"CAROL I" NATIONAL DEFENCE UNIVERSITY
Centre for Defence and Security Strategies Studies

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THE COMPLEX AND DYNAMIC NATURE OF THE SECURITY ENVIROMENT

Volume 2

Editors
Florian CÎRCIUMARU, Ph.D.
Cristina BOGZEANU, Ph.D.

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and Security Strategic Studies

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ETHICAL-MORAL PRINCIPLES
CURRENTLY USED IN INTERNATIONAL RELATIONS

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Abstract: The current international system bases its moral fundamentals on principles developed along the centuries with major contribution from theorists associated to the Western and Christian culture.

The Just war theory, a term that encompases generally agreed moral and ethic principles on how to declare, conduct and conclude a war, is a collective effort of theorists who contributed decisevly to the blueprints of the UN Charter and are strongly reflected in the Geneva Conventions provisions. Both documents are fundamental in regulating the way the relationship between states are currently shaped.

This status quo allows advanced democratic states to engage, either using the framework provided by the military alliances, the already established security organizations or the ad hoc coalitions, throughout the full spectrum of military operations in support of peace, subject to moral justification of their military action.

However, recent transformation on the nature of war, tehnological developments and the emergence of new non-state actors on the international stage are challenging the existing paradigm.

Keywords: *Just war theory; moral and ethics of the conflict; modern security challenges.*

INTRODUCTION

War is a feature of human history, shown over time in all societies. As a specific human activity, war has often had, large-scale consequences. Even in the rare cases where the consequences of war were local, its effects were devastating for those involved. The loss of human life, in terms of hundred, thousand or even million people, the equally large number of injured, as well as the material damage caused, can hardly be justified by any theory on the just cause of war. At the same time, however, war, as a social phenomenon, has been a critical component of human history, influencing the process of the emergence, formation and development of nations and cultures.

The existence of the dichotomy between the act of killing and the persistence of war as a social phenomenon has led, since Antiquity, to attempts to justify war, to apply ethical principles both in terms of giving reasons to use violence at individual and group level and in terms of its acceptable level. Although philosophers and academics from around the world questioned the moral justification of the use of violence, nowadays the greatest attention is being paid to the theories and traditions developed in the West or which have a strong Western influence. Historically, Christian religion, without neglecting the contribution of other religions[1], has had a major influence on the efforts to theorize the war.

Historically, the tradition of just war – perceived as a set of rules of behavior in war, mutually agreed and accepted by the combatants – has typically evolved between two culturally

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[1] Lake Andrew Davidson, *Inclusive Just War Theory: Confucian and Mohist Contributions*, Department of Philosophy, Colorado State University, Fort Collins, Colorado Spring, 2016, p. 4.

similar opponents. When a number of cultural and moral values are common to social groups or peoples, it is relatively easy to have, implicitly or explicitly, a set of rules which define the boundaries of war. On the one hand, when there are significant cultural differences between opponents, war conventions are rarely applied. The way one perceives his opponent, in the sense that it shares the same moral identity, is crucial in establishing the limits to the use of violence in the event of conflict. On the other hand, the reasons for concluding conventions or agreements may be the result of a mutual benefit, in the sense that a continuous series of acts of retaliation or types of actions which have proved to be detrimental to the political or moral interests of both parties after the end of the war[2] are avoided.

1. The Just war theory

There is a general acceptance that the killing is an extreme and very hard-to-justify gesture. John Rawls claims, for example, that there is a human-specific 'natural duty', generally not to hurt or cause harm to his fellow humans[3]. Christian theology retains the same obligation in the Decalogue and, in a general sense, in the *agape* rule[4].

Killing is a fundamentally wrong act and therefore always needs justification: without morally justifying the act, it is unacceptable. Therefore, the killing is never neutral. In Frankena's point of view, "even when [the murderers] can justify their act, there is still a moral point against them"[5]. So the theory of just war, in reality, implies a moral dilemma: There are two primary obligations - to avoid killing and to respond to the need for justice - which cannot be met simultaneously. Respect for one moral principle requires the sacrifice of the other. The dilemma is resolved by identifying the justification for the sacrifice in the means underlying the decision. The theory of just war is based on the presumption that war is forbidden, unless it is justified and can be demonstrated as such. This theory also names the situations when the use of force is justified[6].

The theory of just war also considers the justification of how and why wars are taking place. The justification is based on both theoretical and historical perspectives. Thus, the theoretical aspect is linked to the ethical justification of war, and to the forms that war may or may not take. The traditional aspect historically deals with the set of rules or agreements that have been applied over time in different wars. For example, international agreements, such as the Geneva and The Hague conventions, are historical, legally valuable rules which aim to limit certain types of war. However, it is the ethics' role to examine these institutional agreements for their philosophical coherence and for analyzing the issues that need to be modified. The tradition of the just war can also take into account the philosophical ideas promoted throughout history and analyze the visions of the ethical limits of war[7].

Although the theory has evolved in time, its theorists developing different versions by adopting either a religious or a secular approach, there are some common principles that are quite general. It is important to mention that, no matter how diverse these theories are, the differences consist of subtle details and not the substance of theory. Moreover, the fundamental

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[2] ***, "Just War Theory", Internet Encyclopedia of Philosophy, URL: https://www.iep.utm.edu/justwar /#H3, accesed on 22.10.2019.

[3] J. Rawls, *A Theory of Natural Justice*, Harvard University, Cambridge, Mass, 1971.

[4] Agape – referred to in modern times as universal love, charity, or even altruism. Essentially, it's the love inside us that we give freely to others—regardless of our relationship to them. See: ***, „Agape – The preferential and sacrificial love!", The logos of Agape, 11 July 2018, URL: https://thelogosofagape.wordpress.com/ 2018/07/11agape-the-preferential-and-sacrificial-love/, accesed on 22.10.2019.

[5] W.K. Frankena, *Ethics,* (2nd ed.), Prentice-Hall, Englewood Cliffs, 1973, p. 55.

[6] Roger Dawson SJ, „Just War Theory", in *Thinking Faith,* 11th October 2013, URL: https://www.thinkingfaith.org/articles/20131011_2.htm, accessed on 22.10.2019.

[7] ***, "Just War Theory", *art.cit.*

principles of the theory of just war are currently generally accepted and consist of arguments in the debates on global war and international law.

The first attempts to theoretize the principles of the just war are often attributed to Cicero (106 - 43 AD). It was the Christian theologian Augustin of Hippo (354 to 430) who consistently formulated the first principles of theory. Important subsequent contributors were also St. Thomas Aquino (1225 - 1274), Francisco de Vitoria (1483) - 1546), Francisco Suarez (1548 - 1617), Hugo Grotius (1583 - 1645) and Michael Walzer (n. 1935). However, the way in which we accept the legitimacy of war is rooted in the writings of St. Augustin. He believed that the „kingdom of peace" could not be achieved in human history, just beyond peace, which is why one must take into account the reality of sin, including violence and the possibility of war. Despite this reality, St. Augustin has had a profound horror on war and wanted to develop an instrument to assess the morality of wars in order to limit their number and brutality and to protect the moral order of the world. This instrument has taken the form of a set of conditions that must be met for a war to be considered just - which has become known as the Just war theory.

Although St. Augustin provided comments on the morality of the war from a Christian perspective, the most systematic exposure in the European tradition was outlined by Thomas Aquino in the 13th century. In his work *Summa Theologicae*, Aquino presents a general vision of what will become the traditional Just war theory. He addresses not only the justification of the conflict, but also the types of activities allowed in the fight.

Explicitly articulated in the Christian theology, the tradition of just war is in a wider sense the common approach of Christian culture to justify the use of force. This tradition has been taken up in the early days of the modern era by scholars such as Soto and Suarez, the reformist Protestant Martin Luther, the Puritan theologian William Ames or by the jurist Hugo Grotius.

A major development in the evolution of Just war theory took place in 1648 with the end of the Thirty Years' War (1618-1648) and the signing of The Peace of Westfalia (1618-1648). Its contribution to the Just war theory was significant. Until then, the theory did not necessarily consider states or nations in addressing its precepts, but rather only addressed the various "groups" of warlords. With The Peace of Westfalia, there is a change from considering social groups to focusing on the rights and obligations of nations and states. The international system of states, as it is known today, has its origin in the 1648 peace treaties signed at Münster and Osnabück[8].

The two opponents which confronted during the Thirty Years' War were Austria, Spain and a number of German Catholic states (including Bavaria); Sweden, Denmark and Protestant states, respectively. Catholic France supported the Protestant powers, not wanting to accept the hegemony of Habsburg, who held the supremacy in Europe, or an unification of the German space under the Vienna rule. Thus, the Thirty Years' War led France to assert, through the Cardinal Richelieu, a new principle of foreign policy, that of the *raison d'état*, to the detriment of some universal-religious principles. Along with The Peace of Westfalia, Protestant Reform has also helped to bring about the concept of national sovereignty, thereby undermining the Catholic Church's authority in its attempt to regain control over Europe. The 109-states newly formed international system has developed on the basis of three fundamental principles: that of national sovereignity and the fundamental right of political self-determination - through which the newly formed States were able to decide their fate on their own; that of equality between States and that of non-intervention by one state in the internal affairs of another state[9].

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[8] Lake Andrew Davidson, *op. cit.* p. 4.
[9] Claudiu-Valentin Streja, *Contribuţia Păcii de la Westfalia la Sistemul Internaţional, Şcoala Naţională de Studii Politice şi Administrative*, Departamentul de Relaţii Internaţionale şi Integrare Europeanî, Bucureşti, 2013, p. 6,

The Just war theory, in its common form, offers *jure belli*, or rules of war as such, as well as a number of important concepts in warfare - *jus ad bellum* (justified reasons for declaring war), *jus in bello* (good behavior during engagement in war) and *jus post bellum* (rules applied after the end of war). It is based on the classic concept of the prior guilt of the aggressor and the just war as a means of restoring violated rights, or as a means of restoring justice, from which the other central concepts derive. At the same time, the natural rights of the enemy must also be protected, because opponents are human and must be treated with justice and respect, even after hostilities have begun. Therefore, conduct in war must be fair[10].

Just war theorists try to reconcile three apparently contradictory ideas[11]:

- loss of human lifes is fundamentally a morally wrongful act;
- states have the duty to protect their citizens and defend justice;
- protecting innocent human life and defending important moral values sometimes requires the need to use force and violence.

A war is just if a number of criteria are met: its initiation is justified and the conduct of the fight is carried out in a correct way. From this perspective, throughout history, some wars declared for right causes were unfair because of the way they were carried out.

1.1. Jus ad bellum

The moral and ethical principles of war's justness are commonly considered to be: the existence of a just cause, its declaration as the last solution for resolving disputes, the declaration of war must be made by a competent authority, the existence of a fair intent, the existence of a reasonable chance of success, and the end is proportionate to the means used. It can be seen that the principles of just war are not entirely intrinsec and do not derive from one another on the basis of consequence. While this state of affairs gives the theory the advantage of flexibility, the lack of a strict ethical framework means that the principles themselves are open to multiple interpretations.

The existence of the "just cause" is the first and probably the most important condition of the *jus ad bellum*. Most theorists argue that initiating acts of aggression is unfair and gives the victims of the aggression a fair cause to defend themselves. However, in the absence of a very clear definition of what "aggression" means, this condition is interpreted. For example, the just cause resulting from an act of aggression can clearly be a response to a physical injury (e.g. a violation of territory), an insult (an attack against national honor), a trade embargo (an attack against economic activity) or even as an act of social justice violation.

The responsibility in this case lies with the theorist to provide a consistent and solid definition of what is meant by "just cause". There is now a consensus that initiating an action involving the use of force is wrong and can be a just cause for the victim using it for self-defense purposes. However, the principle of self-defense can be extrapolated to anticipate the probable actions of aggression, as well as to help a third party defend itself against an oppressive government or an external threat (interventionism). Therefore, the idea of an aggressive war is accepted only if its aim is to respond to an already committed unjust act (e.g. prosecution and punishment of an aggressor) or to prevent an imminent attack.

In the past years, the argument for pre-emptive actions won supporters in the West, but the justification for the morality of using force to avoid a possible war is certainly a problem that requires in-depth analysis. Critics of the use of pre-emptive actions based on a just self-defense cause claim that the argument is based on an estimated and not imminent attack and is

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URL: https://www.academia.edu/13382727/Contribu%C8%9Bia_P%C4%83cii_de_la_Westphalia_la_Sistemul_ Interna% C8%9Bional_Modern , accessed on 22.10.2019.

[10] Lake Andrew Davidson, *op. cit.*, pp. 14-15.

[11] *Ibidem*, pp. 55-56.

contrary to the moral and legal principle of innocence without action. Actions to develop offensive weapons systems and their aggressive positioning in the field do not constitute an aggression, just as a man carrying a weapon is not a man using a weapon.

War must always be the last solution. This principle is closely linked to the existence of a just cause - all other conflict resolution options must be used before the declaration of war. It is admitted that war often unleashes forces that are beyond the control of civilian or military leaders; there is too much "fog" in war[12] and in this fog truth and trust are early victims. The destruction caused by war, both in social and economic terms, is so great that they are felt over several generations.

The notion of "adequate authority" with the right to declare war seems to be resolved for most of the just war theorists, which claim that it clearly lies in the sovereign power of the state. However, the concept of sovereignty raises a multitude of issues that need to be taken into account. If a government is legitimate, in the sense that it is responsible and does not arbitrarily govern, then it is reasonable to grant state representatives the right to declare war. Consequently, the more reasonable it is for a government which acts against the principles of good governance to accept that it loses its right to represent the political sovereignty of the state. A prominent historical example is the Vichy government during the Nazi occupation of France. What loyalty owed the French people to this government? From a hobbesian[13], almost absolute loyalty to the state implies that resistance is wrong, while from Locke's perspective[14], a weak or corrupt regime has no sovereignty. Therefore, the concept of "adequate authority" requires an analysis of what is meant by sovereignty, by the state, and what is the appropriate relationship between a people and their government.

Having "the right intention" is apparently less problematic. The general idea of the concept is that a nation which starts a just war should do so for the restoration of justice and not for its own interests. In other words, a war cannot be considered just if it is declared only on the basis of national interests. However, the principle of "correct intention" masks many philosophical problems. According to Kant, having good intentions is the only condition of moral activity, regardless of the possible or caused consequences and regardless, or even despite, of any own interest[15]. However, the value of own interest must be taken into account. Where does the right intention separate from own interests? Is the moral value of the intention earned only by acting in favor of your equal and, if so, what does that mean for moral action? Generally, the representatives of the realistic vision put on the first place the primary national interest compared to the correct intention.

The principle of reasonable success is another necessary condition for declaring a war, but again insufficient. Taking into consideration the just cause and the right intention, the Just war theory states that there must be a reasonable probability of success for the war to be declared. The principle of reasonable success implies that the benefits and costs of a military campaign must be assessed in advance. However, this evaluation raises significant moral and practical issues. Should it not be possible to initiate military action in support of an abused nation if there is no chance of success? Is it right to accept aggression because the costs of its rejection are prohibitive? Would it be fair to destroy a weak enemy because it did not entail high costs? Is not it sometimes morally necessary to oppose the resistance of an aggressor with

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[12] Carl von Clausewitz is credited with coining the term "the fog of war" although he never actually used it. He did speak of fog as a methaphor for war s ambiguities. See: "The fog of war. Strategic Thinking", URL: https://www.strategybydesign.org/fog-of-war, accesed on 22.10.2019.

[13] Curtis Johnson, "The Hobbesian Conception of Sovereignty and Aristotle's Politics", in *Journal of the History of Ideas*, Vol. 46, No. 3, Jul. - Sep. 1985, pp. 327-347.

[14] John Locke (29 August 1632 – 28 October 1704) English philosopher.

[15] ***, "Just War Theory", Internet Encyclopedia of Philosophy, URL: https://www.iep.utm.edu/justwar/, accessed on 22.10.2019

much greater force, as did the Finns when they were invaded by Russia in 1940? However, the principle of reasonable success underlines that human life and economic resources must not be lost in what would obviously be an uneven resistance. Other forms of resistance or defense can be available for a nation threatened by invasion, such as forging alliances with other nations to equalize opportunities.

The last principle of *jus ad bellum* is that the desired end must be proportional to the means used. This principle coincides with the moral guidelines of how to fight a war, namely the *jus in bello* principles. In terms of just cause, a war policy requires an objective, and this objective must be proportionate to the other principles of a just cause. Although this usually involves minimizing the destruction of war, a general balance of power considerations can also be invoked. For example, if a nation invades other nation's territory, then the last one has the right cause to recover it. In accordance with the principle of proportionality, the counterattack must not cause a disproportionate response: it should seek to recover the land and not invade the aggressor's land or, in geographical terms, should not respond with overwhelming force or nuclear weapons to resolve a border dispute. In order for the aggressed nation to invade and annex the aggressor land and then to continue invading neutral nearby nations, arguing that their territory would provide a basis for further aggression, it is also an unsustainable argument.

1.2. Jus in bello

The rules of fair conduct at war are in line with the two broad *principles of discrimination and proportionality*. The principle of discrimination refers to legitimate targets in war, while the principle of proportionality addresses the level of morally adequate violence. Another principle can be added namely the *principle of responsibility*, which requires an examination of responsibilities in war.

A strong implication of the existence of a justice system for combat actions, as a separate subject from the analysis of the right way to declare war, is that the theory of just war allows the prosecution of acts of war to be dissociated from its reason. This is a useful separation, but it does not necessarily interrupt all the connections between the two great principles of war: the justice of a cause remains a strong moral guide through which war must be analised.

In the conduct of war, combat actions carried out without discrimination are considered unfair and unjust, as non-combatants are considered to be outside the operational field. Their immunity against combat actions can be motivated by the fact that they are not part of the essence of war, which is considered to be the killing of enemy combatants. Because the killing itself is extremely hard to justify, the theorist of just war must provide a reason why the combatants become legitimate targets and whether their status changes according to the nature of war - just or unjust. In this respect, it can be considered that being trained and/or armed constitutes a sufficient threat to the combatants in the adverse camp and therefore wearing a uniform changes the moral status of the individual as a legitimate target.

The second principle of just conduct in war is that any offensive action must remain strictly proportional to the desired objective. This principle overlaps with the principle of proportionality, but is sufficiently distinct to consider it in its own right. Proportionality for the *jus in bello* requires the tempering of the duration and violence of war to minimize material destruction and human victims. In general, this principle is useful in trying to minimize overall suffering, but it can also be understood from other moral perspectives ("good will of all" in Kant's ethics, or "virtuous action" in Aristotelic ethics). While considering discrimination focuses on who is a legitimate target in war, the principle of proportionality addresses what type of force is morally admissible.

In conducting a just war, where only military targets are being attacked, it is nevertheless possible to break morality by using disproportionate force against the enemy. In the battle of

Omdurman in 1898, in Sudan, six soldiers handling machine-guns killed thousands of dervishes[16]. Soldiers may have been entitled to defend themselves, but the principle of proportionality implies that a fight ends before it becomes a massacre. Similarly, as a consequence of the Cullden battle of 1746 in Scotland, Cumberland's order "No Quarter" was not only a violation of the principle of discrimination, because its troops were allowed to kill the wounded, but also a violation of the principle of proportionality, because the battle had been already won and the Jacobin cause had been effectively defeated in the battlefield[17].

2. The theory of just war in modern times

The just war theory was formulated in historical times very different from the realities of modern times. As Kenny notes, war in modern times is characterized by technology, bureaucracy and dehumanization, in the sense that the effects of the actions of the combatants are largely unnoticed directly and, therefore, there is a decrease in the sense of personal responsibility for those killed[18]. In this case the question which arises is whether this theory is still appropriate to the requirements of war in a modern era?[19] In many respects, the task of recovering the principles of just war formulated by ancient and pre-modern theories and adapting them to the reality of modern war was not simple.

In past decades, the idea of a just war has been re-evaluated in public discourse, and this has called for a greater involvement of the political class in debates on the justification of war, its morality and international law. As a result of these developments, the debate on just war is now more robust than any other period except in the middle of the 16th century until the middle of the 17th century - the era of Suarez and Grotius. But important elements of the connection with the previous tradition, the idea of just war in its classical form, have largely been lost in these debates, including Christian theory.

The concept of sovereignty, as a moral responsibility in the traditional view of just war, clearly contrasts with the one existing in the westfalian system, which is much narrower. Three centuries of experience in international relations built on the basis of agreements concluded through The Peace of Westfalia have shown that the principles of national sovereignty, territorial integrity and non-interference in internal affairs can lead to the protection of dictatorial political systems if interpreted in strictly procedural terms. The concept of justice in a good social order, rooted in the nature of things and expressed by human moral responsibility for the people, contrasts sharply with contemporary concepts of justice, especially in international relations, which lack substantive normative content.

As previously presented, The Peace of Westfalia has embarked on a long-term trend toward the sovereignty of nation states. Morgenthau claims that during this development of national identity, people started to develop a personal connection with the state/nation they lived in. The citizens of a state have developed over time a system of national morality, which when challenged could lead to conflict. As a result, the motivation of war began to be based on ideological considerations, firmly rooted in matters relating to the balance of power, rather than mere territorial acquisition or religious issues. The turning point was marked by France joining

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[16] In the batle of Omdurman, the British army commanded by General Sir Herbert Kitchener defeated the forces of Abdullah al-Taashi, the succesor of Mahdi Muhammad Ahmad. Kitchener was seeking revenge for the death of General Gordon in 1885, See details at URL: https://www.google.com/search?q=omdurman+battle&ie=utf-8&oe=utf-8, accessed on 22.10.2019.

[17] On April 16th, 1746, the Jacobin forces of Charles Edward Stuart have been decisevly defeated by the Hanoverian forces commanded by William Augustus, Duke of Cumberland, in the vicinity of Inverness, Scotland. Details at URL: https://en.wikipedia.org/wiki/Battle_of_Culloden, accessed on 22.10.2019.

[18] A. Kenny, *The Logic of Deterrence*, Waterstone, London, 1985.

[19] Roger Dawson SJ, "Just War Theory" 11 October 2013, URL: https://www.thinkingfaith.org/articles/20131011_2.htm, accesed on 22.10.2019.

the Thirty-year War, on the side of the Protestants. This is also a modern characteristic of international relations which had its genesis in the westfian system. With some exceptions, most modern wars such as The Second World War, the Cold War or the War against Terrorism are all examples of ideological confrontation. The perceived monopoly over morality systems is only one aspect of sovereignty.

A particular concern was the emergence of nuclear weapons and the increasing ethical dilemma that this type of weapons raise both in terms of their actual use and their role as supreme deterrent. The development, in the last century, of advanced military technology and nuclear weapons, in particular, has raised additional problems which must be taken into account in any debate about the just war theory, but in essence it has not changed the moral status of war; the risks are now much greater and, consequently, the imperative of avoiding the greater war is stronger. Only post-modern war theorists believe that nuclear war could in fact be carried within the limits of traditional principles of just war, in particular those of discrimination and proportionality[20]. Under this argument, since nuclear weapons can be used in war, it is perfectly moral to develop and produce them. On the other hand, however, the representatives of the peaceful trend believe that nuclear war cannot take place within the limits of the traditional principles of the just war, and therefore it cannot be moral and there is no reason for developing and producing nuclear weapons, including their use solely for the purpose of deterrent. Since nuclear deterrence involves the use of the threat of nuclear destruction, it is necessarily immoral; in addition, nuclear weapons have led to unacceptable risks of their accidental use or to threat errors.

CONCLUSIONS

Technological development now allows for large-scale or global wars with combat actions directed against entire nations. This can never be morally justified, because it involves the direct killing of non-combatants; even in the situation of the use of high-precision weapon systems or "smart weapons" (e.g. drones), they frequently cause the killing of those who are not directly engaged in military operations.

Although it would have been almost impossible for St. Augustin or Aquino to predict a reality in which several states would have the power to destroy the world, the theory of the just war can provide another moral and ethical orientation in the modern era. The right war is a tradition that continues to develop and therefore further conceptual adjustments may be necessary in the light of new technological and political developments.

The new paradigm allows advanced democratic states to engage, either using the framework provided by the military alliances or already established security organizations, or by ad hoc coalitions, throughout the full spectrum of military operations in support of peace, subject to conditions for moral justification for military action.

In addition to the advantages of this system, there are also a number of disadvantages, such as: The transparency of the rules of war applied, makes the enemy understand the limitations of military action and create operational advantages without taking into account ethics or morality; the fact that a non-state character (who does not comply with the international rules of the field) is part of the conflict makes it difficult to justify both legally and morally the military actions against him; last but not least, it is difficult to determine the responsibility of a state that uses hybrid war actions to promote its political interests.

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[20] Stephen R. Rock, *From Just War to Nuclear Pacifism: The Evolution of U.S. Christian Thinking about War in the Nuclear Age, 1946–1989*, Department of Political Science, Vassar College, Poughkeepsie, NY USA, 24 May 2018.

