇ **Abstract:** *Conceived as an essentially contested concept, international intervention could be used to assess the comparative merits of two prominent competing approaches within the field of international relations, namely behaviorism and traditionalism. Assuming that the compatibility of an approach to international relations with international intervention thus conceived represents a theoretical advantage, this paper examines behaviorism and traditionalism from the viewpoint of this compatibility. The investigation reveals that the meaning of an essentially contested concept is the one attributed to it by its users and that a comprehensive understanding of its present-day meaning requires a historical analysis of its previous meanings. Based on these findings, the paper concludes that only traditionalism is compatible with the essentially contested concept of international intervention.*

◇ **Keywords:** *international intervention, essentially contested concepts, behaviourism, traditionalism, international relations*

The theoretical basis of the discipline of international relations and, implicitly, the definition of its basic concepts, are the object of intense controversies, such as that which opposes traditionalism to behaviorism. The rivalry between these two approaches exists also at the level of the concept of international intervention whose meaning is differently understood within each perspective which affects their compatibility with international intervention conceived as an essentially contested concept. The analysis of this compatibility in view of contributing to the assessment of the viability of behaviorism and traditionalism as approaches to international relations represents the purpose of this article and for this reason its first section is dedicated to a comparison between behaviorism and traditionalism, its second section introduces international intervention as an essentially contested concept while its third and its final sections present and comment the behaviorist

understanding of international intervention, respectively the traditionalist understanding of it.

## THE DEBATE BETWEEN TRADITIONALISM AND BEHAVIORISM WITHIN THE FIELD OF INTERNATIONAL RELATIONS

Traditionally, the history of international relations as an academic discipline is conceived as a succession of three major debates: the debate between the utopian liberals of the interwar period and the post-war realists, the debate between the traditionalists and the behaviorists that began in the sixth decade of the last century and continued up to this day, and the so-called interparadigmatic debate in which, starting with the seventh decade of the preceding century, the realists, the pluralists and the structuralists confront with each oth-

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er<sup>1</sup>. Most historians of this discipline believe that the first debate was won by the supporters of realism, but they are undecided as to which side belongs the victory in the other two debates<sup>2</sup>.

The beginning of the second major debate is marked by the publication in 1966 in two issues of *World Politics* of the articles *International Theory: The Case for Classical Approach* by Hedley Bull<sup>3</sup> and *The New Great Debate: Traditionalism vs. Science in International Relations* authored by Morton Kaplan<sup>4</sup>. In his article, Hedley Bull contrasts the traditionalist approach to international relations theory, or the classic approach as he calls it, with the behaviorist approach, called by him the scientific approach, favoring the former approach which he considers to be the only appropriate one for the study of the field of international relations. Morton Kaplan's article contains a broad critique of the traditionalist approach and develops arguments in favor of behavioral approach being better equipped for theorizing international relations; his article is explicitly polemic given that it includes a reply to the position expressed by Bull in the above mentioned article.

Bull also indicates therein that among the traditional theoreticians of international relations are Thomas Hobbes, Hugo Grotius, Immanuel Kant, Alfred Zimmern, Edward Carr, Hans Morgenthau, George Schwarzenberg, Raymond Aron and Martin Wright. In the category of precursors of the traditionalist approach, Bull includes Niccolo Machiavelli and Edmund Burke, as political philosophers, the lawyers Emmerich de Vattel and Lassa Oppenheim, the pamphleteers Friedrich von Gentz and Richard Cobden, as well as the historians Arnold Heeren

and Leopold von Ranke<sup>5</sup>. As examples of behaviorists, Bull mentions Morton Kaplan, Thomas Schelling, Karl Deutsch, William Riker, George Modelski, Lewis Richardson, Kenneth Boulding and Anatol Rapoport<sup>6</sup>.

Contrasting traditionalism with behaviorism, Hedley Bull maintains that traditionalism is an approach which includes philosophy, history and law, and whose general statements have a high degree of probability and subjectivity because they express the perceptions, intuitions and interpretations of those who formulate them and, as a consequence of their origin, they cannot be subjected to a highly rigorous verification process<sup>7</sup>. Behaviorism, unlike traditionalism, is an approach that makes use of exact sciences and which aims at formulating objective and certain general statements based on evidence of a mathematical or logical nature, or resulting from the application of empirical verification methods<sup>8</sup>.

### INTERNATIONAL INTERVENTION AS AN ESSENTIALLY CONTESTED CONCEPT

In a paper devoted to the interventionist policy of the USSR in the region known as the Horn of Africa, Robert G. Patman offers the following characterization of the concept of intervention: "Despite the fact that intervention is a ubiquitous feature of modern world politics, there appears to be little agreement on the meaning of the term. In W. B. Gallie's terms, intervention is an 'essentially contested concept'"<sup>9</sup>. According to Patman, peculiar to such a concept is the

<sup>5</sup> Hedley Bull, *op. cit.*, p. 361.

<sup>6</sup> *Ibidem*, p. 362.

<sup>7</sup> *Ibidem*, p. 361.

<sup>8</sup> *Ibidem*, p. 362.

<sup>9</sup> Robert G. Patman, *The Soviet Union in the Horn of Africa. The Diplomacy of Intervention and Disengagement*, p. 4. According to Patman, the geographical limits of the Horn of Africa are imprecise but it is generally considered that it includes Ethiopia, Somalia and Djibouti.

<sup>1</sup> Brian C. Smith, *On the History and Historiography of International Relations*, pp. 13-15.

<sup>2</sup> *Ibidem*.

<sup>3</sup> Hedley Bull, *International Theory: the Case for Classical Approach*, pp. 361-377.

<sup>4</sup> Morton Kaplan, *The New Great Debate: Traditionalism vs. Science in International Relations*, pp. 1-20.

fact that it generates intense debates about its proper meaning, debates that transform such concepts into imprecise concepts which end up being confused with other concepts, in the case of *intervention* with *aggression* and *imperialism*.

This feature of the essentially contested concepts is partly borrowed from Walter Bryce Gallie, who, however, does not consider that the disputes they generate lead to conceptual confusions, and who therefore insists on the difference existing between contested and confused concepts<sup>10</sup>. In addition, Gallie believes that all meanings attributed at some point to an essentially contested concept are grounded on arguments of equal logical force, so that the disputes about its proper meaning cannot be decided with the help of logical instruments<sup>11</sup>.

To prove that international intervention is an essentially contested concept, Patman analyzes three of the numerous definitions provided for it, namely the definition by Lassa Oppenheim, James Rosenau and Richard Little. The fact that these definitions have been formulated at different moments in the twentieth century - the first in 1905, the second in 1975 and the last one in 1980 - does not direct Patman's analysis neither towards the meanings that have been attributed to the term intervention since its emergence, nor towards the evolution of these meanings.

One consequence of Patman's lack of preoccupation for the history of the concept of intervention is that he does not mention that, in Gallie's view, the meanings attributed today to an essentially contested concept have been formed on the basis of previous meanings that have been attributed to it and which could be out of use today and, for this reason, its present meanings cannot be fully understood without a historical investigation re-constituting the various meanings that its users gave to it over time<sup>12</sup>.

<sup>10</sup> Walter Bryce Gallie, *Essentially Contested Concepts*, pp. 175-177.

<sup>11</sup> *Ibidem*, pp. 168-169.

<sup>12</sup> *Ibidem*, pp. 196-198.

Because the great debate between behaviorism and traditionalism is also to be found in the literature devoted to international intervention<sup>13</sup>, it is to be investigated which perspective is compatible with the understanding of international intervention as an essentially contested concept. Such an investigation is conducted in this article which thus represents a contribution to the debate that opposes supporters of the traditionalist approach to those who embrace behaviorism. That approach which proves to be the only one compatible or to be more compatible with this conceptualization of international intervention will be considered more appropriate for theorizing international relations. This assessment does not mean that the approach it refers to is superior in all its aspects to the approach it is competing with, but must be understood as representing only an advantage of that approach as compared to its rival.

## **BEHAVIORIST PERSPECTIVE ON INTERNATIONAL INTERVENTION**

The behaviorist definition of international intervention differs so much from the definition given to this concept within the framework of the traditionalist approach, that it can be said that there is an almost complete opposition between these definitions. Thus, according to Richard Little, the typical behaviorist definition of international intervention, such as that put forward by James Rosenau<sup>14</sup>, is not elaborated with reference to the different and often opposed meanings attributed over time to international intervention by practitioners (eg. politicians, diplomats), on grounds of these meanings being considered too complicated and too ambiguous, but it is simply invented and constructed to be as simple and precise as possible. Thus, Rosenau argues that

<sup>13</sup> See on this problem Richard Little, *Revisiting intervention: a Survey of Recent Developments*, pp. 49-60 and Cynthia Weber, *Simulating Sovereignty: Intervention, the State, and the Symbolic Exchange*, pp. 17-26.

<sup>14</sup> James N. Rosenau, *Intervention as a Scientific Concept*, pp. 149-171.

international intervention represents that behavior of an international actor which “constitutes a sharp break with then-existing forms” and which “it is directed at changing or preserving the structure of political authority in the target society”<sup>15</sup>.

Taking into account how behaviorists typically elaborate the definition of international intervention, Caroline Thomas considers that the resulting definition is an arbitrary one, with no arguments being put forward in support of it, and thus an imposed and not a justified one<sup>16</sup>.

Little equally points out that any reference to values is removed from the typical behaviorist definition of international intervention, which, however, does not mean that behaviorists deny the existence of values<sup>17</sup>, and he also indicates that the motivation of the intervening agent is not made part of such a definition<sup>18</sup>.

Based on these characteristics, Richard Little maintains that the typical behaviorist definition of international intervention is a static and an ahistorical one. The irrelevance of history for the behaviorist definition of international intervention and its *a priori* origin are also highlighted by Cynthia Weber: “It is theorists (behaviorists – a.n.) who impose definitions of intervention and propose indicators to capture interventionary behavior, and they do so from outside of history. That is, these definitions are not generated by historical conditions or by the cases analyzed themselves; rather, these definitions are decided prior to analysis by theorists”<sup>19</sup>.

Martha Finnemore is of the opinion that the method of reasoning employed by behaviorists for analyzing the international intervention is deduction<sup>20</sup>, which means that the definition they elaborate for international

intervention functions as the first premise of an argument for determining if a particular behavior is an international intervention while the second premise of this argument takes into account the properties of the behavior the conclusion refers to. Consequently, one could argue that this argument is a syllogism in which the major premise has the form *The international intervention is a behavior having the properties 1,2,3 etc.*, the minor premise has the form *Behavior A has the properties 1,2, etc.*, and that the form of the conclusion is *Behavior A is / is not an international intervention*. According to Finnemore, once identified the behavior that complies with the agreed definition, that behavior is analyzed from the point of view of where and when it took place, of its duration and its frequency, and also from the viewpoint of its connections with other behaviors affecting it.

Weber establishes a connection between behaviorism and the term “thin description” of a culture that was introduced by the anthropologist Clifford Geertz and this allows her to point out a deficiency of behavioral approach<sup>21</sup>. Thin description refers to the description of a phenomenon only in terms of its observable characteristics, leaving aside the cultural context in which that phenomenon occurs; an example taken by Weber from Geertz is the description of the gesture of blinking exclusively by indicating the movements (lifting and lowering the eyelids) that it entails. A description of this kind cannot capture the different meanings that these movements acquire in distinct contexts (e.g. conspiracy, satire, ridicule), so that it is impossible to indicate, for example, when it is a conspiratorial sign or when it signals a ridiculous situation.

Applied to the behavioral account of international intervention, Weber argues, the term “thin description” expresses the fact that a behavior is defined as an international intervention exclusively based on its observable aspects, irrespective of the historical, including

<sup>15</sup> *Ibidem*, p. 161.

<sup>16</sup> Caroline Thomas, *New States, Sovereignty, and Intervention*, p. 9 *apud* Richard Little, *op. cit.*, p. 53.

<sup>17</sup> Richard Little, *op. cit.*, p. 50.

<sup>18</sup> *Ibidem*, p. 51.

<sup>19</sup> Cynthia Weber, *op. cit.*, p. 18.

<sup>20</sup> Martha Finnemore, *The Purpose of Intervention. Changing Beliefs about the Use of Force*, p. 9.

<sup>21</sup> Cynthia Weber, *op. cit.*, pp. 19-23.

cultural, context in which that behavior occurs. This way of defining international intervention makes possible for a behavior to be considered an international intervention although, when it took place, it was not recognized as such by those involved in it. For example, Weber indicates that, if international intervention is *a priori* defined as the action of a state which crosses with its armed forces the borders of another state that opposes this action, than the crossing by the US army of the border of Mexico, an action that took place during Woodrow Wilson administration and which was opposed by the Mexican authorities, must be considered an international intervention even if Wilson did not conceived it like this<sup>22</sup>. It follows that Weber criticizes the behaviorists for attributing to a behavior a meaning that it did not have when it occurred, which means that behaviorists may find themselves in the situation of defining a certain behavior as it was not defined when it happened.

Another negative consequence of the ahistoric way in which behaviorists define international intervention has been highlighted by Finnemore: a behavior which, in the historical context in which it occurred, was considered an international intervention, may not be an international intervention according to a definition of it *a priori* formulated<sup>23</sup>.

Consequently, the behaviorist approach can generate two situations that are difficult to accept. The first is that when a behavior is *a priori* defined as an international intervention although it has not been thus defined in the historical context in which it took place. In the second situation, behavior is not *a priori* defined as an international intervention, although it has been thus defined in the historical context in which it occurred. In fact, the behaviorist

definition of international intervention is an implicit rejection of the contention that the meaning of a word is the one attributed to it by those who use it; therefore, in the opinion of behaviorists, the meaning of a word is just the meaning that experts, scientists, give to it, regardless of the meaning that it usually has or that it usually had. Such a view creates a strong impression of artificiality and shows that precision is sought at the expense of what is natural, of what is a matter of course.

### THE TRADITIONALIST VIEW OF INTERNATIONAL INTERVENTION

The traditionalist definition of international intervention, Little maintains, is based on the different meanings attributed over time to this action by practitioners and especially by international lawyers and it captures what these meanings have in common, that is the “essence”<sup>24</sup> of the concept of international intervention. However, Little points out, these meanings are very diverse, with some of them being even opposed to each other, which results in this definition being a complex and an ambiguous one. As a consequence of how the traditionalist definition is elaborated, the motivation of the intervening agent and the state sovereignty are both included in it, the latter being considered a political value which is compromised by international intervention; more exactly, international intervention is seen as a violation of the principle of nonintervention which generates an attitude of disapproval on the part of the international community. Therefore, one could maintain that international intervention is understood within the traditionalist approach as representing a negative value, as being an object of dislike and not of desire given that it is perceived as an obstacle for achieving the positive value of sovereignty.

As a typical example of traditionalist definition of international intervention, Little

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<sup>22</sup> For this example to fully support the idea advanced by Weber, it is necessary to show that the US military actions against Mexico have not been then considered an intervention also by other states given that the cultural context of that period cannot be identified by considering exclusively the position of US politicians.

<sup>23</sup> Martha Finnemore, *op. cit.*, p. 10.

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<sup>24</sup> Richard Little, *op. cit.*, p. 54.

mentions the definition formulated by John Vincent<sup>25</sup> which reads that international intervention is “that activity undertaken by a state, a group within a state, a group of states or an international organization which interferes coercively in the domestic affairs of another state. It is a discrete event having a beginning and an end, and it is aimed at the authority structure of the target state. It is not necessarily lawful or unlawful but it does break a conventional pattern of international relations”<sup>26</sup>. It is to be remarked that Vincent’s definition recuperates the two characteristics attributed to international intervention by Rosenau which proves that the difference between the traditionalist and the behaviorist definitions are not necessarily located at the level of their form, of their wording, but at the level of the method used to elaborate them<sup>27</sup>.

Compared with the behaviorist definition of international intervention as outlined by Little, one could argue that its traditionalist definition is essentially a variable and a historical definition.

As for the method of reasoning specific to the traditionalist approach of international intervention, this one is the inductive method which implies the formulation of a definition that includes the common features of a significant number of definitions assigned to international intervention over time. The definition thus obtained is a generalization of the features that can be found in a large number of definitions, which means that the resulting definition has a degree of probability that is higher or lower depending on the number of definitions the process of generalization is grounded on. Martha Finnemore, who uses this method for defining international intervention, describes it as follows “Rather than looking

at an event and asking, Is it intervention? I looked at activities that participants describe as intervention and ask inductively, What is it? How did people understand this practice at different times, and how did its contours change?”<sup>28</sup>.

Finnemore thus highlights an aspect that can be considered as belonging to the traditionalist approach, although Little does not seem to attribute it to this approach, namely that one cannot speak of a single definition of international intervention, but of different definitions that have been given to it in various moments from history. Therefore, in Finnemore’s view, the inductive method, if applied to a sample of definitions taken from various historical periods, does not lead to a single definition of intervention because the heterogeneity of these definitions will rather lead to the identification of what tells them apart and not of their similarities<sup>29</sup>.

It follows that induction has to be applied only to definitions formulated within a certain historical period, in order for a single definition – whose validity is limited to that period - to be obtained. As mentioned above, Little considers that traditionalists accept that the meaning of the concept of international intervention has significantly varied throughout history, but he equally mentions that they seek to identify the essence of this concept, which means that, according to Little, traditionalists hold the view that there are, however, common features of all definitions provided for international intervention which makes possible to formulate a definition of this concept whose viability is not confined to a certain historical period.

<sup>25</sup> John Vincent, *Nonintervention and International Order*.

<sup>26</sup> *Ibidem*, p. 13.

<sup>27</sup> It seems, however, that Rosenau refers to the pattern of behavior of a given international actor while Vincent has in view a pattern of behavior accepted at the international level and thus followed by many international actors.

<sup>28</sup> Martha Finnemore, *op. cit.*, p. 10.

<sup>29</sup> “Varying patterns of intervention behavior are often accomplished precisely by redefining the term in ways that legitimate or require certain kinds of behavior and delegitimate or bar others” (Martha Finnemore, *op.cit.*, p. 10).

In Weber's view, the traditionalist definition of international intervention corresponds to the concept of a *thick description* of a culture that anthropologist Clifford Geertz contrasts with the term *thin description*, since it encompasses the description of a phenomenon both in terms of its observable characteristics and from the perspective of the cultural context in which that phenomenon occurs<sup>1</sup>; the description of the gesture of blinking, to return to an already mentioned example, is not done exclusively by indicating the movements (erection and lowering of the eyelids) it presupposes, but it also includes the different meanings that these movements acquire in various contexts, so that it is possible to determine whether it is, for example, a sign which signals a conspiracy or a sign that marks a ridiculous situation.

Besides the major differences which clearly distinguish the behaviorist perspective on international intervention from the traditionalist one, Little also identifies an important similarity between them, namely that both consider that international intervention is a type of behavior, is a certain type of action<sup>2</sup>.

### CONCLUSION

This comparative analysis proves that the traditionalist approach is the only one compatible with the understanding of the concept of international intervention as an essentially contested one, because the definition of this concept is herein based on the meanings attributed to it by its users from different periods of history. Within the behaviorist approach, the definition of international intervention is elaborated without taking into account the way in which this concept is presently used and also independently from the historical

evolution of its meanings, which results in such a definition being incompatible with the essentially contested concept of international intervention. Therefore, any theoretical development of international intervention as an essentially contested concept can only be conducted within the traditionalist perspective on international relations, which provides an argument in support of its advantages over its rival perspective, behaviorism.

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## THE APPLICATION OF R2P IN SYRIA

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◇ **Abstract:** *The Western debate on the conflict in Syria is defined by at least three major speeches, each with its own causal explanation of the conflict and political recommendations arising from the way it understands the causes and evolution of the conflict. The three can be defined as “primordial”, “genocidal” and “liberating”. Syria and the Middle East make the conflict irreconcilable and impossible to solve in diplomatic or inexpensive ways in terms of Western resources. This is not just the regime or the rebels but all of them. Consequently, the primordialist analysts of the conflict in Syria can be divided into two groups, having the same causal understanding of the conflict but with relatively different approaches. What is clear regarding all the discussion between western power, is the necessity of action in Syria, „Something must be done”. Probably the most sensitive topic regarding the action that was made in Syria is refers to the legitimacy of military intervention when it becomes the final resort of R2P.*

◇ **Keywords:** *security, responsibility to protect, responsibility to react, responsibility to prevent, western power, Syria, genocide, crime.s*

### CONCEPTUAL FRAMEWORK

The international system is not self-contained, it consists of ideas and people, and consists of a set of idealistic norms by their nature, constituted in a certain moment and place by certain persons. According to this paradigm, society is an intersubjective field and makes sense to those who created and live in it. The Ideas but especially the understanding of these ideas, is important. In this sense, populations and territories have their meanings. As a result of these hypotheses about the international system, constructivists claim that the international system it will change, if these ideas and beliefs will change.<sup>1</sup>

Around the constructivists ideas regarding the international system, Cooker (2001) summarizes the development of moral theory and international human rights in the last decades, a trend which indicates that we are

all part of an international community with a responsibility both towards our compatriots and towards Strangers.

*“Since the Holocaust we have been required to treat others as we treat ourselves [...] we are responsible for the other who looks at us, faces us, who raises claims on us. We are responsible not for everyone, but everyone who is within our reach [...]. If we do not recognize our umanity in others we will not recognize it in ourselves”<sup>2</sup>*

Following the evolution of this idea, the Responsibility to Protect (R2P) doctrine was born, which was adopted by the United Nations (UN) as part of its commitment to protect human rights worldwide. However, the debate about R2P has been ongoing ever since, with academics and politicians experiencing difficulties in agreeing on at which point state sovereignty can be overridden for the protection of human rights.

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<sup>1</sup> Jackson, Robert and Sørensen, Georg, *Introduction to International Theories and Approaches*, 3rd ed., Oxfors: Oxford University Press. Jackson și Sørensen, 2007, p. 162.

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<sup>2</sup> Cooker, C., *Human Warfare*. Oxon, United Kingdom: Routledge, 2001, p. 123.



According to the ICISS report “Responsibility to Protect”, the rule is made up of three fundamental and interdependent pillars: (1) States have the responsibility to protect their citizens from crimes against humanity, ethnic cleansing, genocide and war crimes, (2) the international community has the responsibility to assist states in fulfilling their responsibility to protect their citizens, and (3) the international community has a responsibility to react to human rights violations, if the state is unable or unwilling to fulfill its responsibility, either by economic or political sanctions, or by the use of armed force as a last resort<sup>3</sup>

The evolution of R2P concept, was possible just according with the evolution of the concept of sovereignty, that gets more and more a contractual dimension. In addition, we no longer live in the age when sovereignty could be interpreted as a license to kill. Sovereignty can no longer be perceived exclusively as a right to govern the national territory, as it pleases, without the fear of any outside interference, but also as a responsibility to its own citizens: “to protect them from genocide, crimes against humanity, ethnic cleansing and systematic war crimes.”<sup>4</sup> The term of responsibility appears, which tries to replace the absolute control given by the traditional vision of sovereignty. ICISS defines state sovereignty as the ability, desire and responsibility of the sovereign state to protect the dignity and fundamental rights of all persons within the state<sup>5</sup>.

Perhaps the most sensitive element regarding R2P, refers to the legitimacy of military intervention when it becomes the

final resort of R2P. Military intervention must meet cumulatively six criteria to justify it so that the intervention does not contradict the rules of international law.

The military intervention must first be authorized by the United Nations Security Council<sup>6</sup>. To increase the competence of the Security Council so that it can respond in a timely manner to humanitarian crises. ICISS encourages members of the Council to abstain from vetoing when “rapid and decisive action is needed to stop the spread of significant humanitarian crises.”<sup>7</sup>

Straight causes refer to crises involving massive loss of life or mass murder with genocidal or ethnic cleansing<sup>8</sup>. The intervention should be determined by a correct intention<sup>9</sup>. Military intervention can only be justified as the last resort after all preventive measures have been taken and failed, and the state is still unable to protect its citizens<sup>10</sup>. The use of force must be proportionate, it should represent “the minimum necessary to secure the humanitarian objectives in question”<sup>11</sup>.

The military intervention can be considered a success only if the humanitarian purpose that justified the action was reached. ICISS clarifies in detail when and how states can intervene militarily in international conflicts.

But, the *Responsibility to Protect* does not just mean military intervention, this concept being much more extensive, including a continuous process of obligations like *the responsibility to prevent mass atrocities*, *the responsibility to react* when they have occurred, with a whole menu of graduated responses, from persuasive actions to coercive actions, and *the responsibility to rebuild* after any intrusive intervention<sup>12</sup>.

<sup>3</sup> Bellamy, Alex J., *Understanding Peace Keeping*, 2nd ed., Massachauttes: Polity Press. 2010, p. 130.

<sup>4</sup> Bellamy, A., *Responsibility to Protect: The Global Effort to End Mass Atrocities*. Cambridge, United Kingdom: Polity Press. 2009, p. 143.

<sup>5</sup> ICISS Report, 2001: art. 8. ICISS Report (2001), *The Responsibility to Protect*, Ottawa, Canada. International Commission on Intervention and State Sovereignty, “The Responsibility to Protect: Report of the International Commission on Intervention and State Sovereignty” (Ottawa: The International Development Research Centre, 2001).

<sup>6</sup> *Ibidem*, p. 32.

<sup>7</sup> *Ibidem*, p. 51.

<sup>8</sup> *Ibidem*, p. 32.

<sup>9</sup> *Ibidem*, p. 35.

<sup>10</sup> *Ibidem*, p. 36.

<sup>11</sup> *Ibidem*, p. 37.

<sup>12</sup> Evans, Gareth, *The Responsibility to Protect. Ending Mass Atrocities Crimes Once and For All*,

ICISS stressed that the responsibility to prevent is the most important quality of R2P, and yet this aspect of the doctrine remains obscure. As Evans maintains, prevention is a vital element of the doctrine, and the ICISS report contains a whole chapter describing the responsibility to prevent, setting out a three-stage conflict prevention framework: *early warning systems, set of prevention tools and political will*.

### **THE NECESSITY OF AN INTERVENTION IN SYRIA**

It is well known that practice and ideology of many concept suffers large degradation an obstacles in the practical process. In the case of R2P this situation can be well observe, even if we constants identifies the necessity of an intervention, even if the facts are crystal and the atrocities of Assad regime are recognize, and after nearly five years of crisis and war have had massive implications for the lives of Syrians. In many areas of Syria, there is a complete breakdown of public services, the R2P couldn't be applied.

The Syrian situation in not to be neglected, children's live were the most affected, the atrocities that was happened had condemned them to a tragic destiny, they have MISsed several years of school. Epidemics are not uncommon, especially amongst the most vulnerable populations. Starvation and sexual violence are being used as weapons of war. Human security and livelihoods are dominated by a complex network of regional warlords, extremist groups, regime forces, foreign militias, and opposition civilian and military factions.

The Syrian civil war, sparked originally by a combination of a grassroots protest movement for socio-economic and political reform on the one hand, and President Assad's heavy-handed response to it on the other, has thus far killed over 200,000 people and displaced half of Syria's pre-war population

of 24 million.<sup>13</sup> The war in Syria is the largest source of displacement in the world. Syrians displaced within the country itself are estimated to number up to 6.6 million.<sup>14</sup> Since the outbreak of the civil war in 2011, nearly 4.6 million Syrian refugees have registered with the United Nations in neighboring countries; many more are believed to remain unregistered.

Regarding the current facts about Syrian civil war, in which sexual violence, chemical weapons, torture, and killings of civilians are known to be war strategies by all conflict parties, has led to calls for an intervention on behalf of the Syrian civilians in the western media and by non-governmental human rights organizations.

And taking into account the fact that the first humanitarian intervention under R2P in Libya in 2011 fuelled the debate regarding R2P's mechanisms and the assumed hidden interests of global players, even though R2P advocates celebrated it as a triumph since the humanitarian intervention resulted in an end to the civil war, and thus saved the lives of thousands of Libyans.

### **THE OCCIDENT VIZION**

As with Kosovo or Libya, a possible international involvement in Syria would have a political symbolic stake beyond pure humanitarian rationality. In Kosovo, not only the relevance of the Alliance in the post-Cold War world was at stake, but NATO's credibility

<sup>13</sup> Another estimate published by the Syrian Centre for Policy Research places the number of deaths as of the end of the year 2015 at 470,000, with an estimated 1.88 million injured based on a conservative 1:4 death to injury ratio. See Syria Centre for Policy Research, "Confronting Fragmentation", 11 February 2016, <http://goo.gl/TQwdGS>.

<sup>14</sup> The highest number of Internally Displaced Persons (IDPs) recorded by the United Nations dates to June 2015, when the number reached 7.6 million. See Internal Displacement Monitoring Centre, <http://goo.gl/rVqFh0>; UNHCR, Syrian Arab Republic country operations profile, <http://goo.gl/4xB1hf>; and UNOCHA, "Syrian Arab Republic", <http://goo.gl/bNVojg>. UNOCHA's February 2016 estimate of IDPs is 6.6 million, and the figure of 6.36 million has been given by the Syrian Centre for Policy Research.



to respond to a conflict that unfolded in its back yard. In Libya, the key reaction to the final reaction was the concern of many of the Western governments over the reproaches that would follow if they stood by the side of seeing Gaddafi struggling in a bloodbath, a branch of the “Arab Spring”. Now, in Syria, the game is the safeguarding of a principle, but also the imposition of a warning sent to dictators everywhere.

The biggest mistake that we can do regarding the analyses of R2P applies in Syria is the mistake to believe that the West has a united vision of the conflict in Syria. In the problematic of Syrian situation the West is the scene of another kind of conflict, the conflict of ideas about Syria, which seeks to become dominant and define the foreign policy and Western reaction to the conflict.

### THE APPLY OF R2P IN SYRIA

The COI declared that “the government of Syria has manifestly failed in its responsibility to protect its people.”<sup>15</sup> In addition, the Secretary-General’s Special Advisers on the Prevention of Genocide and the Responsibility to Protect stated that the situation in Syria indicates that “crimes against humanity may have been committed there.”<sup>16</sup> Whereas three years into the Syrian conflict, the grave humanitarian situations in Syria (most notably in the besieged cities) have clearly violated the international humanitarian and human rights instruments to which Syria is a party<sup>17</sup>.

#### **Responsibility to Prevent**

In short, the Syrian government became

known for its disregard for human rights and international law, and its actions during the Arab Spring demonstrated its unwillingness to engage in dialogue with the opposition. Instead, Bashar al-Assad used excessive force against his people. This reaction, and the quick radicalisation of the opposition groups, resulted in the armed conflict which started in summer 2011<sup>18</sup>. The international community thus had around three months to react to the deteriorating situation in Syria, and to prevent an escalation according to R2P, more than triple the time they needed in the Libyan case to exhaust all peaceful measures.

However, the situation today clearly demonstrates the international community’s failure to fulfil its *Responsibility to Prevent*. The UNHCR reacted first by condemning “the use of lethal violence against peaceful protestors”<sup>19</sup> in April. In August, it then established the Independent Commission of Inquiry on Syria to investigate the alleged human rights violations.<sup>20</sup> Nevertheless, apart from these two resolutions, there was no reaction whatsoever from the UN, including no UNSC statement or resolution regarding the situation in Syria, in the months leading up to the armed conflict.

Therefore, it is debatable whether the UN even attempted to prevent the situation in Syria from escalating since it remained silent during a period in which the opposition group had not yet taken up arms, and it thus might have been more likely to foster a dialogue between the opposition and the government.

Although establishing an investigative commission was necessary, its first report,

<sup>15</sup> Human Rights Council, Oral Update of the Independent International Commission of Inquiry on the Syrian Arab Republic. A/HRC/20/CRP.1, 26 June 2012

<sup>16</sup> Francis Deng and Edward Luck, Special Advisers the Secretary-General on the Prevention of Genocide, F. Deng, and on the Responsibility to Protect, E. Luck, on the Situation in Syria, Press Release, (21 July 2011).

<sup>17</sup> For instance, the fourth Geneva Convention Article 23 requires “free passage of medical supplies for civilians and foodstuffs for children under fifteen”<sup>26</sup> and the first Geneva protocol Article 69-71 requires that “essential humanitarian supplies be provided to the civilians.”

<sup>18</sup> <http://www.jurist.org/feature/featured/syria-1/detail.php>

<sup>19</sup> United Nations Human Rights Council Resolution A/HRC/S-16/2. (2011, April 29). Retrieved from: <http://www.ohchr.org/Documents/HRBodies/HRCouncil/SpecialSession/Session16/A-HRC-S-16-2.pdf> New York, United States, A/HCR/Res/s-16/2, 2011: 3 (accessed 28/9/2017)

<sup>20</sup> United Nations Human Rights Council Resolution A/HRC/S-17/2. (2011, August 22). Retrieved from: <http://daccess-ddsny.un.org/doc/UNDOC/GEN/G11/169/88/PDF/G1116988.pdf?OpenElement> (accessed 28/9/2017)

published in November 2011, was nevertheless too late to present any information enabling decisions to act to be made. By August opposition groups and government security forces were fighting for control over Syrian territory: yet the UN failed to act despite the early warning signs, and regardless of the media and NGO reports on the human rights violations committed by all parties at that time. Consequently, the international community failed to fulfil its responsibility to prevent.

### **Responsibility to React**

On the 14th of April in 2012, the UNSC finally reacted by adopting Resolution 2042 in which it reaffirmed its strong commitment to Syria's sovereignty, authorised a team of 30 unarmed military observers to investigate the violence in Syria and to monitor the implementation of the Peace Plan, and called for an end to the violence. Two weeks later, Resolution 2043 followed which principally condemned the human rights violations committed by the Syrian government and armed opposition groups, and established a UN Supervision Mission in Syria (UNSMIS) for 90 days. This mission, however, was suspended in June 2012 because of the deteriorating security situation and the unwillingness of the parties to seek a peaceful transition (UNSMIS, 2012). Moreover, Kofi Annan tried to engage in a dialogue with the Syrian government which ultimately failed since the Syrian government continued to use excessive force against opposition groups, ultimately resulting in Annan's resignation.<sup>21</sup>

The regional organisations and individual states passed their own sanctions trying to force the Syrian government to follow the peace plan and cease the violence. The Arab League reacted first and suspended Syria from their league, before sending observers to Syria to investigate the alleged human rights violations.<sup>22</sup>

The chemical weapon attack in August 2013 might have been expected to change the way the international community reacted towards the mass atrocities in Syria, since the use of chemical weapons is a serious breach of international law; for example that joint actions would either enforce stricter sanctions or even authorise the use of force. The UNSC indeed reacted quickly to reports of attacks by passing a resolution recognizing evidence of the use of chemical weapons in Syria as valid, condemning the attack, and expressing "a strong conviction that those individuals responsible for the use of chemical weapons [...] must be held accountable"<sup>23</sup>. However, there is no discussion on the accountability dimension in the resolution.

Furthermore, the diplomatic actions, agreed by the UN, were late and ultimately failed. The UN needed months to establish a mediation unit under Annan and to condemn the human rights violations in Syria. Moreover, during the first twelve months of the conflict, during which thousands of civilians were killed, detained, tortured and displaced, the UNSC was only able to send unarmed observers to Syria. Annan's and Brahimi's attempts to act as mediators between the warring parties were unsuccessful because of three main reasons: firstly, the Envoy was created too late because of the UNSC's deadlock, which meant that the conflict had already escalated such that the conflicting parties had become so obstinate in their positions that neither side were prepared to make concessions. As a result, the probability of a ceasefire was low even from the outset of the Special Envoy's work<sup>24</sup>. Secondly, the Joint Special Envoy did not have a united international community behind it which

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[http://www.nytimes.com/2011/11/13/world/middleeast/arab-league-votes-to-suspend-syria-over-its-crackdown-on-protesters.html?pagewanted=all&\\_r=0](http://www.nytimes.com/2011/11/13/world/middleeast/arab-league-votes-to-suspend-syria-over-its-crackdown-on-protesters.html?pagewanted=all&_r=0) (accessed 28/9/2017)

<sup>23</sup> United Nations Security Council Resolution 2118., (September 27). S/RES/2118. Retrieved from: [http://www.securitycouncilreport.org/atf/cf/%7B65BFCF9B-6D27-4E9C-8CD3-CF6E4FF96FF9%7D/s\\_res\\_2118.pdf](http://www.securitycouncilreport.org/atf/cf/%7B65BFCF9B-6D27-4E9C-8CD3-CF6E4FF96FF9%7D/s_res_2118.pdf) (accessed 29/9/2017)

<sup>24</sup> Thomas, A., Pariah States and Sanctions: The Case of Syria. *Middle East Policy*, Vol. 20 No. 3, 2013, pp. 27-40.

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<sup>21</sup> Thomas, A., Pariah States and Sanctions: *The Case of Syria. Middle East Policy*, Vol. 20 No. 3, 2013, pp. 27-40.

<sup>22</sup> MacFarquhar, N., *Arab League Votes to Suspend Syria Over Crackdown*. 2011, Retrieved from New York Times :

might advocate the efforts of mediation by adopting sanctions and embargos (ibid.). The sanctions imposed by individual states and regional organisations did not help to isolate the Syrian government and thus force it to engage in negotiations since Syria still had support from main global actors, namely Russia and China. Thirdly, the extent to which the violence had escalated was greater than the observer mission was equipped for.

#### **Military intervention in Syria**

At this point, after years of ongoing war, it seems that the violence in Syria has escalated beyond the point where further diplomatic attempts could solve the conflict. All warring parties have failed to show an interest in ending the civil war by not following the UN's Six-Point Peace Plan, nor making any concessions during meetings, such as the two Geneva conferences, and instead increasing the scale of violence. Thus, the following question arises: does the Syrian case fulfil all of the conditions for a military intervention and, as such, justify the use of force against the Syrian regime?

Firstly, it must be determined whether there violence in Syria has reached the scale that is regarded by R2P as a Just Cause for a military intervention. As explained in Chapter 2, the international community defined Just Cause as the existence of evidence for genocide, war crimes, crimes against humanity and ethnic cleansing.<sup>25</sup> It is clear that in Syria two of these are present and have been committed by all warring parties, namely war crimes and crimes against humanity.

The most important aspect of IHL is the discrimination between those who directly participate in the war and civilians, amongst which the protection of women and children has a special status.<sup>26</sup> However, UN Secretary General Ban-Ki Moon<sup>27</sup> reported that FSA-affiliated and other armed opposition groups

have conducted air strikes and shelling on densely populated areas, which has killed civilians and damaged infrastructure, especially health and education facilities. Additionally, several armed opposition groups have recruited and used children in their fight against the Assad regime.

An investigation of the conditions for the use of force under R2P in Syria has revealed that the Just Cause threshold has been met since there is strong evidence of war crimes and crimes against humanity. Furthermore, the use of force constitutes Last Resort since further diplomatic efforts, in the unlikely case that the UN would be able to agree on any, are likely to fail "because diplomacy always reflects the power relationship on the ground".<sup>28</sup> The reason for this is that the opposition groups and the Assad regime have been unable to find a compromise in the last three years. The fact that even the most experienced diplomats, Annan and Brahimi, failed to influence the behaviour of all participants in any way further indicates the unlikelihood of diplomatic success in the near future. Instead, it seems as if the situation has reached a stalemate.

## CONCLUSIONS

Hence, the case study on Syria has confirmed the threefold premise postulated in the introduction. Firstly, the situation in Syria indeed falls within the scope of R2P with its extreme scale of violence and human suffering caused by all conflict parties. Therefore, it is the international community's responsibility to act and protect the Syrian population from the perpetrators, be they opposition or government forces.

Secondly, the analysis indicated that the UN has failed to fulfil its R2P towards the Syrian population since it has not exhausted all its available instruments to prevent the conflict from escalating, and has not reacted to the considerable human rights abuse. The UN took too long to decide how to react and

<sup>25</sup> World Summit Outcome Document. A/RES/60/1. (2005, October 25) Retrieved from: <http://www.unrol.org/files/2005%20World%20Summit%20Outcome.pdf> (accessed 29/9/2017)

<sup>26</sup> Additional Protocol I, Art. 48

<sup>27</sup> UN Secretary Report to the UNSC on Children and Armed Conflict in Syria. S/2014/31. (2014, January 27). Retrieved from: [http://www.un.org/en/ga/search/view\\_doc.asp?symbol,2014:4=S/2014/31](http://www.un.org/en/ga/search/view_doc.asp?symbol,2014:4=S/2014/31) (accessed 02/10/2017)

<sup>28</sup> Abrams, E., *Syria: Humanitarian Disaster and Security Threat*. 2014, June 13, Retrieved from Council on Foreign Relations: <http://www.cfr.org/syria/syria-humanitarian-disastersecurity-threat/p33082> (accessed 02/10/2017)

thus missed the window of opportunity during which the situation had been evolving but had not developed yet into an armed conflict. When the UNSC finally were able to find a consensus and created the position of the Special Envoy of the UN and the Arab League, it did not reinforce its efforts by threatening the Syrian regime and the opposition with consequences for non-compliance. Even though some regional organisations and individual states tried to compensate the UNSC's lack of consensus by passing their own sanctions, these were not successful since other states, such as Russia, simultaneously supported the regime. A true isolation of the regime and opposition groups might have forced the warring parties to make concessions at the negotiation table.

However, the UNSC was unable to agree on these. In conclusion, the Six Point Peace Plan and all attempts to mediate and stop the violence by sending unarmed observers were doomed to fail from the beginning because of the lack of accountability. As a consequence of the UN's inability to fulfil its responsibility to prevent and to react, the situation in Syria today seems to have escalated beyond the point of political negotiations.

The opposition groups are fighting against each other and the Assad regime, and all groups are known to violate IHL and deny civilians even the most basic human rights. They thus contradict everything the UN stands for and R2P intends to prevent or stop.

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## UNITY OF COMMAND BENEFICIAL IN CRISIS PREVENTION AND MANAGEMENT

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◇ **Abstract:** *The prevention and management of crises in the new norm, created by the new thematic approaches in the proximity of Romania, is a difficult issue to be addressed. Solutions exist but are difficult to access through the uncertainty created by the blurring of the new environment created by the ongoing crisis. The wide range of forces available is a benefit but also a problem in the absence of a single command that concentrates the entire effort not only to resolve the crisis but also to better understand the phenomenon by all parties involved.*

◇ **Keywords:** *crisis, uncertainty, population, effort, concentration.*

Crisis prevention and management has a special meaning because it takes place in an uncertain, gray area, between peace and war where actors involved cannot be defined as state actors. Clear borders do not exist, white and black are well mixed, which gives the newly created situation a tinge of uncertainty, and the normal, on your hand or well-known solutions are highlighted by the situation as inefficient or impossible to be called up in this new created environment.

We accept the definition of the crisis as the "phase in the evolution of a society marked by great difficulties (economic, political, social, etc.)"<sup>1</sup>. By trying to further develop this definition, with the intention of being more unequivocal, we can add tensions, disruptions to order and public quietness, orchestrated instigation against the rule of law, unforeseen and unannounced disruptions in basic services, and others. All this has a certain level of unpredictability that increases the feeling of insecurity among the population. The crisis can easily cross the threshold the family

of special conflicts<sup>2</sup> due to the complexity and concentration of the entire activities executed by all entities involved on the relevant population support achievement in the area or country where it is growing.

Another interesting point in the radiography of a crisis is that, this dangerous phase, the maximum point in evolution, precedes the recovery or deterioration of the situation. It can also be considered a sudden trigger, a peak in the evolution of a chronic disease that, without radical measures, can no longer be treated, but only maintained under some control, in a latent state but with a highly explosive potential.

Moreover, the economic aspect associated with a crisis is a defining one in the evolution of events. It is he who influences the decision-making process that will be taken to prevent, counteract or solve the effects. The economic side is the one that provides the financial framework for intervention. This is why the singularity of intervention in crisis management is, first of all, the most economic

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<sup>1</sup> <http://dexonline.ro/definitie/criza>

<sup>2</sup> USSOCOM; USMCCDC. (2007). *Irregular Warfare (IW) Joint Operating Concept (JOC) V1.0*. Washington D.C.: Department of Defense, pp. 9-10.



and thus the highest degree of effectiveness in the face of this challenge. It is true that the effectiveness that needs to be done does not always have good results in the medium and long term, versus efficiency, how to do it, which even if it takes a long time to apply, has far better results over time. And yet, most of the time, the decision-making level postpones the decision, as wanted or due to the lack of options, until the effectiveness gains net in the front of efficiency.

Crisis resolution involves the use of the entire state machine in a concerted effort, not only focused on reducing the effects but also on peaceful resolution to avoid escalating the violence it generates. This hypothesis results in the first difficulty of employing the forces available to solve the problem, the use of forces implying a certain level of violence from the public point of view, due to their primordial kinetic character. It is difficult to sell to the public the idea of armed forces non-kinetic character, and at the end of the day to be bought.

The forces involved in crisis management are from the entire spectrum of the state machine, the national defense system, public order and security. Whether such a wide range of forces raises the issue of the difficulty of their effective engagement in a concerted effort to resolve the effects of the crisis. To be more accurate in communication, we have at our disposal the strengths of all security, information, internal affairs, defense agencies, all with very well-defined capabilities, and that is why we have a certain struggle, in a permanent competition for supremacy in their specific field of expertise.

In order to better outline the trouble for the decision-making structure in a crisis situation, we want to highlight where the competition we mentioned earlier appeared. Romania's accession to the North Atlantic Alliance and subsequently to the European Union created the necessary framework for all security agencies to create specialized forces in certain particular areas where, before joining the

respectable international associations, we did not have much expertise. The development, endowment and use of these redundant forces, because of the competition, has ensured not only Romania's security but also the new alliances eastern border. Even if the selection pool is big enough, and it provides the necessary choices for the decision maker, the development of these forces has been a lasting, costly and dissipated effort in many directions. Somewhat lost concentration on the essential, and perhaps legislative vacuum, has caused these losses, which in the long term can have a disastrous effect. In addition, the impression that reaches the decision-maker regarding the classification of these forces, especially from the point of view of efficiency and effectiveness, is not always the most precise and objective, but rather a nonobjective and reflecting the interference of politics in military execution.

Another aspect that draws our attention is that of defining the need for forces according to the threat created by the ongoing crisis. The hybrid threat reveals a new side of the crisis, one which, although we suspected it, did not accept it as probable, in any case in our proximity. If Sept. 11 redefined the way for terrorism approaches, Crimea redefines not only the terrorist, but brings to the front, that "untold" hybrid, the approach of which requires a careful and profound analysis.

The hybrid crisis is a continuous struggle, not for territories, says university professor and Ukrainian political analyst Evgheni Mahda in an interview with Free Europe<sup>3</sup> but for the mind and attitude of the population of another state. Here we identify a new dimension of the crisis, the one well known in nonlinear conflicts, the influence of the relevant population, in order to obtain the support of the majority<sup>4</sup> for an attractive leadership alternative setting up in the area,

<sup>3</sup><http://www.europalibera.org/a/27738877.html>

<sup>4</sup> USSOCOM, USMCCDC, (2007), Irregular Warfare (IW) Joint Operating Concept (JOC) VI.0. Washington D.C.: Department of Defense, p. 8.

county or country<sup>5</sup>.

Media use in the hybrid phenomenon easily diminishes or increases insecurity among the population and makes difficult to redefine the need of forces in such an environment. A large footprint of the forces needed to restore constitutional order in an area, region or country affected by the hybrid phenomenon, draws with itself a negative reaction, promoted exceptionally with the help of the worldwide media. So choosing forces for effective intervention is delicate and sensitive. That is why the decision-maker must have access to a wide range of options, well analyzed and defined, in a coherent framework, to minimize the possibility of postponing the decision at any time, owing to the fact that whichever it is, would entail a reduction substantial popularity and support of the relevant population affected by the ongoing crisis.

Several crisis response options, with a single command and decentralized execution, provide the decision maker with the basis for a secure decision based on a profound analysis of the ongoing phenomenon with a desired final state identical to the original political intention.

Before addressing to institutions/agencies involved in crisis resolution/management points of view, we want to point out that being proactive, analyzing the indications that reveal the possible triggering of a crisis, and reducing, on the basis of coherent analysis and planning, of their effects to prevent crisis beginning is far easier than reacting to the incentives produced by its deployment. Reaction vs. prevention is always a much cheaper debate than crisis resolution.

Institutions/agencies involved in crisis management have and will have different approaches. They represent different cultures and have a level of political involvement in different decisions. It is, on the one hand, the

problem of understanding the phenomenon. It is approached from different angles and the solutions addressed separately do not quite have the prospect of success. The analysis of the phenomenon, carried out at a common level and interagency, creates a holistic, all-encompassing approach to the crisis, which generates varied options with much higher chances of success. Such an analysis will only be generated by a single order, as it requires the pooling of all possible institutions/agencies involved in resolving the crisis. Here we identify the need for a unique order.

The unity of command is the one that controls the smooth operation of all the elements of a system in a common way<sup>6</sup>, eliminating the possibility of redundancy or concentration on the nonessential aspects of the action, leading to a predetermined goal unanimously initially accepted.

As a principle of military art, the unity of command is to give full command to a single commander/authority, to canalize all the forces engaged for a common purpose<sup>7</sup>.

The unique command gives the opportunity for a crisis comprehensive approach, offering the possibility of solving it coherently in a common, unanimously accepted way, through a better understanding of the created situation and a judicious engagement of the most feasible forces available.

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## INTELLIGENCE AND INTELLIGENCE SERVICES

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◇ **Abstract:** *Intelligence evolved from Sun Tzu's agents to the German spies in 1890 infiltrated into the high societies of foreign states, to the poorly paid and undersized intelligence services of the early twentieth century. The World Wars brought the necessary oxygen to increase the importance of intelligence through the effort of gathering information, processing and supporting decision-making by all military and political leaders. Then the Cold War confirmed the immense role that intelligence played in reducing the chances of a nuclear war, maintaining a balance of power, and creating the conditions for destroying the USSR. Currently, intelligence services have huge resources available, with many employees, with state-of-the-art equipment and challenges in gathering, analyzing and protecting information and, last but not least, with a challenge to produce accurate intelligence for decision-makers. In this context, the content analysis of the last two national defense strategies confirms Romania's position as a self-standing actor in the intelligence domain.*

◇ **Keywords:** *analysis, collection, intelligence, security, intelligence services, strategy.*

Intelligence services around the world have seen one of the most prolific periods of development since they first emerged. This can be virtually noticed in a constant increase in budgets, the number of employees working for these services and the presence of this issue in the national security strategies of the world's states.

The activities of these intelligence services prior to the First World War were characterized by the action of small groups of specialists, whereas today we see multidisciplinary teams with huge resources ready to act anywhere in the world. Moreover, these intelligence services contributing to state security are subject to changing, volatile, unpredictable security environment conditions where state and non-state actors wish to achieve different and sometimes contradictory objectives than those of the State where the intelligence service originates. Also, private intelligence actors, analysis, intelligence analysis, gathering and dissemination organizations, think-tank groups, the media, intelligence

groups of specialists associated with academic environments, etc. contribute to the creation of additional pressures in the intelligence domain that the intelligence services of the past century did not experience.

### BRIEF HISTORY

Sun Tzu dedicates in his book *The Art of War* a chapter on intelligence by addressing the use of secret spies. In essence, the great Chinese strategist reduces the possibility of gathering information only from human sources (which in modern times is called HUMINT human intelligence). Thus, for Sun Tzu, there were five types of secret agents: local, inward, converted, doomed and surviving spies<sup>1</sup>. At the end of the chapter dedicated to intelligence, the great Chinese strategist says “*an army without secret agents is just like a man without eyes and*

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<sup>1</sup>Sun Tzu, *Arta războiului*, Editura Antet, București, 2013, p. 90.



ears”<sup>2</sup>. This statement is true and is currently complemented by the action of specific military and civilian intelligence structures that plan, collect, analyze and disseminate by applying the informational cycle<sup>3</sup> to obtain intelligence products that will facilitate leadership decisions.

Sun Tzu’s vision is enhanced as human society and intelligence services evolve. Thus, in 1873 in the United Kingdom, an intelligence service was set up within the Army, with only twenty-seven employees<sup>4</sup>, and then the Navy setting up a similar office. In 1904, the British Military Operations Directorate included an External Intelligence Unit, an Administration and Special Missions, and the Topographic Section. In 1909 the Secret Services Bureau was established, with two sections: internal and external. The main sources of British intelligence were the spies, the various publications and the documents stolen from the headquarters of foreign government structures.

In Germany, the main sources of intelligence in the 1890s came also from spies infiltrating the high societies of foreign states, cartographic publications, and news bulletins<sup>5</sup>. The Russians too used at that time spies mostly to photograph secret documents and transmit mobilization plans of foreign armies. To all these activities of the intelligence services added the work of the military attachés involved in gathering information about the armies of the countries where posted.

The world of intelligence at the beginning of the 20<sup>th</sup> century was characterized by poorly funded, low-profile structures with results that often did not affect the decisions of military and political leaders. These things were going

to change radically.

The world of intelligence services saw a real development at the beginning and during the First World War, with the focus being on communications intelligence, photograph taking by means of reconnaissance aircrafts, the creation of networks for train reconnaissance, the use of sabotage, the use of expanded spyware and a reduced use of encrypted communications.

Subsequently, based on the lessons identified during the First World War, intelligence services expanded the structures dealing with encryption and decryption of radio messages, breaking codes of states and foreign armies being a priority. These structures were still numerically low and poorly funded. Thus, MI-8, the 1919 American Military Intelligence Division’s code and cipher section, was funded with one hundred thousand dollars, setting up the famous Black Chamber to decipher the codes and ciphers of various European countries, Japan, Mexico etc. Later in 1929, the Black Chamber would be disbanded by Secretary of State Henry Stimson, remembered for his statement, “Gentlemen do not read each other’s mail.”<sup>6</sup>

The Second World War would bring a huge increase in information gathering, processing and decision-making support by all military and political leaders. Civil, military and intelligence services was funded at an alert pace and the number of employees increased as well. The specific intelligence activities during the war were: aerial reconnaissance missions; the use of agents and spies; masking actions; special operations involving sabotage, killing of political or military leaders; radio reconnaissance; knowing the opponent. The last two types of activities made a fundamental distinction between World War II and World War I specific intelligence activities. They were due to the understanding of

<sup>2</sup> *Ibidem*, p. 94.

<sup>3</sup> The intelligence cycle has four stages: the planning, guidance and leadership stage; the collection stage; the processing, analysis and production stage; stage of dissemination.

<sup>4</sup> Jeffrey T. Richelson, *Un secol de spionaj. Serviciile de informații în secolul XX*, Editura Humanitas, București, 2000, p. 13.

<sup>5</sup> *Ibidem*, p. 23.

<sup>6</sup> Louis Kruh, Stimson, *The Black Chamber and the <<Gentlemen’s Mail>> Quote*, *Cryptology* 22, no. 2 (1988), p. 68 apud Jeffrey T. Richelson, *op. cit.*, p. 90.

the importance of breaking the enemy codes and of knowing the motivation of the people in the different countries to fight.

The Cold War was to bring about a new evolution in intelligence. First, new nations and new intelligence services emerged (Israel, the two Germany, etc.). Radio reconnaissance continued to be a priority for the intelligence services. Special operations were also extensively used during this period, including propaganda, economic warfare, sabotage, assassination, and support for liberation movements.<sup>7</sup>

At the end of the Cold War, the intelligence world was dominated by the importance of collecting information by technical means, by the actions specific to collecting using human sources and alliances between the intelligence services of the two blocks in conflict. This world has now evolved into the intelligence services with huge funds available, with many employees, with state-of-the-art equipment and the related challenges. For example, a former Central Intelligence Agency (CIA) employee criticized how he was trained as a recruiter in this intelligence service, noting that “*al-Qaida uses explosives and expression, that bin Laden understands that perception can exact social change more rapidly than military action.*”<sup>8</sup>

## WHAT DOES INTELLIGENCE MEAN TODAY?

In the view of intelligence specialists, the term intelligence is used in conjunction with concepts of information, activities and organizations<sup>9</sup>. For them, the information is about the interests of national security and the

threats of external opponents. As an activity, intelligence involves collecting and analyzing information<sup>10</sup>. Last but not least intelligence also refers to an organization that carries out these activities<sup>11</sup>. This vision is not new. It first appeared in a famous US intelligence book, *Strategic Intelligence for American World Policy*, written by Sherman Kent in 1949 and completed in 1966.

The recognized and accepted components of the intelligence domain are: collection, analysis, secret/undercover actions, counterintelligence. Collection is the process of gathering data of interest through espionage, technical methods, exploitation of open sources, or any other methods. Analysis is the process of understanding the information gathered through the collection process and articulating value judgments about the actions, intentions and resources of actors targeted by their own intelligence structures. Secret/undercover actions are those actions that directly influence political events through influence, propaganda, or paramilitary actions. Counterintelligence is the protection that intelligence structures perform against the actions of an opponent's intelligence services through security, counterespionage and disinformation programs.

In NATO's vision by intelligence we understand “*the product resulting from the directed collection and processing of information regarding the environment and the capabilities and intentions of actors, in order to identify threats and offer opportunities for exploitation by decision-makers*”<sup>12</sup>.

With the end of the Cold War, the intelligence world has focused on the economic spying, the acquisition, procurement and use of nuclear weapons, and the use of the internet in a mass surveillance system<sup>13</sup>. The

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<sup>7</sup> Jeffrey T. Richelson, *op. cit.*, p. 273.

<sup>8</sup> T. J. Waters, *Class 11: Inside the CIA's First Post-9/11 Spy Class*, New York: Tantor Media, 2006, audiobook disk 5 of 9 apud Youssef H. Aboul-Enein, *Militant Islamist Ideology: understanding the global threat*, Naval Institute Press, Annapolis, Maryland, 2010, p. 205.

<sup>9</sup> Abram N. Shulsky, Gary J. Schmitt, *Războiul tăcut*, Editura Polirom, București, 2008, p. 23.

<sup>10</sup> *Ibidem*, p. 24.

<sup>11</sup> *Ibidem*, p. 25.

<sup>12</sup> AAP-06, *NATO Glossary of Terms and Definitions*, NSA, Bruxelles, 2015, p. 2-I-6.

<sup>13</sup> Glenn Greenwald, *Afacerea Edward Snowden. Cele mai șocante dezvăluiri despre spionajul global*





incredible technological advancement enable these services to access advanced information gathering equipment via satellites, unmanned airplanes, radar, infrared, heat sensors, etc., joint actions with other intelligence services of allied countries, and the challenge of storing and analyzing the vast amount of information obtained.

## ROMANIAN VISION ON INTELLIGENCE

The Romanian vision on intelligence is important to study through the content analysis of two important national documents: the National Defense Strategy of the country in 2010 and the National Defense Strategy of the country for the period 2015-2019.

The first document that is the subject of the analysis is the *National Defense Strategy of the country for 2010*. It is stated right in the introduction that the strategy is created in the spirit of building a security community<sup>14</sup> giving the example of the National Intelligence Community.<sup>15</sup>

In listing the risks and threats to the Romanian state, the 2010 strategy refers to *“spying and other hostile actions of intelligence services, informative activities and concerns of non-state actors aimed at influencing decision-making, including political decision, the media or public*

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*american*, editura Grup Media Litera, București, 2015, p. 12.

<sup>14</sup> *Strategia națională de apărare*, București, 2010, p. 4.

<sup>15</sup> The National Intelligence Community (NIC) was established on the basis of CSAT Decision no. 146/2005, representing the functional network of public authorities in the national security system based on goal unity, objectives and strategy, provided by the intelligence provided by the following structures, also called CNI components: the Romanian Intelligence Service, the Foreign Intelligence Service, the General Directorate Defense Intelligence and General Directorate of Intelligence and Internal Protection of the Ministry of Internal Affairs in accordance with *Comunicat de presă*, 18.01.2005, <http://csat.presidency.ro/?pag=46&id=10> accesat la 5 oct. 2017.

*opinion”*<sup>16</sup>. In addition, in chapter seven of the strategy titled *“Defense of Romania: External and Internal Directions of Action”* it is mentioned, in the subchapter on the internal action of the armed defense, the importance of integrating the action of intelligence services with other forces of certain ministries, non-governmental organizations and public organizations, recalling what the North-Atlantic political-military organization would later define as a *comprehensive approach*<sup>17</sup>.

Also in the same chapter the role of *information gathering systems* is recognized as elements that will characterize future conflicts, systems that will provide the necessary information to political and military decision-makers to make the right decisions at the right time. In the final part of this chapter are listed the main directions of action in the field of military transformation, of which I emphasize that of the *“development of the defense information system”*<sup>18</sup>. This system was necessary for the Romanian military forces carrying out multinational operations in different theaters of operations and during operations carried out in the country to ensure the security of the Romanian state.

The *National Defense Strategy of the country for 2010* describes as a separate direction for action that of the National Intelligence Community and intelligence services. The intelligence community mission is described as integrating intelligence from all intelligence structures. The strategy confirms the structures within the community, namely the Operative Council and the Integrated Information Office, as well as four objectives of the National Intelligence Community.

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<sup>16</sup> *Strategia națională de apărare*, București, 2010, p. 13.

<sup>17</sup> The comprehensive approach involves effective coordination and cooperation between government departments, ministries or agencies, non-governmental organizations, international organizations and private sector in accordance with AJP-3 (B), *Allied Joint Doctrine for the Conduct of Operations*, 2011, p. 1-1.

<sup>18</sup> *Strategia națională de apărare*, București, 2010, p. 19.

These objectives reinforce the extremely important role of the community in supporting with intelligence the decisions of the political leadership of Romania.

Also within the same direction are seven objectives of intelligence services. These are: knowledge, prevention and counteraction of risks to national security; substantiating decisions through quality intelligence products; increasing early warning capabilities; counteracting adverse intelligence services actions; increasing operative capabilities of services; improved partnerships with allied states; and developing the security culture of the population<sup>19</sup>.

Within the same 2010 strategy, we find a direction that addresses cyber security issues. The effect of those specified as action lines in this field would be consistent in 2013 with the emergence of Romania's Cyber Security Strategy and the National Action Plan on the implementation of the National Cyber Security System<sup>20</sup>. The cyber security dimension includes six directions of action, of which the "*establishment of a community of information security specialists*"<sup>21</sup> shows the understanding of the complex information environment in which we were in 2010 and the need for as many experts as possible from different structures, ministries, private or state organizations to work together to make the information environment safer for users. Also, from the text of the strategy we draw the conclusion of the need to increase the capacities to respond to the security incidents that can occur in the information environment.

*The national defense strategy of the country for the period 2015-2019* is the second strategy analyzed from the perspective of intelligence and is the national strategy

<sup>19</sup> *Ibidem*, p. 24.

<sup>20</sup> Full text of *Strategia de securitate cibernetică a României* may be accessed on <https://www.enisa.europa.eu/topics/national-cyber-security-strategies/ncss-map/StrategiaDeSecuritateCiberneticaARomâniei.pdf>

<sup>21</sup> *Strategia națională de apărare*, București, 2010, p. 26.

currently in force. In the third chapter of the strategy, "*Threats, Risks and Vulnerabilities*", two elements related to the intelligence domain are identified as threats: *cyber threats* as actions on strategic information infrastructure and *hostile informative actions* that may obstruct Romania's strategic projects and state decisions<sup>22</sup>. We can see from the previous 2010 strategy that cyber threat is mentioned distinctly as a threat identified with the impressive development of information technology and its widespread use both by national security institutions and by other actors involved in this field.

In the National Defense Strategy of the country for the period 2015-2019 the concept of extended national security is detailed through seven dimensions. The third dimension is "*intelligence, counterintelligence and security*" being detailed in chapter four "*Directions of Action and Principal Modalities for Ensuring National Security of Romania*". This dimension is characterized by *twelve* lines of action. They are aimed at: defending order and constitutional values; identifying and reporting corruption acts; reporting systemic dysfunctions in providing vital services to the population; identifying and reporting dysfunctions, risks and threats to: energy security, the management of European funds, the functioning of financial markets, food security for the population, environmental security, regional development objectives and transport infrastructure; identifying interferences that may affect the economic-financial decision at strategic level; ensuring mechanisms for preventing and counteracting cyberattacks on information infrastructures of strategic interest; identifying and counteracting hybrid asymmetric actions; identifying and reporting deficiencies in the optimal operation of critical infrastructures; preventing and combating terrorism; knowledge, prevention and elimination of risks and threats generated by hostile informative actions, ensuring

<sup>22</sup> *Strategia națională de apărare a țării pentru perioada 2015-2019*, București, 2015, pp. 14-15.

the counter-information protection of national interests; identifying and counteracting cross-border organized crime networks; knowledge of the objectives, resources and directions for developing conventional clandestine armed programs or weapons of mass destruction and carrier vectors, as well as countering illegal shipments of strategic products<sup>23</sup>.

All these directions broadly characterize the dimension of intelligence, counterintelligence and security, showing the broad spectrum that this dimension covers in the framework of ensuring national security. Practically, these lines of action emphasize once more the key role intelligence plays in early warning, in identifying risks and threats, and in providing intelligence support to help leaders make the best decisions. Compared to the previous strategy, we can see the absence of a separate direction addressed to the National Intelligence and Information Services, but the approach is broader by reference to the size of “*intelligence, counterintelligence and security*”.

## CONCLUSIONS

Intelligence is a modern, present and future concept. It must be understood as “*a struggle not only for prevention and protection in the classical sense, but also - or above all - for the promotion of state interests, the notification and the evaluation of strategic opportunities*”<sup>24</sup>.

Intelligence evolved from Sun Tzu's agents to the German spies in 1890 infiltrated into the high societies of foreign states, to the poorly paid and undersized intelligence services of the early twentieth century. The World Wars brought the necessary oxygen to increase the importance of intelligence through the effort of gathering information, processing and supporting decision-making

<sup>23</sup> *Ibidem*, pp. 19-20.

<sup>24</sup> George Maior, in the foreword of the book of Abram N. Shulsky, Gary J. Schmitt, *Războiul tăcut*, Editura Polirom, București, 2008, p. 9.

by all military and political leaders. Then the Cold War confirmed the immense role that intelligence played in reducing the chances of a nuclear war, maintaining a balance of power, and creating the conditions for destroying the USSR. Unfortunately, “*the threat of the dragon was replaced by a jungle of venomous snakes*”<sup>25</sup>, the threat of the Soviet bloc being replaced by many threats from state and non-state actors.

Currently, intelligence services have huge financial funds and resources available, with many employees, with state-of-the-art equipment and challenges in gathering, analyzing and protecting information and, last but not least, with a challenge to produce accurate intelligence for decision-makers. In this context, the content analysis of the last two national defense strategies confirms Romania's position as actor in the intelligence domain. The detailing of a stand-alone dimension within the *National Defense Strategy of the country for the period 2015-2019*, namely that of “*intelligence, counterintelligence and security*” confirms the essential role that the Romanian intelligence domain has in providing intelligence support for decision-makers.

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## USING SERIOUS GAMES FOR EDUCATION IN LAW ENFORCEMENT

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◇ **Abstract:** *Law enforcement is a domain that makes the society work, is the system that drives the members of society act in an organized manner and maintains the safety of citizens by preventing, discouraging and punishing crimes by the rules of law. For the appropriate functioning, the education of its members finds a significant importance and must be carried out using the most advanced means that can be provided. This article describes the importance of involving serious games in in law enforcement education process and the objectives that can be better accomplished this way. I hope that the decision makers will give these ideas the appropriate attention and will consider them a serious option in enhancing the quality of law enforcement education system.*

◇ **Keywords:** *serious games, law enforcement, education, education objectives, gameplay*

### SERIOUS GAMES – DEFINING THE CONCEPT

The research efforts undertaken in using games outside the entertainment area have highlighted that the phrase “*serious games*” no longer falls within the category of oxymoron, but delimits an important area of education, which is, currently, in a continuous expansion. It is considered that the first formal definition of the concept was introduced by Clark C. Abt in “*Serious games*”, published in 1970. In his book, Abt presents simulations and games as extremely useful tools in the educational act, inside or outside the classroom. Unquestionably, Abt includes in this category both “paper and pencil” games as well as (especially) those that use the computer as technical support. Moreover, Gudmundsen<sup>1</sup>, quoting B. Sawyer, said that “[*America’s Army*] was the first successful and well-executed serious game that gained total public awareness”. The current definition differs significantly from the

<sup>1</sup>Gudmundsen, J., *Movement aims to get serious about games*, USA Today, USA, May 19, 2006, available at [http://www.usatoday.com/tech/gaming/2006-05-19-serious-games\\_x.htm](http://www.usatoday.com/tech/gaming/2006-05-19-serious-games_x.htm)

original sense of the Renaissance, according to which the neo-Platonists used the term “*serio ludere*” referring to the use of humor to deal with serious problems. In his book, Clark Abt defines “*serious games*” as follows:

*“Games may be played seriously or casually. We are concerned with serious games in the sense that these games have an explicit and carefully thought-out educational purpose and are not intended to be played primarily for amusement. This does not mean that serious games are not, or should not be, entertaining.”*

Three decades after Abt formally introduced the concept, Ben Sawyer redefined it based on the idea of firmly connecting serious goals with video game technology. Together with Rejeski, Sawyer has substantially contributed to the current game industry’s configuration through the *Serious Game Initiative* and through conferences like *Serious Game Summit* and *Games for Health*. The category of serious games addresses multiple domains. As Corti says<sup>2</sup>, the serious gaming industry

<sup>2</sup> Corti, K., *Serious Games – Are We Really A Community?*, available at <http://www.>

brings together participants from a wide range of areas such as education, defense, advertising, and even politics.<sup>3</sup> We believe that, among these domains, the field of law enforcement and, in particular, its educational component establishes a close link with “serious games”, the concept that we will continue to assign the broad significance of a computer application that brings together a serious goal with a video game structure.

## SERIOUS GAMES TAXONOMY

Before considering the objectives of education in law enforcement, objectives that can be fulfilled with the help of serious games, we consider as necessary to clarify some aspects regarding their classification. The aim is to be able, in the subsequent studies, to address the type of serious game (and thus, its characteristics) which best responds to the effective fulfillment of as many goals as possible.

To begin with, we should pay attention to the general classification of games. Using the criterion of the purpose for which they were created, (video) games can be placed in two distinct categories: fun games and serious games. The specific purpose of games placed in each category obviously derives from the name. Additionally, there are two categories that we can name “ambivalent”, namely *purpose-shifting* and *mods*<sup>4</sup>. In the first of these, we can place games that are part of the fun category, but can be used in education for serious purposes<sup>5</sup>. In this case, the achievement of educational objectives depends to a large extent on the teacher’s ability to direct the use of such games for the clear purpose of training or developing certain skills. The *mods*

category includes serious games that have been developed from entertainment games<sup>6</sup>. The most important difference between the *serious games* and *mods* categories is that in the first case, creators have total freedom in designing and making the games, while in the latter case, the producers are anchored in the features of the original game (genre, gameplay, characters, graphics, etc.).

Considering only serious games, their classification has raised serious issues for many researchers in the field. The most important of these was, as expected, to establish criteria that clearly distinguish the categories created. A first articulate classification was made by Sawyer and Smith<sup>7</sup>, using one criterion, either the *market* or the *purpose*. Each of these criteria has been used by several researchers (Zyda - 2005, Chen & Michael - 2005, Alvarez & Machaud - 2008, Bergeron - 2006, Despont - 2008, Alvarez - 2007) that have generated several classes of serious games, as Djaouti D., Alvarez J. and Jessel J.P. specify<sup>8</sup>. For example, Chen & Michael<sup>9</sup> classify serious games by audience (criterion) in 8 different categories: *Military Games*, *Government Games*, *Educational Games*, *Corporate Games*, *Healthcare Games*, *Political Games*, *Religious Games*, *Art Games*. Following the other criterion (purpose), Bergeron determines seven categories<sup>10</sup>: *Activism games*, *Advergaming*, *Business Games*, *Exergaming*, *Health and Medicine Games*, *News Games*, *Political Games*. By the criterion of purpose, an interesting classification is proposed by Despont

<sup>6</sup> A relevant example is *Escape from Woomera*, as a mode of the well-known game *Half-life*, created by Valve.

<sup>7</sup> Sawyer B., Smith P., *Serious Game Taxonomy*, presented at *Serious Game Summit 2008*, San Francisco, USA *apud* Djaouti D., Alvarez J., Jessel J.P., *Classifying Serious Games: the G/P/S model*.

<sup>8</sup> *Classifying Serious Games: the G/P/S model*

<sup>9</sup> Chen S., Michael D., *Serious Games: Games that Educate, Train and Inform*. Thomson Course Technology, USA, 2005.

<sup>10</sup> Bergeron B., *Developing Serious Games*. Charles River Media, USA, 2006 *apud* Djaouti D., Alvarez J., Jessel J.P., *Classifying Serious Games: the G/P/S model*.

*seriousgamessource.com/item.php?story=15832*

<sup>3</sup> Djaouti D., Alvarez J., Jessel J.P., *Classifying Serious Games: the G/P/S model*, IRIT – University of Toulouse, France, available at [https://www.researchgate.net/publication/266462473\\_Classifying\\_Serious\\_Games\\_the\\_GPS\\_model](https://www.researchgate.net/publication/266462473_Classifying_Serious_Games_the_GPS_model), accessed on 13 July 2017.

<sup>4</sup> Djaouti D., Alvarez J., Jessel J.P., *Classifying Serious Games: the G/P/S model*.

<sup>5</sup> A relevant example is *Grand Theft Auto*.

who identifies six “serious intentions”<sup>11</sup>: *to increase awareness, to simulate, to train, to inform, to teach and to influence*. It should be noted that these classifications are made with certain limitations, of which, one of the most important is that they are done using a single criterion (that is often not strictly respected). As a result, classifications based on one criterion also include categories belonging to the other, such as the example of *Educational Games*, which is more about *purpose* than *audience*. Another limitation is that it neglects the feature referred in the video game industry as “genre” that relates to the way of presenting and solving various tasks involved in the game (e.g. *action, adventure, role-playing, simulation, strategy, sports* etc.)

A more detailed classification is provided by Djaouti D., Alvarez J., Jessel J.P. who, through the proposed G/P/S model, also include the important criterion of gender. Thus, the three criteria addressed by them are as follows:

*Gameplay* – refers to gender, i.e. the way it plays, the structure of the game and the experience the player benefits from. The term can be considered as a combination of the following elements: rules, interaction methods, spatial arrangement, timing, and sequence of events (scenario). It should be noted that some of these elements, such as the game rules, generate, in turn, subgenres which are presented in detail in the *A Gameplay Definition through Videogame Classification* by D. Djaouti (2008). The first level of classification highlights two subgenres (*Game-based – ludus*) or the absence (*Play-based – paidia*) of a final goal pursued by the player. *Game-based* games (such as *Pac-Man*) have a well-defined end goal and, based on a score, usually create hierarchies after finishing. *Play-based* games (e.g. *Sim City*) do not have a specified end goal and as such, players cannot win or lose and cannot be hierarchized, considering a score. In this case, the player’s gain consists of

the experience or training that he accumulates during the game.

*Purpose* – refers to the aim pursued in using the game, apart from its fun feature. It is the aspect that best delimits the character of the serious game and which gives the best criterion for selecting the game, according to the objectives pursued. In this regard, we can refer to Despont’s six “serious intentions” that I have already mentioned. Djaouti D., Alvarez J. and Jessel J.P. propose another set (more restricted):

- broadcast a message – types: educational (*Edugames*), informative (*Newsgames*), persuasive (*Advergates*) and subjective (*Military games, Art games*)

- training – to improve cognitive (mental) or motor (physical) performance: *Exergames*
- exchange of data – collecting/sharing information: *Foldit, Lure of the Labyrinth*

*Scope* – refers to the target audience for which the game is played. This criterion has a high degree of volatility because, as the concept of *serious games* develops, more and more professional or social segments identify ways to apply it. The proposed solution to achieve a relevant classification is to draw up a common list of best-defined professional/social segments (as target audiences):

- Professional fields: state and government, army and defense, security and law enforcement, health, education, corporations, religion, culture and art, environment, politics, humanitarian assistance, advertising, scientific research.

- Social segments: the general public, professionals, students.

The virtual environment provides comprehensive databases that offer users the ability to select the serious game that best meets the criteria imposed by the education activity. An example is available at <http://serious.gameclassification.com/> where, such a selection can be made, based on the G/P/S model.

<sup>11</sup> Despont A., *Serious Games et intention sérieuse: typologie*, 2008 *apud* Djaouti D., Alvarez J., Jessel J.P., *Classifying Serious Games: the G/P/S model*.

## OBJECTIVES IN LAW ENFORCEMENT EDUCATION PROCESS

In the following, we briefly present the most important objectives in law enforcement education, which can be achieved using serious games. To begin with, we will outline the general objectives by which the desired profile of the law enforcement authority can be achieved (facilitated by the use of serious games). Then, by analyzing the competencies that define this profile, we present in detail some of the most important goals specific to each of them, thus providing a consistent and reasoned support that justifies the use of serious games and, at the same time, giving firm support to teachers in selecting the most appropriate of these.

- *General objectives*

Students understand and easily assimilate national and international law and criminal justice systems:

1. students develop real skills specific to interpersonal and group interactions, both basic (speak, read, write and listen effectively) as well as advanced (crowd control, information gathering, interview/investigation, etc.);
2. students develop solid judgments that are specific to critical and creative thinking in identifying (by themselves and in groups) practical and theoretical solutions for different law enforcement fields;
3. students develop strong skills to make optimal and timely decisions, according to the circumstances and law enforcement knowledge assimilated by learning (theoretical and practical);
4. students increase understanding of tasks and missions they receive with the purpose of enforcing the law, as well as their implementation in a responsible and ethical manner;
5. students buildup the response capacity in applying procedures specific to the common or critical circumstances such as cultural differences, differences of

opinion, terrorism, etc.;

6. students develop their teamwork skills both in the administrative and operative sector, focusing on survival, safety and integrating efforts to achieve the goals.

- *Specific objectives*

The basic competencies to be developed through the law enforcement education are: *communication; critical thinking and logical reasoning in solving problems; ethical reasoning; decision making and discernment; philosophy of conduct in support of the citizen and the community; respect for cultural diversity and values; professionalism, teamwork and leadership; survival, safety and health.*<sup>12</sup> Each of these competences generates specific objectives that can be achieved through education, with the help of serious games.

- *Communication competence generates specific objectives such as:*

Acquire reading comprehension skills in law enforcement, such as: understanding the succession of events and recognizing the cause-effect relationship; ability to identify and differentiate between facts, opinions and propaganda.

7. understand how respect, compassion, empathy, sympathy and perception affect communication;
8. remove the barrier to clear communication (lack of common cultural understanding, stress, language, bias);
9. use verbal and non-verbal means to improve interpersonal communication and enhance understanding;
10. improve their writing skills to produce operative or administrative documents, with a distinction between facts, conclusions and opinions, as well as the correct structure in terms of content and form;
11. develop and demonstrate listening and rendering skills, including paraphrasing,

<sup>12</sup> Minnesota Board Of Peace Officer Standards and Training, *Learning Objectives For Professional Peace Officer Education*, July 27, 2017, available at <https://dps.mn.gov/entity/post/model-policies-learning-objectives/Documents/Peace-Officer-Education-Learning-Objectives.pdf>



interpreting meaning and summarizing understanding for obtaining and clarifying information.

- *Ethical reasoning leads to the following specific objectives:*

Develop behavior patterns demonstrating respect for ethical and professional conduct in law enforcement

12. identify the ethical issues specific to various law enforcement situations and be able to involve ethical reasoning in the decision-making process;
13. understand the relationship between basic concepts such as core values, ethical reasoning and integrity;
14. be able to identify the specific differences in the selective application of the law as well as the main causes and consequences of public mistrust in law enforcement and develop public confidence building strategies;
15. evaluate correctly and apply effective strategies to respond to illegal or unethical actions that may occur in law enforcement and public safety.

- *Critical thinking and logical reasoning in solving problems is the following specific objectives:*

1. effectively identify and use motives and evidence to formulate inferences and logical conclusions;
2. learn and apply structured and articulate problem-solving methods to identify innovative and creative solutions for a variety of issues;
3. acquire models of conscious processes of critical and empirical thinking, along with logical reasoning in solving problems;
4. make effective use of problem-solving strategies, logical reasoning and critical thinking to formulate ideas and identify solutions for a variety of issues specific to law enforcement situations;
5. assess ideas and techniques designed to encourage involving logical reasoning in identifying solutions to problems using fundamental forms of logic.

- *Decision making and discernment (discretion)*

1. understand correctly the term of *discernment* in law enforcement and properly analyze situations in which strict enforcement of the law (applying the strict judgment in the administration of justice), or just cautioning the culprit is required;
2. describe the factors that influence the discretion of the law enforcement officer
3. apply the most effective methods and models in decision-making processes;
4. based on scenarios, students should correctly and in real time formulate the decisions that need to be made, identify and justify the appropriate actions, and secure the implementation of their decisions in actions.

- *Philosophy of conduct in support of the citizen and the community*

understand the concepts and the philosophy specific to law enforcement activities, and why strict application of criminal law to resolve problems is not always the best way to act.

explain how partnerships between community and law enforcement authorities build unity and cooperation, and how alienation can lead to greater system risk

apply techniques for organizing community so that its members be trained and involved in law enforcement activities, as well as for building relationships with various community members, including people with mental or physical limitations

apply methods and strategies used to promote crime decrease and prevent loss in community

identify law enforcement strategies that build relationships, reduce fear, and encourage community confidence in law enforcement

apply strategies and collaboration techniques to each group in order to reduce crime: community businesses, local individuals, and service agencies such as social services, crisis intervention teams, school staff and various groups of young people in the community

understand the benefits of a proactive approach to strategies used to prevent crime, ensure citizen and community security, and foster community perception of law enforcement.

describe how efficient law enforcement management of public order violations and status offenses can have a positive impact on the community.

- *Respect for cultural diversity and values*

1. understand the concept of procedural justice in law enforcement, including how fair trials, impartial decision-making process, respect for opinion, and transparency of actions support positive relationships with society and increase the community and authorities of law safety;
  2. describe how the implicit and conscious bias has an impact on human behavior;
  3. explain how partiality, stereotypes and prejudices, insensitivity and intolerance, bias and marginalization can affect the work of law enforcement officer and community security;
  4. effectively apply strategies and techniques to promote appropriate interactions with community members of different races, ethnic backgrounds, immigration statuses, national origins, economic classes, ages, genders, disability and sexual orientation;
  5. recognize and value cultural diversity and differences, understand how they promote community unity, facilitate intelligence gathering, and contribute to the security of law enforcement;
  6. understand how the unique features of different groups that make up society can influence the law enforcement actions;
  7. be able to have differentiated cultural approaches to the specific problems of victims and offenders;
  8. explain how family dynamics and methods of communication (verbal and non-verbal) are different between cultures and how their recognition can benefit the authorities and society.
- *Professionalism, Teamwork and Leadership*
1. develop real skills in conducting law enforcement activities and achieving goals and objectives at high standards of ethics and professionalism;
  2. identify the repercussions of violating the

- standards of conduct in law enforcement;
3. identify the value of inter-institutional and team members cooperation on problem-solving;
4. develop skills that promote consensus building and respect for others' opinions, and encourage adaptability, co-operation, and conflict resolution;
5. develop the correct behavior associated with efficient teamwork, effectively exploiting the abilities and talents of the team members in order to establish positive working relationships to solve law enforcement problems;
6. form and develop skills and abilities for effective leadership such as compassion, courage, support, understanding, mentoring, focus on mission fulfillment and team cohesion.

- *Survival, Safety and Health*

1. understand the importance of the mindset on survival, supported by physical and psychological training for force-use situations, reduce risks associated with routine or self-satisfaction and use of body armour and safety equipment;
  2. train to reduce the physical and psychological effects of stress that occurs before, during and after high-risk incidents or that cause trauma to the body that can affect the brain, vision, hearing, and muscular, respiratory, nervous and cardiovascular systems;
  3. analyze different critical incidents and identify ways in which knowing the effects of stress in high-risk or life-threatening situations can help officers work effectively;
- Identify and correctly manage the stressors and their physiological, psychological and emotional effects on members of law enforcement authorities and their families, such as:
1. stress factors related to the day-to-day activity – frequent encounters with illegal or unethical behaviors, emotional scenes, traumas and tragedies, people in distress
  2. stress factors related to shiftwork and fatigue;

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3. hyper vigilance stress and its long-term effects;
4. learn the effects and symptoms of posttraumatic stress disorder and acute stress disorder and develop mechanisms to reduce them;
5. apply survival/safety procedures in various critical situations that may occur, such as traffic enforcement, pursuit and stopping cars and offenders, arrest, and under-cover work;
6. develop skills in establishing a balance between functional attributions and role, interests, and responsibilities in private life;
7. apply effective strategies to develop good physical and mental conditions, supported by a healthy diet, which increases the cardiovascular capacity, flexibility, agility, force, speed and resistance necessary for their own well-being, health and competence.

## CONCLUSIONS

The use of serious games creates directions of an utmost importance in the educational law enforcement segment. This, together with the national defense, has the special feature regarding the high probability of critical situations occurrence, where even the life of the citizen or representative of the authorities is at stake. That is why I believe that all effort must be made to educate and train the members of the institutions that carry out these tasks. Serious games, through the benefits they offer, become instruments of particular importance that significantly contribute to increasing the efficiency of the educational activities. They provide the user with real platforms that facilitate understanding and integration of knowledge by modern methods, involving the use of auditory and, in particular, visual means selected and assembled to achieve maximum efficiency. Also, serious games are a considerably cheaper solution for creating virtual training environments in which students and practitioners can acquire skills or train to

improve them without being exposed to any threat to their integrity. In other words, *using serious games in law enforcement is a cheap alternative to create a controlled environment where the mistake does not cost*. Last but not least, we emphasize the advantage to control the environment created through serious games. Educational specialists, together with teachers, have the opportunity to increase the efficiency of education (knowledge management, developing skills, training and, especially, evaluating) by “tailoring” the tools used (serious games) so that they can accomplish success of all the pursued objectives.

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# SOURCES OF INSECURITY IN THE NORTHERN AND EASTERN AFRICA AND THEIR EFFECTS ON THE EUROPEAN REGION

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◇ **Abstract:** *Africa is unanimously considered the cradle of humankind, being also one of the reshaping sources of the global security environment. The continent comprises a total population of over 1,100,000,000 inhabitants who speak more than 3,000 languages. We consider the Nigerian example to be relevant, being the most populated African state and including more than 200 ethnic groups that speak 300 different languages. It is worth mentioning that each of them contains dialects. This plurality is shown in the religious field as well, and is also in relation with the social and political organizations, from the archaic to the modern forms. Under these circumstances, Africa is a source of insecurity for other regions, such as the European region.*

◇ **Keywords:** *insecurity, threat, migration, conflict, instability.*

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## SOURCES OF INSECURITY

Conflicts of all types have impacted the human society throughout time. A world of peace, global stability, concord and harmony remains an unachievable project. Yesterday and today are not highly different, both being characterized by conflicts that have a common feature impossible to remove: continuity. Each day reveals new conflicts, crimes, terrorist attacks etc, all having serious consequences on the mankind's well-being.

New violent conflicts are looming in the fragile states and regions. These crises, triggering unimaginable violence and causing profound human grief threaten the common vital interests.

There are conflicts all over the world,

but those in Africa have become more and more visible. The solutions to the crises on the African continent may become clearer much later, perhaps only in the next decades. Solving the conflicts and promoting the human rights and development on the African continent are essential for approaching terrorism, demographic challenges, migration and climate change and may constitute the premises of achieving shared prosperity.

Africa is a geopolitical area characterised by a great diversity, too obvious not to be considered in the dispute for the distribution of resources, which are the natural subsistence resources: access to water and food.<sup>1</sup> According

<sup>1</sup>Alistar Doyle, *Africa's deforestation twice world rate, says atlas*, <http://www.reuters.com/article/us-africa-environment-idUSL1064180420080610>,



to the interactionist paradigm analysis<sup>2</sup>, an intense ethnic division induces a historical character to the local and regional conflicts, based on arbitrary state separations and the divergence generated by different norms, customs and religious values.

Most conflicts originate historically in large geopolitical phenomena. The majority of the countries on the African continent were the target of Europe's colonial interests, and some were even expansionist powers, benefiting from special diplomatic relations with the major European powers (e.g. Ethiopia).

The drought and famine deeply affect the poorest regions on the African continent (e.g. the Horn of Africa) and experts are warning that at least 1 million children will suffer from severe acute malnutrition in the near future. Famine prevails in most of the African countries and if the rain sometimes allows the vegetation to grow and favour agriculture, without an agricultural organised foundation and without an infrastructure, millions of children, women and men will continue to be in peril and the famine level can easily switch to "humanitarian emergency".

On the African continent, the crop production necessary for its inhabitants' subsistence can be assured only for some of its 54 states. Within the countries from the Guinea Gulf and on the Niger River Valley, about 35% of the surface is arable land, and in Magreb the percentage decreases to 20% of the area. A special situation is reflected in South Africa, which has only 15% arable land of its whole territory, but is 5 times bigger than our country, being the main wheat provider of the Sub Saharan Africa: 10-12 million tons of corn and 1,3-2,4 million tons of wheat every year.<sup>3</sup> This example does not solve the subsistence

problem, taking into account the fact that local productions are low because of the lack of agricultural technologies, but also because of the natural disasters and local conflicts that have generated chaos and instability in the continent's countries.

When analysing the Northern and Eastern Africa, a vast territory is taken into consideration, which comprises a population of approximately 200 million inhabitants and 7.904.955 km<sup>2</sup> of land, with various forms of relief.<sup>4</sup>

The area researched is characterised by uneven distribution of the agricultural land, by the limitation of access to resources and, particularly to water, a process that has generated a phenomenon of extended drought. It has led to low and uncertain yields in the last decades, being doubled by a reduced capacity of distributing the produces obtained or provided by territorial entities or international organisations. Subsequently, this has triggered and extended a constant exode of traditionally nomadic or sedentary populations, permanently in search of food for themselves and their herds.

Due to permissive borders, established within relief areas that are extremely difficult to control by the state actors, the internal migration and the transborder migration are becoming phenomena that generate instability, both for the moving populations and the stable populations, in whose areas migrants settled temporarily. This instability is characterised by the restraint and even loss of control of institutions, by the population's perpetual suffering which unfortunately lasts many decades.

Marking the borders of state entities arbitrarily and without considering the historical, ethnical, religious and geographic features proved to be unfeasible, and the events that followed showed that territorial integrity established in this manner is highly difficult or even impossible to maintain.<sup>5</sup>

<sup>4</sup> [https://ro.wikipedia.org/wiki/Africa\\_Nordic%C4%83](https://ro.wikipedia.org/wiki/Africa_Nordic%C4%83).

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accessed on 23 August, 2016.

<sup>2</sup> Cătălin ZAMFIR, Lazăr VLĂȘCEANU (Coord.), Dictionary of sociology, Babel Publishing House, Bucharest, 1993, p. 306.

<sup>3</sup> Mohamed Najma, *Greening Land and Agrarian Reform: A Case for Sustainable Agriculture, At the Crossroads: Land and Agrarian Reform in South Africa into the 21st century*, ed. Cousins, Ben. Bellville, School of Government, University of the Western Cape, 2000.

The area under analysis has specific population dynamics as regards the distribution according to age, birth rate and life expectancy. The African continent has a population where the 15-year olds represent 41% of the total number of inhabitants, and every year there is an average increase of over 2%. The states from Northern and Eastern Africa will probably record an increase of the demographic rate in the decades to come, a total of 2,400,000,000 inhabitants being forecast for the year 2050.<sup>6</sup>

### **MIGRATION, SOURCE OF INSECURITY**

A major source of insecurity in the Northern and Eastern Africa is represented by the migration phenomenon. The migration of the impoverished and famished populations to wealthier areas has brought about two significant consequences: their settling at the outskirts of urban areas and the emergence of extreme poverty suburbs, as well as the transborder migration heading for the richer neighbouring states and subsequently the European states. The phenomenon is recorded as an immediate consequence of the local conflicts that have ravaged Africa. The origin of exode dates back in the period of the European postcolonialism, and particularly after the spread of contemporary conflicts. The generalised motivation has been given by the need of physical security and the minimum subsistence procurement by moving towards a more peaceful world.

The emergence of new conflicts and the generalisation of the current ones have ensued new dynamics of the illegal intracontinental and extracontinental migration, accompanied by a more widely-spread violation of the human fundamental rights and more intense human trafficking.

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Romania's treaties in the 20th century between hope and disappointment in the Volume of the 8th International Symposium organised by the Technical Military Academy, Bucharest, 2004, ISBN 973-640-059-x, CNCSIS-158.

<sup>6</sup><http://worldpopulationreview.com/continents/africa-population/>, accesat la 02 oct 2017.

The migration from Africa to Europe and to a less extent to America has risen owing to the increase of means of information and communication with more prosperous areas, which has encouraged people to search for a better living.

The main factor that triggered and accelerated the populations' migration is represented by the disorganised processes, with a historical impact, that have not been solved yet, despite the fact that the international community has made consistent efforts to overcome them by "The Development Decade", "The Poverty Fight Decade", "The Second Development Decade" and eventually, "The Millenium Project". Poverty, diseases, oppression and despair are still prevailing, generating 17 million refugees, 20 million displaced people and massive migration of people within the same borders. All these are both sources and consequences of conflicts which require unceasing attention and a maximum priority from the United Nations.<sup>7</sup>

### **CONSEQUENCES OF INSECURITY EXPORTATION TO THE EUROPEAN REGION**

There are two phenomena that give rise to the African exode to the wealthy Europe. The first one is the food insecurity, presented above. The second one is caused either by political instability, such as South Sudan, the planet's youngest state, or by persisting anocracy, the state of Zimbabwe being a relevant example. In such areas of poverty and in the absence of fundamental individual rights, illegal migration is the expression of despair, amplified by local armed conflicts. In the period of postcolonialism, Africa turned into a continent of war, as an extreme form of organized violence, developed from a secessionist movement, to the internal or civilian war, in which groups supported by local tribes and external sponsors, mainly the big armament manufacturers, fueled the guerilla

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<sup>7</sup>Boutros Boutros-Ghali, *An Agenda for Peace: Preventive Diplomacy, Peacemaking and Peacekeeping*, United Nations, New York, 1992, p. 7.

war, terrorist attacks, civilian abductions, the assaults on international bodies' quarters and humanitarian assistance units. Such actions have resulted in chaos and civilian population victimisation.

The extended conflicts leading to illegal migration to Europe with ever more consistent ramifications, as well as the food insecurity, caused by extreme meteorological phenomena and by the social downgrading that deprive inhabitants of the possibilities of procuring decent and sufficient food, are rooted in the lack of unity, in entities built according to arbitrary decisions made after 1885 by colonial powers, subsequent to the Scramble for Africa Conference of Berlin.

ISIS is one of the major challenges of this century, and if we consider the unpredictable consequences of its extension, the phenomenon requires a more realistic approach. The emergence and especially the development of muslim enclaves that spread across western countries has not been halted and migration cease measures have not been taken. The Law of Sharia has become a rule for the muslims that accept it, in a state entity that globally acts according to other principles. The manner in which the Western countries have regarded the emergence, development and spread of ISIS has shown the indolence and the lack of vision in tackling this extremist form, unrelated to the state democracy.

The Northern Africa states have paid and continue to pay a very high price for the route chosen. Libia splinters into regions, Tunis is torn apart by terrorist attacks, Egypt cancels democratic elections by military force, and in the East, Siria and Irak are on the verge of collapse because of the ISIS assault, which forces the creation of a "zombie state".

The first serious signal in Europe, as a reply to the incidents in the Orient, apart from the terrorist attacks, is the brutal return of tensions in the Balkans. What happened in Macedonia, Bosnia and Kosovo, together with Albania's "aspirations" indicate that the institutional construction model promoted by the Western countries in the Orient and present

now in the Balkans is doomed to failure unless the situation is thoroughly approached.<sup>8</sup>



Figure no. 1. *Al Qaida distribution in the area analysed*

source: <https://www.dni.gov/nctc/groups.html>, accessed on 02.10.2017

The terrorist attacks that have affected various important regions worldwide, starting from the United States of America, other similar operations executed in Madrid, London, Istanbul, as well as those that occurred in the Near East, Caucasus, Central and South-Eastern Asia prove that terrorism and especially the extremist-religious terrorism, organised in transborder networks, represents the most serious strategic threat to democracy, freedom, life and prosperity.

The current international terrorist networks benefit from high technology, substantial bank transfers and modern communications, the infrastructure provided by some ethnic-religious organisations, as well as from the support of the corrupted regimes or the regimes incapable of governing democratically.

The open character of the modern democratic societies, as well as the globalisation requirements, make the international community and each and every country remain

<sup>8</sup> Vasile Leca, *The West facing the problems of the Middle East, Critical Point*, Issue no. 2, 2015 <http://www.punctulcritic.ro/numere/nr-02-2015>.

vulnerable to terrorism, this being one of the characteristics of the international security environment.<sup>9</sup>

Knowing and understanding the African culture directly impacts the security environment: internal stability on the African continent determines high security of the European continent, and therefore interethnic communication and cohabitation of different cultures must be deeply consolidated.

The European Union must promote dialogue and negotiations regarding regional conflicts and invest in the peace and development of the African countries, considering this an investment in its own security and prosperity.

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<sup>9</sup> Mirela ATANASIU Lucian STĂNCILĂ, *TERRORISM - The Evil in the Shadow of the Early Century* National Defence University „Carol I” Publishing House, Bucharest, 2014, p. 52.





# IMPLEMENTATION OF A STRATEGIC INTERVENTION MODEL FOR MANAGEMENT STREAMLINING

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◇ **Abstract:** *This study presents the advantages of a multidimensional strategic intervention model - structure, functionality, time - to the management system, proposed by the authors of the article. Taking into account the organizational reality, the authors believe that targeted improvement insertions are the best recommended interventions in a dynamic and perpetually changing society. The article outlines the advantages to use the model and some methodology clarifications. The authors explain how to select the quadrants in the model, the relations between them and how the model may be implemented while carrying out the day-to-day activities.*

◇ **Keynote:** *strategic intervention, targeted improvement insertions, multidimensional, emergency reporting, managerial efficiency.*

## INTRODUCTION

Management as a science, art and state of mind is a way to rationalize work in which a person (the manager) achieves the organization's goals through the employees (his direct reports)<sup>1</sup>. In practice, the most important thing in management is the transition from the theoretical stage (based on planning and organization) to the practical stage (based on leadership-implementation). The transition from theory to practice is a matter of interest not only in management, but also in societies and administrations (governments).

Those who have the ability to implement,

who are capable to put into practice their chosen plans and organization, quickly become efficient and effective. Even individuals face this problem and the difference in behaviour between those who prefer theory and those who prefer practice is significant.

The implementation step needs to represent the culmination of a thorough intellectual effort applied to the preparation step. Just as theory without practice is meaningless, mere speculation, intellectual vanity, practice without theory is equally inefficient, becoming a meaningless effort, a Sisyphean task. For this reason, one of the main concerns of management is the implementation, when an employee manages to initiate the practical action that will lead to efficiency and efficacy.

<sup>1</sup> Ștefan Prună, *Managementul organizației Poliției* [Police Organization Management], Universul juridic Publishing House, Bucharest, 2012.

Based on this, following our experience and the organizational consultancy programs we have been involved in, we developed a strategic intervention model, the multidimensional action model - structure, functionality, time. This model allows for targeted improvement insertions focusing on the organization as a whole, allowing the management system to streamline activities and achieve performance on the go.

Moreover, the model has been structured to allow the priority monitoring of certain organizational aspects considered of utmost importance for the management. This allows an organization to avoid wasting resources on activities which are often repetitive or have common elements and, if managed individually, lead to a waste of resources. The model allows a flexible control of activities and the concentration of resources in key organizational points.

Last but not least, the model operates as a veritable feedback mechanism, allowing the real time monitoring of the effects of improvement insertions in each quadrant, and the interrelations dynamics as certain insertions become operational.

### **USEFUL REMARKS**

Before going into the details of the proposed model, we would like to make a few remarks:

- a strategic intervention means that the management of an organization may implement targeted improvement solutions on the go, having an overall image of the organization, concurrently in the nine quadrants of the model. The meaning of strategic intervention is not related to the classic definition of strategy, an instrument allowing the organization to direct and coordinate its activity in the long term, but refers to the concurrent intervention on the entire organization or a portion thereof through the 9 quadrants;
- the model relies on the idea that a general implementation, which would completely

change the organization, is not possible. Therefore, the model proposes to identify the key aspects of each quadrant where interventions are needed and to use the targeted improvement intervention technique to become more effective. The model proposes 9 key issues in an organization on which an intervention should be made. Of particular importance are cascading improvement interventions, namely those interventions which, once implemented, in their turn, become efficient solutions for other organizational problems;

- the 9 quadrants are interdependent, being in touch with one another and influencing one another;
- the intervention can be started anywhere, based on the management's priorities and on the need for a software/intelligence analysis software. Following a logical and functional approach, it is important to start in quadrant 4, but in cases of blockage or organizational inefficiency, the intervention can be started in any quadrant;
- when the model is implemented, the whole information process and the entire organizational activity should comply with the 9 quadrants. Being a holistic intervention model which involves general interventions on the organization or a portion thereof, the model needs to be known and promoted by all members of the organization, whether operational personnel or members of the management. The success of this model depends on how the operational personnel is freely involved in the life of the organization;
- the working tools to be used may be chosen and standardized based on the quadrants and organization type. The model is flexible and allows the use of any known managerial tool, as long as it complies with the methodological requirements of the model;
- the standardization of tools is important for the model's success, taking into account that a consistent application of the tools is of utmost importance, and not necessarily the frequency with which they apply.

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On the other hand, it should be understood that the model is not a universal magical solution to all the issues in an organization. It is a strategic intervention instrument based on the principle of rationalization of the activity, good practices and the removal of parallel usage of any organizational resources: human, informational, financial, logistical, etc.

The model represents a multidirectional and integrated intervention approach which requires the effort of all personnel in the organization, either operatives or managerial staff. The model relies on three pillars: structure, functionality, time.

The functionality pillar includes: the “Stop! Diagnosis and analysis” quadrant; the “Stabilize perception! Communicate internally and externally” quadrant and the “Change! Focus on improvement interventions in critical points” quadrant. The time quadrant includes: the “emergency recording” quadrant, the “annual, balance sheet projects” quadrant and the “strategic projects” quadrant. We will briefly go into the details of each pillar and explain why we chose it.

### The structure pillar

This pillar refers to those quadrants covering various structural aspects which can be identified at the level of the organization. The

Organizational structure management 1	Rules and working procedures management 2	Planning and implementation management 3
STOP! Diagnosis and analysis 4	STABILIZE PERCEPTION! Communicate (internally and externally) 5	CHANGE! Focus on improvement interventions (in critical points) 6
Emergency recording 1 day - 1 month 7	Annual (balance-sheet) projects 1 month - 1 year 8	Strategic projects 1 year - 3 (4) years 9

*Strategic intervention model. Source: the authors*

### BRIEF PRESENTATION OF THE STRATEGIC INTERVENTION MODEL

The model relies on three pillars and nine quadrants, each in relation to the others and influencing them. The structure pillar includes: the “organizational structure management” quadrant; the “rules and working procedures management” quadrant and the “planning and implementation management” quadrant.

first quadrant of this pillar is the *organization structure*. This is the model that sets the relations between the members of an organization and the positions they occupy. The purpose of a structure is to carry out the division of work between the members of the organization and coordinate their activities in order to achieve common goals and objectives<sup>2</sup>. From this point of view, the organization structure defines

<sup>2</sup> Mullins, L.J., *Management and Organizational Behaviour*, Pitman, London, 1993.

tasks and responsibilities, roles and systems of work relations, communication channels. The organization structure allows the application of management and creates a framework for sending orders and distributing tasks which lead to the achievement of objectives.

**The model promotes the idea of choosing the most adequate organizational structure.** Since no design can guarantee the perfect organizational structure, there are advantages and disadvantages of each structure. And this because the structure tends to meet the requirements chosen by its designers, from the very beginning.

Studies on designing and optimizing organizational structures show that:

- the activity of an organization may be distributed and coordinated in many ways;
- it is necessary for the design of a structure to meet the requirements and be adequate for the conditions in an organization;
- at a certain point there may be several reasonable distribution solutions, which may better or less meet the needs of the organization;
- the design of a structure is not an “all or nothing” approach; generally, certain portions of a structures cease to be adequate;
- the overall responsibility for designing an organizational structure lies with the strategic management, in particular, and with the management system, in general;
- the design of a structure is based on the theory of options that specifies the circumstances underlying such an action (analyzing dilemmas).

The second quadrant in this pillar is represented by the *rules and working procedures management*. According to the model, management should establish the type of activity regulatory framework which is best fit for the organization. Any rules, methodology or procedure shall be efficiently established, avoiding any parallelism. A sustained effort should be placed not only in their number, but also in their quality. **The model promotes**

**the establishment of a reasonable number of procedure and a clear structure of such procedures.** A procedure is the easiest tool in an organization, which targets the organization’s weakest link, its least efficient employee. Reading the procedure, this employee should be capable to perform his or her activity.

The third quadrant is related to *planning and implementation management*. Planning organizes thinking, creates rapid orientation skills, develops skills to handle several activities at the same time, increases the attention span and concentration, avoids forgetting and excess memorization of certain operations.

It also adds the benefits of writing down objectives. Written communication is more selective, clearer and more effective. On the other hand, planning simplifies activities, operationalizes them until they can be quantified and observed directly. The human personality is not a “planning-prone” personality, but is certainly a personality “desiring certainty and security”. A part of this certainty is acquired through planning.

**The model promotes the idea of developing standard planning and implementation tools,** especially in the form of action plans, which can be easily used in professional work.

The plan may be defined as a specific action meant to help the organization achieve its objectives. However important is intuition acquired through experience for managers, successful actions of management specifically rely on reason. In our view, the methodology for drafting plans refers to all activities involved in the completion and implementation of plans.

The implementation process is also one of the most important aspects of management. The efficiency of implementation is primarily based on the manager’s capacity to determine his or her reports to do what is required of them. Power, authority and legitimacy are concepts used in the model to promote implementation.

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### The functionality pillar

This pillar groups the most important aspects necessary to ensure the functioning of an organization. The quadrants were selected so as to allow the quick resolution of any organizational issue, starting with the diagnosis and ending with the implementation of change. The first quadrant of the pillar is the diagnosis and analysis which have a role to stop the problem from progressing. The diagnostic analysis is an important step in stopping problems from progressing, its purpose being to get a clear image of how things are currently done. Broadly speaking, the analysis should cover both the internal and the external environment of the institution. Elements of the internal environment subject to review include people - training, attitude, age, abilities, gender, etc. - the difference between the organization's declared purpose and what it managed to achieve, the image it has with the "parent" organization or in relation to other organizations or authorities. Elements of the external environment subject to review include the impact of the organization in society, any pressure on the organization, its reputation within the community, etc. The review may include occupational analyses, surveys on training needs, sociometric techniques, operative situations analyses, etc.

An interesting and handy theoretical model for the diagnostic analysis is the SWOT model, which highlights four aspects: the organization's strengths, weaknesses, opportunities and threats, and any correlations between the four indicators: strengths/opportunities; strengths/threats; weaknesses/opportunities; weaknesses/threats.

**The model promotes the idea of implementing a diagnostic analysis technique**, we proposed the SWOT analysis, to be constantly used throughout the organization. The use of a standardized model allows a better collection of information.

The second quadrant of the pillar is internal and external communication. The general role of communication is to stabilize perception, determining stakeholders to accept

the proposals and solutions put forward by the organization management. The main reasons we communicate within an organization are:

- establishing and maintaining relations between employees, providing them the needed information for orientation and assessment of their own work in relation to the work of others and the organization's requirements;
- through feedback, communication reveals how individual and general performance can be improved;
- it allows the identification, acknowledgement and correct use of various categories of needs and incentives to lead the organization towards performance and satisfaction;
- it contributes to the establishment of correct and efficient relationships between managers and their reports, peers, people inside and outside the organization.
- it conveys the opinion of the organization's management outside the organization, to stakeholders or stakeholder groups.

**The model promotes the idea of a proactive communication strategy inside and outside the organization, meant to build the organization's image and consolidate its reputation.**

The third quadrant of this pillar is change through improvement insertions. A logical analysis of people's behaviours towards change divides them into three categories - people gaining from the change, people losing from the change and people maintaining their position. It is only natural that these three categories react differently to change. Change may become inevitable on account of technological progress, for example, but remains unpleasant for those who are disadvantaged by it. Change may be disturbing and annoyingly unpredictable. People resist it, and managers - already overwhelmed by the need to manage the situation as it is - find that any change may double their work effort.

Regarding innovation as a dimension of change, some specialists<sup>3</sup> show that the sources of innovation, and therefore the sources of change are the result of a conscious, consistent search of innovation possibilities within four major internal situations of the organization: unexpected negative events, “beaten track” discrepancies, the dynamics of an activity and the dynamics of the activity type and of the “market”, and within three external situations: demographic changes (both natural and artificial), dynamics of perception and the emergence of new knowledge. **The model promotes, on the one hand, the idea that choosing the right time to initiate change** represents one of the most important components of the managerial activity – and obviously one of the most interesting and challenging ones, and, on the other hand, **the need of a change model.**

Mendras<sup>4</sup> stated that an innovation (change process, our note) spreads within a population like epidemics, which allows us to distinguish pioneers, innovators/technocrats, early adopters, late adopters and late comers. One thing is usually forgotten: the creators of change are people - the pioneer, the one who senses, feels change and throws it on the market and the technocrat, the one who rationalizes it, gives it shape, operationalizes it. With them, the early adopters, those who benefit from the change, are the supporters, the “champions” of change, the already converted ones who fight for the change. A pragmatic approach will take this into account. Then the late adopters, those who are not yet convinced, who do not immediately feel what they could win after the change.

In an organization, the champions of change are the managers - pioneers, technocrats or early adopters - otherwise nothing happens. It is clear that Drucker is right when speaking about change as a conscious, rational search,

also a justified one, I would add. Without denying the competence and good faith of the operational personnel, we believe that change, in an organization, should be dealt with by the management.

## THE TIME PILLAR

It refers to the need to work with deadlines and have an acceptable time frame of all managerial and professional activities carried out within an organization and which are included in the strategic intervention model. The first quadrant targets the emergency recording. The quadrant includes all approaches undertaken by the management to solve activities perceived as emergencies (one day to one week). **The model promotes the idea of efficient time management and the drafting of a standardized time management methodology.** The organization will be based on the urgency - importance dyad, and emergency recording includes very urgent and very important activities.

Just as people are reactive, they live in the present, in the “here and now”, “seeing and doing”, organizations, unfortunately, cannot break away from the present. This, when related to emergency recording, makes us more efficient in solving them. It is enough to think how we react when we “come to the end of our rope” and how efficient we are to understand how urgency affects us. The same thing happens to organizations!

The second quadrant refers to a longer time interval, one month to one year. This interval generates many issues, since organizations are incapable to organize themselves coherently over the course of one year, but in fact operate from time to time when facing urgencies. This leads to actions that are improvised, delayed or put aside for a period and which are then settled under the pressure of time. We have promoted the idea of a balance sheet, because it is drafted once a year and relies on the time organization spreading over the course of the entire year.

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<sup>3</sup> Peter Drucker, *Despre profesia de manager* [Being a manager as a profession], Meteor Press Publishing House, Bucharest, 2006.

<sup>4</sup> H. Mendras, *Le changement social. Tendances et paradigmes* [Social change. Trends and paradigms], Paris, Armand Colin, 1983.



The third quadrant refers to strategic projects lasting between 1 and 3 years. The model considers the most flexible and simplest time projection. The model encourages management, in addition to recording urgencies and drafting the annual plan, to also operate with strategic time frames. Unfortunately, few organizations take this into account, in particular because of management personnel turnover and of the lack of managerial education for this purpose.

The strategic intervention model we presented may become an efficient working tool for the management of Romanian organizations. It allows the identification of key aspects within the organization and entitles managers to operate several targeted improvement insertions at the same time. Later, the model matrix allows the analysis of interdependencies between quadrants and the implemented insertions. Last but not least, the model is a monitoring and feedback tool, allowing the streamlining of managerial and professional activities.

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# THE USE OF X AND Y THEORY IN MOTIVATING EMPLOYEES

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◇ **Abstract:** *In this article, the authors, starting from the theory of expectations and from the effect of self-fulfilling prophecies, try to show that the X and Y theory is nothing else but an inter-subjective construct, resulting from social expectations and self-fulfilling prophecies. The way a manager projects his beliefs on his direct reports is decisive on inducing their success or failure. We review the main postulates of the theory and discuss the effects each of them has on success and failure. From this point of view, the X and Y theory is an interesting mechanism in motivating (Y statements) and demotivating (X type statements) direct reports. The theory has multiple effects on the efficiency of management and on the managerial training of leaders.*

◇ **Keynote:** *X and Y theory, self-fulfilling prophecies, theory of expectations, expectancy, tolerance, predestined failure, predestined success*

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## INTRODUCTION

If management refers to the achievement of an organization's objective through other people, in other words if management teaches leaders how to determine their reports to comply with their decisions and orders, then one of the most interesting questions in management should be: how do we motivate employees to secure their compliance?

Motivation is also seen as a mystery - something like a magical substance which, sprinkled over people, makes them burst with energy and keen to work. How motivated people are may count as a significant factor in achieving the level of performance required by an organization's management. In order

to work well, people need to share a strong involvement in their work, and they need to want to achieve certain goals.<sup>1</sup>

There are many definitions of motivation and it is not our intention to either present or review them in this article. Almost all definitions have three common elements<sup>2</sup>:

- *energized behaviour* – people “are led” to behave in a certain way - when motivated, employees strengthen certain behaviours required in an organization, develop organizational enthusiasm and are willing to make an effort;

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<sup>1</sup> Kate Keenan, *Cum să motivezi* [Motivate], Rentrop & Straton Publishing House, Bucharest, 1997, p. 5.

<sup>2</sup> Ștefan Prună, Costică Voicu, [*Police Organizational Management*], Mediauno Publishing House, Bucharest, 2006.





- *their behaviour is oriented* toward a goal or something else - by motivation, people include professional interests in the sphere of their needs;

- *the behaviour is maintained and supported-* through motivation, the management supports such behaviour at an acceptable level, designed to lead to the satisfaction of professional interests.

The motivation theory tries to explain why people behave as they do. What makes people work efficiently? This question is quite difficult to answer<sup>3</sup> because researchers need to make certain assumptions regarding the reasons behind the behaviours they observe or record.

In the complex background of theories and motivational models, there is a theory which is not often used in organizational motivation, namely the X and Y theory. The purpose of this theory, like many others, is to secure targeted compliance. In its essence, the theory includes several attitude assumptions regarding the average person in an organization, which are placed in an antagonistic structure: positive, in case of the Y theory, and negative, in case of the X theory. Our working hypothesis is: the constant use of the X and Y theory in relation to one's direct reports is likely to trigger the mechanism of self-fulfilling prophecies, defined by Merton<sup>4</sup> as predictions which turn into reality for the very reason they have been enunciated. A self-fulfilling prophecy is also the famous Thomas theorem<sup>5</sup>, which states that if men define situations as real, they are real in their consequences. In other words, what really counts is not the object itself (which is complex and hard to know), but our perception of the object. This perception may be positive, constructive, productive and efficient, or negative, destructive, unproductive and

inefficient. The effects of positive perception are known as the Pygmalion effect (the effect of predestined success), and the effects of negative perception are known as the effect of predestined failure (the Sisyphus effect). Using the X and Y theory, a manager will only turn his employee into a successful or problem employee.

There is something else worth mentioning. In our everyday life, leaders, through their attitude and mentality, often involuntarily use this theory. When a manager says that one of his reports is good for nothing, that he doesn't know anything, that he is unable to achieve anything, this manager indirectly prepares the employee for failure. When, on the contrary, a manager says that one of his reports is clever, good, trustworthy, this manager indirectly prepares the employee for success. To know the effects of the X and Y theory is very important in motivating employees. The question is not whether a manager uses the theory or not, because managers do that anyway, the question is which side of the theory is used - the constructive or destructive one?

### MAIN STATEMENTS OF THE X AND Y THEORY

McGregor's theory<sup>6</sup> needs to be understood in the historical context in which it was promoted, namely in the context of movement of human relations, a significant stage in the effort to counter the influence of classical scientific management and bureaucracy. The human relations stage was important in the history of management development in that:

- it highlighted what went wrong with classical management and bureaucracy, where the individual, as an important part of the organization, was minimized and reduced to mere workforce;

- it supported the idea to take into consideration the human element as a factor in increasing efficiency, promoting the idea that

<sup>3</sup> V.H. Vroom, *Management and Motivation*, Penguin Publishing House, 1974.

<sup>4</sup> Robert, Merton, *The Self-Fulfilling Prophecy, in Social Theory and Social Structure* (1949), third edition, New York: The Free Press.

<sup>5</sup> Thomas, William I., 1937, *Primitive Behavior*, New York: McGraw-Hill.

<sup>6</sup> Douglas Mc Gregor, *The Human Side of Enterprise*, McGraw-Hill Publishing House, New York, 1960.

people are an organization's most important resource, and management is the capacity to put people to work;

- it promoted human-oriented management styles, which were designed to meet the social and psychological needs of employees;

- it showed the importance of informal (person to person) relations within an organization;

- he developed a new set of issues: work satisfaction, the role of emotions, work climate, the importance of attitudes and feelings.

In this context, marked by the discovery of an individual as a source and resource of the organization, we need to understand the studies and efforts of one of the biggest promoters of the human relations movement. Douglas McGregor (1906 – 1964) has added to the issue of human relations a series of observations (postulates) on the most important human relation within an organization: the manager-report relation. He starts from the idea that, in exercising their management, managers rely on certain opinions (perceptions) on the human factor behaviour (in particular that of their reports) and these perceptions determine the label managers place on their reports. Moreover, these opinions tend to manage communication processes, conflict resolution, performance assessment, socialization and professional integration.

In his studies, McGregor showed the decisive influence of these opinions on the management style, work climate, decision making, etc. In his opinion, managers tend to be on one of the two extremes when considering the attitude of employees in the work process. These extreme attitudes do not have an actual cause, but are related to the personality and general behaviour of the manager. McGregor highlights this aspect and considers it necessary to train the management staff, in order to make them aware of the importance of these beliefs and the obligation for managers to embrace only one of them (the positive one - Y-type statements). These two extremes were named the X theory and the Y theory.

**The X theory** contains the following

assumptions/beliefs a manager has about his reports:

- *employees do not like work and try to avoid it.* Starting from the law of social entropy, which suggests that an individual, when left at will, without any obligation, tends towards disorder, it is also shown that an employee left at will will not work willingly and will try to avoid effort. This conviction led to studies and research on social absenteeism (Gary John, 1996) and social loafing (Ringelman, 1913). In essence, in group situations, an individual will exert less individual physical and intellectual effort. This is explained by two mechanisms, the free-rider and the deceived one. The free-rider mechanism refers to a situation where a person stops making any effort, since the others in the group cover for the effort, and the deceived mechanism refers to a situation where the one who works realizes that the others don't do much and decides to stop as well.

Regarding our point of interest, the effects on management would be: increased formal control, authoritarian management style, clear division of tasks, avoiding delegation, lack of trust in employees, etc.:

- *most employees have no ambition, they avoid assuming responsibilities and prefer to be guided.* Employees are regarded as proletarians who sell their work force to earn an income. The lack of ambition reflects on their professional development. Managers find them incapable to build a career. The fact that they do not take on responsibilities will determine managers not to trust them, consider them careless and uninterested in the job. The direct and indirect effects of this belief will turn the manager away from his reports, the latter will no longer be seen as an asset for the organization, but, in the happiest case, as a means to an end. To guide an employee would be to force him into the path chosen by the manager, do only what the manager says, carry out his orders exactly and in due time;

- *the average employee is selfish, whichever the needs of his organization.* Selfishness is a complex attitude and we believe that

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there is a socially needed selfishness and a surplus selfishness. From this perspective, selfishness is not necessarily bad, but it refers to an individual's natural disposition to put his own interests first. On the other hand, an organization is there to achieve objectives, in other words to achieve "its own interests". The organizational structure, the logistics available, the management system all focus on achieving organizational objectives. To the extent to which a manager believes that the organization's objectives are of no interest to the employee, the manager will increase monitoring and control over such employee, will seek to measure his work and will ensure that the employee completes all tasks he has received. Employees will feel this pressure and will develop counter measures to protect themselves, which will be interpreted by the management as undesirable and the situation will escalate;

- *an employee, by his nature, will always oppose changes in the organization he belongs to.* Change is an important aspect in the life of an organization, which generates reluctance in most people. When a manager is convinced that one of his reports opposes change, he will treat this employee as an opponent, as a conservative force, which opposes innovation and development. In reality, employees are, psychologically speaking, fearful in the face of change as it brings along uncertainty and insecurity, elements which trigger natural defensive reactions in most of us. A manager who promotes such a belief will find it difficult to assess the true causes behind an employee's behaviour and will end up issuing warnings and sanctions against such employee;

- *the management creates formal, bureaucratic mechanisms to determine employees to participate in the achievement of the organization's objectives, and employees need to be forced to meet them,* threatened with penalties and permanently controlled. Being convinced that an employee will not see beyond his own interests, the manager will generate institutional mechanisms to force and punish people into compliance. This will

develop an authoritarian management style, multiplying disciplinary or administrative investigations, will create a negative, restrictive and oppressive organizational culture;

- *employees are fearful and show a strong need for their own security.* Looking at this statement in the light of the hierarchy of needs, an employee will always feel the need for security and protection, a primary and tyrannical need placed at the base of the pyramid, as the most important need for him. In this way, employees will not show any interest to affiliation to a group (primarily the work group) or self-esteem (the need to be respected and seen in a positive light by work colleagues). As work in an organization is social work (relying first of all on cooperation), for the manager, the employee will be incapable to relate with his colleagues and communicate professionally with them.

**The Y theory** contains the following assumptions/beliefs a manager has about his reports:

- *many employees do not dislike work,* physical and intellectual effort is as natural to them as play or rest. This conviction helps the manager understand that his reports accept the idea of working, of doing what is asked of them, and this is not a big issue to the employees. Certain atypical situations, when an employee is not productive, may be seen as an exception and treated as such;

- *participation of employees in achieving the organization's objective is secured by other means than control and threats of punishment.* Thinking like this about his own reports, a manager has the possibility to propose flexible, ameliorative means of control only on a need basis. The employee is given the opportunity to have a personal approach to the organization's objectives, to filter them through his own personality and find a customized solution;

- *under normal circumstances, employees learn* not only to accept duties and perform responsibilities, but also to assume responsibilities on their own initiative. Employees are capable to actively intervene in the work process, take initiative and find

their own solutions to day-to-day problems in the organization. This way, the management style will be more flexible, based on employee participation, formal control and excessive monitoring will slowly disappear. The employee becomes a cog in this wheel and has the opportunity to promote his own personal views. The organizational goals will no longer contradict, but complement the employee's personal goals;

- *positive motivation and associated rewards* lead to employees taking over duties and responsibilities. This motivation system at the level of the organization will allow employees to take on additional, customized work for the purpose of becoming more efficient and thus be rewarded. The reward perspective has the role of "capturing" and maintaining an open eye with employees. It is a magnet, always ready to attract those employees who wish to show additional involvement. We need to highlight one interesting trait of compliance. After a certain age, people do not necessarily comply to gain something, but also in order not to lose what they already have. At organizational level, this pattern works, many employees, wishing to preserve their position, showing additional involvement in meeting goals, in competition with their peers;

- *the intellectual potential of many employees is only partly used.* This belief creates the support of professional development and career. The idea that an employee can always make things better, be more efficient, changes this employee into an almost inexhaustible resource. This capital can always bring added value. The effects at managerial level are huge, managers will be able to delegate more, ask for collective decisions and allow employees to take part in the decision making act. They will be able to create quality circles, consisting in employees with experience in the organization who can share their views on the most important aspects in their own structures, departments, or the entire organization;

- *employees also have other needs (self-actualization, respect, knowledge),* without removing the need for security. Exceeding

his own fear, his own insecurity, an employee develops a series of social needs and interests, related to his affiliation to the professional group, recognition from the others or self-achievement. This way, he can create new professional relations, gain prestige and build his own image in front of the others.

In conclusion, regarding the X and Y theory, it is worth pointing out that:

- the statements in the theory are opinions, assumptions, beliefs of managers on their reports;
- they are directed towards employees as a whole and towards a particular employee or employee group;
- the statements are important in their effects, since managers perceive employees in the light of these statements;
- in reality, these statements are not the effect of employee behaviours, but are mental schemes, an effect of the manager's subjective perception.

#### **FROM THE PREDESTINED FAILURE EFFECT TO THE PREDESTINED SUCCESS EFFECT**

These statements arise from the manager's subjective will and from his decision-making option. In this way, a manager will show a preference towards one of the two sets of statements - the X type or the Y type. Since this is a personal choice, managers are educated to choose the Y statements, because the effects of this perception are mainly positive.

A test could show the manager's subjective inclination towards one or the other set of statements. This matrix of basic statements is essential for a manager's efficiency.

The basic idea of the theory is that the beliefs are rather the effect of the manager's perception of the employee and less the direct effect of the employee's behaviour. From this point of view, a manager will build his own "mental prison" in relation to his reports. It is not an exaggeration to say that a manager, having built X type beliefs, which are negative



and restrictive, cancels out any change to use an employee's potential to the fullest. A manager should always be preoccupied to create what we call the "sponge employee", the employee who, whichever the effort he placed in achieving a task, after completing it, has sufficient resources to get "back to start" waiting for other tasks. On the contrary, the "clay employee" is unbalanced, tired after having completed a task and needs to recover or go on medical leave.

In this entire mechanism, what a manager expects from his reports and the level of tolerance he displays towards them are of utmost importance. High tolerance and high expectations lead to efficient expectancies. Low tolerance and high expectations lead to inefficient expectancies. People relate to each other not based on what they really are, but based on these expectancies. Or expectancy is a subjective mechanism available to the manager.

Developing efficient interpersonal expectancies, a manager will have sufficiently high expectations to trigger predestined success. "Do as you would be done by!"; "Your right to swing your arms ends just where the other man's nose begins!" or „Don't expect of others what you cannot do yourself!" are good places to start in calibrating tolerance and social expectations.

On the contrary, developing inefficient interpersonal expectancies, which rely on rigid tolerance and high expectations, will lead to predestined failure. Success and failure, beyond being relative, are intersubjective, meaning that they are perceived by the person one interacts with. It is mandatory for the relevant person to have a positive perception on things. People around us live up to the expectations we have of them. When we have high expectations, people, in this case our reports, will live up to them, in the desire to confirm our expectations.

The "Pygmalion" effect or the predestined success effect is visible when the expectations of a manager from their employees are high, which gives them the opportunity to live up

to them.

The "Sisyphus" effect or the predestined failure effect is visible when the expectations of a manager from their employees are low, which blocks them and keeps them at minimum levels of involvement.

Managing a manager's beliefs and opinions on his employees is a matter of managerial education and, at the same time, a sensitive and complex motivational mechanism, which makes the difference between a leader and an ordinary manager, as called by W. Bennis and B. Nanus<sup>7</sup>.

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<sup>7</sup> W. Bennis, B. Nanus, *Liderii, strategii pentru preluarea conducerii [Leaders: The strategies for taking charge]*, Business Tech, Bucharest, 2001.

## STRATEGIC INSOLVENCY CONCEPT

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◇ **Abstract:** *The definition of the “strategic insolvency” concept was premised upon a personal observation: that there are economic entities in the economic circuit which, in the light of their activities and their strategic importance, are of great importance from an economic standpoint as well as in terms of national security. The insolvency of these entities becomes a matter of security and requires special care to avoid bankruptcy, which decreases the vulnerabilities and the vulnerabilities to national security. Based on this observation, we came to realize that an approach on insolvency from the standpoint of national security interests requires setting up a new mechanism for those entities which, given their specifics, may not be eliminated from the economic circuit, not so much for their economic and financial worth, as in terms of their significance to domestic security system. To distinguish between insolvency and strategic insolvency, this work proposes and substantiates the main operating dimensions of the latter. These dimensions are pivotal in defining the strategic insolvency concept as they place the debtor company in either of the following situations: affiliation to the critical State infrastructure, affiliation to strategic fields of interest to the national security and the situation where a debtor’s bankruptcy generates risks and vulnerabilities to state security. These operating dimensions will then allow the strategic decision maker to establish the undertakings which may be subject to strategic insolvency proceedings.*

◇ **Keynote:** *insolvency, strategic insolvency, debtor, critical State infrastructure, strategic fields of interest to the national security, generated by risks and vulnerabilities to national security*

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### FROM INSOLVENCY TO STRATEGIC INSOLVENCY

Any company, however successful, no matter how strong or renowned, is not without vulnerabilities in the face of crisis. In the economic activity the insolvency is a disease. It may be prevented, it is no coincidence that the Insolvency Code uses the phrase “insolvency prevention procedures”, it may be treated, especially by judicial reorganization, or it may break you down, as is the case with bankruptcy.

On the other hand, the state of insolvency as warning instrument outlines imbalances in the economic and financial activities, which generate vulnerabilities and risks, to the company in question as well as the economic

system in general, and indicate the beginning of a crisis. Such crisis defining imbalances prompt the adoption of special measures intended to mitigate and to end the crisis, but also to cause the company to turn around, where possible, by risk analysis and by responding to the identified risks. These special measures are set forth in the insolvency procedure.

The architecture of the insolvency procedure, in addition to its regulatory framework, includes a number of specific activities that need to be carried out in order to eliminate the crisis. Furthermore, the procedure also provides for the appointment of a professional to manage and implement these specific activities, effectively and efficiently. For this activity to succeed, the professional will work with other participants in the procedure,

the creditors in particular (convened in the Meeting of Creditors/Creditors' Committee), and the syndic judge in respect of the review of the lawfulness of the measures taken by the administrator/judicial administrator and, where applicable, the special administrator.

Regarded strictly from a regulatory perspective, insolvency means that "state of the assets characterized by the shortage of money available for the payment of the uncontested, due and payable debts, as follows: a) the debtor's insolvency is presumed when the debtor, 60 days after the due date, has still not paid its debt to the creditor, a relative presumption; b) insolvency is imminent when proof is presented that the debtor will not be able to pay its payable debts on the due date, from the cash available to it on the due date<sup>1</sup>.

From an economic and financial perspective, insolvency as a state of assets, is an indicator showing that the financial flows of liquidity are insufficient for the undertaking to be able to honour its contractual obligations undertaken in the form of debts. The state of insolvency may be identified by two types of analyses, i.e. financial and economical-financial. The financial analysis<sup>2</sup> concerns primarily the financial flows forming at undertaking level as well as the capital management and placements. The economical-financial analysis<sup>3</sup> refers to the correlations between the economic and financial activities in that the financial risk analysis should be correlated with the economic (operating) risk analysis.

At management level insolvency is an indicator that generates a series of actions, including management decisions, in the sense that the use of the indicator of primary financial liquidity, i.e. of the money held in the accounts, as a decision-making criterion, is a practical management measure for determining the

state of insolvency of a debtor.<sup>4</sup>

## CHARACTERISTICS OF INSOLVENCY

If we look at insolvency by reference to the dynamics of the economic circuit, we should be able to identify its characteristics:

**1. a state of imbalance:** viewed in terms of the processual nature of the economic circuit, the state of insolvency, as shortage of cash, constitutes an imbalance which affects the due operation of the economic circuit. The appearance of the state of insolvency compels the debtor to take certain economical-regulatory measures, warns the creditor and compels the latter to take some regulatory decisions, reduces the freedom of movement of the creditor as undertaking in that the cash to be received from the debtor may be used for meeting other contractual obligations, etc. the creditor may have;

**2. a warning indicator:** by its characteristics, the state of insolvency indicates that something is not quite right and that things may go awry unless measures are taken. In other words, insolvency is a crisis warning instrument in that the state of the assets characterized by shortage of cash may entail a crisis of liquidity which in turn causes the crisis of the entire system. If insolvency may generate the crisis, it means that everything that is post-insolvency may be assimilated to crisis management. In this sense, we estimate that the management of insolvency relies on the principles and the particularities of the crisis and risk management;

**3. a prevention indicator:** the state of insolvency, by its warning feature, may constitute a genuine prevention indicator in that it may trigger measures to prevent the state of insolvency and to build a regulatory, economic, financial and management protection shield. For instance, the current law

<sup>1</sup> Article 5, item 29 of Law no. 85/2014

<sup>2</sup> Gheorghe, VĂLCEANU, Vasile, ROBU, Nicolae, GEORGESCU, *Analiza economico-financiară*, Editura Economică, Bucharest, 2004, p. 18.

<sup>3</sup> *Ibidem*, p. 18.

<sup>4</sup> Ioan, ADAM, Anca, R. ADAM, *Codul Insolvenței; Titlul II: Procedura Insolvenței* (art. 1-5, 38-196, 197-203), CHBeck Publishing House, Bucharest, 2016, p. 108.

is called “insolvency prevention procedures...”, which evidences the role the lawmaker attributes to the prevention by establishment of legal preventive instruments: the ad-hoc mandate and the arrangement with creditors;

**4. the ability to block the economic circuit:** the state of insolvency not only causes imbalances to the economic circuit, it may simply block the entire economic circuit. Where we are dealing with an important debtor within a certain economic circuit, its bankruptcy, for instance, may cascade insolvencies in the form of judicial reorganizations or bankruptcies, all of which may block the economic circuit altogether;

**5. a factor triggering the insolvency procedure** is most definitely the critical feature of insolvency. From a regulatory standpoint, the debtor must file, within 30 days from the occurrence of insolvency<sup>5</sup>, a written application to the Tribunal seeking the opening of the procedure. From this perspective, insolvency is the main cause for bringing an insolvency procedure as well as a premise to all the actions to be brought by the debtor, the creditors and the shareholders.

The insolvency procedure concerns an ensemble of legal rules which aimed at securing cash for the payment of the payable debts. As for the ways to secure the cash, the lawmaker references the judicial reorganization procedure and the bankruptcy procedure.

Moreover, in our opinion, the observation period, which is part of the general procedure and during which is drawn up the report on the causes and circumstances leading to insolvency, may be viewed as a method to secure money since this is the period in which the judicial administrator takes all the necessary steps to maximize the degree of capitalization on the debtor’s assets and of recovery of receivables to pay the creditors.

If insolvency is regarded as the state of assets characterized by shortage of cash, i.e. a situation or a set of circumstances the debtor finds itself in at any given time and which jeopardize its business, the

insolvency procedure is the stage in which the administrator/judicial liquidator takes all the necessary steps to pay the creditors and to turn the debtor around, where possible.

As a process, the insolvency procedure is a crisis procedure in that the company management, by special administrator managing the debtor’s wealth under the supervision of the judicial administrator or the judicial administrator alone, if the debtor’s right of administration was removed, does not take on the form of ordinary management, but, rather, focuses on a crisis management the priority of which is to secure the cash to pay the creditors. In this context, the insolvency procedure is a sacrificial one<sup>6</sup> as all the debtors are subjected to “degrading treatments, forfeitures or losses of their rights, while the individual debtor is usually deprived of its wealth or its business.”

Being a crisis procedure during which a crisis and, implicitly, a risk management is exercised, the insolvency procedure is not without vulnerabilities. An organizational vulnerability may be regarded as weakness, a shortcoming, a part that may be easily contested. In the insolvency procedure vulnerabilities concern such aspects, specifics, parts of the procedure that may be treated as weaknesses or shortcomings to the insolvency procedure in its entirety.

Vulnerabilities may not be examined per se as they are circumstantial, being generated and maintained and consumed in a certain social-organizational context and related to the system in its entirety as well as certain parts thereof. For instance, at insolvency level vulnerabilities are present and are aimed at the procedure in its entirety, as well as at the bodies enforcing such procedure as well as at the other participants involved in the insolvency mechanism.

Determination and management of vulnerabilities by reference to the insolvency procedure in its entirety is critical, especially with respect to the purpose of this procedure,

<sup>5</sup> Article 66 (1) of Law no. 85/2014

<sup>6</sup> Gheorghe, PIPEREA, (coordinator), *Codul insolvenței. Notes. Correlații. Explicații*, C.H. Beck Publishing House, Bucharest, 2017, p. 97.

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which is, in addition to settling the debtor's debts, where applicable, to grant the debtor a chance to turn around and get back in the economic circuit. The regulatory efficiency is countered, unfortunately, by reality, as most insolvencies end up in bankruptcy.

What will happen when, in theory, bankruptcy is not an option? How can bankruptcy be avoided in the case of undertakings with special status, meaning those that are part of the national security system. What actions should be taken where an economic entity with special status enters insolvency and bankruptcy is not an option? And, if that were the case, would we be dealing with regular insolvency or should we outline another insolvency concept that will encompass other defining indicators in addition to the traditional indicator (the state of assets characterized by shortage of cash)?

As far as these economic entities with special status are concerned, should we point out the features they should meet for undergoing the special insolvency procedure? What would these features be? Should they be directly related to the national security system or could they be important only in the context of the economic strategy?

An approach on insolvency from the standpoint of the national security interests of a state or from our point of view requires a development of a new insolvency concept, which we generically called "strategic insolvency".

Defined as a state of the assets characterized by shortage of cash available for the payment of debts, insolvency is a mean to identify the economical-financial imbalances of an entity as well as a premise for initiating the insolvency procedure, a mechanism intended to determine the debtor's turnaround and, where not possible, the liquidation of same. This regulatory framework does have a few particularities, especially with respect to those economic entities which, on the brink of insolvency, need a special regulation in light of their particular importance to the national security system.

## STRATEGIC INSOLVENCY CONCEPT

The extrapolation of these economic entities with special status threatened by insolvency from the economic field to the national security area field raises a number of questions as to the compliance with the market economy laws and the economic paradigms guiding the economic and commercial activity.

However, having regard to the adverse effects that may appear should these entities be liquidated by bankruptcy, thus generating threats and risks to national security, we provided arguments supporting the role and importance of strategic insolvency as well as the importance of salvaging these entities for economic as well as security considerations.

If insolvency was so far understood merely by reference to the legal-economic relationships, the reorganization of the largest hydropower producer in the country, i.e. Hidroelectrica, allowed me to understand that this relationship is insufficient when entities of great importance to the national economy and security enter insolvency.

As we analysed insolvency from the perspective of the legal-economic-security triad, we had to distinguish between this type of insolvency and ordinary insolvency. The distinction between ordinary insolvency and strategic insolvency is given precisely by the debtor's standing within the national security system.

We departed from the following question: *How should we identify and analyse the debtor's standing so as to include it in the national security system?* The scope of the "national security system" phrase is very broad and, under a general analysis, includes any organizational entity that is directly or indirectly tied to national security. In light of such generous scope we tried to determine the concrete, practical and easily trackable indicators that allow us to include an economic entity in the national security system. After an individual research and a series of formal and informal discussions with the professionals in

the field, we were able to determine the operating dimensions of the strategic insolvency which are a set of instruments underlying a decision as to whether or not an economic entity (state-owned company, company) is part of the national security system.

In other words, insofar as the debtor company is part of the critical State infrastructure, operates in strategic fields of interest to the national security or if its liquidation generates risks and vulnerabilities to national security, it may be subject to the strategic insolvency. The debtor's standing is no longer a strictly economic issue, it is now a matter of economic security and, implicitly, of national security.

In this context, strategic insolvency may be defined as a state of the assets of the debtor, which belongs to the national security system, characterized by the shortage of money available for the payment of the uncontested, due and payable debts.

## **THE OPERATING DIMENSIONS OF STRATEGIC INSOLVENCY**

In our endeavour to define strategic insolvency we associated it with three indicators that are directly linked to national security: the critical infrastructure, the strategic fields of interest to the national security and the risks and vulnerabilities to national security, should the debtor go bankrupt. These indicators constitute, in our opinion, operating dimensions insofar as they are taken into consideration for the purpose of defining strategic insolvency.

In this context, we consider we should summarize these three dimensions for a better understanding of their respective impact on the elaboration of the strategic insolvency concept.