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MILITARY MEANS AND METHODS OF UNDERMINING USED BY THE RUSSIAN FEDERATION

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Abstract: The paper presents some of the military means and methods, used by the Russian Federation to undermine some targeted states, with reference to increasing its geopolitical ambitions while trying to become an important center of power in a multipolar world and reduce the US influence in Europe and Asia. Controlling the states in the immediate proximity of its borders has always represented for Russia an objective of utmost importance in terms of physical security. Russia considers that its geographical position may generate some vulnerabilities, being therefore entitled to appeal to a combination of arrangements, pressure, grants and diverse sanctions. All these generate a change in the way of promoting national security interests, as well as and the art of waging and conduct war.
Keywords: hybrid war; military threat; subversive actions; Russia; shadow war.

1. Political Access

Russia demonstrates that it has returned to assertive foreign policy. Successful military interventions in Ukraine and Syria as well as the capabilities used for that purpose, have surprised the West. Russia continues to present itself as threatened by the West, and its security initiatives are considered to be defensive measures. Moscow has carefully prepared itself to compete with the West. Its geopolitical ambitions have led to regional tensions, especially near its own borders, and the tactics and capabilities used to reach the strategic objective, to make Russia an important center of power in a multipolar world and the reduction of US influence in Europe and Asia, reach various forms and methods. Putin controls the Kremlin's policy through a smaller group of trusted people, consisting of chairman's of security institutions, or businessmen who control some important branches of the economy. Through this group, from which no dissident voices have come out, Putin's plan to regain the lost place in the equation of world power has led to discussions regarding the role of NATO, EU and US in Europe and the way in which their answer can be more effective in stopping Moscow's ambitions.[1]

The Kremlin feels threatened by the extended discussions of NATO and the EU with the neighboring states. That is why it uses a series of subversive actions, of which the most important seems to be the use of threat and pressure to capture control of a certain important sector of the local economy, the overthrow of the political systems, the corruption of some local leaders, penetrations of security institutions, undermining the national unity and territoriality, actions of misinformation and propaganda in order to weaken the governments that are opposed

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[1] Laurynas Kasčiūnas, Marius Laurinavičius, Vytautas Keršanskas, "Vladimir Putin's pyramid of rule: Who really governs Russia?", in EN.DELFI, 4 August 2014, URL: https://en.delfi.lt/politics/vladimir-putins-pyramid-of-rule-who-really-governs-russia.d?id=65432116 accessed at 19.08.2019.

to their interests. Despite the fact that there is an upward expression[2] of strengthening the sphere of influence in the neighboring countries[3], or as they are called "former Soviet space", as well as the regional expansion in general, the action of Moscow being directed against these states can be considered a defensive one.[4] Kremlin has an arsenal of methods that can be characterized by flexibility, opportunism and improvisation and its intention is not to show any signs of weakness in front of West or of its citizens. This is the reason why the limitation of business and escalation of internal problems are well covered by Russian propaganda, which prefers to maintain uncertainty.

In recent history, the basic strategic documents (*Military Doctrine*, *National Security Strategy*) have been modified several times by a special decree as a result of external political factors influence, becoming more aggressive. For example, in the National Security Strategy of 2009, Chapter II, which refers to "Russia and the Modern World: current conditions and working trends", is mentioned that "In the long term, the Russian Federation will seek to construct international relations based on the principles of international law…For the defense of its national interests, Russia, while remaining within the boundaries of international law, will implement a rational and pragmatic foreign policy, one which excludes expensive confrontation, including a new arms race"[5]. In the 2015 Strategy, at the same chapter, in the context of the military aggression against Ukraine in 2014, is stated that "Russia has demonstrated the ability to safeguard sovereignty, independence, and state and territorial integrity and to protect the rights of compatriots abroad. There has been an increase in the Russian Federation's role in resolving the most important international problems, settling military conflicts, and ensuring strategic stability and the supremacy of international law in interstate relations."[6]

We can deduce that Russia can only wish to regain the lost glory and the global status before the collapse of the Soviet Union and to prevent the West activities in the area of his interest. Their action in Ukraine has led to an increased pressure of Moscow in the area of post-Soviet influence and at the same time it sent the message that maneuvering space can be extended. Belarus, Moldova, Ukraine, Georgia, Azerbaijan and the Central Asian states do not present a high interest to the US, being left under the political and economic umbrella of Russia. Russia has invoked the right to counteract to the West' attempts to regain strategic superiority by placing missile ballistic systems, by using nuclear weapons as an answer to any aggression (even with conventional weaponry), against any opponent who will infringe upon the existence of the state[7], denotes that Russia will be more involved on the international stage.

Since the onset of the Ukrainian crisis in 2013, numerous terms have been used to describe "the new war time". "Hybrid war" is one of the most popular and most commonly used language in Western literature, while Russian military specialists call it "non-linear war".

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[2] *** Russian National Security Strategy, December 2015, URL: http://www.ieee.es/Galerias/fichero/ OtrasPublicaciones/ Internacional/2016/Russian-National-Security-Strategy-31Dec2015.pdf accessed at 28.10.2019.

[3] Jakub Grygiel, "The Geopolitical Nihilist", in *The American Interest*, 10.12.2014, URL: http://www.the-americaninterest.com/2014/12/10/the-geopolitical-nihilist/ accessed at 19.08.2019.

[4] Richard Sakwa, extract "Frontline Ukraine: Crisis in the Borderlands", 15.01.2015, URL: http://theibtauris blog.com/2015/01/15/extract-frontline-ukraine, accessed at 19.08.2019.

[5] *** Russian National Security Strategy, May 2009, URL: file:///D:/Rusia/Russia's%20National%20Security% 20Strategy%20to%202020%20-%20Rustrans.pdf, accessed at 28.10.2019

[6] *** Russian National Security Strategy, December 2015, URL: http://www.ieee.es/Galerias/fichero/Otras Publicaciones/Internacional/2016/Russian-National-Security-Strategy-31Dec2015.pdf accessed at 28.10.2019.

[7] Paul Goble, "Putin's New Military Doctrine Says Russia Faces More Threats Abroad - and at Home", in *Window on Eurasia,* 27.12.2014, URL http://windowoneurasia2.blogspot.com/2014/12/window-on-eurasiaputins-new-military.html accessed at 23.08.2019.

Some analysts call it "asymmetric war", "hidden war" or "war in the gray area".[8] Regardless of the name, the contemporary conflict in which Russia is involved, is a sophisticated one, with complex central elements of the state influence in relation to the political objective. It is strategic art with a new and complicated physiognomy that exceeds military art. In waging this this type of conflict Russia is using a very rich arsenal of elements that implies the concerted integration of all state power instruments.

2. Means and military methods of undermining used by Russia

Moscow uses a diverse arsenal of means and methods to create instability within the targeted states and to control the allies, using a combination of threats, pressure, support and sanctions that can be grouped, according to the manifestation environment, in several categories. Some of the most important are as follows:

- at the *diplomatic* level / external actions: fake diplomacy, strategic posture, self-defense on the international arena, ambassadorial interference, raising espionage, spies recruiting, penetration of information structures, creation of so called *legal chaos* in targeted states;
- in the *informational* environment: cyber war, trolls offensive, propaganda attacks, mass media control, misinformation campaigns, manipulation of the media, inventing of media agencies, psychological operations, disarming opponents;
- *ideologically*: victimization, support for Russian supremacy, the unification of Russia, invoking Pan-Slavism and religion, review of history, the cult of war, incitement to anti-Americanism, the division of the West, promoting anti-Europeanism, warrior traditionalism;
- *economic* domain: creating energy dependence, alliances in the energy domain, trade disruption;
- from the *ethnic* point of view: encouraging ethnic discord, generating / fueling separatist tendencies, involvement in international mediation actions, recruitment of local subversive agents, border challenges;
- *politically*: political assassination, financing political parties, buying political support in international relations, encouraging nationalist factions;
- *social* environment: social-media offensive, promotion of non-governmental organizations, setting up institutes for social or security policies, radicalization of young people, propagation of discontent.

Below, I will briefly present some of the most important functions and methods in the military field: the illusion of security, military threat, military incidents, intimidation military exercises, confrontation mirage, nuclear blackmail, tactical compromises, unconventional offensive actions (hybrid war), masked undermine, proxy wars, interventions with conventional forces, territorial fragmentation, exploitation of "frozen conflicts".

The illusion of security. Moscow has established in April 1994, the Collective Security Treaty Organization (CSTO) a political-military structure to which the Soviet republics were invited to join: Belarus, Armenia, Kazakhstan, Kyrgyzstan and Tajikistan. This construction, allows Moscow to control all the aspects of the armed forces and the borders of these states as

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[8] Jānis Bērziņš, "Russia's New Generation Warfare in Ukraine: Implications for Latvian Defense Policy", National Defence Academy of Latvia, April 2014, URL: http://www.naa.mil.lv/~/media/ NAA/AZPC/ Publikacijas/PP%2002-2014.ashx; Mark Galeotti, "The 'Gerasimov Doctrine' and Russian NonLinear War", in *In Moscow's Shadows,* July 6, 2014, URL: https://inmoscowsshadows. wordpress.com/2014/07/06/the-gerasimov-doctrine-and-russian-non-linear-war/; S. G. Chekinov and S. A. Bogdanov, "The Nature and Content of a New-Generation War", in *Military Thought,* October-December 2013, URL: http://www.eastviewpress. com/Files/MT_FROM%20THE%20CURRENT%20ISSUE_ No.4_2013.pdf, accessed on 23.08.2019.

well as the establishment of military bases and their territory. Moscow gave the idea of "equal security" in trying to counter the North Atlantic Treaty Organization (NATO). At the same time, Moscow has called on Ukraine and other states, to give up the desire for integration into NATO structures because this could lead to security prejudices in the region, as long as Russia is considering NATO a structure that threatens its security. In order to protect its new "dominion", in 2009, Moscow initiated the setting up of so called Rapid Collective Reaction Forces in the CSTO, with the declared aim to defend "sovereignty, keeping constitutional order and restoring territorial integrity"[9] of the member states. In fact, the Kremlin intends to have the right to use armed forces in internal affairs of these states, following the model of the Warsaw Pact, even though this structure has not viable military forces to carry out the task.

Military threat. Moscow launches periodically threats as an answer to the policy of neighboring states, policies opposed to Moscow, such as the expansion of NATO or shield installations of ballistic missile defense systems. According to the Russian military doctrine, Russia is preserving the right to initiate preventive military attacks in case of an "inevitable and distinct military threat", or if Moscow simply feels a threat to its access to regions where it holds "crucial economic and financial interests".[10] Also, Russia considers to have the right to use armed forces in the former Soviet states the Soviet state in case "the situation becomes complex and unstable", or if there may be a direct address to the Russian citizens or Russian ethnics.

Military incidents. Moscow is using military power to inflict incidents to some western states, especially with NATO members, in order rise the level of threat and tension and to test the political and military answer of these states[11]. Such incidents may consist of military aviation flights or naval raids. Threats are in fact, a form of psychological influence intended to induce to targeted state the idea of being weak or unprepared to deal with Russian offensive, given that there is a deliberate aggressive way for a capital alarm to NATO member states. An accidental collision with fighter jets or military ship can result in the loss of human lives or cause a conflict, which means it may cause the West to make some concessions to Russia. In particular, in the Baltic Sea and the Black Sea regions, Moscow is constantly engaged in such actions (jet flights, submarine raids, testing of military equipment), alerting the military forces with the aim of testing the speed of reaction of the military units. Moreover, it placed military equipment (Iskander M rockets, anti-aircraft missiles S-400) that would change the ratio of forces in the area.[12] The way in which Moscow has built its military capabilities in the Baltic Sea leads to the conclusion that the Russian military forces, in very short notice, are able to carry on a rapid attack with conventional forces, to block the air traffic, especially for NATO support forces, and to hit the majority of the land forces in order to block NATO get involved in a regional conflict.

Intimidating military exercises. The Russian military exercises are remarkable for their magnitude and frequency, as well as for the unannounced and surprising involvement of certain forces. Since 2012, Russia has performed seven major exercises. The number of participants was between 65,000 and 165,000, making NATO's exercise less famous than the Russian

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[9] ***, Collective Security Treaty Organisation, URL: https://en.odkb-csto.org/news/news_odkb/reagirovanie 2019/ accessed at 25.06.2019.

[10] ***, Russian Military Doctrine, URL: http://thailand.mid.ru/en/military-doctrine-of-the-russian-federation accessed at 19.08.2019.

[11] Jonathan Marcus, "Russia's 'Close Military Encounters' with Europe Documented", in *BBC News,* November 10, 2014, URL: http://www.bbc.com/news/world-europe-29956277, accessed at 20.08.2019.

[12] Kaarel Kaas, "Russian Armed Forces in the Baltic Sea Region", in *Diplomaatia,* Estonia, August 7, 2014, URL: http://www.diplomaatia.ee/en/article/russian-armed-forces-in-the-balticsea-region/, accessed at 20.08.2019.

ones.[13] Following the attack on Ukraine, Russia raised the capabilities of deploying a large group of troops and equipment. The quality of the exercises has increased and the armed forces are currently able to carry out complex missions at joint level. Moscow has modernized electronic and technical capabilities, has changed the command and control structures and has improved the operational tactical command system by using digital equipment. The actual reform of military structures and the modernization programs are focused on developing rapid reaction forces and decisive intervention capabilities outside their own borders, by allocating the necessary resources to some small elite units, especially for special and airborne forces, which are the nucleus of the Rapid Reaction Forces.[14]

Confrontation mirage. Some exercises have a stance that leads to widespread confrontation[15], covering regions such as the Arctic Area, the Black Sea and the Baltic Sea and simulates a large confrontation with forces similarly to NATO, by forward deployment of submarines with nuclear weapons, ballistic missiles and strategic jets. Strategic weapons systems are positioned closer to the borders of NATO member states. By deploying strategic jets Tu-22M3, Russia is simulating a nuclear confrontation threat, and in this case it may appear that there is a possible support from the West to Ukraine, but that may also be a reaction of increased NATO troops in the Baltic States.

Nuclear blackmail. Kremlin officials are regularly warning on the suspension of various agreements on nuclear weapons and conventional control weapons and that Russia will keep facilities to launch a nuclear-charged missile along western Russia's border. These threats are combined with regular military exercises, including the annual Zapad maneuvers that simulated nuclear annihilation of a neighboring capitals.[16] The military doctrine mentions that Russia under conditions of nuclear threat can use nuclear arsenal. Such an attitude might lead to a possible division of NATO because Europe, unlike the USA, will be directly affected by the use of such a weapon. Russia is using the potential offered by propaganda in positioning its military systems, the military exercises without prior notification in accordance with international agreements and the destructive capabilities of the new military equipment purchased by the armed forces, to induce anxiety in the neighboring states. In June 2015, V. Putin announced that Russia will produce 40 intercontinental ballistic missiles "capable of penetrating any missile defense system". NATO Supreme Commander, General Philip Breedlove at the time, accusing V. Putin of "escalating nuclear tensions".[17]

Tactical compromises. Leaders could reap the benefits of adopting aggressive positions with some Western partners so that they can make concessions while having to deal with Russia, trumpeting it and then managing to offer them an international crisis solution. The invasion of Georgia can be such an example. The EU was pleased that Russia's buffer zone and Georgian territory could be monitored, while avoiding the disputes between South Ossetia and Abkhazian state that were recognized by Moscow and where they deployed military units. The same tactic

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[13] Melinda Haring, "The West's Strategy toward Putin Promises Conflict and Increases Danger of Wider War: Ian Brzezinski", in *Atlantic Council*, 30 April 2015, URL: http://www.atlanticcouncil.org/blogs/new-atlanticist/the-west-s-strategytoward- putin-promises-conflict-and-increases-danger-of-wider-war, accessed at 20.08.2019.
[14] Douglas Mastriano, Derek O'Malley (Eds.)*,* Project 1704: A US Army War College Analysis of Russian Strategy in Eastern Europe, an Appropriate US Response and the Implications for US Landpower*,* 26.05.2015, URL: http://www.strategicstudiesinstitute.army.mil/pubs/display.cfm?pubID=1274, accessed at 17.08.2019.
[15] "Russia Targets NATO with Military Exercises", March 19, 2015, *Stratfor*, p. 6, URL: https://www.stratfor.com/analysis/russia-targets-natomilitary-exercises, accessed at 14.08.2019.
[16] Addressing the Russian Security Council, President V. Putin announces a cessation of Russian cooperation with NATO. The response to NATO action in sending troops to neighbouring countries was to deploy Iskander-M ballistic tactical missiles along the Western Russian border in the Kaliningrad region. Roger McDermott, "Russia-NATO: No 'Business as Usual'", in *Eurasia Daily Monitor*, July 29, 2014, Volume 11, Issue 138.
[17] Pavel Felgenhauer, "Website Publishes Purported Detailed Russian Invasion Plan of Eastern Ukraine, "Eurasia Daily Monitor" June 18, 2015, Volume 12, Issue 114.

was also adopted in Ukraine, where Russia military action against Kiev were combined with ceasefire initiative to legitimate separatist enclaves in Donbas.

Unconventional offensive actions (hybrid war). Russian analysts[18] claim that the line between war and peace is blurred, a state may be destroyed by other means, other than the conventional ones. This aspect refers to hybrid military actions, in the western conception, or nonlinear in the Russian design.

Masked undermine. A priority component of Moscow's unconventional actions against the neighboring states is the use of *maskirovka*. This is a combination of several elements which can be: surprise, camouflage, deception manoeuvre, masking, using targets or fake military equipment and misinformation in order to deceive the opponent. Moscow conducts such low level military operations under the pretext of humanitarian or peace keeping missions, as it did in eastern Ukraine in 2014, when a number of unverified truck convoys were sent to provide medical aid and food for the population.

Proxy wars involve intense action against other states, in order to keep control of some part of the territory or for a breach of local government through the use of local groups. It is considered that, following the model of actions in eastern Ukraine (2014) Moscow can engage in undercover offensive actions in support of separatist factions by: setting up false insurgents groups that are also financed and armed; infiltration of neighboring states of forces for special operations, mercenaries and volunteers; bribery of local public order forces; inciting citizens to revolt; occupying important buildings; blocking of communication systems; deactivation of some military or police units; declaring support for alternative authorities. The assistance given to some irregular groups is aimed to undermine and destabilize the targeted country and a capacity of government to fulfil its tasks and to compromise the local and central authorities.

Interventions with conventional forces. In order to improve the support granted to unconventional conflicts or proxies in the neighboring states, the Kremlin is making use of the deployment of conventional forces as in the case of Georgia (2008) and Ukraine (2014). Also, the Kremlin can engage in direct or large-scale military interventions to defeat or dislocate the military forces of another state from a region intended for separation or annexation. Russian troops are training to increase their speed of reaction. The purpose is not to give the Western forces necessary time to implement any response plan or make any attempt to open peace agreement talks to remove the troops from the occupied territory. As a pretext for such actions, Moscow is using the idea that population in the area are exposed to genocide and there is a desperate request for military protection. This may be a military challenge in order to persuade the local government to take measures to respond to the crisis, an actions that support the Russia's intervention, as it was the case of Georgia, in August 2008.

Territorial fragmentation. This entails invasion, occupation, and territory separation from the neighboring states, followed by the recognition of separatist entities that can be autonomous or independent states, aiming for Russia to annex the territory or extend their control on it. If we take Moldavia's or Ukraine's case, Moscow remains faithful to its own versions of federalization: in each case, secessionist movements encouraged by Russia to seek for a confederal arrangement with the central government and state their foreign policy and security according to the interests of the Kremlin. The inadequate answer from the West regarding the division of Ukraine and Georgia, simply encouraged Moscow to continue this method in other parts of Europe. On several occasions, such as in Crimea, Moscow instigated territorial review, considering that region should belong traditionally to Russians, claiming through several media channels, that including these regions in Ukraine, during the Soviet

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[18] See: Mark Galeotti, "The 'Gerasimov Doctrine' and Russian Non-Linear War", in *Military-Industrial Kurier*, February 27, 2013, URL: https://inmoscowsshadows.wordpress.com/2014/07/06/the-gerasimov-doctrine-and-russian-non-linear-war/, accessed at 12.08.2019.

regime, became illegal. Another deceptive method is drawing new border lines with the neighboring countries. This was obvious enough in Georgia where Russia set up a new frontier of South Ossetia much of Georgia territory. Similarly, they aim to show that Moscow can act with impunity to control territories in the close vicinity.

Exploitation of "frozen conflicts. Moscow supported the creation of "frozen conflicts and preservation of "frozen states" because this paralyzes the governments and prevent these states from adhering to the Western institution. The Kremlin is pursuing international legitimacy for separatist enclaves, which are supported financially overtly and covertly and is acting as a mediator in resolving disputes with the government, negotiations that in many cases has no results. Such actions have taken place in Moldova, Georgia and Ukraine, leading to the conclusion that Moscow is pursuing a strategy of keeping these conflicts unsolved on a long term. Moreover, it prepares new destabilizing actions to intensify the armed conflict, which might be followed by a potential military operation intervention. Such a challenging position has the role of a convincing Western governments to make compromises for Moscow.

CONCLUSIONS

Varieties and abundance of non-military assets that are used today make us the witnesses of the so called *shadow war*, in which the West and Russia are in perpetual competition to exercise their influence and to pursue their interests. According to the ones presented, supported by countless arguments resulting from international research studies, as well as from assertions of politicians from the international environment, Russia may be a more persistent threat to the security of the West, because it objectives with neo imperial tendencies undermine the establishment of several regions in northern and eastern Europe and central Asia, putting pressure on NATO, EU and US.

There are three reasons that can lead to escalation of the *shadow war*. Firstly, Russian political leaders no longer describe the country as the European state. They voice out that Russia is a "Eurasian pole of power" that fights to stop Western expansion, playing a role in supporting the governments that reject the Western influence. Secondly, Russia believes that there can no longer be a division in Europe, between the West and the Russian spheres of influence. It is announcing a payload period, in which some states are under pressure to join the Russian zone but their population is divided or their governments cannot resist the power of Moscow. According to the recent events, it can be deduced that Kremlin is trying to undermine even the NATO and the EU member states, such as Bulgaria and Hungary, governments that are influenced to take international positions favorable to Russia's foreign policy. Thirdly, through the varied arsenal of measures and methods presented, Russia is aimed to undermine target states by imposing an energy monopole, but also through finance, propaganda, corruption, blackmail or other paramilitary and military instruments. Even though US and EU officials are claiming that there is no competition with Russia with regard to the loyalty of the states under their influence, in fact, there remains fierce competition for the control of some states in Europe and Central Asia.

Russia denounces Western politics as being in conflict with historical and geostrategic interests, as post-Soviet countries form an essential part of the "Russian world" and they must return under Moscow umbrella. This implies that these states, might not only lose sovereignty, but they might also adopt a value system based on authoritarianism. Russia is better prepared for the new shadow war, a fact that was proved by the offensive to the international environment. Unfortunately, the West oscillates between "dividends of pace" and illusions of a Cold War and must face Moscow economically, politically, cultural, socially, intellectually other than with military power.

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MILITARY-PATRIOTIC YOUTH EDUCATION IN TRANSNISTRIA: TROJAN HORSE, STATE BUILDING OR STATUS QUO?

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Abstract: *This article examines the understudied phenomena of military-patriotic youth education in Transnistria. In recent years, particularly following the annexation of Crimea in 2014, there has been an increase in the overall number of activities, as well as a proliferation of ways ('modes of learning') the 'education' is delivered. The number of youth being educated has also increased, and the ideological tools and concepts have evolved, with greater focus on Transnistria links to the Russki Mir (Russian World), and the identity of Transnistrians as a 'people' (therefore capable of self-determination). From this we can conclude that funding has also increased and that this is a long-term project, with an expectation there will be a return on investment. As such, military-patriotic education activity provides a useful indirect proxy indicator of future scenarios for the region, in terms of unification, independence and the status quo. The conclusions offer recommendations for Moldovan authorities that focus on how to mitigate against the negative aspects of military patriotic youth education in Transnistria.*
Keywords: *Military-patriotic education; the Transnistrian conflict.*

INTRODUCTION

How youth are educated in conflict zones and territories is a critical issue in terms of a sustainable conflict settlement process. Transnistria is a latent state (frozen) with negotiations in 5+2 format involving Moldova and Transnistria (as parties to the conflict), Russia, Ukraine, and the OSCE (as mediators) and the EU and the US (as observers). Conflict settlement negotiations advance slowly, as the Transnistrian side refuses to address the political status of this breakaway region, addressing only social, economic and humanitarian issues. The Tiraspol leadership still insists on obtaining international recognition, and its main argument in this respect relies on to the referendum held on 17 September 2006, when most of the inhabitants voted for independence for Transnistria, with the subsequent unification with the Russian Federation[1]. Russian military troops have been deployed to the region since as neutral peacekeepers, but are loyal to the Transnistrian administration, and heavily involved in organizing military-patriotic youth education in the region.

The Transnistrian region is at the moment an internationally unrecognized state entity with all its specific attributes (Parliament, Government, judiciary, flag, emblem, own currency, armed force structures, etc.). Geographically, the region is a narrow strip of land between the Republic of Moldova and Ukraine, with a length from North to South of about 200 km and a width from East to West of 20-40 km. The total area is 4,163 km^2 or 12,3% of the territory of the Republic of Moldova[2]. The region has no access to the Black Sea. *De jure* the region is part

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[1] S. Woehrel, "Moldova: Background and U.S. Policy", CRS Report prepared for Members and Committees of Congress, 23 April 2014, p. 3, URL: https://fas.org/sgp/crs/row/RS21981.pdf, accessed on 30 August 2019.
[2] Ministry of Foreign Affairs, Republica Moldova, June 2019, URL: http://www.mae.ro/node/1676, accessed on 30 August 2019.

of the Republic of Moldova, but *de facto* the region is self-administered by a pro-Russian government. As early as the Soviet period, Russian military troops (the former 14th Army reorganized in 1995 in Russian Task Force Group – "RTFG") were deployed on the territory of the Transnistrian region. Russian troops are loyal to the Transnistrian administration. During the 1992 armed conflict, they were either involved in supporting separatist forces, forcing the leadership of Moldova to negotiate a ceasefire with the Russian Federation[3]. Currently, part of the RTFG is involved in the peacekeeping operation in the Security Zone. The population of the region is about 470 thousand inhabitants and consists of three relatively equal ethnic groups (Moldovans – 31.9%, Russians – 30.3%, Ukrainians – 28.8%)[4]. Despite the fact that the population of the region is a multi-ethnic one, the Russian factor is dominant in the region, disadvantaging the other two ethnic groups (Moldovans and Ukrainians), being heavily promoted both by the local leadership (Russian speakers) and by various Russian organizations.

In recent years, there has been an increase in the activity of these two components on the ideological dimension, the emphasis being placed on the military-patriotic education of the young generation. How youth are educated in conflict zones and territories is a key issue when considering a conflict settlement process that is sustainable. Military-patriotic education is not a new thing for people who were born and lived in the Soviet period. This type of ideological education was intensively promoted by the Soviet Communist Party, focusing on the cultivation of a new type of citizen who could be more authentic with the Soviet values than with the national ones (the USSR was a multi-ethnic state). After the geopolitical collapse of the USSR, the inhabitants of the Transnistrian region continued to self-identify as part of the former empire, using the same values that made it possible to avoid interethnic strife and ensure an appearance of unity at the social level, which became crucial during the 1992 armed conflict and the period that followed. During that period, the ideological educational aspect was not a popular trend in the Transnistrian region, especially as in the Russian Federation during the 1990s, the nationalist spirits deviated from the Soviet nostalgia. In the early 2000s, Putin presidency promoted an amalgam of elements of Russian nationalism which combined Tsarist and Soviet symbols of Russian Great Power. This trend also had an impact on the Transnistrian region, the leadership of which strongly promotes the Eastern integration vector.

This article examines the phenomena of military-patriotic youth education in Transnistria. This research is mainly based on Romanian and Russian primary sources as the topic is understudied, with little or no secondary sources. Having introduced the topic in the introduction and characterised the major features of Transnistria and the significance of this issue, section two provides a survey that outlines the scale and scope of military patriotic youth education in Transnistria, as well as Russia's ideological support to this effort. Section three examines the implications of this for Moldova, in terms of reintegration, independence of the continued status quo scenarios. The conclusions in section four offers recommendations for Moldovan authorities that focus on how to mitigate against the negative aspects of military patriotic youth education in Transnistria.

1. Military-Patriotic Education in Transnistria: Scale and Scope?

Ideological indoctrination allows the construction and highlighting an alleged "Transnistrian people" on the left bank of the Nistru, which gives the Transnistrian leadership the opportunity to speculate on the contradiction between the provisions of international law that, on the one hand, proclaim the territorial integrity and intangibility of the state borders, and,

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[3] A. Cantir, "Fifteen years after the end of the Dniester War", in BBC, 2007, URL: http://www.bbc.co.uk/ romanian/news/ story/2007/07/070720_ transnistria_razboi_15ani.shtml, accessed on 31 July 2019.

[4] A. Kivaciuk, "A demographic picture of Transnistria', in *Demoscop Weekly*, Moscow, 2014, pp. 3-18, URL: http://www.demoscope.ru/ weekly/2014/0591/tema01.php, accessed on 20 May 2019.

on the other hand, it provides the people's right to self-determination. When examining actors and organizations directly involved in the military-patriotic education in the Transnistrian region, we distinguish four categories of important subjects: Transnistrian government institutions and organizations; local public organizations; Transnistrian youth organizations inspired by the Russian Federation; and, organizations and institutions of the Russian Federation. Further, we will analyse each one of them.

Transnistrian government institutions and organizations. This category includes Transnistrian government institutions such as the ministries of defence, home affairs, security, education, presidential institution, government, local parliament, who are actively involved in managing this institutionalized educational process. A specific element for the region is that the local school system has kept the primary military training as a compulsory school subject taught to students in the last two years of schooling (10th and 11th grades). The discipline is called "Nachialnaia voennaia podgotovka" [*Basic military training*]. Each school has a military training instructor, who is usually a reserve officer in the armed forces. Weekly, 10th and 11th grade students (boys only) have 1-2 lessons in primary military training. The objective of this school discipline is the formation of general knowledge regarding the military service and the development of the apprenticeship skills necessary for the fulfilment of the military service. The lessons include instructional sessions in the preparation of fire and tactics. The primary military training course ends with a practical three day training courses in the field. Throughout the course students undertake normative training in physical training and verify the theoretical and practical knowledge in the preparation of fire and tactics. Also, during the school year, competitions are organized for this discipline between the teams of different schools. The training is under the pretext of the need to develop the patriotic sentiment and training for the military service in the Transnistrian armed forces for the young generation. The Transnistrian Ministry of Education and the Ministry of Defence are responsible for carrying out this activity. As the subject is part of the compulsory school curriculum, its funding is covered entirely by budgetary means. At the same time, a system of specialized school education was developed in the region where, together with the basic school curriculum, a special program focused on the military training of students is taught.

At present, two schools in the region use this specialized schooling system. One of them is the *Republican School of Cadets "Potiomkin-Tavricheskii"*, which was created on July 7, 2002 in Bender[5]. The school teaches about 200 students who, besides the general secondary school program, also study an additional program such as military bases, law enforcement, law, cadets' movement, etc. The respective school is subordinated to the Transnistrian Ministry of Interior and its objective is to provide specialized training to students for further education in the higher education institution that prepares staff for the system of internal organs. School funding is covered entirely by financial means from the Transnistrian budget. The second school institution is the *The Suvorovist Military School "A. Suvorov"*, which was recently created in 2017 in Tiraspol at the initiative of Transnistrian President V. Krasnoseliskii[6]. At the moment, 250 students attend the school, and the capacity of the school is planned to be enlarged to 300 students in the next period. The curriculum includes the general secondary school curriculum and the special military training program taken from the Russian Federation as a

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[5] MVD PMR, "History of the Republican Cadet Corps", *Ministry of Interior of Transnistria,* Tiraspol, 2015, URL: https://mvdpmr.org/podrazdeleniya-mvd/gou-rkk/o-korpuse/25577-istoriya-rkk.html, accessed at 12 July 2019.
[6] V. Krasnoselskii, Decree on the Establishment of State Educational Institution The Suvorovist Military School in Tiraspol, Tiraspol, 2018, URL: http://president.gospmr.org/pravovye-akty/ukazi/o-sozdanii-gosudarstvennogo-obrazovateljnogo-uchrejdeniya-tiraspoljskoe-suvorovskoe-voennoe-uchilische-.html, accessed at 12 July 2019.

basic model adapted to the Transnistrian specificity[7]. At the opening ceremony of the military school on September 3, 2017, Russian Ambassador to Moldova Farit Muhametşin and Russian State Duma deputy Artiom Turov attended the ceremony. The school is subordinated to the Transnistrian ministry of defence, and the funding is entirely made from the region's budget. At the same time, the Russian Embassy in Moldova came with support for the Transnistrian military school, offering computers and a set of specialized books for the school library[8].

At the university level, in addition to the civilian educational institutions, there are two military education institutions in the region – the Tiraspol Institute of legality and the Military Institute. *The Tiraspol Institute of legality "M. Kutuzov"* is the only institution in the region that prepares staff for Ministry of Interior. Since it was created in 2002, 100 to 120 young people (boys and girls) have been admitted to the study annually. Within the institute, there are two law faculties and a faculty directly concerned with military training (the faculty of the day-to-day activities of motorized infantry subunits of internal troops). The Institute is subordinated to the Ministry of the Interior and the funding is entirely covered by budgetary financial sources[9]. The second institution – *The Military Institute* – was created in 2008 and it has been active for a period as part of the "T. Shevchenko" University in Tiraspol. Subsequently, in 2015, the institution was transformed into a higher education independent institution, subordinated to the Transnistrian Ministry of Defence. On July 26, 2012, the Military Institute was given the name of Russian General Alexandr Lebedi, who led the Russian troops deployed in Transnistria during the 1992 armed conflict. Annually, the institution admits to the study 70-80 young people. The term of study is 4 years. The graduates receive two diplomas – one in the Military Specialty, and the other in the civilian specialty – Personnel Manager. The study program is based on the standards of similar military institutions in the Russian Federation, being adapted to the specificity of the Transnistrian region. The Institute prepares military cadres for the local force structures, being fully financed by the budget of the Transnistrian region[10].

Local Public Organizations. The most involved Transnistrian public organizations in the patriotic military education of young people in the region are veterans of Soviet military and special troops and Transnistrian armed forces such as the Transnistrian Association of Afghan War Veterans, the Union of Airborne Troops, Union of Transnistrian Defenders, etc. The members of these organizations are former soldiers who have accumulated combat experience during the military conflict in Afghanistan or during the 1992 armed conflict between the constitutional forces of Moldova and the Transnistrian separatist troops. Here, we can also mention the Transnistrian Coassack Organization, which has a paramilitary one nature with territorial subdivisions, constituted to the left of the River Nistru, near the beginning of the 1992 armed conflict, being inspired by the Cossack organization of the Russian Federation[11]. During the Soviet period, there was no such organization in this territory. One of its basic objectives is the military-patriotic education of young people from the Transnistrian region. The

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[7] ***, "Suvorov School will be placed in the building of the Tiraspol Construction Lyceum in the microdistrict Kirovsky", in *Novosti PMR*, 2017, URL: https://novostipmr.com/ru/news/17-01-12/suvorovskoe-uchilishche-razme styat-v-zdanii-tiraspolskogo, accssed at 13 July 2019.
[8] ***, "Solemnly opened Tiraspol Suvorov Military School", *Tiraspol Suvorov Military School,* Tiraspol, 2017, URL: https://www.tsvu.idknet.com/index.php/2304-torzhestvenno-otkrylos-tiraspolskoe-suvorovskoe-voennoe-uchilishche, accessed at 20 July 2019.
[9] ***, "Tiraspol Law Institute continues to recruit students", Rybnitsa District Administration, 2018, URL: http://rybnitsa.org/тираспольский-юридический-институт/, accessed at 20 July 2019.
[10] Vesti Moskvi, "Military Institute of the Ministry of Defense of the PMR received a battle flag", the Moscow District, 2009, URL: http://vumo.ru/edukation/437-voennyj-institut-minoborony-pmr-poluchil-boevoe-znamya.html, accessed at 20 July 2019.
[11] N. Junker, N. Rudnytzky, "The Role of Cossacks in the Moldovan-Transnistrian Conflict", 2014, URL: https://www.academia.edu/7384148/ , accessed at 19 June 2019.

organizations in this category were founded around or after the armed conflict in 1992 and represented the civil support for the Transnistrian separatist regime in the dispute with the Moldovan constitutional authorities[12].

Transnistrian youth organizations inspired by the Russian Federation. These organizations were founded with the support of the Transnistrian government authorities, depending on who is in charge, being presented as a Tiraspol devotion to the Kremlin. Thus, during the presidency of Igor Smirnov (the first alleged president of Transnistria), the most prominent youth organizations were the *youth movement "Proriv",* the ideologist and informal leader of which was D. Soin, an officer of the Transnistrian security ministry, with close cooperation with Russian special services. The organization was created on 1 June 2005 and involved a large number of young people in various anti-Moldovan and pro-Russian political actions. The leader of this organization, A. Arshinova, became the co-president and coordinator of the youth organization "Molodaia Gvardia Edinoi Rossii", which was the young wing of the Russian ruling party "Edinaia Rossia" in 2010[13].This organization was only part of the political project "Molodaia Gvardia" founded by Dmitrii Soin, along with the upper political leadership school "Ernesto Che Ghevara" and a number of informational –analytical structures such as the newspaper "Ruskii Proriv", the news agency "Lenta PMR", which had a pro-Russian political orientation. Youth Organization "Proriv" cooperates with youth organization "Molodaia Gvardia" of the ruling Russian party "Edinaia Rossia"[14].

Starting with 2008, D. Soin served as Assistant to Valerii Bogomolov (deputy in the State Duma of the Russian Federation, member of Edinaia Rossia). In 2012, after a new president, Evghenii Shevchuk, was elected in the Transnistrian region, Dmitrii Soin entered into personal conflict relations with the representatives of the new Transnistrian leadership and had to leave the region in early 2013. Previously, in early 2012, his chief, General Vladimir Antiufeyev (former minister of security in Transnistria) also left the Transnistrian region[15], invoking the conflict relations with the new administration of Evghenii Shevchuk[16]. The departure of D. Soin made the youth organization "Proriv" inactive and finally it has disappeared from the local political scene. Another youth organization that was actively involved in the military-patriotic education of youth in the region was the *military-sport club "Lutici",* established in 2002[17] (Regnum News Agency, 2006). It is led by Denis Zgherea. The club is under the auspices of the Transnistrian Association of Afghan War veterans. Since 2007, the club has been organizing an annual competition, which takes place in the field (forest) for 3-4 days. 10-12 youth teams from all districts of the Transnistrian region (80-120 young people) participate in the competitions. The themes of the competition tests are closely related to elements of training Special Forces. Arbitration is provided by military instructors from the Transnistrian army. The

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[12] ***, "Youth policy on the experience of Russian colleagues", in *Novosti PMR*, Tiraspol, 2018, URL: https://novostipmr.com/ru/news/18-05-25/molodezhnaya-politika-po-opytu-rossiyskih-kolleg, accessed on 13 June 2019.

[13] Alena Arshinova, "MGER is a team, interesting people, opportunities, school of life", in *Molodaia Gvardia Edinoi Rossii*, Moscow, 2018, URL: http://mger2020.ru/nextday/2018/11/16/96852, accessed on 12 May 2019.

[14] Carmen Gavrilă, "Interviu/ Dimitri Soin, liderul "Partidului Reusitei" din Transnitria: Nu suntem romanofobi, nu gandim pozitiv fata de Moldova si suntem prorusi", in *Hotnews*, 6 October 2008, URL: https://www.hot news.ro/stiri-international-4658904-interviu-dimitri-soin-liderul-partidului-reusitei-din-transnitria-nu-suntem-romanofobi-nu-gandim-pozitiv-fata-moldova-suntem-prorusi.htm, accessed on 6 May 2019.

[15] ***, Report Human Rights in the Transnistrian region of Moldova / Reprospective', *Promo-LEX Association, Republic of Moldova, 2012,* p. 23, URL: https://issuu.com/promo-lex/docs/human_rights_transnistria_2010, accessed on 23 May 2019.

[16] ***, "Ex-Minister of Security Antyufeev left Transnistria", in *Lenta PMR,* Tiraspol, 2012, https://tiras.ru/tema-dnja/33699-eks-ministr-bezopasnosti-antyufeev-pokinul-pridnestrove.html, accessed on 2 June 2019.

[17] ***, "In Tiraspol, more than 500 people took part in the "Russian march" (Transnistria)", in *News Agency Regnum*, Moscow, 2006, URL: https://regnum.ru/news/734004.html, accessed at 2 June 2019.

logistical supply of military equipment competition is carried out by the Transnistrian ministry of defence[18] (TV PMR, 2014). By 2012, the club has already turned into a youth organization "Molodaia Respublica" with pro-Russian political visions[19].

Youth Organization "Zvezda" [*the Star*] is another local youth organization created at the inspiration of the Russian Federation. The organization was created on June 18, 2014, at the initiative of the Prut-Nistrean Center and the Russian Institute for Strategic Studies (RISS) in the Russian Federation as a structural subdivision of the "Dobrovolinoe Obshestvo SodeistvieArmii, Aviatii i Flotu PMR" (DOSAAF PMR – Voluntary association for supporting Army, Aviation and Fleet. At the moment, the office of President of the organization is exercised by Svetlana Molache. The organization has 320 members among students and youth activists. Over 4 years, the organization has conducted over 2,000 different actions, and more than 200 youth projects. Members of the organization participated in 20 international actions. The organization is patronized by Gheorghii Meniailo (head of the scientific programs of the Pruto-Nistrean Information and Analytical Center). The basic tasks of the organization are promoting the military-patriotic and moral-spiritual education of the youth in Transnistria, the ideas of the "Russian World" in the region and building bridges between the Transnistria and the Russian Federation, a healthy lifestyle[20].

We distinguish the following features of this organization's activity:

● *Promoting youth policy focused on patriotic values*: Members of the youth movement "Zvezda" carry out, with the support of the Prut-Nistrean Center, the youth policy of the region and the interaction with the youth in Russia. The "Zvezda" youth organization participates in various competitions such as "Patriot Rossii"; the winners, Transnistrian students (grades 8-11), are invited to Russia in various summer camps such as "Artek" and "Orlionok"[21];

● *The development of local youth interaction with the Russian Federation*: Members of the "Zvezda" Youth Movement visit the annual youth forums in Russia such as "Seliger" and "Tawrida";

● *Updating of Soviet and Russian history*: In the Transnistrian region, the members of the Zvezda organization carried out actions such as "Bessmertnii Polk" [*Immortal Regiment*] and "Georgevskaia lenta" [*St. George Ribbon*], aimed at restoring the heroic deeds of Soviet troops in the fight against German troops, promoting historical symbolism related to the events. The organization offered free help to the region's residents in printing the portraits of World War II participants for participation in the "Bessmertnii polk" action. In 2017, 1,500 such portraits were printed, and in 2018 – about two thousand[22];

● *Charity*: The members of the *Zvezda* organization, with the support of the Pruto-Nistrean Center, carried out several charity actions, offering help to veterans of war, disabled children, children's homes and boarding schools, emphasizing that the help is offered by the Russian side, who does not forget his countrymen in difficulty;

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[18] ***, Republican rally - Scout 2014, *Transnistrian TV Chanel "TV PMR"*, Tiraspol, 2014, URL: https://tv.pgtrk.ru/ru/news/20141020/24356, accessed on 23 May 2019.

[19] ***, "The Young Republic team is currently present at the "CeliaAs 2012" forum held in Astrakhan, Russia", Facebook of the Youth Movement "Young Republic", Tiraspol, 2012, URL: https://www.facebook.com/ PMRodMolodayaRespublika/photos/a.528979630449813/528979637116479/?type=3&theater.

[20] ***, "Launched the contest "Russia's faithful sons"", in *Novosti PMR*, Tiraspol, 2018, URL: https://novostipmr.com/ru/news/18-04-16/startoval-konkurs-rossii-vernye-syny, accessed at 2 August 2019.

[21] ***, "Egor Melnichuk: We are a bright Star!", in *Novosti PMR*, Tiraspol, 2015, URL: https://novostipmr.com/ru/news/15-09-17/egor-melnichuk-my-zvezda-yarkaya, accessed on 2 August 2019.

[22] ***, "Pridnestrovians visit school of friendship in Serbia", in *Novosti PMR*, Tiraspol, 2015, URL: https://novostipmr.com/en/news/15-07-27/pridnestrovians-visit-school-friendship-serbia, accessed on 2 August 2019.

● *Promoting healthy lifestyle*: members of the Zvezda Youth Movement are actively involved in sport and social life, popularizing among the inhabitants of Transnistria the sporting rules of the Soviet period "GTO", together with the "DOSAAF PMR" organization.

The "NaslednikiPobed" [*Heirs of victory*] youth movement is another youth organization in the region, involved in the military-patriotic education of the young Transnistrian generation. The organization was created in June 2015 as a patriotic-sports club "Nasledniki Pobedi". The chairman of the organization was originally Rodion Romanov. In 2017, the club was transformed into the youth movement "Nasledniki Pobedi", and on August 15, 2018, at the initiative of Transnistrian President V. Crasnoselischii, the organization turned into a republican organization with branches in several localities. On July 13, 2018, the president of the organization was elected Igor Buga (deputy in the Transnistrian legislature and president of the Transnistrian Association of Afghan War Veterans). The organization currently has about 300 people. The main objective pursued is the formation of a unique ideology for all young people in the region based on the fact that they are the followers of the great victories, referring to the Soviet and Russian past[23].

The core activities of the organization are related to the organization of summer camps for young people in which various sports and military competitions take place (including weapons assembly, shooting accuracy, obstacle course, march, knife combat and precision throwing, paintball, etc.), lessons with ideological and historical themes related to the history of Transnistria and the USSR, etc. For the participants in such activities are organized exhibitions of weapons from the army and the interior ministry of Transnistria. On September 7-9, 2018, such a camp took place at the "Dnestrovskie zori" [*Dniester Dawns*] rest camp near the town of Bender, which was attended by about 600 pupils and young people from all over the Transnistrian region. All expenses were covered by the Transnistrian government[24]. During 2017-2018, members of the organization made over 120 activities and public projects of varying size and orientation (rebuilding a fight between Soviet troops and German troops in 1944), volunteer participation in the exhumation of the remnants of the people subjected to repression during the Second World War, the organization of an old arms museum under the open sky, repairs of monuments, historical knowledge contests, sports activities dedicated to important historical events from the Soviet period, etc.[25].

Organizations and institutions of the Russian Federation: The Russian Institute for Strategic Studies (RISS) is one of the Russian institutions that have been actively involved in the patriotic education of young people in the Transnistrian region. RISS is a major scientific-research and analytical centre established by the President of the Russian Federation in 1992. The main task of RISS is to provide information support to the Administration of the President of the Russian Federation, the Federation Council, the State Duma and the Security Council as well as to Government offices, ministries and departments. RISS provides expert appraisals and recommendations and prepares analytical materials for those bodies[26].

On March 11, 2014, RISS opened in Tiraspol the Information and Analytical Pruto-Nistrean Center (a branch of its own), which was the first opened outside the Russian

[23] ***, "Union of Defenders of Transnistria will continue to be headed by Vladimir Buchka", in *Novosti PMR*, Tiraspol, 2018, URL: https://novostipmr.com/ru/news/18-11-24/soyuz-zashchitnikov-pridnestrovya-tiraspolya-prodolzhit, accessed on 4 August 2019.

[24] ***, "Head of State elected Leader of the Victory Heirs Movement", in *Website of the presidential institution of Transnistria,* Tiraspol, 2018, URL: http://president.gospmr.org/press-sluzhba/novosti/glava-gosudarstva-izbran-liderom-dvijeniya-nasledniki-pobedi-.html, accessed on 4 August 2019.

[25] "Heirs of Victory intend to resume the youth movement in the educational institutions of the republic", in *Novosti PMR*, Tiraspol, 2018, URL: https://novostipmr.com/ru/news/18-12-24/nasledniki-pobedy-namereny-vozobnovit-molodezhnoe-dvizhenie-v, accessed on 4 August 2019.

[26] Russian Institute for Strategic Studies, Moscow, URL: https://en.riss.ru/about/, accessed on 4 August 2019.

Federation. The event was attended by Leonid Reshetnikov (director of RISS, Lieutenant-General of the Russian Foreign Intelligence Service – SVR) and AlexandrUşakov (vice-president of the organization of the Volunteer Support Service of the Army, Aviation and Fleet Volunteer – "DOSAAF" in Russia) were present at the opening. The Center has become an institution that provides ample support to all Transnistrian organizations involved in promoting Russian values in the region[27]. The first leaders of the Center – Serghei Moksanteev and Vasily Kashirin, both were declared "persona non-grata" on the territory of the Republic of Moldova in 2015 for activities incompatible with those declared. The core tasks of the Center are multilateral development and consolidation of relations between Russia and Transnistria, pro-Russian forces in Moldova, the implementation of a series of youth and social-economic projects. The Center is in close cooperation with the "T. Savchenko" University in Tiraspol[28].