### **The critical infrastructure dimension**

The first indicator taken into account in building a strategic insolvency concept distinct from the ordinary insolvency concept was the debtor's affiliation to the critical State

infrastructure. Early into our endeavour we have come to realize that, to promote not so much the strategic insolvency concept as the insolvency procedure in the national security field, we should include these undertakings within the scope of national security.

It is up to the strategic decision makers to decide if the economic entities should cumulatively fulfil "special" criteria for being included in this field or whether they should meet at least one such criterion, in addition to the "state of the assets characterized by the shortage of money available for the payment of the uncontested, due and payable debts" which is mandatory in defining strategic insolvency, too. As far as I am concerned, these indicators should not be cumulated since this would totally shorten the list of economic entities subject to strategic insolvency.

What is a critical infrastructure? In the National Defence Strategy, *for a Romania that guarantees the security and wellbeing of the future generations, 2010 (in Romanian, Strategia Națională de Apărare, pentru o Românie care garantează securitatea și prosperitatea generațiilor viitoare, 2010)*, the critical infrastructure is defined as "any functioning economic entity which provides public utility products/goods and services that are vital for the entire society and the destruction, degradation or non-operability would have a major impact on the population and the economy, at national or regional level."<sup>7</sup> According to the Strategy, critical infrastructures are complex network-based systems or contain such subsystems, but may also include specific targets of national importance.

On the other hand, some authors<sup>8</sup>, analysing the "critical" concept from the "critical infrastructure" phrase, consider that it is given by such aspects as: their value to

<sup>7</sup> Strategia Națională de Apărare, *pentru o Românie care garantează securitatea și prosperitatea generațiilor viitoare*, 2010, p. 26.

<sup>8</sup> Aurelian, ȚOLESCU, *Protecția infrastructurilor critice - factor de securitate*, în *România Transatlantică*, © Asociația Centru de Resurse pentru Societatea Civilă, Bucharest, 2016, p. 926.

the due functioning of all processes (political, society, economy, environmental, military, etc.), the complementarity of system or process infrastructure; the role of the infrastructure in ensuring the security, the stability and the functionality of systems as well as the degree of sensitivity of these infrastructures in the face of sudden changes in status or circumstances.

The most notable definitions of the infrastructure concept are:

“(…) critical and virtual systems and values of the utmost importance to the United States, the disruption or destruction of which might adversely impact the security, economic security, public health and public safety”<sup>9</sup>;

“(…) an infrastructure the damage or destruction of which impairs the health, the security or the standard of living of a nation or the environment in which the government of the affected country functions”<sup>10</sup>;

“(…) physical installations and information technology, service networks and the values which, in case of stoppage or destruction, might seriously impact the health, the security of the economic wellbeing of the citizens or the functioning of the governments of the member states”<sup>11</sup>;

“(…) those physical resources, IT services and technology installations, networks or values the destruction or disruption of which may adversely impact the state of health, the safety, the security, or the economic wellbeing of the Canadian people or the due functioning of the government.”<sup>12</sup>

Based on the comparative analysis between these definitions and the definition provided in the National Strategy for Critical

Infrastructure Protection<sup>13</sup> we were able to identify the following:

a) the critical infrastructure includes assets that are important to national security;

b) the destruction of the assets included in the critical infrastructure causes major imbalances;

c) the imbalances in the critical structure reflect on the health, the safety, the wellbeing or the standard of living;

d) these imbalances in the critical structure affects the functioning of the state administration (authorities);

e) the critical infrastructure system is defined by reference to a state or a union (EU).

There are two ways to identify the elements of the critical infrastructure, the American way and the European way<sup>14</sup>.

The American approach relies on the following criteria: affected population; economic impact/direct costs of rehabilitation; impact on the respective sector; impact on other sectors; period of remake of services and impact on the population's morale.

The European approach relies on the following criteria: degree and area covered by the critical sector; magnitude and intensity of effects; possibility of the element being affected by a specific vulnerability and time-lagging effects.

Beyond these interpretations, the critical infrastructure is generically made of:<sup>15</sup>

a) infrastructure nodes (employees, installations, equipment items, etc.);

b) interactions - links - between the (administrative, decisional, IT, information analysis, etc.) infrastructure nodes;

c) interdependency with entities outside the infrastructure (political, economic, technological, security and social).

Regarding the importance and the role of the State critical structure, the applicable

<sup>9</sup> *The USA Patriot Act*, October, 26, 2001, apud Aurelian, ȚOLESCU, *op.cit.*, 929

<sup>10</sup> *Critical Infrastructure Protection Concept Document*, EAPC (CPC), WP (2003)3., apud Aurelian, ȚOLESCU, *op.cit.*, p. 929

<sup>11</sup> The European Council Directive for critical infrastructure protection identification, COM(2006)787, final, apud Aurelian, ȚOLESCU, *op.cit.*, p. 929

<sup>12</sup> Office for critical infrastructure protection and emergency preparedness - An Assessment of Canada's National Critical Infrastructure Sectors, Ottawa, July, 2003, apud Aurelian, ȚOLESCU, *op.cit.*, p. 929

<sup>13</sup> Government Decision no.718/2011 approving the National Strategy for Critical Infrastructure Protection, Official Gazette, Part I, no. 555/2011

<sup>14</sup> Aurelian, ȚOLESCU, *op.cit.*, p. 931

<sup>15</sup> *Ibidem*, p. 932.

current national strategy has a triple purpose: First, to establish the benchmarks required for the continuous development of the national capacities of protection of critical infrastructure; to harmonize the internal framework with the EU and NATO framework; to implement the structural and procedural measures in order to determine, designate and protect critical infrastructures by the involvement of the competent national authorities as well as of the private partners.

The main sectors of the critical infrastructure, in line with the provisions of the Directive 2008/114/CE on the identification and designation of European critical infrastructures and the assessment of the need to improve their protection are: energy; information and communication technology; water supply; food; health; national security; administration; transportation; chemical and nuclear industry as well as space and research.

The third purpose is very important for it will allow the identification of all the entities that may be part of the critical State infrastructure, which will then allow an increased protection of same, in terms of preventive mechanisms and of measures included in the insolvency procedure.

### **The dimension of strategic interest to national security**

The second indicator identified refers to those debtors that operate in fields of strategic interest to national security. This indicator relates to the dimension of strategic interest.

What is strategic interest? To answer this question I will equate the strategic interest concept with the concept of national security interest as defined in the current law on national defence.

Even if from a functional standpoint there may be distinctions in that, for instance, the preservation of traditions, the language or the natural culture may be considered national security interests, but not necessarily strategic interests, regarding the economic, economic policies and economic security or, subject to a wider scope, from the standpoint

of the economic dimension of national security, we considered these two terms to be synonymous.

We chose the phrase “the strategic interest dimension” instead of “the economic dimension of strategic interest” despite the latter being closest to my thesis because the economic operators of strategic interest as defined in Government Emergency Ordinance no. 88/1997<sup>16</sup> are those with a majority State-owned capital and which may be declared of strategic interests by Government decision.

It is our opinion that the strategic insolvency may also include private operators, if they meet the criteria we identified. In other words, these private operators which are part of the critical infrastructure of the State operate in areas of strategic interest to national security, the bankruptcy of which may generate risks and vulnerabilities to national securities, they may be governed by strategic insolvency concept.

However, we will conduct a brief analysis on the national security interest as stated, in particular, in the national defence / security strategies. In the current Strategy<sup>17</sup> the national security interest is aimed at: “the promotion and defence, by lawful means, of the values by which the Romanian State guarantees its existence, its identity, its development and its stability, based on which it builds its future and on which it relies when participating in the enforcement of national security.”

The National Defence Strategy of 2010 does not reference the concept of national interest security, only the national interest concept defined as “those needs and aspirations that are essential for asserting national identity and values, the existence of the state and the preservation of its fundamental functions<sup>18</sup>.”

<sup>16</sup> According to Article 3, letter b) of Government Emergency Order no. 88/1997 on the privatization of companies, “the companies of strategic interest mean national societies and national companies; other companies with a majority State-owned capital may be declared of strategic interest by Government Decision”.

<sup>17</sup> Strategia Națională de Apărare a Țării pentru perioada 2015 -2019, *op.cit.*, p. 8.

<sup>18</sup> Strategia Națională de Apărare, 2010, *op.cit.*, p. 8.

As one of the fundamental functions of the state is to ensure a level of wellbeing for its citizens, the economic dimension is obviously included in the national interest concept.

In the current Defence Strategy, the national security interests, as stated therein<sup>19</sup>, include: the capitalization on Romania's resources and geostrategic position to reach a wellbeing that the citizens might have or to reduce the laggings in regional development and to build the great public systems that, in our opinion, fall under the scope of strategic interest to the national security.

### **The dimension of risk/vulnerability to national security**

The third indicator we used for defining the strategic insolvency concept pertained to the risks and vulnerabilities to national security, which may appear when the debtor enters bankruptcy.

This aspect is comprised in the "dimension of risk/vulnerability to national security". According to the current national defence strategy, the vulnerabilities and risks to national security may no longer be examined in light of military concepts alone because the current security environment and public security agenda include, alongside military security elements, elements of another nature, namely: economic, social, environmental, etc..

In line with said strategy, vulnerabilities are consequences of "systemic malfunctions or deficiencies which may be exploited or which may contribute to the materialization of a threat or risk"<sup>20</sup>. In other words, vulnerabilities are concerning weaknesses, deficiencies, which may be used to generate threats or may produce threats directly.

According to the National Defence Strategy of 2010 vulnerabilities were determined based on factors within the society, which could enhance the chances of threats emerging. For

instance, the main vulnerabilities identified at national security level and which are related to the purposes of my thesis are concerning:

a) the politicization of some institutions, including economic ones, both regionally and nationally;

b) the underground economy practices (tax evasion, contraband, undeclared payment of the labour force, etc.);

c) the lack of coherent mechanisms of forecast, prognosis, programming, planning, execution and control that would facilitate the multiannual result-based budgetary management;

d) budgetary imbalances due to mistaken political decisions;

e) the large lagging in the development of the country regions;

f) demographic decline and aging of population.

The main security vulnerabilities identified in the current Strategy include: absorption of EU funds; use of public money; energy; the ability of the central and local administration to implement public policies - national and European-; degree of poverty; migration of specialized workforce and fragility of spirit and civil solidarity.

The 2014-2020 National Competitiveness Strategy identifies the main vulnerabilities pertaining to the competitiveness in the business environment. In our opinion, these vulnerabilities have direct implications not only on competitiveness, but also on national security. Among them: low innovative performances as a result of the early development of the national CDI system; slow transformations by reference to Romania's need to overcome its status of underdeveloped country; trade based on raw material and, less, on final products; vulnerabilities in the private environment (a rather small number of foreign capital invested in Romanian companies, a low degree of productivity in the manufacturing industry, a low development of competitive economic agglomeration at regional level); a slow rate of absorption of EU funds; large values of the corruption

<sup>19</sup> Strategia Națională de Apărare a Țării pentru perioada 2015 -2019, *op.cit.*, pp. 8-9.

<sup>20</sup> *Ibidem*, p. 14.

index; a business management that ineffective in settling the procedural difficulties in terms of business development as well as business infrastructure.

The definition of risks from a national security perspective is reflected in the current defence strategy by “the potential occurrence of an uncertain event, with direct or indirect impact on national security”<sup>21</sup>, while the 2010 Defence Strategy defines the risk as “the probability to cause substantial injury to the national security interests, values or objectives”<sup>22</sup>.

For instance, the uncertain events set forth in the current defence strategy under item 3.2, are, among others: regional instability (resolution of frozen conflicts, provision of energetic security, protection of the rights of the Romanian communities and protection of the economic activities conducted within Exclusive Economic Zone of Romania in the Black Sea); failure to achieve Romania’s development objectives (proliferation of underground economy, persisting economic hardship, tax evasion, lagging in development within the EU); social risks (demographic decline, migration of the active population, environmental degradation, health, education and social care deficiencies); radicalization of extremist entities within the country, cross-border crime and illegal traffic of conventional weapons).

The risks and vulnerabilities to national security are complex as they exceed the economic dimension of security in terms of the development objectives of Romania, and they can be found in fields pertaining to central administration, health, demographics, social education (entrepreneurial training included) and in the cross-border crime field.

<sup>21</sup> Strategia Națională de Apărare a Țării pentru perioada 2015 -2019, *op.cit.*, p. 14.

<sup>322</sup> Strategia Națională de Apărare, 2010, *op.cit.*, p. 13.

<sup>22</sup> Unitate de analiză de securitate în sensul dat de Barry, BUZAN, Ole WÆVER, Jaap de WILDE *op. cit.*, p. 60.

## CONCLUSIONS

Insolvency will continue to be “a necessary evil” which exists in any economic circuit. Its occurrence results in preventive and reactive measures in response to crisis and risk situations. Having regard to the specifics of some economic circuits overlapping the matter of national security, strategic insolvency as a practical activity is extremely important in outlining the need for exceptional measures whenever national security may be endangered.

The most important gain of the strategic insolvency procedure is, however, the avoidance of bankruptcy. During this special procedure the companies may only be reorganized by cost restructuring, including personnel cost restructuring, by redefining and optimizing the organizational chart, the production flows and processes, by the depoliticization and professionalization of the management, by debt to share swap, by adapting the production or the services to the social and economic dynamics, in the context of a globalized and highly competitive economy.

Although these measures exceed the boundaries of the economic game, they will help the state monitor and contain the vulnerabilities and the risks to national security as may arise from the economic field.

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## NATIONAL SECURITY AND STRATEGIC INSOLVENCY

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◆ **Abstract:** *This article emphasizes the significant correlation between the national security and the strategic insolvency and provides arguments in support of the need for strategic insolvency to be treated as a matter of security and to be subject to security analysis. Starting from the significance and the importance of strategic insolvency in the context of national security, we relied on the pattern of security analysis units to substantiate the need to acknowledge strategic insolvency as a security matter and, implicitly, as an important element in the architecture of a broader scope of the security concept.*

◆ **Keynote:** *insolvency, strategic insolvency, national security, security analysis, reference object, securitization actor*

National security generally concerns the protection of the states against any foreign and domestic threats directed against their national interests. That is to say, a state's basic concern for national security ensures its survival<sup>1</sup>.

National security was defined in the National Security Strategy of Romania of 2006 as an underlying requirement for the existence of the Romanian nation and the Romanian state, which has as scope of reference the national values, interests and objectives<sup>2</sup>. National security is an imprescriptible right stemming from the full sovereignty of the Romanian people, based on constitutional order and presently enforced in a complex security environment - regional, Euro-Atlantic and global. National security also designates the risks and the threats that jeopardize the human fundamental rights and liberties as well as the very foundation of the Romanian state<sup>3</sup>.

<sup>1</sup> Paul, ROBINSON, *op. cit.*, 2010, p. 202.

<sup>2</sup> Strategia de Securitate Națională a României, *România Europeană, România Euro-Atlantică: pentru o viață mai bună într-o țară democratică mai sigură și prosperă*, 2006, p. 5.

<sup>3</sup> *Ibidem*.

Romania's National Defence Strategy of 2015<sup>4</sup> promotes the concept of extensive national security (based on constitutional democracy and mutual respect between citizens and state), in an integrative and multidimensional approach aimed at all the interests converging to maintain national security and which are manifest in the following main fields: defence, public order, intelligence, counterintelligence and security activities, education, health, economy, energy, finances, environment, critical infrastructures.

Based on these definitions we were able to conclude that national security was defined in a broader sense and the latter definition, in particular, stated more security dimensions.

If national security depends on the ability of the state to continue its internal life without any serious interference<sup>5</sup>, economic security deals with the protection the Government

<sup>4</sup> Strategia Națională de Apărare a Țării pentru perioada 2015-2019, *O Românie puternică în Europa și în lume*, 2015, p. 5.

<sup>5</sup> George, F. KENNAN, apud în Mihai, TUDOSE, *Securitatea economică în era transformărilor globale*, RAO Publishing House, Bucharest, 2013, p. 13.





should provide against the actions of other states that would seek to weaken the national heritage (compromise of wellbeing and prosperity, embargo, commercial interdictions, limited access to raw material by way of prohibitive prices).

In view of the foregoing considerations, the insolvency procedure has the role to protect the state in that the economic entities facing insolvency have a regulatory framework they may use to either get back in the economic circuit (after a successful reorganization plan) as or to declare bankruptcy (by liquidation of debtor's assets, payment of creditors and de-registration of the debtor from the trade registry records).

If strategic insolvency is that state of the assets of a debtor, as part of the national security system, characterized by the shortage of money available for the payment of the uncontested, due and payable debts, and the debtor is part of the critical State infrastructure, operates in strategic fields of interest to national security or if its liquidation generates risks and vulnerabilities to national security, it may be subject to strategic insolvency. The debtor's standing is no longer a strictly economic issue, it is now a matter of economic security and, implicitly, national security.

## STRATEGIC INSOLVENCY AND SECURITY ANALYSIS

May strategic insolvency be included in the scope of a security analysis? In other words, is it possible for strategic insolvency to be treated either as a security matter or as an object of reference? Is it possible for an economic circumstance such as insolvency, even strategic, to be treated as a security analysis instrument? We endeavoured to answer these questions based on the *pattern of analysis units* set up by Buzan and his collaborators and based on the reasoning of expanding the scope of the security concept.

In the aftermath of World War II, an ample debate was sparked in the security surveys regarding the security concept, namely the

need to expand the scope of same beyond its military dimension or to restrain it, or to just maintain it as a concept at military security level. Most of those advocating the expansion of the scope of the security concept, Buzan, Wæver and de Wilde among them, relied on the existence of new non-military threats that had to be included in the public security agenda.

The expansion of the scope of the security concept was achieved by conceiving security in terms of sectors (military, political, economic, environment, societal), by determination of certain types of relationships and interactions. For instance, the economic sector includes commercial, production and financial relationships. In this respect, B. Buzan<sup>6</sup> states that economic security deals with the access to the resources, finances and markets necessary to support an acceptable standard of living, and with the power of the state.

The sectors are images of the international system that underline a particular aspect of the relationship and interaction between all its constituents<sup>7</sup>.

If security may be viewed as a lack of threats against the state, if the state were no longer the sole actor in charge of security, it would mean that the existential threat that requires emergency actions or special measures may be largely accepted (i.e. by limited collective units). We should emphasize that within this pattern, too, the state remains the central object of reference to all sectors. Conceptually, the problem lies in whether or not another entity, besides the state, may be designated as object of reference. For the purpose of the pattern, object of reference means "those things the very existence of which is under threat and which have a lawful claim for survival"<sup>8</sup>.

If the state is no longer sole security

<sup>6</sup> Barry, BUZAN, *Popoarele, Statele și Teama*, Cartier Publishing House, Chișinău, 2000, pp. 19-20.

<sup>7</sup> Barry, BUZAN, Charles, JONES, Richard LITTLE, *The logic of Anarchy: Neorealism to Structural Realism*, Columbia University Press, New York, 1993, p. 31.

<sup>8</sup> Barry, BUZAN, Ole, WÆVER, Jaap de WILDE, *op. cit.*, p. 60.

actor and object of reference, then, in theory, anything may be considered object of reference on the condition that it survive, which survival depends on a series of specific measures.

Prima facie, regarding economic security, a limited mid-level collectivity such as an economic entity (enterprise, national company, trading company, state-owned company) is not sufficient to attain object of reference status because, threatened with disappearance, it may not legitimize “any action that exceeds the scope of ordinary and legal rules”<sup>9</sup>, which means that, in particular, enterprises are not entitled to raise claims for their own survival.

As the security policies in this field do not stand a chance unless the economic arguments may be linked to the state, we proposed the strategic insolvency concept which, in addition to the economic arguments (shortage of cash required for the ...), comprises arguments pertaining to the state’s interest to claim its natural right to survive, to exist and to take exceptional measures (inclusion of the economic entity in the critical State infrastructure, its strategic interest to national security and the circumstance in which its bankruptcy might generate vulnerabilities and risks to state security). This way, the economic entity, as a limited collective unit, may serve, in our opinion, as object of reference for the purposes of the security analysis, and, implicitly, the strategic insolvency of such entity may be viewed as a matter of security.

A second issue raised by the pattern of security analysis units is concerning the securitization actors. The securitization concept generally concerns the actions required for placing something under protection. The securing of a house, for instance, concerns all the measures we take, from locking the door to using sophisticated arming and warning systems. Within this pattern, securitization is about presenting a problem to the general public and lifting the emergency status to make way for new rules. Those who do this are referred to as securitization actors. Specifically, securitization actors are “actors securitizing

the problems by declaring that something - an object of reference - is threatened in its existence”<sup>10</sup>. The securitized problem is the strategic insolvency, while the thing declared threatened in its existence and ranked object of reference is the economic entity entering the strategic insolvency.

Who can act as securitization actor within strategic insolvency? In other words, who securitizes strategic insolvency and includes it in the purpose of the security analysis by putting it on the public security agenda? Ideally, this actor is the state, by its presenter. The government, as the central executive body of the state power is a sufficient securitization actor in this respect, in our opinion. On the other hand, having regard to the political structure across Romania, the constitutional relationships between the Government, the President and the President’s Office, another potential securitization actor might be the Supreme Council of National Defence as a body with express powers in matters of national security. As these are predominantly economic entities, another securitization agent capable to act as such is the Ministry, as a central body of the state administration (the ministries of Economy, Energy, Defence, Transport, Communications etc., as the case may be).

From a functional standpoint, we consider that the securitization actor most effective in the management of economic entities entering strategic insolvency is the Supreme Council of National Defence (CSAT), which should issue an opinion on this matter before the opening of the procedure and should approve the insolvency practitioners which meet the requirements for taking over the mandate during the proceedings. Within the strategic insolvencies only the practitioners approved by CSAT could submit offers for taking over the judicial administrator mandate. If no offers are submitted, the syndic judge will appoint a practitioner from the list approved by CSAT.

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<sup>9</sup> *Ibidem*, p. 63.

<sup>10</sup> *Ibidem*, p. 60.



## STRATEGIC INSOLVENCY AND NATIONAL SECURITY

The multisectoral analysis on security, specific to security surveys, also made way for the multisectoral analysis on national security. As stated in the introductory part of the National Security Strategy of Romania for 2015-2019, in item 3, it is important the need to promote an expanded scope of the national security concept which, in addition to the field (sector) of defence, includes other fields (sectors), among which: economic, energetic, financial, critical infrastructures etc.

Beyond the multidimensional aspect, the Strategy cultivates an inclusive approach in which dimensions are mutually combined and balanced. The acknowledgment of the economic dimension within the Strategy and of the economic security, implicitly, permit us to bring strategic insolvency closer to national security.

Strategic insolvency is not a mere economic concept, although the economic dimension plays an important, but not singular as with the insolvency concept, but, rather, a concept that includes indicators pertaining to national security, such as the affiliation to the critical infrastructure of the economic entity subject to strategic insolvency, the strategic interest it has toward national security as well as the threats and the risks that its disappearance might inflict on national security.

If in the case of an economic entity subject to ordinary insolvency, its clearance, its disappearance as a result of bankruptcy somehow cleanses the economic circuit and renders it more effective, as far as the entities subject to strategic insolvency are concerned, their respective disappearance is viewed not as a solution, but as a serious vulnerability likely to affect the entire national security system.

Strategic insolvency thus becomes a security warning instrument that plays a role in maintaining the social and economic balance, in general, and in the early management of threats to national security, in particular.

Furthermore, strategic insolvency

becomes a prudential, preventive instrument likely to confine the action of the risks to national security and to create early warning mechanisms capable of making proactive scenarios for the preservation of national security.

The role of strategic insolvency, given the legal forms of the entities against which it may be opened, may transcend the national borders and may also be examined on a regional level, through the regional security complexes to which Romania adhered. For instance, the bankruptcy of Transgaz could jeopardize the entire regional gas distribution system.

The multisectoral approach on security on which the expanded scope of security concept is based made it possible for the strategic insolvency to be treated as a matter of security. Failing this approach, the strategic insolvency concept would be much poorer. Taking on a broad scope of the approach, the strategic insolvency concept is much more effective as an instrument of efficientization of national security in its entirety.

## CONCLUSIONS

The prospect of expanded security allows for a more encompassing approach on the matters of security, which gave me the chance to propose the entry of strategic insolvency on the public security agenda, as a matter of non-military security.

The analysis on *security complexes* may prove useful in the future in terms of determination of interdependency between the neighbouring countries in matters of security and regarding the correlation of this term to the cross-border dimension of economic entities, which will allow for further analysis on the strategic insolvency of cross-border economic entities through the security complexes.

The state should advocate an effective strategic positioning of entities with special status as it must make a compromise and/or a choice in respect of an entity entering strategic insolvency, which will generate a lasting competitive advantage based on strategic

thinking and strategic approach and relying on security considerations.

It is desirable that this “strategic insolvency” concept coined and developed by me may soon become a legal reality by creating the premises, leverage and instruments for such economic entities pertaining to the critical national infrastructure as: Tarom, Poșta Română, Complexul Energetic Oltenia, Complexul Energetic Hunedoara, C.F.R. Marfă, C.F.R. Călători etc. to be restructured, rendered economically efficient and, ultimately, to be salvaged from certain bankruptcy. If the strategic insolvency institution were timely regulated, an economic entity with special status such as the Romanian Authority for Nuclear Activities (in Romanian, *Regia Autonomă de Activități Nucleare*) (RAAN), the largest heavy water producer in the world, would not have gone bankrupt.

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# THE IMPACT OF TERRORISM ON THE EUROPEAN UNION

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◇ **Abstract:** *Terrorism has become the main threat to the security of the European Union. Since 2015, terrorist attacks that cause chaos and terror, dead and wounded, especially in France, the UK and Germany, but also in other EU countries, are completed year after year. New means of achieving terrorist attacks are being used to capture and make as many victims as possible. Regarding the effects of terrorism on EU countries, on the one hand, the measures that are taken to combat terrorism restrict the freedoms of citizens while increasing their security and, on the other hand, the economies of the states experience great losses due to the fact that tourists give up visiting countries that are targeted by terrorist actions.*

◇ **Keywords:** *terrorism, the European Union, terrorist attacks.*

## TERRORISM - A BORDERLESS THREAT

Terrorism is a phenomenon that does not know borders; globalization, rapid development of new technologies, poverty, social exclusion are just a few factors contributing to the spread of terrorism around the world.

To fight against terrorism, within US Department of State a list of terrorist organizations was drawn up – Foreign Terrorist Organizations<sup>1</sup>. Some are less well-known, others have been noted for sustained activity: Aum Shinrikyo, Basque Fatherland and Liberty, Hamas, Hizballah, Palestinian Liberation Front, Revolutionary Armed Forces of Colombia, al-Qa’ida, al-Shabaab, Boko Haram, the Levant’s Branch in Libya and other.

According to the *Country reports on terrorism 2016* the Islamic State of Iraq and Syria (ISIS) remained the most potent terrorist threat to global security<sup>2</sup>. In the study

*Eyewitness Accounts from Recent Defectors from Islamic State: Why They Joined, What They Saw, Why They Quit*, the authors Anne Speckhard and Ahmet S. Yayla, identified the following motivations for joining ISIS: material and personal interests, such as cash payments in the form of a salary, food, accommodation, furniture, and other rewards given to fighters for ‘good work’; ideological and faith motivation. This is different from the kind of faith and ideological motivations discussed in the September 2015 ICSR report. Faith and ideology here refer to the desire to learn and study the Sharia and join religious classes run by ISIS for its members because ‘they had been largely denied religious education under the [Government of Syria]’; ISIS’ ability to bring security, reduce crime and achieve equality in the areas under its control through the embrace of a strict Islamic code; purification and cleansing, especially of past sins; fear of a worse alternative<sup>3</sup>. The

<sup>1</sup> United States Department of State, *Foreign Terrorist Organizations*, <https://www.state.gov/j/ct/rls/other/des/123085.htm>, accessed on 02.09.2017.

<sup>2</sup> *Country reports on terrorism 2016*, United States Department of State Publication, Bureau of

Counterterrorism, Released July 2017, p. 10, <https://www.state.gov/documents/organization/272488.pdf>, accessed on 05.10.2017.

<sup>3</sup> United Nations Office of Counter-Terrorism, *Enhancing the Understanding of the Foreign Terrorist Fighters Phenomenon in Syria*, July 2017, <http://>

Islamic State has been able to recruit “between 31,000 and 27,000 fighters from more than 86 countries”<sup>4</sup> mainly through the Internet. In 2015 ISIS undertook attacks in 252 different cities and was responsible for 6,141 deaths in the year<sup>5</sup>. ISIS has spread terror through specific means: rape, kidnapping, torture, decapitation. Men, women, children, without distinction, all suffered because of the actions of ISIS.

The United Nations Secretary-General drew attention to the growing threat posed by ISIS: “The rapid emergence of the so-called Islamic State in Iraq and the Levant (ISIL), or Daesh, reshaped the violent extremist landscape and amplified the already substantial threat posed by older extremist groups such as Al-Qaida, Boko Haram and Al-Shabaab. In the past six months alone, ISIL carried out, inspired, or claimed responsibility for terrorist attacks in Bangladesh, Belgium, Egypt, France, Germany, Indonesia, Lebanon, Pakistan, the Russian Federation, Turkey and the United States of America”<sup>6</sup>. The large number of fighters, the affiliation of other terrorist organizations, and the many terrorist actions

of this terrorist group deployed almost all over the world have ensured a high visibility.

Beyond the chaos and terror generated, terrorist actions cause material destruction and loss of life. According to statistics, the number of casualties due to terrorism worldwide between 2006 and 2016 showed a slight decrease from 25.621 to 20.487. However, in 2014, an enormous number of casualties has been recorded: 32.763<sup>7</sup>. In 2015, a total of 11,774 terrorist attacks occurred worldwide, resulting in more than 28,300 total deaths and more than 35,300 people injured. In addition, more than 12,100 people were kidnapped or taken hostage<sup>8</sup>. These figures highlight the impact that terrorism has because of the large number of casualties that it generates and the fact that it is a major threat to security.

### **TERRORISM - A GROWING THREAT TO THE COUNTRIES OF THE EUROPEAN UNION**

Terrorism is manifested globally, and because of the possibilities to travel anywhere in the world, this scourge has manifested strongly also in the European Union. In the *European Union Terrorism Situation and Trend Report 2017* is indicated the type of terrorism that threatens the EU: “The EU is facing a range of terrorist threats and attacks of a violent jihadist nature, from both networked groups and lone actors”<sup>9</sup>. ISIS is the terrorist organization that claims, almost every terrorist attack completed in the EU.

A brief chronology of terrorist attacks in the European Union could start with Madrid, March 2004, London, July 2005, could continue with Brussels, May 2014, so that

[www.un.org/en/counterterrorism/assets/img/Report\\_Final\\_20170727.pdf](http://www.un.org/en/counterterrorism/assets/img/Report_Final_20170727.pdf), accessed on 03.10.2017, apud Anne Speckhard and Ahmet S. Yayla, *Perspectives on Terrorism, Eyewitness*.

*Accounts from Recent Defectors from Islamic State: Why They Joined, What They Saw, Why They Quit*, Vol 9, No 6, 2015, <http://www.terrorismanalysts.com/pt/index.php/pot/article/view/475/html>.

<sup>4</sup> Hardin Lang and Muath Al Wari, *The Flow of Foreign Fighters to the Islamic State Assessing the Challenge and the Response*, March 2016, Center for American Progress, p. 1, <https://cdn.americanprogress.org/wp-content/uploads/2016/03/17132821/ForeignFighters-report.pdf>, accessed on 04.10.2017, apud The Soufan Group, “*Foreign Fighters: An Updated Assessment of the Flow of Foreign Fighters into Syria and Iraq*”, 2015, available at [http://soufangroup.com/wp-content/uploads/2015/12/TSG\\_ForeignFightersUpdate3.pdf](http://soufangroup.com/wp-content/uploads/2015/12/TSG_ForeignFightersUpdate3.pdf).

<sup>5</sup> *Global Terrorism Index 2016*, Institute for Economics & Peace, p.4, <http://economicsandpeace.org/wp-content/uploads/2016/11/Global-Terrorism-Index-2016.2.pdf>, accessed on 06.10.2017.

<sup>6</sup> United Nations Secretary-General, *Report of the Secretary-General: B. Maintenance of international peace and security*, <https://www.un.org/sg/en/content/report-secretary-general-b-maintenance-international-peace-and-security>, accessed on 06.10.2017.

<sup>7</sup> *The number of casualties due to terrorism worldwide between 2006 and 2016*, <https://www.statista.com/topics/2267/terrorism/>, accessed on 02.09.2017.

<sup>8</sup> U.S. Department of State, *Statistical Information on Terrorism in 2015, Country Reports on Terrorism 2015*, <https://www.state.gov/j/ct/rls/crt/2015/257526.htm>, accessed on 03.09.2017.

<sup>9</sup> *European Union Terrorism Situation and Trend Report 2017*, European Union Agency for Law Enforcement Cooperation 2017, p. 5.



by 2015, terrorism will strike unremittingly in short periods of time: Paris, January 2015, Copenhagen, February 2015, Paris, November 2015, Brussels, March 2016, Nice, July 2016, Berlin, December 2016. In 2017 terrorist attacks intensify and target France, but also countries such as Denmark, Belgium, Germany, United Kingdom, Spain (Paris February, March, April 2017, Stockholm, April 2017, Manchester, May 2017, London, March and June 2017, Barcelona, August 2017).

In 2015, the most affected EU state of terrorism was France, which, following the January and November attacks, recorded 148 deaths and more than 350 injured<sup>10</sup>. In the same year, 211 failed, foiled and completed terrorist attacks were reported by the Member States. These terrorist attacks have resulted in victims as follows: 151 people died and over 360 were injured<sup>11</sup>.

In 2016, according to Europol<sup>12</sup> were reported 142 failed, foiled and completed attacks. 47 attacks were completed, causing 142 deaths and 379 injured.

Over the years, the means for conducting terrorist attacks have diversified: from detonated bombs in Madrid and London, armed attacks in Paris and Brussels, stabbing, to the use of vehicles, especially trucks, in pedestrian areas to cause as many casualties as possible.

Dr. Michael Farrugia, Minister for Home Affairs and National Security, Malta, Maltese Presidency of the EU said: “The recent attacks in London, Manchester and Paris represented a clear shift in the intent and capability of committing these acts of terror designed to draw the attention of the free world. The effects of such acts will remain in the collective memory of all who have freedom at heart. The memory of the innocent victims and the suffering of their families and loved ones will continue to

fuel our commitment in working effectively towards the strengthening of the combined efforts and cooperation amongst all Member States”<sup>13</sup>. Terrorist attacks have effects on citizens of EU Member States; fear exists, but it is rapidly replaced with their commitment to fight terrorism.

## EFFECTS OF TERRORIST ATTACKS IN THE EUROPEAN UNION

As a result of terrorist attacks in the EU, people certainly felt fear, insecurity, but they did not overwhelm them, but decided to live their lives as before. Of course, measures had to be taken to increase security, even if they had the effect of restricting the freedoms characteristic of the democratic states.

François Hollande, the President of France at the time of the November 2015 terrorist attacks declared that the following measures would be taken as measures at national level in the fight against terrorism: “the customs administration, which will have to be reinforced by 1,000 posts so that we can ensure border control”; “two exceptional measures: house arrest and administrative searches; 5,000 additional police and gendarmerie jobs will be created within two years to bring the total number of security job creations to 10,000 over the five-year period. This considerable effort, assumed by the government in the budgetary context that everyone knows, will simply restore the potential of the internal security forces to the level they knew in 2007”<sup>14</sup>.

To ensure the security of citizens, armed soldiers patrol Paris’s streets. For the same purpose, law enforcement officials have

<sup>13</sup> 2017 EU Terrorism Report: 142 failed, foiled and completed attacks, 1002 arrests and 142 victims died, 15 June 2017, Press Release, <https://www.europol.europa.eu/newsroom/news/2017-eu-terrorism-report-142-failed-foiled-and-completed-attacks-1002-arrests-and-142-victims-died>, accessed on 06.10.2017.

<sup>14</sup> Déclaration de M. François Hollande, Président de la République, devant le Parlement réuni en Congrès à la suite des attaques terroristes perpétrées à Paris et en Seine-Saint-Denis, Versailles le 16 novembre 2015, <http://discours.vie-publique.fr/notices/157002982.html>, accessed on 07.10.2017.

<sup>10</sup> European Union Terrorism Situation and Trend Report 2016, European Police Office, 2016, p. 5.

<sup>11</sup> Ibidem, p. 10.

<sup>12</sup> European Union Terrorism Situation and Trend Report 2017, European Union Agency for Law Enforcement Cooperation 2017, p. 10.

the right to interrogate citizens if there are suspicions that they are terrorists or have links with terrorists. All these measures designed to ensure security violate the liberties of citizens that are so much appreciated in an open, democratic society like the French one.

Tourism has also been affected “with 2,6 million fewer tourists between November 2015 and October 2016 in Paris and the surrounding area”<sup>15</sup>.

After the Berlin attack, German Chancellor Angela Merkel said: “We will now urgently review to what extent the measures taken by the state need to be changed”. “Where changes in the law or in policy are deemed necessary, the government will agree on and execute the required measures quickly”<sup>16</sup>. Just like France, faced with the reality of terrorist attacks, Germany must choose between a stronger control of the state by means of a broader and more effective security system and their own freedom.

Economically, financial losses were also recorded: “The terrorist attacks in Western Europe in late-2015 and early-2016 reduced European airlines’ international passenger traffic by an estimated 1.6% in the following year compared to what would otherwise have happened. This reduced European airlines’ 2016 revenues by around US\$ 2.5bln”<sup>17</sup>.

## CONCLUSIONS

Theresa May, Prime Minister of the United Kingdom, said after the Manchester terrorist

attack that “the terrorists will never win – and our values, our country and our way of life will always prevail”<sup>18</sup>. The United Kingdom, like France or Germany, is determined to fight terrorism and all that it represents: death, suffering, insecurity, fear, chaos and to defend the values of democracy and the lives of citizens.

Julian King, EU Commissioner for the Security Union declared: “In the most recent terrorist attack on London Bridge and Borough Market the victims had many nationalities. Terrorists do not respect or recognise borders and in our resolve to defeat them we must draw on a new-found determination to work together, sharing information and expertise. We are stronger together”<sup>19</sup>. This message of unity and collaboration is the solution to combating terrorism because terrorism affects us all and can only be defeated by joint efforts.

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<sup>15</sup> Marine de La Moissonnière, *Les conséquences économiques des attentats terroristes en France*, 26 décembre 2016, <http://www.rfi.fr/emission/20161227-consequences-economiques-attentats-france-societe-finances-tourisme>, accessed on 07.10.2017.

<sup>16</sup> Tony Czuczka, *Merkel Orders German Security Review*, 23 decembrie 2016, <https://www.bloomberg.com/news/articles/2016-12-23/merkel-orders-german-security-review-after-berlin-terror-attack>, accessed on 08.10.2017.

<sup>17</sup> David Oxley, *Estimating the impact of recent terrorist attacks in Western Europe*, May 2017, <https://www.iata.org/publications/economic-briefings/European-terrorism-impact.pdf>, accessed on 06.10.2017.

<sup>18</sup> *PM statement following terrorist attack in Manchester: 23 May 2017*, Speech, Prime Minister’s Office, 10 Downing Street and The Rt Hon Theresa May MP, <https://www.gov.uk/government/speeches/pm-statement-following-terrorist-attack-in-manchester-23-may-2017>, accessed on 07.10.2017.

<sup>19</sup> *2017 EU Terrorism Report: 142 failed, foiled and completed attacks, 1002 arrests and 142 victims died*, 15 June 2017, Press Release, <https://www.europol.europa.eu/newsroom/news/2017-eu-terrorism-report-142-failed-foiled-and-completed-attacks-1002-arrests-and-142-victims-died>, accessed on 06.10.2017.





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## PLACE AND ROLE OF FOREIGN LANGUAGE LEARNING PROGRAMS –COMPONENT OF LIFELONG LEARNING PROCESS

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◇ **Abstract:** *The new challenges caused by the reorganization and modernization of the army, including the military education system, have generated and continue to generate numerous disputes and controversies within the groups and organizations concerned.*

◇ *Given that the restructuring is perceived only as reducing the number and level of functions, the competition for the employment is becoming fiercer and fiercer.*

◇ *In such a competition, each individual tries the strategy to make win, even if it involves subtle backstage games or bypassing the established principles, rules and criteria, or whether someone more competent than him will lose.*

◇ **Keywords:** *reform, process, education, quality, conflict, mediator.*

According to the latest European documents, the efficiency and quality of education are fundamental premises for the social cohesion, active citizenship, economic growth and human development, in order to move towards a knowledge society.

The reforms implemented in the Romanian education system have highlighted, at least in recent years, the need for a successful educational management that ensures the harmonization of both the system components and the differences resulting from the heterogeneity of the educational services that it offers.

The quality of the instructive-educational process is the fundamental criterion of each institution functioning with responsibilities in the field, in the conditions of achieving a balance between quality and efficiency, in

correlation with the provisions of the national education law:

„Ministries and central authorities may have responsibilities in the field of education and training for the professions governed by special laws. The continuous training of personnel within the public defense institutions, public order and national security shall be regulated, for the purposes of this law, by own orders and instructions”.<sup>1</sup>

The situation of the Romanian army as a NATO member state implies the assumption of the *N 11012 Capability Target*, which can be achieved through the dimensioning of an adequate language training system, as well as by designing efficient and flexible plans and programs.

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<sup>1</sup> Art. 339 from LAW no. 1/5 January 2011 - National Education Law published in: MONITORUL OFICIAL no. 18 from 10<sup>th</sup> of January 2011.

In the Romanian army, foreign language training is part of the complex training process and it is carried out in accordance with a specific normative framework, governed mainly by the orders of the Minister of National Defense or by the provisions of the Head of Human Resources Management Directorate. The specific normative acts highlight a set of principles for the foreign language learning. According to them, foreign language learning is a priority of the military institution, the result being a complex that combines the institutional action with the individual study effort; combines intensive stages in the class with on-line modules (blended system) and multinational activities carried out in professional linguistic contexts.

As a result, the main goal of the millennium end became the formation of an “educational society” that Tosten Husen valorizes through the following features:

- The social status of individuals will depend more on the education embedded in the vocational training than on the social and material conditions they inherit.
- The role of experts and technocrats will grow to such an extent that democracy will increasingly resort to meritocracy.
- Access to knowledge will be generalized due to the spectacular evolution of technologies.
- The principle of equal opportunities will be achieved for all individuals, groups or communities (the education offer will be so wide that the inequalities, disparities and discrimination will disappear).<sup>2</sup>

The mission of the foreign language learning system is to ensure the necessary and sufficient linguistic competence for the personnel of the Romanian army, in order to carry out, in the most efficient conditions, the national or international activities involving the knowledge of a foreign language.

The process of continuous foreign language training supposes:

- Establishing linguistic requirements for positions;
- Identifying training needs;
- Training/development and evaluation of the linguistic competence, according to the specific normative framework.

For the formation and development of the linguistic competence of the personnel, continuous training programs are organized, as follows:

- From a sequence of intensive and on-line courses;
- Exclusively from intensive courses;
- Exclusively from non-intensive courses for other languages than English, French and German;
- Exclusively from online courses.

Continuous vocational training is confronted with a difficult to combat reality, the one of the conflict between learning and instinctual reticence for improvement.

Therefore, the conflict becomes a factor of progress (a necessary evil)<sup>3</sup> when it:

- Allows identification of sources of malfunctions and discomfort;
- brings latent problems to the surface in order to be solved;
- involves the participants in solving the identified problems;
- causes the identification and unloading of some dangerous tensions;
- reduces emotions, anxiety and stress of the participants;
- clarifies goals, problems, solutions;
- allows focusing on priority goals and objectives for the participants;
- induces the parties involved a certain motivation to act;
- restructures the value systems of the participants;
- causes restoration of communication;
- increases the adaptability of the educational (social) structures;
- establishes flexibility for the educational

<sup>2</sup> Husen Torsten, (1974): *The learning society*, London, Methuen.

<sup>3</sup> Marius Milcu, *Psihologia relațiilor interpersonale – Competiție și conflict*, Editura Polirom, Iași, 2005.

- (social) structures and individual components;
- Increases the resistance in external pressures of those involved;
  - Maintains a certain vitality of structures, by energizing them;
  - rational aspects ultimately predominate over the emotional ones;
  - recognizes and maximizes individual differences;
  - stimulates the social creativity of individuals and groups;
  - is an efficient training in adjusting the perceptions and behaviours;
  - induces a state of activation / social vigilance for the participants;
  - permits the redistribution of available power;
  - formally blocks the call to aggressive behaviours;
  - considerably improves the group cohesion (post-conflict);
  - guides the participants to win-win approaches;
  - allows the participants to separate the problem, the source of disagreement;
  - focuses the participants' attention on the interests, not on the occupied positions;
  - generates more possibilities, before making a decision ;
  - guides the participants' efforts for negotiation;
  - allows planning the future interactions;
  - the episode intensity is moderately increased;
  - is followed with need by periods of calm and quiet;
  - creates the participants satisfaction related to solving the disagreements.

Conflict is *a problem (it has destructive effects)*<sup>4</sup> when:

- causes inappropriate behaviours of the participants;
- affects the efficiency / productivity of the

- individual and the social group;
- brings problems to the surface;
- undermines the morale of those involved;
- induces at individual level a real pathology (anxiety, stress etc.);
- strengthens the existing value systems;
- polarize individuals and groups, reducing cooperation;
- becomes, in its turn, a source of continuous and high intensity conflicts and tensions (conflict becomes a permanent social situation);
- determines even stronger communication constraints;
- leads to the total annihilation of some participants;
- maintains or accentuate the existing power gap;
- affects severely and definitively the educational (social) structures;
- gives a serious vulnerability to the participants in their internal/external relations;
- decreases the cohesion of the long-term groups;
- diverts the participants from other goals (the conflict becomes a goal itself, their main objective);
- causes confusion in terms of goals, problems, solutions;
- gets an exclusive emotional connotation (rational aspects disappear);
- amplifies the existing prejudices and discrimination;
- has a real destructive intensity;
- blocks the participants' creativity;
- exacerbates the existing individual differences;
- restricts the number of alternatives, before making a decision;
- involves the participants in sterile confrontations, not related to solving of the problems and disagreements;
- institutionalizes the use of aggressive/ obstructive mechanisms to solve the problems and disagreements;
- guides the participants to win-lose

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<sup>4</sup> Marius Milcu, *Psihologia relațiilor interpersonale – Competiție și conflict*, Editura Polirom, Iași, 2005.

approaches;

- anchors the participants to the source of the problem;
- focuses the participants' attention on occupied positions, not on interests;
- guides the participants' efforts towards confrontation;
- maintains a high degree of interactions unpredictability;
- induces the participants' dissatisfaction and resentments about solving the disagreements.

Differences in interests, personality or social environment existing between the participants may sometimes lead to such disagreements as to require the intervention of a third party: *the mediator*. Even in this situation, in any mediation process there are numerous points of maximum sensitivity that seem to guide the things in a truly undesirable, unresolved and definitive way, the only hope being the capacities, experience and exceptional preparation of the mediator.

Efficient teachers know that in any conflict there must be an optimal and mutually acceptable solution for both of the parties, that there are differences of opinion that lead to new points of view, that the trust in the conflict partner is necessary, if the communication process is not distorted by hiding information, their filtering on the basis of prejudice or the fear of self-disclosure of personal vulnerabilities.

The problem of conflicts in military education organizations remains open to reflection and new solutions (often unusual, as the conflicting issues themselves), because the specialty literature offers us suggestions rather than "guaranteed" solutions.<sup>5</sup>

Regarding the continuous training of the personnel from the public defense institutions, the National Education Law

stipulates<sup>6</sup>, at art. 339, par. (2) that "... it is regulated, for the purposes of the present law, by its own orders and instructions issued by its leaders", context in which the non-academic continuing education may be organized on the basis of norms issued at the level of the Ministry National Defense.

In order to achieve some performance values of the military education system, it is necessary to bring together all decision-makers, in the sense of changing the study programs, the content of the curricular areas and the concrete way of approaching the educational process, so that the graduates be able to perform effectively the duties of the functions in which they will be assigned.

From the perspective of the educational achievements gained and the integration of non-academic continuous education in the entire military educational system, at least two reorganization options should be considered, as follows:

**VARIANT A - MILITARY EDUCATION SYSTEM WITH THREE LEVELS:**

- **pre-academic education;**
- **academic education;**
- **non-academic continuous education**

(specific only to the Ministry of National Defense), consisting of non-academic continuous education schools / centers of the army's force categories and foreign language learning centers.

**VARIANT B - MILITARY EDUCATION SYSTEM WITH TWO LEVELS:**

- **pre-academic education;**
- **academic education.**

Simply didactic evaluation, in terms of acquiring new knowledge, has the role of adjusting or modifying the training objectives, as well as motivating the trainees to achieve better results or to preserve the already recorded ones.

We consider it necessary to mention the informational dimension of the evaluation as

<sup>5</sup> Luiza Costea, Bursuc Catalin, Radu Orlando, "A Comparative Analysis Of Systems Used In Assessing Language Proficiency" in: *Proceedings of the 13th International Scientific Conference "eLearning and Software for Education*, Bucharest, April 27 - 28, 2017 Volume 3, pp. 268-273, DOI: 10.12753/2066-026X-17-213.

<sup>6</sup> Art. 339, par. (2) from LAW no. 1/5 January 2011 - National Education Law, published in MONITORUL OFICIAL no. 18 from 10<sup>th</sup> of January 2011.

a situation that influences both the subject and the subject of the evaluation. Informational technology assessment brings benefits in terms of increasing the objectivity, distance learning solutions, and tutorials as well as an element that can accompany and continue the different types of evaluation.<sup>7</sup> That is why I believe that in the future, the attention of managers and teachers is required to focus on developing communication with the others as a prerequisite for avoiding conflicts that disturb the order in the organization and alter the educational climate, by diverting activities from the “route” of fulfilling the mission of the educational organization.

In our opinion, this could be achieved if everyone agrees to develop the following capabilities:

- power of persuasion, including communicating the reasons and rational analysis, strong position support, while maintaining true respect for the others’ ideas and points of view, clearly saying WHY and WHAT, keeping us in communication until we reach a positive result;

- patience with processes and individuals, despite the failures, shortcomings and incidents caused by the others;

- gentleness, not harshness, hardness or strength when dealing with vulnerabilities, revelations and feelings that the others might express;

- the willingness to learn, meaning to work on the assumption that we do not have all the answers, all the wisdom, and to cherish the different points of view, judgments and experiences of others;

- tolerance in the sense of restraint in issuing outrageous judgments at inappropriate moments or requiring certain evidence or performance to support self-esteem;

- kindness, attention, sensitivity, ability to remember small things that are actually great in a relationship;

- sincerity, in order to obtain accurate information and perspectives about how the others can evolve, no matter what they possess, owe or do, giving more respect on their intentions, desires, values and goals than focusing exclusively on their behavior;

- understanding confrontation, that is, the recognition of mistakes and the need for others to make corrections in the “trajectory” of our activity or behavior, in a context of genuine care, concern and warmth in which they may feel safe to risk;

- consistency, so that our leadership style is not a manipulation technique that is implemented when things do not come out as we want, when we face crises, challenges, or we feel that we are caught in the race, but rather being a personal set of values and code of conduct;

- integrity, in the sense of making the words and feelings coincide with our thoughts and actions, with no other desire than for good, without wickedness and deceit, without manipulation or domination.

In conclusion, for each individual, the lifelong learning process must be an essential attribute of one’s own activity, as well as a constant of the learning and teaching system.

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# STRATEGIC COMMUNICATION, SOCIAL REPRESENTATIONS AND NATIONAL SECURITY

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◇ **Abstract:** *Pragmatic realities have pushed academic community to reconsider the content of security concept and gradually enlarge the scope of security studies. As the non-material factors have gained more relevance for the security of national states we propose an analysis of social representation’ epistemic value in relation with social security. The role of strategic communication in modeling social representations is explored. The benefits of this approach lies in the deeper and more nuanced understanding of social influence and his mechanisms.*

◇ **Keywords:** *social representations, identity, national security*

## INTRODUCTION

The new geopolitical reality brought by the end of the cold war as well as the globalization led to a rethinking of the security concept. After the end of the geostrategic bipolarity period, the diversity of factors that may affect national security has increased, including new dimensions such as identity, culture or norms beside material power issues. And this is primarily due to the changes the political factor has introduced in defining the power balance, security and national interest. An essential role in redefining these notions has been the steady increase in the impact that non-state entities have on both in the international relations and on the lives of more and more citizens. The shifting of the emphasis from the state to the individual and the community in the security studies has been materialized in the syntax of human security. At this level, we aim to analyze the impact of influencing communication by various actors and the significance of the transformations induced for national security. In this analysis a central role will have the syntax of social representations, which in our opinion are an indispensable element in explaining the

relations between the individual and society, between the individual and the national identity as well as in the functioning of the mechanisms of communication of influence.

## SOCIAL REPRESENTATIONS ROLE IN THE MEANING MAKING AND SOCIAL INTERACTIONS

Serge Moscovici conceived social representations as psychic structures that are organized in three dimensions, (information, field and attitude), dimensions which can serve as criteria for analysis or comparison as well. According to Moscovici ” the representation is an organized body of knowledge”<sup>1</sup>. Defined as a set of elements social representations are cognitive structures.

The most coherent theoretical formulation used to describe social representations is central core theory<sup>2</sup>. This theory proposed a hierarchical structure composed from a set of beliefs some organized around a core and

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<sup>1</sup> Serge, Moscovici, *Social influence and social change*. London: Academic Press. 1976, p. 27.

<sup>2</sup> Abric, Jean-Claude, *Central system, peripheral system: their functions and roles in the dynamics of social representation*. Papers on Social Representations, 2(2), 1993, pp. 75–78.



others as peripheral elements. The core is composed of few beliefs characterized by a major consent within the community or group. These beliefs are very stable over time. On the other hand, peripheral beliefs are diverse, multiple, irregularly shared in the community or group. They are unstable and change easily over time.

Core beliefs system have several functions:

- It *modulates* the overall meaning.
- Organize and defines the nature of connections between the elements of representation.
- Balance and stabilize the whole representational system.

The peripheral elements are characterized by their specificity and concreteness. In addition, it is largely assumed that the core elements have an abstract nature<sup>3</sup> and are independent from the context<sup>4</sup>. The main functional value of this dual system lays in his ability to ensure the stability of the meanings given by group and community to a specific social object.<sup>5</sup> Therefore the central system has the function of generating meanings (readily to be translated in non-negotiable beliefs) related to different object while the peripheral system has the central function to ensure the protection of central core by integrating different new information, variations or contradictions without transforming the network of central system elements. As is readily visible the two elements are reciprocal dependent as they 'work well as an entity in which each part has a specific role, remaining complementary to one another'<sup>6</sup>.

Communication guides both the

production and the evolution of social representations over time<sup>7</sup>. As social representations are generated in the process of social communication, various levels of signification must be taken into account. This variability is well understood and depicted by the difference between semiotic<sup>8</sup> concepts of denotation and connotation. As will be indicated, denotation and connotation are closely linked with the processes of anchoring and objectification, processes without which representation can't be understood as a psychological processes designed to transform and integrate the unfamiliar therefore creating knowledge.

Highlighting the fundamental role of the unconscious for human psyche Sigmund Freud was first to make the difference between signs and symbols and the difference performed by each one at communicative and social level. Salvatore and Venuleo have developed the concept of asymmetrical signification which plays a fundamental role for Sigmund Freud's structural model of mind, in particular the central role of affective semiosis in sense making process<sup>9</sup>.

Denotation and connotation have made the first appearance in philosophers and logicians writings. For logician's denotation defines as the extension (set of objects) of the words while connotation (set of properties) is considered as the intension of the words. Extension make reference to the objective, extra linguistic domain while connotation is the criteria that determines whether an object belongs to a given class or category. For philosophers and logician's connotative

<sup>3</sup> Molnier, Pascal, *La representation sociale comme grille de lecture*. Ph.D. thesis, Universite de Provence, 1988.

<sup>4</sup> Abric, Jean-Claude, *Pratiques sociales et representations*. Paris: Presses Universitaires de France, 1994.

<sup>5</sup> persons, events, facts, phenomena, etc.

<sup>6</sup> Abric, Jean-Claude, Les representations sociales: aspects theoriques. In J. C. Abric (ed.), *Pratiques Sociales et Representations*. Paris: Presses Universitaires de France, 1994, p. 79.

<sup>7</sup> Sammut, Gordon, Stavroula Tsirogianni, and Brady Wagoner, "Representations from the past: social relations and the devolution of social representations." *Integrative Psychological and Behavioral Science* 46.4 (2012): 493-511.

<sup>8</sup> Semiotics refers to the study of signs according with the Peirce's cognitive-interpretative perspective and with Saussure structuralism paradigm.

<sup>9</sup> Salvatore, Sergio, and Claudia Venuleo. "Understanding the role of emotion in sense-making. A semiotic psychoanalytic oriented perspective". *Integrative psychological and behavioral science* 42.1, 2008, pp. 32-46.

meanings give the whole meaning, as Edward Sapir made the same point by discussing the connotative affective value of words that can vary from one person to another<sup>10</sup>. Working on the linguistic difference between denotation and connotation Leonard Bloomfield made the distinction between a (more) stable core meaning and a fluid connotative meaning<sup>11</sup>.

Denotative and connotative meanings become part of representations which are negotiated in the public realm. Anchoring and objectification are the result of the communicative social practices performed by different groups and communities in public sphere. Connotations have a social dynamique as for their meaning there are many instances and actors involved. Family, politicians, educational system or mass-media are one of the most significant poles which compete through narratives, claims, myths or metaphors on the connotative meaning formation. As they come from different social groups with specific social positions and roles. Connotative meanings can be understood as actions of interpretation of socially invested objects which includes values and attitudes subordinated to a larger ideologically driven worldview. From a semiotic perspective the process of anchoring is the result of recursive semiosis defined by resignification. Once the process of recursive semiotics leads to equilibrium objectification is unfolded as designification which leads to the stability of social representations.

Moscovici has defined anchoring and objectification as the pair processes that leads to the production of new social representations<sup>12</sup>. Anchoring is defined as the mental process of naming and classifying of new social objects, events, or phenomena within an older category. Therefore, the meaning of new

social representation is always linked and determined by an older, already existing one which serves as reference. Anchoring provides integration of the unfamiliar with a stabilizing effect<sup>13</sup> linked to social values of the existing moral system. As Serge Moscovici states: 'Neutrality is forbidden by the very logic of the system, where each object and being must have a positive or a negative value'<sup>14</sup>. Objectification is also a mental process of giving concreteness to the object and meaning through symbols, images and propositions projection. This process is made it possible through figurative meaning, metaphors having a primary role.

### **IDENTITY, SOCIAL REPRESENTATION, AND SOCIAL CHANGE**

Social representations have a deep and intrinsic connection with the individual belief system which in turn is the resource and the motivational base for any community foundation. As the recent events have proved<sup>15</sup>, the national character of societies is increasingly questioned by smaller regional communities in what can be described as an identity revolution. A revolution with different tones and nuances, from ethnically driven wars, to religious or confessional conflicts.

The interrelation between a various number of beliefs gave the systemic character of a structure that defines our identity and mediate the representation of social reality. Through this system that determines how we reason and experience the symbolic world, we can make sense of the world that surrounds us. What makes the belief system relevant for the social discourse and for social interactions is the personal commitment of the individuals to

<sup>10</sup> Edward Sapir, An introduction to the study of speech, *Language*, 1921.

<sup>11</sup> Bloomfield, Leonard. "Language", Holt. New York, 1933.

<sup>12</sup> Serge Moscovici, Introduction: le domaine de la psychologie sociale. In S. Moscovici (ed.), *Psychologie sociale*. Paris, Presses Universitaires de France, 1984, pp. 5-22.

<sup>13</sup> Ivana Markova, "Amedee or how to get rid of it: social representations from a dialogical perspective". *Culture and Psychology*, 6, 2000, pp. 419-460.

<sup>14</sup> Serge Moscovici, The phenomenon of social representations. In Farr and Moscovici (eds.), 1984, p. 43.

<sup>15</sup> retrieved from <http://www.telegraph.co.uk/news/2017/10/01/eu-crisis-catalonian-referendum-descends-violence/>, 04.10.2017.



this system. Social representations emphasize social identity and are a complex interaction between normative and disruptive elements, between prescriptions and proscriptions. Consequently, what is essential for social representations is the triadic relationship between ego, alter ego, and social object<sup>16</sup>. The social engagement of many subjects in the elaboration of social representations and beliefs system is realized through direct, unmediated interaction or by public opinion and mass-media. Therefore, social representations and the subsequent belief system defines intergroup interactions and connect individuals with society.

Nowadays it is almost distressing to appear ignorant, therefore people will be pressured to form opinions<sup>17</sup>. As Serge Moscovici stated 'social representations are, for modern man, no more than one of many ways of understanding'<sup>18</sup> the society which he inhabits. Opinions are increasingly generated through the constant mediation of mass communication and mass-media. Recognizing their profound and powerful influence on the society, mass-media has moved gradually from a simple communicative role that provide information to an active role of opinion maker that facilitates several forms of social influence.

In our modern society various entities act as agents of change in what Philip Kotler and Gerald Zaltman have coined as social marketing. Conceived as the design and implementation of a program "to influence the acceptability of social ideas"<sup>19</sup>, social

marketing was implemented in practice to induce social change at the level of attitudes and behavior. Unlike advertising social marketing intend to induce a behavioral change at the level of society which demand a high level of understanding of whole society or large communities. This task can be achieved by using social representations theory, a theory that can operate with the beliefs inside society which in turn drives the behavior.

Social change involves a change in the privately held attitudes of individuals, but also involves a change in societal beliefs and public opinion<sup>20</sup>. As Philip Kotler and Roberto Eduardo have claimed the first step in any plan for social change should be the understanding of the social marketing environment. And this in turn should lead to the identification of social representations held by various groups targeted by the proces of social marketing. Kotler maintained that 'change agents must know target groups inside-out'<sup>21</sup>, a knowledge that should be acquired through extensively research programs that must combine quantitative with qualitative techniques. While the former can helps the scientist to understand the reified social universe, the latter can contribute to the elaboration of a more subjective image of the environment, an image labeled by Serge Moscovici the consensual universe.

The methodology used to understand social representations is diverse including questionnaires or surveys. However, a much deeper understanding of social representation can be obtained if the researchers aims to go beyond manifest content of the responses and reach "the representations which are implicit in these responses"<sup>22</sup>. Also, Michael Billig

<sup>16</sup> Serge Moscovici, "Society and theory in social psychology". In: J. Israel and H. Tajfel (eds.), *The context of social psychology* (pp. 17-68). London: Academic Press, 1972, p. 52.

<sup>17</sup> Wagner, Wolfgang, Nicole Kronberger, and Franz Seifert. Collective symbolic coping with new technology: Knowledge, images and public discourse." *British Journal of Social Psychology* 41.3, 2002, pp. 323-343.

<sup>18</sup> Serge Moscovici, *Psychoanalysis: its image and its public*. Edited by G. Duveen, trans. D. Macey. Cambridge: Polity Press, 2008, p. 5.

<sup>19</sup> Philip Kotler, and Zaltman, Gerald, Social marketing: an approach to planned social change. In W. Lazer, and E. Kelley (eds.), *Social marketing: perspectives and viewpoints*, pp. 52-69. Homewood, IL: Richard D. Erwin, 1973, p. 56.

<sup>20</sup> George Gaskell, and Frazer, Collin. The social psychological study of widespread beliefs. In C. Frazer and G. Gaskell (eds.), *The social psychological study of widespread beliefs*. Oxford University Press, 1990.

<sup>21</sup> Philip Kotler, and Roberto Eduardo. *Social marketing: strategies for changing public behavior*. New York: Free Press, 1989, p. 29.

<sup>22</sup> Jos Jaspars; Colin Fraser, *Attitudes and social representations*. In Farr and Moscovici (eds.), 1984, p.122.

argues that fixed instruments of measurement, cannot disclose the whole universe of social representations<sup>23</sup>, which are a very dynamic phenomenon that carry explicit and implicit meanings. In this vein researchers are encouraged to use various methodologies to collect and investigate information gathered, such as focus groups, in- situ observation, in-depth interviews, qualitative media analysis. Interviewing respondents in various and non-formal settings where they usually discuss significant social issues and concerns can lead to highly accurate social representations.

### CONCLUSION

Belonging to a group or a community provides the individual with the vital sense of self-worth and security. Trough intergroup connection and common shared projects individuals gain stability and social identity. Therefore, the need to belong to a specific group or community will remain a constant in the life of any individual. The nature of this community that best suits individual needs and narcissism has become more and more challenged these days. Supranational organizations or the process of globalization have become the catalyst for an identity revolution that challenge the current status quo of national states. In this environment we consider that only through the theoretical apparatus of social representations a clear and coherent image of society can be achieved. Conceived at the intersection of identity, beliefs system and social practice, social representations are the primary target of social marketing aiming for social change through mass-communication. It is so the mission of researchers and of political establishment to use this theoretical construct in order to investigate the social dynamique, the role of national state in shaping individual identity, or even more, whether the national state in his current design can still be the most suited

imagined community for the needs of his citizens.

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<sup>23</sup> Michael, Bilig, *Studying the thinking society: social representations, rhetoric, and attitudes*. In: Breakwell and Canter (eds.), 1993, pp. 39–62.



11. Sammut, Gordon, Stavroula Tsirogianni, and Brady Wagoner. *Representations from the past: social relations and the devolution of social representations*. Integrative Psychological and Behavioral Science 46.4, 2012.
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19. <http://www.telegraph.co.uk/news/2017/10/01/eu-crisis-catalonian-referendum-descends-violence/>,

# **ANALYSIS OF BALANCED SCORECARD EFFICIENCY FOR IMPLEMENTATION IN TO THE FIELD OF NATIONAL DEFENSE**

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◇◇◇ **Abstract:** *The Balanced Scorecard (BSC) concept records a wide variety of definitions in economics, as well as a multitude of concepts in theoretical analysis or practical applications in the sphere of management and social sciences. Changes that have generated institutional efficiency, but also the theoretical approaches on this concept justifies the effort of analysis*  
◇◇◇ *Applicability concept covers a very broad range in contemporary society. Due to the proactive nature and the focus on people in the efficiency analysis, the Balanced Scorecard (BSC) can be an effective approach to national defense and public administration. This is evidenced by successful examples in different countries, and theoretical approaches in the literature.*

◇◇◇ **Keywords:** *Balanced Scorecard, organization, national defense.*

## **BRIEF HISTORY**

Articles and studies highlight the multitude of concepts of the BSC concept, but also the fact that it is presented and perceived in extremely different ways. Management literature analyzes and promotes the application of BSC as a performance measurement tool, as a performance management system or strategic management and control system.

Identify the starting point of the BSC concept in 1990, when David N. Norton -

Research director Nolan Norton Institute, with Professor at Harvard Business School - Robert S. Kaplan is conducting a study on 12 representative companies in the US, including IBM, Du Pont and General Electric, but others. That study aimed to identify the ways and instruments used to measure future performance in companies that found out that expected results are insufficiently determined by predominantly statistical methods, especially in terms of staff motivation and

evolution.<sup>1</sup> The researchers' findings move the center of gravity of empirical studies into areas of qualitative and integrated analyzes predictive nature.

The chronology concept BSC next time you are considering it as a method brought to the attention of researchers theorists and practitioners remember, by publishing articles in professional journals, initially in 1992<sup>2</sup> and then the issue is taken up and altered by successive developments.<sup>3</sup>

The form originally proposed for the BSC considers the following areas: financial, market-customer, internal business processes and innovation and learning. For each domain of analysis, indicators are provided together with the description of relationships. The relationships between the established indicators are at least as important as well as analysis of its own indicators.

Due to the evolving nature BSC is today a system of performance management plans using strategic, operational and individual to implement fundamental processes of communication, monitoring and improving the performance of the organization.<sup>4</sup>

### WAYS TO DEFINE THE BALANCED SCORECARD (BSC)

In management, unlike the exact sciences, concepts get contextual definitions with a lower degree of generality. It is obvious that we will encounter a variety of narrow definitions that satisfy concrete situations. Such definitions are not exhaustive, but provide solutions to situations of specific research or analysis or explanations, most often with empirical.

<sup>1</sup> Daniela ȘTEFĂNESCU, *Balanced Scorecard - instrument de planificare strategică*, Romanian Statistical Review nr. 2 / 2012, pp. 6-23.

<sup>2</sup> Robert S. KAPLAN, David P. NORTON, *The Balanced Scorecard: Measures That Drive performance*, Harvard Business Review Jan./Feb. 1992.

<sup>3</sup> Robert S. KAPLAN, David P. NORTON, *Putting the Balanced Scorecard to Work*, Harvard Business Review, Sept./Oct. 19-34, 1993.

<sup>4</sup><http://www.ebalancedscorecard.ro/pages/conceptul-bsc>, accesat la 12.10.2017.

Establish, within this framework of analysis as a starting point and following operational definition: Balanced Scorecard is a management system and optimize the execution of an organization's strategy<sup>5</sup>.

Variety definitions lead us to consider that useful presentation of meanings of the concept and presentation source with trying to meet the time sequence, but also increased complexity, as follows:

- In the article *Applying the Balanced Scorecard concept*, H. Ahn presents arguments that qualify the BSC as a complex management tool;<sup>6</sup>
- Practical experience and theoretical deepening have allowed BSC to be regarded as a strategic management tool by successive nuances;<sup>7</sup>
- Generalization in practice and result-based trust has made it possible to define BSC as a management philosophy that directly supports performance development.<sup>8</sup>

In an integrated context, taking into account the approaches recent posted on the Balanced Scorecard Institute, BSC is described as a system of planning and strategic management used in business organizations or industry, in the public and non-profit organizations from many countries that align their activities to the vision and strategy, to improve internal and external communication processes, by monitoring the performance of the organization to achieve strategic objectives.<sup>9</sup>

<sup>5</sup> Emilia CERNĂIANU, *Fișa Scorului Echilibrat*, NEWS LETTER, februarie 2014, [www.acedo.ro](http://www.acedo.ro).