In 2014, the Center re-established in the Transnistrian region, the youth organization "DOSAAF-PMR", which existed during the Soviet period, founded the youth organization "Zvezda" responsible for youth policy in the region and their coordination with the youth in Russia (youth meetings "Seliger", "Tavrida")[29]. Starting with 2014, the Center organizes, together with the Transnistrian Ministry of Education, the "Patriot Rossii" [*Patriots of Russia*] pupils' contest, which includes a large number of pupils in the primary education classes, periodical conferences with the name "Ruskiimir v Pridenestrovie" dedicated to the Russian factor in the region and its importance for the development prospects of Transnistria. Within these conferences, online lessons are being held with extreme-right Russian politicians like Serghei Mikheyev, who has pledged to promote information about Transnistria in the Russian news environment[30]. The Center provides funding for young researchers in Transnistria or members of the school of young politicians, who thus have the opportunity to visit Moscow and participate in various political science lessons and seminars. The number of collaborators in the center is not big, but it has significant funding from the Russian side that finances the work of youth organizations such as Zvezda[31]. From February 2018 the Pruto-Nistrean Information and Analytical Center is headed by Albert Dorjeev, a citizen of the Russian Federation, who came to the Transnistrian region from the Crimean Peninsula. Previously he served as Chief of Culture of the city of Feodosia (from the Crimean peninsula), where he resigned on December 4, 2017, citing the reduction of funding for the cultural heritage conservation projects of the Feodosia region[32].

Another institution in the Russian Federation, which massively supports the promotion of Russian cultural values in the Transnistrian region, is the *Rossotrudnicestvo Center* of the Russian Federal Agency for Relations with the CIS states, foreigners living abroad. Since 2002

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[27] ***, The Information and Analytical Center of the Russian Institute for Strategic Studies opens in Tiraspol, *Ministry of Foreign Affairs of PMR*, Tiraspol, 2014, URL: http://mfa-pmr.org/ru/DTf, accessed on 8 August 2019.
[28] S. Mokshantev, "On the opening of the Dniester-Prut information and analytical center of RISI in Transnistria", Interview with S.Mokshantev and V.Kashirin, Media Center *"Evroziiskoe Pridnestrovie"*, Moscow, 2013, URL: https://riss.ru/smi/4373/, accessed on 7 August 2019.
[29] ***, "Youth diplomacy of Transnistria: in 2014, young Transnistrians visited Seliger and Tavrida", *Media Center "EvroziiskoePridnestrovie"*, Moscow, 2014, URL: http://eurasian.su/news/molodezhnaya-diplomatiya-pridnestrovya-v-2014, accessed on 7 August 2019.
[30] S. Mikheyev, "Russia is not going to surrender Transnistria", TV PMR, Tiraspol, 2019, URL: https://tv.pgtrk.ru/ru/news/20190228/80048, accessed on 7 August 2019.
[31] ***, "Dniester-Prut Center told about the results of the year", in *Novosti PMR*, Tiraspol, 2018, URL: https://novostipmr.com/ru/news/18-12-20/dnestrovsko-prutskiy-centr-rasskazal-ob-itogah-raboty-za-god, accessed on 7 August 2019.
[32] A. Dorjeev, "The head of the Feodosia Department of Culture resigned due to disagreement with the "zero" funding", in *Web page of the Administration of Feodosia city,* Crimean peninsula, 2017, URL: https://feo.today/news/791-glava-feodosiiskogo-upravlenija-kultury-podal-v-otstavku-iz-za-nesoglasija-s-nulevym-finansirova.html, accessed on 10 August 2019.

the Center has a branch in the Republic of Moldova – Russian Center for Science and Culture in Chisinau[33]. The members of the branch maintain close cooperation relations with both the Tiraspol leadership and the union of the Russian communities in the region, made up of several public organizations of the Russians in Transnistria. The branch of the *Rossotrudnichestvo* Center in Moldova is headed by Mihail Davidov, and the person directly responsible for the work with Transnistrian organizations is Nicolai Juravliov. The core activity of the subsidiary is focused on promoting education, culture, science, Russian sport in the Transnistrian region, intensifying political, economic contacts between the parties. The "Rossotrudnicestvo" Center pays special attention to the issue of keeping history as it is presented by the Russian side. An example of this can be the contest of creative work conducted by the Union of the Russian Communities in Transnistria between April and June 2018, entitled "Russii vernie sini" with the participation of pupils and students from the region. The contest was organized with the support of Russian organizations such as Moscow's Foreign and International Economic Relations Department, State Institution "Moskovskii dom sootechestvennika", The State Enterprise "Moskovskii Centr Mejdunarodnojo Sotrudnicestvo" [*Moscow Center for International Cooperation*] with the support of the Russian Embassy in Moldova and the "Rosssotrudnicestvo" Center[34]. Also, the agency's representative is carrying out humanitarian projects to help children from vulnerable families. Representatives of the "Rossotrudnicestvo" Center are actively involved in the education process of young people from the Transnistrian region by conducting various practical seminars in Russia targeting youth policies. Such a seminar took place on May 16-21, 2018 in Moscow, with delegates from Transnistria, Abkhazia and South Ossetia, with attributions in the field of youth policies. The Transnistrian delegation was composed of 15 people, and its head was Igor Buga (chairman of the youth policy committee in the Transnistrian legislature, the leader of several youth organizations in Transnistria). During the seminar the Russian experts instructed the members of the delegations on the organization and implementation of youth policies, volunteering, how to design and carry out the youth forums, etc. Funding for such activities is being carried out by the Federal Agency for Youth Affairs in the Russian Federation, which has considerably increased its budget lately - from 370 million rubbles in 2017 to 2.5 billion rubbles in 2018[35]. The agency provides generous financial support for youth policy projects in regions such as Transnistria.

The Russian Task Force Group (RTFG) in the Transnistrian region has also been actively involved in the military-patriotic education activity of the young generation in the Transnistrian region. On June 14, 2018, at the initiative of the Military Command of RTFG, the military-patriotic youth organization "Iunaia Armia" was created and the first 50 children were admitted to the new organization. The ceremony took place on the territory of the RTFG military town in Tiraspol. The RTFG Commander Colonel D. Zhelenkov himself handed out the badge to the students, promising them to make available to the organization "Iunaia Armia" the instructional-material basis of the Russian military troops for the deployment of military-patriotic and sporting measures[36]. At present, the organization has about 100 members,

[33] ***, "Russian Center for Science and Culture in Chisinau", *Russian Rossotrudnicestvo Agency in Moldova,* Chisinau, 2019, URL: http://mda.rs.gov.ru/ru/about, accessed on 23 October 2019.
[34] ***, "By the five-year anniversary, "Star" plans to open a branch in Bendery", in *Novosti PMR*, Tiraspol, 2018, URL: https://novostipmr.com/ru/news/18-12-21/k-pyatiletnemu-yubileyu-zvezda-planiruet-otkryt-filial-v-benderah, accessed on 23 October 2019.
[35] ***, "Heirs of Victory intend to resume the youth movement in the educational institutions of the republic", in *Novosti PMR*, Tiraspol, 2018, URL: https://novostipmr.com/ru/news/18-12-24/nasledniki-pobedy-namereny-vozobnovit-molodezhnoe-dvizhenie-v, accessed on 23 October 2019.
[36] ***, "In Tiraspol hosted a solemn ceremony of initiation to young soldiers", *Ministry of Defence of Russian Federation,* Moscow, 2018, URL: https://stat.mil.ru/youtharmy/news/more.htm?id=12180777@egNews, accessed on 12 October 2019.

organizing competitions such as "Edinii deni Iunoi Armii", "Corresponding Iowa", "Krasiv v stoiu, silion v boiu" [*Beautiful in standing, strong in battle*], "Voienizirovanaia shtafeta" [*paramilitary relay*], "Istoria Pobedi" [*Victory History*], etc. Arbitration of these competitions is provided by Russian soldiers. Between 11 and 31 July 2018, Russian troops from the Transnistrian region organized a summer camp "Krasiana Zvezda" for 60 children, members of the organization "Iunaia Armia", under the patronage of RTFG. During this summer camp, the children participated in meetings at various military disciplines, sports games, and watched films of a military-patriotic character. The Russian militaries organized demonstration sessions for pupils on field orientation (topography). At the camp closure, children visited historical places in Transnistria. In addition to the above-mentioned activity, Russian soldiers are actively involved in the direct military training of young people from the Transnistrian region. An example of this is the conduct on April 27, 2018, of military training sessions for students of the Transnistrian military school[37]. Within them, Russian military instructors trained the students on military training techniques. The training sessions took place at the training base of the RTFG militaries in Tiraspol.

Table no. 1: Military-Patriotic Youth Education in Transnistria: an Indicative Analytical Framework 2019 (source: Corneliu Corman)

Mil-Patriotic Actors	Military-Patriotic Youth Education / Activities & Leadership	Funding Sources	External Links
Transnistrian government institutions and organizations	● Compulsory primary military training in school (Ministry of Education) ● Specialized schools military training (Ministry of Defense & Ministry of Interior) ● High level military education (Ministry of Interior, of Defense, of Education) ● Summer camps with military competitions, patriotic activities, public arms exhibitions (Ministry of Defense) ● Military parades (President, Government) ● Sport-military competitions (Ministry of Interior) ● Republican patriotic military competitions (Ministry Interior, Defense, Education) ● Commemorative actions "Memory candle" (President, Parliament)	Almost local budget	▪ Methodological help from Russia
Local Public Organizations	● Meetings with veterans of war (Union of Transnistrian Defenders) ● Military-sports training courses for pupils (Association of Afghan War Veterans) ● Visiting military units (Union of Airborne, Union of Transnistrian Defenders) ● Historical knowledge contests (Transnistrian Coassack Organization) ● Repairs of monuments (Association of Afghan War Veterans)	Local budget Local private sponsors	▪ Union of Cossacks-warriors of Russia& abroad ▪ Russian Org. International Slavic Academy of Sciences, Education, Art and Culture of Russia
Transnistrian youth organizations inspired by the Russian Federation	●Anti-Moldovan and pro-Russian political actions (Youth movement "Proriv") ● Updating of Soviet and Russian history (Youth Organization "Zvezda") ● Help in printing portraits of World War II participants (Youth Org. "Zvezda") ● Charity actions to veterans of war, disabled children, children's homes and boarding schools (Youth Organization "Zvezda") ● Promoting healthy lifestyle (Military-sport club "Lutici", DOSAAF PMR) ● Summer camps for Youth (Club "Lutici", Youth Org. "Zvezda", "Heirs of victory") ● Exhumation of remnants of people subjected to repression ("Zvezda") ● Organization of arms museum ("Heirs of victory") ● Sports activities related historical events from Soviet Period "Heirs of victory")	Local budget From Russian organizations	▪ Pruto-Nistrean Info & Analytical Center ▪ Russian Institute for Strategic Studies "RISS"
Organizations and institutions of the Russian Federation	● Contest for pupils focused on Russian themes (like "Russian patriots") ● Conference and round tables, online conferences with Russian politicians, etc. ● Participation at festivals abroad (forums like Seligher, Tavrida) in Russia ● Excursions for students of military school at the museum of Russian troops ● Instructive seminars in Russia, etc.	Local budget From Russian organizations	▪ RISS ▪ Pruto-Nistrean Center ▪ Rossotrudnicestvo Cente ▪ Russia Task Force Group ▪ "DOSAAF" from Russia

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[37] ***, Suvorovtsy - on gathering with the Russian military, Transnistrian TV Chanel *TV PMR*, Tiraspol, 2018, URL: https://tv.pgtrk.ru/ru/news/20180427/69646, accessed on 11 October 2019.

The above-mentioned activities represent only a part of the full spectrum of interference of Russian Federation's exponents in the tendentious education of the young generation in Transnistria. In the Transnistrian region, patriotic education actually means pro-Russian education, because the leadership of the region perceives Transnistria as part of the "Russian world". Being a patriot of Transnistria is to be a patriot of the Russian Federation, the heir to the former Soviet empire. This perception lies at the basis of the ideological policy that is currently strongly promoted in the Transnistrian region, with massive support from Russia. For the Republic of Moldova and Ukraine, any activities that would allow counterbalance to this massive Russian influence in the region are forbidden by local authorities. Table no. 1 captures the scale and scope of military-patriotic youth education in Transnistria, and to highlight Russia's ideological support to this effort.

2. Implications for Moldova

Analysing the evolution of the military-patriotic education process of the young generation from the Transnistrian region in the last period, we notice a significant change in it. It targets both the qualitative and the quantitative side. If at the beginning of the 2000s the process had an obvious pro-Russian ideological character, accompanied by the applicative side-military training, after the events in Ukraine in 2014, the process got a more refined hue. The content of the ideological aspect focused on the Russian patriotism associated with President Putin's personality has gradually begun to be replaced by unifying shades of the Soviet period such as the victorious cult of the Second World War, where the emphasis is on the fact that the current generation is the heir to the generation that has defeated the evil in during the war, and which today faces the same evil that comes from the West and which tends to divide, to destroy the Russian world from within. There is a growing emphasis on the Transnistrian youth's belonging to the Russian world, which actually means being Russian outside the borders of the current Russian Federation. The military-patriotic education activity of young people currently taking place in the Transnistrian region can be considered as one of the clues indicating the most likely scenario for the future of Transnistria. As such, military-patriotic education activity provides a useful if indirect proxy indicator of future scenarios for the region. We can characterise each scenario, identify what each might entail for military-patriotic youth education and what the indicators would be were the scenario to unfold.

- **Unification Trojan Horse Scenario** involves the return of the Transnistrian region to a unitary Moldova state, a return to pre-1992, but with resistance from local Transnistrian political elites and civil society and youth, subject to the massive influence process promoted by Russia. Moldova will face a great challenge in maintaining stability and interethnic peace.
- **Independence Scenario** implies a total separation of Transnistria from the rest of the territory of the Republic of Moldova, obtaining partial or total international recognition (see Kosovo case). If this occurs, it is highly probable that Gagauzia, which is populated mainly by ethnic Gagauz, who speak Russia and share political pro-Russian sentiments, will request self-determination and then independence, with the support of Russia.
- **Status Quo/Continuity Scenario** invokes long-term delays in the negotiation process and preservation of the current status of the Transnistrian region, allowing for the continued consolidation of the Tiraspol regime through Russia's external support. The continuation of the protracted conflict precludes Moldova from applying for EU membership.

With regards to the reintegration scenario then this process will be a long one, and its success can only be ensured by real social reintegration. Political reintegration is more of a technical matter, a formula that balances the interests of the elites on both sides of the River Nistru, and establishes the mechanism of interpersonal interaction and cohabitation. The reintegration formula will certainly imply concessions on both sides to achieve compromise and consensus. But real reintegration can only take place when both residents of the Transnistrian region and those in the rest of the territory will perceive each other as an indispensable part of a whole – that is, the reunified Moldovan state. This can only be achieved by educating a new generation of non-ideologized young people, raised in a unifying spirit despite their interethnic or political affiliations, sharing common values, as did their grandparents in the past, as has been done recently in the process of establishing the European Union. The Transnistrian region has not been the subject of major interethnic, religious or political conflicts in the past, only the geopolitical factor has over the years made the region to be found in various state entities. In this context, the success of a future reintegration will depend largely on how young generation is and will be educated.

What is happening now on the left bank of the River Nistru is precisely the opposite of what must be, which can only be interpreted as an antagonism associated with an aggressive ideological interference from the outside. We refer here to the institutionalized school educational process, which still includes compulsory primary military training as a school subject matter, to specialized military training schools and institutions in the region, to the many local children and youth organizations involved in a sentiment-building process of patriotism, which is rather a pack of Russian patriotism, to Russian organizations and institutions that are massively involved in persuading young people to belong to the Russian state. Let us not forget the Russian military contingent stationed in the region, which has also become the promoter of a new school educational trend initiated and promoted by the Russian Ministry of Defence in the last two years.

We believe that in the event that the Tiraspol and Moscow leadership would decide to accept a scenario of Moldova's unification with the Transnistrian region, then it is unlikely a positive change in the current process of military-patriotic education in the Transnistrian region, because the ultimate goal of such a reunification will be not to stabilize and consolidate Moldova, turn it into a viable candidate for the European integration process, but to bring it back into the sphere of influence of the Russian Federation as a guarantee of preventing the enlargement of NATO and the EU, a counterweight when Ukraine is nearing the West, or even worse, to favour the division of the Ukrainian state into several state entities of the kind already mentioned, such as Novorussia, Bessarabskaia Respublika, etc. In this context, we can estimate that the patriotic military education in the Transnistrian region will increase in size and quality.

Thus, as direct indicators of the implementation of this scenario on the dimension of military-patriotic education can be considered – the increase in the Transnistrian region of the number of organizations of children and youth with military-patriotic character, the number of social-political events in which these organizations are involved (especially those with a mass character), their interaction with similar youth organizations from the Republic of Moldova, promoting the same pro-Russian values or those related to the common history of the Soviet period, using this model of cooperation of young people as an example and platform the reintegration of Moldova, which will cooperate with both the West and the East.

At the same time, it is possible to anticipate an increase of the contacts of the Transnistrian youth organizations with those of the Russian Federation through the development of various joint projects, especially those focused on the common (Soviet) past. An important role in this process will be played by the support of the Transnistrian local administration, the Transnistrian public organizations in combination with the intensification of the Russian support. As indirect

indicators of the intention to implement Moldova's reintegration scenario on the military-patriotic educational dimension can be considered: increasing the internal and external financing in support of the activity of youth organizations, intensifying the methodological assistance provided by local and Russian experts (joint meetings, round tables , seminars, etc.), but also the involvement of youth organizations in political activities (demonstrations, rallies, joint activities, etc.).

Thus, the young generation in the Transnistrian region will be given the role of "Trojan Horse" in the future reunified state of Moldova, which continues to be socially divided into two groups with opposite geopolitical options (pro-western or pro-east). This is one of the basic dangers generated by the military-patriotic education process of young Transnistrian youth. If the institutions of the Russian Federation and the Russian and Transnistrian youth organizations involved in the tendentious education of young people are to be extended to other regions of the Republic of Moldova (Gagauzia, Balti city both with many Russian speakers), then this can be treated as an index indicating the availability of Moldova's reunification scenario under conditions favourable to Moscow. We would like to point out that on February 2, 2014, a referendum was held in Gagauzia (despite the prohibitions of Chisinau) where most of the citizens voted for the integration of Moldova into the Eurasian space, that is, the vector opposite the European one[38]. Prior to September 23, 2013, N. Ştanschi (Transnistrian foreign minister) proposed to Moscow to transform the Transnistrian region into an expansion plateau of Russian soft power in the black sea region, including the adjacent regions of Ukraine, Gagauzia and Balti from Moldova to attract them in the sphere of Russian influence – the Eurasian Union[39]. Nowadays some young people from Gagauzia already learn in the military school in Tiraspol.

In the event that he second scenario is being pursued, which implies the definitive separation of the Transnistrian region from the Republic of Moldova and the obtaining of international recognition at least from Russia (e.g. Abkhazia, South Ossetia and Kosovo). We can assume that the military-patriotic education of young people in the region will also continue to be intensified as in the first scenario, but in this case young people from the Transnistrian region along with the Russian military troops deployed here will play control tools Russia on the Transnistrian leadership, in order to ensure its loyalty and to continue to promote the external political development policy focused on the Russian interests in the region. In this case, there would be an increase in the number of children and young people involved in various ideological instructive activities accompanied by the military component, carried out by the above-mentioned organizations or by others of the same pro-Russian bill. The direct and indirect indicators in this case will be largely similar to those in the first scenario, marked by the intensification of Russian involvement in the Transnistrian educational process, with emphasis on military-patriotism education. But unlike the first scenario, the activity of local youth organizations will be largely limited to the Transnistrian region without being exported to the neighbouring regions of the Republic of Moldova or Ukraine. This would allow for avoiding mutual accusations, reducing the level of alert regarding a possible interference from the Transnistrian side, creating a fund for the normalization of bilateral relations. We can estimate that the new generation of Transnistrian, educated in the pro-Russian patriotic spirit,

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[38] ***, "99% of Gagauz voters support declaring independence if Moldova joins Romania", in Nationalia, Barcelona, 2014, URL: https://www.nationalia.info/new/10151/99-of-gagauz-voters-support-declaring-independence-if-moldova-joins-romania, accessed on 20 September 2019.

[39] N. Shtanski, Transnistrian initiatives on involvement in Eurasian integration processes as a response to existing regional challenges. Speech presented at the international conference "Cross-border cooperation in the context of Eurasian integration" organized by the Russian Institute for Strategic Studies, Moscow, 2013, URL: http://eurasian.su/article/pridnestrovskie-iniciativy-o-vovlechenii-0, accessed on 21 September 2019.

can easily transform into apolitical formation that would take the lead in the region and begin the realization of the second scenario, which implies definitive separation from Moldova.

This process also would ensure Transnistria's incompatibility with a possible reintegration process with Moldova and would lay the foundations for a Transnistrian state of its own, which would oscillate in the orbit of the interests of the Russian Federation. In other words, the current process of military-patriotic education of the Transnistrian youth can be considered as a long-term investment by the Russian state in ensuring that Transnistria is maintained in its sphere of influence, given that Moldova and Ukraine will continue to move on the direction of Euro-Atlantic integration. But based on the current situation, we can anticipate that the inhabitants of Gagauzia will demand independence by referring to the results of the referendum and will initiate the internal destabilization of the Republic of Moldova. In this case, we can expect a similar Russian interference in the direction of military-patriotic education in Gagauzia, it will target both Moldova and the neighboring regions of Ukraine.

Regarding the third scenario of maintaining the current status quo, it may actually be considered a delay in the implementation of the other two scenarios mentioned above, depending on the evolution of the regional and domestic situation in Moldova. Such a scenario would mean that Moldova will remain indefinitely in the grey area of Eastern Europe without clear prospects of integration into the EU space. The evolution of the situation so far has clearly shown that the leadership of the Transnistrian region has skilfully used the current status quo to consolidate its positions in order to consolidate its own statehood, which has largely succeeded in it. This accomplishment was possible thanks to the Russian Federation, which offered the multilateral support region.

In this case, we estimate that the military-patriotic education in the Transnistrian region will not undergo any major changes to the present state, even an insignificant reduction of magnitude can take place, gradually turning into a routine activity. As direct indicators of the implementation of this scenario can be considered, keeping the same youth organizations at the moment without increasing their membership. Their work will continue to focus on the same manifestations and activities organized so far, actively elucidated by local media. The current youth organizations would be involved in the support of the current Transnistrian leadership to ensure legitimacy and the character of broad support from civil society. As indirect indicators of the military-patriotic education activity for the application of the status quo scenario we can consider the moderate financing of the activity of local youth organizations, the limited involvement of Russian organizations and only activities that have already been carried out. The ideological aspect will continue to be focused on the promotion of Soviet and current pro-Russian values.

Although not an alternative scenario, it is clear that Russia intensifies bilateral contacts between the Transnistrian region and nationalist political groups in the Balkan states and uses military-patriotic youth education as a means of influence contributing to a possible Russia-Balkan alliance as a counterweight to the EU-Balkans. The Russian Federation uses the Transnistrian region as a laboratory where new ideological concepts and new manipulative technologies and techniques to disseminate the concepts and ideas are being tested and can then be exported back into Russia and to regions such as the Balkans continue the expansion of Russian influence and interests. With regards to the former, Russia tests new manipulation technologies on the local population that is a polytechnic one for the future use of these technologies both on its own territory (in the context of 2024, when the current Russian political leader will be replaced on the basis of the development of a broad popular movement "Narodnii Front Rossii"[40], which will guarantee peaceful exchange). Russia can also use the experience

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[40] Russian Popular Front, Moscow, 2019, URL: https://onf.ru/, accessed on 10 October 2019.

of military-patriotic youth education in Transnistria in Balkan states (Serbia, Republika Srpska of the Federation of Bosnia and Herzegovina) to destabilize the region and halt / delay a new wave of EU and NATO enlargement. Both versions carry the characteristics of technology oriented against colour revolutions, aimed at restoring Russia's favourable positions in the states concerned.

The territory of the Transnistrian region has already been repeatedly used by Russia as an experimental ground for the application of influence elements. Indices in this regard can be considered: offering passports or Russian citizenship – whichh was subsequently widely applied in South Ossetia, Abkhazia, Crimea and now in Eastern Ukraine (Donbas); state security services and curators – where local force structures have been actively influenced and even directly led by representatives from Russia. The use of curators such as Dmitry Rogozin in the case of Transnistria is also an obvious indicator of testing in the region of new forms of driving imposed from the outside; anti-colour revolution youth groups – when the Republic of Moldova reoriented its external development vector towards European integration, youth movements such as "Proriv" appeared in Tiraspol, which promoted an opposite pro-Russian integration vector.

Currently, some connections in the military-patriotic education activity of Transnistrian youth with similar organizations elsewhere can be evidenced. Serbia, for example, organizes summer schools for groups of students from Transnistria, Russia and even from the separatist region of Ukraine "DNR". At the 2015 Summer School (held from 13-23 July in Serbia's National Country Park), the Russian delegation was headed by RISS director Leonid Reshetnikov[41] . In the autumn of the same year, an international scientific and practical conference was held in Tiraspol *"the Pridnestrovian Moldavian Republic and the Serbian Republic: the protection of sovereignty amid international turbulence"*, in which the Transnistrian foreign minister, Vitaly Ignatyev, talked about the interest of Transnistria in establishing a permanent scientific partnership and experts with patriotic forces in Serbia. As an example of such cooperation between the two sides, he recalled the participation of the Transnistrian children's group at the children's summer camp in Serbia[42]. Financing the participation of the Transnistrian children group at the Serbian summer camp is covered by the same Pruto-Nistrean Analytical Information Center in Transnistria (which is a structural subdivision of RISS in Russia). It also is interesting that even in US appear a kind of similar summer camps with Russian kids in which are teaching elements of military-patriotic education (Youtube.com, 2015). The fact that this process is influenced by the Russian Federation is becoming more and more obvious, and the connections that point to the possibility of exporting this trend to other regions, such as Serbia, Kyrgyzstan, confirm our assumptions.

This study of military-patriotic education activity of young people in the Transnistrian region highlights direct (observable) and indirect (proxy) indicators that are relevant to the three scenarios. In this sense, changes to military-patriotic youth education (scale and scope) serves as an early warning of likely changes in Transnistrian and even Russian strategic behaviour. At present, we distinguish several direct indicators indicating an increase in the respective activity (increase the number of activities with military patriotic with themes being deployed, increasing the number of youths involved in them, supporting the Transnistrian ruling institutions, the presence of Russian representatives at these public demonstrations, etc.). At the same time, we

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[41] ***, "Pridnestrovians visit school of friendship in Serbia", in *Novosti PMR*, Tiraspol, 2015, URL: https://novostipmr.com/en/news/15-07-27/pridnestrovians-visit-school-friendship-serbia, accessed at 12 October 2019.
[42] V. Ignatyev, "Tiraspol studies Serbian experience of confronting external risks", in *Novosti PMR,* Tiraspol, 2015, URL: https://novostipmr.com/en/news/15-11-26/tiraspol-studies-serbian-experience-confronting-external-risks, accessed on 12 October 2019.

can also observe the indirect indicators indicating the intensification of the military-patriotic education in the region, such as the increase of the financing for military-patriotic educational activities in the conditions when the Transnistrian region faces an acute budget deficit, taking over the ideological symbol used similar Russian youth organizations, the training of leaders of Transnistrian youth organizations in Russia, their involvement in youth forums that cultivate Russian patriotism on the territory of the Russian Federation, etc. Some of these indicators are similar to the many possible scenarios examined in this study, which requires a more complex analysis of the indicators in order to accurately determine the changes in the behaviour and intentions of Russia expressed locally in the Transnistrian region. At present, in Transnistria, we have a three generations effort focused on pro-Russian education, which originated in the Soviet period: grandfather the veteran, who is the producers of the military-patriotic educational product, son the university - the transmitters of the educational product and grandson at primary school - the receivers of the content of this ideological educational product.

CONCLUSIONS

In recent years, particularly following the annexation of Crimea in 2014, there has been an increase in the overall number of activities, as well as a proliferation of ways ('modes of learning') the 'education' is delivered. The number of youth being educated has also increased, and the ideological tools and concepts have evolved, with greater focus on Transnistria's links to the *Russki Mir* (Russian World), and the identity of Transnistrians as a "people" (therefore capable of self-determination). From this we can conclude that funding has also increased and that this is a long-term project, with an expectation there will be a return on investment. Although from Russia's perspective, increased military-patriotic youth education could support all of the scenarios, the changes to the scale and scope of the education suggests that the *independence scenario* is most likely. Given the extent of Russian support for military-patriotic youth education, we can argue that increases in activity, funding, and numbers "educated" provide an indirect indicator of Russian strategic behaviour towards Transnistria. Russia pursues interests contrary to those of the Republic of Moldova, which supports unification. In light of this finding, this study articulates three policy recommendations which would be part of a wider integrative plan, adjusted annually with support from the national budget and the funds provided by the external development partners.

Confidence Building Measures (CBMs). The measures would be focused on hiring young people from both sides of the Nistru River in joint projects that meet the interests of both parties (ecology, political leadership, creation and art, sports, information technologies, exchange of experience, "Erasmus" schooling programs between Transnistrian and Moldovan schools, etc.). The objective of CBMs these measures will be to provide an alternative to the current separatist policies promoted on the left bank of the River Nistru, by highlighting common interests, and emphasizing the multi-ethnic character of Transnistrian youth. Different perspectives and experiences will counter the Russian vector, forcing the Transnistrian leadership to justify its selective policies (so being held to account) and address possible fears for young people who want the reintegration of Moldova.

Publicity Campaign to Pressure Russia to Desist from Youth Propaganda Activities. Moldova needs to actively monitor this aspect of Russian involvement in Transnistria and highlight the scale and scope of the support. The objective of this measure is to highlight Russia's role as a bad faith actor. Under international law and as a signatory to the ceasefire its troops in Transnistria should be neutral. Direct support for military-patriotic youth education is in violation of the law. Furthermore, more broadly Russian sponsored activities (see Table no. 1) clearly undermine the statehood of Moldova. Administrative and criminal penalties should be directed against external individuals and entities that do not coordinate with

Moldovan authorities, in accordance with the Treaty of Friendship and Cooperation between the Republic of Moldova and the Russian Federation.

Updating Youth and Education Policies in Moldova: The measure involves engaging Transnistrian representatives (government and civil society) in discussing and developing education and youth policies that also take into account the interests of young people on both sides of the River Nistru. It is important to focus on native patriotic education (based on common values) and separate this from military education and foreign influence. Russian and Ukrainian youth organizations in the Republic of Moldova would seek to engage in closer cooperation with the youth organizations in the Transnistrian region. They would offer arguments on the benefits of preserving the territorial unity of Moldova, which gives everyone the opportunity to identify themselves as part of both the "Russian world" and the "Western world". Focusing on issues to combat Transnistrian arguments that justify separating Transnistria from Moldova (referring to the 1992 conflict, the Soviet common past, etc.).

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THE CONCEPT OF SOCIETAL SECURITY AND ITS IMPLICATIONS ON ROMANIA'S NATIONAL SOCIETAL SECURITY

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Abstract: Societal security refers to how certain social phenomena or processes can generate evolutions that can constitute threats to the survival of societies. The management of such social processes with high potential for insecurity requires complete and interdisciplinary analysis using the most appropriate analytical methodologies. In this context, the main objective of this article is to outline the concerns for the assessment of societal security at European level using complexity theory and identify how they can be used to analyse the societal security of Romania. To meet this objective we will analyse the data provided by the study Europe's Societal Challenges – An analysis of global societal trends to 2030 and their impact on the EU, done by RAND Europe and, based on its results, we will identify the impact of those trends on our country.

Keywords: societal security; complexity science; systemic thinking; Romania's societal security.

INTRODUCTION

The complexity and dynamism of the contemporary world gave birth to a type of society that Ulrich Beck named in his book *Society: Towards a New Modernity,* published in 1992, as a *risk society*[1]. This type of society, in which we all live today, faces an ever-expanding array of security risks and threats, taking increasingly diversified forms and competing with traditional military threats faced by states in the past[2]. Thus, the effects generated by social injustice, inter-ethnic conflicts, increased cross-border crime, international terrorism, uncontrolled migration have highlighted a number of internal weaknesses and vulnerabilities of the states that cannot be managed through the traditional measures that provide their national security. Therefore, in the theory and practice of post-Cold War security, new concerns emerged that went beyond the traditional borders of national security and tried to meet the security requirements of contemporary societies. These concerns led to heated debates about redefining the concept of security, as well as what Ionel Nicu Sava called in his book *Studii de securitate*[3], demilitarization and sociologization of security studies. In this regard, the efforts of the specialists of the Copenhagen School in the 1980s to redefine security through five distinct sectors (political, economic, military, societal and environmental), together with the introduction in their analysis the theory of securitization, in order to build the so-called non-military agenda of contemporary security are well known[4].

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In this context, the concept of societal security has been promoted to express fears that certain societal phenomena or processes may generate such evolutions that may constitute threats to the survival of societies as community entities[5]. The management of such phenomena and social processes with high insecurity potential require complete analysis using the most appropriate analytical methodologies, as well as the mobilization of diversified capacities, both civil and military, coming from both the whole public and private spectrum. Such an approach often involves adopting strategies beyond traditional approaches that, instead of being based on risk assessment and security threats, must be based on complex and interdisciplinary analysis. Under these conditions, systemic thinking and elements of complexity theory are beginning to be of increasing importance. Therefore, the main objective of this article is to outline the concerns for the assessment of societal security at European level using complexity science methods and to identify how they can be used to analyse the societal security of Romania. To meet this objective we will analyse the data provided by the study[6] *Europe's Societal Challenges - An analysis of global societal trends to 2030 and their impact on the EU*, conducted by RAND Europe in 2012 and, based on its results, we will identify the impact of the evolutionary trends of the EU's societal security on our country.

1. Societal security related to the complexity of contemporary societies

The end of the Cold War marked the beginning of a period of great theoretical debate referring to the future of European and international security. Some analysts have tried to explain the evolutions of international life since 1990 using the old concepts of power and interests specific to the theories of international relations, and others, noting the evolution of the European security framework, have focused on the theoretical and conceptual approaches generated by new thinking trends, such as constructivism[7], security communities[8], security domains or securitization theory[9]. These new approaches have proven to be beneficial not only for academic debates but also for the practice of post-Cold War Euro-Atlantic security. They did not only allow the concept of security to be extended beyond military aspects, but they also generated a new type of analysis, multi-level and multi-actor, which allowed the transition beyond the state-centred approach to the other-oriented approaches such as non-state actors, including social groups and even individuals. If threats to the sovereignty and integrity of states are assessed mainly in military terms, societies and individuals face a much wider range of dangers, from the inadequacy of political and social structures to environmental degradation, and those who suffer the most are people[10]. Therefore, the concerns of the leaders in charge of contemporary societies for strengthening their resilience in relation to the level of socio-economic development and the security needs of individuals are not at all accidental.

If we try to put all these aspects in the equation of societal security, we realize the difficulty with which it can be estimated and analysed. The diversification and dynamism of our days socio-economic systems make the complexity of contemporary societies grow exponentially, and the issue of societal security becomes an increasingly important issue that

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[5] *Ibidem,* p. 119.

[6] Stijn Hoorens, Jeremy Ghez, Benoit Guerin, Daniel Schweppenstedde, Tess Hellgren, Veronika Horvath, Marlon Graf, Barbara Janta, Sam Drabble, Svitlana Kobzar, *Europe's Societal Challenges - An analysis of global societal trends to 2030 and their impact on the EU,* RAND Europe, 2013.

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should be given due attention. If traditionally security analysis is based on linear strategies, of cause and effect, which focus on the concepts of risk and threat, the complexity of contemporary societies requires the approach of societal security with other types of analytical tools. But how can the complexity of contemporary societies be measured and how can their resilience be evaluated? While some analysts have tried to find relevant answers to such questions, others have questioned the feasibility of trying to do so[11].

However, a number of complexity theorists have promoted different methods for assessing societal security, starting from the observation that between the complexity of a social system and the structure or amount of information necessary for its functioning is a directly proportional link. Thus, they concluded that by applying methodologies specific to the sciences of complexity in the field of security in general and of social security, in particular, extremely important analytical results can be obtained, especially in terms of meeting the need for anticipation in this field.

2. The use of complexity methods in determining societal security

As we have already shown, the capacity of anticipation of policy makers and leaders of security institutions is not high enough to provide the necessary support in overcoming the difficulties faced by modern societies whose complexity has increased exponentially. Therefore, they are generally overcome by the challenges facing today's societies, and attempts to anticipate future challenges and turn them into opportunities are not easy at times, sometimes even facing failure. However, contemporary security theorists and practitioners have strongly and continuously promoted various initiatives for prospecting and anticipating future developments in this field. For example, the European Commission has encouraged and supported the implementation of initiatives to foresee the future of Europe, including anticipating the evolution of the security of the European Union. These initiatives were presented on a coordination and support platform, called *EFP European Foresight Platform – supporting forward looking decision making*[12], which aims to strengthen the information base and knowledge of foresight projects and initiatives in Europe and internationally. In fact, this platform is the continuation of the *EFMN - European Foresight Monitoring Network* and *ForLearn* initiatives, previously promoted.

This platform is a unique centre for knowledge of foresight or forward-looking methodologies, which can make the forecast exploitation much more efficient as a resource to support the development of EU perspective policies, including the common security and defence policy. With the goal of providing a full picture of major trends and future potential disruptive global challenges and examining how the EU could position itself to take an active role in responding to them, EFP has expanded the scope of its activities from mapping to other areas, offering foresight, forecasting, horizon scanning or impact assessment (technology assessment) studies.

In the same anticipatory note, there are other EU projects that pay attention to, such as the *European Strategy and Policy Analysis System (ESPAS)* which aims to help the EU identify major global trends, assess their implications and review challenges and the policy options that target these transformations. ESPAS has been involved in assessing trends in

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[11] Phillip W. Anderson, *The Eightfold Way to a Theory of Complexity*, in Cowan, Pines, and Meltzer, Complexity, p. 11.
[12] ***, *EFP European Foresight Platform - supporting forward looking decision making*, URL: https://cordis.europa.eu/project/rcn/93859/factsheet/en, accessed at 15.05.2019.

societal security developments, and has asked RAND Europe to conduct a study[13] on trends in global societal security by 2030 and to identify the long-term challenges that the EU should prioritize for the institutional cycle and long term, until 2030. All these initiatives prove the interest of European specialists in prospecting and evaluating the security of the Union using modern tools such as future studies, foresight or prospective studies, which use analytical concepts and methodologies borrowed from systems theory or complexity science. In our country, there are very few concerns for assessing national security, and even fewer initiatives for assessing Romania's societal security using such analysis tools outside the traditional linear framework based on identifying and combating security risks and threats. Therefore, we considered that it is appropriate for this article to present the results of the RAND Europe report, mentioned above, in order to identify some important conclusions for our country.

3. Trends in the evolution of EU societal security according to the RAND Europe study

As we have already shown, in 2012 RAND Europe, at the request of the European Commission, conducted a study on trends in the evolution of EU societal security by 2030 and identified the Union's long-term priorities in this area. The analysis of RAND Europe is not based on the assessment of the risks and threats to the social security in the EU, but on the identification of the trends of evolution of the societal security taking into account a series of societal trends identified at global level. These global trends were structured along five thematic clusters, as follows: the development of a new middle class worldwide; population globally growth and aging; employment and changing labour market; evolution of trends and impact of migration; connecting societies and increasing the prominence of individuals[14].

Most of these trends have a degree of uncertainty whose direction and magnitude depends on exogenous drivers, which are not under the control of the decision makers. In turn, each of these trends could have different types of consequences for the long-term landscape of the European Union's societal security. Finally, these trends were identified by the RAND Europe report as trends in the evolution of societal security at European level. Next we propose to analyse the particularities of these evolutionary trends in the specific of the societal security of our country. Obviously, we will use the results of the study *"Europe's Societal Challenges An analysis of global societal trends to 2030 and their impact on the EU"*[15], conducted by RAND Europe in 2012, which, in our estimation, can be used for societal security assessment in Romania.

Therefore, from the very beginning we propose to see if the five trends of evolution of the societal security at global level specified by the RAND study (development of a new middle class at world level; global population growth and aging; employment and change of labor market; the evolution of trends and the impact of migration; the connection of societies and the prominence of individuals[16]) are also relevant for the strategic landscape of the societal security of Romania.

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[13] Stijn Hoorens, Jeremy Ghez, Benoit Guerin, Daniel Schweppenstedde, Tess Hellgren, Veronika Horvath, Marlon Graf, Barbara Janta, Sam Drabble, Svitlana Kobzar, *Europe's Societal Challenges - An analysis of global societal trends to 2030 and their impact on the EU,* RAND Europe, 2013.
[14] *Ibidem*.
[15] Stijn Hoorens, Jeremy Ghez, Benoit Guerin, Daniel Schweppenstedde, Tess Hellgren, Veronika Horvath, Marlon Graf, Barbara Janta, Sam Drabble, Svitlana Kobzar, *Europe's Societal Challenges - An analysis of global societal trends to 2030 and their impact on the EU,* RAND Europe, 2013.
[16] *Ibidem*, p. xiv.

4. The implications of trends in the evolution of EU societal security on the societal security of Romania

The basic premise of our analysis is that, although many of these trends are uncertain, they are relevant to Romania, and their direction and magnitude depend on future trends, which cannot be controlled by national decision makers. In turn, each of these trends could have different consequences for the long-term strategic landscape of Romania's societal security. Another premise from which we start is that these trends have almost similar consequences for Romania as for the European Union, specifying that in the case of Romania there will be some additional features. RAND Europe experts identified the EU future societal security trends through an on-line Delphi exercise followed by interviews and additional analysis.

RAND experts identified a set of thematic areas that should be addressed during the study. These thematic areas are as follows: *the rise of a global middle class in the wake of the rapid development of emerging economies worldwide, the increased access to education and the role of new technologies and new media, the empowerment of individuals, the changing demography of a globalised world and its impact on different societies, the role of mobility and migrations and their impact on national identity, old and new labour – and work*[17].

According to the same study, the consequences for the EU were identified under four directions: *increasing inequalities between social groups and their vulnerabilities; the consequences of the emergence of a new world consumption class; adapting to a new demographic reality; multiplying the opportunities for increasing the individual prominence, in proportion to the increased risk of social fragmentation*[18]. These directions are the result of a cross-cutting analysis which combines the trends identified with the theme of reflections presented before. Considering that Romania is a European Union country, we consider that the analysis of the societal security framework of Romania must be based on the same four major directions of reflection, identified by the RAND Europe study. In accordance with these major themes and combined with Romania's strategic framework, we identified the thematic areas to be investigated as follows: *increasing a national consumption class as a result of rapid economic development; increased access to education and the role of new technologies and new media; increasing the prominence of individuals; demographic changes at national level and their impact on society as a whole; the role of mobility and migration and their impact on national identity and the evolution of domains and the labor market.*

Based on the data taken from the study conducted by RAND Europe, we appreciate that by combining the trends of evolution of the European societal security with national thematic themes proposed before we can design an analytical framework for Romania's societal security. Considering the global trends, presented as a basis model at the European Union level, we consider that the trends of evolution of the societal security in our country can be structured around five thematic clusters as follows: development of a new middle class at national level; growth and aging of Romania's population; employment and change of the labor market in Romania; evolution of trends and impact of migration; connecting the Romanian society with other societies and increasing the prominence of individuals[19].

As in the case of the European Union, most of these tendencies have a degree of uncertainty whose direction and magnitude depend on exogenous drivers, who are not under the control of the decision-makers. In turn, each of these tendencies, could have for the long-term landscape of the societal security of Romania different types of consequences. The trends of the evolution of the societal security could influence Romania's strategic security

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[17] *Ibidem,* p. 1-2.
[18] *Ibidem,* p. xiii.
[19] *Ibidem*, p. xiv.

framework, both directly and indirectly, and could have a series of implications at national level, as well as at the different regions of the country.

First, we believe that social *vulnerabilities will be unequally diversified at the level of level of different social groups in Romania*. This will be due to the evolution of the economic-economic-financial situation of the country which, in the short term, will continue to be uncertain. This could generate austerity measures, with an impact on employment and the unequal distribution of income in the coming years[20]. However, there are sufficient reasons to believe that, beyond the horizon of 2030, Romania will enter a period of slow economic growth[21] and, in the long term, vulnerabilities for certain social groups will be mitigated.

Secondly, we believe that *the emergence of a new socio-economic order will have consequences on consumption, mobility and social values*. This trend will be due to the demographic trends that will change the size and structure of the population, unfortunately in a negative sense, with an impact on the potential size of the internal consumer market and even on the consumption model.

Thirdly, we consider that *Romania will have to adapt to a new demographic and economic reality* due to the aging and migration trends of the population which will have a consistent impact not only on the size and structure of the population, but also on public spending and revenues and economy as a whole[22].

Fourth, we argue that *there are increasing opportunities, but potentially uneven, for increasing the individual prominence of Romanians*. If we analyze the data on the human development index calculated at the level of 2018 - *2018 Human Development Index* we find that Romania is in the group of states with a high human development index and that our country is trying to eliminate the gaps with other EU states.

CONCLUSIONS

Increasing the complexity of contemporary societies has an extremely important effect both for security, in general, and for societal security in particular. Therefore, the search for alternative solutions that lead to the continuous increase of the returns of the processes of societal security has become a constant concern of theoreticians and practitioners of this field. Among their most important concerns are that of increasing the capacity to anticipate societal phenomena and processes by taking on some theories and concepts from the science of complexity. In this respect we consider that the European Commission's project *"Europe's Societal Challenges. An analysis of global societal trends to 2030 and their impact on the EU"*, conducted by RAND Europe is with an increased importance.

The conclusions regarding the implications of the trends of the evolution of the EU societal security and their impact on the Romania's societal security at a waiting period on the horizon of the 2040s are to be noted to different social groups in our country. At the same time, a new socio-economic order will be structured in our country that will have important consequences on consumption, mobility and social and identity values at national level. Thus, Romania will have to adapt to a new demographic and economic reality that will provide Romanians with increased opportunities for human development, but which will be unevenly spread in society.

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THE SECURITY OF EUROPE:
SAFEGUARDING FREEDOM IN THE CONTEXT
OF CROSS-BORDER THREATS

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Abstract: *In the recent years, security, freedom, especially the social, political, economic and religious sectors, with their set of individual and group rights have been undermined by the growing international terrorism as the number of victims scaled up. The measures taken to preserve the safety of the European continent, including the use of police and military force where impacted by the need to manage relations with a determined Russia trying to impose its geostrategic importance, the pressures exerted by migration and the influx of refugees, UK's decision to leave the EU, and the separation of European states in main and second-hand actors. With the emerging challenges of the European security and their dynamics, the paper concentrates on the future agenda of the EU states. Special attention is given to the Copenhagen School with regard to security in politics, society, economy, and religion, with the hope that all incoming measures are to fulfil the defines and safeguarding requirements of the population.*
Keywords: *security dynamics; migration; human rights; military; terrorism.*

1. The international context after two decades of terrorist threats

> *"The sole end for which mankind are warranted, individually or collectively,*
> *in interfering with the liberty of action of any of their number is self-protection…*
> *The only purpose for which power can be rightfully exercised over any member*
> *of a civilized community, against his will, is to prevent harm to others.*
> *His own good, either physical or moral, is not sufficient warrant."*
> *John Stuart Mill*

Over the past fifteen years, the greatest challenges constitutional-based societies faced come from threats of international terrorism that destabilize democratic systems and force institutions to make far-reaching choices of individual rights. By definition, "terrorism" and "democracy" are antagonistic concepts, in opposition by their very nature, "two systems" running on parallel roads.

In the broader Western sense, terrorism poses a serious threat to democracy, and democratic societies are forced to use extraordinary means of action to eliminate and diminish the threat. Terrorism generates panic and spreads a sense of generalized insecurity to destabilize the order required for the functioning of democratic systems, and for which the state must intervene to remove threats that endanger the very existence of national institutions and implicitly to restore the state to tranquillity and order.

In the Declaration of Human Rights and Citizen (1791)[1], the democratic state was defined by its very essence, the need of protecting individual fundamental rights. In exceptional

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[1] *The basic principle of the Declaration was that all "men are born and remain free and equal in rights" (Article 1), which were specified as the rights of liberty, private property, the inviolability of the person, and resistance to*

situations such as those caused by terrorism, the area of individual rights is restricted, under the aim of ensuring national security. It is, however, unanimously accepted that a derogation of such dimensions and with such implications can be accepted only in the presence of serious circumstances, leaving no room for any other alternative solution under the threat of losing the constitutional order and only for the time necessary to remove the threat in question, bringing it into controllable limits.

A critical moment from a social, political and democratic point of view was September 11, 2001, at which moment the sense of uncertainty and fear gained another weight, and insecurity became the defining element of the subsequent geopolitical situation. The sense of danger and instability was then used to legitimize the package of laws governing the various forms of fighting terrorism. Thus, public security has become more important than protecting individual rights. The most important element, many years after this tragedy, is the degree of acceptance and dependence on the measures that have led to the restriction of the human rights field, without significant manifestations of opposition to them.