<sup>6</sup> H. AHN, *Applying the Balanced Scorecard concept: An experience report*, Long Range Planning, 2001, Vol. 34, No. 4, pp. 441-461.

<sup>7</sup> P. Hueng, *Process performance measurement system: a tool to support process-based organizations*, Total Quality Management, 2000, Vol. 11, No. 1, pp. 67-85; și H. Pforsich, *Does Your Scorecard Need A Workshop?*, Strategic Finance, 2005, Vol. 86, No. 8, pp. 30-35.

<sup>8</sup> J. HANSON, J. TOWLE, *The Balanced Scorecard: Not just another fad*, Credit Union Executive Journal, 2000, Vol. 40, No. 1, pp. 12-16.

<sup>9</sup> <http://www.balancedscorecard.org>, accesat la 11.10.2017.

## **METHOD, MODEL OR INSTRUMENT**

The debate induced by the subtitle of this chapter follows to a certain extent the evolution that was reviewed in the beginning of the article. Different approaches become relevant in the operational organization that allows intervention by ease of application and the resulting transformation size after deployment.

There is a level of understanding generalized Balanced Scorecard (BSC) which describe strategic planning, a management system that is widely used in business and industry, government, and nonprofit organizations worldwide which involves the alignment activities at vision and strategy, improving internal and external communications, monitoring organizational performance against strategic goals.<sup>10</sup>

Simultaneously, the BSC is considered to be a system for determining the performance of a strategy assessment investigated system or a communication tool, situations resulting from the following perspectives:<sup>11</sup>

- Financial perspective, characterized by tangible results expressed in terms of traditional financial strategy;
- Customer perspective, regarded as the proposed organization that adopts a customer satisfaction;
- Internal business perspective, described the internal processes that create and provide the customer proposed value;
- Innovation and learning perspective found in intangible elements of organizational culture which are related to skills and capabilities for the functionality of value-generating processes.

To analyze the concepts outlined in the title, we start from the original sense that first appeared in the 1990s when the BSC had

the meaning of an approach for generating a performance implementation and performance model by grouping the performance indicators according to the perspectives outlined above. While that sense becomes a management tool through evolution became the basis of a performance management system which combines strategic planning, tactical and operational in ensuring and improving communication processes, monitoring and improving performance in the organization<sup>12</sup>.

### **BALANCED SCORECARD (BSC) IN THE DEFENSE SECTOR**

Worldwide, there are a few prestigious organizations<sup>13</sup> which have undergone a modernization process using this method: Motorola, Marriot, Hilton, Merck, Siemens, Saatchi & Saatchi, Royal Air Force, Cisco, Kraft Foo etc. It is noticed that the area in which the organization operates is not important, as the BSC is applicable in these different situations due to its high flexibility.

For an organization as large and complex as the US military, which differs from most corporations because it is not a profit-oriented organization, the merits of Balanced Scorecard seem perfect. Balanced Scorecard allows the assessment of an organization's non-financial performance.<sup>14</sup>

In this special case of the defense sector, the BSC does not focus on the financial perspective of an organization, but rather presents an overview of the strengths and weaknesses of the military institution. The organizational management approach through the BSC directs the military structure towards flexibility, performance, efficiency and progress in fulfilling the assigned tasks.

Transforming into organizations and,

<sup>12</sup> <http://www.ebalancedscorecard.ro>, accesat la 11.10.2017.

<sup>13</sup> Emilia CERNĂIANU, Fișa Scorului Echilibrat, NEWS LETTER, februarie 2014, [www.http://Acedo.ro](http://Acedo.ro);

<sup>14</sup> <http://www.ap-institute.com/Balanced%20scorecard%20working%20for%20the%20US%20military.html>; 10.10.2017;

<sup>10</sup> E. GRIGOROUDIS, E. ORFANOUDAKI, C. ZOPOUNIDIS, *Strategic performance measurement in a healthcare organisation: A multiple criteria approach based on balanced scorecard*, Omega 40, 2012, 104–119, [www.elsevier.com/locate/omega](http://www.elsevier.com/locate/omega).

<sup>11</sup> *Idem*.



implicitly, triggering reform elements that aim to increase efficiency in meeting objectives, such as a specific configuration when discussing organizations in the national defense system. This specificity properly understood and applied can be a facilitator or conversely a delay element.<sup>15</sup>

Regardless of their nature, organizations need feedback on the strategy. Efficiency resulting from the strategy can become motivation for every effort in all aspects of concrete every day tasks.

These days social and economic reality forces organizations to work through decentralized units, which are located closer to the customer. Both the theoretical and practical approaches in organizations point out that competitive advantage comes mostly from intangible knowledge, capabilities and relationships created by members of the organization rather than from physical capital investment and access to capital. Strategy implementation requires that all structures and organization members to be connected and aligned with the strategy. Implementation of the strategy needs to be continuous and participatory. The primary role lies with leaders and leadership teams to remove resistance to change, a natural manifestation of human nature that appear immediately as soon as man is taken out of his comfort zone.<sup>16</sup>

Since its launch, Balanced Scorecard has evolved from a simple measurement and reporting tool to a strategic performance management tool – designed to manage strategic performance.

A very strong argument in favor of using the balanced scorecard is that it allows

the approach to developing and verifying the validity of the strategy from multiple perspectives, thus completing the image of the classical assessment of financial performance.

Thus it is possible to take into account the additional performance that is brought about by the taking into account of the so-called intangible assets of the organization: the professional experience accumulated within it, the relations with the clients and the shareholders, the ability to improve the processes that take place within the organization, etc.

## CONCLUSION

The conclusions drawn from this approach are as follows:

- The Balanced Scorecard should not be seen as a mere performance assessment tool. It can be used to drive the evolution and transformation of an organization;
- Balanced Scorecard allows communicating the organization's leadership strategy with clarity at all levels and transforming the strategy into concrete actions;
- Balanced Scorecard can be successfully applied to both private corporations and public organizations;
- Developing an effective Balanced Scorecard is the attribute of the organization's superior leadership. Without their direct involvement, Balanced Scorecard has no chance of success;
- Balanced Scorecard is a powerful tool capable of underpinning a strategic management system within a defense ministry.

The implementation of the BSC concept in defense sector institutions leads to improved performance in the defense sector, successful implementation of reforms, transparency of internal activities and processes, ongoing adaptation of individual efforts to the fulfillment and achievement of the institutional strategic goals.

<sup>15</sup> Dumitru Catalin BURSUC, Analysis of Resistance to Change as a Specific Risk of Military Organization, International Scientific Conference "Strategies XXI", suppl. Centre for Defence and Security Strategic Studies; Bucharest, "Carol I" National Defence University, 2014, vol. 2: 231-237.

<sup>16</sup> Costel LOLOIU, Toma PLEȘANU, Dumitru Cătălin BURSUC, The Resistance to Change as a Specific Risk for the Organization Transformation, *Journal of US-China Public Administration*, August 2015, Vol. 12, No. 8, 593-602 doi: 10.17265/1548-6591/2015.08.001.

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# FAKE NEWS PHENOMENON AND THE MANAGEMENT OF MEDIATIZED COMMUNICATION IN ONLINE ENVIRONMENT

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◇ **Abstract:** *The internal and external risk factors for national security include those of political, economic, social and purely informational nature. The risk of release false information or defective communication inevitably generates conflicting states or trends whose consequences can only be hardly estimated. The risk of false information or defective communication inevitably generates conflictual states or trends whose consequences can only be hardly estimated. The media industry has proved to be so “hypnotic” that it can shape personalities, influence decision-making at all levels in society, putting its mark on international power relations as well.*

◇ **Keywords:** *mass communication, fake news, social media*

## MASS COMMUNICATION – GENERATOR OF PUBLIC OPINION OR POWER TOOL?

Communication, particularly the institutional one, is the very vital point in the evolution of socio-economic relationships within any society. Lacking or altering it can create major malfunctions both in individuals and organizations, regardless of their complexity. The implications of a defective communication can be manifested even at state level or within interstate systems. The disturbance of communication, especially of the official one, is the factor that can cause the failure of some steps and even the failure of large-scale projects in all areas of public life, including national security. The risk of launching false information or

faulty communication inevitably generates conflicting states or trends whose consequences are difficult to predict. The principles of good communication apply to restricted groups and states, non-state organizations, multinationals, political-military alliances, etc.

Regarding the media, in the last years, there are more and more often deviations from norms, professional standards, regulations, legal provisions, especially in some commercial press trusts, where it is often obvious to support the interests of certain factors of influence and more have contributed to the expansion of the so-called fake news in the public space, with a major role of manipulation. At the same time, from public authorities and organizations, communication of information is often deficient noting, as well as technical errors, omissions, distortions in the content

of messages, wording that leaves room for interpretations.

More than that, there are also some non-actualizations of public data that can mislead and manipulate public opinion, constituting, along with all the other communication vices listed above, vulnerabilities and developing a permeable environment for various types of threats to national security. Among the risk factors for national security, the informational nature, has been noticeably distinguished. Data and distorted images, made public with regard to matters of a military nature, geopolitical, economic or administrative issues may lead to tension, convulsions, and even social conflicts with unpredictable repercussions on the security environment. On the other hand “most of the times the premises of security threats and risks are included in the vulnerabilities”<sup>1</sup>.

While sometimes viewed as an opportunity, globalization, through its dual nature, can also be seen as vulnerability, especially due to the free circulation of information and the interdependence between national economies. “These new trade flows of investment, information and technology transform national security. Globalization has exposed us to new challenges, changed the way the old ones affected our interests and values, but to that extent also visibly improved our ability to respond”<sup>2</sup>.

With the advent of mass media, the most sensible progress is being made in developing the communication and understanding skills of the information phenomenon. At the same time, people’s potential to communicate and explain the content of the information received, as well as their analytical thinking, has been developed, all of which lead to a new paradigm of social behavior. Over time, these changes marked the socio-cultural, educational and economic development, and the evolution itself was strongly influenced. Moreover, their increasingly important involvement in the electoral process has a decisive influence

on the political scene, and with a particular emphasis on entertainment and mass education, they have a strong formative and educational valence.

It has been found that the information transmitted by mass media changes the cognitive factors, the needs, attitudes and beliefs of the people receiving them. These changes, in turn, lead to changes in the behavior of individuals in society. On the other hand, it is not yet sufficiently highlighted how mass information and communication processes contribute to economic progress, social organization or cultural development, as well as to the analysis of the interests they favor or in spite of which they are produced. Nowadays, media coverage changes public and private boundaries, and the content of conversations between people and groups is strongly influenced by mass communication. Given that this process takes place only in the public space, we are actually witnessing the creation of public opinion.

In the process of communication, through the interaction it creates a social reality in which each one can access the subjectivity and intentions of another and can change, whether premeditated or not, the behavior of others. Pierre Bourdieu, creator of the phrase “symbolic violence”<sup>3</sup>, thinks that it is present in any formative or informative system. Manipulation, deformation and symbolic violence in the audiovisual and online environments is often insensible precisely because these media channels are an authority, a reference system in the everyday life of the majority, being often the main source of information. Since 1969, the traditional media of mass communication has made the Internet, a modern communication tool, easy and very fast, so in just three decades it has largely coalesced all communication. According to the INS, if in 2001 there were 1 million users in Romania, in 2010 their number increased to 8,300,000, reaching in 2016 to over 11 million.

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<sup>1</sup> Teodor Frunzeti, *Geostrategie*, Ed. Centrul tehnic-editorial al armatei, Bucharest, 2009, p. 371.

<sup>2</sup> *Idem*.

<sup>3</sup> Pierre Bourdieu, *Sur la télévision, suivi de L’Emprise du journalisme*, Paris, Liber Editions, 1996, ISBN-ISSN: 2.912107.00-8



## NEW MEDIA – A RISK FOR INFORMATION SECURITY?

Traditional media always have a decision-maker with skills on the trail of the information flow. This *gatekeeper* has the role of selecting, ordering and directing information that reaches the public. In social media it no longer exists, because each user can directly address the others directly, without a professional deciding on the form or content of the message. Any amateur can make media content following the *upload and share* model.

French sociologist Georges Friedmann considered that "the mass media generated a new type of civilization, namely, electronic civilization"<sup>4</sup>

This is characterized by a new way of disseminating information, driven by the rapid evolution of new communication technologies, the emergence of new communication possibilities and a dynamic reflection of the socio-cultural environment. On the other hand, Elisabeth Noelle-Neumann reaches the negative side of the mass-media, namely the hypnotic opposition it has towards the most natural form of inter-human communication, namely dialogue. "The mass-media have strong effects on public opinion, whereas mass communication has the ability to legitimize opinions or current opinions as messages are omnipresent and consonant, resonating with each other"<sup>5</sup>.

*Social media* is the newest concept through which the public can communicate. This refers to both social networks: Twitter (the most widely used among journalists, especially to transmit news, quickly, in few words), Facebook (the most widely used in Romania by both the general public and journalists but also authorities who, even more recently, broadcast various releases, even official, on this network) or LinkedIn (a social networking

oriented to the professional environment and affiliation to various interest groups) as well as to networks with generated content such as YouTube or Flickr, Metacafe, MySpace.

About half a century after the success of J.F.K. in the 1960 election campaign through the revolutionary use of television at that time, President Obama wins the 2008 elections by intelligently using all the internet tools. Such have been achieved unprecedented records for promotion election campaign. For example, only on YouTube the staff of Obama's posted even 70 of the electoral video clips in a single week and on Facebook the number of followers was the number the millions. It was also the first electoral campaign based solely on private funding, with 3.2 million online sponsors contributing more than \$ 300 million to campaign success.

Also, in the social media family can be included the blog, a kind of public journal containing periodic articles, updated continuously, providing tools for communication, interactivity and socialization. Moreover, blogs constitute, besides a way of earning income, a method of supporting electoral campaigns or a way of advertising to commercial companies, programmes or radio shows or TV. Due to its interactive nature, the blog can create around it a true community of debate and promotion of interests. If in 2006 there were about 27 million bloggers in the world, in 2011 their number increased to 164 million, only in Romania being about 12,000, according to wall-street.ro<sup>6</sup>. Until 2014, their number in our country increased to 71,000. It has been found that social networks rely on the need for people to communicate and belong to a community, although the image that propagates in this environment is, most of the time, distorted. American psychologist Jonathan Haidt said that "Facebook's effect amplifies a trend that people already have, that is, to join peers who think the same way"<sup>7</sup>.

<sup>4</sup> Friedmann Georges, *Les merveilleux instruments. Essais sur les communications de masse*, Revue française de sociologie, Année 1980 Volume 21, Numéro 3, p. 474.

<sup>5</sup> Noelle-Neuman, Elisabeth (1984, 2004) *Spirala tăcerii. Opinia publică – învelisul nostru social*. Bucuresti: Editura Comunicare.ro, p. 198.

<sup>6</sup> www.wall-street.ro luna, ziua/sau nr., anul, pagina, sua indicate link-ul de acces la informativa, exemplu <https://www.wall-street.ro/files/118128-224.pdf>, accessed September 27, 2017.

<sup>7</sup> Jonathan Haidt, *The Righteous Mind: Why*

## **INFLUENCING BY FAKE NEWS AND FALSE INFORMATION**

Being aware of the power of social networks, Facebook creator, Mark Zuckerberg, wants to implement transparency standards especially with regard to communications in the political area. Following a scandal over alleged Russia's interference in the US election campaign, taken on the Internet, Facebook announced on September 21, 2017 that it would create new standards of transparency for the circulation of political messages in the online environment. According to Rador, who picks up BBC news, Zuckerberg said he would give the US Congress copies of the 3,000 political messages used during the presidential election in 2016 that were bought through Russian accounts. Facebook will also work with other companies to create new transparency standards applicable for policy messages. Mark Zuckerberg said that "in the future, all messages of this type will also contain information about the payer of political advertising"<sup>8</sup>.

Facebook, which year after year has gained in regards power over mass communication, will also propose partnerships with election commissions from all around the world to help them prevent operations of "political aggression", an integral part of informational war. This informational war has made its presence felt in Romania as well, *trolls* with multiple identities acting on several accounts, turning them into real propagandists, paid by the stakeholders and following a predefined agenda of them. Facebook's proposed measure could be an effective counter-attack to propaganda-style attacks characterized by extremely violent verbal behavior that infected virtual space and spread hate messages, intolerance, xenophobia, but mostly false

information delivered as real and who fall prey to the large part of the users. So, this initiative proposed by Mark Zuckerberg is more than a control measure, it is a protection of the values we should relate to social media communication. As evidence that Zuckerberg has reached a sensitive point in the Russian Federation's interference scandal in the 2016 American election campaign, it is the counter-reaction of the Russian authorities that denotes a proactive attitude, given that in March 2018 there will be presidential elections in this country.

Just a few days away from Facebook's announcement, more precisely on September 26, 2017, and about half a year before the Russian elections, the Kremlin authorities threatened to "block Facebook's US social network next year if not complying with a recent law obliging IT companies to store personal data of Russian users", conformable to AFP.<sup>9</sup> The Kremlin has threatened to block the largest social networking site in the world, as has already happened with LinkedIn's professional network. The announcement comes after a few weeks ago Facebook agreed to provide US Congress the content of the messages that would have been funded by Russia to influence the 2016 presidential election.

The communication through computer entities, called trolls, emphasized the amplification of social messages with disinterested purpose and the political ones in the ideological area. With 3,000 ads and 470 accounts and pages, discordant opinions were issued on various topics such as immigration or race, etc. A significant amount was also earmarked for more than 2,000 commercials potentially related to the political scene. It should be noted that the US electoral law does not allow citizens or various outside entities to allocate money for a campaign to support or, on the contrary, denigrate a candidate. The FBI, the US Senate, and the House of Representatives are continuing investigations into Russia's involvement in the election campaign and alleged contacts between President Donald

*Good People Are Divided by Politics and Religion*, The New York Times, NY, 2012, <https://www.amazon.com/Righteous-Mind-Divided-Politics-Religion/dp/0307455777>

<sup>8</sup> [www.rador.ro](http://www.rador.ro) accessed October 10, 2017

<sup>9</sup> [www.afp.com](http://www.afp.com) accessed October 10, 2017.

Trump's close relatives and Russian officials. In this highly publicized case, it is not clear why the US domestic structures, with attributions in the field of monitoring and predicting the effects of the evolution of communication on social networks, did not proceed to identify solutions designed to prevent the occurrence of such situations scale.

Although the concept of fake news has generated ample debates this year, it is not new. False news has been used since ancient times to destabilize and undermine opponents' resources. In the 21<sup>st</sup> century, the fake news phenomenon gains momentum and is shaped through new methods of communication and mass information. Thus, addressing takes place much faster and is moving towards an increasing number of individuals. Whether we are talking about the traditional press or whether we are referring about the one that is widespread in the virtual environment, it should be objective, balanced, quality and as responsible as possible.

But in recent years, especially after the 1990s, the appetite for the tabloid press has steadily increased, so the audience divided into two camps: the educated, avid of information to use them in daily activity, to give him the power to a socially evolving and consumer-minded audience, a sensational seeker. However, the excessive use of *sensational news* has led to a supersaturation, and the public has learned to distinguish between true and *manufactured*. Thus, communicators and so-called stakeholders have had to improve their methods of transmitting the information they need to reach the public to influence it, so that they had to look truthful. The *breaking news* politics was not enough, being doubled in the past two years by the direction of the *manufactured news*. Communication promoters, especially those operating with information in the political area, have made a negative qualitative regression, from the standards of ethics of fair mass communication to the so-called fake news product, being nothing but a profoundly persuasive and manipulative information dossier.

Public communication specialists, but also a part of journalists, especially in the area of audiovisual public services, are increasingly concerned about the magnitude of this phenomenon. The concern is determined by the rapid spread of this kind of information, especially in the online environment, inversely proportional to the public confidence in traditional media, marked by a sharp decrease of the force of impact. Claire Wardle of First Draft, along with communication and journalism experts, are of the opinion that "there are two categories of fake news: *misinformation* - accidentally spreading false news and *disinformation* - deliberate creation and willing dissemination of false news"<sup>10</sup>.

The way of spreading fake news brings to light the occurrence of breaches regarding the professionalism with which they are approached, the ethics and the deontology of the communicators who, deliberately or not, propagate the information without verifying it. Thus, some online information, but not limited to, is passed on by users who do not read the content of the published material, but only react to titles.

Other situations relate to the way some journalists or bloggers who are under the pressure of time and competition in the media market, governed by an overwhelming amount of information that circulates daily online, superficially scrutinizes the information given to broadcast, amplifying the fake core of these. Thus, we are dealing with the cascade-propagation of unreal information that leads to the construction of a false news. The same Claire Wardle believes that the most damaging situations are those where "false news is created and propagated by a group that aims to distribute false information about a person or event"<sup>11</sup>.

There are also researchers who believe that in order to deal with the large amount of information the consciousness of each individual can be deceived in receiving

<sup>10</sup> <https://firstdraftnews.com/fake-news-complicated/>, accessed September 29, 2017.

<sup>11</sup> *Idem*.

coherent and focused messages because he activates in this case shortcut mechanisms. Thus, when a person observes more messages and information on the same subject, his brain creates a shortcut to credibility, giving him the impression that it is true due to the repetitive nature of the occurrence of the information. Very few thoroughly analyze the sources of information, the route followed and the framing of the promoters interests. In other terms, although it is difficult to establish a clear causality in determining the influence of false content in mass communication, it has been found that the digital age has dramatically reduced people's trust in institutions. In connection with the abundance of false news, people seem to understand that social media issues have arisen regarding the circulation of information in this environment, the effect being that for the first time there is a slowdown in growth in some consumer markets. But messaging applications are growing. People begin to reconsider their decisions about massive distribution on Facebook and choose other forms of safer communications.

On the other hand, online campaigns have influenced voting in two powerful democracies, Great Britain and the United States. The Brexit initiators have used fake news about immigration, job loss or UK financial contributions to the European Union to carry out their plan. The goal has been met: to all of them the UK population has shown itself to be sensitive. In the United States, fake news circulated on topics similar to those in the UK, complemented by those meant to discredit the Democratic candidate and present

him in a favorable way to the Republican one. For the first time in US history, a foreign power, the Russian Federation, was accused of influencing the electorate. Both countries have shown themselves unprepared for confronting this type of communication which has shown that it is easier to reach a goal of such magnitude by manipulating the population than by using military or economic conquest techniques. It has been demonstrated that in the future, thanks to new technologies, it will be much more difficult to control the propagation of false news and mass manipulation.

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# CONSIDERATIONS ON ONTOLOGY AND METRICS OF CYBER SECURITY

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◇ **Abstract:** *In the last decade we can see an exponential growth in material losses generated by hostile activities with a component determined in cyberspace, activities carried out by elements that vary in size - from one individual to cross-border entities - but also in expertise - the organized groups being made up of various specialists with increasingly diverse specializations -, and their attacks becoming more and more sophisticated, sometimes surpassing the pure field of technological specialization. In spite of the substantial increase in funding for research, development and implementation of protection for information systems, reports from the leading organizations with a role in the field of analysis warn of an accelerated increase in the complexity of attacks, coupled with the deterioration in IT infrastructure resulting from these attacks. The current scientific approach aims at presenting important aspects of ontology and metrics in the field of cyber security.*

◇ **Keywords:** *cyber security, ontology, architecture, metrics.*

## ON THE MECHANISMS OF THE ONTOLOGY OF CYBER SECURITY

The security and resilience of computer networks has become over the past decade a very broad field of research. This has led to the emergence of new threats to systems operating in cyberspace. The rapid growth of connections in both volume and complexity, processing capacity and speed, bandwidth, number of users, and global dependency of Internet has considerably increased the vulnerabilities of cyber systems generating increasingly complex and heavier manageable risks.

The knowledge in the field of security and cyber defence, accumulated to date, can be formally described by ontology, which can later make it possible to develop metrics and taxonomies that perpetuate the modelling of the behaviour of cyber systems of state or international organizations, as is NATO, or global, as the UN is, from the perspective of security and cyber defence.

The last ten years have seen an increase in concerns on security metrics, an increase observed not only in the academic, but also in the economic or in the defence sectors. Thus, more and more theoretical works, numerous industry articles and reports have been devoted to the benefits of measuring IT security, determining and measuring security values becoming an increasingly elaborate subject in these works, which would determine us to suppose that we have just discovered we can measure what we do.

Inspired by OWL-DL<sup>1</sup>'s ontology logic, we attempted to interpret the ontology of cyberspace by translating through a representation of descriptive logic so that an automated reasoning can be modelled on a large heterogeneous space and using a rational mechanism specific to descriptive logic.

In order to define ontology, the most widely used definition of the domain, that of

<sup>1</sup> OWL DL Semantics, available online at <https://www.obitko.com/tutorials/ontologies-semantic-web/owl-dl-semantic.html>, accessed on 22.07.2017.

Thomas Gruber<sup>2</sup>, relates that an ontology is a specification of the conceptualization of a field, complemented by the observations of Nicola Guarino<sup>3</sup>, who argued that an ontology is an explicit and partly specification of the cyber domain by using a vocabulary of terms and a means of specifying their definitions; it is also important to note that John F. Sowa in his paper “The Role of Logic and Ontology in Language and Reasoning”<sup>4</sup> states that an ontology is a catalogue of concepts existing in a field, containing predicates, semantics of terms, and of concepts, as well as the relationships between them.

Generally, the ontology development methodology used here is also called an “intermediate” approach, which means that it contains aspects of top-down analysis and bottom-up analysis. The bottom-up analysis requires an understanding of the semantics of the data sources to be integrated. Top-down analysis requires an understanding of the semantics of end-users who will effectively use the set of semantically-informed, ontologically-integrated data sources, that is, the types of questions that these end-users want to ask or ask for, the capabilities resulting from semantics integration of these data sources.

These types of analyses result in the development of proficiency questions<sup>5</sup> that must be addressed to ontology to give users a

target value, so these questions can be viewed as queries that need to be executed.

These queries, in turn, can be seen as a test procedure indicating “the moment when ontological development is sufficiently complete for a certain stage of development”<sup>6</sup>, when those queries return exact, sufficiently rich results, and especially to the correct level of granularity.

The methodology used for current ontological development is based on the following principles, focused on both analogies and reuse of existing ontology where possible. The re-use methodology consists of the following steps: establishing the basis of possible existing ontology in the field of security and its adjacent ones, including fundamental ontology, medium level, utility and reference; when developing the cyber ontology, we incorporate the classes and properties (and definitions) that exist in the best ontology set in section 1 above; when the number of classes and properties embedded in an ontology in cyber ontology increases, consideration will be given to importing the online ontology given in cyber ontology and establishing the equivalence relations between the ontology classes set out in section 1 and cyber ontology classes.

Drawing up schemas, dictionaries, glossaries, and existing standards: other structured and defining resources are used when available as a form of acquiring domain knowledge. These resources are analyzed for the types of entities, relationships, properties, attributes, and the value range for those expressed in resources. Where they can be logically related to other cyber data schemes and express the analyst’s questions and interests, after applying a refinement to the principles of ontological engineering, these entities, relationships, properties, and values are embedded in the ontology of the cyber domain used in this research.

<sup>2</sup> Thomas R. Gruber, A Translation Approach to Portable Ontology Specifications, Knowledge Systems Laboratory, Technical Report KSL 92-71, September 1992, Computer Science Department, Stanford University, Stanford, California 94305, available online at <http://tomgruber.org/writing/ontologia-kaj-1993.pdf>, accessed on 22.07.2017.

<sup>3</sup> Nicola Guarino, Daniel Oberle, Steffen Staab, What Is an Ontology? Report - ITSC-CNR, Laboratory for Applied Ontology, Italy, available online at [http://iaoa.org/isc2012/docs/Guarino2009\\_What\\_is\\_an\\_Ontology.pdf](http://iaoa.org/isc2012/docs/Guarino2009_What_is_an_Ontology.pdf), accessed on 22.07.2017.

<sup>4</sup> John F. Sowa, The Role of Logic and Ontology, In Language and Reasoning, available online at <http://www.jfsowa.com/pubs/rolelog.pdf>, accessed on 22.07.2017.

<sup>5</sup> Gruninger, M. and Fox, M. S. *Methodology for the design and evaluation of ontologies*, Montreal, 1995.

<sup>6</sup> Uschold, M. and Gruninger, M. *Ontologies: Principles, Methods, and Applications*. 1996. Vol. 11, 2, pp. 93-136.

## ARCHITECTURE OF CYBER SECURITY ONTOLOGY

The final product of the ontology development methodology described above will be an ontology that consists of a number of modular sub-ontologies rather than a single monolith ontology, being grouped from Obrst<sup>7</sup>'s perspective into three major categories of higher, medium and domains ontologies, depending on their abstraction levels as shown in Figure 1:

1. Higher ontologies are high level ontologies independent of the field, which provide common knowledge bases from which

can derive more domain-specific ontologies, the standard ones being called fundamental or universal ontologies.

2. Medium ontologies are less abstract and make statements that encompass multi-domain ontologies. These ontologies can provide more concrete representations of the abstract concepts found in superior ontology.

There is no clear demarcation point between higher and medium levels, high-level ontologies also include the set of ontologies that are commonly used concepts such as time or location-related concepts, sometimes being also called in the North Atlantic space utility ontologies<sup>8</sup>.

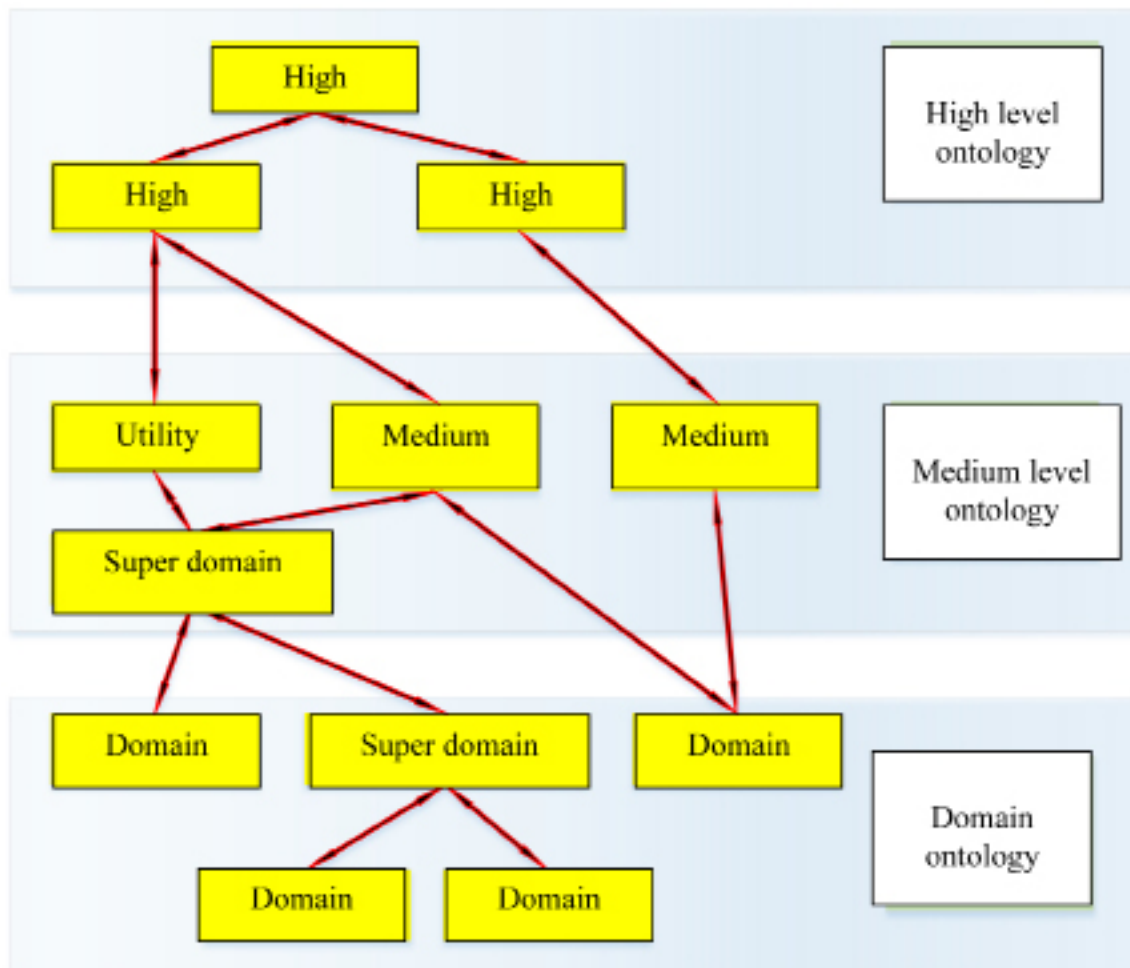


Figure no. 1. *Ontology Architecture*

<sup>7</sup> Obrst, L. Ontological Architectures. [ed.] Johanna Seibt, Achilles Kameas Roberto Poli. Chapter 2 in Part One: Ontology as Technology in the book: TAO – Theory and Applications of Ontology, Volume 2: Computer Applications. Springer, 2010.

<sup>8</sup> Semy, S., Pulvermacher, M. and Obrst, L. Toward the Use of an Upper Ontology for U.S. Government and U.S. Military Domains: An Evaluation. MITRE Technical Report, MTR 04B0000063. November 2005, available online at [https://www.mitre.org/sites/default/files/pdf/04\\_1175.pdf](https://www.mitre.org/sites/default/files/pdf/04_1175.pdf), accessed on 22.07.2017.

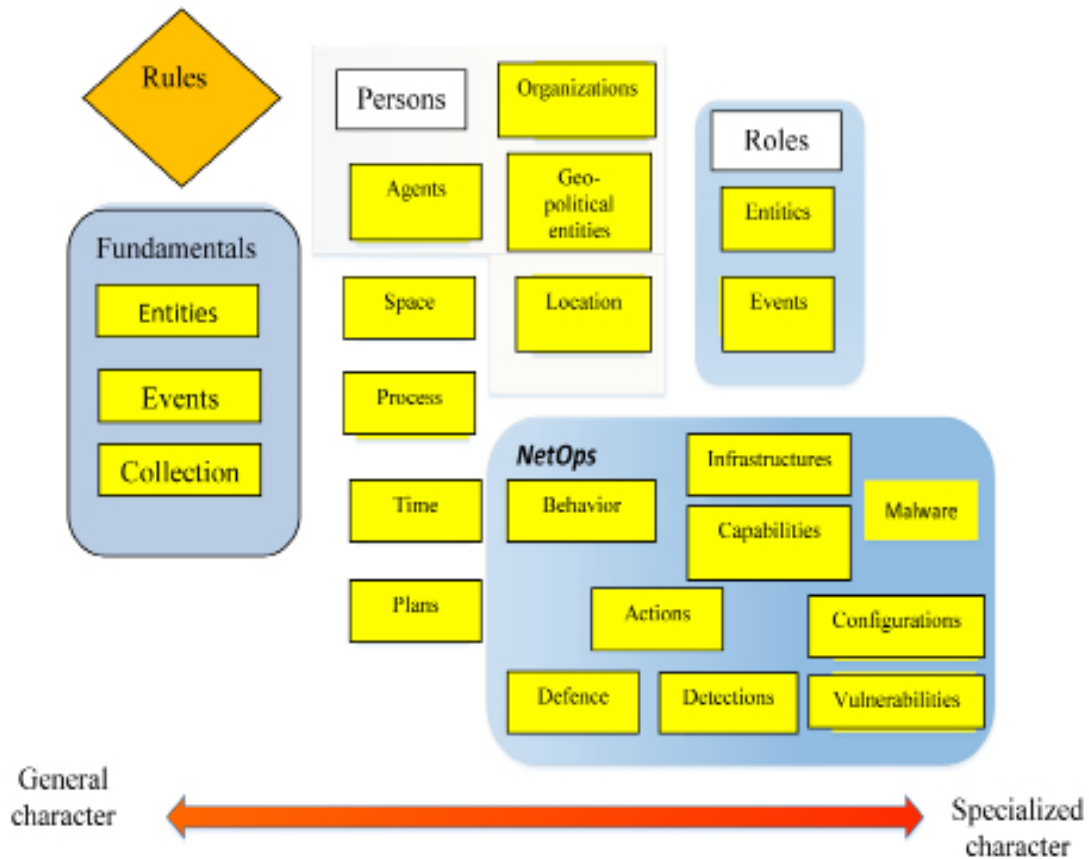


Figure no. 2. The Cyberspace Ontology Architecture

1. Domain ontologies specify concepts peculiar to an area of interest and represent those concepts and their relationships from a field-specific perspective. Domains of ontology can be composed by importing medium-level ontologies, but can also extend concepts defined in medium or higher ontologies.

These categories and their roles in ontological architecture are presented in figure no. 2, according to Semy's<sup>9</sup> "Ontological Architectures".

### ASPECTS ON CYBER SECURITY METRICS

Metrics are tools that help make decisions and improve performance and responsibility. The term "metrics" is often used to refer to performance measurement, but we found it more useful for our research effort, defining

measures and measurements separately.

Cyber security metrics and measures can help organizations: to check that cyber security measures follow a policy, a process, or a procedure; to identify the strengths and weaknesses of cyber security of these measures; to identify trends in evolution of cyber security mechanisms, both inside and outside the organization's control.

Once an organization has identified its metrics, it must determine what indicators can be effectively collected to support these metrics. In general, organizations that have a strong ITC infrastructure have developed metrics that can be collected by automated means, because on the one hand they have a higher degree of accuracy than the manually collected ones and on the other hand they can be collected by how many times it takes. After collecting the indicators, organizations need a way to analyze them and generate reports for their metrics, and this analysis of indicators and metrics is done in a number of ways, such as grouping them according to

<sup>9</sup> Obrst, L. Ontological Architectures. [ed.] Johanna Seibt, Achilles Kameas Roberto Poli. Chapter 2 in Part One: Ontology as Technology in the book: TAO – Theory and Applications of Ontology, Volume 2: Computer Applications. Springer, 2010.

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geographic location, logical division within the organization, type of system, system timing, etc. Mostly of the analyzed organizations, especially those with a vocation in the field of cyber-space regulation and cybercrime, have several sources of security indicators generated automatically by the organization's security controls, such as antivirus and anti-spyware software, firewalls, software to update management systems, and vulnerability scanners. Although there is a danger that there is a problem of accuracy with some of these measures, organizations usually correlate the evolution over time of these indicators, thus dynamically selecting for each indicator the percentage they will have in the metric system that provides strategic decision support.

Strategic decision-makers at the level of the organization responsible for cyber security management may be interested in high-level security metrics such as the overall effectiveness of the organization's capabilities to prevent incidents and manage cyber security incidents. Lower-level metrics facilitate decision-making that have dominant tactical features, while higher-level values are appropriate for making more strategic decisions, but in our study, we have encountered mostly in the North Atlantic area that lower-level metrics are often used as inputs to higher-level metrics.

Organizations can also use indicators and metrics to set goals, also known as "benchmarks" or "reference values" and can determine the ratio of success or failure of those. Here it is worth noting that the indicators or benchmarks are specific to the organization and determine the reference level from a specific operational environment.

## CONCLUSIONS

Despite evidence to the contrary, many of the national strategic decision-makers seem to imagine that robust defence in the field of security and cyber defence is the right answer. But the events of recent years have shown in a realistic way that no defence, no matter how well built and maintained, is 100% impenetrable, cyber systems being compromised, and

data, including both sensitive military or governmental information, about businesses in the business segment as well as information about individuals are vulnerable to theft or fraudulent manipulation.

An architecture based on intelligent agents driven by ontological patterns of cyber security and defence policy cyber security policies and a multinational security-oriented organization could provide assurance on the compliance of national security policies and mechanisms and cyber defence with certain common policies established at international level and expressed in codes of good practice or audit standards, even if their interpretation is different at the level of partner nations.

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# THE MANIFESTATION OF IDENTITY DIFFERENCES IN THE URBAN ENVIRONMENT – SOCIAL IDENTITY

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◇ **Abstract:** *Human settlements is the leitmotif of the evolution and active adaptation of humanity. The distinct social and historical heritage and the preservation of the culture of each national identity and minority identity have constituted, over time, 'barrels of powder' not only on the old continent, but throughout the world, which have generated wars, not only regional but also worldwide.*  
◇ *The moving spectacle in which humanity is the main actor is directed by people in the shadow and influenced by technological innovations and the new inventions in the areas of reference to human existence.*  
◇ *At the beginning of the 21st century, identity differences are becoming more pronounced and will generate conflicts and crises. National politics will be influenced and, if necessary, dictated by the economic, social and political interests of the most influential cities or metropolitan areas.*  
◇ *The policy of the highest level will always be under the influence of identity differences and the clash of the social classes will increase in the race for the access and control of the natural and financial resources (traditional, patrimonial and virtual) of the world.*  
◇ *Urban social life is defined through public spaces. The political factor is in everything and in all, the public space is the battleground in which political parties win, preserve or lose political power.*  
◇ *With this short preamble, this scientific communication is part of the work that portrays a picture of urban security and the issue of urban security in the context of manifestation of differences of identity.*  
◇ **Keywords:** *human settlements, urban security, identity differences, urban environment, public space, urban social life*

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## THE URBAN SECURITY CONCEPT

The *urban security* concept is not new in the specialized literature. But it has not reached to conceptual maturity and plenitude. This is a complex concept that extends to all the reference areas of a city.

The urban development has been directly influenced by political, administrative and economic systems, in a continuous process of transformation and adaptation, which has led to numerous and diverse psychosocial, cultural, identity, and religious experiments within societies around the world.

Urbanization is a long-term process that determines the growing number of people living in cities and municipalities, as well as the growth of urban areas. This process began

in Europe with the industrial revolution of the eighteenth century and, over the course of two centuries, spread heavily across the continent<sup>1</sup>.

Globally, more people live in urban areas than in rural areas, accounting 54% of the world's population living in urban areas<sup>2</sup>. If,

<sup>1</sup> Study on the spatial development elements of the South Muntenia region, Final Report (19/10/2013 - 31/10/2013) Version 3, p. 34, available online at <http://www.adrmuntenia.ro/documente/studiu-elements-de-development-spatial-in-rsm.pdf>, accessed on August 20, 2017.

<sup>2</sup> URBANIZATION AND DEVELOPMENT: EMERGING FUTURES. WORLD CITIES REPORT 2016, United Nations Human Settlements Programme (UN-Habitat), Nairobi, Kenya, 2016, p. 1, available online at <http://wcr.unhabitat.org/wp-content/uploads/sites/16/2016/05/WCR-%20Full-Report-2016.pdf>, accessed on August 10, 2017.

in 1950, the urbanization rate of the world's population was only 30%, the forecast for 2050 indicates that 66% of the world's population is projected to be urban<sup>3</sup>. Urbanization takes place all over the world, but the last report<sup>4</sup> on cities of the world shows that the urbanization process does not take place at the same pace in different regions. Thus, uneven urbanization has led to an increase in the number of metropolises, from 14 in 1995, to 29 in 2015. However, while these areas can be considered as economic centers of power, they are by no means the fastest-growing urban centres nor do they represent the majority of the urban population. Small and medium cities now account for 59 percent of the world's population and are growing at the fastest rates<sup>5</sup>.

It can be said that this trend is supported by the process of increasing globalization in all countries around the world.

European Organisation For Security defines urban security as follows: '*Urban Security encompasses measures aimed at protecting people, infrastructure, processes and assets within urban spaces from man-made and natural threats*'<sup>6</sup>.

One of the objectives of urban security is to guarantee public services that meet the basic needs of citizens through permanent access to drinking water and access to sanitation in both urban and pre-urban areas. A complementary objective is to provide decent living conditions through job creation, the possibility of human

development through access to all forms of education, without discrimination, in order to contribute to increasing the quality of life and maintaining a balance of coexistence between social classes in the urban environment.

Consequently, I propose this approach of the concept of urban security: '*urban security consists of integrated and sustainable policies that ensure the normal state of human communities, processes and the proper use of assets and heritage in the urban environment by guaranteeing the protection and resilience of critical infrastructure and the adaptability of public services in emergency situations, while preserving national identity and culture*'. At the same time, urban security supports a stable social environment and provides opportunities for growth, development and exploitation of the human potential and capabilities of human psychism.

Urban security approaches the following elements: integrated and sustainable public policies; urbanism and urbanization process; critical infrastructure; specialized public services. Ensuring a good governance of the constituent elements of urban security safeguards a state of normality of society, guaranteeing an optimal and efficient urban security, which contributes to a high standard of quality of life and to the protection of the environment.

## IDENTITY DIFFERENCES – SOCIAL IDENTITY

Human settlements are defined as points of concentration of material and spiritual goods distributed in space, depending on geographic, historical, economic, political, concrete. From a different perspective, human settlements are considered as potential points in the territory, with different mass elements (population) and energy (different resources and information flows), which establish relations of attraction/reject analogue of an electric field<sup>7</sup>.

<sup>3</sup> *World Urbanization Prospects*, Department of Economic & Social Affairs, the 2014 revision, United Nations, New York, p. 1, available online at <https://esa.un.org/unpd/wup/publications/files/wup2014-highlights.Pdf>, accessed on August 10, 2017.

<sup>4</sup> *WORLD CITIES REPORT 2016*, available online at <http://wcr.unhabitat.org/>, accessed on August 10, 2017.

<sup>5</sup> Gabriela Rico, *Eight key trends defining two decades of global urbanization. Uneven Urbanization*, June 2, 2016, available online at <http://citiscopes.org/habitatIII/news/2016/06/eight-key-trends-define-two-decades-global-urbanization>, accessed on August 10, 2017.

<sup>6</sup> European Organization for Security, *Urban Security*, available online at <http://www.eos-eu.com/Middle.aspx?page=urbansecurity>, accessed on August 14, 2017.

<sup>7</sup> Study on the spatial development elements of the South Muntenia region, Final Report (19/10/2013 - 31/10/2013) Version 3, p. 109, available online at <http://>

In *The Gale Encyclopedia of Psychology* identity is defined as *the mental representation of a person about who it is*<sup>8</sup>.

In *The Penguin Dictionary of Sociology* identity is defined as *the meaning of the self, the person, the kind of person that is someone*<sup>9</sup>.

'Identities are fluid and changeable', experts say, and there is always the possibility of acquiring new identities<sup>10</sup>.

Identity is a continuous process with a unique core, specific, with common, unitary features.

The classification of individuals according to various identity features is called the phenomenon of attribution. According to him, we are dealing with a *self-identity* (what I think I am) and a *hetero-identity* (what others think they are)<sup>11</sup>.

'People have as many identities as the networks to which they are linked, in which they occupy a social position and play an associated role'<sup>12</sup>.

[www.adrmuntenia.ro/documente/studiu-development-spatial-in-rsm.pdf](http://www.adrmuntenia.ro/documente/studiu-development-spatial-in-rsm.pdf), accessed on August 20, 2017.

<sup>8</sup>Strickland, B.R. [ed.], 2001, *The Gale Encyclopedia of Psychology*, Gale Group, Michigan, apud. Florentina Scârnci, *Introduction to Sociology of Identity*, Transylvania University Publishing House, Brasov, 2009, p. 16, available online at [https://www.researchgate.net/publication/311563752\\_Introducere\\_in\\_sociologia\\_identitatii](https://www.researchgate.net/publication/311563752_Introducere_in_sociologia_identitatii), accessed on 2 September 2017.

<sup>9</sup> Abercrombie, N., Hill, S., Turner, B., 2006, *The Penguin Dictionary of Sociology*, Penguin Group, Londra, p. 190, apud. Florentina Scârnci, *Introduction to Sociology of Identity*, Transylvania University Publishing House, Brasov, 2009, p. 16, available online at [https://www.researchgate.net/publication/311563752\\_Introducere\\_in\\_sociologia\\_identitatii](https://www.researchgate.net/publication/311563752_Introducere_in_sociologia_identitatii), accessed on 2 September 2017.

<sup>10</sup> Florentina Scârnci, *Introduction to Sociology of Identity*, Transylvania University Publishing House, Brasov, 2009, p. 16, available online at [https://www.researchgate.net/publication/311563752\\_Introducere\\_in\\_sociologia\\_identitatii](https://www.researchgate.net/publication/311563752_Introducere_in_sociologia_identitatii), accessed on 2 September 2017.

<sup>11</sup>Georgeta Orian, *Identity and Alterity: interdisciplinary milestones*, '1 Decembrie 1918' University, Alba Iulia, 2003, p. 3.

<sup>12</sup>Smith-Lovin, L., 2002, *Roles, Identity and Emotions: Parallel Processing and Production of Mixed Emotions*, în Kashima, Y., Foddy, M., Platow, M. [eds.], *Self and Identity: Personal, social and symbolic*,

*Social identity* is defined as *'the part of the individuals' self-concept which derives from their knowledge of their membership of a social group (or groups) together with the value and emotional significance of that membership'*<sup>13</sup>.

Social identity is made up of several essential dimensions:

a) *social self-categorization* (cognitive component), which corresponds to the cognitive recognition of belonging to a group or a social category;

b) *collective self-esteem* (the evaluative component), which represents a positive or negative assessment connotation related to belonging to a group;

c) *affective commitment* (the affective component), which corresponds to the personal significance and the intensity of the affective link to the respective group or category;

d) *the reasons for identity* (the motivational component), which implies, among other things, the need for positive self-reported, social inclusion or social distinctiveness, etc.;

e) *intergroup behaviour* (behavioral dimension), which, defined in Tajfel terms (1982), is present *'whenever individuals in the group interact, collectively or individually, with another group or its members on the basis of social identification'*<sup>14</sup>.

The forms of manifestation of social identity are: gender, occupational status, ethnicity, sexual orientation, and so on.

In analysing identity differences in

Ed. Lawrence Erlbau, Associates, New Jearsey, p. 128, apud. Florentina Scârnci, *op.cit.*, p. 37.

<sup>13</sup>Henri Tajfel, *Social Psychology of Intergroup Relations*, p. 24, available online at <http://web.comhem.se/u52239948/08/tajfel86.pdf>, accessed on 29 October 2017.

<sup>14</sup> Tajfel, H. (1978), „*Social categorization, social identity and social comparison*”, în H. Tajfel (ed.), *Differentiation between Groups: Studies in the Social Psychology of Intergroup Relations*, (pp. 61-76), Academic Press, Londra, apud. Dorin Nastas, *Social Psychology. Laboratory Bulletin 'Social Field Psychology'*, University 'A.I. Cuza', Iasi, no. 16/2005, topic: Social Identity, POLIROM Publishing House, 2006, p. 153, available online at <http://www.oiss.ro/wp-content/uploads/2014/12/revista-de-psihologie-sociala-16-2005.pdf>, accessed on 29 august 2017.



the urban environment, gender must be an integral part of all social investigations, because all social phenomena have gender-based valences (different impacts and meanings on and for women and men), as all phenomena reproduce certain conceptions of identities and relationships gender 'normal'<sup>15</sup>. Therefore, gender is a fundamental pillar in any intelligence, psychological, social, cultural, political analysis generating veritable conclusions in identifying and differentiating identities from an urban or rural environment.

An important aspect in distinguishing differences and determining the social impact in the urban environment is given by the fact that the differences between individuals, ethnic, gender, sexual, etc., even if defined by the dominant practices of society as differences that matter, become lived, meaningful differences as they are integrated into individual experiences<sup>16</sup>.

Due to the social character of any human identity in sociology, two theories evolved: the theory of social identity and the theory of social categorization<sup>17</sup>.

According to the authors Worchel and Coutant (2002), the new model of social identity theory includes: *personal identity* (the individual's physical and personality characteristics), *social identity* (his membership of the group - categorization), *intragroup identity* (the status and role it has in the group and the relations it has within the group with members) and *group identity* (given by the boundaries of the group, its beliefs and values, history and reputation among the other groups)<sup>18</sup>. In the new theory

the identity of the individual is represented at one point by the combination of four points on four continuums (each identity component corresponds to a continuum). Therefore, all components exist at any time of the identity assessment, and the identity of the individual is the result of the unique combination of these components<sup>19</sup>.

Matthew Crawford states that the theory of social categorization is distinct from the theory of social identity by not focusing on the motivation of increasing positive social identity, but on the consequences of the way in which social categorization occurs. It claims that individuals first define themselves as members of social categories and then use these categorizations to define, describe and evaluate<sup>20</sup>.

Of all these multiple manifestations of identity, the only one that still resists and is quite stable is the ethnic one. If certain identities, such as professional, symbolic, sexual, political, etc., have greater malleability, ethnicity, under certain conditions, becomes more rigid and more difficult to model. They are the same time the hard core of cultural identity<sup>21</sup>.

Etymologically, *ethnicity* derives from the Greek *ethos* and designates the ensemble of peoples that were organized in the cities (*polis*). In a broader sense, ethnicity would mean groups of beings living together.

The German sociologist Max Weber defines ethnicity as '*those human groups who maintain a subjective belief in a common origin due to the similarities of typology or habits or both or the memory of colonization*'<sup>22</sup>.

<sup>15</sup> Vincze Eniko, *The Difference That Matters. Socio-cultural diversity through the feminist anthropology lens*, Cluj: DESIRE, 2002, p. 66, available online at <http://adatbank.transindex.ro/vendeg/htmlk/pdf3540.pdf>, accessed on 7 septembrie 2017.

<sup>16</sup> *Ibidem*, p. 49.

<sup>17</sup> Florentina Scârnci, *op.cit.*, p. 37.

<sup>18</sup> Worchel, S., Coutant, D., 2002, *It Takes Two to Tango: Relating Group Identity to Individual Identity within the Framework of Group Development*, în Hogg, M., Tindale, S. [eds.], *Blackwell Handbook of Social Psychology: Group Process*, Blackwell Reference, apud. Florentina Scârnci, *op.cit.*, pp. 35-36.

<sup>19</sup> Florentina Scârnci, *op.cit.*, pp. 35-36.

<sup>20</sup> Crawford, M., 2007, *The renegotiation of social identities in response to a threat to self-evaluation maintenance*, în *Journal of Experimental Social Psychology*, nr. 43, apud. Florentina Scârnci, *op.cit.*, p. 36.

<sup>21</sup> Cristina Gavriliuță, *Ethnicity and Cultural Identity*, p. 652, available online at [http://www.philippide.ro/Romani%20majoritari\\_2007/62\\_GAVRILUTA.pdf](http://www.philippide.ro/Romani%20majoritari_2007/62_GAVRILUTA.pdf), accessed on 2 September 2017.

<sup>22</sup> Achim Mișu, *Cultural Anthropology*, Dacia Publishing House, Cluj-Napoca, 2002, p. 357, apud. Cristina Gavriliuță, *Ethnicity and Cultural Identity*,

In order not to overlap the terms of *ethnicity* and *nationality*, we express their exact delimitation: ethnicity is smaller than nations and is based on a common heritage (language, traditions, culture). The ethnics, for the most part, have been and still are more persistent in human history. While nations circumscribe space and time, ethnicity is acquired by virtue of innate traits, and ethnicities can be focused on space but also dispersed. The two may soon be placed in a subordinate situation: a country may include several ethnic groups<sup>23</sup>.

*Identity* is defined by the individual's belonging to different groups, organizations, and communities. Thus, the person has an assured place in the existing social structure, in relation to different codes and ranking rules that establish the symbolic order. The construction and evolution of personal and social identity, professional or community, political and ideological assume an evolution characterized by continuity and discontinuity, a continuous action of (self) transformation, the passage of life experiences, interaction with the context (political, social, ideological, cultural), implantation in a given territory<sup>24</sup>.

The concept of identity often appears in minority discourse. At the same time, identity and collective memory policies support those speeches. The choices a community will take will depend largely of the individual ones, permanently amended not only from the outside, by the institutions of the community, but dictated from the inside, according to cultural rules. Assuming the hypothesis that the individual's personal security is ultimately fueling community security, and individual security is preserved by affirming identity, then building security at community and state level

will depend on affirmation and preservation of values that give consistency to identity<sup>25</sup>.

A subtle and delicate subject of identity issues is brought to the forefront by the concept of *national character*, which is an object of study of ethnopsychology. A first observation would be that ethnic identity is not equal to cultural identity.

*Identity* is a basic component of the nation's security. National identity is the symbol and indicator of security. Every nation tends to affirm its own image and identity. It has its roots in the nation's traditions (political, social, cultural, linguistic, religious), in the 'foundation' of the nation (mental, psychological) and in the structures of the nation that it is capable of creating in connection with cultural processes, ethnically and linguistically<sup>26</sup>.

## CONCLUSIONS

In the 21st century, the identity issues gains new valences, becoming an instrument of power in the struggle of social classes at regional, national, international, or global level.

If in the past centuries the identity was a single voice, ignored, at local, regional or within empires, today we are talking about '*indentities*', which gains higher place within the pyramid of the world's highest leadership forums.

The identity crisis is increasingly evident in the social sphere.

Identity gives life to the nation and securing identity by preserving the unique model – *national identity* – will implicitly generate securing the nation.

p. 652, available online at [http://www.philippide.ro/Romani%20majoritari\\_2007/62\\_GAVRILUTA.pdf](http://www.philippide.ro/Romani%20majoritari_2007/62_GAVRILUTA.pdf), accessed on 2 September 2017.

<sup>23</sup> Cristina Gavriliuță, *op.cit.*, p. 648.

<sup>24</sup> Dorin Nastas, *Social Psychology. Laboratory Bulletin 'Social Field Psychology'*, University 'A.I. Cuza', Iasi, no. 16/2005, topic: Social Identity, POLIROM Publishing House, 2006, p. 160, available online at <http://www.oiss.ro/wp-content/uploads/2014/12/revista-de-psihiologie-sociala-16-2005.pdf>, accessed on 29 august 2017.

<sup>25</sup> Mălina Ciocea, *Cultural Security. Dilemma of Identity in the Global World*, Tritonic Publishing House, Bucharest, 2009, p. 114.

<sup>26</sup> Viorel Mihăilă, *National Identity, European Identity. Symbols and confrontations*, Military Publishing House, Bucharest, 2009, p. 187.



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# CONSIDERATIONS ON THE RELEVANCE OF THE COMPLEXITY THEORY FOR MILITARY IN THE INFORMATION AGE

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◇ **Abstract:** *In recent years, the military theoreticians' solutions have been materialized in several theories of war, such as Network Centric Warfare (NCW), Effects Based Operations (EBO) or Hybrid Warfare (HW). Each of these theories has a high degree of validity, it starts from finding the uncertainty and complexity of the current security environment, recognizes the necessity of transforming the structure of forces but identifies differently the main objective of transformation.*  
◇ *But all these theories convey and unfold concepts introduced by the complexity theory such as: emergent behavior; distributed command, adaptability and synchronization.*

◇ **Keywords:** *NCW, EBO, HW, network centric warfare, effects based operations, hybrid warfare, complexity theory*

## INTRODUCTION

The theory of complexity, which deals with the study of the complex systems, is one of the 21st century's innovative theories. It has emerged as a result of natural scientists' research (biology, mathematics, meteorology) and social sciences (sociology, economy, international relations) seeking to analyze those systems whose behavior could not be described deterministically by using predominantly reductionist models.

The beginnings in the field are attributed to the Austrian economist F.A. Hayek, the Nobel Prize winner for economy (1974), who in 1945 published the article "*The Use of Knowledge in Society*"<sup>1</sup> in which he defends the market economy against the tendencies of the capitalist states to adopt a model of planned centralized economy. In this article, Hayek demonstrated that the market economy is superior because it allows the use of all the

information and knowledge that is dispersed at one time in society and the economy. thus describing economy, for the first time, without explicitly naming it, as a complex system. In the article from 1967, "*The Theory of Complex Phenomena*"<sup>2</sup>, Hayek explicitly denoted market economics as a complex system, whose analysis requires new conceptual methods and tools.

During the 1960s and 1990s, a paradigm shift was also felt in other sciences such as mathematics (Mandelbrot's fractal theory and deterministic chaos theory), computer science (on two directions: the development of the theories on computer networks but also in the development of assisted simulation models such as CA-Cellular Automata, ABS-Agent Based Simulations and AAA-Adaptive Autonomous Agents), in biology (ecosystem's study), in medicine (the study of the immune system or the brain), in the

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<sup>1</sup> Hayek, Friedrich, "*The use of Knowledge in Society*", *The American economic review*, Vol. 35, No. 4 (sep., 1945), pp. 519-530, accessed 09.02.2017 on [http://www.kysq.org/docs/Hayek\\_45.pdf](http://www.kysq.org/docs/Hayek_45.pdf),

<sup>2</sup> Hayek, Friedrich, "*The Theory of Complex Phenomena*", accessed 09.02.2017 on [https://emergentpublications.com/ECO/ECO\\_papers/Issue\\_9\\_1-2\\_14\\_CP.pdf?AspxAutoDetectCookieSupport=1](https://emergentpublications.com/ECO/ECO_papers/Issue_9_1-2_14_CP.pdf?AspxAutoDetectCookieSupport=1)



economy (globalization process of markets and economics) and sociology (formation and propagation of opinion within a population, the segregation of populations on ethnic or religious criteria, the study of social relations between individuals using the graphs and networks theories).

Since 1980s, at once with the development of computer networks as well as their implementation in modern weapon systems, military theorists are still concerned about the study of complexity theory. They rightly understood the beginning of a new era on how to carry the war and the need to transform military forces in order to adapt them to the new conditions.

All these scientific approaches, identified in so many fields of research, are likely to convince us about the need to study systematically the “*new science*” of complexity and to identify new practical solutions for implementation in military science.

### THE CURRENT STATE OF DEVELOPMENT OF THE COMPLEXITY THEORY IN THE INFORMATION AGE

The term of “*complexity theory*” can easily mislead the idea that in fact there is a unitary theory of complexity that is defined by a common set of hypotheses, a mechanism (function, equation or system of equations), and a homogeneous range of solutions. Of course, the reality is totally different and in fact it would be absurd to say that a theory, no matter how brilliant it may be, can be found applicable in the multitude of areas listed in the introduction.

Thus, the syntagma of complex theory, accepted and used by the scientific community, defines a set of theories developed unidisciplinary and interdisciplinary for the study of *nonlinear dynamics* and *complex systems*. That is, we mainly distinguish two directions of research: *the theory of deterministic chaos* and *the theory of complex systems*.

**The theory of deterministic chaos** has as object the study of the simple systems that under certain conditions exhibit a complex behavior. In this category we can name a relevant example of the simplified mathematical model of three nonlinear differential equations used for the prediction of atmospheric frontal movements which can, under certain conditions, lead to completely chaotic trajectories. In 1892, French mathematician Henri Poincaré discovered the homoclinic orbits of three or more interacting bodies, which can have unstable and unpredictable behavior, thus marking the concept of *chaos* in mathematics. The mathematical demonstration of this phenomenon was be succeed only in 1962 by the mathematician Stephen Smale, completed by E.N. Lorenz’s work from 1963 that calculated the chaos attractors for a simplified model of air currents, also introducing the term of “*butterfly effect*” to describe the disproportionate response of the system to very small variations in the initial state.

For consistent contributions in the study of nonlinear dynamics and deterministic chaos, we can remember G.D. Birkhoff, who introduced in 1932 the theory of “*remarkable curves*”, and A. Kolmogorov who discovered in 1954 that the movement in the *phase space* of classical mechanics is neither absolutely regular nor irregular and the trajectory depends on the initial conditions. However, reviewing those who have overwhelmingly influenced the study of complex dynamics would be incomplete without Mandelbrot’s recall, who developed the study of *Julia set* (1970) and introduced the notion of *fractals* based on the *apparent self-similarity* and on the definition of a non Euclidean geometry defined over complex topological spaces  $x,yD$  (Koch’s coastline 1.2618, Cantor’s set 0.63, or Menger’s sponge 2,7268). The applicative value of fractal geometry is demonstrated by intensive use in high technology such as telecommunication (miniaturization of antennas in mobile devices), micro and nano electronics (design of microprocessors), in the automatic land mapping algorithms for

terrestrial and extraterrestrial space, and not least in biology in the study of biosystems.

**The theory of complex systems** studies systems composed of many densely and non-linearly interconnected components, which at systemic level show emerging behavior. Thus, complex systems are important for a variety of disciplines such as biology, chemistry, physics, medicine, anthropology, sociology, and the economy.

Although there is an obvious overlap between the theories of *nonlinear dynamics* and *complex systems*, both regarding the fields of research and the tools used, we still distinguish two tendencies that conclude the two concepts:

- *Complexity* can be the emergent result of *simplicity*, which means that complex behavior can be the result of a dynamic system described by a simple function;

- *Simplicity* can be the emerging behavior of *complexity*, which means that complicated systems characterized by a large number of parties in interaction, so with many degrees of freedom, although supposed to have “*complicated*” behavior, through mechanisms of *self-adjusting* and *fine-tuning* through external control parameters adopt a simple behavior.

### **THE COMPLEXITY AND NONLINEARITY OF WAR IN THE INFORMATION AGE**

The results of research of complexity done in the Santa Fe Institute (USA) was the starting point of US military studies in the field. That is, in 1996 the Center for Naval Analyzes, at the request of the Marine Corps General Staff, issued a two-volume report titled “*Land Warfare and Complexity*”. The paper aimed to evaluate the applicability of the new concepts of “*non-linear dynamics*” and “*complex systems*” in the study of war.

As a result of these studies, American theorists introduced the concept of “*Network Centric Warfare (NCW)*”, the concept being used for the first time in 1998 by Vice-Admiral

Arthur Cebrowski. Regarding the relevance of the complexity theory for military, in the context of contemporary information society, Sean T Lawson said that “*the theories and strategies behind the use of U.S. military forces since the attacks of September 11, 2001, are exemplary of the U.S. military’s use of concepts and metaphors from the nonlinear sciences in its efforts to understand and respond to the perceived demands of new information and communication technologies (ICTs) and an emergent information age*”<sup>3</sup>.

Political and military decision-makers, at national and international levels, are fully aware of the need to transform the armed forces in order to meet the challenges to the national and collective security in the current security environment. This context is characterized by uncertainty and complexity, being definitely influenced by the advantages and vulnerabilities induced by the main characteristics of the Information Age (technology, connectivity and communications). In recent years, the military theoreticians’ solutions have materialized in several theories, such as *network centric warfare (NCW)*, *effects based operations (EBO)*, or *hybrid warfare (HW)*. Each of these theories has a high degree of topicality, it starts from finding the uncertainty and complexity characteristics of the current security environment, recognizes the necessity of transforming the structure of forces, but identifies differently the main objective of transformation.

In the case of NCW, efforts are channeled in three directions: technology, organization (network structure dense interconnected) and C<sup>2</sup> management model. With regard to HW, it is important to define actors (belligerents) and threats.

For EBO, emphasis is placed on the design of the military operation to maximize effects while the objective of the operation evolves from the physical annihilation of the enemy, or the significant attrition in its material ability to fight, to the destruction of the will to fight or

<sup>3</sup> Sean Lawson, “*Nonlinear Science and Warfare*”, Routledge Studies, New York. 2014, p. 4.

the modeling of its behavior for this purpose. The EBO approach analyzes the relationships between the executed actions and the physical and psychological effects produced, combining *target based operations* (TBO) and *objective based operations* (OBO). The most relevant example of EBO is *counterinsurgency operations* (COIN) whose doctrine has evolved from the physical destruction of the insurgents and the punitive deterrence of the civilian population to the present doctrine. The former supposed that the civilians were supporting the insurgency and therefore they should be discouraged (a doctrine applied by the Romans against Israeli zealots in the 1st century AD, but also by the German SS units in WWII). The latter one assumes firstly the gain of civilian support by providing essential social services and then the determination of the insurgents to give up violent actions and eventually to choose the political promotion of their goals (organizations that originally used terrorist means - Hezbollah, the Palestine Liberation Organization, or the Irish Liberation Army).

The objective of these new theories is to ensure the transition from the traditional attrition warfare to an effective combat model based on the concepts of speed of military command and the ability of informed forces to initiate, coordinate, and conduct complex military operations. The proposed changes do not only reduce the endowment and the structure of force, they aim at defining its behavior in an adaptive and emerging one. Among these theories there are no conceptual conflicts or exclusions, on the contrary there is an obvious complementarity

But these theories have triggered also critical reactions from some scholars who have identified some inconsistency with the two principles of war: "*jus in bello*" - the way in which the war is conducted and "*jus ad bellum*" - regarding the manner the decision to resort to war is taken. In this respect, is seminal the Erik Dahl's article<sup>4</sup> in which he

<sup>4</sup>Eric Dahl, "*Too good to be legal?, network centric warfare and international law*", accessed 25.07.2017

analyzes how the new war theories transform the war by placing it in the gray area of international law. Thus, cyber warfare, the use of armed drones, FOS missions, and the introduction of armed contingents of private companies (eg Black Water) are challenges for lawyers in their effort to bring them into line with the international law provisions of the Hague and Geneva Conventions, including the subsequent international agreements.

With regard to "*jus ad bellum*" Thomas P.M. Barnett<sup>5</sup> identifies in accelerated decision-making speed at commanders' level, based on informational superiority (qualitative, quantitative and technological), a possible cause that may favor hasty decisions about recourse to force, misinterpretation of the enemy's intentions, and ultimately unjustified preemptive warfare.

But the necessity of transforming the way in which war is led derives from the acceptance at the level of political decision makers of the complexity of the international environment that is characterized as complex, diverse, diffuse and lethal. *Complexity* derives from the dynamics, interdependence and multidimensionality that characterize the international system of relationships. *Diversity* is generated by the typological and quantitative multitude of actors, thus overcoming the classic *blue-red binomial* (friendly-enemy forces), but involving heterogeneous alliances, non-governmental or non-state actors. The *diffusion* describes the irrelevance of the traditional distinction between: strategic, operative and tactical military action levels; between war (triggered by an official statement) and peace; the relevance of state actors as opposed to non-state actors, but also conventional operations with those of special forces. The source of increased lethality lies in the potential opportunities for non-state actors to have access to weapons of mass destruction, which gives them amplitude of strategic actors.

on <https://jpia.princeton.edu/sites/jpia/files/2004-3.pdf>

<sup>5</sup> Barnett, Thomas, "*The seven deadly sins of network-centric warfare*", accessed 25.07.2017 on <http://tonyprudori.pbworks.com/f/SevenDeadlySinsNetwork-CentricWarfare.pdf>

The solution, according to the theory of complexity, can be the generation of smaller, more autonomous forces (contrary to the classical principle of mass), based on the modular combination of weapon specs, and capable of effectively enforcing swarming tactics and reconfiguration.

As current military missions and operations involve the joint action of several partners in multinational military alliances, the interoperability requirements are essential, fact reflected in the decision taken by NATO at the Prague Summit (2002) to turn to “*military based upon Information Age principles was essential, and pursued a course of transformation denoted as NATO Network-Enabled Capabilities (NNEC)*”<sup>6</sup>. This initiative has become a program of the alliance with the stated aim of achieving a level of interoperability of the national members’ forces that allow shared of all federated capabilities throughout a computer infrastructure.

Also at this summit, it was decided to reorganize the NATO Command Structure (NCS) by setting up the two strategic command lines: ACT (Allied Command Transformation) and ACO (Allied Command Operations). The main functions of ACT, according to its missions and responsibilities, are to transform the military structure of NATO, its forces, capabilities and doctrine to evaluate new concepts, and promote interoperability within the Alliance. According to ACT and in accordance with the theory of complexity, “*NNEC is about people first, then processes, and finally technology*”<sup>7</sup>.

In 2015, the North Atlantic Council (NAC) decides, on the basis of the lessons learned from the NNEC program and the implementation of the Afghan Mission Network (AMN), to transform the NNEC program into the Federated Mission Networking (FMN) This is, similarly to NNEC, a conceptual framework of people, processes and technologies for planning,

preparing, setting up, and using of the Mission Networks to support federated operations within the alliance or coalitions of members<sup>8</sup>. Thus, the FMN is an essential contribution to the Connected Forces Initiative (CFI), which is designed for better communication, training and joint action within the Alliance. The essence of the FMN concept consists in rapidly establishing information networks for missions by interconnecting NATO and partner nations networks and providing access to the resources of these networks, including data capture capabilities (sensors, satellites, drones, etc.) through a process of federating this information.

## CONCLUSIONS

The use of syntagma introduced by the scholars of Information Age, such as the Revolution in Military Affairs (RMA), induced the idea and the fear of a categorical break with all the scientific knowledge accumulated so far, canceling and denying concepts, theories and principles investigated and validated over time.

In reality, these are unjustified because the new Information Age theories, including complexity, are precisely the result of evolution based on the continuity of human knowledge. These theories aim to extend the boundaries of knowledge by theorizing some spaces that traditionally could not be approached. That is, these theories do not disrupt or dispute the value of the truth of what is already demonstrated and known. Their objective is to create theoretical and practical tools for managing uncertainty and chaos, whose presence and manifestation cannot be denied.

Regarding to the new theories of war, originated from complexity theory, we believe that the transformation of forces in accordance with these is an inevitable and irreversible process. In fact, this transformation naturally represents the reaction that the military body

<sup>6</sup> „NATO Network Enabled Capability”, accessed 20.02.2017 on [http://www.nato.int/cps/en/natohq/topics\\_54644.htm](http://www.nato.int/cps/en/natohq/topics_54644.htm)

<sup>7</sup> NATO web site, accessed 20.02.2017 on [http://www.nato.int/cps/en/natolive/topics\\_54644.htm](http://www.nato.int/cps/en/natolive/topics_54644.htm) ,

<sup>8</sup> „Federated Mission Networking”, accessed 11.04.2017 on <https://dnbl.ncia.nato.int/FMN/SitePages/Home.aspx>



has to the technological evolution of human society.

We consider that these war theories provide the theoretical basis necessary for the transition of the military system from a functional model dominated by determinism and military platforms, characteristics of the era of industrialization, to a model in which the information and highly interconnected entities (people, platforms) are vital to manage and cope the uncertainty of complexity in the Information Age.

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This paper represents a partial dissemination of the results obtained in my doctoral research, in accordance with the obligations stipulated procedurally and contractually by the doctoral school,

# THE WORLD ORDER, THE EMERGENT RESULT OF THE COMPLEXITY OF THE INTERNATIONAL RELATIONS SYSTEM

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◇ **Abstract:** *World order is the result of interactions among the constituent units of the International Relations system. The way how this is formed, but also the definition of the system units, are the subjects of dispute among the scholars and constitute the central elements of the theories promoted by the multitude of schools and currents of thinking in IR field. Because war is a violent manifestation in relations among states, a first step in demonstrating the complexity of the modern war is to show that the system of international relations is also complex and world order is the emerging component of its complexity.*

◇ **Keywords:** *war, international relations, realism, complexity, international order*

## INTRODUCTION

The study of the war causes in International Relations (IR) generates a multitude of perspectives on the causal mechanism that makes the outbreak of war. This diversity of approaches reflects inevitably the way in which scholars define the IR system as well as the nature of the entities-system interactions. Using Waltz's methodology to classify the war theories into three images, we can assume that for the first two levels (*individual* and *state* -most classical and neoclassical realists, but also liberalist or Marxist-Leninist theories), *the nation state*, as a component, determines behavior of the international system.

The neorealist theories are systemic theories, and Waltz, through the "Theory of International Politics" (1979), has managed to formulate the most coherent system theory on the IR. In his theory, Waltz identifies a series of similarities between the IR system and the market economy system. Thus he implies some properties and behaviors characteristic to the theory of complex systems.

## THE VERY COMPLEX NATURE OF THE INTERNATIONAL RELATIONS SYSTEM

For Waltz a "system is composed of a structure and of interacting units"<sup>1</sup> and the behavior of the entities does not determine causally but only influences the general behavior of the system. We note that this approach is similar to one particular to the complex systems where we identify two main component categories of the system: the first one - physical and logical interconnections among units (study object for graph and network theories) and the second one - their behavior (game theory). Waltz's theory also avoids the reductionist theory tendency of assigning a deterministic role to the behaviors of entities, considering that there are both a components' interaction and a continuous adjustment through a feedback loop process

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<sup>1</sup> Kenneth Waltz, "Theory of international politics", Addison-Wesley Publishing Company, Massachusetts Menlo Park, 1979, p. 79.



between their behaviors and the general system. In addition, the central premise of *the anarchy* from the international system is easily assimilated to the *decentralized order* from complex systems. Thus, we can identify the *irreducibility, collectivism, decentralized and emerging order* in the international system of relations defined by Waltz. This is the first step in demonstrating that the international system is complex and world order is the emerging outcome of such a system. In this way, the terminology, models and results from the field of complexity theory can be applied in the scientific study of international relations.

Although Waltz's system has the essential characteristics of a complex system, however, Waltz, unlike von Hayek, is not interested in the new science of complexity, preferring a classical approach to the system theory based on the identification of system level variables and linear relationships between these. In fact, the way how Waltz defines the units of the system as *similar*, that means *functionally undifferentiated*, is unprecedented and significantly countered by other scholars. Also, equally questionable is the definition of the structure, where the physical relationships among units (interactions) are ignored, being retained only their hierarchy (topology)<sup>2</sup>. Through this approach, Waltz points out that even if the units are not functionally different, they have different weights in the system due to their capabilities, these capabilities contributing to the positioning within the international system. Waltz's ultimate goal is to build a valid general system theory that does not depend on the characteristics of a unit at a particular time.

Of course, Waltz's approach is consistent with his vision of the national state being the very significant unit of the system, and all its actions are circumscribed to the *security need* which it seeks to *maximize*.

Without considering this approach to be

<sup>2</sup> Kenneth Waltz, "Theory of international politics", Addison-Wesley Publishing Company, Massachusetts Menlo Park, 1979, p. 80.

completely overcome, we cannot ignore the transformations and developments that have taken place in the IR system since Waltz launched his theory (1979), a time marked by the US-USSR bipolarity. In fact, in order to show the complexity of the international system, it is not useful to reduce the classification of units to a set of *similar entities*, but we are interested in highlighting the multitude and diversity of their nature, which also determines the complexity of interactions among them. We therefore consider that is useful to analyze the major actors of the international relations system and their relations with the Westphalian nation-state.

## WESTPHALIAN NATION-STATE

The history of international politics, from the moment of Westphalia (1648) until now, has been decisively influenced by the interactions among states, so their capabilities and interests are *the modeling force*<sup>3</sup> of the international system. This state of affairs is unanimously acknowledged by specialists, at least until 1945. Since then the objectives of Intergovernmental Organizations (IGO) and Non-Governmental Organizations (NGO) challenge the supremacy of the nation-state as the main unit of the system. Often, the status of such an organization presupposes the partial voluntary renunciation by the state of its sovereignty over certain well-defined areas. The transfer of sovereignty, even temporarily and predictably, as well as the growing importance of multinational companies (as NGO types in the context of the global economy), leads the theorists to question the prevalence of the Westphalian state as the main actor in a context of accelerated globalization, being not a few who have concluded the end of this system.

<sup>3</sup> Kegley Charles William, Blanton Shannon Lindsey, „World Politics Trend and Transformation” , Published by Cengage Learning, Wadsworth, SUA, Editia 2010-2011, p. 17.

## **INTERGOVERNMENTAL ORGANIZATIONS (IGOS)**

Sovereign states create this type of organization in order to solve distinct problems that require a collective approach. From this perspective, through the constituent treaties, states agree to transfer to the IGOs elements of national sovereignty, conferring them the necessary authority to fulfill the objectives assumed by the Act of Accession.

A rigorous classification of the existing IGOs proves to be extremely difficult because they vary in both relevance and size, but also as a stated purpose, the overall number being a divergent element in different estimates. In this respect, it is expressive the analysis of the total number of IGOs published on the website of the Political Studies Association<sup>4</sup> for the level of 2013: a range from 126 organizations (estimation of the US State Department) to 325 (War Correlates program). These values, albeit in an imprecise spread, constitute a barometer of states' willingness to involve in different formulas of association ranging from a regional context to a continental one, intercontinental or even global context. In addition, the importance of these IGOs is given by the field in which they operate: so military ones for achieving collective security (NATO) or economic integration (EU) can be considered the most influential in the dynamics of the international relations system. Also, their classification can be refined according to the proposed objectives, with IGOs that focus on one direction (WHO - International Monetary Fund) or on several directions (UN-United Nations; EU-European Union). From their simple enumeration we can see that there is an overlapping of the domains of interest that leads to multiple interactions both at the level of organizations with similar objectives and at the level of the states whose membership

may be multiple or which may have their own distinct interests. Of course, the premise of the complexity of this cooperation is not only based on the congruence of the interests of the two categories of international actors listed so far, states and IGOs, but it is exponentially multiplied by their complementarity and interdependence: trade, defense, disarmament, humanitarian aid, crises civil society, economic development, health, agriculture, education, gender discrimination, and this list is not exhaustive.

Due to the fact that this type of organization is constituted by the governments of the states, so implicitly their actions reflect their official position or interests, some scholars do not consider that IGOs represent real challenges to the importance of nation state within the international system of relations<sup>5</sup>.

## **NON-GOVERNMENTAL ORGANIZATIONS (NGOS)**

Non-governmental organizations (NGOs) are referred to as non-profit organizations whose members are not the official representatives of state governments. The stated purpose of this type of organization is to mediate or build functional connections between resources and target groups in order to solve current global problems. From this perspective, NGOs assume the role of a transnational societal actor, with the declared aim of urging governments to adopt effective policies and positions in resolving the pressing problems of humanity. Similarly to IGOs, NGOs vary in size, geographical relevance and, of course, field of activity. Their number is difficult to be established accurately, but an estimate for 2009 advances to 7628 NGOs<sup>6</sup> (plus 4362 unconventional NGOs). On the UN Office for Drugs and Crime website, 3240 NGOs<sup>7</sup> are active in partnership with the UN.

<sup>4</sup> Woodward, Richard; Davies, Michael, „*How many International Organisations are there? The Yearbook of International Organizations and its shortcomings*”, accessed 22.03,2017 on <https://www.psa.ac.uk/insight-plus/blog/how-many-international-organisations-are-there-yearbook-international>,

<sup>5</sup> Kegley Charles William, Blanton Shannon Lindsey, „*World Politics Trend and Transformation*”, Published by Cengage Learning, Wadsworth, SUA, Editia 2010-2011, pp.145, 151.

<sup>6</sup> *Ibidem*, pp. 145, 138.

<sup>7</sup> United Nations Office on Drugs and Crime web



What is more important than their number is the impressive number of members that some of the NGOs manage to attract, an eloquent example being Amnesty International, which in 2009 had 2.2 million members from over 150 countries.

It should be noted that not all NGOs are structured in a homogeneous central-branch structure but that the affiliation practice is spread, thus preserving the cultural characteristics and identities (national and regional). Moreover, the practice of NGOs being set up or supported by business groups, governments or IGOs is not unique, which may raise the suspicion that these NGOs may also constitute economic or political lobbies for the interests of financiers. However, at the level of civil society, the image of NGOs is predominantly positive, as can be seen in the World Bank definition<sup>8</sup> for such organizations.

### MULTINATIONAL CORPORATIONS (MNC)

Multinational corporations, as a category, represent an international actor whose influence, though certain, is difficult to assess. Controversies between scholars do not address their potential to interfere in decision-making processes at the level of state leadership, but whether these multinational companies have the real capacity to decisively influence the behavior of states within the international system. The fact that the budgets of the first 10 MNCs define a range of 225-490 billion USD, which is exceeded by the Gross Domestic Product of only 23 countries around the globe, Romania's GDP is about 187 billion USD<sup>9</sup>, has the potential to certify the ability of multinational companies to formulate and promote their own economic interests that will

site, accessed 23.03.2017 <https://www.unodc.org/ngo/list.jsp>.

<sup>8</sup> World Bank web site, accessed 23.03.2017 on <http://www.worldbank.org/en/search?q=ngo+definition&currentTab=1>

<sup>9</sup> Statistics Times web site, „List of Countries by Projected GDP”, accessed 27.03.2017 on <http://statisticstimes.com/economy/countries-by-projected-gdp.php>

enable them to actively engage in the dynamics of international relations.

Although up to 25 years ago most of the multinationals were headquartered in the US, the situation is significantly different today, with a relatively balanced distribution of MNCs among the US, Europe and Asia (China). Thus, in the top 10 MNCs we have<sup>10</sup>: 3 companies from the US (Wal-Mart - 1st place, Exxon Mobile - 6th and Apple - 9th place), 3 Chinese companies (State Grid - 2nd place, China National Petroleum - 3rd place and Sinopec Group - 4 companies), 3 companies from Europe (Royal Dutch Shell - 5th, Volkswagen - 7th and BP - 10th) and Japan (Toyota Motor - 8th). Graphically, the distribution of multinationals on the globe can be seen in Figure no. 1.

Faced with those who give the MNCs a decisive role in international politics, Kenneth Waltz argued that the very name of a multinational company is erroneous because they are in fact national firms operating internationally<sup>11</sup>. Of course, the decisions of a multinational company are taken on a global scale, considering the strategy of the company as a whole and not the situation of a local branch in a certain country, and this fact implies that the state as an entity does not matter in this equation. But Waltz fights this approach by arguing that, at least for the 1980s when most of the largest MNCs were American, it can be deduced that the decisions of these corporations were in the spirit of the official US perspective. Today, even if the ranking of the largest multinational companies is no longer exclusively American, with Chinese companies being a solid presence, we have no reason to believe that their development policies would be divergent to the Beijing's official vision; on the contrary, we can consider them as strategic means promoting Chinese interests.

<sup>10</sup> Fortune web site, accessed 27.03.2017 on <http://beta.fortune.com/global500/list>

<sup>11</sup> Waltz, Kenneth, „Theory of international politics”, Adison-Wesley Publishing Company, Massachusetts Menlo Park, 1979, p. 151.

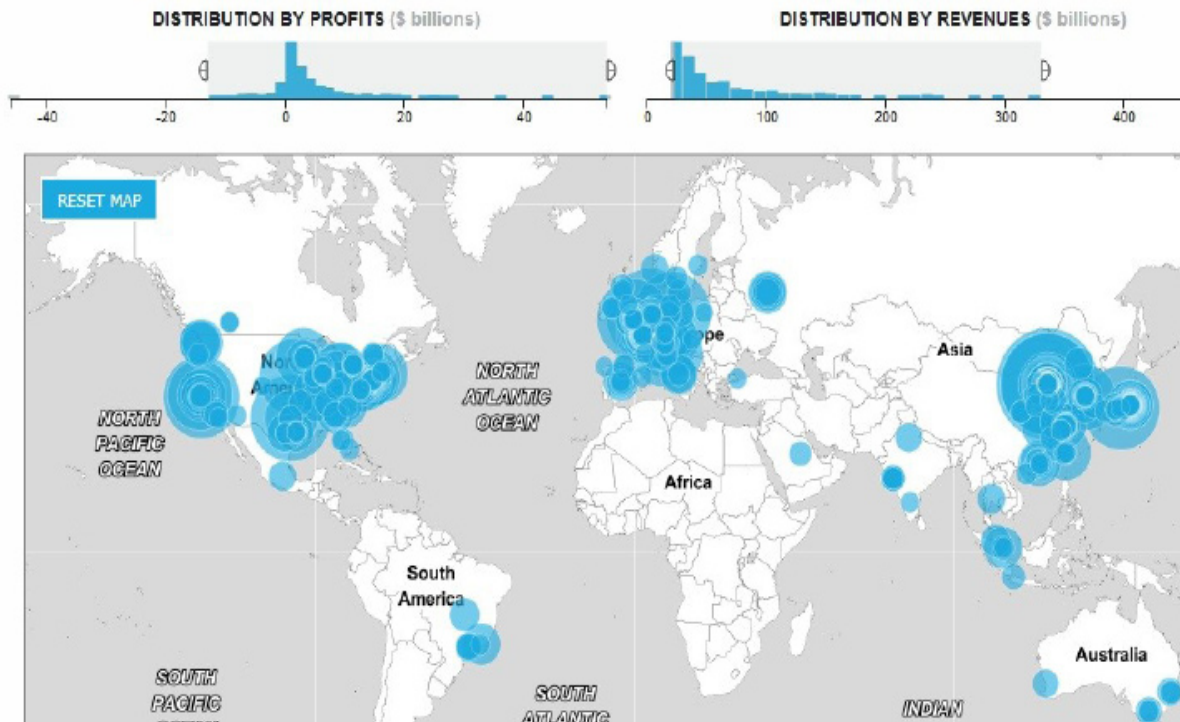


Figure no. 1. The global distribution map of MNCs (there are displayed 461 companies, according to the assortment criteria)

The picture was made with the online configurator accessed 27.03.2017 on [http://beta.fortune.com/global500/visualizations/?iid=recirc\\_g500landing-zone1](http://beta.fortune.com/global500/visualizations/?iid=recirc_g500landing-zone1)

## THE EMERGENT WORLD ORDER

Until the end of the Cold War, the world order was characterized by a reasonable predictability, based mainly on the mechanism of the balance of power. The balance that regulated relations between the Great Powers until the end of the Second World War was a classical one, consisting of 4 or 5 powers, one of which was playing the role of *balancer*. Characteristic of this type of balance are the bilateral negotiations and bilateral arrangements, called “*cabinet policies*”, which strictly presupposed the relations of power between the dominant states of the system. The influence of the other states or other international actors was purely symbolic and at the most regional relevance. Because this kind of world order reflects just the will of a small group of states, we can view it as predictable, that is, to the extent of the uncertainty generated by the more or less secret agreements between the parties. The

world order based on *multipolar balance* is invariably changed by war, this being the factor that balances the balance or leads to a new configuration of it.

During the Cold War, the world order was secured by a nuclear power balancing mechanism generated by the US-USSR bipolarity. Also in this situation, there was a kind of predictability, at least theoretical, regarding the evolution of the system and the world order. This depended on the accuracy of the estimation and prediction of the real intentions of the two adversaries. Reducing the number of relevant competitors in the system has led Kenneth Waltz to appreciate bipolarity as more stable than multipolarity due to increased chances to reduce the uncertainty about the opponent’s intentions and implicitly the chances of escalation to a *spiral of a conflict* due to the *security dilemma*<sup>12</sup>.

<sup>12</sup> Waltz, Kenneth, “*Theory of international politics*”, Adison-Wesley Publishing Company, Massachusetts Menlo Park, 1979, pp. 132-138.

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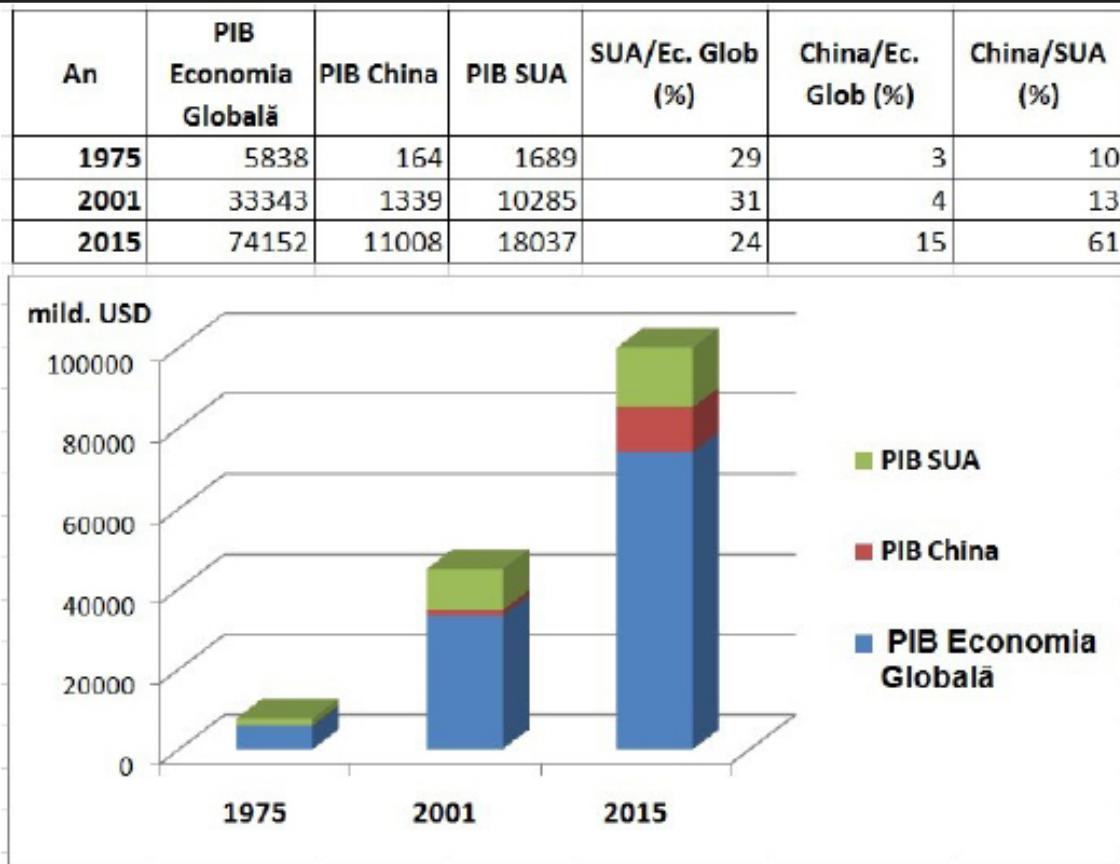


Figure no. 2. The current GDP evolution for the Global Economy, USA and China

Statistical data has been taken from the World Bank website, accessed 28.03.2017 on [http://data.worldbank.org/indicator/NY.GDP.MKTP.CD?contextual=default&end=2015&locations=CN-US-1W&name\\_desc=false&start=1975&view=chart](http://data.worldbank.org/indicator/NY.GDP.MKTP.CD?contextual=default&end=2015&locations=CN-US-1W&name_desc=false&start=1975&view=chart)

This type of bipolar order ended in an unprecedented manner and at an unanticipated moment by any school of thought, especially the realistic one that dominated the scene of international relations at that time.

Beginning with the 1990s and until to the terrorist attack of September 11, 2001, the system was dominated by the indisputable hegemony of the United States of America, thus assisting in a unipolar order. The predictability of this world order was the most significant, being dependent only on the *relationship* between the US *ambitions*, which were not formulated in a coherent manner, and its real *capabilities*.

The Twin Towers' Attack at the World Trade Center (New York) marked the end of the myth of US invincibility, which Iulian

Fota praised as the “*end of the holiday*”<sup>13</sup>. The moment coincided with China’s increasingly prominent assertion as a great power and direct competitor of the US, at least economically if not still military.

Thus a transition period has started from a predominant unipolar world order to a world order characterized by a multitude of relevant actors (nation states, IGOs, NGOs and MNCs), and by the complexity of the interactions among these actors. Moreover, we add up the fragility and the unpredictability induced by the first two characteristics.

Even if the US continues to dominate militarily the system, thanks to the consistent

<sup>13</sup> Iulian Fota, ”România și sfârșitul vacanței –răzbunarea istoriei?”, accessed 28.03.2017 on <http://cursdegovernare.ro/wp-content/uploads/2016/03/Iulian-Fota-Cod-portocaliu-2016-ilovepdf-compressed.pdf>,

allocation of a defense budget higher than competitors' combined budgets, yet this financial effort appears to negatively affect the performance of the US economy as a whole. If, over 30 years ago, the US economy outweighed any competitor or configuration of competitors, today this comfortable gap is significantly reduced and even jeopardized by being lost in a not too distant horizon.

Based on the World Bank's statistical data, we represented, in Figure 2 the net Gross Domestic Product for Global Economy, US and China reported over 3 moments (1975, 2001 and 2015). In addition, we have calculated the percentages of China's and US economies to the world economy, as well as the evolution of the relationship between the US and Chinese economies. Since 2001, the accelerated growth of the indicator for the Chinese economy is visible, from 13% (2001) to 61% (2015) compared to US GDP, while the China's contribution to the economy global have been growing.

Reanalyzing Fig. 1 (which represents the world-wide distribution of the largest multinationals in terms of revenues and profits) we have the perception of a balanced distribution between the US, China and the European Union (mainly Western European countries) which, along with other macroeconomic indicators evidence that, at least economically and financially, US hegemony is no longer an undeniable reality. This situation was also moderately acknowledged by former Obama administration, which, through its programmatic documents, the National Security Strategy (2015) and the National Military Strategy (2015), recognize that the US (financial, economic, technological and even demographic) is threatened by competitors<sup>14</sup>. However, it is also expressed optimism that the US economy will remain the most dynamic and performing economy and the army will still be rivalless<sup>15</sup>.

<sup>14</sup> \*\*\*, "The National Military Strategy of the United States of America", 2015, p.3, accessed 28.03.2017 on [http://www.jcs.mil/Portals/36/Documents/Publications/2015\\_National\\_Military\\_Strategy.pdf](http://www.jcs.mil/Portals/36/Documents/Publications/2015_National_Military_Strategy.pdf),

<sup>15</sup> \*\*\*, "National Security Strategy", February 2015, p. 3, accessed 28.03.2017 on [https://www.whitehouse.gov/sites/default/files/docs/2015\\_national\\_security\\_strategy.pdf](https://www.whitehouse.gov/sites/default/files/docs/2015_national_security_strategy.pdf).

## CONCLUSIONS

Due to the fact that the current world order do not represent the will of a single state or a small group of superpowers and that it emerges on the basis of complex interactions between states, both at the level of bilateral relations and within international bodies (governmental or non), we note the impossibility of a long-term prediction of the evolution of the international relations system, which is characteristic of complex systems theory.

As demonstrated in this paper, the current world order is not deterministically secured by a single hegemon, and is not the result of a hypothetical multipolar power balance; on the contrary it is formed at the level of the international system and represents the emerging result of the complex and nonlinear interactions among the multitude of entities that make up the system. The analysis of the actors' groups shows that the relevance of the sovereign state remains, completed by the influence and contribution of other actors (intergovernmental, non-governmental and multinational organizations).

These conclusions allow us to evaluate the current international system as complex, this being a solid justification for studying modern warfare from the perspective of complexity theories.

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This paper represents a partial dissemination of the results obtained in my doctoral research, in accordance with the obligations stipulated procedurally and contractually by the doctoral school,

## **SIMULATION SYSTEMS USED FOR TRAINING IN ROMANIAN LAND FORCES UNITS**

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◇ **Abstract:** *Units' training means a continuous effort from finance and physical perspectives. Those two elements are actually the ones able to determine the type of exercise which fits best for the training program. Starting with training at squad and platoon level and going up to the NATO Headquarters training, simulation programs are the best solution in order to achieve training objectives. Even if the exercises involve real, virtual or constructive simulation, Romanian Land Forces Units have the chance to use all of them in their training, being supported by the Simulation Centers from Sibiu, Cincu and Bucharest.*

◇ **Keywords:** *training; training through simulation; simulation systems; the planning process for simulation exercises;*

### **INTRODUCTION- GENERAL ASPECTS REGARDING TRAINING THROUGH SIMULATION**

Simulation is one of the most powerful tools used by decision maker factors responsible for the development and operation of complex systems and processes. It is used not only as an analysis and assessment tool, but also for the situational awareness studies. In a world based on competition development, simulation becomes an indispensable method for solving problems, being mostly used in engineer and management domains. In the military environment, simulation is usually needed for the training process. It gives the chance to military personnel to develop their skills, knowledge and to optimize the decision making process by using war games and computer assisted exercises.

“Train as you fight” concept turned gradually into the training process objective. The capabilities, technical and financial capacities of each structure, combined with the level of training of the military personnel represent important problems that Romanian

Army faces on its way for accomplishing NATO standards.

The idea of training in safe and close to reality conditions using minimum costs, impacts the training process and puts it in a different and complex level. This is the starting point in making the distinction between individual and collective training. In this way can be observed the step-by-step transition from forming military's basics skills to training them in the decision making process. If the costs for individual training are not that high, when it comes to collective training the costs increase directly in line with the level of training (tactical, operational or strategic). In collective training, simulation represents a cheaper and more viable alternative for classic training. The simulation systems are in a continuously development, trying to transpose the user from a virtual environment into one as real as possible. This permanent upgrade of simulation systems has also an impact on the training process. Take for instance the action of planning an exercise which became an individual, complex and very well structured process. This study refers to the

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impact that Multinational Division South-East Headquarters has on the processes of training through simulation and exercise planning. It speaks about the changes that were or are about to be made in Romanian Army regarding training through simulation process and in the simulation centers in order to be able to support the Division's exercises.

Starting from the "Everything except war is simulation" motto and from the implementation of NATO's readiness action plan, I want to emphasize the main idea of this article: the importance of computer assisted exercises and simulation systems for NATO training process.

A new concept appears in the simulation environment, called distributed simulation. This is the most complex simulation system and it's used in combined training. It means that units equipped according to their mission, being situated in different locations, can train together in a virtual environment. Without this system, NATO computer assisted exercises would be impossible to be executed.

In order to have an optimal military training at Alliance level, Science and Technology Organization developed and published standards which helped increasing the efficient use of modeling and simulation and the cooperation between NATO members and partnership states in this domain.

### **SIMULATION SYSTEMS USED IN ROMANIAN LAND FORCES UNITS**

Simulation centers offer the possibility for collective training starting from the squad level, up to the strategic one (for the headquarters), giving them the opportunity to train the decision-making process. Romanian Land Forces units are supported during their exercises by the simulation centers from Cincu- Joint National Training Center "Getica" (JNTC) and the Simulation Training Center (STC) from Bucharest. Military students are trained in computers assisted exercises by using the Support, Training, Research and Experimentation Office from Land Forces

Military Academy in Sibiu.

Each simulation system helps in developing a specified skill and allows training of a limited number of personnel, as established in the exercise specifications. JNTC has all types of systems used in training through simulation. For real simulation it is used the version MILES IWS (Individual Weapon System) from MILES system (Multiple Integrated Laser Engagement System), produced by CUBIC-USA, while for virtual simulation the center has VBS3 and the version VTK (Virtual Training Kit) of VBS2 (Virtual Battle Space 2) and for the constructive simulation it is used version 13.0 of JCATS (Joint Conflict and Tactical Simulation) system. This simulation Center is actually the only one from our country which can provide to our units training by using all the systems for real, virtual and constructive simulation. JNTC is specialized though in Headquarters and big units training, using JCATS system. As I mentioned before, our military students are being trained in the modeling and simulation domain by using VBS2 and JCATS in Land Forces Academy.

#### ***MILES- The system used in real simulation***

MILES IWS is a system which uses laser rays in order to replicate the weapons effects, and in the same time is able to provide feedback regarding soldier's ability in shooting the weapon. The benefit of this system is its ability to develop training for the military personnel in similar with the modern battlefield conditions.

This system provides equipment for both vehicles and military individuals. The major components of MILES system for a man worn are the H- harness, the Halo headpiece, a SAT (Small Arm Transmitter) and an optional DFT (Dry Fire Trigger). This last one is a device used by the soldiers in place of blank fire ammunition. The device that makes MILES system so useful in training is though the TDTD (training Data Transfer Device). This is a system which comes with a software package- MARS (MILES After Action Review System)

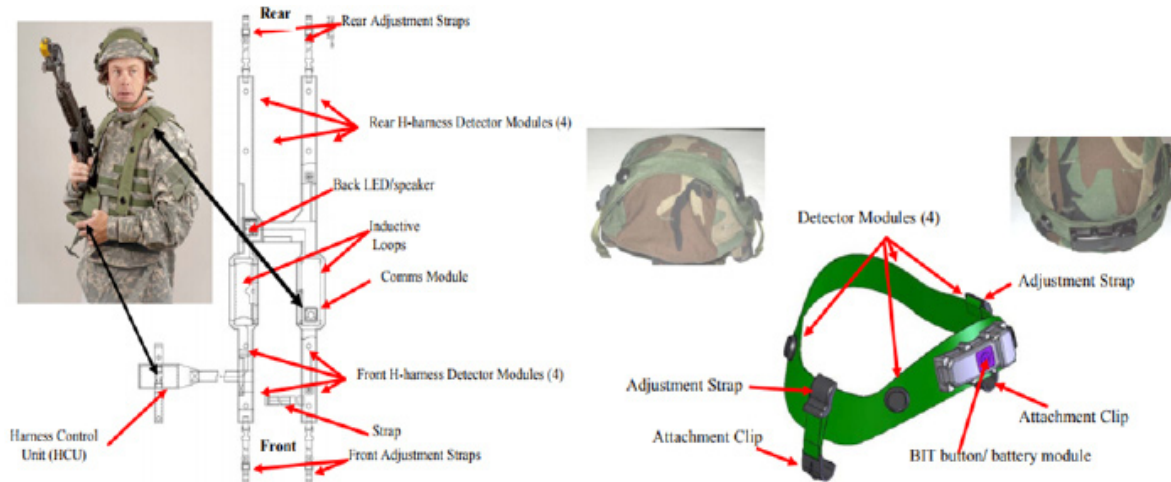


Figure no. 1. MILES system components

Cubic Defense Applications, *Multiple Integrated Laser Engagement System (MILES), Individual Weapon System (IWS), Operator Manual*, 2014, p. 1-7, 1-8.

and a laptop with COP (Computer Optical Port) interface. TDTD system allows, based on the unique code and equipment identity, recording all the elements of action, in order to rebuild the story line (who shoot who and when the event took place).

MILES can be used in training both independent or linked with other simulation systems in order to achieve the connectivity and to allow EXCON (EXercise CONtrol) cell to have control on the units equipped with MILES system.

Linking MILES with other systems like Initial-Homestation Instrumentation Training System (I-HITS), Homestation Instrumentation Training System (HITS), or Maneuver Combat Training Center (MCTC) Instrumentation makes possible the connection between real simulation and the exercise EXCON Cell, passing information about the units from the field, and giving realism to the exercise. In order to achieve this connection, the military needs to wear during training the I-HITS system, the H-harness and the Helo headpiece, as described in number 1 picture. I-HITS system is responsible for sending information to EXCON Cell through its telecommunication subsystem. By using I-HITS the digital map can be seen, can be

monitored the shooting lines and the state of every soldier or equipment from the battlefield. In order to provide a proper after action review it is essential to record in a server all the information related to military actions during the exercise.

The connection between MILES and I-HITS systems can be done with the help of communications subsystems. The first subsystem is comprised of GPS devices, two radio-relays, microwave antennas and UHF antennas. Their role is to pass information from the field from entities equipped with MILES/I-HITS to EXCON and vice versa.

EXCON's subsystem has the role to provide in real-time to EXCON cell of the exercise, data about the location, shooting positions or the status of those entities equipped with MILES/I-HITS system.

Figure no 2 is a way of representing on EXCON's digital map those entities from the field equipped with MILES/I-HITS systems.

Joint National Training Center has been working with MILES IWS/I-HITS system since 2008 and it is used not only for the real simulation exercises, but also in connection with virtual (VBS2, VBS3) and constructive (JCATS) simulation systems.

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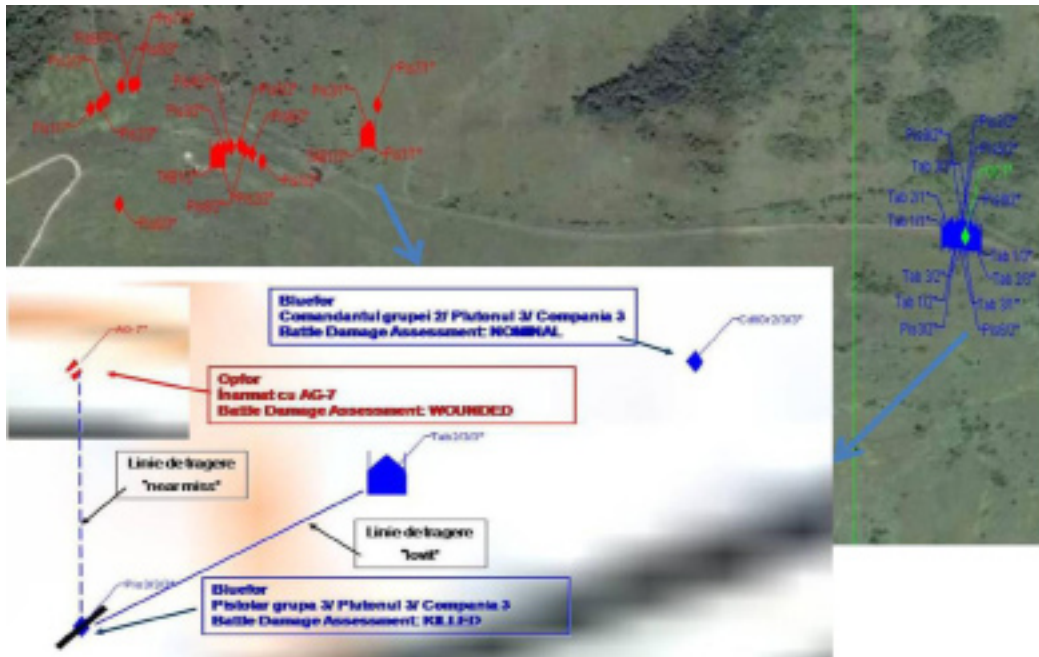


Figure no. 2. EXCON digital map

Coman Marian, "Scenario management for simulation exercises", Land Forces Academy, Sibiu, 2015, p. 31.

### VBS- Virtual simulation system

Starting from the idea that war gaming motivates people through their particular techniques, Bohemia Interactive Simulations presented in the early 2001 the first version of a new war game prototype- VBS (Virtual Battlespace). This is a virtual simulation program, which means that real people are using simulated systems. The role of this program is to train for different missions military personnel and it can be used up to company level.

VBS is a 3D, interactive simulation program which includes a diversity of entities for red and blue forces (BLUEFOR and OPFOR) and might be used both on computers and on simulators. For instance, the new VBS3 comes with a package that includes more than 9500 models which can be used in different scenarios for training.

JNTC uses VBS2 in training process since 2013 and at the beginning of 2017 the new version, VBS3, was bought. VBS is a program which in simulation goes down to the entity level and provides to the training audience the

possibility of acting alone or can operate their technique. The virtual environment is a very dynamic one and it can have an impact on the units' actions or on the equipment they use. All these things have the purpose to bring the simulated environment closer to the real battle field conditions.

During VBS2 use in training, some program limitations were discovered, which brought the update and the development of the new VBS3. As VBS2, the new version offers for the individual training an immersive, simulated environment which help the users to train for missions at the tactical level by applying their standards operation procedures. By using the tool for developing the AAR (after action review), the system proved to be helpful in working up the users' abilities in analyze and decision making processes<sup>1</sup>.

For collective training though, VBS3 provides experts, scenarios writers, a data base with more than 9500 models, incorporates thousands of land kilometers in a simulated environment (2000 km X 2000 km) and offers

<sup>1</sup> <https://nato.bisimulations.com/>.

a high fidelity graphics during the simulation running. HLA/DIS (High Level Architecture) is one of the new techniques implemented in VBS3 program, as it is presented in figure no.3. Through the benefits that the new VBS version offers we can find: the possibility of recording and replaying the units' actions from the exercise, improve was reported also at the thermal images level and a new support for modular weapons was developed. Now the users also have the possibility of building destruction.

The war games which used VBS3 proved their efficiency by improving the training

to tactical and operational level, while JTLS suits for operational and strategic levels. The Romanian Simulation Centers have only JCATS, as result this is the only constructive simulation system used in Romanian Land Forces training. JTLS is used by Multinational Division South-East Headquarters (MND-SE HQ) during international missions, in NATO exercises. Taking into consideration the fact that Romanian Land Forces units have access only to the simulation programs run by our simulation centers from Bucharest and Cincu, in my system analyze I will include only JCATS tool.

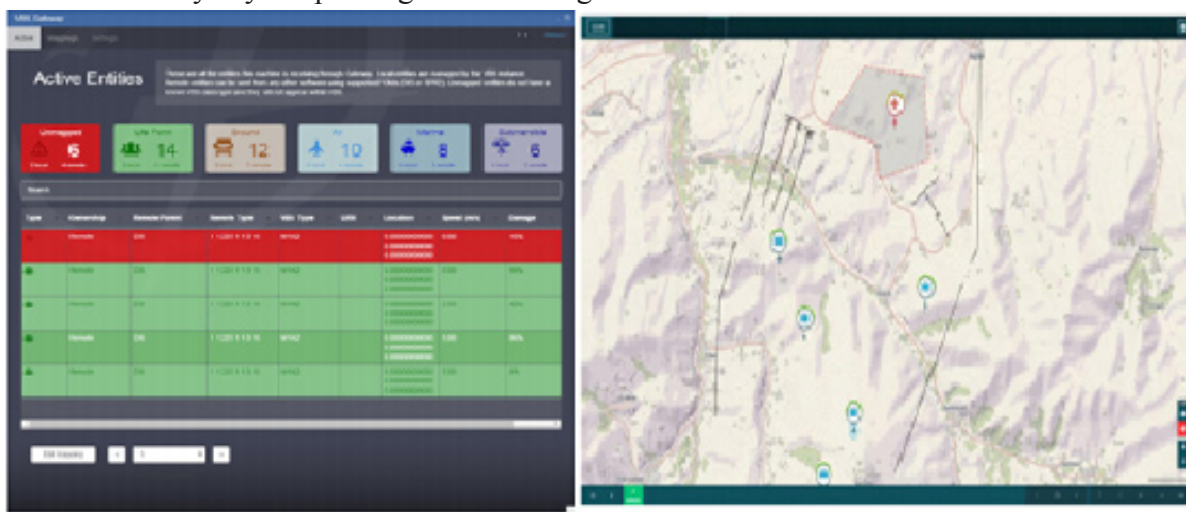


Figure no. 3. *HLA/DIS portal and VBS3*

CAX FORUM 2015 presentation held by BISim, "Games for training and VBS3", p.50,58.

process, but it also has its limits. The possibility of training till company level is not always enough, which brought the development of new simulation systems as JCATS and JTLS in order to provide proper training for the operational and strategic level.

**JCATS – Constructive simulation system**

It is already known that the main constructive simulation systems used in NATO computer assisted exercises are JCATS (Joint Conflict and Tactical Simulation) and JTLS (Joint Theater Level Simulation). Both software programs are designed for collective training, being used for headquarters and General Staff training. The first one applies

JCATS is a constructive simulation program which means that simulated people operate simulated systems. It is produced by Lawrence Livermore National Laboratory and has been developed based on the architecture of two older simulation systems, JTC (Joint Tactical Conflict) and JCM (Joint Conflict Model), made in USA by CSL (Conflict Simulation Laboratory<sup>2</sup>).

*Joint Conflict and Tactical Simulation*<sup>3</sup> is a multi-level high-resolution constructive simulation system used in headquarters and General Staff training. It is designed for tactical and operational level where the operator

<sup>2</sup> <https://csllnl.gov/>

<sup>3</sup> <https://csllnl.gov/jcats>

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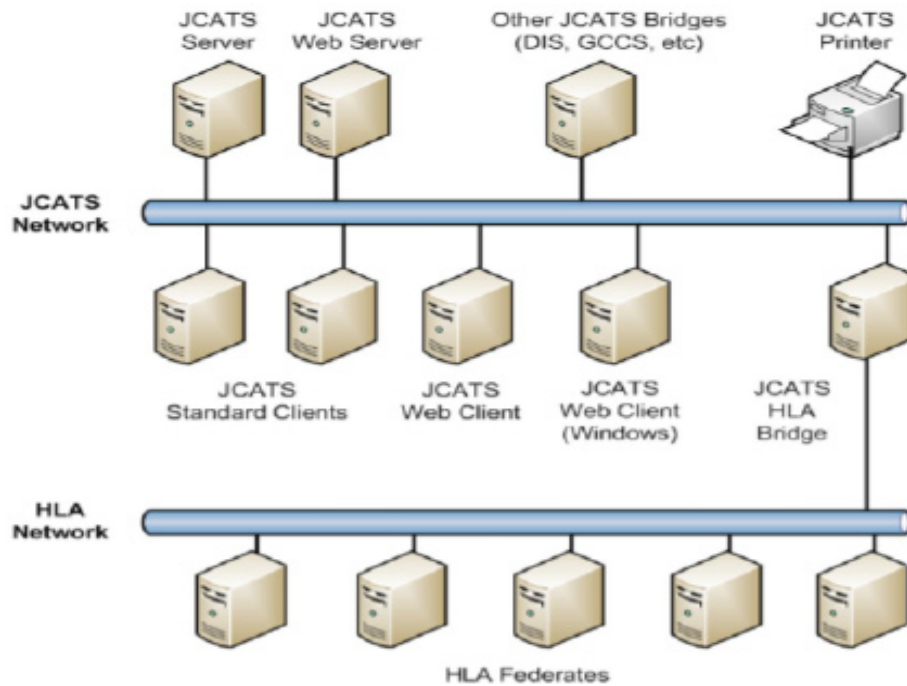


Figure no. 4. Configuration of JCATS system

Presentation held by Welz Jacek for CAX Specialist Course, "JCATS Introduction", 2016, p.18. [https://www.mscoe.org/images/phocagallery/9TH\\_NATO\\_CAX\\_SCC/Presentations/DAY4/SCC16\\_00\\_Rome\\_JCATS\\_intro.pdf](https://www.mscoe.org/images/phocagallery/9TH_NATO_CAX_SCC/Presentations/DAY4/SCC16_00_Rome_JCATS_intro.pdf).

can play either a single entity or a unit. This system can also be an excellent tool for data collection and data management. Based on the data collected, it allows the operator to analyze the training process which helps in developing lessons learned.

Using *Agent Based Simulation* and the ability to run in batch, JCATS program takes into consideration the entities behavior, the generated forces structure and offers the possibility for the analyst to run the simulation several times in order to obtain and save data which might help in the future statistic analyze development. This results' analyze is made by using further tools as

KVS (*Killed Victim Scored*) which shows the fight scores and the complex analyze tool-AWS (*Analyst Workstation*), as well as documents convertors compatible with Microsoft Excel. Running in a batch capability gives the analyst the opportunity to choose the distribution law of random variables and the parameters modeled stochastic in the

simulation.<sup>4</sup>

From the technical perspective, JCATS uses LINUX software for both the servers and users stations and as hardware system is used Intel and AMD CPU processors. IDE, SATA, SCSI, USB as hard disk and any type of display can be used.

The system is designed in order to run in a distributed environment and this means that the computer delegated as server for the simulation is used also as server in the working architecture, and for replicating units in the simulation program are used the client servers computers which are interconnected and connected to the server by option *via Ethernet*. JCATS Web Server needs to have previous installed JAVA and can work not only as client station, but also as server, and the connection to the main server is made via http address. The configuration of JCATS program can be seen in figure no.4.

<sup>4</sup> Manuel Dogaru, PhD thesis "Constructive simulation", National University of Defense, Buchares, 2015, p. 67.

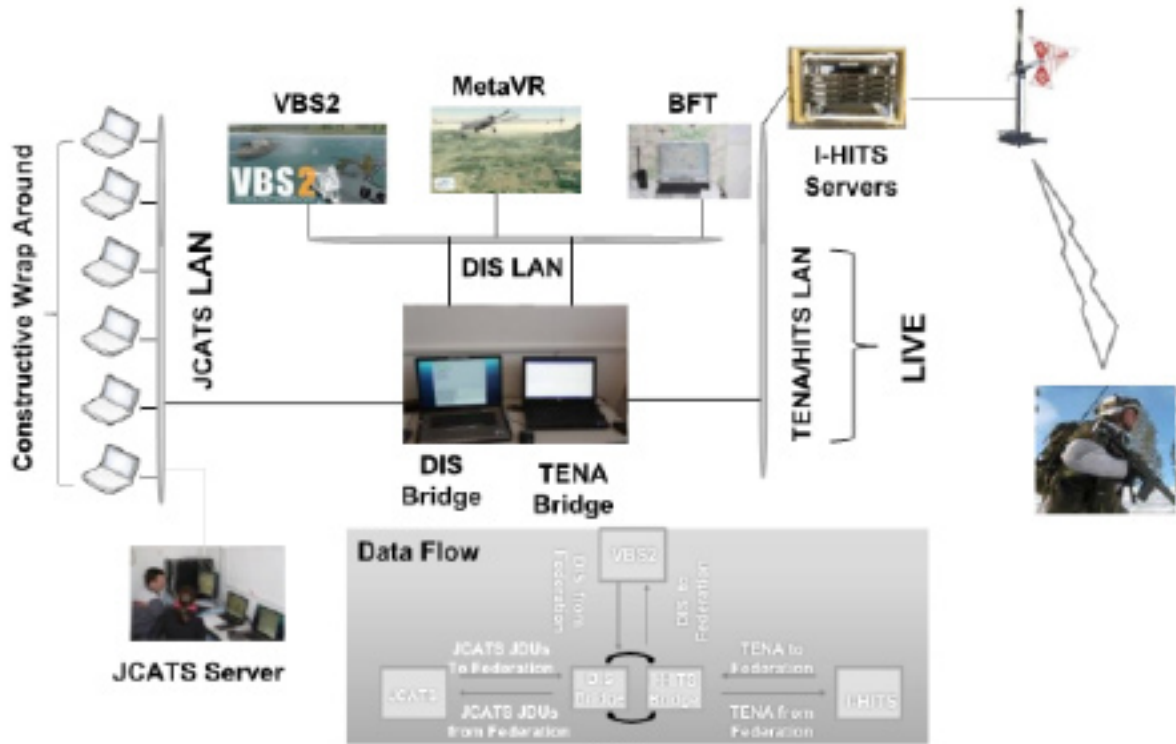


Figure no. 5. LVC games integration

<https://community.apan.org/ex/sabeguardian/sabeguardian2017/m/documents/179464>

Server-client architecture, batch running capability, database, maps and weather editor, the complex analyze tool, together with the possibility of linking the system to HLA, DIS and GCCS are the most important technical characteristics of JCATS program that I want to emphasize. These tools help military personnel in their training process and can run with low costs an exercise up to operational level.

Simulation Centers from Cincu and Bucharest play the 13.0 version of JCATS simulation program, being able to conduct exercises up to brigade level. The possibility of linking JCATS with MILES/HITS and VBS offers the chance to play multiple scenarios for LVC (live, virtual, constructive) simulation, as it is shown in figure no. 5.

To sum up, it is obvious that the constructive simulation program JCATS is a good option for units and headquarters training till the brigade level. From technical perspective this system is limited though and cannot offer a proper training for General Staff and divisions levels. This is why in NATO

for the operational and strategic level is used another simulation program, called JTLS. Simulation Training Center from Bucharest made a request to General Staff in order for Romania to buy JTLS program, but until now no system was bought.

The LVC systems detailed in this paper are used by Romanian Land Forces Units in their training process, supported during the exercises by the Simulation Centers from Bucharest and Cincu. As I mentioned before, these programs are used in both individual and collective training from the tactical level till the operational one. The complex architecture of these systems allows planning joint exercises, which for soldier translates into training in an operational environment together with NATO partners. Training at the operational and strategic level, using a common operational picture is the challenge that computer assisted exercises offer, while for the tactical level the simulation systems are used in complex exercises in order for the units to reach their training objectives.

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## CONCLUSIONS

Reviewing all the simulation systems used in Romanian military training wishes to emphasize the importance of moving from classic training to training through simulation. It is obvious that multi-level exercises cannot be conducted through classical methods due to the high costs and to the political environment. The instability and all the political games played worldwide underline the need of a well trained army, ready to deploy and to conduct operations in its area of responsibility in order to secure Alliance's borders. From training perspective, the establishment of simulation centers in Romania represents a new opportunity for Romanian military personnel to get trained close to reality conditions, together with their partners from NATO countries.

The simulation programs proved their efficiency in developing users' capacity in decision making process and their reaction time in order to successfully accomplish their missions. Training through simulation is the modern, efficient and less expensive method used both in Romanian Army and in NATO.

Planning and conducting computer assisted exercises like SABER GUARDIAN on Romania's territory where Romanian Land Forces units can train together with NATO units shows us that the training process used in Romanian Army is going to align to the Alliance standards.

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# CONSIDERATIONS REGARDING THE ROLE OF THE ROMANIAN DEFENSE INDUSTRY AS NATIONAL SECURITY ELEMENT

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◇ **Abstract:** *The defense industry is a strategic area of Romania, both as an element of national security and as an element of the economy. The current state of this sector in Romania, as well as the context of the geopolitical situation in Eastern Europe, requires the development of a national policy aimed at revitalizing and focusing on the performance of the national defense industry as soon as possible.*  
◇ *The paper presents a radiography of the national defense industry, presents the necessary premises for the elaboration of core restructuring and modernization policies, identifying strengths and weaknesses in the current context.*

◇ **Keywords:** *national defense industry, national security, strategic domain, technological gap, modernization, restructuring.*

## INTRODUCTION

Although the Cold War ended nearly 30 years ago, the countries' interest in arming and developing military production capacities has not fallen, but on the contrary, they are steadily increasing in many areas of the world, despite the wide and diversified threats that the hybrid war is exercising.

The national defense industry is a strategic area of the economy, comprising companies that have the ability to manufacture and supply strategic, sensitive and, last but not least, military products. Despite the fact that, as mentioned in Law no. 232/2016<sup>1</sup>, one of the main objectives of the national defense industry is to equip institutions in the national defense system comprised of the FSNA (Force of the National Defense System), both in peacetime and in any of the situations of siege, emergency, mobilization or war.

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<sup>1</sup> Law no. 232/2016 of November 22, 2016, regarding the national defense industry, as well as for amending and completing some normative acts.

## CONSIDERATIONS REGARDING ROMANIA'S NATIONAL DEFENSE INDUSTRY

Throughout history and now, we see that Romania promotes peace and stability, an attitude that emerges from our country's foreign policy, based on equality and co-operation with other countries, both in the neighborhood and globally. Located at the eastern border of the two major organizations, N.A.T.O. and U.E., Romania has a particular interest in maintaining and enhancing a security climate throughout the area, especially in the Black Sea. The adoption of a comprehensive European policy on eastern countries<sup>2</sup> has always been supported by our country, and the European Neighborhood Policy<sup>3</sup> is also prioritized.

<sup>2</sup> C. Băhneanu, *The Race of Arms in the Arc of Insecurity in the Eastern Neighborhood of the European Union. Consequences for Romania*, “Carol I” National Defense University Publishing House, Bucharest, 2010, p. 54.

<sup>3</sup> European Neighborhood Policy applies to the following countries: Algeria, Armenia, Azerbaijan, Belarus, Egypt, Georgia, Israel, Jordan, Lebanon, Libya, Moldova, Morocco, Palestine, Syria, Tunisia and Ukraine.



Relying primarily on democracy, respect for the rule of law and human rights, being also a bilateral policy between the United States and each of the partner countries, European Neighborhood Policy aims to consolidate a climate of stability, security and prosperity for all countries involved.

Romania's national defense strategy must take into account the types of threats our country faces and the likelihood of it happening and, depending on the allies' ability to deploy the first support troops, to develop strategies with regarding the rapid reaction of the troops. As there are low chances for a classical armed conflict to take place, atypical, hybrid conflicts require a lot of attention, especially since within NATO, due to its positioning, Romania has the role of observer in charge of obtaining information and alerting other partners about the dangers that have arisen.

Following a brief summary of the current situation of the Romanian defense industry in Romania, observing the technological level and the technical state of the equipment used by the factories in the field, we can say that all factories still in the possession of the Romanian state require major investments in retrofitting and modernization, carried out as a result of extensive analyzes and short, medium and long term investment projects, so as to create the necessary favorable framework for these factories to fulfill their main objective of being the main source of endowment for the Romanian armed forces.

The considerations regarding Romania's national defense industry are based on the following premises.

**THERE IS AN IMMEASURABLE GAP BETWEEN THE ROMANIAN AND WESTERN EUROPEAN FACTORIES.**

Knowing the situation of the Romanian factories, it can be firmly stated that, technologically, for the most part, this gap is about 20-25 years; understanding the fact

that the machines and lines of production that indigenous factories use are largely in the 1970s and 1980s, being "abandoned" by western competitors and replaced by modern ones since the 1990s. While in the '90s the Western armaments and ammunition factories developed their production capabilities using modern machinery, the local ones attempted to move to the market economy. This gap continues in 2017 when Romania, in my opinion and the specialists in the field, despite the legislative attempts, does not have a sustainable plan to revitalize the entire defense sector.

The lack of modern technology appropriate to the production of military equipment is felt by all factories in this sector, reflecting the lack of international competitiveness due to the high production costs.

**THE HUMAN FACTOR IS AGED AND OVERWHELMED.**

Beyond the manufacturing lines and equipment used to an equal extent, we believe that it is the human factor that contributes to the efficiency and profitability of any field, not just the industry, in this case the defense industry.

From the discussions with people working in the human resources departments of several factories and factories in Romania, it can be concluded that the average age of staff working in the defense industry is about 48 years.

This situation is due to several factors, among which have to be mentioned the hard-working conditions, the low incomes in relation to the assumed risks, the lack of specialized schooling, the relatively long time needed in specialization ranging from 3 to 5 years and last but not least the lack of general motivation to work in this area caused by the decline of the entire branch of the last 25 years.

**DEPENDENCE OF THE INDUSTRY  
ON EXPORTS, SUPPORTED BY  
THE DECREASE IN ORDERS  
RECEIVED FROM THE MINISTRY  
OF NATIONAL DEFENSE.**

The main engine of the specialized industry is the export of old military products, made with the help of aging machinery and lines of production.

As with all other institutions and segments of the budgetary apparatus, the economic crisis in recent years has also affected the Ministry of National Defense, which, due to lack of funds, had to revise its product and technical procurement plans as a result of re-evaluations. This has resulted in purchases without continuity and predictability made at times when budget rectifications have made it possible. The negative effects of this procurement mechanism, based on momentary opportunities, has made it impossible to start and carry on global acquisitions made at the level of the entire ministry, eventually part of multiannual procurement programs. The lack of clear and feasible multiannual programs does not give Romanian plants the chance to plan their acquisition of raw materials, thus becoming uncompetitive with factories outside the country that have the financial resources needed to start and support long-term projects.

If we look at the evolution of military goods and equipment exports from 2010 to 2016<sup>4</sup>, we can say that these are those that, due to the lack of important orders from the Ministry of National Defense, were the ones that supported the national defense industry, in most cases the source of income that kept the Romanian factories “alive”.

Although it is urgently necessary for the Ministry of National Defense to be equipped with the high-quality military technique produced in Romania using modern means and is well known that the revenues that the

defense industry can bring through the export of products are immense, for almost 30 years, Romanian state, in its capacity as the owner of most of the factories, made almost insignificant investments in comparison to the real needs.

The lack of state interest can be seen also from the under-financing of the military products research and development sector. In post-December Romania, there was no large-scale project embracing modern technology, aiming at the development of modern military technique and reaching endowing the armed forces, demonstrating the usefulness and necessity of research in the field.

We can say that at this moment, the 15 factories that are in the state’s portfolio and form the national defense industry must be assessed objectively so that a realistic, performance-oriented restructuring plan can be developed. Among these, we find factories that barely manage to survive and accumulate debt from one month to the next because of lack of orders amid the lack of international competitiveness. They are the ones who need managerial changes and immediate restructuring. At the opposite end, there are factories with exceptional results materialized in external contracts signed for the next two to three years and advances received from the beneficiaries. It is worth mentioning that this situation is due to both the efficient management and the favorable conjuncture on the international market that they had.

Turning back to the situation of the defense industry, it is appreciated that, although only the political decision maker has the capacity to start a restructuring or reorganization program, short-term political interests prevail, as it is obvious that a comprehensive restructuring of the armaments and ammunition factories obviously involves staff layoffs; such a move is not at all pleasing to trade unions capable of mobilizing factory workers against political decision-makers.

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<sup>4</sup> According to the Ministry of Foreign Affairs - Department for Export Control – ANCEX.



## CONCLUSIONS

Following the dissemination of the above, we can conclude as follows:

✓ The national defense industry revolves around a vicious circle caused by the lack of financial resources.

✓ The absence of a well-established reform plan for this branch of industry will cause the perpetuation of the long-term situation.

✓ Only consistent financial support from the state, accompanied by a reform plan created by specialists in the field, can re-establish this industry with a huge potential.

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# LIFE CYCLE COST OF THE MILITARY EQUIPMENT

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◇ **Abstract:** *Life Cycle Cost (LCC) is the sum of the costs encountered during the lifetime of the equipment, from conception to disposal, determined by analytical study and semi-simulated estimates. Military systems have a long life cycle and involve the allocation of significant funds, which justifies the need to use LCC assessment techniques to substantiate optimal decisions about their acquisition. This paper presents some considerations on the life cycle cost of the military equipment.*

◇ **Keywords:** *acquisition; cost; estimates, life cycle cost, Whole Life Cost, Operations and Support*

## INTRODUCTION

Acquisition costs are widely used as a primary criterion and sometimes the only criterion for selecting a piece of equipment or a system. This unique criterion is easy to use, but often leads to misleading financial decisions. The acquisition costs show us only one aspect of the problems, so if only these are used, the result can lead to the destruction of a project's financing scheme. Simple evaluation models, in this case the cost of acquisition, give simple, superficial results and therefore they cannot be considered sufficient.

The life cycle cost (LCC) of a system represents all the costs that the owner of the system has to bear in order to acquire it, to

use it according to its functional specifications and remove it (quash, discontinue). In more details, LCC consists of all direct and indirect-variable costs associated with the conceiving, designing, developing, manufacturing, using, maintaining and removing of a system throughout its expected life time.

The NATO Research and Technology Organization (RTO) has been involved in LCC issues, materialized in studies and research reports. One of the important results was the establishment of a unitary framework for defining and issuing specific terminology. One of the important elements was the distinction between Life Cycle Cost (LCC), Total Ownership Cost (TCO) and Whole Life Cost-WLC (lifetime cost). The definition of

the three categories is the following:

NATO Research and Technology Organisation, RTO<sup>1</sup>, has been involved in LCC issues, materialized in studies and research reports. One of the important results was the establishment of a unitary framework for defining and issuing the specific terminology. One of the important elements was the distinction between Life Cycle Cost (LCC), Total Ownership Cost (TCO) and Whole Life Cost-WLC (life time cost). The definition of the three categories is the following:

LCC = Direct Costs + Indirect Variable Costs  
TOC = LCC + Dependent Indirect Fixed Costs  
WLC = TOC + Independent Indirect Fixed Costs

Indirect dependent fixed costs are due to the support equipment, common facilities, personnel required to command, manage, supervise, plan and control the operations, and handle the fuels and ammo.

Independent fixed costs can include staff accommodation facilities, medical services, ceremonies, basic training, command costs, recruitment of staff, etc.

### **THE NEED TO USE LCC TECHNIQUES TO ACQUIRE MILITARY-PURPOSE SYSTEMS**

The LCC helps to scientifically substantiate the cost of products ownership, aiming at deducting factors that can help minimize them, thus leading to increased economic competitiveness. Empirical, isolated approaches lead to inefficient actions characterized by short-term, but expensive, long-term benefits.

The need to use LCC techniques is imperative for military systems, as operating and logistics support costs (O & S) are much higher than the acquisition cost, as well as because of the fact that the decisions taken during the concept and planning period have a

vital importance in determining the life cycle cost. The LCC analysis helps the specialist staff to justify how to select the equipment or process, based on total costs and not only the initial purchase price, as the costs of using, maintaining and quashing exceed several times all other costs.

Some of the benefits of entire life cycle cost analysis of the systems are:

- evaluating the possibilities for realization and use of a system or process, which verifies the possibility of long-term financing and conditions of use;

- the fundamental selection of the acquisition source, which compares the estimated prices of the competitive systems and suppliers of goods and services;

- possibility to study the variants of realization, thus assessing the influence of project variants on costs;

- performing the analysis of the repair level, useful for assessing maintenance needs and costs;

- substantiating the warranty and repair costs required both by suppliers of goods and services and by the beneficiaries, who must understand the cost of early defects in choosing and using the equipment;

- adapting vendor sales strategies, as sales strategies should take into account the level of equipment, overall operating experience, and also the user failure rate, using LCC so as to optimize the benefits and not fix the price only by virtue of some legislative provisions. The LCC analysis provides a rich set of information on determining the cost effectively needed to make long-term decisions rationally for:

- the ordering of expenses, where it is used to estimate operating and maintenance costs;

- acquisition, in which it is involved in the balancing of the acquisition and property costs;

- foreseeing, where it integrates the effects of availability, reliability, maintainability, capability and efficiency of the system.

<sup>1</sup> [https://www.nato.int/cps/ua/natohq/topics\\_65174.htm](https://www.nato.int/cps/ua/natohq/topics_65174.htm)

## **LCC UNCERTAINTIES**

The acquisition cost is the only well-known and clearly identifiable value in the cost component of the life cycle, but it is only superficial information. The structure of the majority of the other costs associated with life cycle costs for equipment or systems is full of uncertainties. LCC is procedurally a hypothesis based estimation method. The same as all known valuation techniques, the assumptions can lead to substantial cost increases if logical reasoning is not used. Some of the limits of the LCC method are:

- LCC is not an exact science, anyone can get different answers, and these are neither true nor false - only acceptable or unacceptable;
- LCC results are only estimates and can never be more accurate than the enter data and intervals used in the estimate; in particular, this is true for the cost-risk analysis;
- LCC estimates are not accurate. Precision errors are difficult to measure because variations in statistical methods are often too high;
- LCC models work with limited databases, and data acquisition on logistics and exploitation is difficult and very expensive;
- LCC cost models must be calibrated to be true;
- LCC models require large amounts of data, but often there are only small amounts of data and most of the data are not trustworthy;
- The LCC requires scenarios for: how to build the money-sharing model for purchasing the equipment, how the model will mature during the usage, how defects will occur, how to make repairs and replacements, how will work the procedures for the assessment of the various costs (design cost, labor cost, cost of materials, wear of parts, exchange costs, expense costs, expected and unforeseen maintenance costs), for

each period of time, how the model will survive for several years, how many units will be produced / sold and other similar details needed to carry out cost scenarios; most details requiring major exploration, and the data acquisition is difficult;

- LCC models drawn by sellers and cost models of ownership (COO) drawn up by final users have low credit worthiness, caused by the use of different values in each model;
- LCC analysis results are useful as budget comparison / limiting tools, and good LCC results can only be achieved through a team approach because there is a need for specialized expertise.

LCC can not improve our perception of the cost of ownership of a system, enough to be more competitive in the acquisition process. Like other technical and economic tools, LCC provides the best results when art and science are linked through rigorous judgment, aiming at achieving the balance between cost elements by minimizing LCC.

The military procurement tools and techniques LCC of the US Department of Defense (DoD) are commonly used as models for the cost calculation of the technical and economic substantiation of concept studies.