Very common is the view that the degree of acceptance of migration is directly influenced by the frequency with which terrorist acts are committed and, of course, the severity of the consequences. It is becoming increasingly clear that there is a clear cause and effect ratio between the migratory flows currently taking place in Europe and the increasing uncertainty and denial of European migrants' presence on the part of European citizens. More and more often, the current leadership of the European community is seen as a structure characterized by hypocrisy, falsity, naivety or inability to react and act in relation to the threats that come into this space with the waves of illegal migrants.

Another sensitive and unresolved point by the EU is the maintenance of economic sanctions against Russia, as Russia was the only state that effectively intervened to block and destroy the threat of ISIS in Syria, in contrast to the fact that European states do not manifest a coherent defence reaction to the huge groups of migrants converging from the war zones to radicalized Islamists growing in numbers infiltrated into these flows, according to data provided by the European institutions in the field.

On May 2, 2018, the Declaration on the newly created Euro-African Union was signed in Marrakech, Morocco, a declaration that is seen by many states as the act of surrender from Europe and not only in the face of the African invasion. The motto of this statement was the words of the controversial President of the European Commission, Jean Claude Juncker: "Without millions of African immigrants, Europe will be lost"[2].

The initiative and papering of this statement was made under the aegis of the UN and the EU, with the participation of 55 countries, out of which 28 are African and 27 European at the 5th annual Ministerial Conference on Migration and Development. This Statement mentions that immigration in terms of development has beneficial effects on global development, supporting the rapprochement between Africa and Europe and the fight against xenophobia, racism and discrimination[3].

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oppression (Article 2). All citizens were equal before the law and were to have the right to participate in legislation directly or indirectly (Article 6); no one was to be arrested without a judicial order (Article 7). Freedom of religion (Article 10) and freedom of speech (Article 11) were safeguarded within the bounds of public "order" and "law".

[2] Speaking with Deutsche Welle, Juncker reiterated his call for more legal migration routes to the EU. He told *Deusche Well* that "if we don't offer legal ways of emigrating to Europe, and immigrating within Europe, we will be lost". See: ***, "Jean-Claude Juncker: Migrants 'need legal ways to come to Europe' The European Union must not remain silent in the face of slave markets in Libya, says EU Commission chief Jean-Claude Juncker", in *Deutsche Welle*, 28.11.2017, URL: https://www.dw.com/en/jean-claude-juncker-migrants-need-legal-ways-to-come-to-europe/a-41556151, accessed on 10.10.2019.

[3] ***, Marrakesh Political Declaration, 2 May 2019, URL: https://ec.europa.eu/home-affairs/sites/homeaffairs/files/20180503_declaration-and-action-plan-marrakesh_en.pdf, accessed at 13 august 2019.

The only country refusing to sign this declaration, which not only makes immigration official, but also treats those who oppose the invasion as racial and xenophobic, was Hungary, a state that declared through its officials that it would focus on means of stopping illegal immigration, that it will not be complicit in encouraging this phenomenon and will strongly oppose the European intention to change the composition of the continent's population. The document did not refer to security issues at the level of European nations, in the face of the new exponential growth trends of African people entering Europe, and the views of African countries are becoming more and more dominant in response to the level of reaction, and the effective means of defence of the European states.

Today, in my opinion, the general concern posed by migratory flows is that EU member states will not know how to defend their national identity, in less than 50 years, Europeans will be minority in Europe, and all cultural, economic and genetic wealth risks being brutally destroyed and replaced by the obscurantism primitive of the Qur'an[4]. We are contemporary with an infinitely more serious phenomenon than the fall of Constantinople, and the continent, as we have known, will become rapidly in historical temporal terms the New Arab Euro Africa.

With or without the dangers of accepting without any reservation of multiculturalism, defending at a legislative level the occupied population, should not lead to limitations of the constitutional rights and even less to abuses under the pretext of defending these rights. Limitation of rights should be limited to the space and time required to combat and eliminate the specific threat and specific danger. It should not be forgotten how the dictators appeared, namely during the antiquity of the Roman Republic, when, in emergency and extreme danger, the Senate of Rome proposed a "Dittatore", acting for a defined term, usually 6 months, to take all measures to eliminate the danger and bring society back to the state of order before the emergence of the state of necessity.

Under the emotional empire generated by the intensity of the September 11, 2001 attack, and after that by the large-scale terrorist attacks in Spain, France or Russia, the legislative powers targeted by terrorism, adopted laws that did not take into account the need for punctual solution determined for a certain arc of time, but legislated by restricting fundamental rights already enshrined in the constitutions, thus establishing a reduction of indefinite rights or the lack of a reasonable proportion between the severity of the threats and the impact of restricting the rights through exaggerated legal provisions.

The foundation stone and source of inspiration at the global level were, first, the Patriot Act[5], adopted after the attacks in the United States, 2001, immediately and without public debate, and subsequently the Terrorism Act[6], which had a parliamentary debate and published for more than two months until approval.

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[4] Some people claim that the Qur'anic view suggests a bipolar society. They say, according to the Qur'an, society is divided into two classes: one is the ruling, dominating, and exploiting class, and the other consists of the ruled, exploited, and subjugated people. The ruling class consists of those whom the Qur'an calls `mustakbirun', i.e. the arrogant oppressors and exploiters. The subjugated class is of those who are called by the Qur'an `mustad'afun' (the weakened).

[5] ***, Uniting and Strengthening America by Providing Appropriate Tools Required to Intercept and Obstruct Terrorism (USA PATRIOT) Act of 2001, URL: https://www.congress.gov/bill/107th-congress/house-bill/3162?q=%7B%22search%22%3A%22Uniting+and+Strengthening+America+by+Providing+Appropriate+Tools+Required+to+Intercept+Obstruct+Terrorism+Act%22%7D&r=9, accessed on 10 September 2019.

[6] The primary difference between the USA Act and Foreign Intelligence Surveillance Act (FISA) is the definition of terrorism. In FISA, terrorism is limited to acts that are "backed by a foreign power" The phrase foreign power is commonly regarded as foreign government. Focus on Al Qaeda after September 11 raised the issue that there are terrorists who are not backed by a foreign government and even those who may act completely alone. See: ***, Foreign Intelligence Surveillance Act, URL: https://fas.org/irp/agency/doj/fisa/, accessed on 11 August 2019.

There have been other regulatory attempts to combat terrorism on a global scale, on illicit cars hijacking, civil aviation safety and maritime navigation, the protection of diplomatic and hostage operations, the defence of nuclear power generated facilities or of major local interest, or on the possession and use of potentially explosive materials for terrorism purposes.

Other special measures were the decision to block the means of economic support of organizations recognized with terrorist intentions under the 1999 International Convention for the Prohibition of the Financing of Terrorism and the adoption of the agreement of the International Convention against Nuclear Terrorism.

A fundamental role in determining and imposing a balance between the safeguarding of public security and the defence of fundamental rights lies with the jurisprudence of the supra-state courts of law, such as the European Court of Justice (ECJ), Court of Justice of the European Union (CJEU), the European Court of Human Rights (ECHR).

2. European agenda of security

At the beginning of the 21st century, the re-establishment of the general context finds the transnational threat of terrorism a phenomenon already widespread, requiring greater international co-operation and providing a pretext for accelerating legislative processes. Since September 11, 2001, just as information has shifted throughout the Atlantic, there has clearly been a wide discrepancy that has separated the European view from that of the Americans. Then, in my opinion, came the opportunity for the European Union to aspire to independence from what was deciding in NATO.

New initiatives have also emerged, the "European Security Strategy"[7] (2003), also known as the Solana document[8], "EU counter-terrorism strategy"[9](2005) and the "solidarity clause"[10] which was stating that if a Member State was the victim of a terrorist attack or other human and natural disasters, the others could intervene in his aid.

But short-term needs have not been enough to build an untested, supranational order, because security is a fundamental element of national sovereignty. The division of the internal/external dimension has largely lost its importance, as an analytical concept and as a political orientation for European security actions.

The EU can be a security actor with significant military power, even in the absence of a single European army. Governments of Member States can speak with one voice on a regular

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[7] ***, European Security Strategy. A secure Europe in a Better World, 2003, URL: https://www.consilium.europa.eu/media/30823/qc7809568enc.pdf, accessed at 12 August 2019.

[8] On 26 July COREPER agreed to: i) re-write the 1993 Decision on access to EU documents; ii) to introduce a new security classification system; and iii) set out rules on who could, and who could not, handle categories of documents. In combination this allowed, Mr. Solana to exchanges letters with Lord George Robertson, Secretary-General of NATO, setting in place interim "security arrangements" by 26 July 2000.

[9] EU counter-terrorism strategy. In 2005, the Council adopted the EU counter-terrorism strategy to fight terrorism globally and make Europe safer. As deadly terrorist attacks continue to strike citizens in Europe and beyond, fighting terrorism is a top priority for the EU, its Member States and its partners. The strategy focuses on four pillars: prevent, protect, pursue, *and respond.* Across these pillars, the strategy recognizes the importance of cooperation with third countries and international institutions. See: ***, EU counter-terrorism strategy, 2005, URL: https://www.consilium.europa.eu/en/policies/fight-against-terrorism/eu-strategy/#, accessed on 10 August 2019.

[10] The clause was implemented as anticipated following the terrorist attacks in Madrid in March 2004.
In 2014, the EU adopted a decision laying down the rules and procedures for the operation of the solidarity clause. It ensures that all the parties concerned at national and at EU levels work together to respond quickly, effectively and consistently in the event of terrorist attacks or natural or man-made disasters.
The European Union Solidarity Fund is an instrument financing operations in the field of civil protection first created in 2002. Under revised rules adopted in 2014, working procedures have been simplified and eligibility criteria clarified and extended to cover drought. See: URL: https://eur-lex.europa.eu/summary/glossary/solidarity_clause.html, accessed at 10 September 2019.

basis in foreign policy, without officially forgoing national sovereignty in this area. Even in the most intergovernmental security sectors, decisions are not made only in European capitals, and the processes behind them include both the so-called tough and soft integration.

As mentioned above, I consider that member states have different histories and traditions, different views on the world, and very different threats when it comes to defending their own citizens or knowing what to do with the need to balance security with civil liberties. Even more important are the differences between national legal cultures, civil law and common law, which lead to a series of extra distinctions in relation to the court system and criminal proceedings. Member States are also different in terms of choosing between external actions and the type of action to be taken. Some nations emphasize the military aspect of their abilities, while others show proudly their major civil contributions.

Germany, Poland, France, the United Kingdom, Spain and Italy each have more military units than Malta, Cyprus, Luxembourg, Latvia, Slovenia and Estonia have. Some countries, such as Sweden, Finland, France, Germany, Slovenia, Hungary and Belgium, underline the importance of CSDP as a tool of influence, while others, as seen at the Warsaw Summit from July 8 to July 2016, want to give a more prominent role to NATO and the deployment of battalions in Eastern Europe. Despite of these centrifugal pressures, EU Member States continue to demand that they reach increasingly advanced levels of cooperation and integration. Attempts are to place the security domains in structures where Europeans can cooperate in the best possible conditions.

In the case of terrorism and organized crime, police and judicial authorities work together in different ways and try to align their national criminal justice systems. For example, issuing the European arrest warrant would allow police in the European Union, the arrest of suspected terrorists or other serious crimes, even if violations are defined differently. Policies such as the freezing of terrorist assets or presumed to be terrorists, and the discovery and prevention of money laundering are primary interests. These areas, like others, are a heavy-end integration. One of the key areas of rapid integration into soft areas is the field of police activities. Europol acts as a supranational top player, dealing with the most serious crimes in the territories of the Member States, as well as any counter-terrorism issue. Europol has a staff of over 500 employees and a budget of over 90 million euros.

While Europol does not carry out investigations on its own, it prepares strategic analyzes and assesses threats, facilitating the exchange of information between European states and the United States, while maintaining diverse and extensive cooperation and coordination between the various national judicial and police authorities.

Within the Europol Framework, the Task Force of Police Chiefs of Operations discusses best strategies, trends in crime, operations planning, and coordination of joint investigation teams composed of national police and judicial authorities dealing with organized crime and terrorism.

The European Police College of the EU brings together police officers across Europe to develop better police networks, organize training initiatives and carry out research. In addition to the Europol system, the police can also share information about offenses and offenders known to other police networks, for example through the Schengen Information System, a common legal instrument to strengthen police activity that allows member countries to integrate efforts and put an end to cross-border crimes. It has a database of over 14 million informational packs about people seeking for various offenses, vehicle data recording, objects and residence permits.

Another police network is the Counter-terrorist Group[11], which brings together heads of intelligence services at the national level of the European states. Member States have adopted the principle of availability, which is an agreement to strengthen the exchange of information between European intelligence services.

2.1 Towards a common European security integration

The European Union's contemporary interests are firmly in the context of international theory and politics. However, with regard to security and defence policy, there seems to be a tendency to underestimate or overestimate the role of the EU. It is clear that only a few EU states are capable of self-defence from a military point of view and that they have an interest in this area but also that many of them will remain outside this cooperation. In the case of launching an operation, initial intervention forces and civilian elements are often deployed only by military actors with significant capabilities. There is no alternative to this enhanced cooperation or within the Union, especially following the recent turbulent events related to Brexit[12].

Both NATO and the EU suffer from a political deficit[13] because neither of these two organizations can be considered a preferred security organization for Europe. France and other countries prefer the EU, while the UK is among NATO's first policy-makers, ensuring that European integration does not go too far into assuming an autonomous role. The foresight for the future of the EU security policy requires similar predictions on the role of NATO in Europe.

The driving force behind European military integration becomes a visible factor. The European Defence Agency (EDA) could play a key role because, due to the reduction of its own resources, states are forced to realize that they really need top-down coordination for military research, training and maintenance. Different models of bilateral or multilateral cooperation can be seen, but few are well-prepared for supranational action models. The need for a rational and functional military leadership of the military integration process is becoming increasingly apparent both in the European context and in the context of NATO.

The economic need for rational integration will become the driving force for a common European security policy, simply because the EU is a mature political system, despite the difficulties and ambiguities, which has acquired several civilian elements, which are and will be central to supporting peace operations. In NATO, transatlantic differences are quite large and do not seem to be willing to disappear quickly, but on the contrary. The European Union is

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[11] To ensure an effective response to these challenges, in January 2016 Europol created the European Counter Terrorism Centre (ECTC), an operations centre and hub of expertise that reflects the growing need for the EU to strengthen its response to terror. See: URL: https://www.europol.europa.eu/about-europol/european-counter-terrorism-centre-ectc, accessed at 10 September 2019.

[12] Prime Minister Theresa May announced the government's intention not to seek permanent membership of the European single market or the EU customs union after leaving the EU and promised to repeal the European Communities Act of 1972 and incorporate existing European Union law into UK domestic law. A new government department, the Department for Exiting the European Union, was created in July 2016. Negotiations with the EU officially started in June 2017, aiming to complete the withdrawal agreement by October 2018. In June 2018, the UK and the EU published a joint progress report outlining agreement on issues including customs, VAT and Euratom. For details, see ***, "Brexit Timeline", URL: https://www.lexisnexis.co.uk/legal/guidance/brexit-timeline, accessed on 9 September 2019.

[13] The "democratic deficit" concept within the European Union (EU) refers to the fact that the governance of the EU lacks democratic legitimacy. This led in part to an elected European Parliament being created in 1979 and given the power to approve or reject EU legislation. Since then, usage of the term has broadened to describe newer issues facing the European Union. However voter turnout has fallen consecutively at the seven elections since the first election in 1979 and voter turnout in the 2014 election stood at 42.54% of all European voters. This is the lowest of any national election in the 28 countries of the European Union where turnout at national elections averages 68% across the EU. For details, see: ***, "Voter turnout in national and EU parliamentary elections", Eurostat, accessed at 29 August 2016.

struggling to become a strategic player, even though governments have created incentives to integrate into two-tier Europe-wide logic, including "Europe Demands", and even to consider overly active public opinion.

In Europe, there is no shared strategic thinking of reason, to the most sensitive areas of foreign policy, including security. Far from giving any value judgment on this issue, there is evidence throughout the Union that as a unit there is almost no "war ethic" in the current NATO-like concept that can forge the birth of a strategic war culture. This model of military thinking still exists only in major military traditions, France and the United Kingdom. Small and weakly military states need multilateral organizations, much more than the great powers, and this is almost an axiom. Small states are not militarily capable of doing something alone, especially if defence budgets are falling. Military integration or, at least, military cooperation is the only way, but France and the UK are not in this category.

The need for integration cannot explain and generate changes in their security policies, as can be done for small states. Besides the "big game", the other states play a "smaller game" in multilateral contexts, based on the needs of their internal politics and their domestic influence on a European level. Many times, the international organizations in question become perceived as a scapegoat if something goes wrong, arguing in this case that they should have been in closer cooperation, or have been more conciliatory at international level, being able to hide whenever possible, behind the multilateral decision-making process, when and in case they are criticized by other states or political opponents.

For France, domestic public opinion plays a minimal role in the deployment of troops, and the president enjoys the privilege of traditional foreign policy.

In the case of Great Britain, after participating in the Iraq war, public opinion has become more attentive to security issues and has developed a broader opposition to the war, which makes policy and defence policies increasingly politicized, starting with the debate on the mandate of Afghanistan troops.

In the case of Germany, as we have seen before, there is also a national interest in acting as a great power not only for the EU but also for NATO. To send troops abroad, German empowered institutions' need for international support to ensure the necessary legitimacy and to ensure the reconciliation of the pacifist elements in their internal structures. French and British public opinion (even before Brexit) are more sceptical of the EU than the German one. This contributes to less support for what governments generally do in Brussels. The German government is strictly circumscribed in security policies, irrespective of its public legitimacy, while the governments of London and Paris have an independent status from that of Berlin.

The French political strategy has been based on De Gaulle's European vision[14], which has not traditionally included the UK. He was one of those who triggered the idea of a united Europe that would play a key role in the world and where France would play a constitutive role. France could only be France in the role of a great power. France cannot be herself without its greatness. Even Chirac continued this basis in the same direction, trying to direct the creation of a Europe in which states play a leading role, a "federation of nation states". In the United Kingdom, the historical line was rather Atlantic, maritime and rather multi-continental than European. Churchill called his island as: "With Europe, but not Europe"[15] and Thatcher

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[14] One of de Gaulle's boldest and oft-quoted historical anticipations, made in November 1959, was of a future Europe extending "from the Atlantic to the Urals". He had set upon this mental journey through time at the height of the Cold War and it made him many enemies in Washington. But the Americans were unjust to their ally who, at the time, was vigorously building a French nuclear deterrent (which the French press called "force de frappe" – literally, strike force – although de Gaulle had non-threateningly named it "force de dissuassion") and would firmly stand by President Kennedy during the Cuban Missile Crisis of October 1962.

[15] Jon Danzig, "A revealing deception about Winston Churchill?", in *New Europeans.net*, 25 January 2015, URL: https://neweuropeans.net/article/604/revealing-deception-about-winston-churchill, accessed at 6 August 2019.

attacked Europe for the imported European problems: "In my life all our problems came from continental Europe and all solutions came from the speaking nations English language all over the world"[16].

2.2. Understanding security from a human point of view, the Copenhagen School

The Copenhagen School[17] focuses on the need to go beyond the traditional view of state centrism[18], providing a comprehensive overview of safety in which individual state testing levels and the international control system are linked beyond the traditional definition of sectors, of the issue of national security, to include, in addition to traditional military concepts and economic, political, social, and environmental.

Barry Buzan (1983) [19]emphasizes that the image of the state as the only provider of safety and as a reference term is at least confusing. The Copenhagen School analyses the security from a constructivist approach and rejects the objectivity of the threats, preferring to focus on securitization analysis, namely on the analysis process that makes a problem perceived as a security issue or threat. For a problem to be a security issue, it is not enough to exist objectively but must be subjectively perceived as such.

A problem becomes a "security" issue when is presented as an existential threat and can justify the adoption of emergency measures and subsequent actions do not fall within the normal limits of political processes. Securing is therefore an extreme form of politicization, initiated by "security policy actors" such as political leaders, bureaucrats, governments, pressure groups, etc. that perceive and pose the threat as being so vital and it would explain why, for example, despite the presence of urgent reports of terrorist threats and asymmetric wars and terrorist attacks even before the US targets, US priority before the attacks of September 11, 2001 was the response to other types of confrontation with other security threats and the construction of an anti-missile defence capable of preventing attacks from so-called "problematic states".

The identification of the exceptional nature of terrorist threats has been provided and from various other sources including the media, the US Congress, those who might have started the securitization process. In the approach of the Copenhagen School, threats can only be identified in relation to the terms of reference considered essential in each sector. Together with

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[16] Ewan MacAskill, "Thatcher returns to fight old battles", in *The Guardian*, 6 October 1999, URL: https://www.theguardian.com/politics/1999/oct/06/conservatives1999.conservatives9, accessed 6 August 2019.

[17] The Copenhagen School of security studies is a school of academic thought with its origins in international relations theorist Barry Buzan's book "People, States and Fear: The National Security Problem in International Relations", firstly published in 1983.

[18] State-centrism is a key concept in discussions of sovereignty, justice, and the global political order and of changes within that order. Thus we routinely hear: 'that analysis is far too state-centric!' Or: 'earlier approaches were marred by excessive state-centrism, and need to be reconsidered in the light of contemporary circumstances'. Or even: 'I'm state-centrist and proud of it'. This article brings into focus some of the themes associated with state-centrism in international legal writing, and suggests something of the limits of this way of framing issues. It also raises the possibility that these themes may provide clues to certain characteristic and apparently deep-rooted, but not always clearly recognized, anxieties on the part of those who work in this field. Borrowing a phrase from Harold Bloom, the article refers to these as anxieties of influence.

[19] The argument proceeds by comparing the quality of insight which each of the three concepts offers into two of the most fundamental elements in international relations: 'the anarchy' and 'the arms race'. The case is made that each of these elements constitutes a highly durable feature of international relations, but not that is either immutable within its form, or necessarily malign in its effect. Power and peace are seen to give only narrow and incomplete views of the anarchy and the arms race. Both result in excessively rigid and negative interpretations, with power leading to an over-emphasis on the inflexibility of both elements, and peace leading to over-optimism about their removability. Security is seen to offer a more balanced perspective. It takes into account the durability of the anarchy and the arms race, but does not lead to necessarily negative views of them. It opens up the considerable scope for positive change which exists within the two elements, and so provides the basis for a synthesis of realist-idealism.

the military security sector, the political, economic, environmental, and, more recently, religious sectors are considered.

In the political field, security refers to non-military threats to sovereignty and territorial status, but also to sub-state and supra-state political units. In this case, political threats are usually directed against the legitimacy or recognition of political units or their structures, processes and institutions.

The security of the societal sector is articulated around the concept of identity, that is, ideas and practices that allow a person to identify himself as a member of a social group, and threats are directed against nations, minorities, tribes, clans, civilizations, etc. For example, in this context, migration and competition are threats. Migration waves, in fact, can lead to perceiving a change in the population that alters or dilutes the perceived identity of the initial population group. This type of mechanism was triggered, for example, in the Great Lakes Region of Africa, where two million refugees fled to Tanzania, Zaire (now DRC) and Burundi during the Rwandan war. By altering the existing ethnic balance in the destination countries, the waves of refugees exacerbated the already existing instability and, in some cases, accelerated the fall in internal conflicts (ex. Burundi and the Democratic Republic of Congo[20]). The same type of dynamics of processes involving the defence of security can be triggered by integration processes or, more often, secession of the territories of some states. In the environmental field, the issue relates to the relationship between human activities and the biosphere. In fact, the threats of human activity to natural systems (such as the greenhouse effect and global climate change or the problem of the ozone layer holes - all of which are at the heart of the country's political agenda as potentially essential and existential threats to the survival of the human species environmental degradation or environmental threats can also form the basis for conflicts related to the lack of available resources, such as the 1969 football war[21], between Honduras and El Salvador, starting from a football match, based on a pre-existing conflict local cross-border immigration or the increasing importance of crises from the supply of scarce water resources.

In the economic sector, securitization refers to the possible collapse of the system, and the reference objects are the state and the international economic order. It is necessary to guarantee the existence and stability of the system and that problems do not shift from the economic sector to other sectors. The Asian crisis [22]of the second half of the 1990s could be a good example of a threat to security in the economic sector. The Asian financial crisis, in addition to jeopardizing the stability of the international economic order by spreading financial

[20] Established as an official Belgian colony in 1908, the then-Republic of the Congo gained its independence in 1960, but its early years were marred by political and social instability. Col. Joseph MOBUTU seized power and declared himself president in a November 1965 coup. He subsequently changed his name - to MOBUTU Sese Seko - as well as that of the country - to Zaire. MOBUTU retained his position for 32 years through several sham elections, as well as through brutal force. Ethnic strife and civil war, touched off by a massive inflow of refugees in 1994 from fighting in Rwanda and Burundi, led in May 1997 to the toppling of the MOBUTU regime by a rebellion backed by Rwanda and Uganda and fronted by Laurent KABILA

[21] While violence is a fairly common theme and football related murders are not uncommon, the idea that events surrounding a football match could spark all-out war between two countries is, even by Latin American standards, something of a rarity. However, events surrounding three World Cup qualifiers in June 1969 triggered military clashes between Central American neighbours El Salvador and Honduras in what was to become known as the 'Football War'.

[22] The crisis started in Thailand (known in Thailand as the Tom Yum Goong crisis; Thai: วิกฤตต้มยำกุ้ง) with the financial collapse of the Thai baht after the Thai government was forced to float the baht due to lack of foreign currency to support its currency peg to the U.S. dollar. At the time, Thailand had acquired a burden of foreign debt that made the country effectively bankrupt even before the collapse of its currency.[1] As the crisis spread, most of Southeast Asia and Japan saw slumping currencies,[2] devalued stock markets and other asset prices, and a precipitous rise in private debt.

instability in the former Soviet region and Latin America, has put the so-called "Asian tigers" economy on its knees, resulting in increased internal instability and real conflicts.

The religious sector is the least analysed by Copenhagen school and introduced later[23]. In this area, the reference object is faith and religion. The threat to sacred objects may be sufficient to require the security of the problem and, in some cases, to cause state intervention even if the issue is not necessarily religious. There are threats in this area even in the case of threats to the survival of a state by religious groups, threats to the faith or other non-religious actors or other religions.

Even the idea of specific human security needs arises from dissatisfaction with the traditional security concept, but, with regard to the Copenhagen school, it is more attentive to the implications of globalization. The Human Security Perspective is developed after the publication of the 1994 Human Development Report [24]and the United Nations Development Program (UNDP), as well as the government's initiative and several Canadian academics in the '90s with the support of a number of small, medium-sized states, that although national security refers to state protection, human security refers to the protection of individuals. Not only is the traditional state centric approach forgetting to consider that states that should provide security to citizens tend to be themselves insecure, but their focus on external threats does not end too quickly. As we have seen, the security of the populations living in internal conflict situations is today clearly on the international scene and shows that 90% of the victims are civilians.

The approach to human security adopts as a level of analysis not only the individual but also its needs, also presenting itself as an alternative proposal to traditional security but keeping the main objective not only to deepen the concept of security but also to establish a real operational agenda for states and international organizations. State security is not totally ignored as a means of reaching individual security, but there is awareness that, despite of the pressures of globalization and fragmentation, even if it can withstand attacks from other state entities, the individual could not withstand transnational or sub-national threats, which would weaken its defense and security more and more.

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[23] Central to securitization theory is that the constitution of the referent object makes a difference. Survival and defence means something different to different referent objects. In the sphere of religion, the first task is therefore to characterise the nature of objects constituted by a religious discourse. On the basis of Kierkegaard, Bataille and Smart, the first step of the analysis itself is to explore the logic of securitization of objects that are clearly of a religious nature. Among the illustrations are both what 'fundamentalists' fear and how fundamentalists are seen as a security threat. It is shown why it is often particularly tempting to securitize religion, how it is done, and what doing it does (i.e. what chain reactions are usually started, including, the role of sacrifices, myths, and rituals). The second step of the analysis is to notice how what is taken to be specific to religion is actually present in many political ideologies. Ideology is quasi-religion: religion securitized and thereby impoverished as religion. Much securitization in the sphere of politics is understood better if one takes account of how it draws on a distorted form of religion. The main illustration in this section is Nazi Germany. The third step regards the meta-theoretical implications of religion for securitization theory (and by implication much of IR theory). Although, the article started out quite narrowly looking at what happens when you defend religious referent objects, its title takes on a more radical meaning when the article ends up itself defending religion as an important dimension of theory and self-reflection in IR. This part on the article draws-in addition to post-structuralist philosophers-on some of the older connections between religion and IR, notably among classical realists and early English School. For details, see: Carsten Bagge, Ole Waever, "In defence of religion: Sacred referent objects for securitization", in *Millenium*, December 2000, pp. 705-739.

[24] The 1994 Report introduces a new concept of human security, which equates security with people rather than territories, with development rather than arms. It examines both the national and the global concerns of human security. The Report seeks to deal with these concerns through a new paradigm of sustainable human development, capturing the potential peace dividend, a new form of development co-operation and a restructured system of global institutions. For details, see: ***, Human Development Report 1994, Published for the United Nations Development Programme (UNDP), Oxford University Press, Oxford/New York, 1994, URL: http://hdr.undp.org/sites/default/files/reports/255/hdr_1994_en_complete_nostats.pdf , accessed at 13 September 2019.

Threats to the individual's security may come from direct violence (violent death, de-humanization, drug use, discrimination and domination, international disputes, arms spreading) or indirect (deprivation of essential goods for survival, illness, disasters, underdevelopment, population migration, and environment). Depending on the type of threat, the use of force remains a secondary and often inefficient element that can only be used if necessary and always collectively, preferably under the auspices of international organizations. Instead, instruments for development cooperation or democratization are more effective. The idea of human security appears not only as an alternative to traditional security, but rather as an alternative action plan. The idea that the individual is the true reference of security and therefore that efforts need to focus on human security is also the basis for a good part of security studies (so-called critical theory).

The literature of critical theory defines the fundamental assumptions: the main actors of world politics that are social constructions, subjects are constituted by political practices that create common ways of seeing and which are therefore contingent and changing, and the structures of world politics are social constructions, change and everything is based on our knowledge of the subjects, structures and practices of world politics.

The organization and explanation of the analysed facts also depends on the selection made and the correct methodology for the study of social sciences is not positivist, but it is necessary to examine what is behind the way we see the main political actors and the relationships with the social structures and practices. The purpose of specific theoretical studies is to find explanations and prediction, as well as understanding the context and practical knowledge, so that questions first find "why" and then "how".

This also leads to a feminist type of study, which emphasizes that not only women, with rare exceptions, are absent from the circle of policy-makers, but also the International Relations theory has been specially built by people who have worked with models of thinking of human activity and society, as seen through a male vision and sensitivity, so that the ideas formulated are "gender" masculine, on the assumption that men and women have different experiences about company and interactions. Because knowledge and theory are built from experiences and concepts such as security, authority, sovereignty or development, and the power to reflect the male experience, there are differences in feminine, such as state, state of nature, or the dilemma of security.

CONCLUSIONS

European nations have much in common. From a geographic point of view, they all face the same weaknesses relative to the great actors on the international stage. Their similarities often lead to the need to cooperate, but differences and specific features can outweigh the conflict priorities and methods of undertaking cooperation. European security policies are bounded by an inevitable contradiction between cooperation and conflict. The interests of the great European powers, which are constantly evolving, define this contradiction as changing and dynamic.

The key question that will need to be put in now and in the years to come will be to see how Europeans will adapt and know how to respond to ongoing systemic geopolitical transformations. States recognize that territorial security or citizens' security are not sufficiently protected, but also above all, non-territorial interests are important. Safety must be built from the inside with profound socio-economic reforms that avoids the destruction of the foundations of society, which could lead to the creation of outbreaks of bitterness, anger and frustration that are easily flammable by terrorism. Insufficient security or less secure and unpredictable lives of Europe's populations would be a first step to healing the cancer of disparities, violence and injustice from within.

The diversity of European approaches should match the aspirations of our own safety and recognize that such close cooperation, including in military matters, can only be achieved through common goals and objectives. Finding the way for its collaboration is not easy, but it is not even impossible to define a natural order of concept, since we have a history of conflict and fragmented cohesion. Probably only sixty years of integration means too fast and too little pace for the long course of history to create a strong, coherent and harmonious unitary actor.

The integration process must therefore be implemented to constitute a federation of states (common foreign policy, true security and defence policy) and extended to all other global players in order to recreate the spirit of common security, impose new methods of control armaments at all possible levels, safeguarding the non-proliferation regime, hindering international terrorism, normalizing the Middle East, but above all guaranteeing peoples' right to peace.

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THE SOCIAL-IDENTITARY PARTICULARITY OF THE PHENOMENOLOGY OF WAR, THE VULNERABILITIES OF THE EUROPEAN ETHOS AND THE ETIOLOGY OF THE AGGRESSIVENESS MANIFESTED IN THE IMPACT AREA OF RELIGIOUS MILITANCY

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Abstract: The reconfiguration of geostrategic games, the resurrection of extremist nationalism, the ethnic and religious fragmentation, the ideological radicalization and the emergence of terrorist groups stimulated by the amplitude of the Islamic radicalization at a European level are challenges that must be integrated to a more comprehensive strategic vision. The assessment of the European security environment, characterized by its complexity and dynamism, leads to a higher level of understanding of the relationships that are made between the social, cultural, political and military factors involved. In this paper we point out the conflictual potential settled in the dynamics of fundamentalist ideologies engaged in the fight for the defense of religious principles, at the intersection between different cultures and traditions. The hypothesis on the basis of which we initiated this approach refers to the fact that in the operation areas of certain motivations that are confined to conflictuality, together with other instability factors, the religious radicalism interferes as source of threat to peace. The research is oriented towards the analysis of the etiology of aggression manifested in the impact area of religious activism.
Keywords: aggressiveness; conflictuality; knowledge; group narcissism; integration; sacrifice.

INTRODUCTION

Contemplated both from its potential and its action side, war is the answer given to a contextual complex situated on the path of conflictual developments, which are not necessarily generated by aggression. At the highest level, armed conflict represents the expression of failed political-diplomatic decisions or calculations - which, however, involves the premise of using force specifically equipped with the means and techniques of fighting.

War – in a general sense – is the answer given to the changing circumstances of the security environment, in case the political and diplomatic solutions, with reference to these circumstances, become dysfunctional and useless. It is based on principles, on a common doctrine, on synergistic action, on promptness, on ensuring interoperability between the categories of forces, on the knowledge of the field of defense and attack, on a common understanding of the combat situations, on a consistent procedural level and on a coherent vision on the strategic, operational and tactical solutions[1]. From this point of view, of the complexity of the factors and conditions, to say that at the base of the war lies only aggression is a form of simplification without too much connection with reality.

The causes and factors that determine the onset of war are part of a complex conflictual etiology laid out in several branches of the belligerent ideation: the political-diplomatic

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[1] ***, *Doctrina Armatei Române*, Statul major General, Bucureşti, 2012, art., 0104, p. 12.

conception, the social conception, the ethno-religious identity concept, the ideological-doctrinal conception and, finally, the military conception - which represents the link between the projective and the effective or applicative dimension of the war.

We highlight here three of the branches mentioned above, namely the social one, the identity one and the ideological one. These three branches are related to the manifestation of religiosity to which we intend to pay attention, whereas we consider that in the operation areas of certain motivations that are confined to conflictuality the religious radicalism interferes as source of threat to peace.

1. The social dimension of war

War has at least four stages: a.) Thinking (expertise) and triggering the war based on the political decision; b.) the use of war as a means of settling a dispute; c.) thinking of war as a complex social phenomenon, with dramatic and, most often, unpredictable consequences for the nature and the destiny of humanity; d.) strategic, operative and tactical thinking of the war from the perspective of the resources, capabilities and devices of military actions.

Viewed from the perspective of social anchoring, the phenomenology of war implies a wide engagement of the mechanisms that interact at the level of different communities. In this sense, the war was defined as *"a type of social interaction between two or more communities, carried out in the form of a violent conflict, usually armed, and based on strictly determined norms"*[2].

Along with the social representation, the identity and the ideological representation are fundamentally anchored in the extent of the configuration of the conditions in which the armed conflict takes place. *"The social thinking of war goes beyond the sphere of politics and requires the participation, in one form or another, of the whole society in building a paradigm of war. This is where the collective memory, the collective psychology, the deontic psychology, the logic of the conflicting thinking, the exact sciences, the relations between a possible political decision regarding the outbreak of war and the effects in the plan of human relations, economy, demography and social and individual security come into operation"*[3]. Knowing these representations determines the understanding of the environment in which the deployment of forces takes place, and clarifies the perspective of predicting the effects on the aggregation level of the civil society involved. A reactive force far greater than the threat that provokes or fuels the conflict, generates, in the social environment, in addition to the deterrent effect, the premises of a "mutually assured destruction", with significant moral effects. The definitive destruction of the social environment, with all that it represents from an educational, formative, creative, cultural and civilizational point of view and the transformation of the conflict zone into a space without people and without history, does not give the conqueror any kind of social advantage, but only the advantage of access to resources, which can be extremely immoral and one on a sufficiently short term.

The most important resource of an area is, in fact, the cultural and civilizational human potential that, by disappearing, would endanger the creative, economic and investment competitive environment and would transform the area into a "social desert" in which the inter-human and intercultural relations would be impossible to reconfigure. In the Afghan society - for example - a society stratified along the lines of religious and ethnic aggregation, the destructive effect of war on this kind of resource is significant.

A war culture imposing exclusively the force of arms, but not that of a diplomatic dominance, transforms the conflict area into a political obstacle with profound social, ethnic

[2] Cătălin Zamfir, Lazăr Vlăsceanu (coord.), *Dicționar de sociologie*, Babel Publishinghouse, 1998, pp. 487-488.

[3] Gheorghe Văduva, *Război și cunoaștere*, Center for Defence and Security Strategic Studies, "Carol I" Publishing house, Bucharest, 2008, pp. 54-55 (in author's translation).

and religious reverberations. A totally destructive war, or mainly destructive, contradicts the chances of both sides - both on the side of those who resort to attack and those forced to adopt the concept of defense - from the perspective of future investments oriented towards the moral and spiritual reconstruction of the conflict area.

The area destroyed from a social point of view becomes a significant resource of instability, conflict and inadequacy, a provider of potential conflicts transferred through immigration to other confrontation areas. Morally and spiritually, the most efficient and rigorous repression of any form of conflictual challenge does not in any way bind to the destruction of heritage values, or to the final dissolution of social, ethnic and religious specificity in favor of establishing a new territorial order, but it must represent the adaptation to the specificity with the dominance of an effort to activate and recalibrate the mutually valid social values. What is interesting in this relationship is the prospect of effective control in the area of performance of these valences.

2. The phenomenology of aggression

The entire process that outlines the heavy contour of conflictuality is part of an extremely complex phenomenology. For a proper representation one must remember the phenomenological view of the philosopher Edmund Husserl who relies on the evidence of the distinction between the real (empirical) dimension and the ideal one (of pure logic). According to Husserl, the disclosure of the fundamental conditions of the constitution of the objects of knowledge implies a careful research of the intentional world that allows a glimpse of what exists at the conscience level. In this sense, he proposes the method of phenomenological reduction that operates in two stages:

1. the philosophical reconstruction achieved by suspending or bracketing – *"epoché"* (in Greek philosophy *"suspension of judgment"* or *"putting out of action"*) – of theses objectified by experience[4];

2. highlighting the notions that transpire in consciousness - understood by Husserl as *transcendental ego*[5] - under the conditioning of the relationship between *"noema"* (the object concerned with experience) and *"noesis"* (the active subject of experience)[6].

Transcendental phenomenological reduction is a gnoseological suggestion regarding the possibility of extracting the essence of what we experience from our own perception experience, using the artifice of suspending the empirical data of reality and individuality[7].

According to Husserl, the tendency to manifest the act of knowledge is the method to "fill in" the gnoseological intention that makes the shift of the evidence from the predictive side to its correlative possible, which is pure truth. Otherwise, any truth grounded on the predictable evidence side may be likely to be grounded, in an absolute fashion, through the tendency to achieve identification with its ante-predictable, non-mediate side, that is, equality with itself[8].

The transcendental phenomenology, under this mechanics of gnoseological extraction, works extremely well in the field of war phenomenology, with reference to the subsidiary presence of beliefs, traditions, and religious specificities in the conflictual social setting. The

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[4] Edmund Husserl, *Ideas pertaining to a pure phenomenology and to a phenomenological philosophy*, vol. II, pt. 2, chp. 4 ("The Phenomenologichal reductions"), German to English translation by F. Kersten, Martinus Nijhoff Publishers, The Hague, 1983, p. 131.

[5] *Ibidem*, 132.

[6] Edmund Husserl, *Ideas pertaining to a pure phenomenology...*, vol. II, pt. 3, chp. 3 ("Noesis and Noema"), pp. 214, 225; 227-231.

[7] Edmund Husserl, *Jahrbuch für Philosophie und phänomenologische Forschung*, Erster Band, Teil I, Halle ads, Verlag von Max Niemeyer, Ed. 1913, pp. 108 - 118.

[8] Edmund Husserl, *Meditaţii carteziene – o introducere în fenomenologie*, Humanitas Publishing house, Bucureşti, 1994, pp. 41-42.

spiritual experience expressed under the aspect of various associative reflexes of the organizational groups, beyond the abundant nature of cultural accumulations, can have a profound dissemination in the area of social and political ideology. The religious field needs, more than ever, a more appropriate management of terms and notions for the exact understanding of the meaning of the behaviors and reflexes that outline the context of the new challenges, such as those related to the displacement of heterogeneous populations, from a cultural point of view, and their relocation to other areas of the global political geography.

The intense preoccupation to elevate one's own character does not isolate the human being from the social environment, but is meant to make it more compatible with the particularities of the community. The moral human is dedicated to the relationship with others, with the intention of sharing the same spiritual values that would be meant to model and sustain a certain level of understanding of the world. There are situations where moral attachment is placed on a value scale diverted by a certain sense of interpretation and by a misperception. The facts and events that occur in the inter-human reports reveal status indices on the basis of which the meanings of these relationships can be understood. Aggression is one of *the status indicators* that reveals, through effects, the degree of vice of a human communal framework.

Psychoanalyst Erich Fromm, in an attempt to deepen the anatomy of human destructiveness, analyzes several aspects of aggression. He finds that aggression manifests itself in benign and malignant form[9]. In the logic of this analysis, extended to the conditions of manifesting of human aggression, Fromm manages a wide classification of the types of aggression that complete the motivation of the conflict.

Benign aggression builds the defensive side of conflictuality, which is about expressing fair, functional valences, such as fighting for defense or resistance, or the idea of freedom and the idea of conformity, or ideas that are combined in the expression of unjust narcissistic valences. According to the same author, malignant aggression enters the sphere of pathology and manifests itself spontaneously or deliberately through cruelty and vindictive destructiveness and ecstatic destructiveness[10].

War uses the mechanisms of functional and conformist aggression: functional for the ability to target an objective that it cannot achieve otherwise than by *promptness*, *command* and *control* of combat actions; and conformist through *the hierarchical requirement of adequacy to an order* as a prerequisite for ensuring the fight process.

The use - by a person or a group – of military or civilians - of means of malignant aggression (cruelty or other forms of destructiveness) directed against prisoners of war or against unarmed civilian population, whose presence in the area of armed conflict would in no way influence the fate of the operations is considered a violation of the laws of war. This type of aggression, sanctioned as a crime – as a *war crime*, in case of breaching international regulations regarding military conflicts between states, or of use of weapons under the classification *of internal conflict* under the incidence of individual criminal responsibility – is considered by treaties, laws, conventions and norms of international humanitarian law, to be legally sanctioned[11].

The malignant aggression, specified above, in relation to the legal framework of the war context, is found both in the violations considered *war crimes* and in those considered *crimes against humanity* or *crimes against peace*. Article 6 of the Charter of the International Military

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[9] Erich Fromm, *The anatomy of human destructiveness*, Ed. by Holt, Rinehart and Winston, New York / Chicago / San Francisco, 1973, pp. 185, 218.

[10] Erich Fromm. *Texte alese* in col. Idei contemporane, Ed. Politică, Bucureşti, 1983, pp. 450 - 497.

[11] ***, *Trial of the Major War Criminals before the International Military Tribunal*, Vol. XXII, Proceedings 27 August,1946 - 1 October, 1946, published by the Secretariat of the Military Tribunal, Nürnberg, Germany, 1948, pp. 413 – 414.

Tribunal in Nuremberg[12] defines these three categories of violations of laws or principles of war.

Researcher Erich Fromm identifies group narcissism as a source of aggression. He believes that group narcissism favors solidarity and group cohesion and facilitates manipulation of key narcissistic prejudices. Secondly, group narcissism provides to certain precarious members of the group, who have few other opportunities to feel proud and respectable with their own individuality, a certain kind of compensation, a certain identity prosthesis. They identify with the group, borrowing attributes manifested on a scale well beyond the limit of their individuality. This makes them feel huge, powerful, fulfilled. Fromm infers that "fanaticism is a characteristic quality of group narcissism. The degree of group narcissism is commensurate with the lack of real satisfaction in life. Those social classes which enjoy life more are less fanatical than those which, like the lower middle classes, suffer from scarcity in all material and cultural areas and lead a life of unmitigated boredom"[13]. He states that „those whose narcissism refers to their group rather than to themselves as individuals are as sensitive as the individual narcissist, and they react with rage to any wound, real or imaginary, inflicted upon their group. If anything, they react more intensely and certainly more consciously"[14]. The group narcissists react violently when their symbols are violated or their leaders are offended. *"The violation of one of the symbols of group narcissism - such as the flag, or the person of the emperor, the president, or an ambassador - is reacted to with such intense fury and aggression by the people that they are even willing to support their leaders in a policy of war"*[15]. This is because they have no doubts about their own legitimacy, configured under all the aspects characteristic of the narcissistic disease, by the nature of the encouragement that comes from the perception shared by the majority of the members of the group.

But the most dangerous form of group narcissism is fanaticism, especially religious fanaticism. The aggressiveness hidden behind a religious legitimacy is the hallucinating expression of a religious illusion based on the same group narcissism. The fundamentalist factions have this subsidiary impulse, either from the desire to violently impose a certain type of message, or by using the command of the rigor required by religion, as a pretext for manifesting violence. Erich Fromm says that *"certain individuals and groups can have a structure of their own temper that makes them look forward to - or even create - situations that allow them to express their destructiveness"*[16].

Dominant groups tend to control, through the power of suggestion, the ability of their members to serve their own system of authority, weakening through terror the faculty of critical and independent thinking. The most commonly used instrument in this regard is the management of fear often under the ultimate formula: "if you don't kill, you will be killed!". The extent of the control exercised outward, against the enemies of their own order, by fanatical groups that resort to means of extreme force, violence and cruelty, equals the abuse of authority and the pressure and domination exercised hierarchically within the group. Thus, the violence manifested in the outer area of the system proves the degree of control as well as the force of the psychological pressure that is administered inside the system. The ultimate key to this mechanism of aggression is to *"destroy the witness who has the evidence"*[17] of the absence of his own legitimacy.

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[12] *Ibidem.*

[13] Erich Fromm, *The anatomy of human destructiveness*, p. 204.

[14] *Ibidem*.

[15] *Ibidem*.

[16] *Ibidem*, p. 186.

[17] *Ibidem*, p. 206.

3. Religious conflict and the European space of cultural integration

The European construction conceived as an area of integration and of moral and social integrity, is an educational field in the configuration of which the cultural, economic, political, religious and geographical boundaries have been diluted. In this area of dialogue, cooperation and exchange of values there is a wide interference of religious cultures and policies focused on certain vectors of religiosity. Most social, cultural and religious circles understand and affirm the need to build a peaceful Europe, the challenge to learn and acquire with all participating nations the rules of mutual respect and conviviality, as well as the encouragement of a multicultural society. The initial directions that Romania has assumed in the process of European and Euro-Atlantic integration aim to "creating the institutional framework for an intense political dialogue; supporting efforts to achieve the market economy and consolidate democracy; creating the framework for developing economic, financial, cultural, social cooperation"[18]. The exclusivist judgments, the minimization or rejection of some groups organized on cultural, ethnic and religious criteria, turning culture into an enclave or the cultivation of extremist tendencies are rejected in interpersonal relations, as well as in institutional ones. The New York *Declaration for Refugees and Migrants*, adopted by the General Assembly of United Nations on 19 September 2016, emphasizes "the multidimensional character of international migration, the importance of international, regional and bilateral cooperation and dialogue in this regard, and the need to protect the human rights of all migrants, regardless of status, particularly at a time when migration flows have increased"[19]. Strategy Paper of the European Commission on progress in the enlargement process, from 2004, notes that Romania "has made progress in many areas of justice and home affairs and especially so in migration, asylum and judicial co-operation in civil and criminal matters"[20].

The extension of the European borders towards South-West Asia, delayed by certain strategic, economic and organizational considerations, was surpassed by the displacement of the symbolic boundaries of the Middle East towards the Mediterranean basin and further to Southern Europe, forced by the emergence of the migration phenomenon of the populations expelled by the radical, terrorist actions, armed clashes or some protracted crises. Recently, Filippo Grandi - United Nations High Commissioner for Refugees (UNHCR) – in the publication The Global Appeal 2018-2019, pubished by The UN Refugee Agency, presented the fact that thousands of refugees forced to leave their homes "by major security operations or armed clashes, caught up in the midst of conflict, are uprooted within their own countries, from the Central African Republic, the Democratic Republic of the Congo, Iraq, Myanmar, the Syrian Arab Republic (Syria)". He added that "conflicts in Afghanistan and Somalia continue to uproot hundreds of thousands of people, leaving millions stranded in exile, and propelling an entire generation of young people across deserts and seas, exposed to terrible risks"[21].