## **TECHNICAL AND ECONOMIC AREAS THAT CONTRIBUTE TO THE LCC ANALYSIS**

LCC analysis requires an interdisciplinary approach, due to the complexity and multitude of aspects and actors involved. To justify the above, we present some examples of the areas that contribute to providing the data needed for the LCC analysis and the main objectives pursued within them:

- engineering - seeks to avoid the redundant equipment needed to avoid costly defects;
- acquisition - aims to buy small class equipment to obtain favorable price variations;



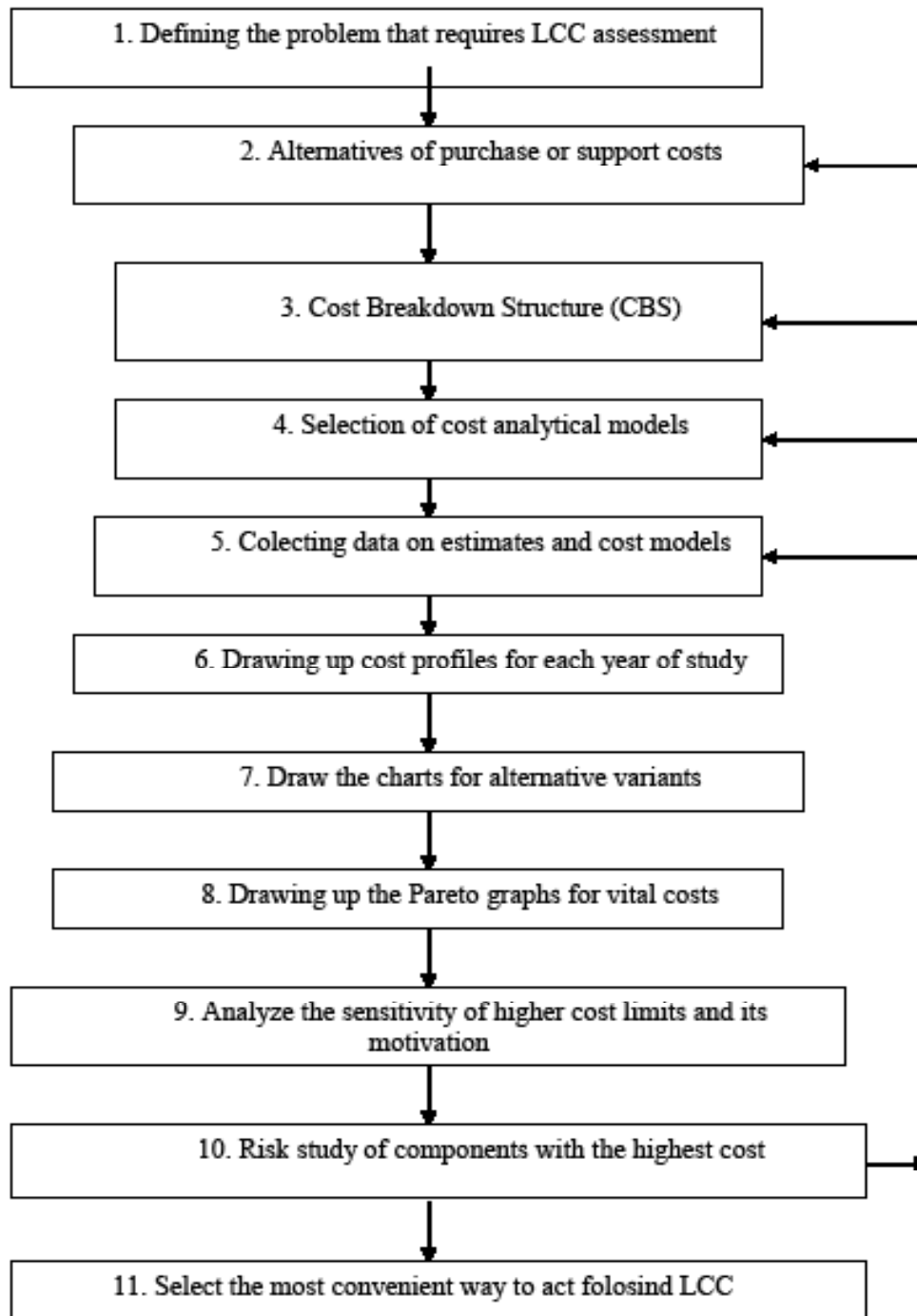


Figure no. 1

- engineering design - considers successful operation of the equipment for a limited period of time from starting functioning;
- process engineering - considers the use of equipment on the basis that they are capable of operating to the full extent of the conditions specified to them without fail;
- maintenance - aims at planning the

preventive or corrective actions necessary to maintain the equipment or processes in the operational state;

- reliability engineering - has tasks to improve product quality.

Management factors are responsible for harmonizing the potential conflicts that may result from the application of individual domains, under the motto of exploiting a product with the lowest cost of ownership in

the long run. The solution to prevent or solve these conflicts is teamwork in the minimization of LCC.

### **THE COMPONENTS OF LIFE TIME CYCLE COST**

Activities contributing to defining life cycle costs of the systems are intertwined into a cycle that gives the analysis a process character. The main steps of the LCC process are shown in the diagram below:

The CBS base tree starts from the acquisition costs and the support costs of the acquisition over the life time as shown in the figure no. 1.

### **COST ESTIMATION**

For cost estimation (step 5 of the LCC process) several methods can be used, choosing the most appropriate method depending on the degree of accuracy required, the level of data availability and time constraints. In order to identify the best assessment method, it is necessary to know very well the available methods and techniques, how to use them and, in particular, to have a high degree of understanding the requirements of the system being evaluated.

The main estimation methods are:

- the direct use of the available costs, by means of information;

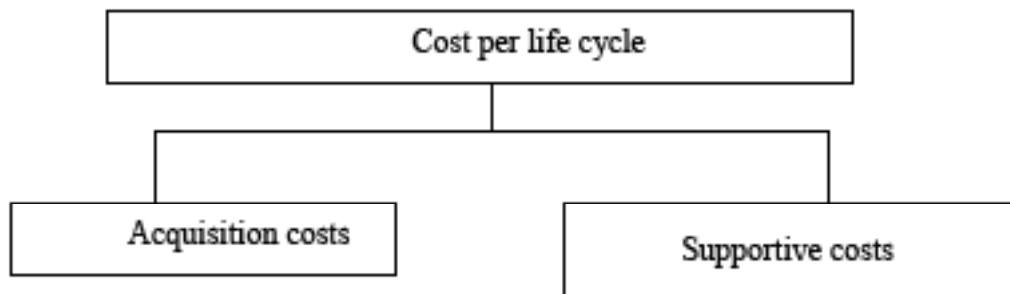
mile, cost per unit of weight or volume, cost per unit of reliability, etc.) .

- cost estimation by analogy with other existing systems, or when a new system results from the combination of some existing subsystems;
- calculating the reliability, maintainability and cost characteristics by scientific estimations, resulting in bottom-up evaluations of each component. This method is preferred when detailed system data is available and there is an LCC estimation model;
- collecting the opinions of specialists which, although subjective, it is the most widely available method, as written data is often non-existent or unavailable.

### **CONCLUSIONS**

The estimation process takes place over the characteristic phases of a product's life. In NATO, these phases are standardized and have the following content: mission needs assessment; pre-feasibility studies; feasibility studies; project definition; development; production; mining; disposal (decommissioning, dismantling);

When comparing more alternatives, it is necessary to take into account the change in the amount of money invested in time (discount). The discount procedure is simple, yet the discount rate is difficult to calculate, depending



- the parametric estimation of the costs, which involves the development and use of some quantitative relationships between 'historical' costs and performance characteristics of the system (eg cost per

on the investment opportunities. Taking into account the inflation is also essential.

By acquiring experience in conducting LCC analyzes it is found that lower costs are obtained.

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Estimates of operating and support costs are based on appropriate data on peace time, so they are affected by a degree of imprecision as they do not take into account the damages caused by the battle, the lack of maintenance possibilities, the high degree of use, etc.

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# THE LIFE CYCLE COSTS STRUCTURE OF AN ARMORED VEHICLE

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◇ **Abstract:** *Life Cycle Cost (LCC) represents the sum of the costs encountered during the lifetime of the equipment, from conception until disposal, as determined by an analytical study and by semi empirical estimates. Military purpose systems have a long life cycle and involve the allocation of significant funds, what justifies the need for the use of LCC evaluation techniques for the purpose of making optimum decisions concerning their acquisition. This article presents some considerations on life cycle cost of military equipment.*

◇ **Keywords:** *acquisition; cost; estimate, life cycle cost, whole life costing, operating and support.*

## INTRODUCTION

In the evaluation of alternative variants for the fulfilment of the needs of the mission, one of the most critical elements is the cost of each alternative. To fully understand the cost and its impact on the alternative version, we must first analyse the cost structure along with the expected financial requirements. The cost of each of the alternatives should be put in the balance along with its effectiveness of fulfilling the needs of the mission. This comparison is a requirement particularly for major procurement programmes.

Many of our decisions, referring to the

design and development of new systems and/or modernization of existing systems are based only on factors related to technical performance. The economic considerations primarily concerned only the initial procurement and acquisition costs, not the subsequent costs associated with system operating and maintenance support. However, these subsequent costs, which often hold a significant share of the total cost of the system throughout the life cycle, are heavily influenced by the decisions taken in the early stages of development of the system, in other words, the process of making the first decision must take into account the full spectrum of

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cost if the economic benefits are to be achieved over the long term. The consequences of short-term approach, a practice often used in the past, were more likely to be to the disadvantage of the whole system. Total cost visibility is a necessity if they want the risks to be appropriately associated with the decision-making process.

### The Life Cycle Costs (LCC = life cycle cost)

*Life cycle Cost (LCC = life cycle cost)* (Figure 1) for an armored vehicle (taken as an example) is composed of:

- *The Acquisition Cost* ( $COST_{acquisition}$ ) (includes the costs of research and development in the period of conception and realization, the cost of implementation);
- *The Operating and Support Cost* ( $COST_{op\&support}$ ) (includes the costs of maintenance and repairs during exploitation of the vehicle);
- *The Inflation Cost* ( $COST_{inflation}$ ) (includes all additional costs generated by inflation during the life cycle);
- *The End-of-life Costs* ( $COST_{final}$ ): (it's a relatively new appeared in specialty literature) comprises everything necessary for dismantling the vehicle arrived at the disposal, its destruction and recycling, in the present spirit of protecting the environment.

The acquisition cost of an armored vehicle is made in turn:

- The purchase price;
- Initial forecasts of repairs and supplies for a certain period, accounting for spare parts and materials strictly necessary for exploitation of the armored vehicle for a first period;
- Specific equipment;
- Technical documentation, accounting books, technical maintenance and exploitation, wiring diagrams, etc.;
- Training systems (simulators);

- Training specialists;
- Unforeseen expenses.

The Operating and Support Cost is composed of:

- The cost of the general revision of energy aggregates;
- Cost of manual labour for works carried out at unit level;
- The cost of fuel, lubricants;
- Cost of scheduled services (works carried out in industrialized specialized units);
- Cost of pieces and repairs (unscheduled service at the user level and the industrial units).

The Cost of Inflation is acting on the operating and support costs throughout the life cycle of the vehicle.

The End-of-life Cost is a cost generated by the final disposal, destruction and recycling of the vehicle.

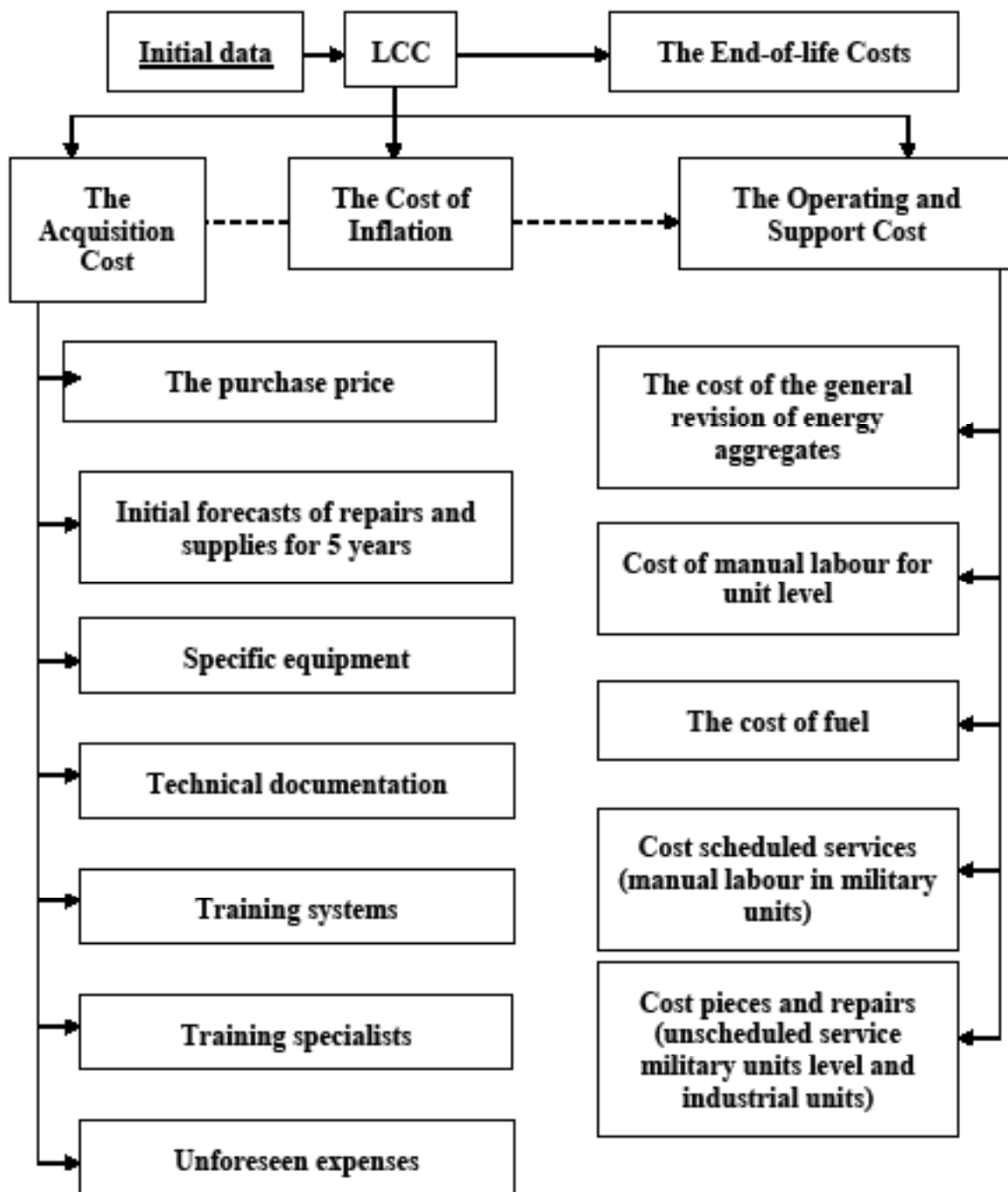
All these costs are shown in the following figure:

### The Life Cycle Cost Estimate

$$LCC = COST_{acquisition} + COST_{op\&support} + COST_{final} + COST_{inflation}$$

Because  $COST_{inflation} = f(COST_{op\&support; inflation})$ , and the  $COST_{final}$  may be considered as a constant known by the beneficiary, the result is:  $LCC = f(COST_{acquisition}, COST_{op\&support})$ .

Taking into account the structure in Figure 1, we can create a calculation method for the two types of costs, which is included in the life cycle cost. The following table presents the model for calculating the life cycle cost.



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Figure no. 1. *The life cycle costs structure*



<i>Code</i>	<i>Parameter name</i>	<i>UM</i>	<i>Explanations</i>
<b>A</b>	<b>INITIAL DATA</b>		
A1	The size of the vehicle fleet	Vehicle No.	The number of new vehicles in order to calculate the cost per life cycle.
A2	Traffic/ year / vehicle	km	Number of kilometres expected to be executed by a vehicle in a year.
A3	Total resource	Years	The life of the vehicle.
A4	The cost of fuel, lubricants	EURO	Fuel cost in EURO
A5	Labour cost per hour	EURO	The cost of one hour labour for work (planned and unplanned) performed by staff at the unit's vehicles.
A6	Projected lifetime	years	
A7	Km of traffic run from the vehicle fleet during lifecycle	km	<b><math>A7 = A1 * A2 * A3</math></b> The total number of hours of exploitation estimated to be run by the vehicle fleet for the duration of the life cycle.
A8	Reserve of movement available	km	<b><math>A8 = A1 * A6</math></b> The total number of kilometre movement available lifecycle.
A9	Resource consumption during the life cycle.	%	<b><math>A9 = (A7/A8) * 100</math></b> The percentage of the total resource in km of traffic estimated to be consumed during the life cycle.
A10	The total annual movement of the vehicle fleet	km	<b><math>A10 = A1 * A2</math></b> Total annual movement estimated to be run by the vehicle fleet in a year.
A11	The rate of occurrence of unforeseen events	%	
<b>B</b>	<b>NECESSARY MAINTENANCE COSTS FOR ENERGY AGGREGATES</b>		
B1	Aggregate energy overhaul cost	EURO	The cost of a repair planned aggregate energy, which runs in specialized industrial units.

B2	The period between the overhauls	Km Moto hours	The number of hours of working and mileage from the aggregate energy that needs to make a major binding revision/repair.
B3	The total number of motor overhaul	No. of revision	<b>B3 = A7/B2</b> The total number of major revisions/repairs scheduled to be executed for the entire fleet of vehicles for the duration of the life cycle.
B4	The total cost of overhaul	EURO	<b>B4 = B3 * B1</b> The cost of all major scheduled repairs/revisions that run from the engines during the life cycle of the vehicle fleet.
<b>C</b>	<b>LABOUR COSTS</b>		
C1	Labour - maintenance necessary per kilometre of traffic	Hours of labour/ km	Represents the labour necessary for the execution of the planned and unplanned activities for maintaining the readiness of the vehicles by the personnel of the military unit
C2	Hours of labour - maintenance needed for the entire park on the estimated lifecycle	Hours of labour	<b>C2 = C1*A7</b> Represents the labour necessary for the execution of the planned and unplanned activities for the maintenance in a state of readiness by the personnel of the military unit during the life cycle.
C3	Labour costs required	EURO	<b>C3 = A5*C2</b> Represent the labour costs necessary for planned and unplanned activities for keeping in readiness, for the duration of the life cycle.
<b>D</b>	<b>FUEL COST</b>		
D1	Fuel economy of the vehicle other than during the movement	l/hour	According to the technical documentation of the exploitation of the vehicle, provided by the manufacturer.
D2	Fuel consumption during the movement	l/km	According to the technical documentation of the exploitation of the vehicle, provided by the manufacturer and the profile of the movement.

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D3	Fuel consumed by vehicle fleet on the estimated lifecycle	Kg	<b><math>D3 = (D1+D2)*A7</math></b> The total amount of fuel consumed by vehicle fleet for the duration of the life cycle.
D4	The cost of fuel consumed by vehicle fleet during the life cycle	EURO	<b><math>D4 = A4*D3</math></b>
<b>E</b>	<b>THE COST OF VEHICLE MAINTENANCE - UNSCHEDULED WORKS</b>		
E1	Supplies needed for a vehicle for a year	EURO	Represents the estimated value of the supplies and spare parts necessary in the process of unrecoverable normal exploitation of a vehicle during a calendar year.
E2	Cost of consumables required vehicle fleet on the estimated lifecycle	EURO	<b><math>E2 = A1*A3*E1</math></b> Represents the value of the supplies necessary for the entire fleet for the duration of the estimated life cycle.
E3	Medium time between failures (MTBF)	km	Value specific for a vehicle, calculated by the manufacturer or user, based on the specific components of MTBF.
E4	Number failure of the entire vehicle fleet	No. of Failures	<b><math>E4 = A7/E3</math></b> Represents the total number of failures that can occur in vehicle fleet for the duration of the estimated life cycle, calculated based on the MTBF.
E5	Percentage of failures requiring repairs within the military unit	%	Represents the percentage of failures which cannot be removed by substituting the equipment during exploitation, but requires the immobilisation of the vehicle and checks using specialized equipment existing in the military unit.
E6	Failure level requiring repairs within the military unit	No. of Failures	<b><math>E6 = E4*E5/100</math></b>
E7	Medium costs for repairs within the military unit	EURO	Represents the medium cost of a military unit repair which must be carried out by the removal of a failure.

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E8	The cost of unplanned repairs within the military unit, estimated for the entire fleet on the estimated life cycle	EURO	<p><b>E8 = E6*E7</b></p> <p>Represents the total cost of unscheduled military unit works that run for troubleshooting during the vehicle fleet for the duration of the life cycle.</p>
E9	Percentage of failures involving the repairs at „industrial units” level	%	Represents the percentage of failures that cannot be removed by the military unit, by carrying out unscheduled works in specialized industrial units.
E10	Number of failures involving the repairs at „industrial units” level	No. of Failures	<p><b>E10 = E4*E9/100</b></p> <p>Represents the number of the estimated failures that occur to the vehicle fleet, for their removal being necessary some repairs at „industrial units” level, unscheduled, outside the military unit, in specialized industrial units.</p>
E11	The medium cost of a repair at „industrial units” level	EURO	Represents the medium cost of an unscheduled work at „industrial units” level, which is done for troubleshooting during the vehicle fleet for the duration of the life cycle. This work shall be carried out by specialised units in the industry.
E12	Cost of the repair level „industrial units” unplanned	EURO	<p><b>E12 = E10*E11</b></p> <p>Represents the total cost of servicing level „industrial units” unscheduled runs for troubleshooting during the vehicle fleet for the duration of the life cycle. This work shall be carried out by specialised units in the industry.</p>
E13	The total cost of spare parts, consumables lots and unplanned works during the life cycle	EURO	<p><b>E13 = E2 + E8 + E12</b></p>
<b>F</b>	<b>THE COST OF VEHICLE MAINTENANCE - SCHEDULED WORKS</b>		
F1	Duration of a major cycle	km	Represents duration of a major repair cycle that runs from a vehicle outside the military unit, specialized in industrial units. The frequency of major cycles is required by provider.



F2	Major cycles performed on estimated life cycle	No. of cycles	<b>F2 = A7/F1</b> Represents the total number of planned repairs to be carried out at the fleet of vehicles for the duration of the life cycle.
F3	The cost of major repairs	EURO	Represents the medium cost of a repair at „industrial units” level that runs into a specialized industrial unit.
F4	The total cost of major planned repairs	EURO	<b>F4 = F2*F3</b> Represents the cost of all planned repair at „industrial units” level at the fleet of vehicles for the duration of the life cycle. These works are done outside the military unit, in specialized industrial units.
<b>G</b>	<b>SYNTHESIS OF COSTS</b>		
G1	The total cost of the major revisions/repairs of energetic aggregates	EURO	<b>G1 = B5</b>
G2	Required labour costs. (Military unit level works, planned and unplanned)	EURO	<b>G2 = C3</b>
G3	The cost of fuel consumed by vehicle fleet during the life cycle	EURO	<b>G3 = D3</b>
G4	The total cost of lots of spare parts, consumables and unplanned works during the life cycle	EURO	<b>G4 = E13</b>
G5	The total cost of major repairs planned	EURO	<b>G5 = F4</b>
G6	Total cost of operating and supporting the vehicle fleet during the estimated life cycle	EURO	<b>G6 = G1+G2+ G3+G4+G5</b>

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<b>H</b>	<b>CALCULATION OF COST KILOMETER MOVEMENT</b>		
H1	The cost of major revisions of the energetic aggregates related for its movement.	EURO	<b>H1 = G1/A7</b>
H2	Required labour costs. (Military unit level works, planned and unplanned) which relates for its movement.	EURO	<b>H2 = G2/A7</b>
H3	The cost of fuel consumed by vehicle fleet related for its movement.	EURO	<b>H3 = G3/A7</b>
H4	The total cost of backup equipment, supplies and service for its unplanned works related for its movement.	EURO	<b>H4 = G4/A7</b>
H5	The cost of major repairs planned for its movement.	EURO	<b>H5 = G5/A7</b>
H6	The total cost of the service for its movement.	EURO	<b>H6 = H1 + H2 + H3 + H4 + H5</b>
<b>I</b>	<b>THE ACQUISITION COSTS</b>		
I1	Combat vehicle cost	EURO	Purchase value of a combat vehicle.
I2	The acquisition cost of vehicles	EURO	<b>I2 = A1*I1</b>
I3	The cost of the initial stock of spare parts	EURO	
I4	The cost of the initial stock of spare parts/battalion	EURO	
I5	The cost of operating and technical documentation	EURO	

I6	The cost of preparation of personnel	EURO	
I7	The cost of the technical assistance provider	EURO	
I8	Unexpected expenses	EURO	<b>I8 = (I2+I3+I4+I5)*A11</b>
I9	The total acquisition cost	EURO	<b>I9 = I2+I6+I+I8</b>

The model of calculating the life cycle cost.

$$\text{We obtain: } \text{COST}_{\text{purchase}} = \mathbf{I9},$$

$$\text{COST}_{\text{op\&support}} = \mathbf{G6}$$

This method requires a data set, which we need to take from supplying combat vehicles. At the same time, it requires statistical data, such as inflation, throughout the life cycle and the final cost represented by the cassation expenses.

Noting with:

- **n** age after the vehicle fleet is removed from exploitation;
- **inf<sub>i</sub>** inflation for each of the **i**-th year of exploitation;

can be calculated the whole life costing of an armored vehicle:

$$LCC = I9 + \prod_{i=1}^n \left(1 + \frac{\text{inf } i - 1}{100}\right) G6 + \text{COST}_{\text{final}}$$

## CONCLUSIONS

With this data available, and with this method, a life cycle cost comparison can be made for the armored vehicles to be purchased, a very important aspect of this process.

The cost estimation for each year of the life cycle of the system should take into account the effect of inflation, study curves when repetitive processes or activities occur, and any other factors that can cause cost changes either upward or downward. Cost estimates can be

derived from a combination of accounting records, cost projections, vendor proposals, and predictions in one form or another.

The first stages of the life cycle of the system represents the optimal time to begin the estimate of costs, because this is the time in which the higher overall cost impact on the life cycle of the system can be obtained. However, the availability of certain historical data relating to cost, at the moment, it is almost non-existent in most organizations, especially that type of data belonging to subsequent operating activities and support for similar systems in the past. As a conclusion, in order to achieve the final objectives, it is useful to use combined methods of estimating costs.

The costs can be related to the corresponding blocks in the functional description of the system. However, care must be taken to ensure that the historical information used in the development of cost estimation relationships is relevant towards the system configuration in evaluation today. Cost assessments based on the characteristics of the mission and performance of a system may not be suitable for the configuration of a system, even though the physical configuration is similar. Thus, the costs should be linked from a functional perspective.

Cost based activities (CBA) are a methodology aimed at detailing and associating costs elements that cause them. The objective is to enable the „traceability” of all applicable costs to the process or product giving rise to such costs. The CBA approach takes into

account the initial allocation and the subsequent appreciation of the cost function and has been developed to remove gaps in the structure of traditional management accounting where global factors are established for all items of the enterprise regardless they are directly applicable or not.

The CBA approach implementation, or something equivalent, is essential if it is desired a performance management of total costs to be done. The costs are related to objects and long-term tracked and the uses of such approaches facilitate the process of cost analysis during the life cycle.

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# DISCOURSE ANALYSIS AS A KNOWLEDGE TOOL

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◇ **Abstract:** *The present paper is intended to show how discourse analysis can be used as a knowledge tool. Firstly, certain terms related to the topic such as discourse, knowledge and discourse analysis are defined. Secondly, some topical ideas and theories in the field are mentioned. Then, a case study is presented, namely the discourse delivered by the Soviet leader, Leonid Brezhnev, in November 1968, discourse related to what is known as Brezhnev Doctrine, the main pieces of knowledge conveyed by it being discussed.*

◇ **Keywords:** *discourse; knowledge; discourse analysis; linguistics; cognition; lessons learned*

## DISCOURSE, KNOWLEDGE, DISCOURSE ANALYSIS

Discourse is defined as a serious speech or a piece of writing on a particular subject, a serious conversation or discussion between people, or the language used in particular types of speech or writing (*Longman Dictionary of Contemporary English Online*). Considering the connection between language and thought and the developments in cognitive and social sciences as well as in linguistics and pragmatics, many other aspects have been revealed, discourse thus becoming a term that has been extensively, often imprecisely, used in a variety of situation. Nonetheless, the main idea underlying discourse is its existence in connection to language, which is seen, especially following the theories exposed by Ferdinand de Saussure, as a system of signs that are arbitrary, acquiring value in relation to other linguistic signs structured following specific patterns, based mainly on differences, within the language system, the way syntagms and paradigms function being thus explained in this context. Moreover, Saussure explains the relation between a word or signifier and the

associated concept or signified, contributing to the development of Semiotics. Considering that the sign is arbitrary, he concludes that the relationship established between the signifier and signified in order to acquire meaning is not natural but constructed, within the complex language system, developing structural linguistics that laid the groundwork for the intellectual movement and approach known as Structuralism (Saussure, 1959). Structuralism and Poststructuralism have been the dominant theories in many domains, including cognitive, social sciences and economics, discourse being seen as more than a succession of sentences, including policies, practices, thus discourse analysis becoming a major concern.

Likewise, knowledge is defined as the information, skills and understanding that you have gained through learning or experience, or when you know about a particular situation or event, or the information you have about it (*Longman Dictionary of Contemporary English Online*). Knowledge is thus related to the way reality and truth are perceived and understood. Therefore, a more profound insight, taking into account the developments in science and humanities in the latest years,

reveals other perspectives. Besides the theories that knowledge is innate, observational, thought-generated, structural and post-structural studies have emphasised that it depends on the social relationships individuals, groups and organisations are part of, thus emerging the concept of social construction of reality. The basic constructionist idea is that if everything we consider real is socially constructed, then nothing is real unless people agree that it is, the important point being that whenever people define reality they are speaking from a particular standpoint or tradition of understanding, in describing facts and events people inevitably relying on some tradition of sense making (Gergen, 2015, p. 4). In the same vein, a belief can be treated as knowledge in a community if it is presupposed in the public discourse of that community (Gergen, 2015, p. 73). Moreover, knowledge can be related to power. A seminal theory in this regard was developed by Michel Foucault, who defines a statement as a function, which is obviously more than a linguistic unit like a sentence, which enables rules or forms to become manifest (Foucault, 1972, p. 99). The constitutive elements of a statement, formed in a regular manner by a discursive practice, can be called knowledge (Foucault, 1972, p. 182). Therefore, the reality of the social world with all its components is defined by discourse, which is institutionalised, thus dominated by rules, the interplay between knowledge and power being thus obvious, knowledge being an exercise of power and power a function of knowledge (Foucault, 1972, pp. 21-26). It follows that in any society there are manifold relations of power that cannot be established, consolidated, implemented without the production, accumulation, circulation, and functioning of a discourse (Gordon (ed.), 1980, p. 93).

To what has been already mentioned, the ideas expressed by John Austin, who defines the issuing of an utterance as the performing of an action, and the outward utterance as a description, true or false, of the occurrence of the inward performance (Austin, 1962, pp.

6-11) and John Searle, who distinguishes at least two strands in the philosophy of language, one concentrating on the expressions used in speech situations, and one concentrating on the meaning of sentences, practitioners seeming sometimes inconsistent given that historically they have been associated with inconsistent views about meaning (Searle, 1969), contradicting the positivist view that any meaningful sentence is either true or false. Thus subjectivity and objectivity in epistemology are related to the fact that truth and falsity depend on the attitudes, feelings and points of view of the makers and the hearers of judgement, to which ontology is added, some features of the world being intrinsic and others observer-related, depending on a certain system of values (Searle, 1995, pp. 8-15)

Discourse analysis can be thus considered a knowledge tool, directly linked to epistemology, namely in order to understand the “reality” and the “truth” as well as the effects of the “truth” produced within discourses, they should be analysed. Discourse analysis is itself flexible, in terms of both the concept and the process, first of all because it entails interpretation and legitimacy, depending on the context and context models, seen as mental representations defining situations, perceptions, experiences, effects and interactions, based on shared knowledge, which enables strategies for discourse production and comprehension, managed as a function of context, (Dijk, p. 72), considering what has been already mentioned about arbitrariness, knowledge-power relationship, and speech-act theories. To illustrate the interplay between all these aspects, a case study is provided, namely the discourse delivered by Leonid Brezhnev, in Warsaw, before the Polish workers, on 13 November 1968, ideas previously exposed by Sergei Kovalev and published in *Pravda* on 25 September 1968, which substantiated what was to become known as “Brezhnev Doctrine” or the doctrine of “limited sovereignty”, one of the most important doctrines of the Cold War, discourse presented in the Appendix.

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### **Case Study – Leonid Brezhnev Speech in Warsaw, 13 November 1968**

The historical context of the speech is related to the fact that, during the Cold War, in August 1968, Antonin Novotny, the conservative leader of Czechoslovakia was replaced with the reformist one, Alexander Dubcek, who introduced a series of reforms, including decentralisation of the economy and the abolition of censorship, meant to the country democratisation, his programme including the famous concept of socialism with human face, events known as the Prague Spring. During that time, Czechoslovakia was one of the Warsaw Treaty Organisation member states. The reforms were not received well by the Union of Soviet Socialist Republics, the leader of the political-military organisation. The troops belonging to the armed forces of five member states of the Warsaw Treaty Organisation, namely the USSR, Bulgaria, Poland, the German Democratic Republic and Hungary intervened to put an end to the turmoil associated with the mentioned events, which mounted popular resistance. In this context, questions arose related to the intervention legitimacy considering the member states sovereignty stipulated in the founding treaty of the organisation, on the one hand, and the ideas promoted by Brezhnev's predecessor, Nikita Khrushchev, related to the member states peaceful coexistence and their possibility to follow different paths to socialism.

The questions related to legitimacy can be seen in the broader context of alliance theories as well as in that of the interdependence between sovereignty, national interests, and the status of an alliance member, in this particular case an alliance of socialist states regarded, in the light of Marxist-Leninist principles, as the most important achievement of the international working class. Sovereignty is a highly debated topic in the theory and practice of international relations, especially in terms of its validity as a concept and institution. Thus the concept of sovereignty has been differently interpreted

throughout history, starting from the ideas expressed by Jean Bodin and Thomas Hobbes, related to supreme authority within a territory, the state being considered the political institution able to embody sovereignty, the sovereign state, especially following the Peace of Westphalia, being the guarantor of peace and order. Following the Second World War, considering the historical, political and social context, the concept of sovereignty was redefined. Then, the emergence of the European Union as an important actor in the international arena has been linked to the concept of pooled sovereignty, and the laws and practices related to human rights have generated debates regarding the responsibility to protect. In this context, and especially in the one of alliance formation, the legitimacy of exercising authority is another highly debated topic, sovereignty being even attached the attribute of “organised hypocrisy” (Krasner, 1999). However, as it shapes expectations and behaviours, sovereignty is a fundamental political institution, one of its main goals being the peaceful coexistence of states having different internal systems of rules. (Harrington, Marshall, Muller (ed.), 2006, p. 584). Besides all the interpretations put on the concept throughout time, there are four fundamental components to be considered related to sovereignty, namely territory, population, authority and recognition. Mention should be made, in this context, that the United Nations Charter, signed in San Francisco on 26 June 1945, the USSR being among the signatory states, and entered into force on 25 October 1945, stipulates that the Organisation is based on the principle of the sovereign equality of all its Members (...) Members shall refrain in their international relations from the threat or use of force against the territorial integrity or political independence of any state, or in any other manner inconsistent with the Purposes of the United Nations (Charter of the United Nations, 1945, p. 3).

Considering all the above-mentioned aspects, state sovereignty can be seen as a social construct, as the modern system of sovereign states is not based on a changeless

sovereignty principle but on a dynamic normative concept, depending on a specific context, able to put together authority, territory, population, namely society or nation, and their unique recognition involving the state. Thus sovereignty can be regarded as a product of the agents of power, on the one hand, and of the resistance to such actions, on the other hand, manifested by those at the margins of power, being therefore not only the foundation of international relations but also the object of a political struggle to impose a meaning of sovereignty able to provide limitations, competency and legitimacy (Biersteker, Weber, 1996, pp. 1-22, Weber, 1995, p. 3).

As for the Soviet concept of sovereignty, genealogically, certain imprecision and incoherence in using the term is noted, the concept being used as both political laudatory concept and international law principle. Historically, up to the emergence of popular democracies, after the Second World War, the Soviet view on sovereignty was mainly shaped by the Soviet Union experience as a weak and insecure socialist state in a world of hostile bourgeois states, as well as by the communist attempts to stir up revolt against imperialism in Asia and Africa. The principle was invoked by the Soviets not only as a barrier against the expansion of imperialism but also as a propagandistic tool, a slogan in the movements for national liberation, especially in Eastern Europe, thus the respect for sovereignty serving the Soviet foreign policy interests (Jones, 1990, pp. 7-30). Stalin made the concept void of content, focusing on the consolidation of communism in the USSR and its expansion worldwide, but the denouement of the Second World War generated options that had been unconceivable before it. In this context, the Soviet decision to adopt a duplicative policy, different from the annexationist one, in Eastern Europe, posed problems to Soviet theoreticians related to the role and place of the Soviet Union in the Socialist bloc, to the nature of the new type of international relations within it, to the essential characteristics of the new democracies in Eastern Europe, as well as

to the position adopted by the socialist entity towards the capitalist world. The concept of sovereignty was essential to all these problems, the Soviet solution being based on the assumption of a harmonious relation, a symbolic one in fact, between sovereignty and socialism (Jones, 1990, pp. 61-77), assumption often contradicted by reality. As stated above, both sovereignty and national element, in terms of concepts, doctrines, and institutions, are characterised by dynamism. In the context of the Cold War, in general, and of the Warsaw Treaty Organisation, in particular, their balance was struck from the perspective of the interplay between socialist internationalism and national interests, which did not prove harmonious in many circumstances. Moreover, as far as the Warsaw Treaty Organisation was concerned, the issues related to legitimacy, control and stability acquired major importance, considering the main goals of the Soviet Union in Eastern Europe. There were many instances when stability required concessions to popular pressure and national differences, which undermined the Soviet control, on the one hand, and contributed to the alliance multilateralism, on the other hand (Larrabee, 1984, pp. 7-10.)

Against the above-presented background, Leonid Brezhnev, the Soviet leader from 1964 to 1982, known for his conservative attitude, delivered the speech that substantiated the Brezhnev Doctrine, following the events in Czechoslovakia in 1968. Brezhnev was the speaker but there were many other entities either involved or directly interested in the speech. Among them the most important ones were the member states of the two political-military organisations that dominated the international arena during the Cold War, namely the Warsaw Treaty Organisation, and the North Atlantic Treaty Organisation, as well as non-aligned international actors. The Soviet leader did not address to them directly, but indirectly, considering that the speech was delivered before the Polish workers, on the occasion of the 5<sup>th</sup> Congress of the Polish United Workers' Party.

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The Soviet leader did not focus on directly condemning the events in Czechoslovakia but on persuading the Warsaw Treaty Organisation member states to remain united as well as on legitimising the armed forces intervention in Czechoslovakia. Therefore, the main rhetorical devices used were proper to persuasive and legitimacy strategies. As it is known, there are three main types of persuasive strategies related to logos, ethos and pathos, namely appeal to logic and reason, to the reliability, expertise and credibility of the speaker, and appeal to the needs, values and emotions of the audience, all of them being combined in the analysed speech. The situation was very briefly presented, only mentioning the events and the measures taken by the Soviet Union, jointly with other socialist countries, without naming them, to respond not to the events as such but to the question of the correlation and interdependence of the national interests of the socialist countries and their international duties, to the defence of the Czechoslovak people against the antisocialist elements that actually covered up the demand for so-called neutrality and Czechoslovakia's withdrawal from the socialist community with talking about the right of nations to self-determination, and moreover, to the defence of the socialist gains of the fraternal Czechoslovak people, and the country national independence and vital interests that can be retained precisely because of the might of the socialist community, and above all the Soviet Union as a central force, which also includes the might of its armed forces, as the Soviet leader asserted. The appeal to reliability, credibility and expertise was not made in relation to the speaker but to Marx and especially Lenin, as founders and central figures of socialist and communist ideology, citing Lenin to emphasise that a state belonging to a community cannot be free from the common interests of that community, thus the general interest subordinating the particular one, and especially that any attempt to avoid taking sides in such an issue must end in fiasco. As for the appeal to needs, values and emotions, besides those already

mentioned, the speaker provided an what if-based scenario, referring to such understanding of self-determination, as a result of which NATO troops would have been able to come up to the Soviet border, while the community of European socialist countries would have been split, in effect encroaches upon the vital interests of the peoples of these countries and conflicts, as the very root of it, with the right of these people to socialist self-determination. With regard to the rhetorical elements used to legitimise both the intervention of the troops belonging to the five socialist states in Czechoslovakia and the Brezhnev Doctrine, the institutional vocabulary, including the contradictory institutional logics embedded in presentation, and the theoretisation of response based on historical, epistemological and ontological values can be mentioned.

The knowledge conveyed by the speech was mainly related to the concept of limited sovereignty as well as to the awareness of the necessity to change the understanding of different paths to socialism, idea promoted by Brezhnev's predecessor, Khrushchev, which proved dangerous for the maintenance of ideological orthodoxy, as guarantee of the Warsaw Treaty Organisation legitimacy and political consolidation, the member states sovereignty becoming less important than the cohesion of the socialist movement and its internationalist character, thus substantiating the Doctrine of "limited sovereignty". Presented as defensive, anti-interventionist and protectionist, the doctrine invoked the common goals of the protector and the protégée, the duty and responsibility, the observance of the international law, sovereignty and independence included, the struggle against isolation and seclusion, asserting the special position of a protecting power, the leader of the Socialist camp, in its struggle to defend the achievements of socialism, a general interest subordinating all particular interests. The doctrine, focused on the idea of solidarity, legitimised the intervention in Czechoslovakia, on the one hand, and, due to its lax character, allowed the Soviet

intervention in Afghanistan, between 1979 and 1982, on the grounds of protecting the USSR southern border. In fact, the Brezhnev Doctrine of “limited sovereignty” interpreted socialist internationalism and its relation to national elements and interests from the perspective of asserting the Soviet authority in maintaining a single model of socialist practice within the communist bloc, even if military intervention was necessary to meet that goal. However, paradoxically, the importance attached to the objectives related to control in the Soviet strategy represented itself a destabilising factor, exacerbating the popular democracies regimes lack of authenticity, on the one hand, and undermining the Soviet control, on the other hand, because of the attempts of those regimes to reduce their deficit of legitimacy.

### CONCLUSIONS

Considering all the presented aspects, it becomes obvious that a discourse is more than a simple message between the sender and the receiver, linguistic, cognitive and social approaches exploring the relations between meaning and knowledge, which are context-dependent. Discourses shape thoughts, ideas, belief systems, values, identities, interactions, behaviours, their analysis thus structuring knowledge. Moreover, discourses can be used to convey broad historical meanings, contributing to the development of lessons learned libraries at both individual and community levels. Therefore, discourse analysis can be a valuable knowledge management tool, considering its multidisciplinary nature, as it enables learning, practices and memory, thus documenting decision-making in terms of both comprehension and production.

### Appendix

Leonid Brezhnev discourse at the 5<sup>th</sup> Congress of the Polish United Workers’ Party, Warsaw, 13 November 1968.

In connection with the events in Czechoslovakia the question of the correlation

and interdependence of the national interests of the socialist countries and their international duties acquire particular topical and acute importance. The measures taken by the Soviet Union, jointly with other socialist countries, in defending the socialist gains of the Czechoslovak people are of great significance for strengthening the socialist community, which is the main achievement of the international working class. We cannot ignore the assertions, held in some places, that the actions of the five socialist countries run counter to the Marxist-Leninist principle of sovereignty and the rights of nations to self-determination. The groundlessness of such reasoning consists primarily in that it is based on an abstract, non-class approach to the question of sovereignty and the rights of nations to self-determination. The peoples of the socialist countries and Communist parties certainly do have and should have freedom for determining the ways of advance of their respective countries. However, none of their decisions should damage either socialism in their country or the fundamental interests of other socialist countries, and the whole working class movement, which is working for socialism. This means that each Communist party is responsible not only to its own people, but also to all the socialist countries, to the entire Communist movement. Whoever forgets this, in stressing only the independence of the Communist party, becomes one-sided. He deviates from his international duty. Marxist dialectics are opposed to one-sidedness. They demand that each phenomenon be examined concretely, in general connection with other phenomena, with other processes. Just as, in Lenin’s words, a man living in a society cannot be free from the society, one or another socialist state, staying in a system of other states composing the socialist community, cannot be free from the common interests of that community. The sovereignty of each socialist country cannot be opposed to the interests of the world of socialism, of the world revolutionary movement. Lenin demanded that all Communists fight against small nation

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narrow-mindedness, seclusion and isolation, consider the whole and the general, subordinate the particular to the general interest. The socialist states respect the democratic norms of international law. They have proved this more than once in practice, by coming out resolutely against the attempts of imperialism to violate the sovereignty and independence of nations. It is from these same positions that they reject the leftist, adventurist conception of “exporting revolution”, of “bringing happiness” to other peoples. However, from a Marxist point of view, the norms of law, including the norms of mutual relations of the socialist countries, cannot be interpreted narrowly, formally, and in isolation from the general context of class struggle in the modern world. The socialist countries resolutely come out against the exporting and importing of counterrevolution. Each Communist party is free to apply the basic principles of Marxism Leninism and of socialism in its country, but it cannot depart from these principles (assuming, naturally, that it remains a Communist party). Concretely, this means, first of all, that, in its activity, each Communist party cannot but take into account such a decisive fact of our time as the struggle between two opposing social systems-capitalism and socialism. This is an objective struggle, a fact not depending on the will of the people, and stipulated by the world’s being split into two opposite social systems. Lenin said: “Each man must choose between joining our side or the other side. Any attempt to avoid taking sides in this issue must end in fiasco”. It has got to be emphasised that when a socialist country seems to adopt a “non-affiliated” stand, it retains its national independence, in effect, precisely because of the might of the socialist community, and above all the Soviet Union as a central force, which also includes the might of its armed forces. The weakening of any of the links in the world system of socialism directly affects all the socialist countries, which cannot look indifferently upon this. The antisocialist elements in Czechoslovakia actually covered up the demand for so-called neutrality and

Czechoslovakia’s withdrawal from the socialist community with talking about the right of nations to self-determination. However, the implementation of such “self-determination”, in other words, Czechoslovakia’s detachment from the socialist community, would have come into conflict with its own vital interests and would have been detrimental to the other socialist states. Such “self-determination”, as a result of which NATO troops would have been able to come up to the Soviet border, while the community of European socialist countries would have been split, in effect encroaches upon the vital interests of the peoples of these countries and conflicts, as the very root of it, with the right of these people to socialist self-determination. Discharging their internationalist duty toward the fraternal peoples of Czechoslovakia and defending their own socialist gains, the U.S.S.R. and the other socialist states had to act decisively and they did act against the antisocialist forces in Czechoslovakia. - From *Pravda*, September 25, 1968; translated by Novosti, Soviet Press Agency. Reprinted in L. S. Stavrianos, *The Epic of Man* (Englewood Cliffs, N.J.: Prentice Hall, 1971), pp. 465-466. (*Modern History Sourcebook*, <https://sourcebooks.fordham.edu/mod/1968brezhnev.asp>, retrieved on 20 October 2017)

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# STRATEGIC MANAGEMENT OF MILITARY TRAINING AND EVALUATION SYSTEMS

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◇ **Abstract:** *In this paper we will present the characteristics of the military organizational environment, as a result of two levels of managerial decision, respectively, the first, the operational level, which concerns the management of the military structures, and the second, the strategic level. The functionality of the strategic management of training systems in military organizations is the same as that of management in any field of activity. In military terminology, the functions of management, namely planning, organizing, staffing, directing and controlling are found under other names, namely forecasting, organizing, leading, training and controlling, and are exercised so that the objectives of the military organization are met.*

◇ **Keywords:** *strategic management, training and evaluation, planning, organization, management, execution, control-evaluation.*

## STRATEGIC MANAGEMENT OF MILITARY TRAINING AND EVALUATION SYSTEMS

From a historical perspective, although the principles of the combat /armed conflicts remain valid for long periods of time, the evolution of the course of training by the military structures has been constantly changing and adapted to the evolution of a multitude of factors. The imminent armed conflicts, the technological revolution, the development in the field of communications and informatics, and, last but not least, the amount of resources that a state can make available for military purposes are the main factors that have influenced the evolution of training in military organizations.

The careful analysis of the assessment

system in modern armies reveals that the military organizational environment is the result of two levels of managerial decision. First, the operational level targets the management of military structures and is based on the execution of controls, inspections and self-assessment reports of the commanders of the respective structures. The second, the strategic level, aims at assessing the ability to meet the military directions and objectives embodied in the training plans and programs based on the system evaluation by measuring and determining the achieved performances and comparing the results with the values and standards initially set.

In the context of the evolution of current and future threats, the overall objective of strategic management of training-assessment systems is to generate modern, fully profession-

alized, dimensioned and adequately equipped, highly mobility, efficient, flexible, fast deployable, sustainable, capable of acting together and acting across a wide range of missions.

The strategic management of military-training-assessment systems, which is in a position to establish the present and future guidelines for the transformation of the force structure, requires a flexible approach that allows the adopted strategies to be reviewed periodically. Strategies will be tailored to evolving challenges and to political, military developments, security requirements set at the level of “NATO”<sup>1</sup> and the “European Union”<sup>2</sup>.

The functionality of the strategic management of the training-evaluation systems is identical to that of management in any field of activity. The planning / forecasting function is a managerial process geared towards setting objectives and activities to be carried out by the organization in the future. The other management functions, namely planning, organizing, staffing, directing and controlling, contribute to the achievement of the specific objectives of the training-evaluation system in the military organization.

The training-evaluation system enables us to analyse the progress made by the human resource in the face of the professional contexts in which it is involved. “*Human resources are the human capital of the organization*”<sup>3</sup> which, by fulfilling very well the roles of the military organization, contributes to the macroeconomic scale to meet the goals set by the whole society. The basic element of training in the military system is the fighter and the main small group that contributes to the accomplishment of the missions is the military microstructure to which it belongs.

<sup>1</sup> \*\*\* i.e. NATO = OTAN, acronym of North Atlantic Treaty Organization (english) and L’Organisation du traité de l’Atlantique nord (french), available at [www.nato.int](http://www.nato.int), accessed at Feb., 28<sup>th</sup>, 2017.

<sup>2</sup> \*\*\* *European Union*, available at <https://europa.eu/>, accessed at Oct., 5<sup>th</sup>, 2017.

<sup>3</sup> Ovidiu Nicolescu, Ion Verboncu, *Fundamentele managementului organizației*, Tribuna Economica Publishing House, Bucharest, 2007, Chapter 5.

Given the fact that to the human resources is allocated a distinct area within the management of the organization, but also given the fact that people, along with information, are the main raw materials of management, we think it is absolutely natural to approach the training- a systemic treatment in the whole of managerial issues.

### ***Functionality of the military organization***

Viewed as a whole, organizations and, implicitly, military organizations are institutions created by human or individual groups in order to meet specific objectives of their field of activity through means of anticipating, coordinating, engaging and controlling activities. Achieving the organization’s goals is dependent on the use of resources at its disposal, including human resources combined with other resources.

The specific features of the organization are the social dimension of the organization, its goals and the use of management functions, features that we present schematically in figure no. 1 through the simplified model of “*Harold J. Leavitt*”<sup>4</sup>.

In the presented model, the *social structure* is the component that refers to values, norms and social roles/ positions, the *participants* are all individuals who have a contribution within the organization, the *tasks* are the sources of motivation of the participants or the strategy for generating and selecting the actions and the *technology* constitutes the mechanism for processing and transforming inputs into outputs.

In the case of the military organization, there are a number of peculiarities that make them different from the other social collectives, moreover, within them, there are some specific characteristics depending on the category of soldiers we refer to - soldiers and other ranks,

<sup>4</sup> *Harold J. Leavitt* (1922–2007, SUA), was an American psychologist of management. „*Managerial Psychology*” was published in 1958 and it is first book in history that presented Managing Behavior in Organizations.



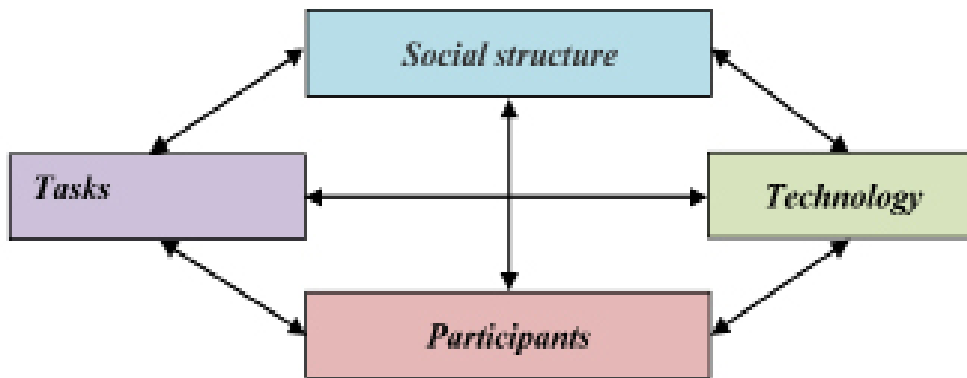


Figure no. 1. *The simplified model of the organization according to Harold J. Leavitt*

non-commissioned officers, warrant officers and officers.

Military organizations are postmodernist organizations that have adopted an architectural theory designed to ensure the use of space built according to the significance of organizational contexts. Military organizations have an individual status and identity, they have elements of the distinct physical structure that communicate through messages that are capable of reminding people, not just what they are and how they should behave, but also “*who are from the point of view of individual, group or organizational identity*”<sup>5</sup>.

The culture of military organizations is generated by the complex relationships these organizations have with the media in which they operate and where they recruit their members, namely family, community, church and school. Any organization can be considered as a culture itself as a set of subcultures or a subculture of a wider culture.

The *military vision* of the organization can be addressed by the fact that “*there is no greater force to lead a company to excellence, to medium and long term success than a vision of the future that is a mental construction that we have the strength to turn it into reality*”<sup>6</sup>.

<sup>5</sup> Teodor Frunzeti, *Teoria organizației - Curs universitar*, National Defense University „Carol I” Press, Bucharest, 2012, pp. 152-157.

<sup>6</sup> Burton Nanus, Warren Bennis, *Leaders: Strategies for Taking Charge*, New York, Harper Business, 1997, p. 120.

This construction is based on the set of values underlying the organizational culture. The values of the military organization are the economic, legal and social framework in which the company operates, and the purpose of all human resources is to put them into practice in daily work to achieve the vision of the military organization.

The vision, mission and organization priorities have a strategic importance which forces the military organization to permanently improve its success philosophy, to focus on performance, and to be engaged in activities that use technologically advanced products and services. The strategic statements of military organizations expose commitments by which it continuously improves its operations and performance by setting, monitoring and reviewing objectives with the intention of meeting and, where possible, overcoming partner expectations.

The Military Organization acts in a forward-looking manner and complies with the national legislative framework, develops regulations and implements programs that require staff and collaborators to actively participate in the achievement of objectives, encourage performance, comply with health and safety rules, and protect the environment.

Regarding the power within the organization, “*Robert Dahl*”<sup>7</sup> defines the power

<sup>7</sup> Robert Alan Dahl (1915-2014), was a political theorist and Sterling Professor of Political Science at Yale University.

as: “*A has power over B, so it can cause B to do something what B would not do ordinarily*”. In Dahl’s definition, A and B can be defined at any level of analysis, whether individual, group or organization, but regardless of level, power is always exercised in the context of relationships between actors rather than themselves. That is why we sometimes hear that power is relational. The power within the military organization is given by the hierarchy of individuals within the organization and by the authority resulting from the professionalism of the members of the leading teams, which are made up of professionals with experience in the field of safety and military security, with experience accumulated at national and international level and possessing a maximum level of competence and expertise in all key areas of activity.

From the point of view of conflict in the military organization, we can agree with critical theorists and many postmodernists who argue that a conflict is an inevitable aspect of the organization, or conflict is implicit in power and control relations and is highlighted by linguistic dichotomies as would be strong/weak or dominant/subjected.

In order to avoid and limit the occurrence of conflicts, within the military organizations an internal management system is implemented, that establishes the relationship between the organization and the staff within it and, promotes the idea that each employee or partner must comply with internal rules based on integrity, fair behaviour, honest communication and credibility.

The reorganization of the military organization may appear to be a controversial element that could not be produced by respecting the concept of reorganization of the economic organization, where the administrative change is generated by a change in the political approach, but over time the military organization has had to go through several processes reorganization and to undertake a number of reforms in order to have a clear connection between the purpose and the end result, between diagnosing the

problem and remedying it.

The efficiency of the organization reflects that feature of economic activity, at micro- and macroeconomic level, located at any point on the frontier of production possibilities where it is impossible to increase the volume of production of a good without reducing the quantity produced from another good. Extrapolated at the level of the military organization, with the use of limited resources and unlimited needs, efficiency has to be correlated with the indirect effects produced and the *social costs* and to follow the path that reduces costs, increases competitiveness, but remains a permanent source of national security.

The objective of the military organization is to approach a management based on transparency and ethics that will allow the activities of the field of activity to be carried out.

### ***Strategic Management of National Security Organizations***

Individual and society needs have pushed mankind to find solutions to overcome the problematic situations it faces at one time. In order to diminish the role of the hazard and to alleviate the tensions, people adopted a series of rules and norms for guiding people’s behaviour in society, formed networks of statuses and roles that lead to the hierarchy of social positions and established forms of community organization on a political level, economic and military.

The solutions that produced very good results were accepted and, by repetition, became rules of conduct in various social contexts, the so-called social norms, the non-observance of which triggered public abuse. By accepting social norms by the supreme authority of a society, they become “*laws*”<sup>8</sup>.

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<sup>8</sup> *i.e. law* = 1. imperative rule established by the supreme authority; 2. The normative act that emanates from the legislative body of the state and through which it feels regulated certain social relations, the Romanian Language Explanatory Dictionary, second edition revised and added, the Romanian Academy, the Iorgu Jordan - Alexandru Rosetti Institute of Linguistics,



The organizations ensure the stability of social life operating at multiple levels of authority, being subject to the processes of change of society. Organizations are built on three pillars that provide directions, resources and limitations for different activities. The organization becomes effective as it achieves its goals and objectives, depending on its physical structure, social structure and relationships with other institutions. Another condition of organizational efficiency is the accurate and accurate setting of the tasks assigned to the human resources and departments of the organization.

Integrated organizational elements can be grouped into a set of goals, goals, ends, functions, roles, meanings, values and norms, relationships, and symbols. The set of goals, goals and goals is the reason for the existence of the organization and, depending on them, the organizations are delimited, avoiding the parallelism. Members of the organization must comply with distributed roles that are governed by codes of conduct and allow the establishment of relationships between employees and the organization.

Organizations can be classified according to several criteria. According to their nature, there are economic, political, legal, cultural and educational organizations, scientific research, religious organizations or military organizations. National security organizations are dealing with the management of violence and the maintenance of the nation's security.

The economist "Max Weber"<sup>9</sup> stressed that the two fundamental features of military security organizations are military discipline and advanced managerial forms. The elite of the army differs in the socio-professional context through identity elements generated by its own training system, theoretical and practical knowledge, group cohesion, solidarity, the

Univers Enciclopedic Publishing House, 2009, p. 867.

<sup>9</sup> Maximilian Weber (1864 - 1920), was a political economist and German sociologist, one of the founders of modern sociology and public administration, with influences on contemporary German politics, being one of Germany's negotiators at the Treaty of Versailles at the end of the First World War.

body of ethical rules and responsibility.

The issue of national security has a predominantly military component, so organizations with military security functions are maintained in the state organization chart for their defence in the event of any conflict. The army assures the defence of the country in times of crisis and war and is invested with three functions: representative, consultative and executive. The army is composed of the central organizations of the Ministry of National Defence, forces categories and territorial military organizations.

The strategic management of national security organizations is materialized through the implementation of national security strategies, development strategies and social intervention strategies, strategies that support sustainable development and reduce sources of insecurity. The strategic management of organizations corresponds to the same functions that "Henri Fayol"<sup>10</sup> has defined for economic management, functions that are interconnected and dependent on each other and that are initiated by the planning function.

The National Security Strategy is the document that sets out Romania's long-term interests and objectives, the priority actions, the threats and risks that may affect the fulfilment of national objectives and the main methods of neutralizing these risks. In June 2015, the National Parliament's "National Defence Strategy for the period 2015-2019 - A Strong Romania in Europe and the World"<sup>11</sup>, in which the national security interests and objectives are defined, the international security environment, the threats, the risks and the vulnerabilities of the national defence system are identified and analysed and the

<sup>10</sup> Henri Fayol (1841 - 1925), was a French mining engineer, mining executive, author and director of mines who developed general theory of business administration that is often called Fayolism.

<sup>11</sup> \*\*\* *Strategia națională de apărare a țării - O Românie puternică în Europa și în lume*, available at <http://www.presidency.ro/static/Strategia%20Nationala%20de%20Aparare%20a%20Tarii.pdf>, accessed at Aug., 5<sup>th</sup>, 2017.

directions of action and the main ways of ensuring the national security of Romania are established.

The activities and processes carried out within the strategic management of organizations can be identified in the schematic representation of figure no. 2.

**Management by Objectives**

In the managerial process, one of the most

“George S. Odiorne”<sup>14</sup>, American Professor of Managerial Sciences argued that in an ideal organization, the objective management system is a process by which both superiors and subordinates jointly identify common goals, employees are involved in the process of setting the objectives to be met, and choosing the courses of action to be followed, and it is likely that employees will

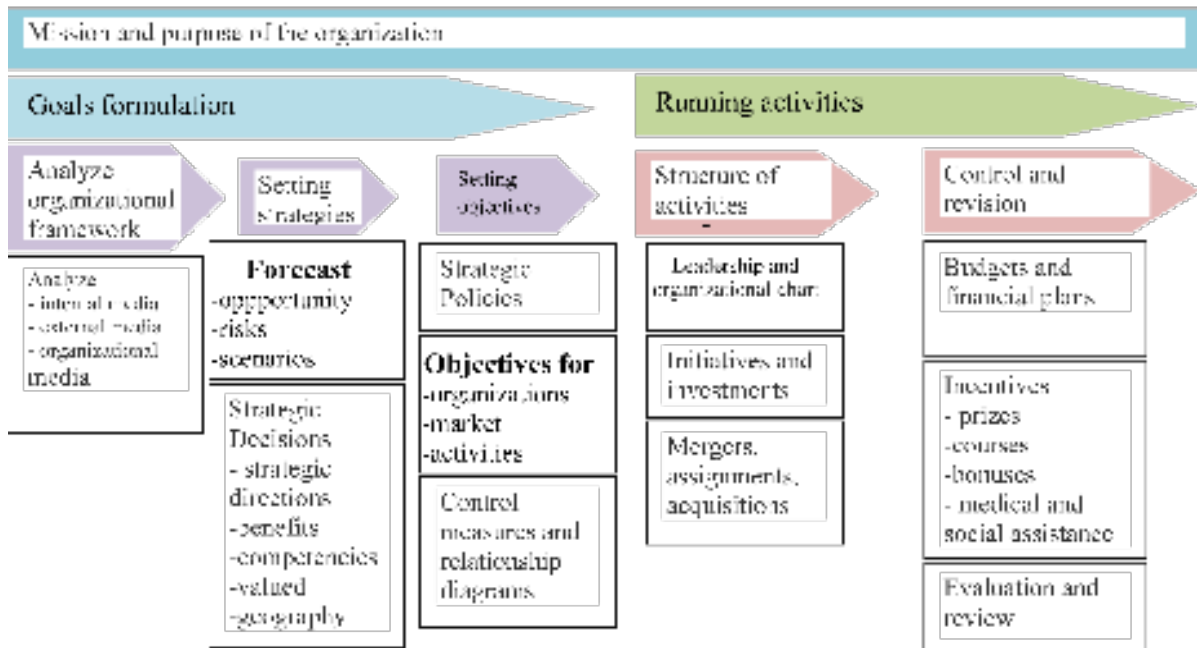


Figure no. 2. Activities and processes of strategic management

efficient management systems is “management by objective”<sup>12</sup> that systematically integrates several core managerial activities and directs them in a concise way to effectively achieve individual goals.

Goal management or “management by results”<sup>13</sup> is a process that defines objectives within the organization so managers and employees agree on goals and understand what they have to do to successfully accomplish their goals. This concept was first introduced in 1954 by Peter Drucker, who claimed that goals should be set for activity in all areas where performance affects the proper functioning of the organization.

<sup>12</sup> \*\*\* MBO = management by objectives, available at [https://en.wikipedia.org/wiki/Management\\_by\\_objectives](https://en.wikipedia.org/wiki/Management_by_objectives), accessed on Dec., 17<sup>th</sup>, 2016.

<sup>13</sup> i.e. MBR = management by results.

fulfil their responsibilities to standards set by themselves.

In 1991, “Robert Rodgers and John Hunter”<sup>15</sup> conducted a study of the organizational environment and noted that in organizations where “CEOs” implemented management by objectives, productivity growth was achieved by 56%, and in

<sup>14</sup> George S. Odiorne (1921-1972), Ph.D. in Managerial Sciences and Business Administration, author of the Managerial Decision Concept by Objectives Publishing the “Management Decisions by Objectives” (1969).

<sup>15</sup> \*\*\* Robert Rodgers, John E Hunter, *Impact of management by objectives on organizational productivity*, J. Appl. Psychol. 76(2), 1993, pp. 322-336, available at [https://www.researchgate.net/publication/232469309\\_Hunter\\_J.E.\\_Impact\\_of\\_management\\_by\\_objectives\\_on\\_organizational\\_productivity.\\_J.\\_Appl.\\_Psychol.\\_76%282%29\\_322-336](https://www.researchgate.net/publication/232469309_Hunter_J.E._Impact_of_management_by_objectives_on_organizational_productivity._J._Appl._Psychol._76%282%29_322-336), accessed at Feb., 10<sup>th</sup>, 2017.

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companies where no goal management has been implemented, an increase in productivity of only 6% has been achieved.

The advantages that could be achieved by a military organization, by adopting the management by objectives are:

- Increasing the motivation of human resources;
- Interpersonal communication;
- Coordination of activities;
- Clarity of objectives;
- Closely linking goals to the organization's purpose.

In the management by objectives paradigm, "top-level managers"<sup>16</sup> determine the mission and strategic goals/objectives of the organization. Manager-specific responsibilities can be directed to appointing a project manager to monitor and control the departments' activities. In order to achieve a high degree of safety, objective management must be correlated with the "management of the organization's information system"<sup>17</sup>, and it is necessary to establish relevant objectives and monitor their degree of accomplishment.

The "SMART"<sup>18</sup> acronym is associated with the goal-setting process, and the significance of this acronym transforms management into objectives in a philosophical system that can be synthesized with a simple valence "doing what has been set"<sup>19</sup>.

SMART means that goal management is:

S = Specific

M = Measurable

A = Achievable

R = Relevant

T = Time-bound.

<sup>16</sup> *Top Level Management* consists of the Board of Directors (BOD) who appoints the Chief Executive Officer (CEO).

<sup>17</sup> \*\*\* *i.e. Management information system*, available at [https://en.wikipedia.org/wiki/Management\\_information\\_system](https://en.wikipedia.org/wiki/Management_information_system), accessed at Dec., 13<sup>th</sup>, 2016.

<sup>18</sup> *i.e. S.M.A.R.T = Specific, Measurable, Achievable, Relevant, Time-bound.*

<sup>19</sup> \*\*\* *What gets measured gets done* = English proverb, available at <http://www.isixsigma.com/community/blogs/what-gets-measured-gets-done>, accessed at Feb., 1<sup>st</sup>, 2017.

"W. Edwards Deming"<sup>20</sup>, one of the numerous challengers of the theory of management by objectives, argued that those involved in the managerial process would mistakenly achieve the goals or fail to do them at all because they do not understand the organization's core management system. One of the points that argues "Deming's theory"<sup>21</sup> encourages managers to abandon the idea of meeting goals with subordinates, and to adopt a leadership style based on leadership, because only managers are the ones who understand the management system.

The Romanian specialists in managerial sciences, professors at the Faculty of Business Administration of the University of Bucharest, argue that the disadvantages of applying the management by objectives in organizations are generated by the weaknesses of the managerial system and because of its poor implementation.

These disadvantages are "the inadequacy of the MBO philosophy, the inadequacy of the guidelines for those setting MBO objectives, the difficulty of setting goals and the dangers of rigidity"<sup>22</sup>.

## CONCLUSIONS

In order to fully integrate into NATO structures, the Romanian Army have undergone several transformations of the physical structure. Between 2005 and 2007, Romania undertook the basic restructuring phase and in 2008-2015 it has completed the operational integration phase in NATO and the European Union. Between 2016 and 2025, the next and final stage, the full integration stage in NATO and the European Union, will take place.

<sup>20</sup> *William Edwards Deming* (14 Oct 1900, Sioux City, Iowa - Dec. 20, 1993), engineer, statistician, university professor and management consultant.

<sup>21</sup> *William Edwards Deming, The New Economics for Industry, Government, and Education*, The MIT Press, Cambridge, London, 1993, pp. 30-31.

<sup>22</sup> Anca Purcărea, Cristian Niculescu, Doina Constantinescu, *Management - Course for students, level 1*, University of Bucharest Publishing House, Bucharest, 2004, Chapter 2- Planning, pp. 12-13.

The main objectives of the strategic management of the Romanian Army's transformation were, among other things, the reorganization and restructuring of the strategic and operative management system, the operationalization of the military units to carry out integrated actions in NATO and EU operations and the implementation of military service on a voluntary basis. For the second stage of transformation, the objectives were to continue the operation, to acquire new equipment, to reorganize military education and to participate in the work of the "European Defence Agency's"<sup>23</sup> working teams. The objectives of the last transformation stage are focused on achieving all the commitments made, modernizing the equipment of supply and creating the conditions for deploying units in military bases with complete facilities.

As a result of the transformations that took place in our country over the past twenty-six years, in the face of the current challenges and strategic directions of Romania, the general goal of the strategy of forming, training, improving and evaluating of human resources is directed towards the developing of professional and social skills of employees from national security organizations.

Through management by objectives or results, the organization works by involving all its members in the management process from managers to leaders and subordinates. The success of the management by objectives depends on the entire organization, from the quality of the subordinates to the availability of the top-level managers of the organization or the level of acceptance of the members of the Board.

The application of the managerial system of management by objectives based on efficient results is the optimal solution for the Romanian Army's training and evaluation system of human resources as it implies direct involvement in the training process of the whole organization, namely the involvement

of both the commander of the organization and of the structures, instructors, trainers and trained human resources.

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<sup>23</sup> \*\*\* *European Defence Agency*, available at <http://www.eda.europa.eu/>, accessed at Dec., 30<sup>th</sup>, 2016.



# MANAGEMENT OF INDIVIDUAL AND COLLECTIVE TRAINING

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◇ **Abstract:** *In this paper we will present the important role of t of military structures’ training to achieve the full operational capacity of the Romanian Army. Individual and collective training are practical-applicative activities, conducted in accordance with national laws, rules of the Romanian Ministry of National Defence, and the orders of the Romanian Army Chiefs of Staff. The training programs are documents specific to the military field and are based on the list of mission essential requirements of the organization, an essential element of the accomplishment of the Romanian Army missions. Individual and mission training programs include standard training activities and, individual and collective evaluation. Each standard training and evaluation activity has a unique code, which contributes to standardization of the instruction, a defining element for achieving efficient and complete interoperability with allied structures.*

◇ **Keywords:** *interoperability, standardization, training, evaluation, training and evaluation, individual training program, mission training program.*

## PRELIMINARY CONSIDERATIONS

Training represents one of the basic components of the training of forces, with a decisive role in the realization of the operational capacity of the Romanian Army, in order to fulfil their missions both at national level and in the framework of “NATO”<sup>1</sup>. Both individual and collective training are practical-applicative activities that took place in accordance with national laws, rules of the national minister and the orders of heads of arms branches.

By training forces, Romanian Armed Forces carries out and maintains the operational

capacity required to fulfil the mission. Training Architecture of Romanian Army includes military education, training, exercises and practice training. The elements of the training are not precisely and distinctly delimited, but intertwine and form a complex integrated and interconnected framework.

Military education is carried out in specialized institutions, where human resources are trained to perform the tasks required by the functions they will occupy. The training and improvement of human resources consists in exercising individual and collective activities that contribute to the fulfilment of the tasks stipulated in the job description. The human resources habits are developed through both exercise and practice. The purpose of the

<sup>1</sup> \*\*\* *i.e.* NATO = OTAN, available at [www.nato.int](http://www.nato.int), accessed at Feb., 28<sup>th</sup>, 2017.

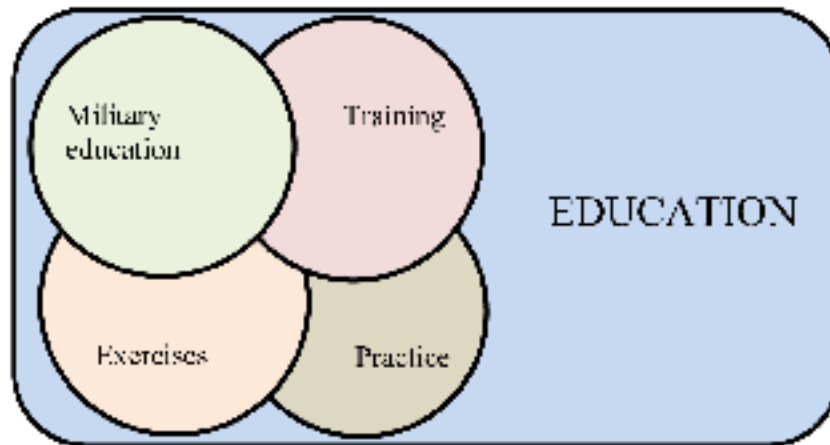


Figure no. 1. *Training architecture*

team, as well as the core competencies of the military specialist in the weapon and military specialty on which they will be assigned. The “Warrior”<sup>2</sup> is a member of a structure capable of meeting the performance standards specific to the contemporary security environment. A “Military Specialist”<sup>3</sup> is in a position to carry out activities specified in the job description for the fulfilment of the requirements in a field of activity or in carrying out a technological process. After acquiring the fundamental notions in the institutions specialized in the training, training and improvement of the human resources, they are distributed to the components of the organization.

The development of the individual and collective training programs is done according to the provisions of the Order of the Minister of Defence no. M.S. 68/2008 for the approval of “ANS-1, Regulation on the elaboration of specific normative acts, military doctrines and manuals in the Ministry of National Defence”<sup>4</sup> and generally implies the establishment of

training is to create, develop and maintain theoretical, physical, psycho-moral, technical and tactical individual skills and to practice them in collective actions, in order to fulfil the duties and functions and, organization’s mission. An overview of the training architecture is graphically represented in figure no 1.

Individual and collective training comprises stages of general military training, specialized specific military training and tactical training. General military training is carried out by all military personnel irrespective of the military branch and specialty with the aims of forming basic military capabilities. Specialized military training consists in forming of specialized skills for the military activities necessary to fulfil the functional attributions associated with the military branch and specialty. Tactical training is carried out mainly by a military subunit and is achieved through general tactical instruction and specialized tactical instruction.

General military training and specialized military training takes place in “specialized institutions” (i.e. Academies of the Land, Air and, Naval Forces, Application Schools, Training Centres, Training Bases and Training Battalions) and the duration allocated for the two preparatory stages is eighteen weeks. During this time, human resources are trained to fulfil the role of the warrior within the

<sup>2</sup> i.e. *The Warrior* is a member of a military structure capable of meeting the performance standards specific to the contemporary security environment.

<sup>3</sup> i.e. *The Military Specialist* is the human resource of the Romanian Army, able to carry out activities specified in the job description for the fulfilment of the requirements in a field of activity or technological process.

<sup>4</sup> The Order of the Minister of National Defence no. M.S. 68/2008 was not published in the Official Gazette of Romania, Part I, because it is classified according to the law.





activities, the responsibilities of the members of the manual and collaborators, the resources allocated, deadlines for execution and observations.

The main activities for the preparation of a training manual are the following : establishing of the team for manual elaboration, establishing of an activity plan for the elaboration team, elaboration of a draft of contents, documentation, study of the bibliography and collection of data necessary for drawing up the manual, specialty conventions, discussion of the contents of the manual in the Advisory Commission and in the Education Council, documenting and drawing up a initial draft and sending it to the Romanian Army, centralizing the proposals, accepting or rejecting the proposals received from the structures of the Romanian Army, presenting the manual in the Special Advisory Commission, completing the changes and printing the manual.

### ***Individual training programs***

The transformation of the Romanian military education system was a continuous process of development and adaptation to the requirements of the new designs, concepts, and principles necessary to ensure a high degree of interoperability, as well as by the organization and development of instruction and education through a unitary conception

The use of individual training programs is aimed for:

- Standardize the content of general and specialized training related to a military specialty or branch;
- Standardizing the way of conducting and evaluating the individual instructional process for a training discipline;
- Judicious use of resources;
- Objectively evaluating performance;
- Managing information on the level of training of each military.

For basic individual training, the content of the training process is correlated with the requirements for the warrior, and for individual training the content is correlated with the

requirements for the specialist. Individual training programs include “S.T.E.A.” (e.g. Standard Training and Evaluation Activity) that are used in respecting the form and the original content, and any modification of their contents can be done only by the initiating structures.

At the bottom of the pyramid of military hierarchy, and implicitly at the basis of the theoretical knowledge of the military principles and of the practical-applicative skills specific to the army, is the Warrior, whether he is the recruit, or the soldier, or non-commissioned officer, or warrant officer, or officer student. The warrior’s training, irrespective of the branch and military specialty, is carried out in the stage of the basic individual training. At this moment, the Romanian Army is carrying out the basic individual training by applying the basic “I.T.P.” (i.e. Individual Training Programs) developed in 2008 by The Application Schools. Prior to ITP-based training, the teaching aid of the individual training was the Warrior’s Training Manual developed by the „Nicolae Balcescu” Land Forces Academy the last edition was elaborated in 2008.

The Warrior’s Manual developed by the Land Forces Academy, presents a unitary view of the basic individual training of the warrior and respects the normative framework specific to the pre-accession period of Romania to NATO, respectively the provisions of the Romanian Armed Forces Transformation Strategy, Law no. 284 of 2006 on the Status of Volunteer Soldiers and other ranks, the Doctrine of Training in the Romanian Army, the Military Instructions on Training and Exercises for 2007-2010, and the experience gained by Romanian soldiers participating in missions in theatres of operation until 2008.

The Warrior’s Manual addressed to both female and male students who have opted for a military career and aims to contribute, through their content, to their passage from civil status to military status. The training is designed to be carried out modularly, each

module having as its main purpose specific training for a discipline or group of instructional subjects. In the manual are included general concepts of training and education as well as, topics and disciplinary training sessions, military education, general military training and general tactical training.

The level of performance and training for each military is largely dependent on the professionalism and responsibility of commanders and trainers, who must abide by the basic methodological principles and make effective use of teaching methods. The manual can be a documentary source needed to direct the commanders' efforts to conduct subordinate training. The content of the manual is formulated in academic language, it contains specialized terms, and lessons have a structure adapted to the training of the future officers. In the manual are submitted only theoretical notions, without the presentation of verification exercises and standards of appreciation of the presented content. The complex content of a lesson directs instruction to the acquisition of academic terminology, which makes the manual a guide to the platoon leader or the instructor rather than a training manual of the individual at his first contact with a task in the military field.

The use of this manual in the academic environment is an alternative to the training and education of students, the future officers of the entire national defence system, but we believe that the human resources at the base of the military career must have basic military knowledge, based on notions, theoretical exercises and assessed for a "basic level"<sup>5</sup> (i.e. the 1st Level of training).

The Individual Training Programs. Following the appearance of the Warrior's Training Manual, in 2008, was released the Order of the Minister of Defence no. M.S. 68/2008, which included a new vision on training and education, a vision adapted to the specific requirements assumed by Romania through the "Prague Summit"<sup>6</sup> for the second

stage of NATO integration. The above-mentioned legislative act established that the development of individual training programs should have content through which, each military will train as it will fight. The new I.T.P. have been developed by structures that have the competence to draw up normative acts specific to military doctrines and manuals, and include basic activities necessary for the warrior's training, regardless of the branch and military specialty for which human resources are being prepared. The individual training program includes the mission framework, the individual training requirements, and the conditions under which the training takes place, the standards for the requirements, the training requirements stages, the assessment centralization, the bibliography and the safety and protection measures.

The mission framework covers the entire range of missions and actions that a warrior, indifferent of branch and military specialty or their level of training can meet. The framework of the mission was formulated according to the legislative provisions in force in 2008. Regarding the status of soldiers and graduates, the legislative framework provided that the human resources in this category are volunteer soldiers, and the status change of soldiers and other ranks and their transformation into professionals, has led to a systemic approach of the methodological principles used by leaders and instructors .

The condition in which the training is conducted includes: tactical situations, describing the details regarding the conduct of the training and preparing the initial approach to cognitive acquisition of requirements. The standards of the requirement state the purpose for which the training requirement is being conducted, are clearly formulated, but the details of measuring and the extent to which the objectives are met are not provided. Individual instruction requirements are presented in

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en states were at this summit invited to begin accession talks with NATO: Bulgaria, Estonia, Latvia, Lithuania, Romania, Slovakia and Slovenia, available at <http://www.nato.int/docu/review/2005/issue1/romanian/summaries.html>, accessed at Dec., 16<sup>th</sup>, 2017.

<sup>5</sup> *passim*, 1.2. Individual Training Programs, p.7.

<sup>6</sup>\*\*\* i.e. *Prague Summit* (21<sup>st</sup> - 22<sup>nd</sup> Nov. 2002), sev-



tabular form and each instruction requirement includes the steps that will be taken during the individual instruction

The stages of the requirement approach, theoretically, the training sequences the warrior performs during the individual basic instruction. Each stage of the requirement is judged by the result obtained by the warrior either by ticking in the GO box to meet the requirement stage or by ticking NO GO for failing to fulfil the requirement stage. The ambiguity of the assessment is obvious, and can be seen in the discipline of “International Humanitarian Law” where there are detailed Latin legal terms that the warrior, who is in the basic individual instruction phase, must replicate them exactly to be appreciated with GO.

The evaluation centralizing is a table summarizing the total number of stages of the requirement that were evaluated with GO and NO GO, as well as the final assessment of the fulfilment of the training requirement.

The bibliography presents the bibliographic sources that substantiated the development of the training requirement, and the safety and labour protection measures include what is forbidden and what is recommended not to be executed in order to avoid injury, wounded or death of the warrior.

The topics covered by the I.T.P. include training sessions on military disciplines like Communications and Informatics, Individual Conduct and Laws War, Anti-Terrorist Training, General Tactical Techniques, Risk Management, Psychological Training, Infantry Fire Training, Initial Entry Training, First Aid, Defence against “WMD”<sup>7</sup> (i.e. Weapons of Mass Destruction), EOD Training. Each discipline includes a number of S.T.E.As, based on the importance that each discipline

has in the Training Plan.

In 2016 the „Constantin Brancoveanu” Infantry and Mountain Troops Training Centre developed the “F.T./I-8.1, Warrior’s Training Manual” and also the changes and additions to “B.T.P.” (i.e. Basic Training Programs), all these were used as a demonstration for a training series at the Training Battalion and starting 2017 were applied to all institutions specialized in human resource training.

The Warrior’s Training Manual for the has a theoretical content based on the legislative framework of year 2016, it transmits a huge volume of knowledge covering all the activities performed during the basic individual training and, the theoretical content is adapted to the training of the human resources at the base of the military career, each “S.T.A.” (i.e. Standard Training Activity) detailed in the manual is completed with a set of exercises that fix the acquired knowledge or formed skills. Basic individual training programs comprise “S.E.A.” (i.e. Standard Evaluation Activity) that have content adapted to the standard training activities and exercises in the manual.

By coexistence of the Warrior’s Training Manual and basic I.T.P. the synchronization between detailed and in-depth theoretical content in the training manual, adapted to the 1st training level need, and the practical and applicative content transmitted and guided by I.T.P. is realized. Also, through the exercises existing in the training manual, a theoretical grounding on the contents transmitted in the S.T.A. is carried out and thus the correct evaluation and the objective transposition of the S.T.E.A. contained in the Training Plan.

In 2017 the „Constantin Brancoveanu” Infantry and Mountain Troops Training Centre developed “FT / I-8.2, Infantry’s Training Manual” and the changes and additions to the “I.S.T.P.” (i.e. Individual Specialized Training Programs) and since 2017 it has been applied in all specialized institutions in the formation of human resources.

The Infantry’s Training Manual has a theoretical content based on the legislative

<sup>7</sup> \*\*\* i.e. A weapon of mass destruction (WMD) is a nuclear, radiological, chemical, biological or other weapon that can kill and bring significant harm to a large number of humans or cause great damage to human-made structures (e.g. buildings), natural structures (e.g. mountains), or the biosphere, available at [https://en.wikipedia.org/wiki/Weapon\\_of\\_mass\\_destruction](https://en.wikipedia.org/wiki/Weapon_of_mass_destruction), accessed at Oct., 9<sup>th</sup>, 2017.

framework of 2016, it transmits a volume of specialized knowledge covering the theoretical information requirements for the first functions of specialist in infantry microstructures. The theoretical content is adapted to the training of human resources at the base of the military career, respectively at 1st Level. The individual specialized training programs use S.T.A. which has theoretical content and a set of exercises in the manual, and S.E.As are adapted to the Standard Training Activities and exercises in the handbook.

The Soldier's Training Manual would be the 2nd Level of warrior training or skill acquiring, and the Platoon Leader's Training Manual would represent the 3rd Level of the warrior training.

A projection of the textbooks that will be developed in the coming years shows us the impetuosity with which the textbooks on the levels of training need to be prioritized. Thus, through the Military Microstructure Specialist's Training Manual, the 3rd Level skills would be developed, and the 3rd Level skills would be developed with the help of the Military Structures Specialist's Training Manual. Military leadership competence can be formed through the Squad Team Leader's Manual for the 1st Level, the Team Leader's Manual for the 2nd Level and the Leader's Manual for the 3rd Level. A managerial competence can be created through the Military Microstructure Manager's Manual for the 1st Level and the Military Structure Manager's Manual for the 2nd Level.

For the S.T.E.A. using, the team leader, trainer or instructor proceeds as follows:

- Select the training manual;
- Identifies the S.T.E.A. in the Unit Training Plan;
- Identifies the S.T.E.A.'s code;
- Selects the I.T.P. for the S.T.E.A.;
- Prints the content of the S.E.A. using the existing unit's database;
- Analyses the content of the S.T.A.;
- Determines how the standard training activity will be performed;
- Establishes the material insurance

required to carry out the training;

- Requires the unit manager to provide the material assurance required to conduct the training;
- Maintains the learning outcomes set by the individual performance standards.
- Studies the bibliography and the legal framework that supports the S.T.A.;
- Retain the occupational health and environmental protection measures to be observed during the execution of the requirement;
- Sets the time for each S.T.E.A.;
- Determines the responsibilities of the subordinates during the training;
- Leads the S.T.A. according to the content listed under "Stages of performance and performance levels";
- Conducts the exercises presented in the instruction manual;
- Evaluate the results obtained by the soldiers/students;
- Fill in the fields for validating the results of the S.T.E.A.

The S.E.A. shall be printed on white paper, A4 format, completed by the unit commander or the instructor conducting the standard training activity, and, once completed, a copy of the S.E.A. is kept within the unit and one is distributed to each individual who has undergone a S.T.A.

Evaluation of S.T.A. is executed individually by directly observing each stage of the requirement and by assessing how each individual performs it. For this the leader, the instructor or the assessor uses one copy of the S.E.A., complete the copy with information about the degree, name and surname and structure of the person being evaluated and fill in the fields with GO or NO GO. Militants not declared to be promoted in the assessment at the end of the individual basic or specialist training phase will be further prepared and re-evaluated by the end of the training period.

By using individual training programs, interoperability is achieved, from the point of view of the doctrinal framework that underlies military actions, with allied structures. NATO



armies use standardized training programs, which are largely similar to those of the Romanian Army. For example, the individual training programs used by the United States Army include standard training activities designed on two levels of competence, one for the 1st Level - Warrior and one for the 2nd, the 3rd and the 4th Level - the Leaders.

The “Individual Training Program for Fulfilment of Joint Tasks by the Warrior”<sup>8</sup> takes place in the United States Army in order to train the active army, National Guard and Reserve Officers, to train the individual competencies necessary to carry out the essential combat tasks corresponding to 1st Level of training. The individual training program includes training requirements that individuals must meet during combat in order to survive in the battlefield.

The training requirements contain necessary theoretical information which are then integrated into the collective training requirements. All the information on the training program contributes to the planning, preparation, evaluation and monitoring of individual training. The trained staff has permanent access to the content of the training program and to the results of the personal and collective evaluations. Commanders keep the records of the results obtained and have access to all subordinate results.

“Individual Training Program for the Fulfilment of Joint Tasks by Fighting Structure Leaders”<sup>9</sup> contains training requirements designed to form the individual competencies necessary to accomplish the essential battle tasks corresponding to the 2nd, 3rd and 4th Level of training, respectively additional information to those presented in the training

program related to the training 1st Level .

The training of human resources is based on discipline and consistency. In this respect, an example of effective training is provided by the training method developed by the “U.S. Marines”<sup>10</sup>. For a military to be able to perform a tactical task, it is very important to be evaluated as objectively as possible for each training requirement.

In U.S. Marine structures, the individual training of the warrior aims at forming the individual skills that make up the sequence of collective actions. “Marines’ training program”<sup>11</sup> consists in Individual Training, Sustaining Training, MOS Leadership Training, Cross Training and Managed On-the-Job Training.

Individual training is carried out by conducting training in order to repeat the essential tasks that were previously performed. By practicing, the performance standards of the core tasks are maintained at a high level of competence based on high performance, and the identified deficiencies are identified where low performance has been identified, thus developing individual skills.

MOS Leadership Training aims to train individual skills needed to carry out essential tasks at a very high level of responsibility.

Cross Training takes place within a team, section or detachment and aims at training human resources to perform individual tasks for any function within the team. Thus, through collective training human resources can be used for all positions of the structure.

Managed On-the-Job Training is accomplished by practicing key tasks in the sphere of activity of other structures, forming human resources additional skills to perform collateral tasks to core competencies.

<sup>8</sup> \*\*\* STP 21-1-SMCT *Soldier’s Manual of Common Tasks, Warrior Skills, Level 1*, Department of the Army, Washington, USA, 2015, available at [http://www.apd.army.mil/epubs/DR\\_pubs/DR\\_a/pdf/web/stp21\\_1.pdf](http://www.apd.army.mil/epubs/DR_pubs/DR_a/pdf/web/stp21_1.pdf), accessed at Jun., 5<sup>th</sup>, 2017.

<sup>9</sup> \*\*\* STP 21-24-SMCT, *Soldier’s Manual of Common Tasks, Warrior Leader Skills, Level 2, 3 and 4*, Department of the Army, Washington, USA, 2003, available at <http://militarynewbie.com/wp-content/uploads/2013/11/STP-21-24-SMCT-Skill-Level-2-3-4.pdf>, accessed at Jun., 5<sup>th</sup>, 2017.

<sup>10</sup> \*\*\* *i.e. United States Marine Corps*, available at <http://www.marines.mil/>, accessed at Oct., 12<sup>th</sup>, 2017.

<sup>11</sup> \*\*\* *MCTP 8-10B (Formerly MCRP 3-0B) US Marine Corps How to Conduct Training*, United States Marine Corps, Virginia, USA, 2015, p. 6, available at <http://www.marines.mil/Portals/59/Publications/MCTP%208-10B.pdf?ver=2017-03-16-134657-690>, accessed at Jan., 15<sup>th</sup>, 2017.

“Collective training”<sup>12</sup> contributes to accomplish the organization’s mission.

**Collective training programs**

Mission training programs are the most important products of the collective instruction standardization activity. The first “M.T.P.”(i.e. Mission Training Program) have been implemented and used in the Romanian Army since 2005, by structures from the Naval Forces and aimed at achieving the interoperability of this category of forces with all the allied components and structures by implementing common military standards regarding the standardization of operational training forces.

Mission training programs are developed for each military branch and specialty, for each echelon that organizes and conducts collective training. At the base of M.T.P. are lists of collective training requirements resulting from essential, general, common or specified tasks that converge to the organization’s mission. In 2007, the General Staff of the Land Forces drafted the Mission Requirements List, representing the starting point for the

M.T.P. used by all categories of forces of the Romanian Army.

Mission training programs include standardized training activities, each mission training program having assigned an identification code. The identification code of M.T.P. contains a group of digits indicating the branch and military specialty and a group of digits indicating the pattern addressed to M.T.P. each standard training activity in the contents of M.T.P. has an identification code composed of three groups of digits representing the first group digits branch and military specialty, the second group of numbers indicating the echelon and the last group of numbers showing the current number of the requirement in the list.

The Mission Training Programs. Collective instruction implies the on-going deployment of individual skills. In order to conduct collective training, the mission framework is established and the requirements that are essential to the mission are established. Planning, execution and evaluation of the instruction are detailed in the mission training program corresponding to each exercise that the military structure

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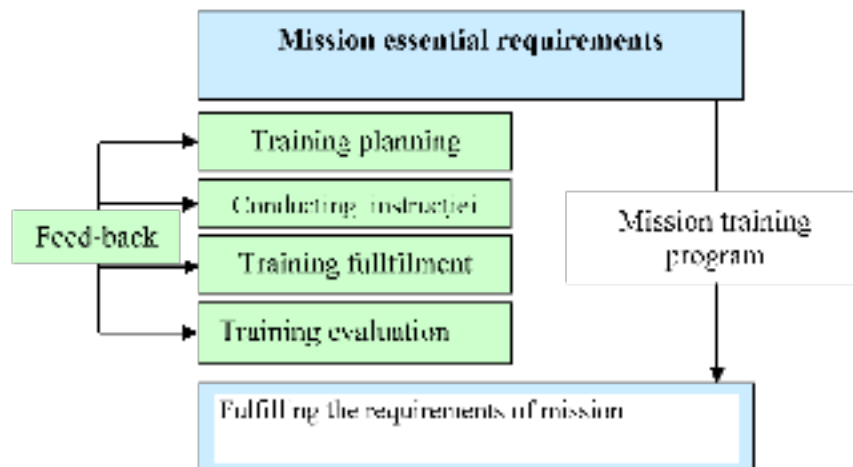


Figure no. 2. *The functions of the managerial process for collective training and evaluation*

<sup>12</sup> \*\*\* MCTP 8-10B (Formerly MCRP 3-0B) US Marine Corps How to Conduct Training, United States Marine Corps, Virginia, USA, 2015, p. 7, available at <http://www.marines.mil/Portals/59/Publications/MCTP%208-10B.pdf?ver=2017-03-16-134657-690>, accessed at Jan., 15<sup>th</sup>, 2017.

must undergo.

The steps taken by each individual in the managerial process of collective instruction are detailed in figure no. 2.

By using the M.T.Ps. and by evaluating the instruction with the S.T.E.A. we are



reducing the time needed for planning and organizing training, eliminating subjectivism and arbitrariness. The main purpose of the evaluation is the operational training activity', in order to establish the operational capacity of the units and to carry out the evaluation effectively, is mandatory to:

- comply with the provisions of the legislative framework;
- -made is objectively, impartiality and with professionalism;
- run throughout the duration of the training;
- be planned and conducted in accordance with the intended purpose, missions and organizational structure of the assessed structures;
- address all staff and all structures in the organization;
- use resources efficiently and at a minimum consumption level;
- take place at the end of the training steps;
- contain a unique, clear and concise assessment system,
- be carried out by qualified personnel and by commanders, instructors and expert assessors in the field under assessment,
- provide a feedback based on relevant information needed to improve the training plans that will be used in the future.

Collective training programs used in the Romanian Armed Forces are largely similar to those conducted by the NATO armies. For example, in the U.S. Marine Corp commanders, leaders, and instructors are responsible for the collective training of the structures they lead, participate directly, and are directly involved in them. Unit's commanders and leaders create scenarios, incidents and tactical events that realistically reproduce the stressful, diversified and unpredictable environment of combat situations.

Collective training begins with the development of simple training requirements under ideal conditions, and after the requirements are met by all staff, the pace of training, performance standards, diversity and realism of actions are increased. The

evaluators and elements marking the opposite force of action - "OPFOR" (i.e. Opposite Force), are informed of where the event is planned and what results must be achieved. During the post-action analysis at the end of each collective training requirement, deficiencies are corrected, in order to achieve better performance at future rehearsals.

"Training Evaluation"<sup>13</sup> is made permanently by commanders, leaders, instructors and assessors during the course of collective training. By evaluating the results, we can identifies the purpose of the training program and whether the training objectives have been met. Structure training management integrates the assessment process as a lever to measure the efficiency and effectiveness of the training program.

The effectiveness of the training program' results from the way in which the staff involved in the training program uses available resources, such as training facilities, time, funds, human resources, logistics, communications, equipment and fighting technology. The effectiveness of the training program is determined by the number of U.S. Marines troops trained who meet or exceed the established performance standards.

The results of the assessment of the training highlight either the need for additional training of human resources or the fact that the training program requires a review or that the training program is good and should be maintained. Individual assessment is done through performance tests that identify the ability of those trained to perform a training task. Collective evaluation is done through teambuilding exercises. Evaluations are internal and external. Internal evaluations are carried out by the staff in the organizational chart of the training unit. External evaluations are performed by senior echelon staff or other structures on the same level as the rated unit

<sup>13</sup> \*\*\* *MCTP 8-10B (Formerly MCRP 3-0B) US Marine Corps How to Conduct Training*, United States Marine Corps, Virginia, USA, 2015, pp. 21-26, available at [http://www.marines.mil/Portals/59/Publications/MCTP% 208-10B.pdf?ver=2017-03-16-134657-690](http://www.marines.mil/Portals/59/Publications/MCTP%208-10B.pdf?ver=2017-03-16-134657-690), accessed at Jun., 5<sup>th</sup>, 2017.

“The recording of results”<sup>14</sup> obtained during individual and collective training assessments, provides an overview of the state of preparation of both individuals and structures at a given time. The training results are kept centralized and automated, thus effectively managing new training programs.

In view of the brief analysis of the US unit training program Marines we can conclude that the modernization of the training system of the Romanian Army can be done by:

- Recording personal performance;
- Creating a database of individual human resources performance;
- Allowing individual access to the content of the database with the obtained performances;
- Allowing individual access to the content of the individual training programs covered;
- Allowing direct commanders access to the database with the subordinate human resource performance.

#### ***Individual and collective training by distance learning and by simulation***

The tendency to modernize the training process generates new forms of training. Thus, individual and collective training can take place through simulation and distance learning. Even though simulation training cannot replace actual training, it can be done during the course of individual and collective training, both during the theoretical and practical training. Until now, the Romanian Army have conducted simulation training exercises during the exchange of experience, deploying training sessions for armament simulators, navigation, or inside Simulation Training Centres of NATO partners. Individual and collective training through simulation is supported by a very good material base composed of technology and equipment

designed to support simulation training.

On the other hand, training through information technology is on the rise. We can see that for students in the “preparatory class”<sup>15</sup> it is much easier to get acquainted with school requirements using virtual technology, because through information technology, students discover the textbooks, the bank, the whiteboard, the classmates and the teacher. During classes in the virtual classroom, children are accompanied by parents, guided by a psychologist, are discussing with other students, and conducting teamwork.

The concept of distance learning is not a new one. Thus, in 1858, the University of London was the “first educational institution”<sup>16</sup> to organize distance courses. In Romania, in 1998, the Academy of Economic Studies was the first institution of higher education to introduce distance learning courses

The main distance education platforms are:

- “Coursera”<sup>17</sup>, an online platform comprising 2143 university courses organized by Stanford University “in collaboration with 150 universities in 29 countries”<sup>18</sup>;
- “edX”<sup>19</sup>, an online platform founded in 2012 by Harvard University and the Massachusetts Institute of Technology, which organizes university courses in partnership with “over 90 universities, institutions and non-governmental organizations”<sup>20</sup>;

<sup>15</sup> \*\*\* The Preparatory Class-Virtual Class, available at [http://stiri.tvr.ro/clasa-virtuala--o-modalitate-de-ai-ajuta-pe-boboci-sa-se-familiarizeze-cu-cerin--ele---colii\\_817698.html](http://stiri.tvr.ro/clasa-virtuala--o-modalitate-de-ai-ajuta-pe-boboci-sa-se-familiarizeze-cu-cerin--ele---colii_817698.html) # view, accessed at May, 29<sup>th</sup>, 2017.

<sup>16</sup> \*\*\* First Distance Learning University, available at <http://www.london.ac.uk/history.html#c32>, accessed at May, 18<sup>th</sup>, 2017.

<sup>17</sup> \*\*\* *Coursera*, available at <https://www.coursera.org/stanford>, accessed at May, 18<sup>th</sup>, 2017.

<sup>18</sup> \*\*\* *Stanford University Distance Learning*, available at <https://www.coursera.org/about/partners>, accessed at May 18, 2017.

<sup>19</sup> \*\*\* *edX*, available at <https://www.edx.org/>, accessed at May, 18<sup>th</sup>, 2017.

<sup>20</sup> \*\*\* *Harvard University and Massachusetts Institute of Technology E-Learning*, available at <https://>

<sup>14</sup> \*\*\* *MCTP 8-10B (Formerly MCRP 3-0B) US Marine Corps How to Conduct Training*, United States Marine Corps, Virginia, USA, 2015, pp. 36-37, available at [http://www.marines.mil/Portals/59/Publications/MCTP% 208-10B.pdf?ver=2017-03-16-134657-690](http://www.marines.mil/Portals/59/Publications/MCTP%208-10B.pdf?ver=2017-03-16-134657-690), accessed at Jun., 5<sup>th</sup>, 2017.



- “ice-Institute of Continuing Education”<sup>21</sup>, which includes 39 courses organized by “Cambridge University”<sup>22</sup>.

The following elements are required for the development of distance learning organized by platforms:

- the instructor, the teacher, the trainer or the instructor respectively;
- the trained person, respectively the student;
- the computer system, respectively the database.
- cyber infrastructure, namely the communications network, computers and Internet access.

Through e-learning platforms, “learning-specific resources, remote communication systems, tutorial system, self-training and self-evaluation”<sup>23</sup> are used, learning is focused on students, courses are accessed online, student checks and tasks are transmitted online and communication between students and teachers is done through a forum.

Distance learning does not take place through the traditional classes through which the teacher transmits knowledge to students during a course. The main purpose of a distance course is for the student to study individually and for certain lessons to be learned by students at classes. Each distance learning platform offers the possibility of interaction between student and teacher, tutors and colleagues.

Tutorial is qualified staff that assists and guides the student to solve themes, answers questions and clarifies the problems generated by the content to be taught. The tutor keeps in touch with the student, is present online at the place and time set by the program, advises and guides students throughout the course.

[www.edx.org/about-us](http://www.edx.org/about-us), accessed at May, 18<sup>th</sup>, 2017.

<sup>21</sup> \*\*\* *ice-Institute of Continuing Education*, Available at <https://www.ice.cam.ac.uk/>, accessed at May, 18<sup>th</sup>, 2017.

<sup>22</sup> \*\*\* *Cambridge University E-Learning*, available at <https://www.ice.cam.ac.uk/courses/search?type/online-course>, accessed at May, 18<sup>th</sup>, 2017.

<sup>23</sup> \*\*\* *Babeş Bolyai University E-Learning*, available at <http://elearning.ubbcluj.ro/>, accessed at May, 18<sup>th</sup>, 2017.

Guidance can be individual or group and is done through online meetings, direct meetings, by phone or email. Through their work, tutors provide the interface between the lecturer, students and the teaching resources.

Distance learning through e-Learning platforms allows students to be evaluated throughout the academic year through control papers, applicative activities, projects, seminars. During the exam session, students hold colloquia and exams.

Through the online learning platform of the “Nicolae Balcescu” Land Forces Academy, the institution manages the access and progress of the student and coordinates the resources of the organization. The platform database provides creation, storage, assembly and distribution of objects as learning products. Thus, distance learning offers access to high quality education and training tailored to the needs of each student, theoretical notions being accessed anywhere, anytime. The SCORM 2004 Overview, SCORM Run-Time Environment, SCORM Content Aggregation Model, and SCORM Sequencing and Navigation can be consulted in the academy library. The e-learning platform is a learning environment that allows the interoperability of learning tools and the content of courses on a global scale.

The database of an online platform is made up of the information resulting from the participation in the exercises carried out in the framework of the experience exchange programs and has as its main purpose the gathering and distribution of specialized materials and publications on a large scale and participation in conferences and workshops, staff training in classrooms, visiting and establishing links with other organizations, and computerized assistance. Technical support includes the management and maintenance of hardware, software, communications equipment, security devices, and other resources required to run online simulations and capabilities.

The civil model for organizing online courses can be applied in the Romanian

Army education and training institutions by observing rules on access to information and the content of information. "Online Courses"<sup>24</sup> can be organized in the form of transmitting information electronically to learners, students or students via an Internet connection. Continuous progress, lifelong learning, personal development are supported by teachers, trainers, trainers and organizational specialists in order to achieve an effective e-learning system. Courses can include carefully selected and managed specialty lessons, exercises, courses, demonstrations, experiments, applications and support materials. The information will be made available to the trained instructor at a pace chosen by the learner. The curriculum will include stages of knowledge transfer, evaluation, re-correlation, validation and assembly, stages proposed by pedagogy specialists, psychology and IT specialists.

## CONCLUSIONS

The legislative framework adapted to the events that cause disturbances on the security environment, as well as the necessity of aligning the Romanian legal framework with that of the partner states of the European Union and NATO, determines us to develop effective training programs and training plans, and whose effectiveness must be reflected in human resources skills, given that the new legislative provisions on Romanian volunteer reserve soldiers and other ranks become operational from 1st of January 2017, we have to address the way individual and collective instruction is conducted differently from how we did in 2008 .

The training manuals developed in the future by the Romanian Armed Forces structures will respect the legislative framework of the moment of development and will aim to guide the conduct of the training on performance standards and hierarchy by training levels.

By conducting individual and collective training programs, military organizations specializing in human resources training generate and refine the skills necessary to enable individuals to fulfil the role of the warrior within the team and the duties of the military specialist within the organization. Considering the process of standardizing the training and the need to achieve the interoperability of the Romanian Army with the Allied armies, the individual training programs should be designed to include training activities designed on three levels of competence, one for the 1st Level - Professional soldiers and other ranks, one for the 2nd Level –NCOs/WOs and one for the 3rd Level - Officers.

The Individual Training Program for the 1st Level will form the individual competencies needed to carry out basic combat tasks. The Individual Training Programs, levels 2nd and 3rd, form the individual competencies needed to perform complex task and offer additional information to those covered by the program for level 1 of training.

The training of human resources is based on discipline and consistency. The use of modern forms of training will contribute to the formation of individual skills so that the warrior can act to carry out collective tasks. Through training through training, leadership training, cross-curricular training, joint training and collective training, human resources will perform tasks that are complementary to core competencies.

The effectiveness of the training program results from using the available resources and is determined by the extent to which human resources meet the established performance standards. Starting from the idea that evaluation is the essential component of a quality pedagogical approach, we can say that remote evaluation will be integrated into online platforms with all its features and forms. Learning is supported by continuous assessment and self-evaluation. The final evaluations can consist of two parts, namely a practical part based on a teamwork theme and

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<sup>24</sup> \*\*\* *Online Courses*, available at [http://www.academiaonline.ro/index.php/InfoCentru/Sistem\\_De\\_Elearning](http://www.academiaonline.ro/index.php/InfoCentru/Sistem_De_Elearning), accessed at May, 29<sup>th</sup>, 2017.



a theoretical part based on an online test that verifies the acquisition of the content taught.

In conclusion, we believe that management of individual and collective training, based on performance standards and training levels, can be a process tailored to simulation training and content that can be accessed through remote learning platforms.

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# REFERENCE ELEMENTS OF THE NEW NATIONAL FINANCIAL REPORTING SYSTEM FOR PUBLIC INSTITUTIONS (FOREXEBUG) AND IMPLICATIONS FOR ENTITIES WITHIN THE MINISTRY OF NATIONAL DEFENCE

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◇ **Abstract:** *Our scientific communication addresses 5 defining issues: 1) Some approaches regarding the process of initiating the FOREXEBUG system, the objectives and terms with which it operates in the public institutions in Romania; 2) Relevant aspects of the administration of the national reporting system, the objectives of the personnel training process, operations and components of this system; 3) Some highlights of the functioning of the national system for verifying, monitoring, reporting and controlling the financial statements, legal commitments and budgets of the public entities; 4) Some requirements on reporting for the financial statements, other types of reports and budget execution through the FOREXEBUG system; 5) Conclusion.*

◇ **Keywords:** *harmonization; point of tangency; communication interface; national system for verification, monitoring, reporting and control of the financial statements, legal commitments and budgets of the military units; the implementation of the national reporting system, the IT system for reporting the financial statements of the public institutions (FOREXEBUG).*

## **Some approaches regarding the process of initiating the forexebug system, the objectives and terms with which it operates in the public institutions in Romania**

Ministry of Public Finance initiated a project with European funding entitled “Increasing the accountability of the public administration through the modernization of the information system for reporting financial statements of public institutions (FOREXEBUG) “, code SMIS 34952, co-financed from the SOCIAL EUROPEAN

FUND through the Operational Program for Administrative Capacity Development 2007-2013, implemented between 16 January 2012 and 15 October 2013, which aims at achieving the following objectives: 1) increasing the efficiency of the central and local public administration and the administrative transparency by providing the modern and standardized tools to public institutions for reporting the financial statements and publishing details on the use of the public funds according to the budget classification; 2) creating a new reporting form of the financial

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statements (with all annexes) submitted by each public institution (reporting entity), in the electronic format, standardized and secured; 3) increasing the confidence of the collected data through cross-validation with system data and provide the reliable information for the internal use of the Ministry of Public Finance, public institutions, other competent institutions and the public, both at the level of detail and consolidated, on various levels; 4) providing of some electronic mechanisms for aggregating, centralizing, consolidating, reconciling these data by reporting entity hierarchies, funding sources, and other dimensions<sup>1</sup>.

In principle, Romania's economic and financial mechanisms are undergoing a process of modernization and alignment with the requirements of the Fourth Directive of the European Economic Community, modernization carried out on several levels, and it directly concerns the implementation in the system of the Ministry of National Defence of some standards, regulations and normative acts meant to ensure the complete transparency of the economic and financial operations as well as the harmonization of the internal regulatory framework and of the specialized language with the national and international requirements.

The Loan Framework Agreement with the International Monetary Fund has established that the commissioning of an efficient IT service for reporting the financial statements of public institutions is one of the elements to control the fulfilment of the Romania's obligations.

As a member state of the European Union, Romania has undertaken to apply the economic classification standards of the government COFOG level 2 activities for reporting the budget execution, standards that requiring much more detailed information from public institutions. Also, in the relations

with international financial institutions (International Monetary Fund, World Bank), the Ministry of Public Finance is asked for detailed information on the financial situation of public institutions. In this context, at the level of the Ministry of Public Finance, it is necessary to know the budget execution and the detailed budgetary commitments at the primary level, in a functional and economical profile, of all the approximately 15,000 public institutions and economic operators, consolidating of this information on a basis of data accessible to both the Ministry of Public Finance and other interested parties<sup>2</sup>.

The objectives pursued by the Ministry of Public Finance through the implementation of this project are as follows:

1) Treasury monitoring of the budget and legal commitments. This goal is to be achieved by introducing into the information system called "FOREXEBUG" all the projects of operations (contracts, orders, administrative acts, etc.) through which the public funds are to be affected, being obtained for each legal commitment, respectively budget, of a unique numeric code, the number to be assigned to the contract or the public procurement order. The public institution cannot make new budget and legal commitments if it registers arrears. At the same time, through the "FOREXEBUG" system, the budget rectifications are to be made on the budgets of the main credit officer, and then he will make the modifications in the budgets of the credit authorizing officer from the financing. Also, through this system, the budget credits and credit transfers between the authorizing officers or between programs are to be carried out.

2) Monthly reports on the budget execution will be made automatically through the "FOREXEBUG" system. Starting with 2014 the budgets of the public institutions are being drafted and approved in lei. In this form, the budgets will be deposited into treasuries

<sup>1</sup> The objectives were taken over by the presentation of this project by the Ministry of Public Finances under the name of "Electronic reporting system of the financial statements in the public sector" FOREXEBUG and posted on [www.mfinante.ro](http://www.mfinante.ro)

<sup>2</sup> <http://www.ccdbrasov.ro/index.php/approved-courses-m-e-n/item/225-accounting-of-public-institutions-Forexebug-reporting-system>

and entered into the system. The payment orders drawn up will include in the content of the IBAN, the budgetary classification to the paragraph level as well as explanations regarding the budget commitment for which the payment is made. The system will generate daily the data on commitments, payments, and available to each authorizing officer.

3) The financial statements will be prepared and transmitted through the "FOREXEBUG" system by each credit authorizing officer, on the basis of standardized forms, on the same principle by which the tax returns are transmitted to the Ministry of Public Finance through the 112 Form.

The financial statements will be made by completing a standardized analytical balance and will be hierarchically approved by the financial structures of the secondary authorizing officer, respectively by the principal authorizing officer, by certified electronic signature.

The implementation of the project will generate a quite large human and financial effort at the level of the Ministry of National Defence, so that the changes to be made in the budget execution need to be brought to the attention of the military units in due time.

The Ministry of Public Finance initiated the implementation of a National System for verifying, monitoring, reporting and controlling of the legal financial statements and budgets of the public entities, called the National Reporting System.

The introduction of this system will involve the use of specific terms to which we refer below.

The terms and expressions of novelty related to this system have the following meanings<sup>3</sup>:

a) Beneficiaries - public entities that can

receive reports, data and other information according to the system operation procedure;

b) Aggregate budget - the total budget approved under the terms of the law of a principal authorizing officer;

c) Individual budget - the budget approved under the law of a public entity with legal personality;

d) Commitment credit - the maximum limit within which legal commitments can be made during the budget year;

e) Unique number of the legal commitment - the unique number assigned to a legal commitment by the commitment control system, after validating the initial/definitive reservation, as appropriate, of the commitment appropriations and budget appropriations related to the draft legal commitment, valid for the entire duration to carry out the commitment;

f) Reports generated by the reporting system - outputs resulting from centralizing/consolidating or extracting/selecting data and information from reporting situations and information entered into the system by reporting public entities or other notifications generated by the system in the process of verification / validation of data;

g) Reporters - public entities which have the obligation to submit reports, data and other information according to the system operation procedure;

h) Public entity register - a set of data that contains information about public entities that are reporters in relation to the reporting system;

i) Final reservation of the budget appropriations - the amount finally reserved for budgetary appropriations for payments related to an approved legal commitment and for which a final reservation of commitment appropriations has been made;

j) Final reservation of the commitment appropriations - the amount finally reserved from the approved commitment credits related to a legal commitment that was approved under the law;

<sup>3</sup> These terms were taken from Art. 2 of Government Emergency Ordinance no. 88 of September 18, 2013 regarding the adoption of fiscal-budgetary measures for the fulfillment of commitments agreed with the international bodies, as well as for the modification and completion of some normative acts, published in the Official Gazette no. 593 of September 20, 2013.



k) Initial reserved of the budgetary appropriations - the amount of the budget appropriations estimated to be used for payments under a draft legal commitment for which the initial commitment appropriations were reserved;

l) Initial reserved of commitment appropriations - amount reserved in the commitment appropriations approved, estimated to be used for a draft legal commitment;

m) The engagement control system - part of the reporting system representing the IT application infrastructure and rules, defined by the system operating procedure, which ensures the process of verification, monitoring and reporting of the legal commitments.

**Relevant aspects of the administration of the national reporting system, the objectives of the personnel training process, operations and components of this system**

The national system for verifying, monitoring, reporting and controlling the financial statements, legal commitments and budgets of the public entities is the set of IT applications and rules defined by the operating procedure of the national reporting system that ensures verification, monitoring, reporting and controlling the financial statements, legal engagements, public entity budgets and preparation on that basis of the centralized and/or consolidated reports or other situations established through the system operation procedure.

The national reporting system is administered by the Ministry of Public Finance and it is applied in the following public entities:

- in the public institutions including the Parliament, the Presidential Administration, the ministries, the other specialized bodies of the public administration, other public authorities, the autonomous public institutions, as well as the institutions subordinated to them,

regardless of how they are funded<sup>4</sup>;

- In the local public institutions<sup>5</sup>;

- in the entities classified in the public administration according to Regulation (EC) no. 2.223/96 of 25 June 1996 on the European System of National and Regional Accounts in the Community, as subsequently amended and supplemented<sup>6</sup>.

Through this project, the Ministry of Public Finance creates simplified forms for the reporting of the financial statements by public institutions, as well as monitoring functions and electronic control of the legal and budgetary commitments, with a direct impact on improving the financial discipline and preventing the formation of arrears of the public institutions.

The project will allow reliable information on the use of public funds, for the internal use of the Ministry of Public Finance, public institutions, other competent institutions and the public, both at a detailed and consolidated level. It will also provide to the authorizing officers an efficient budget management, providing in the real-time information on the use of the approved budget at the level of all hierarchically subordinate public institutions.

The system will ensure a good functioning of the electronic mechanisms for aggregating, centralizing, consolidating, reconciling financial data on reporting entity hierarchies, funding sources and other criteria. This tool will allow automatic generating of synthesis reports (standard and ad hoc) based on the data collected through the electronic financial reporting form of the financial statements and

<sup>4</sup> As defined in Article 2, point 30 of Law no. 500/2002 on public finances, as subsequently amended and supplemented, published in the Official Gazette of Romania, Part I, no. 597 of August 13, 2002.

<sup>5</sup> As defined in Article 2 paragraph (1) point 39 of Law no. 273/2006 on local public finances, as subsequently amended and supplemented, published in the Official Gazette of Romania, Part I, no. 618 of 18.07.2006.

<sup>6</sup> These provisions are also included in the Methodology of March 31, 2009 of the National Institute of Statistics, for elaborating the national non-financial accounts in Romania, published in the Official Gazette of Romania, Part I, no. 292 of 05.05.2009.

will lead to improve the budget management by reducing the reporting tasks and creation of the possibility to reallocate the time for activities in the area of analysis and decision.

The objectives of the training process for the public entities focused on at least 3 aspects:

a) transmitting, exemplifying and evaluating the full and correct degree of ownership of the principles, rules and restrictions in using the FOREXEBUG system;

b) presentation of the main processes and data flows in the FOREXEBUG system;

c) transmission of the basic principles and rules to develop the necessary skills as a trainer

In the Integrated Data Collection and Registration Commitments, the following operations were exemplified: 1) submission of the public entity file; 2) submission of the individual budget; 3) the transfer of the individual budget to the CAB; 4) viewing the public entity file in the Public Entity Register; 5) viewing the individual budget in CAB and TREZOR; 6) the transfer of the Public Entity Register to FOREXEBUG; 7) introducing commitment to the CAB; 8) viewing the list CAB engagement code in TREZOR; 9) TREZOR - introduction OP with info Commitment code; 10) GDIT (General Directorate for Information Technology) - making payments in TREZOR; 11) viewing payment in CAB; 12) transfer execution in FOREXEBUG; 13) viewing info execution in FOREXEBUG; 14) viewing info Commitment in FOREXEBUG; 15) viewing Notifications/ Reports.

The component applications of the FOREXEBUG system include the following: A) Applications accessed by the Public Entities: DEDOC - submission of statements; CAB - define/update commitments; B) Applications accessed by the Ministry of Public Finance: TREZOR; DW Reporting; C) Internal Support Applications: Maintain Registers and General Nomenclatures; Archiving; Send notifications and reports.

### **Some highlights of the functioning of the national system for verifying, monitoring, reporting and controlling the financial statements, legal commitments and budgets of the public entities**

For the functioning of the national reporting system, by an order issued by the Minister of Public Finance, is approved the procedure for the operation of the national reporting system, which includes the set of definitions, rules, forms, reports, methodologies, deadlines, data structures and information, public entities reporters and beneficiaries, reporting obligations of public entities and other obligations, the way of electronic transmission or recording of reports or data, access to and interaction with the system, regulation of the use of electronic signatures and authentication mode, archiving of electronic documents at the level of the public entities and the reporting system as well as any other rules necessary for the operation of the system.

Public entities have the obligation to observe the provisions of the system's operating procedure.

Through the system operation procedure, it may be required to the public entities any identification data necessary for functioning the system.

The provision of data to the national reporting system is made within a maximum of 10 working days from the request.

Through the **Public Entities Register**, the entities in this system transmit the Individual Budget, Public Entity File, Opening Balance and Verification Balance, which is filled in and then sent to the Treasury for validation.

Entities will complete and submit the Entity Online File for validation purposes, and if they do not have an electronic signature, they will go to the Territorial Treasury for validation.

The public entity's file is the profile of the public entity, and the main information submitted is as follows: 1) Identification data of the Public Entity; 2) Type of officer - the position of the Public Entity in the hierarchy





to which it belongs; 3) Identification of senior hierarchical ordering officers; 4) Budgetary sector/sectors in which it operates; 5) Financing sources used; 6) Basic activity and possible auxiliary activities; 7) The official form of the Ministry of Public Finance for the Public Entity File.

Public entities have the obligation to provide to the national reporting system with identifying data as the legal entities according to the system's operating procedures.

In case of modification of the reported identification data, the public entities have the obligation to update them within maximum 5 working days after the modification was made.

Collection/reporting of the public entity budgets incorporate a number of new elements. The following types of budgets are distinguished: 1) Initially; 2) Modified; 3) Contains budget rectifications.

Budget reporting is conditional on the following operations and requirements: 1) Registration Commitments in the CAB application; 2) Accepting the Operation of Payment Orders in the Operational Treasury; 3) The form and content of the budgets will be in a single, electronic, standardized and secure format; 4) The Loan Budget will be broken down by sources (EU/Others, etc.) ; 5) The individual budget is filled in, validated by the principal authorizing officer, then uploaded to the FOREXEBUG platform; 6) Limiting the budget rectifications - quarterly; exceptions - only revenue adjustments (whenever is necessary) ; 7) Elaboration of the annual individual budgets, limitation of the budget rectifications;

- Budget execution is done automatically by FOREXEBUG -TREZ;

- Ordinances decentralization of the secondary and tertiary credit;

- FOREXEBUG -TREZ will automatically generate Reports on Commitments, Orders, and Payments carried out through the Treasury;

- Improve the professional quality of the staff involved in preparing and reporting the financial statements through training courses

to reduce the risk of reporting errors in the budget execution accounts;

- Validation and access to the budget execution by the principal authorizing officer, both for his/her own activity and for the activity of the secondary creditors, respectively the tertiary subordinate credits, in the real time or at least monthly;

- Classification of all commitments in the aggregate and individual approved budgets;

- Establishment, together with the National Institute of Statistics, of a procedure for updating the scope of the sub-sectors of the public administration;

- The public entities have the obligation to report the aggregate budget and the individual budget according to the system operation procedure.

We want to make some emphasis on the control of public entities commitments.

### **Some requirements on reporting for the financial statements, other types of reports and budget execution through the FOREXEBUG system**

Public entities are required to report the financial statements and other types of reports, based on their own records or accounts, according to the system's operating procedures.

The national reporting system will only accept reports that respect the established structure and are validated in terms of compliance the procedure of the system's operation.

The national reporting system communicates to the public entity, in the electronic form, a notification by which it accepts or rejects the reports submitted to the system, including the reasons for the rejection.

Rejected reports are retransmitted by the public entities in a form that respects the system's operating procedure.

The reports must necessarily include the signature or authentication way through the system's operating procedure, belonging to

the head of the public entity or to the person to whom these duties have been delegated, in accordance with the law.

The responsibility for the legality and correctness of the reported data belongs to the head of the public entity or to the person to whom these duties have been delegated.

Accounting reporting (Centralized) includes: 1) Consolidated balance sheet - synthetic form; 2) The emergence of the new reports; 3) Cash flow - (analytic on articles) on all three forms of operational, investment and financing activities; 4) Breakdown by chapter, sub-chapters and paragraphs of funding sources, budget items, etc.

Between June 2015 and 2020, there is wanted to align with the EU on the reporting of the financial statements of the public institutions, following the implementation of the international accounting standards -EPSAS (34 standards) .

The new consolidated financial reporting will include: 1) budget execution; 2) balance sheet; 3) the patrimonial asset account; 4) treasury flow; 5) annexes - explanations will be found in the implicit explanatory notes.

According to very recent legislative provisions, in order to automatically generate from the national system of reporting the financial statements, the authorizing officers make the following forms in electronic format: a) the opening balance; b) execution account without cash; c) verification balance; d) outstanding payments and the number of posts; e) the status of the payments made and the declared amounts for the share of expenditure financed by the post-accession FEN; f) the situation of the payments made from the non-reimbursable external funds post-accession FEN (title 56 and title 58); g) the statement of payments made under title 65 "Expenditure on reimbursable financing programs"; h) the statement of financial assets and liabilities<sup>7</sup>.

<sup>7</sup> These provisions are contained in Chapter I, Article 1, paragraph (2) of the Order of the Minister of Public Finance no. 1.026 on the PROCEDURE regarding the module "Completing and Submission of Forms in the Sphere of Reporting of Financial Statements of

For the reports to the Ministry of Public Finance, the qualified digital signature certificate will become mandatory. It is important for the digital certificate provider to be accredited under the terms of the law. Viky Manaila, managing partner of Trans Sped, an accredited provider of qualified digital certificates, a pioneer in the field of electronic signatures on the local market, highlighted the following: "... the signing of the electronic signature is to guarantee the identity behind the communications, thus ensuring their safety. The electronic signature will save time and money: it is no longer necessary for the company's manager to move to the headquarters of the financial administration or the treasury. Everything is at a click away, but it's very important that that click to be safe"<sup>8</sup>.

Financial data is sensitive information within an organization. The Internet has revolutionized the communication, but with the internet revolution there have also been threats to the security of the transmitted data. The cyber attacks against the companies are an imminent danger today. "It is vitally important that the information transmitted is not endangered. The integrity of information and tracking the source of information must be carried out throughout the communication. The security and authenticity of information becomes essential. Practically, the qualified digital certificate is the equivalent of the identity card in the online environment", said Viky Manaila, managing director of Trans Sped.

With the implementation of FOREXEBUG, obtaining a digital certificate becomes a necessity that will improve the accounting procedures. The qualified digital certificates of electronic signature ensures secure authentication, integrity of information, and the

Public Institutions", published in the Official Gazette of Romania, Part I, no. 603 of July 26, 2017.

<sup>8</sup> Quote taken from Trans Sped, a Trust Service Provider, issuer of qualified digital certificate under the Electronic Signature Law 455/2001, Government Decision 1259/2001 and European Regulation No. 910/2014 of 23 July 2014-eIDAS (<https://ec.europa.eu/digital-single-market/en/trust-services-and-eid>).



traceability of the information path, so it is important to choose an accredited provider to ensure that these functions are complete. The electronic signature provider must be accredited on the territory of Romania and its international coverage is a guarantee for the quality of the services which he offers. It is important to check the hidden costs of the entire digital certificate package when it is purchased<sup>9</sup>.

Regarding the budget execution, there will be followed completing certain operations and compliance with certain requirements. These would essentially be the following:

1) Elaboration and completion in the electronic format of the new forms: the public entity card; individual budget; aggregate budget; application for opening the budget credits;

2) Authorizing officers may delegate this capacity to the legal substitutes, the secretary-general or other persons empowered for that purpose, except for the head of the financial accounting department;

3) Secondary credit authorizing officers allocate the commitment and budget approved appropriations for their own budget and for the budgets of the subordinated public institutions whose managers are tertiary credits in relation to their tasks, according to the law;

4) Secondary authorizing officers have the obligation to justify and use, under conditions of legality, regularity, economy, efficiency and effectiveness, the budgetary appropriations allocated from their budgets to the subordinated institutions and other beneficiaries of these funds;

5) The payment obligations recorded at one year must be at most equal to the approved budget credits, with the exception of utilities and wage entitlements where the liabilities may exceed the budget credit, with the difference between December of the current year and the expenditures of December of the previous year, as well as other causes independent of the will of the authorizing officers.

From the presented until now, there can

<sup>9</sup> These assessments for the digital certificate were taken over by [www.contabilul.ro](http://www.contabilul.ro).

be drawn for the entities and professional accountants in the sphere of budgets of the Ministry of National Defence a series of obligations from which we can mention the following:

1) implementation of the entire information system of the FOREXEBUG system in all the entities of the ministry and bringing the corrections imposed by the necessary changes, which must be operated and resulting from the implementation process, which the Ministry of Public Finance coordinates at the level of the entire public system;

2) increasing the confidence of the management staff on all levels of the Ministry of National Defence in this system as it optimizes itself in the implementation process because it will provide a more efficient military resource management system according to the expectations of our nation and NATO allies for strengthening security and defence in this part of Europe and the world.

3) providing units in the army with computers and other high performance terminals, able to function very well with this new system of budgeting and financial reporting;

4) thorough and continuous training of all military and civilian personnel in the accounting and budgetary structures of all units belonging to the Ministry of National Defence;

5) the widespread use of the learned lessons system used in the military training and in the training process of all those involved in the use of the FOREXEBUG system (credit officers, chief accountants, heads of budgetary structures, staff in the financial and accounting departments, other persons who have an important connection with this system) .

## CONCLUSION

FOREXEBUG is a computerized system for reporting the financial statements of the public institutions that was imposed as a result of the obligation to transmit data by all EU Member States to EUROSTAT and the request

by international bodies (IMF, World Bank) of some detailed information on budgetary and legal commitments, budget implementation, in the functional and economic profile;

The implementation phase of FOREXEBUG would be the following: commissioning and testing of the operating procedure was completed by December 31, 2014; from 30 June 2015, the use of the national reporting system for all entities covered by the system's operation procedure is mandatory.

FOREXEBUG generates the following major advantages:

- reducing the time of preparation of the financial reporting as a result of a significant decrease in the data that must be centralized and reported - the difference is transmitted by the system in the form of reports;

- public institutions will no longer transmit appendices to the budget execution accounts for income and expenditure, which are generated automatically by the system;

- elimination of the centralization of the financial statements at the level of the secondary and principal authorizing officer;

- transmitting some standardized analytical balances at Ministry of Public Finance level by each public institution;

- increasing the speed at which information is obtained;

- Improves the financial discipline and prevents the formation of debts by the public institutions;

- providing information on the achievement of the revenue and expenditure execution;

- electronic approval and signing of the transmitted data (reported) to the system;

4) FOREXEBUG also generates the following constraints:

- obligation to report the individual budgets, budget commitments through CAB application and the analytical balance of verification;

- the impossibility of registering new commitments and implicitly the payments that would lead to over-budgeting or available funds;

- control over budgets, commitments;

- rigor in the transmission of information unique coding systems and strict rules of information processing.

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# IMPLEMENTATION OF THE INTERNAL MANAGEMENT CONTROL SYSTEM FROM THEORY TO PRACTICE

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◇ **Abstract:** *The implementation of new concepts, methods or processes has always meant a progressive effort, perseverance, much optimism and labor power. Changes in the management of public organizations do not further from the above. Implicitly, the implementation of the internal management control system in public entities is a permanent struggle in dealing with mentalities, resistance to change and time. The theory provides us with the framework but the practice is the one that demonstrates its true value. Success is achieved when the implemented theory endures through the passing of time, meaning it has significance and adds value.*

◇ **Keywords:** *internal / management control, standards, management, theory, practice, success.*

## THE INTERNAL / MANAGEMENT CONTROL SYSTEM - THEORETICAL ASPECTS AND LEGISLATIVE FRAMEWORK

The integration of Romania in the European Union brought new reforms in public management. In order to ensure a functional legislative framework for the continuation of the public management reforms, in 2008, the concept of “public manager” (Emergency Ordinance No. 92/2008) has been introduced “for the development of a professional and apolitical body of public servants called public managers” and also the principles of good governance have been introduced through public internal financial control comprising: the internal / management control system, the internal audit and the centralized coordination and harmonization of the earlier components.

This legislation has implemented the right environment to increase management accountability. The letter of the law is explicit in this respect: the public entity manager must be aware that he is responsible for the decisions and actions taken in order to

achieve the objectives of the organization he is part thereof. He must perform sound financial management, legal and professional administration of public funds and / or public patrimony.

Management responsibility is an essential obligation regulated by statutes. The manager of each public entity is responsible for the proper organisation and operation of the internal control system, that must be based on both internal and external independent evaluations. He may delegate his authority / competence, but is not relieved of the general responsibility. He also has to be the promoter of transparent and responsible management.

According to art. 4 of Government Ordinance no. 119 of 31 August 1999 on internal / management control and preventive financial control: “Obligations of the public entity manager in the field of internal / management control and the requirements of the internal / management control are:

(1) The manager of the public entity shall ensure the development, approval, application and improvement of organisational structures, methodological regulations, procedures and

evaluation criteria to meet the general and specific requirements of internal / management control.

(2) The general and specific internal / management control requirements are mainly the following:

a) general requirements:

- ensuring the fulfillment of the general objectives stipulated in art. 3 by systematically assessing and maintaining the risks associated with structures, programs, projects or operations at an acceptable level;
- ensuring a cooperative attitude of the management and executive personnel, having the obligation to respond at any time to the management's requests and to effectively support internal / management control;
- ensuring the integrity and competence of management and executives, knowledge and understanding of the importance and role of internal / management control;
- setting the specific objectives of internal / management control so that they are appropriate, comprehensive, reasonable and mission and overall objectives integrated;
- continuous management supervision of all activities and fulfillment of the obligation to act promptly and responsibly whenever violations of legality and regularity in the performance of operations or in performing activities are found to be inefficient.

b) Specific requirements:

- documenting the organisation of internal / management control, all operations of the institution and all significant events, as well as recording and keeping the documents properly, for them to be available for examination by the entitled persons;
- the prompt and correct recording of all significant operations and events;
- ensuring the approval and performance of operations exclusively by specially empowered persons;
- the separation of duties between persons

to carry out operations, so that the tasks of approval, control and registration are, to an appropriate extent, entrusted to different persons;

- ensuring competent leadership at all levels;
- accessing resources and documents only by entitled and responsible with preservation persons.

(3) The head of the public entity shall annually prepare a report on the internal / management control system, which shall be transmitted to the General Secretariat of the Government. “

In Romania, the legal framework governing internal / management control is as follows:

- Order no. 201/2016 of the General Secretariat of the Government for the approval of Methodological Norms on Coordination, Methodological Guidance and Supervision of the Stage of Implementation and Development of the Management Internal Control System in Public Entities;

- Order no. 200/2016 of the General Secretariat of the Government regarding the modification and completion of the Order of the General Secretary of the Government no. 400/2015 for the approval of the Code of Internal / Management Control of Public Entities;

- Order no. 400/12/06/2015 of the Secretary General of the Government, for the approval of the Code of internal / management control of public entities, published in the Official Journal of Romania, Part I, no. 444, 22.06.2015;

- Order no. 1.423 / 2012 of the Minister of Finance for amending the Order of the Minister of Public Finance no. 946/2005 for the approval of the Code of internal / management control, including internal control standards for public entities and for the development of management control systems;

- Order no. 1.649 / 2011 of the Minister of Finance for amending and supplementing the Order of the Minister of Public Finance no. 946/2005 for the approval of the Internal Control Code, including the standards of

internal management / control in public entities and for the development of management control systems (Official Jurnal of Romania, Part I, No. 140 / 24.II.2011);

- Law no. 234/2010 for amending and completing the Government Ordinance no. 119/1999. (Official Jurnal of Romania, Part I, No. 831 / 13.XII.2010);

- Minister of Finance no. 946/2005 for the approval of the Internal Control Code, including internal management / control standards in public entities and for the development of managerial control systems (Official Jurnal of Romania, Part I, No. 675 / 28.VII.2005);

- Government Ordinance no. 119/1999 on internal control and preventive financial control, republished (Official Jurnal of Romania, Part I, No. 799 / 12.XI.2003).

Management internal control is more than just control itself, it is based on information management, consistent financial regulations, decision-making procedures, investment efficiency, accounting and human resource management. It uses a variety of tools to ensure that policies and procedures are consistent with the legal framework, as well as ensuring the efficiency and effectiveness of the entity.

The adoption of the internal / management control system is the responsibility of the management of each entity. According to the current legal framework, within public entities the design and implementation of a system of internal managerial control is based on 16 standards elaborated by the General Secretariat of the Government through Order no. 400 of 12.06.2015 for the approval of the Code of internal / management control of public entities and are influenced by:

- its organisational environment, the changes in that environment and the risks associated with that environment;
- its specific objectives;
- the services / products that it provides;
- the processes they use;
- its size and organisational structure.

The 16 standards required to be implemented in any public entity, divided by the key components of the internal / management

control system, according to the Order of the Secretary General of the Government, no. 400/12/06/2015 are:

Control environment:

- Standard 1 - Ethics and integrity
- Standard 2 - Powers, rank, tasks
- Standard 3 - Competence, performance
- Standard 4 - Organisational structure

Performance and risk management:

- Standard 5 - Objectives
- Standard 6 - Planning
- Standard 7 - Performance monitoring
- Standard 8 - Risk Management

Control activities:

- Standard 9 - Procedures
- Standard 10 - Surveillance
- Standard 11 - Continuity of activity

Information and communication:

- Standard 12 - Information and communication

- Standard 13 - Document Management

- Standard 14 - Accounting and financial reporting

Evaluation and audit:

- Standard 15 - Evaluation of the internal / management control system

- Standard 16 - Internal Audit

Each standard specifies minimum requirements to be implemented in each entity. These are found in the legislation specific to the field and we will not deal with in this article.

However, the way they are implemented and the success of their implementation is a matter of general interest, especially since the legislation in the field also stipulates fines if the report on the assumption of management responsibility regarding the implementation of the internal / management control is not transmitted and is not drafted annually.

As far as general principles are concerned the internal / management control encompasses the entire entity and is built and managed with the input of the entire staff of the institution. It is like a living organism that cannot function properly without organs.





### ***Practical implementation of the internal / management control system***

Considering the old, but constant applicable saying, which states that: the theory is the theory, but the practice is the one that kills us, the implementation of the internal / management control system in Romanian entities started in 2005 and continues today. Given the rather generous timeframe that has lapsed since the first steps in this respect, we should be pleased with the high-level implementation of the internal / management control system.

Unfortunately, we cannot say this even after more than 12 years have passed. Reports of the Court of Accounts of Romania support this point of view. For examples, the 2012 Public Report states the following shortcomings: “The Ministry of Health has found the non-monitoring and systematic non-evaluation of all the risks related to the activity of the entity, the failure to elaborate appropriate plans to limit the possible consequences of these risks and the non-nomination of the responsible employees in the implementation of the respective plans, as well as the failure to complete the risk register; the non-organization of a vertical monitoring system for the implementation of management control systems at the ministry’s departments to centralize the reports at the level of the main authorizing officer. At the level of the public health departments and the sanitary units (Bucharest, Dâmbovița, Olt, Neamț and Maramureș) the non-observance of the general requirements for the implementation of the internal control standards was found. At the National House of Public Pensions the implementation of the Internal Control Code has not been finalized and there are still standards that have been partially implemented. At the County Pensions Houses Vaslui, Vâlcea and Prahova no operational procedures were developed, written and formalized for all the activities carried out, did not proceed to the establishment of sensitive functions, to the elaboration of a plan for ensuring the rotation of the employees who occupy such functions,

the manual containing the procedures adopted does not comply with the model approved by the legal framework and the Regulation on Organization and Operation has not been updated according to the legislative changes that have occurred. “

Other examples are also found in the Court of Auditors’ Report for 2013: “An analysis of their distribution shows that the number of public entities that have received the <very good> rating is extremely low compared to the total number verified in 2013. Entities that received the <satisfactory> and <unsatisfactory> ratings remain in a significant number, 551 and 469 respectively, which may lead to the conclusion that in many of them, the managers of the entities did not make the necessary efforts to implement the legislative requirements on internal control. Of the 469 <unsatisfactory> ratings obtained by local public entities, 380 were set for the internal control system of the verified municipal administrative-territorial units. A positive example of the proper implementation of the internal control system is, however, the localities Țepu (Galati County) and Adunații-Copăceni (Giurgiu County), which received the <very good> rating. The deviations from the actions carried out within the public entities in the local public administration highlighted the fact that these are mainly due to the malfunctions existing in the organization and exercise of internal control and audit and to the fact that they do not operate at a level that would ensure the achievement of budget revenues and the management of public funds under conditions of legality, regularity and maximum efficiency. Following the assessment of the internal control systems and the audit evidence obtained, the vast majority of audited institutions concluded that internal control systems are not properly functioning, internal audit activities at the level of public institutions are generally formal, inefficient or inadequately rigorous, do not cover significant areas and their leaders are not interested in capitalizing on these activities and, as a result, the control risks have been assessed as medium or high”.

The synthesis of the Court of Auditors' Report for 2015, published in December 2016, presents a rather unfavorable conclusion on the effective implementation of the internal / management control system:

“As a result of the audit / control missions / audits carried out in 2016 at the level of the central and local public administration, it was found that the level of confidence in the internal control system of the audited entities, established by the external public auditors, was, as a rule, at an average level, most of the institutions with partially implemented internal / management control system, fewer entities having systems conforming with the standards contained in the Code of internal / management control, there were also institutions where no control system was organized and implemented or was totally unsatisfactory. The general conclusion that emerges from the analysis of designing, implementing and operating the management internal control system is that these activities have not reached the purpose for which they were set up to assess and improve the efficiency and effectiveness of the management system based on management risk, control and management processes, and was unable to provide insurance and advice to management to better manage revenue, public spending, and asset management. One of the topical issues identified by most of the audited entities is the inefficiency in using public funds by outsourcing internal / management control services in accordance with legal provisions, in particular the development of system procedures and operational procedures.”

The aforementioned examples certify that there are many issues to be solved and accomplished for a unitary and correct implementation of the management internal control system so that it becomes part of an organizational culture. Time will be decided in this respect.

However, what are the reasons why we face inefficiency in the implementation of the internal / management control system that should be turnkey at first glance? It determines us to meditate on the following questions:

Have the requirements of the implementation of internal / management control been adapted to the entities concerned?, Are people prepared to implement this system?, Is it not considered necessary and useful?, Is the resilience to change very high? Does it not fit with the management culture in Romania?

We reside in the presence of something from each. First of all, at the level of small entities in particular, there is a lack of trained personnel to implement this internal / managerial control system; another aspect is the fluctuation of personnel within entities; it is often considered as “extra” or is simply formally implemented on paper, without creating the necessary gear for the functioning of the internal / managerial control system at institutional level, and last but not contrary to the management principles is outsourced to specialized firms, again, apparently, but only in terms of documents. We do not deny the usefulness of such solutions, but they should only be accessed as advocacy and learning rather than permanent practice.

The main problem, however, remains the human factor, which, unfortunately, according to studies in the field is often neglected and treated inadequately. Another problem is that of immediate decisions at the expense of those in the medium or long term, which leads to an increase in the risk coefficient.

Also, the cultural model of performing daily activities in an institution at the expense of medium and / or long-term forecasts entails the risk of misinterpretation of internal control systems and the eradication of obsolete “go and so” “.

Although there is obviously an evolution in the development of the internal / management control system as well as the development of audit methods and the possibility of accessing various training courses in the field, the increase of the importance given to the domain: transferring the domain to the General Secretariat of the Government from the Ministry of Public Finance; Modifying the Court of Auditors' Audit Questionnaires with new questions addressed on managerial



internal control standards in more detail; The Internal Audit Department of the Ministry of National Defense changed the format of the reports by structuring them on the basis of the management internal control standards; creation of department-type microstructures, office dedicated exclusively to this area (eg within the Ministry of National Defense was created the first department of this type at the Logistic Command in 2013 and in the years 2015-2016 offices were created in all categories of forces and the General Staff of Defense); we find at the same time a lack of specialized literature and syncope in the implementation of the internal managerial control system caused by various factors, such as: limited budget, poor personnel training, decrease of the number of employees in relation to the work done reaching many cumulative tasks at entities in small and medium-sized cities within public entities.

## CONCLUSIONS

Management internal control is important for any institution, whether private or public. The purpose of internal management control is the efficient management of the resources available and the maintenance of managerial responsibility. If within public entities, the faulty implementation of managerial internal control is not so visible, in the private sector it can even lead to bankruptcy.

There is no single model that could serve as a reference for all, since the diversity of organisation is as large as the variety of public entities can be: size, nature of activity, objectives, applicable legal framework, financing, environment, etc. There are so many variables that will generate different organizations. The essential principle is that the organisation needs to be “adapted” each time to these specific elements.

Given its importance for any type of entity, I believe it is necessary to constantly develop this internal / managerial control system by applying the “continuous improvement” strategy, which is called Japanese KAIZEN

(KAI = change; ZEN = for more good). KAIZEN’s strategy is based on the principle of gradual and continuous improvement, “with small steps”, on the individual efforts of the entire staff of the entity, involves a great human implies, but limited investment.

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# APPROACHES TO MODELING CONSULTANCY SYSTEMS BY RECOMMENDATION

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◆ **Abstract:** From the point of view of the consultancy, artificial intelligence techniques in the B2C (business to consumer) market have been highlighted mainly for product selection through recommendations, customer advice, automatic response generation, and pricing decisions. Artificial Intelligence is used to advise users on the goods they want to examine or buy through the Internet. This type of counseling is reflected in different types of selection and referral approaches.

◆ **Keywords:** modeling techniques, artificial intelligence, recommendation.

## ACF APPROACH

The Artificial Communication Filter (ACF) approach is based on the word-of-mouth technique. This approach takes a snapshot of previous customer recommendations, feedback on products they have already purchased, and uses this feedback to recommend products to new potential customers. For example, in Figure 1, we assume that users 2 and 3 have client status and 1 is a new user. All users have a common interest in features A, B and C.

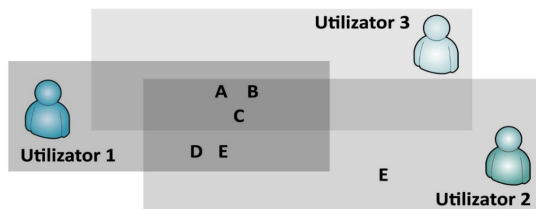


Figure no.1. ACF Approach

Customers 2 and 3 have purchased D and E products in the past. Considering their common interest, D and E products are recommended for user 1 now. Some systems that use this approach can provide the reasons behind the recommendation. The data is generally in a

graphical form of chart type.

$$d_w = \frac{1}{|InCommon|} \sum_{f \in InCommon} (U_f - J_f)$$

Most of the ACF-based systems use the following Cunningham mean square difference<sup>1</sup>:

$U_f$  and  $J_f$  are user ratings  $U$  and  $J$  in relation to the  $f$  product characteristic.

- InCommon is a set of product features rated by  $U$  and  $J$ .

This formula is used to calculate the difference between two  $U$  and  $J$  users in terms of their interest in a product. The main drawback of ACF is that it can not be successfully applied to a large number of user profiles and a large number of evaluations of the elements available in the database. This approach is based on knowledge-based information.

Most of the knowledge-based systems are systems for selecting and recommending products such as CBR (Case-based reasoning)

<sup>1</sup> V., Cahill, E., Gray, J., Seigneur, J., Jensen: *Using Trust for Secure Collaboration in Uncertain Environments*, IEEE Pervasive Computing, v.2 n.3, pp. 52-61.

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and GBR (Goal-based reasoning).

### **CBR approach (Case-based reasoning)**

The CBR approach is a problem-based approach based on past experience. Past experience is organized in the form of cases and is used to solve new problems. Doctors, lawyers are examples in this case because they use cases from the past to resolve new cases. The approach involves taking several steps:

- Step1: Accepting user preferences.
- Step2: Taking bids with products similar to the base case to provide them with the user. We leave the process if the user is satisfied with the offer, or is no longer interested in the investigation.
- Step3: Changes to user preferences are accepted and pass to step 2.

In the CBR<sup>2</sup>, for product selection and referral, each product is treated as a case. The approach uses the identification of similar products to find the closest neighbor. This is based on the weighted Euclidean distance and is calculated as the ratio between the distance and the difference between any two products.

### **Goal-based reasoning (GBR) approach**

This approach is used to find products similar to those the user already knows. The basic idea is “similarities are goal-based,” meaning similarities are based on target, target. For example, an umbrella is similar to a raincoat if the lens is protected from rain. Systems for targeting techniques are found in the literature as FindmeSystem<sup>3</sup>. In this sense, NewsDude<sup>4</sup> is a system that recommends

news articles that may be of great interest to readers. This service is developed using automated learning techniques. As a result, the system improves its performance over time, understanding its client better over time.

### **Hybrid Approach**

This is a combination of ACF and KB (Knowledge-Based) approaches<sup>5</sup>. In some systems, the ACF approach is used in the post-processing stage, others in the number of feedbackuri from users. This number becomes a threshold according to which type of abode is decided: ACF or KB.

Next, we'll present a collaborative filtering algorithm just because sites use abundant filters and selections in their personalized parts, and exemplify how to make them. Collaborative filtering has emerged from the need to complement content-based filtering. The method has improved to the point where there is a variety of algorithms derived from Breese's algorithm<sup>6</sup>.

In a “collaborative filtering” system, a matrix of users and products is built which is a rating or acquisition database. Then there are most preferences (tastes) by comparing the target model (user-buyer) with others.

Generally, the technique is based on Pearson's correlation coefficient,  $corr(a, b)$ <sup>7</sup>. Correspondence between two users  $a$  and  $b$  is given by the fact:

$$corr(a, b) = \frac{\sum_i (r_{a,i} - \bar{r}_a)(r_{b,i} - \bar{r}_b)}{\sqrt{\sum_i (r_{a,i} - \bar{r}_a)^2 \sum_i (r_{b,i} - \bar{r}_b)^2}}$$

<sup>2</sup> K., Barber, J., Kim, : *Belief Revision Process Based on Trust: Agents Evaluating Reputation of Information Sources*, Proceedings of the workshop on Deception, Fraud and Trust in Agent Societies held during the Autonomous Agents Conference: Trust in Cyber-societies, Integrating the Human and Artificial Perspectives, 2000, pp. 73-82.

<sup>3</sup> N., Gilbert, R., Conte R.: *Artificial Societies: the computer simulation of social life*. UCL Press, 2008, pp. 25-100.

<sup>4</sup> J., Golbeck, B., Parsia, J., Hendler, : *Trust networks on the semantic web*, In Proceeding of the 7th International Workshop on Cooperative Information Agents (CIA 2003), Helsinki, Finland, August 2003, pp. 54-59.

<sup>5</sup> Basu, C., Hirsh, H., and Cohen W., *Recommendation as classification: using social and content-based information in recommendation*, in Proceedings of the 1998 National Conference on Artificial Intelligence (AAAI-98), 1998, pp. 714-720.

<sup>6</sup> J., Carbo, *Trust management through fuzzy reputation*, International Journal in Cooperative Information Systems. v1 i12., 2006, pp. 135-155.

<sup>7</sup> A., Abdul-Rahman, S., Hailes : *Supporting Trust in Virtual Communities*. In Proceedings of the 33rd Hawaii international Conference on System Sciences-Volume 6 - Volume 6 (January 04 - 07, 2000), HICSS. IEEE Computer Society, Washington, DC, 6007, 2000, pp. 234-239.

in which:

- $i$  represents the type of products purchased ,
- $\bar{r}_a, \bar{r}_b$  are user ratings  $a$  and  $b$
- $r_{a,i}, r_{b,i}$  there are ratings  $a$  and  $b$  relative to product  $i$

- $\sum_i (r_{a,i} - \bar{r}_a)(r_{b,i} - \bar{r}_b)$  is the sum of the

products after  $i$  for each of the two  $a$  and  $b$  users who have been rated.

$corr(a,b) \in (-1,1)$ . If their acquisition

models are similar then it is otherwise negative. If it does not correlate The prediction for a Resnick product is calculated using the formula:

$$r_{a,j} = r_a + \frac{\sum_x corr(a,x)(r_{x,j} - r_x)}{\sum_x corr(a,x)}$$

Where the sum of  $x$  is done for all users who have rated for  $j$  and  $r_a$  is user rating  $a$ .

Collaborative filters, however, have some limitations. Collaborative filtering can not predict a single product when it first appears, as long as there are no user ratings based on the prediction. To eliminate this problem<sup>8</sup>, filtering agents are created that are automated rating robots that assess new documents as soon as they are published and enter ratings for them.

The number of products that can be associated with users is not very high. Thus, the matrices contain ratings for all products where users are very rare and matrices rarely completed. In this respect, researchers' studies<sup>9</sup>

<sup>8</sup> R., Cohen, K., Regan, T., Tran: *Sharing Models of Sellers amongst Buying Agents in Electronic Marketplaces*, In Proceedings of the 10th International Conference on User Modeling - Workshop on Decentralized, Agent Based and Social Approaches to User Modeling, 2005, pp. 278-285.

<sup>9</sup> M., Chalmers, K., Rodden, D., Brodbeck: *The Order of Things: Activity-Centred Information Access*, In Proceedings of the 7th International Conference on the World Wide Web, Brisbane, April 1998, pp. 359-367.

show a density of about 1% in certain areas. It can be estimated that few people have formed an opinion that would turn into rating. Starting from this, Claypool<sup>10</sup> suggests developing a special browser that can collect ratings from mouse, scroller, or keyboard actions as if a direct action (a concrete choice) were made.

## CONCLUSIONS

A recommendation helps users to increase their decision accuracy or reduce their effort to make a decision. In several sites consumers ask for advice before shopping, and therefore recommendations are a powerful tool for them. All these situations are only possible if partners can trust each other. Consequently, they can delegate attributions and decisions to a suitable person, thereby improving the quality of online shopping. Despite these things, the lack of confidence in online commerce could make users stay away from technology. Although the importance of trust and reputation is obvious, transferring them to computer science is a challenge. Researchers in the fields of computer science, security, semantics, or online commerce are still working on transferring these concepts to use in computer-mediated transactions.

It is hard to evaluate how reliable some remote partners are in computer-mediated transactions because the familiar style of interaction is still far from being easily modeled by computers.

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# THE HISTORICAL CONTEXT OF AIR POWER DEVELOPMENT

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◇ **Abstract:** *At present, the success in a military operation depends, in a large extent, by how airspace is controlled and used. That is why, ever since the discovery of the airplane, the military and political leaders of the moment realized that who controls this space will have a big advantage over the opponent and therefore will be much closer to the victory. Depending on the historical context of the moment, the states have developed and diversified their air power and its use, which is the component of the military power of an army that allows the control and use of airspace. Through this paper I have attempted to present the development and increase of the importance of air power in the armed conflicts, worldwide, from the moment of the airplane's appearance until nowadays.*

◇ **Keywords:** *air power, air assets, air force, state, doctrine-*

## INTRODUCTION

Even before the plane was invented, based on the experience of the use of hot air and hydrogen balloons in military conflicts, military theorists and not only, tried to find arrangements for its use in military conflicts, realizing that who will use the airspace will have a major advantage over the opponent.

The expression "air power" was used for the first time in 1908 by HG. Wells in the novel "The War in the Air". In the specialized literature the air power is defined in various forms such as: power struggle manifested in airspace, ability to defend or to attack by aircraft, use of airspace for the purposes of the imposition of the will, ability to design military forces through the air environment, the size and strength of the air force.

**AIR POWER** represents the ability to use air space for military purposes. This includes, mainly, the creation and development of an air

force, capable of operating in both the national airspace, and the corresponding airspace to the area of crisis/conflict, to discourage, prohibit or restrict the use it for the aggressor.<sup>1</sup>

### ***The factors which affect the development of air power***

The development of air power was directly related to the context of socio-economic and political history of the moment in question. The main factors that have influenced and will influence directly the development of air power are:

- The size of the budget intended for defense, namely that part returning to the Air Force;
- Each country's political perception about present and future threats to national security;
- The opening of the new investments in Air Force specific technologies;
- The contribution of the national economy to the development of air power;

<sup>1</sup> F.A.-1 –The Air Force Doctrine for operations, Bucuresti, 2016, p. 10.





- The political constraints concerning the use of air power in times of crisis or conflict;
- The leadership at all levels, the ability of officers to plan and lead;
- Logistics and air force equipment maintenance;
- The special infrastructure required for operation of Air Force assets;
- Preparing and training for air force personnel.

### ***The development of air power until World War I***

Since the first proven detachment of humans from the soil, by using the hot-air balloons, military strategies have understood the important role which air assets will have in future military conflicts.

The first air asset involved in military operations was hot air balloons for the following purposes: directing artillery fire and correction, propaganda purposes and reconnaissance and observation.

During this period, military theorists have conceptualized the increasing role of air assets in future conflicts. But the major change with regards to the role of air power came with the invention of the airplane by the Wright brothers in 1903.

Air power theory has gained momentum, many servicemen bowing on the subject. Italy was the first country which adopted it openly with regards to the implementation of the concept of air power, in this sense stood out Giulio Douhet who, in 1908, noted that “soon, the plane will be able to rise to thousand meters and fly distances of thousands of kilometers”<sup>2</sup>. In 1910, Giulio Douhet noted that „the air constitutes a battlefield of equal importance”<sup>3</sup> as land or sea . Only by mastering the air we will be able to benefit fully from an advantage that can be exploited when the enemy is forced

to remain on the ground”<sup>4</sup>

The first official record of the use of combat aircraft was made in 1911 by the Italians in the Libyan campaign, when from a military plane were thrown bombs on a Turkish camps identified from the air. As a result of the morale increase in Italian troops, in early 1912, the Italian aircraft conducted a wide variety of missions: bombing Turkish positions, locating, photographing and filming of enemy camps, camel trains interception, the spreading of pro-Italian propaganda leaflets<sup>5</sup>.

Following this success, Giulio Douhet suggested the development of a multirole aircraft that can perform the following missions: reconnaissance and observation missions, air combat and bombing, the opportunity to take on board a large amount of bombs.<sup>6</sup>

Italian bombings on the Turkish positions resulted in use, for the first time, of the artillery against the aircraft, taking birth, basically, anti-aircraft defense. In response, the Italian pilots increased their standard operating height, this way taking birth the first anti-aircraft battles.

During the beginning of aviation period, ground forces could not understand its role on the battlefield and did not want to lose the primacy. They were looking at the plane as a means of their support and not as a distinct weapon.

The United Kingdom was, also, among the pioneers of the development of its air power. In 1912 the military leaders decided to set up The Royal Flying Corps (RFC), with military and naval squadrons, as well as a flying school. At the outbreak of World War I, UK air assets were distributed in two distinct bodies, one under the command of the infantry and one under the command of the navy. Meanwhile, Germany, France and the United States, being in line with the new trends in the usefulness

<sup>4</sup> *Ibidem*, p. 5.

<sup>5</sup> *The experience of air power in Libya*, Pathfinder air power development centre bulletin, nr. 152, 2011

<sup>6</sup> Phillip S. Meilinger, *The Paths of Heaven The Evolution of Airpower Theory by The School of Advanced Airpower Studies*, Air University Press Maxwell Air Force Base, Alabama, p. 31.

<sup>2</sup> Phillip S. Meilinger, *The Paths of Heaven: The Evolution of Airpower Theory by The School of Advanced Airpower Studies*, Air University Press Maxwell Air Force Base, Alabama, p. 2.

<sup>3</sup> Giulio Douhet, *The command of the air*, USAF WARRIOR STUDIES, 1998, p. 4.

of planes, developed their own aerial Corps as part of their land forces.

Moreover, because the US had to project its military power across the oceans, the first launch of an aircraft from a ship was accomplished in 1910, this being the time of the birth of naval aviation and aircraft carrier.

In this pioneering period in relation to the development of air power, Romania was among the first countries which created their own aviation industry and air power. The first autonomous mechanical flight in the world, with a heavier machine than the air, took place on the plane designed and built by Traian Vuia, on March 18, 1906, at Montesson, near Paris. Another genius of world aviation was Henri Coanda, who built and tried, in 1907, a rocket propulsion engine and in 1910, he was to present at the Paris Aeronautical Salon the world's first jet-powered plane.

Between 1910 and 1912, three flying schools were set up in Romania, in Chitila, Cotroceni and Baneasa, being practically the first flying schools in Europe. On April 1, 1913, the Romanian military aviation was officially established.

### ***Air power through the World War I***

Until the outbreak of the First World War, in 1914, the world military aviation was equipped with a small number of light aircraft made of wood at a speed not exceeding 100 km/h and a very low load capacity. There was also no doctrine of using the aircraft in conflict. That is why there was no concern that they could be used during the war.

After the RNAS raid over Zeppelin hangars in Germany and German Zeppelin's airships bombed English cities, both sides involved in the war began to use an increasing number of aircraft, mainly for observation missions, recognition, routing and correction of artillery fire and occasional bombing raids to prevent the opponent from taking advantage of military of the new environment. Also, this states have greatly improved the performance of the aircraft they were producing. This was the beginning of the fight for air control and the first

doctrine of the use of air power to gain control of the air was established.

In 1916, Douhet proposed the creation of an allied air fleet of approximately 20,000 planes, whose role was to gain air supremacy and execute a decisive attack on enemy forces<sup>7</sup>.

July 1917 was the time when the German bombers attacked London. Material and human damages were insignificant, but the psychological effect was enormous, as HG Wells's prophecies about the destruction coming from heaven seemed to come true. As a direct result of the attack on London by German aviation, Britain formed a strategic bombing unit in France which had the role of conducting retaliation raids against German territories. This gave rise to the concept of strategic bombing. At the same time, the foundations of the Royal Air Force were established.

The United States, involved in the war, realizing the importance of the planes on the battlefield, sent a mission to Europe to determine what types of aircraft should be built in America to create a credible and powerful air force.

Also during this period, anti-aircraft defense kept growing, especially in England, to protect the cities from German bombing.

Until the end of the First World War, in 1918, all subsequent roles of the Air Force were established and tried, and the doctrines on the use of air power were finalized, with emphasis on the support of surface forces. Close air support missions, transportation, recognition, air ban, artillery fire management and correction, anti-submarine struggle, convoy escort, search and rescue, and strikes against naval forces became vital factors for strategies existing at ground and naval forces level.

Romania, in turn, made efforts to equip the army with airplanes. On August 10, 1915 the

<sup>7</sup> Phillip S. Meilinger, *The Paths of Heaven The Evolution of Airpower Theory by The School of Advanced Airpower Studies*, Air University Press Maxwell Air Force Base, Alabama, p. 34.

Romanian Aviation Corps was established.

In 1916 the photo-aviation service of the military aviation was set up. The Romanian military aviation took part in the battles of Marasesti, Marasti and Oituz, performing especially reconnaissance flights, but also engaged in air fights with the Austro-German enemy.

### *Air power in the inter-War time*

After analyzing the effects of the WWI, in which land forces had to win each tactical level objective to achieve operative and strategic goals, with very large losses and small achievements, military leaders and politicians at that time had come to the conclusion that the philosophy of warfare had to be changed, aviation being an option.

In this sense, the advance of the air power continued even more severe after the end of the war. All states that used airplanes during the war realized the strength of this weapon in the future, invested in new technologies and continually improved aircraft performance in all areas, making them more effective combat platforms.

Giulio Douhet continued to improve the doctrine of the air power, saying that air supremacy was not an end in itself, but a condition that, once assembled, would allow the air power to carry out its main mission, namely, the reduction of capacity and will enemy to continue the war. He also stated that the airplane is an offensive weapon by excellence and that aviation should be used at strategic, not tactical level.

Like Douhet, Hugh Trenchard, the first chief of the RAF, thought that the future war would be one in which he would defeat the state that would gain air supremacy. He consistently argued the need to increase bombardment aircraft, considering strategic bombing as the main factor that would lead to the defeat of the will to fight the enemy.

Also, the American Billy Mitchell suggested to US leaders that the Air Force could better defend the nation's coasts from warships than the navy due to the range,

firepower and much greater mobility of planes than any ship or land-based weapon.

The US also built, in this period, few carriers with which they could project its power anywhere in the world.

Most states began to build their own permanent air force with which could control airspace and attack first. Thus, around the 1930s, France and Germany had become the world's most powerful air power. Germany was the country that excelled in the development of this force, diversifying the aircraft construction, according to the battlefield needs (hunting, bomber, transport). This country also found an innovative solution in the field of air power utilization, creating aircraft-tank binomial and the „blitzkrieg” concept, with which, at the beginning of the Second World War, was unstoppable.

During this period Romania remained concerned about the increase in its air power. Therefore invested in the development of its own aeronautical industry, and in 1919 established, in Bucharest, the first aircraft factory in the country. In the next years, the investments in industry continued, taking birth several aircraft factories and repair workshops. Several military and civilian aircraft were produced in Romania, culminating with the first flight of the IAR-80 fighter aircraft, in 1939.

### *Air power through the second World War*

World War II was a huge step forward in the development of global air power. The beginning of the war showed that Germany, which had the best understanding of air power, could quickly win any war using aircraft-tank binomial in what specialists later called the “lightning-blitzkrieg war”.

Although Luftwaffe's contribution to the defeat and conquest of a part of Western Europe was undeniable, the German air force was used more as a tactical force to support surface forces. The German aviation had three primary missions, as follows: to combat enemy air forces to gain airspace control, to interfere

in naval or land actions when the situation imposed it, and to combat the sources of the enemy force and disrupt its logistic supply of the troops. It was noted, however, the absence of German strategic bombing missions. This lack became a serious shortcoming that contributed to the defeat of Germany.

On the other hand, under the influence of General Trenchard's theories as well as the difficult situation in which UK was and the considerable distance from the mainland, RAF developed a considerable bombing force to carry out strategic bombings on its opponents. Towards the end of the war, the English made first radars operational, their importance in airspace control being demonstrated by increasing the efficiency and effectiveness of RAF fighter aircraft and ground-based air defense.

The African campaign of the Americans is an important milestone in the context of air power evolution, because it had a profound effect on the development of air power as an independent service. During this campaign, the American Air Corps had a large number of air assets subordinated to the various large infantry units operating there. Instead, the German air assets in Africa was all under the command of the Luftwaffe. Although the US Air Force in Africa was superior to those used by Luftwaffe, both qualitatively and quantitatively, due to application of the principle of centralized command and decentralized execution, the German air assets could counteract the large and dispersed formations of aircrafts sent by Americans, causing them major damage.

Unlike the RAF, the Americans developed a long-range fighter aircraft - P-51 Mustang - which could escort the bombers to their targets, having technical and tactical features superior to any German aircraft (excepting reactive Me-262). P-51 aircraft managed to establish air superiority throughout the trajectory around the bombers they escorted.

The strategic bombing campaign conducted by allies over Germany contributed significantly to its defeat by diminishing the

capacity to support the war effort.

The Pacific War was, first of all, a naval and air campaign, in which air power played a decisive role. US aircraft operated both from carriers and from the ground bases. After the Pacific War, realizing the importance of the air power to gain control of the sea, the navy of most states included the airplane as an important weapon within it.

Regarding Romania, at the beginning of the war, it was an air power for this part of Europe, with a strong aeronautical industry and performing aircraft. It is also worth mentioning the use of centralized aviation control. During the war, due to the huge financial effort to support military campaigns, there was no longer investment in aviation, which was quickly overtaken by the Western states.

The Second World War finally established that the most important thing in the upcoming wars would be the conquest of airspace control, and the air forces would play the primordial role in any conflict. It was also announced the end of the importance of piston planes and the emergence of turbo-jet aircraft by introducing.

Unlike World War I, where air power added a plus for forces or it was used as a propaganda weapon, the use of air force in World War II decided the course of the war. Moreover, air power became an integral part of the war, bringing novelty uses of paratroopers, close air support, and naval aviation.

### ***The development of air power after the second World War***

This period can be divided into the Cold War era, in which the arms race between the East and the West was a fierce one and the post-cold war era, in which the focus was on the realization of multinational coalitions in military interventions and where the world's states were found in a position to reduce military arsenals. The US and the UK became the leading states in the use of air power and remained faithful to the importance of strategic

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bombing.

This Cold War arms race led to the development of supersonic airplanes, with increasing speeds and bombers capable of carrying nuclear loads, but also of fighter jets with superior characteristics capable of counteracting nuclear threats.

The US and its allies focused on the development of air power by creating aircraft specific to each mission with specific armament (air supremacy, bombardment, ISR, close air support, mobility) and permanent innovation, which was manifested by the fact that the US had the supremacy in terms of the number and performance of military aircraft. The USSR, at the beginning, tried to do the same thing, but due to the high costs of research, innovation, operation and maintenance, they decided to put much more weight on the development and use of missile systems.

Also, the emergence of nuclear loads and alternative vectors of transportation for these loads (missiles) made irrelevant the use of air power against states that had such capabilities.

However, air power continued to develop, US becoming the world's largest air power. The wars following WWII (Korea, Vietnam, Gulf, Serbia, Afghanistan) led to the rewriting of doctrines in the use of air power and demonstrated the influence of the factors presented in chapter II. The rewriting of doctrines was necessary, primarily due to the emergence of new anti-aircraft weapons, secondly due to innovations in the aeronautical field and not least because of the conquest of space.

Since 1950, the role of helicopters on the battlefield has grown increasingly because they offer much greater mobility to ground troops because the land no longer constitutes an obstacle to their operation.

There is also an increasing use of unmanned aircraft on the battlefield due to low costs and use versus benefits. Today, the use of satellites placed in the cosmos and night vision systems allow the use of air power in

any weather condition, both day and night. Also, the emergence of intelligent munitions has increased the accuracy of bombings.

## CONCLUSIONS

The history of air power began with the lifting of man in the air, basically with the invention of the hot air balloon. Ever since, the army leaders have realized that it is time for the third dimension of the war, the air dimension, to be exploited, and that whoever controls this dimension will have great chances of winning the war.

The emergence of air power has changed the philosophy of wars, as aircraft alter the importance of time and space in armed struggle. For states with air power, the main body of the enemy army is not of vital importance, but the main targets are the opponent's center of gravity, regardless of their position on the ground, due to the main characteristics of the air power, namely speed, height, mobility, depth, ubiquity, flexibility, versatility and psychological effect.

Throughout history, it has been shown that air power is directly dependent on technology and technological progress.

Throughout history, it has been demonstrated that air power is a multiplier for the other forces of the army, because it offers a number of possibilities that the other forces of the army do not possess, such as: the possibility of providing the desired degree of airspace control; increased recognition possibilities, research and surveillance capabilities over long distances, with real-time data transmission to political and military decision-makers; the projection of forces; enhanced capabilities to hit enemy in deep area, enhanced flexibility, the ability to change targets during flight, undetectable airborne action using Stealth technologies, and high survival rates in hostile environments through electronic countermeasures, which allows modeling of the field of fight; the possibility of strikes having strategic effects; the use of

aircraft as control, command, communications and early warning points; the ability to act as well at night as in daytime, regardless of weather conditions, causing your opponent to be under constant pressure.

Due to the multiplying role of air power, the great world powers included aviation within the naval forces to increase the possibility of air power projection, much easier, where necessary, especially by creating naval groups centered on aircraft carriers.

The future of air power consists of the integrated use of piloted and unmanned aircraft capable of striking thousands of miles away, regardless of weather or weather conditions, and communicating directly with command centers or between them, with hypersonic speeds.

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## RAQQA – SL (RAQQA IS BEING SLAUGHTERED SILENTLY)– A SUCCESSFUL CASE OF HOW TO WIN A FIGHT AGAINST ISIS’ PROPAGANDA

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◇ **Abstract:** *Perhaps the main threat Social Media posed to international security is the fact that all its valences can and are being exploited to the maximum by terrorist groups. Globalization and a very easy access to internet services has given the terrorists an immeasurable weapon. Islamic State has quickly grasped the way Social Media can be of an use and not only did its members exploited these channels to the fullest, but they had also used them differently to achieve multiple goals. The same weapon, used by ISIS for manipulating, recruiting and terrorizing, was equally used by the Raqqa\_SL, a group of Syrian activists, to raise the international awarness about the true situation of the self-proclaimed capital of the Islamic state, Raqqa. The purpose of this article is to bierfly present how this group emmerged and act, being more efficient than any international notorious media outlet in denouncing ISIS’crimes.*

◇ **Keywords:** *social media, propaganda, terror, ISIS, Raqqa, Raqqa-SL*

In 2004, the United States National Information Council released a report titled “Mapping the Global Future.” The report intended, as revealed from the title, to forecast how the global scene will look like by 2020, analyzing in detail all possible scenarios that could pose security threats. With regard to terrorist organizations NIC stated “*We expect that by 2020 al-Qa’ida will be superceded by similarly inspired Islamic extremist groups, and there is a substantial risk that broad Islamic movements akin to al-Qa’ida will merge with local separatist movements.*”<sup>1</sup> According to the report, the terrorism phenomenon will expand due to the evolution of information technology. The facility in which people communicate worldwide will help terrorists, according to this study, organize their operations without the need for a fixed

point where they can gather to set their goals and strategy. “*Training materials, targeting guidance, weapons know-how, and fund-raising will become virtual (i.e., online)*”<sup>2</sup>

Thus, the main valence of this type of confrontation is given by the conflict asymmetry. “*Unfortunately, the situation is asymmetrical... This asymmetry also means an inequality of effort between terrorist attackers and antiterrorist defenders.*”<sup>3</sup> Both the techniques used by terrorists and their targets are constantly varying, and it is almost impossible to predict new methods of action or possible new targets. From headquarters of diplomatic missions or Western world symbols to areas that are actually chosen by only considering how crowded these are at the time of the attack, in order to guarantee the highest number of victims, mainly any

<sup>1</sup> Mapping the Global Future, Report of the National Intelligence Council’s 2020 Project Based on consultations with nongovernmental experts around the world, December 2004 p. 15.

<sup>2</sup>Ibidem.

<sup>3</sup>Jenkins, Brian Michael International terrorism: The other World War, Rand Corporation, noiembrie 1985, p. 14.

objective can turn into the target of a terrorist group. The same happens with the methods they use. Terrorists combine conventional weapons with a variety of other resources to complete their mission. Whether it is the hijacking of line rails, the derailment of trains, or the use of trucks to effectively shatter an innocent crowd, terrorist organizations point out both to enemies and potential followers who self-radicalize themselves that there is no need of owning fire weapons to organize an attack. Considering these arguments we can conclude that *"This makes terrorism a cheap way to fight and a costly kind of threat to defend against."*<sup>4</sup>

In this context, it is not surprising at all that the terrorist groups had developed a faster understanding on how to successfully exploit all of the new available tools which came as a result of the Internet's rapid evolution and proliferation. Their extended "know how" included Social Media, as well, from the beginning. ISIS allocated substantial human and time resources to maximize social networking, consolidating two main pillars of action: propaganda and recruitment.

However neither the rich knowledge ISIS rapidly gained over online mechanisms, translated into impressive media outlets, nor the well-known skills of the most active fighters of the cyber-caliphate, could cope with a true phenomenon that emerged in the unrecognized capital of the Islamic State, Raqqa. In a city crushed by internal conflicts and lead by terror, the most feared enemy of the Islamic State was established as a anti-propaganda force, @ Raqqa.SI (Fb) / @Raqqa\_SL (Twitter). The most prominent anti-ISIS voice was acting between the walls of this city.

In 2013 Syria was a state dominated by internal conflicts that started more than two years before. If the Arab Spring led to the abolition of Mubarak's dictatorial regime in Egypt, and Gaddafi's in Libya for Syria this chain of events marked the beginning of the civil war. Many internal factions,

from the Assad's Army to the Syrian Free Army, from the Islamic Front to international jihadist groups, rebels, activists, backed by external forces, either states or other military organizations like Hezbollah, transformed Syria in a battlefield.

We do not aim analyzing the Syrian civil war through this article. These aspects are not part of this specific research. However we did consider necessary mentioning it since it is very important to define the context where the activist group was born.

Thus, in this context, Raqqa was no longer a land dominated by peace, the society being fragmented among supporters of multiple factions. However, the rise of the Al-Baghdadi-led group would radically change the lives of ordinary Syrians. Within less than a few months of ISIS's occupation, the Islamic State would already declare Raqqa the capital of its Caliphate.

Facing the atrocities committed by ISIS, a group of young Syrian activists have resorted to the only weapon they had at their disposal, starting to communicate the realities that were happening in Raqqa at a worldwide scale. They quickly realized that they are fighting another type of war than the one they were already used to, and they were way aware that the Internet must be their only resource. *"It's another war! Another fight! We couldn't carry any weapon, we are not the kind of people which consider weapons as a solution. We didn't find any way to fight them, only to do it online!"*<sup>5</sup>

The young activists turned into real war reporters. They began to report, with high frequency, through social networks, but especially on Twitter, what was happening in Raqqa. All the posts were related to people's lives under the leadership of ISIS. The Islamic State used to propagate in the online space all type of content (text, video, images) presenting the high level of quality of life in the Caliphate.

Twitter was already a genuine news

<sup>5</sup> Hamoud Al-Mousa's statements in the BBC's documentary *Isis Most Wanted – Raqqa is Being Slaughtered Silently*.

<sup>4</sup> *Ibidem*.



stream for ISIS sympathizers. The internet is flooded with praise messages promoting ISIS' community based actions. These are doubled by a series of images (as you can observe in the below figure<sup>6</sup>) showing all the campaigns ran in favor of the ordinary people living in the territories occupied by ISIS. Another type of intensely distributed message refers to the fact that in the ISIS-led regions Christians live peacefully with Muslims. In the state run by ISIS the interest in education is a top

ISIS' strategy of indoctrination and massive manipulation. In the same category are the messages referring to the actions undertaken by ISIS for the development of the local infrastructure. The Islamic State Warriors repair the destroyed roads following the attacks of Western states, so they not only defend the population from attacks from the West, but also help re-establish infrastructure in the destroyed cities.

What @ Raqqa.SI aimed, according to the



Figure no. 1. Examples of messages promoting ISIS' community based actions

priority. Images accompanied by English messages present a state where people are concerned by general knowledge, and where their leaders invest resources to provide them with the necessary environment to carry out these activities. Along with these images, one can easily find on the Social Media platforms pictures with well-dressed children on their way to school or even on their school's hallways. The illustrations accompanying these posts are strongly contrasting another series of images, made public by ISIS followers, pictures of armed children participating in training camps. We can only draw the conclusions that these type of messages, presented above, are not aimed towards their enemies, but they are mostly targeting new sympathizers in the Western world, underlining, furthermore,

founders' statements, was the demolition of the myth of the Islamic State. "When they showed that everything was ok, we showed the reality!"<sup>7</sup> The journalistic activity of young people attracted the attention of both the international press and the leaders of the Islamic State. "... That made ISIS crazy!...For a group like ISIS who did all this terrible things in the world and they couldn't stop some teenagers"<sup>8</sup> Multiple articles documenting the reality of daily life under ISIS command were posted on their website, <http://www.raqqa-si.com>, and promoted via Social Media platforms. The subjects approached showed the absurdity of ISIS rules of living and the terror that governs the existence of Raqqa's citizens by detailing ISIS decisions and actions the activist group

<sup>6</sup> Personal Social Media monitoring ran between October 2014 – July 2017 in order to document the PhD thesis title "Social Media: Threats and Opportunities"

<sup>7</sup> Hamoud Al-Mousa's statements in the BBC's documentary *Isis Most Wanted – Raqqa is Being Slaughtered Silently*;

<sup>8</sup> *Ibidem*.

dismantled their propagandistic messages with regard to population's quality of living. These are just some of the headlines back in 2015 „*Life under Isis: For residents of Raqqa is this really a caliphate worse than death*”<sup>9</sup>; „*Life under Isis in Raqqa: The city where smoking a cigarette could see you publicly flogged, imprisoned and even decapitated*”<sup>10</sup>; „*New ISIS Rules Reportedly Cover Phone Usage, Smoking*”<sup>11</sup>, „*ISIS Curriculum and Educational System*”<sup>12</sup>; „*Isis has declared war on skinny jeans*”<sup>13</sup> While the website acts like a news platform, presenting and analysing different aspects of living in Raqqa on a regular but not daily basis, the Social Media channels are a genuine breaking news stream. Many messages are delivered daily via the official Twitter and Facebook pages of the activists. Their intense activity on these two social networking tools gained their notoriety.

Their Facebook page reached more than 650k likes, while the Twitter account is followed by around 80k users. Hamoud al-Mousa, one of the group's founders, is also enjoying a high popularity on Twitter; more than 10k people are following his activity. More than 25k tweets were distributed by now through the official Twitter page @ Raqqa\_SL. These tweets were posted either in English or in Arabic. Despite the fact that the majority were written in Arabic, the content is easily accessible to any English speaker by using Twitter's translating option, available right after the original text. A very good

employment of hashtags contributed as well at the proliferation of their messages. The following three hashtags are almost always present in their postings #Raqqa, #Syria & #ISIS.

Furthermore their journalistic activity was acknowledged by the Committee to Protect Journalists, an American NGO, by awarding them the CPJ International Press Freedom Award.<sup>14</sup> The publication Foreign Policy recognized their importance as well by including Raqqa\_SL in their 2015 Leading Global Thinkers for presenting the realities of life under the Islamic State domination.<sup>15</sup> In 2016 Raqqa is Being Slaughtered Silently was awarded the Civil Courage Prize, a prize that aims „*to draw attention individually to some extraordinary heroes of conscience. Particularly, it seeks to establish the idea, and the words, of Civil Courage as a necessary bulwark of a good society.*”<sup>16</sup> They were awarded these prize for „*...resisting the Islamic State Through the Virtual World*”<sup>17</sup>

Considering the facts presented above, we can definitely consider @Raqqa.Sl as being, at least until the time of publication of this research, the prototype of effective online offensive against ISIS. The information campaign started by a group of young Syrian activists warned the Western media over the real situation in Raqqa. The Internet was flooded by all kind of messages reporting in real-time the unfolding of the events. Raqqa. Sl accounts, constantly updated, have turned into true news feeds of all kinds. The fact that the written messages were always backed up not only by images but also by video and audio, contributed to the credibility of the

<sup>9</sup> Raqqa is being Slaughtered Silently official website <http://www.raqqa-sl.com/en/2015/01/02/life-isis-residents-raqqa-really-caliphate-worse-death/>.

<sup>10</sup>Raqqa is being Slaughtered Silently official website <http://www.raqqa-sl.com/en/2015/02/15/life-isis-raqqa-city-smoking-cigarette-see-publicly-flogged-imprisoned-even-decapitated/>.

<sup>11</sup>Raqqa is being Slaughtered Silently official website <http://www.raqqa-sl.com/en/2015/02/17/new-isis-rules-reportedly-cover-phone-usage-smoking/>;

<sup>12</sup> Raqqa is being Slaughtered Silently official website <http://www.raqqa-sl.com/en/2016/09/18/isis-curriculum-educational-system/>.

<sup>13</sup> Raqqa is being Slaughtered Silently official website <http://www.raqqa-sl.com/en/2015/04/04/isis-has-declared-war-on-skinny-jeans/>.

<sup>14</sup> Committee to Protect Journalists : Raqqa is Being Slaughtered Silently, Syria - International Press Freedom Awards <https://cpj.org/awards/2015/raqqa-is-being-slaughtered-silently-syria.php>.

<sup>15</sup> Foreign Policy, Global Thinkers – annual issue <https://2015globalthinkers.foreignpolicy.com/#!chroniclers/detail/raqqa>.

<sup>16</sup> Civil Courage Prize official website <http://www.civildcouragementprize.org/about-prize.htm>.

<sup>17</sup> Civil Courage Prize Press Release <http://www.civildcouragementprize.org/press-release-2016.htm>.

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source. The growing popularity of the Syrian activists' platforms brought them to the attention of the international media and not only as a source of information from a war zone. International media outlets and famous TV stations have dedicated full pages showing the individual stories of the founders of this group, the original motivation, but also the reasons which led them to continue working despite the assassination of some colleagues and continuous threats to their lives. The BBC even produced a documentary with some of Raqqa's Being Slaughtered Silently members.

To sum up, Raqqa\_SL a group of Syrian activists used the same weapon which ISIS employed for manipulating, recruiting and terrorizing, in order to raise an international awareness about the reality of Raqqa, the so-called capital of the Caliphate. For that matter, the activists laid the groundwork for a genuine news stream broadcasting its information (text, video, audio) in real time. This breaking news regime of communicating quickly gained credibility in the eyes of Western media trusts, and effectively transformed them into special reporters. Raqqa\_SL was the main counter-propaganda weapon in the fight with ISIS's manipulation mechanisms.

The main threat posed by social networks to security is given by the fact that all their valences can and actually are being exploited to the maximum by terrorist groups. Globalization and a very easy access to internet services has given terrorist groups an invaluable arm. *"Universalization of the Internet, both from the perspective of the media component and from the point of view of interpersonal communication, helps to educate, connect, mobilize, and credit those who are excluded traditionally."*<sup>18</sup> Although the above note refers to Latin America, we can see that this remark applies to all of those areas that have been and are disadvantaged from some points

of view. It also applies to extremist groups formed in the Arabic world.

The Islamic State has quickly understood how Social Media can help them and not only did they exploit these channels to their full potential, but they also different platforms to achieve multiple purposes. On the one hand, members or sympathisants of the Islamic State used social networking for propaganda, and on the other hand, as a natural next step, for recruitment. We are talking here about the recruitment of new adherents from the non-Islamic space, furthermore ISIS has managed to attract followers from the Western states. *„Through the Internet and other wireless communications technologies, individuals with ill intent will be able to rally adherents quickly on a broader, even global, scale and do so obscurely”*<sup>19</sup>

In addition to being a means of communication between members of the group or between them and supporters, the media trust of the Caliphate devoted impressive resources in coding messages, as well as drawing up tutorials for training in this respect, social networks are an important resource of propaganda. A resource that is not at all costly but extremely bidding as long as those behind the accounts know their mechanisms, they are always up to date with the latest updates and trends and exploit them to the fullest. Analysts and communications specialists have come to the conclusion that ISIS is far better suited to the functioning of Social Media than Westerners. This has allowed them to make use of networks to a new level, moving from the manipulation that has brought an impressive number of Western-style sympathizers to recruiting through these channels. Last but not least, ISIS has used this means of communication to achieve the main goal of a terrorist organization, to resemble terror. The ISIS army shocked the entire world by posting

<sup>18</sup> Mapping the Global Future, Report of the National Intelligence Council's 2020 Project Based on consultations with nongovernmental experts around the world, December 2004, p. 78.

<sup>19</sup> Mapping the Global Future, Report of the National Intelligence Council's 2020 Project Based on consultations with nongovernmental experts around the world, December 2004, p. 94.

videos on YouTube depicting the execution of the Westerns captured by terrorists, or by broadcasting pictures of minors at an early age already enrolled in the Caliphate army.

But, as we have repeatedly undelined, social networks are a resource for everyone's use. And if ISIS masters these in comparison with the Western world who seems unable to counteract the flood of propaganda, it was a group of Syrians who managed to fight them with the same arms on the Social Media scene. They succeeded in establishing a genuine news stream broadcasting in a breaking news regime the events' evolution from inside the self-proclaimed capital of the Islamic State, Raqqa. Their Twitter account rapidly managed to gather a very high number of "followers" and the information provided by them has turned into a reliable information source for major international media outlets and in matters related to the conflict in Syria and Iraq. Hence, the same weapon, ISIS used to manipulate, recruit and resemble terros, was used by the Syrian activist group Raqqa\_SL in order to draw an international alert on the true situation in Raqqa.

Whether we consider the valence of information carrier, its fastness, global accessibility or anonymity, these social networks' characteristics give them the opportunity to turn into priceless resources that can help to ensure a security climate or on the contrary, they can turn into real threats to security, depending on who exploits them.

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## ASSESSING PUBLIC SERVICES EFFICIENCY

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◇ **Abstract:** *The main activity of the public administration represents ensuring a satisfactory quality of life (QOL) of citizens pertaining to a certain administrative-territorial unit. Ensuring QOL entails good organization and coordination of services provided by the local public administration to the benefit of the citizens.*

◇ *In this respect, measurement tools of QOL are necessary as well as means in which public administration resources are employed.*

◇ **Keywords:** *efficiency, services, assessment, indicators.*

### CONCEPTS REGARDING CONTENT AND IDIOSYNCRASIES OF EFFICIENCY

In line with the Contemporary Romanian Language Dictionary, economic efficiency is the proportion between the results derived from an economic activity and the amount of expenditure that activity entails<sup>1</sup>. Linguistically speaking, the word "efficiency" derives from the Latin *efficientia*, meaning the quality and the ability to have the expected positive effect.

Words such as *efficiens* (which has a real effect), *efficax* (which has the expected effect) and *efficere* (to have certain effect) lead to defining efficiency as the possibility of the expended resources to produce expected useful results<sup>2</sup>.

Having all these in mind, we could state that efficiency represents a characteristic of any human activity that leads to the useful expected effect, and that justifies the alloca-

tion and the employment of financial, material, knowledge, time and human resources. In other words, efficiency is the cause-effect relation between what comes out of an activity and what has been invested in it.

Practically, all socio-human activities deal with efficiency, and thus we can refer to economic, social or ecological efficiency.

The economic efficiency of a service means the relation between the resources allotted for carrying out the service and its outcome. And this describes not only economic processes, but also another complex category which places within causality the implied economic effort and its corresponding effects. This can lead to the appropriate balancing between the opportunity and the necessity of certain actions and processes<sup>3</sup>.

Analyzing services efficiency presupposes tackling all resource categories, their structure, qualitative and quantitative aspects of direct and indirect effects of services.

The average economic efficiency of a service provider can be influenced by:

- The efficiency of resource allotment (material, human, financial, knowledge, time etc.), bearing in mind the fact that resource

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<sup>1</sup>Vasile Breban, *Dicţionar explicativ al limbii române contemporane*, Editura Ştiinţifică şi Enciclopedică, Bucureşti, 1986, p. 182. (our translation)

<sup>2</sup> Andreea ZAMFIR, *Managementul Serviciilor*, Colecţia Management, Editura ASE, Bucureşti, 2011, p. 359. (our translation)

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<sup>3</sup>*Idem*, p. 360. (our translation)

allotment can be efficient as far as services provided are the ones users need;

- the efficiency of the employment of production factors, which entails providing services at the lowest production fee, under the condition of a minimum cost for each provided service;
- the efficiency of selling services, and that means the accordance between the amount, the structure and the quality of services on one hand, and the requirements of beneficiaries of spending their available income at the market price, on the other hand<sup>4</sup>.

Efficiency in public services can relate to various aspects, such as increasing labor productivity, reducing raw material and fuel consumption, population satisfaction, improving the quality of services provided. Thus, efficiency expresses itself, in case, through various forms or partial aspects and, especially, through all of the latter combined. Basically, economic efficiency can be measured by comparing the outcome (physically or financially) to the effort invested to get the outcome. Increasing efficiency presupposes either maximizing the outcome obtained by means of employed resources or obtaining the necessary outcome with a minimum of employed resources.

Having in mind the characteristics of public services, we could state that the way in which the service outcome is expressed is slightly different from the one of economic goods as a result of the immaterial character of services. There are few instances when the outcome of public services can be quantified or observed over a long time span.

For instance, in the case of medical, educational or cultural services, the outcome of their provision is difficult to measure and, as a rule, the former can be measured after a long period of time. That is why, in such situations, efficiency is expressed through rationalization of production factors consumption, bearing in mind the efficiency of resource employment and not obtaining profit.

Another example would be transport services where the outcome of their provision is usually quite easy to be measured over a short period of time should an object gets from point A to point B. Through transport systems, operators or other economic entities provide transport services upon request. Clients can be either individuals or legal persons. Transport services can be intangible, while their quality can be determined only through the quality of the technical base (vehicles, infrastructure, vehicle comfort) and through the effects of the benefit (a comfortable journey, safe and timely freight transport etc.). As far as transport services are concerned, there is a concept which very well defines the connection between client expectation and the benefit. This concept is the level of service (LoS – Level of Service). The LoS variables of freight transport are price, time of transport, service regularity (variations in the length of the transport – for instance, in the case of the railway freight transport, the transport time is lengthier than the road transport, but, on the other hand, there might be few situations when the transport could be delayed as in the case of the road transport), availability of specialized equipment, the probability of loss or damage. As far as the passenger transport is concerned, the variables are price, the length of the journey, the service frequency, comfort, regularity (this variable is very important in the situations when a passenger needs to reach the airport at a certain time and they can choose among a bus, a taxi or the tube, the length of the journey can be shorter by bus or by taxi, but they will probably go by tube due to its regularity – a fixed timetable, no delays, cost, etc.).

Last but not least, public services have both direct and indirect effects<sup>5</sup>.

For example, direct effects on the economic processes are witnessed at the level of the road, railway, naval, air or multimodal transport, as well as at the level of the direct distribution activities.

Indirect effects are the ones generated

<sup>4</sup> *Dicționar de economie*, Editura Economică București, ediția a doua, 2001, p. 57.

<sup>5</sup> Lucica MATEI, *Management public*, Editura Economică, București, 2006, pp. 343-366.

by the service sector on the other domains of activity (for example, education, culture and medical services have effects on economy and society as a whole, such as increased level of population training, the culture level, better health etc.). In the latter context, the analysis of the economic effects should mirror the services influence on the spiritual development, better cultural and civilization level etc.

Also, service efficiency can be analyzed in relation with their quality and the quality of the provider. A quality service attracts more clients, which consequently leads to higher fiscal value and business profit.

### Indicators of assessing service efficiency

The issue of assessing service efficiency has a multifaceted approach, in function of the criteria on which economic efficiency and effectiveness are based and which are different depending on the characteristics of the assessed service and on the concrete working conditions.

Etymologically speaking, the term *criterion* comes from the Greek *criterion* which means a way of assessing, measuring, a point of view or a norm form defining, evaluating and classifying activity.

According to the Contemporary Romanian Language Dictionary, a criterion means a point of view, a principle on which an assessment is carried out<sup>6</sup>.

In conclusion, a criterion means a principle, a point of view, a standpoint on which the assessment, evaluation or classification is done. In the case of assessing economic effectiveness of a firm, the criterion is a methodological principle of assessing the activity from the point of the *effect – effort* connection.

Based on the assessment criteria, there have been several Categories of indicators identified in the bibliography in the field as follows:

- *pertinent indicators* which relate the

<sup>6</sup> Breban, *op.cit.*, p. 129.

purpose of the service with the necessities the latter should meet;

- *efficiency indicators* which relate the effects with the resources employed in their carrying out; they compare the outcome with the purpose;

- *performance indicators* which encompass the efficiency and the effectiveness of achievements, results and impact<sup>7</sup>.

The above mentioned indicators can be divided into two large categories, namely economic and quality indicators.

Identifying and building an assessment system of economic efficiency in the field of services entails basing it on the general principles of calculating efficiency, on the structure of the employed resources, on the type of efforts and effects, as well as on the way in which the quality of the services provided increases beneficiary satisfaction<sup>8</sup>. All of the above mentioned actually means that when assessing, at least one of the following categories of indicators should be used:

a.) **Overall indicators of the economic activity**, that characterizes the activity's overall efficiency, irrespective of its level (compartment, section, sector, etc.).

b.) **Return** synthetically expresses the economic efficiency of services, which is in close connection with the professionalism of economic agents and with the resources employed in providing services. As a rule, **the return rate** is calculated by means of the formula  $r = \frac{P}{C} \times 100, = \frac{P}{C} \times 100$ , where P – is the annual profit, and C – represents annual production expenditure. By means of the return rate which can be calculated for the entire firm or for each compartment, the amount of final effects is reflected, as well as the amount of the employed resources in providing the service.

<sup>7</sup>Ovidiu NICOLESCU, Ion PLUMB, Marius PRICOP, Ion VASILESCU, Ion VERBONCU, *Abordări moderne în managementul și economia organizației*, vol. 3-4, Editura Economică, București, 2003, p. 362.

<sup>8</sup> Zamfir, *op.cit.*, pp. 364-374.



Another indicator by whose means one could draw comparisons among service providers for their entire economic activity or among types of services, is *the cost per 100 lei revenue*, using the formula:  $C_{/100} = \frac{C}{Q} \times 100$ ,  $= \frac{C}{Q} \times 100$ , where C – is annual production expenditure, and Q – is the turnover value.

c.) **Efficiency indicators of employing production factors**, that expresses the level of service production per unit of production factor, highlighting the total or partial service production which can be calculated with the formula  $W = \frac{Q}{X} = \frac{Q}{X'}$ , where Q – stands for service production, while X – stands for consumption of production factors.

d.) **Structure indicators of used resources and obtained results**, which refers to the structure of the workforce, the way the employee labor time is used and to the employment of the serving capacity<sup>9</sup>.

*Main indicators that can be used to assess the structure of the workforce*<sup>10</sup> are the following:

- the share of workers out of the total number of employees, that can be calculated with the formula:  $p_1 = \frac{Nm}{N} \times 100 = \frac{Nm}{N} \times 100$ , where N – stands for the total number of employees, while Nm – is the number of workers;

- the share of managing and administration personnel out of the total number of employees, that can be calculated as follows:  $p_2 = \frac{Nca}{N} \times 100 = \frac{Nca}{N} \times 100$ , where N – stands for the total number of employees, and Nca – stands for the number of managing and administration staff.

*Main indicators that can be used in assessing the way in which labor time is used by the employees* are the following:

- the index of using the maximum time amount that can be calculated as follows:  $i_u$

$= \frac{te}{td} \times 100 = \frac{te}{td} \times 100$ , where  $t_e$  – is the actual working time, while  $t_d$  – is the maximum available time amount;

- the index of used time amount, that can be calculated as follows:  $i_r = \frac{ta}{td} \times 100 = \frac{ta}{td} \times 100$ , where  $t_a$  – stands for used time amount, and  $t_d$  – stands for the maximum available time amount.

*Main indicators that can be used to assess the way in which the serving capacity functions* are the following:

- the share of the active fixed capital, that can be calculated as follows:  $p_k = \frac{Ka}{Kf} \times 100 = \frac{Ka}{Kf} \times 100$ , where  $K_a$  – represents the value of the fixed capital, and  $K_f$  – is the value of the fixed capital;

- the degree of using the serving capacity, that means the extent to which serving capacities are attracted to the economic circuit and it can be calculated with the formula:  $G = \frac{Q}{CMA} \times 100 = \frac{Q}{CMA} \times 100$ , where Q – represents the service production, and CMA – represents the average annual capacity and it can be calculated with the formula:  $CMA = Ci + \frac{I \times Nif}{12} - \frac{E \times Ninf}{12} = Ci + \frac{I \times Nif}{12} - \frac{E \times Ninf}{12}$ , where  $Ci$  – stands for the existing capacity at the beginning of the year, I – the existing capacity during the year,  $N_{if}$  – the amount of months when new capacities work during the year,  $N_{inf}$  – the amount of months of non-functioning new capacities during the year.

e.) In the category of indicators specific to various fields of activity, the ones which allow assessing social efficiency and the investing activity in the service sector come first.

Investment efficiency refers to activities of refurbishment, modernization and/or development of technical capital and of the technical-material basis of service providers. The former can be assessed with the help of a complex system of indicators, out of which the most important ones are:

- *specific investment*, which focuses on the relation between the investing effort and the obtained effect as the service providing capac-

<sup>9</sup>NICOLESCU et al, *op.cit.*, pp. 366-367. (our translation)

<sup>10</sup> Marius Dan DALOTĂ, Simona DALOTĂ, *Analiza și evaluarea firmei*, Editura Orizonturi Universitare, TIMIȘOARA, 2000, pp. 46-49.

ity, that can be calculated as follows:  $s = \frac{I_t}{C_s}$ ,  $= \frac{I_t}{C_s}$ , where  $I_t$  – represents the total investment, and  $C_s$  – the service providing capacity, expressed either physically or as value with the formula:  $s_m = \frac{I_m}{C_{s1} - C_{s0}} = \frac{I_m}{C_{s1} - C_{s0}}$ , where  $I_m$  – represents the amount of modernization, development and refurbishment investment, while  $C_{s0}$  and  $C_{s1}$  – the service providing capacity before and after modernization, development refurbishment;

- the concept of statically investment recovery defines the amount of time during which the investment made out of the annual profit can be recovered and it can be calculated with the formula:  $T = \frac{I_t}{P_h} = \frac{I_t}{P_h}$ , where  $I_t$  – is the total investment, and  $P_h$  – the annual profit;

- the concept of dynamically investment recovery best defines the case of the service providers sector due to the fact that after having come into function of the investment, a certain period of time is needed for reaching the appropriate projected parameters. This is the situation when the profit is lower than the one predicted and the amount of time of investment recovery can be calculated with the formula:  $T = \frac{I_t + \Delta P - P'}{P_h} = \frac{I_t + \Delta P - P'}{P_h}$ , where  $I_t$  – represents the total investment, and  $\Delta P - \Delta P'$  – the difference between the predicted profit and the made one, while  $P'$  – the additional profit made in the case of the partial working service providing capacity. In the case of updating, developing, refurbishing existing equipment, the concept of investment recovery can be calculated with the formula:  $T_m = \frac{I_m}{P_{ht} - P_{h0}}$ ,  $m = \frac{I_m}{P_{ht} - P_{h0}}$ , where  $P_{h0}$ ,  $P_{h0}$  – represents the annual profit made before and after updating, developing and refurbishing;

- total expenditure in the dynamic ( $C_t = I_t + C_h \times De \times De$ ) or static approach ( $C_t = I_t + C_h \times T \times T$ ), quantifies the total effort made over the entire execution and exploitation period of the target, where  $C_h$  – represents the annual service production costs,  $De$  – the functioning duration of the objective, and  $T$  – the time of the investment recovery;

- the economic return of the investment in a static or dynamic approach shows how much annual profit will be obtained per each *leu* invested after the investment recovery and it can be calculated statically with the formula:  $R = \frac{P_f}{I_t} = \frac{P_t - I_t}{I_t} = \frac{P_t}{I_t} - 1$ ,  $= \frac{P_f}{I_t} = \frac{P_t - I_t}{I_t} = \frac{P_t}{I_t} - 1$ , where  $P_f$  – final profit,  $P_t$  – total profit and  $I_t$  – total investment, and dynamically with the formula:  $R = \frac{P_{ta}}{I_{ta}} - 1$ ,  $= \frac{P_{ta}}{I_{ta}} - 1$ , where  $P_{ta}$  – updated total profit and  $I_{ta}$  – updated total investment.

f.) There is a system of indicators for assessing and analyzing the quality of services which comprises technical indicators that refer to the main amount of services, such as: the number of passengers carried per day, the amount of freight carried per 100 km, the number of patients treated, the number of readers that use public libraries per year, the number of applications for social aid, hot water pressure, cold water pressure, etc.

Technical indicators comprise:

- quality indicators of equipment used in the process of service providing, such as: the speed of the means of transport, the speed of the computer, printer, the automation of equipment, power consumption indices, the degree of execution precision, the number of simultaneously executed operations, etc.;

- environment indicators: the degree of phonic pollution, the degree of chemical pollution, the degree of air emissions, etc.;

- specific (partial) quality indicators, which are employed in public services and which do not allow deviations from the established qualitative characteristics, because of the necessity of ongoing service and safety providing (power, running water, gas supply etc.). This category also includes: the voltage, the intensity, the frequency of the supplied electric power, the purity degree of the running water, the pressure and the caloric power of the gas supply, the end temperature of the running hot water, the comfort degree of the means of public transport, etc.;

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- *the consumer serving indicators*: the service accessibility – the amount of working hours, the waiting time for the service; the effectiveness of the firm's managers/service provider – the quota of (un)achieving established objectives; the economic and management efficiency of the firm/service provider – the value of the resources by whose means the results have been obtained and the quality of the management; the satisfaction degree of the service beneficiary;

- *consumer complaint indicators* that express clients' reaction to deviations from the established quality. This category comprises: the amount of the provided services, expenditure made for solving the problems complained about, the frequency of complaints, the average number of daily phone calls for solving a single problem,<sup>11</sup> etc.

g.) The service quality is most times appreciated in light of **the correspondence with client expectation**, when certain aspects become of utmost importance, such as opportunity and accessibility of service, continuity in service providing, the degree of client satisfaction.

Among the satisfaction criteria that could be taken into account we should mention:

- *the anticipation degree of client needs*, expressed by the percentage of services that are not provided to the client as they had not been taken into account by the service provider, although the client expected to use such services;

- *the accuracy degree in defining the performance content*, expressed through the average number of encounters between the provider and the client with the aim of defining the service content;

- *the satisfaction degree of the service requirement*, determined as a percentage of all client requirement regarding services that cannot be met because of non-existing human or material resources;

- *the flexibility (promptness) degree in dealing with emergency situations* expressed through the average time amount spent from

receiving the client requirement to providing the service;

- *the efficiency degree in dealing with problems concerning the provided service*, calculated as a percentage of all problems that do not allow providing the service within the initial time amount.

Under these circumstances, the management should lead the firm towards both a commercial and a technical approach, as this could be the sole way of finely combining activities generating client satisfaction, starting with designing the offer, presenting services, setting prices, writing documents to keep clients up to date and advertising.

Assessing the impact client satisfaction has is an activity that should be ongoing and carried out both with financial and qualitative means.

The financial impact can be assessed in the light of the variation of the firm profit. Analyzing the evolution of the firm profit in function of the client satisfaction, the following situations have been identified: the profit has decreased in the same time with the decline in the client satisfaction, the profit has proportionally increased in line with the increase of quality and client satisfaction. Yet, several situations have been identified when, although the quality has improved, the income have been the same or even lower and this actually means that the financial computation is not always a correct operational solution in point of the time factor, this being the reason why the management should turn to non-financial assessment, meant to pinpoint the strong and the weak points.

In order to get immediate operational results, we consider that upon assessing client satisfaction, one of the following methods should be employed:

- *the satisfaction questionnaire method* that allows setting the position of the firm as compared to the main competitors as far as quality, client difficulty identifying, identifying client nonsatisfaction sources, testing the efficiency of quality improvement programs are concerned;

<sup>11</sup> Zamfir, *op.cit.*, pp. 416-422.

- *the critical incident method* which allows identifying difficulties met by clients during service providing and is based on intelligence obtained by means of individual interviews;

- *the complaint management method* which presupposes filing, classifying complaints coming from clients and finding solutions to them;

- *the mysterious client method* that presupposes appointing a firm employee to test, as client, the real life service providing<sup>12</sup>.

## CONCLUSIONS

In Romania, which is currently a democratic state, among the activities carried out by the public administration, there are economic-financial, judicial activities regarding discipline, labor and social protection, socio-cultural activities, educational activities, health activities, sport enterprises, as well as activities including families and child protection, urbanism and environment protection.

Public and private domain administration services are meant to meet the needs of the local community, contribute to increasing the level of civilization and comfort and comprise town public and public interest activities, having as a goal setting up green areas, parks and public gardens, sport courts and amusement parks for children.

Public and private domain administration services are done by means of specialized service providers, which are called operators, authorized in accordance with the law.

The term efficiency can broadly be defined as being the characteristic of an action, of a person or a object that positively influences the society, while, more precisely speaking, it refers to the connection between the outcome of an action and the resources allotted to carry out the former.

Consequently, with the help of the efficiency indicators, one could measure the way in which public services meet the population needs, as well as the way in which the resources the public administration owns are allotted in accordance with the population's expectations.

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<sup>12</sup> Zamfir, *op.cit.*, pp. 416-422.



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# KNOWLEDGE MANAGEMENT: PROJECTS, SISTEMS AND TECHNOLOGIES



November 23-24, 2017

## PROCEEDINGS

OF THE 10th INTERNATIONAL CONFERENCE  
ON KNOWLEDGE MANAGEMENT:  
PROJECTS, SISTEMS AND TECHNOLOGIES

# The 10<sup>th</sup> International Conference on Knowledge Management: Projects, Systems and Technologies



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## Introduction

Throughout the last decades, a wide variety of organizational practices have been proposed to support the acquisition, storage, retrieval, application, generation, and review of the knowledge assets of an organization in a controlled way; despite this, it is often unclear how these practices relate to one another in their contribution to organizational performance.

In the information age, rather than physical assets or resources, knowledge is the key to competitiveness. What is new about attitudes to knowledge today is the recognition of the need to master, manage and use it like any other asset. This raises issues not only of appropriate processes and systems, but also of how to account for knowledge in the balance sheet.

The management literature of these last few years suggests a variety of practices meant to support the creation, storage and transfer of information and knowledge. Knowledge Management (KM) is a relatively new subject matter, being integrated in the curricula of some North-American universities and debated in a few dedicated journals starting with 1995.

## The mission

The International Conferences on Knowledge Management's Mission is to facilitate communication between international multidisciplinary teams. The Conference provides a forum in order to discuss the topics related to knowledge management development and related disciplines.

As a new scientific area, there are presently quite many schools referring to Knowledge Management, which therefore accounts for the difficulty or even impossibility to set the conceptual framework of this domain, starting from a unanimously accepted definition for it. As a consequence, the approach to the matter differs with each school or even author.

## The papers

The papers reach high academic standards and cover a wide range of key issues. The authors bring forth extensive experience and diverse views of the state and local governmental institutions, universities, small businesses, private industry and research institutes from all over the world.



KM-02, 2007



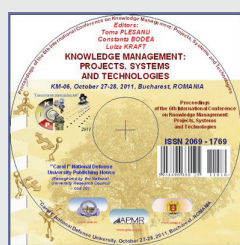
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KM-06, 2011

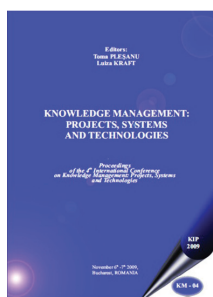
The main areas of interest proposed for the papers submission cover the following sections:

- ➔ Knowledge, Learning and Cognitive Systems;
- ➔ K-Organizations;
- ➔ KM Projects;
- ➔ Knowledge Dynamics;
- ➔ Army Knowledge Management.

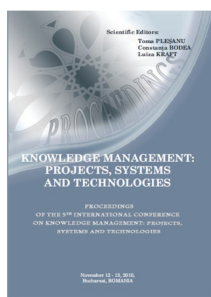


Knowledge Management can be regarded from the following perspectives:

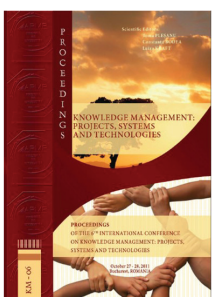
- The techno centric perspective, stressing technologies, especially those contributing to knowledge enlargement and sharing;
- The organizational perspective, seeking to answer questions such as: How should the enterprise be designed to facilitate the knowledge processes inside it? Or, which organizations work best and based on what processes?
- The ecological perspective, regarding the human interactions, the identity, knowledge and environment factors as a complex adjustment system.



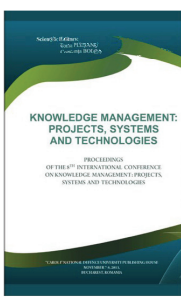
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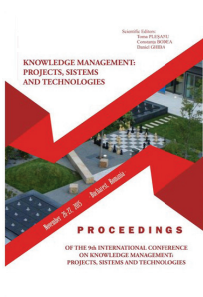
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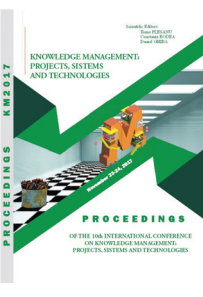
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