In this context we can consider the fact that religious specificity of these communities is one of the most important factors for regulating and balancing the order of the European community. Starting from this premise, Europe will have to assume in its specific evolution not only the theme of cultural integration, but also the extremely sensitive and imminently

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[18] Gheorghe Văduva, Mihai Dinu, *Strategia europeană a integrării*, "Carol I" National Defence University, Bucharest, 2005. p. 42 (in author's translation).

[19] ***, *New York Declaration for Refugees and Migrants,* Annex II (Towards a global compact for safe, orderly and regular migration) II, 6, United Nations, Resolution adopted by the General Assembly, Seventy-first session, New York, 19.09.2016, p. 21.

[20] ***, *Strategy Paper of the European Commission on progress in the enlargement process*, Annex (Conclusions of the regular Reports on Bulgaria and Romania), Commission of the European Communities, Communication from the Commission to the Council and to the European Parliament, Brussels, 657/6.10.2004, p. 16.

[21] ***, *The Global Appeal 2018-2019*, UNHCR, The UN Refugee Agency presented by Global Focus, operational reporting platform, pp. 7-8.

explosive theme of the inter-religious debate, the theme of dialogue and the integration of the credible values of the three great Abrahamic religions: Judaism, Christianity and Islam having as common root the authority of founding texts of monotheistic roots. The current political situation, the escalation of conflicts with a pronounced fundamentalist character that extend globally call for an increased need in understanding the specificity of religions, the knowledge of inner dynamics of the phenomenon of faith and of the motivations, exhortations, commandments that transform various beliefs into militant religions animated by power vectors of policies configured on the basis of revealed pretexts. The triumphalist, totalitarian, extremist religious systems, liberated from the meaning of a native morality, force in the name of their own "god" the natural mechanisms of human manifestation, causing the religious conscience, in certain critical circumstances, to violate the prohibition to kill. The religious activist, a fervent observer of "the Law" and not of its spirit, casts the censure of compassion for a man alike in nature to him beyond the limits of the rebuke of conscience, leaving the justification of his acts of violence in the light of religious principles that offer him a final justification. The revealed law is "indisputable", the requirements of religion are undoubtedly the "safest ways" of expressing moral and spiritual interests. Behind this curtain of legitimacy, not infrequently, lies the abominable gesture, the abuse, and the drastic act of arbitrary claim, judgment marred by religious bias, injustice, crime, blood thirst and many other such accumulations specific to alienating traditions.

Certain circles of political Islam insists on rejecting the modern state and the secular justice, setting instead the rules of the enclave and the customary proclamations of the *sharia*. The Arab Spring, Muslim Brotherhood Society, Al Qaeda terrorist and extremist groups, ISIS or Boko Haram, less extremist or reformist factions, through their deeply religious activity, prove that the Islamic religion is used as a political binder and manipulation and dominance tool over vulnerable organizational structures, insufficiently articulated in the exercise of power. Political Islam grafted into the platform of a fundamentalism associated with radical movements, diverted the concept of *jihad*, orienting it from the struggle with oneself to the struggle with the other.

In contrast to the Islamic spiritual jihad, which promotes the moral struggle with oneself, the militant jihad - oriented towards the occupancy of the political and social sphere - comes at the expense of peace and acceptance of the other. By denying the possibility of expressing any form of extremism, such as religious or political, it must be understood that the religious specificity of the refugee communities does not in any case constitute a reason for discrimination. Nowadays, Europe is encountering a transfer of cultural and spiritual identity from the East or the Maghreb to the West. Related to this perspective, we consider that the European society proves a wide openness of views in the sense of accepting and familiarizing with this type of transfer, as long as the values of this transfer are peaceful and constructive. In such circumstances, the extremely sensitive process of social integration and inclusion is a natural one, legitimate and humanitarian at the same time.

The vulnerabilities of the European Christian ethos open up the vast territories of the Islamic movement. From the crusader wars for the establishment of a certain domination over the Jerusalem of the beginning of the second millennium, from the time of the Inquisition with its endless horrors committed in the name of Christian rigor and to the attacks or street fights consumed against the backdrop manifested between the Catholic and Protestant factions that destroy each other in Belfast, Northern Ireland in the 1970s, 1980s, or early 1990s, violence was not lacking in any part of the religious manifestation, not even in the area of Christian influence. The hostilities, the cruelties, the extreme acts seem to give the characteristic note of a religious radicalism that is manifested in unison, regardless of the specific doctrinal or confessional connotation. If religions ever reach a compromise, it seems that this compromise

would have only one common vector: activism, the idea of convincing by force, the idea of dominating through the exercise of force. However, faith, spirituality, spiritual life are definitely detached from the idea of militant religion.

4. The attractive force of religious ideology

Religious ideology is the doctrinal manifestation expressed as a force of the religious consciousness that is permanently under the influence of some attractive beliefs. If secular ideology has the intention to shape the socio-cognitive field, starting from civilizational premises, the religious ideology goes beyond the civilization field, configuring its messages in the associative field, in the field of symbols and meanings that are transformed into the vectors of militant actions. Thus the plan of ideological offensive moves in the world of symbols that concentrate the message of combat and aggression. The ideological war adopts, as an incipient form of domination, the aspect of a war of symbols. Identity symbols such as head coverings, crescent, cross - identified as expressions of religious beliefs - are just as many references to cultural and religious specificities that are of particular importance in this type of conflict[22].

There is a certain resource of religion that does not come from the social relation, but from the attractive force of the founding event. The intimate substance of religion seems to be infected by the authority relations consumed in the interest of a human subsidiary order imprinted sufficiently visibly with imperfections and sins of all kinds. However, the resources of religion do not diminish, precisely because the horizon of expectation is filled by the effect of the founding event. This is the paradox that causes J.A. Beckford[23], a renowned sociologist, to state that although "religion is adrift, abandoning its previous anchorage points, yet this has not diminished its strength, so its effectiveness and its ability to mobilize people and material resources remained intact"[24]. Except for suffering from the "drift" syndrome, religions are built on the architecture of dominant empathic episodes that acquire a heavy spiritual connotation. Consolidated as structures of spiritual significance, suggestions and symbols, religions emotionally maintain the dominance of the founding event over the present reality. Through recapitulation, the spirit has access to the founding event, departing from the discursive history and entering the meaningful history. A founding event, such as the crucifixion of Christ, perpetually recovered from history on the basis of its spiritual meanings, places on a secondary level the rational knowledge, minimizing its effects under the dominance of an emotional knowledge. Thus, religion - like the Christian one - develops the imperative expression of a founding event activated by symbols and commands, suggestions and contextualities that generate emotionality. The danger represented by the facilities of this functioning mechanism is that once the emotional availability is opened, the conscience of the believer enters into the resonance of a reality that he can no longer control alone, and practically abandons himself to the recapitulation. The emotional coupling is able to re-personalize and reshape the believer, after the image and likeness of a modeler at the command desk of religious discourse, a modeler whose honesty can never be verified beforehand.

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[22] Samuel Huntington, *The Clash of Civilizations and the Remaking of World Order*, First Simon & Schuster paperback edition, 2003, p. 20.

[23] The sociologist James A. Beckford is professor emeritus of the University of Warwick and a member of the British Academy. With a doctorate degree from the University of Reading, Beckford was a professor and research fellow at Durham University and Loyola University in Chicago. He also held the role of *visiting professor* at Berkeley University in California, Tsukuba University, Japan, and was invited to attend courses at the *École des Hautes Études en Sciences Sociales* and the *École Pratique des Hautes Études* in Paris.

[24] Cf.Teofil Tia, *Reîncreştinarea Europei,* Reîntregirea Publishing house, Alba Iulia, 2003, p. 334 (in author's translation).

The field of stability of the religious phenomenon is not so much the ecclesia (the assembly or the community) that represents the great family of the faith, but the miniature expression of this community reflected in the family relationship. Religion subsists in the way of life of the family in the way of "the coexistence of parents together, on the one hand, and of them with children, on the other hand"[25], managing the performance of shaping the incipient mash of an indestructible way of life. In other words, the family is the vector responsible for the acts of faith becoming permanent and for the expression of the emotional coupling that is why the destructuring of the family can mean, in the safest way possible, the destructuring of the religion and the annihilation of any spirituality.

5. The reason for the religious dedication between the idea of martyrdom and the temptation of the suicidal aggression

Given this aspect, knowing that the religious sentiment can be a powerful enough weapon used to support one cause or another, Christ - the founder of Christianity - anticipates that even the Christian religion will be used in the antagonistic scene of the religiously motivated exercises of force: *"Do not consider that I have come to bring peace on earth; I did not come to bring peace, but a sword"* (Gospel of Matthew X, 34). This statement would be misunderstood, in keeping with the radical spirit of tribal society. It represents a statement with a pronounced prophetic character, a form by which Christ will identify the political-religious work instrumentalized by certain beneficiaries of the religion, whether they are Christians or not. By this it is recognized that the religious sentiment will be shaped and used even against the commandments of the faith and that His name will give birth[26] to bloodshed and resistance. Christ sees in the future that wars will be waged, crimes will be committed, and lives will be taken in His name. But stating this, however, does not mean that He approves of violence or that He wants it. He is distinguished from all the other founders of religions by the irenic character of the discourse, by the assurances of peace and goodwill: *"Peace I leave to you, My peace I give you!"* (Gospel of John XIV, 27). In the same key to the defense of peace, Augustine[27] will affirm that the war cannot be legitimized or justified otherwise than in response to the act of injustice committed by an aggressor[28].

The "sacrificial" reason used by the *Shiites* (considered in Islam *martyrs of the holy war*, and outside Islam *suicide bombers*), of the gesture to abandon their lives in suicide bombings instrumented by certain militant Islamic factions, is in no case legitimized as a quest for peace, contrary to the idea that Islam would be a religion of peace. Such suicidal "martyrdom" acts destroy the very idea of martyrdom. For the *Shiites,* it is not very clear who the victim really is and who the aggressor is. In the common acceptance martyrs are only those who remain in the collective memory as innocent victims. An attacker cannot be considered a victim even when he is attacking his own person in the exercise of killing others. .

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[25] Sorin Şelaru, Patriciu Vlaicu, *Misiunea sacramentală a Bisericii Ortodoxe în context european*, Basilica Publishing house, Bucharest, 2013, p. 101 (in author's translation).

[26] "*Then Simeon blessed them and said to Mary, his mother: "This child is destined to cause the falling and rising of many in Israel, and to be a sign that will be spoken **against***" (Luke 2:34).

[27] Augustin of Hippo (354-430) - bishop, philosopher, theologian and doctor of the Church, a church writer considered holy in the Roman Catholic Church, and in the Orthodox Church called *Blessed Augustine*. He is an influential thinker of his time and later eras of the Christian Church of the West, concerned with the issue of knowledge and the doctrine of enlightenment – he writes about freedom and divine grace, about God's full sovereignty, about exercising choice and will free.

[28] Augustin, *De Civitate Dei*, XIX, 7, Editura Ştiinţifică, Bucharest, 1998, *apud* Adrian IGNAT, *Războiul confesional şi problematica sa în istoria Bisericii Creştine*, Ed. Universitară, Bucharest, 2012, p. 39.

CONCLUSIONS

The increase of cultural diversity in dense civilizational spaces, as the European space is configured today, represents the premise of communicating values and intensifying spiritual and material exchanges meant to diversify the logic of transience from specific to globality. Beyond any opportunity or advantage that this merger would propose, the risks and vulnerabilities specific to such an exchange must be considered. Given the diversity of the range of identity values, the religious factor carrying ideologically vectorized tasks follows a trajectory full of all kinds of obstacles and tendencies oriented towards aggression.

Religions regarded in their finite character declare their intrinsically positive role, distinguishing themselves through the moral and spiritual emphasis that the messages used have and by the nature of an increased interest for the life of the spirit. Often, however, the religious message appears under the instrumentation of radical visionary attitude, with an ideological substrate of extreme firmness, adapted not to support intimate, self-oriented strictness, but directed against the other or against society. Certainly the inclination towards religiosity, in sensitive correspondence with the nature of human moral drives, can sometimes be recalibrated and reconfigured. This fact, however, generates conflicts, states of aggression and turbulence that severely divert the meaning of religiosity.

Understanding the mechanisms of this process, the favoring factors, the context and the motivations based on which the internal conflictual tension of a society such as the European society is built, requires an effort to identify and elaborate strategies for the reconciliation of oppositions, for the configuration of certain platforms of friendly and reflective discussion on the legal framework necessary for cohabitation. From this perspective, the reflection on the extent to which the religious factor would represent a danger to Europe, or, on the contrary, to the extent that it would represent a factor of normality, stability and social and cultural integrity remains open.

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HUMAN PARADIGM IN THE MILITARY AREA.
A PHILOSOPHICAL APPROACH

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Abstract: All the areas of human existence can be analysed within the human paradigm, inclusively the military one. It is necessary to ensure the safety of the human species and its living environment.

The paradigm generally presents itself as the dominant vision, as a model for addressing and solving the problems of one or another epoch, or stages of the development of human science and practice. Paradigms can be particular, general and universal.

Ecological paradigm, for example, can be used in most sciences and fields, including the military sphere. It imposes the imperative not to harm, not to destroy, to preserve and restore the nature and its various elements, including the human nature, therefore of his body and mind. Human paradigm is a universal one and can be used in all fields and spheres of human knowledge and activity, including military ones.

The universal nature of the human paradigm seems to be incompatible with the military sphere. Or, even more, the military activity seems fall under an opposite paradigm – an anti-human paradigm. Human paradigm can be turned to good account gradually and often only partially, in military research, science and practice, including in war-related ones. Globalization, based on the universal human paradigm, could lead to the exclusion from violence and wars of all kinds from human practice.

Keywords: human; human paradigm; humanism; security; military sphere; war.

INTRODUCTION

Humanism throughout its historical evolution considered human being the supreme value, promoting human liberty, dignity, concern for human and its material and spiritual values of its existence. Hence the condemnations by its representatives of violence and wars.

Some representatives of biopolitics, post-modernism, transhumanism, biocentrism and other contemporary philosophical-scientific and technocratic trends, disapprove that the human being is the supreme value and advocate for "Superman", "Beyond man", "Electric man", etc.

The human being, through his activities in nature, including his own nature, in society and knowledge, activities not controlled rationally and based on certain values, has become nowadays a death threat to himself. Hence our conviction that today man has become a new global problem, which threatens Security and the survival of man himself. The technological and scientific achievements applied in the military sphere are capable of destroying not only the human species, but the whole life on Earth.

The ongoing global crisis is deepening, says Russian philosopher D. Dubrovsky. It conquers all spheres of social life – political, economic, social, demographic, ethical, and all spheres of culture. This is nothing more than the global anthropological crisis[1]. This is what human reason has brought to us, says Dubrovsky.

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[1] *Современные тенденции развития эпистемологии.* (Материалы «Круглого стола») Вопросы философии, №10, М., 2118, с. 31-66.

Our reason supported two world wars, endless social strife, the danger of thermonuclear war. It leads and has already led the terrestrial civilization to many irreversible situations in the ecological sphere, climate change, ozone holes, pollution of soils and oceans, the destruction of tens of millions of hectares of forests, species of living beings, etc. Do we have to count the monstrous destruction on our planet, performed by human activity, administered by his reason, Dubrovsky asks. Can you for one reason only prefer something "good", "fair", "honest", "uplifting"?

These qualities are also inherent to reason, but only to a certain extent, which did not influence the bleak totals of what humanity has already done on our planet. Of course, there is still hope that human reason will succeed in avoiding a suicide finish. This is a problem of first importance for the creative philosophical activity, aimed at the search of ways of transforming human reason, namely of our own rationality[2].

The problem given is, I think, not only of philosophy, but also of the entire complex of social sciences and humanities, the military sphere included, such as the professional ethics of the military, psychology and aesthetics applied to the given domain.

Of course, says Lektorsky, another Russian philosopher, the development of science and technology, related to it, has not only brought positive results, but also created many problems, starting with the ecological ones and ending with human relations. It is likely that these problems and their resolution will determine the future of humanity and culture. Here the problem is not only in reason, but in the interactions of reason with human values. This is what we need to think about. It is certain, however, that we will have to think everything with the help of reason. But not the reason of narrow scientific nature and not technological one but philosophically illuminated one[3].

Ecosophy is the term that I use for the illuminated rationality from the positions of a new philosophy, the one closer to the day-to-day life[4]. Ecosophy or ecological wisdom is the new philosophy of security, survival and sustainable development of man, society and nature. One component of it is global ecological ethics, based on traditional, ecological and ethnic humanism[5].

Ecosophy as a whole and especially anthropo-ecology and global ecological ethics, as component parts of it, considers human being the supreme value and thus, implicitly propagates the universal paradigm of the human in all spheres and fields of human activity.

The military sphere has many fields, including military science, weapons production, military activities during peace and war, education of military contingents, civilian population assistance in case of accidents, natural and technological disasters.

How can the human paradigm be applied in all these different fields? The following presentation is devoted to the answer to this main question.

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[2] *Ibidem*, pp. 52-53.

[3] *Ibidem*, p. 53

[4] Ion Sîrbu, "Noua filozofie şi securitatea", in *Revista militară. Studii de securitate şi apărare*. No. 1/ 2018, Kishinev, pp. 52-61; Ion Sîrbu, "Securitatea şi dihotomia tehnologiilor convergente", in *Political Science, International Relations and Security Studies. International Conference Procedings the VIIth Edition*. Sibiu, 2016, "Lucian Blaga" University of Sibiu, pp. 471-478; Ion Sîrbu, "Ecosophy, philosophy of security, new tehnologies and the digital philosophy" in *Proceedings the 13th Intenational Scientific Conference „Strategies XXI" Tehnologies-Military Application and Resources*, "Carol I" National Defence University, Command and Staff College, Doctoral School, Bucharest, 2017, pp. 442-452.

[5] Ion Sîrbu, "Etica ecologică globală şi dialogul civilizaţional. Aspecte epistemiologice şi de securitate", in *Studia Securitatis*, No. 3/2015, "Lucian Blaga" University of Sibiu, pp. 159-168.

Instruments and methods

Philosophical, scientific and specialized literature, press, audio-video, mass-media as a whole, as well as the daily lives of the military and students – future militaries, served as a research material.

Theoretical and empirical methods, the dialectical method in general and the extrapolation, comparison, unity of the historian and the logic have served and encouraged us in this investigation.

Results and discussions

There are areas of human activity seeming that they are a priori consistent with the universal human paradigm. However, there are areas with the opposite meaning, in which at a first glance the mentioned paradigm seems absolutely incompatible with them. I think there are also questionable areas, where obviously neither one of the two mentioned proliferates.

When addressing the medical sphere, for example, we see that even in ancient times, in the first steps of medical knowledge and practice, and there can be found works dedicated to the correct behaviour of the doctor towards the patient. The most eloquent example of such works are the medical Canons of different physicians and philosophers. Hippocrates' Oath has a special place, which even today the young specialists in medicine pledge before the start of the medical activity.

Today, this human care to humans is also extended to animals. We are talking here about the emergence and consolidation of ecological Humanism - traditional humanism that is rooted in nature as a whole. So, on animals, plants, microorganisms and on the inorganic nature, of lands and landfills, of all aquatic resources - seas and oceans, etc.

1. The universal paradigm of the human and the medical sphere

The entire medical sphere, including military medicine as a whole, the behaviour of doctors and medical personnel, the whole system of health care, should therefore be based on the universal human paradigm. So, human being represents by itself the absolute supreme value for the whole medical sphere. That should be the case, but often reality "contradicts theory".

"Mass-media", says M. Aluaş and I. Haţieganu, "presents shocking, extreme cases that create fears among the population about the doctors and the medical act. Appellants, who file complaints against physicians and threaten doctors and healthcare professionals with complaints in the media or in the courts. Patients who fear that they will not be treated properly by doctors. Doctors, who live with the daily fear that they will be sanctioned no matter what they do. It seems like a scene where they would all be against each other"[6].

The Moldovan mass-media is not far behind. Almost every day they communicate and show serious cases and acute problems related to the medical sphere and the inappropriate behaviors of some doctors and medical workers in the health and pharmaceutical system. Patients and their relatives often commit aggression and resort to serious threats to medical workers. Population health, the medical and social aspects of public life become a field of activity not only of the media, but also of the Moldovan sociologists.

The phenomenon of "health", some of the sociologists assert, clearly has a multidimensional reality, being conditioned both medically, economically and socially. The importance of the sociological studies in this field is due to a whole series of factors, such as: the evolution of the contemporary Moldovan society (poverty, unemployment, increasing

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[6] Maria Aluaş, Iuliu Haţieganu, "Derive etice în sistemul de sănătate din România",in *Materialele Conferinţei ştiiţifice inernaţionale „Sănătatea, medicina şi bioetica în societatea contemporană: studii inter şi pluridiscipliare"*, Chişinău, 2018, p. 59.

crime, weakening family ties, social relations, tradition and increasing individualism, selfishness, separatism, etc.)[7].

Based only on these reports, we can say that the system of health care, the entire medical sphere, including the fields of research and education, is in urgent need of the rapid and profound implementation of the universal human paradigm. It is necessary for the principle "human being as supreme value" to be introduced in the medical sphere, where before it seemed that it was intrinsically there.

Medicine, the activity of doctors in accordance with the medical sciences and general human morals must be directed towards human being, to relieve pain and suffering. It follows from this that the universal human paradigm need must be dominant in medical practice and science. This paradigm must become a supporter of the healing of patients by doctors. But man's healing is not a sum of the healing of his organs, affirms J.C. Curcă[8]. He also agrees with L. Popescu[9]. Healing at any risk is not the correct indicator to evaluate the quality of the medical act. It is, however, an indicator of the efficiency of the medical system as a whole, considering that the patient is included in this system as a part, thus contributing to his healing. The implicit human paradigm also involves the doctor's collaboration with the patient, the doctor-patient collaboration and the medical system as a whole.

2. Human paradigm in military education

If one considers the huge amount of human life loss and the gravest disturbances in the quality of human life occurred during wars, the universal human paradigm seems to be absolutely incompatible with the military sphere. But why did the armed forces exist and continue to exist? To lead wars. War necessarily involves armed struggles in which people lose their lives, health and will suffer throughout the rest of their lives. War is a loss, an irrational destruction of material goods. Even the contemporary hybrid warfare, in the last resort, involves the seizure of territories and material goods, thefts and cancellations of identities and sovereignty, the gross violation of human rights and freedoms.

After the end of the Cold War, it seemed that humanity is heading towards the era of peace and sustainable development. But it wasn't to be. After the disappearance of the USSR and the Soviet military bloc, Russia was no longer a superpower. Using huge resources, resulting from the massive export of gas and oil, Russia has reconfigured. It treacherously annexed Crimea and under camouflage aggressed the East Ukraine. Ukraine lost about 750 km of coastline and 2.3 million inhabitants either temporary or definitively, says Ș.F. Cioculescu. Without this large peninsula, the Ukrainian coast is practically split, and Russia in the event of military conflict, can disarm forces and control the coastline or even attack Ukraine from south to north. Ukraine also loses access to gas and oil resources from the territorial waters of the peninsula[10].

Russia's actions in Ukraine, and then in Syria, gave an impetus to the increase of military expenditures, in which huge amounts are spent. Also, with the end of INF Treaty, one

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[7] V. Volovei, V. Mocanu, M. Ciocanu, *Sănătatea populației R. Moldova. Aspecte medico-sociale (realizări, opinii perspective)*, Chișinău, 2008, p. 9.

[8] G.C. Curcă, "Aspecte conceptuale privind răspunderea deontologică și malpractica medicală", in *Revista română de Bioetică*, Vol. 8, No. 1, Iași, p. 54.

[9] L. Popescu, "Suferința între practica medicală și actul moral", in *Materialele Conferinței șt. inernaționale „Sănătatea, medicina și bioetica în societatea contemporană; studii inter și pluridiscipliare"*, Chișinău, 2018, pp. 33-34.

[10] Ș.F. Cioculescu, "De la neîncredere și teamă la cooperare și parteneriat. România și Ucraina după Euromaidan și anexarea Crimeei de către Rusia"*, in Monitor Strategic. Revista de Studii de Securitate și Apărare*, No. 1-2/2015, Bucharest, p. 16.

may also consider the nuclear war spectrum is back. If this happens, it will destroy the entire life of the Earth. The anti-human paradigm is real as long as there is the danger of such a war.

However, I consider it necessary to implement in the military sphere the universal human paradigm. Fear will be decisive in these. The fear of destruction, of enormous suffering, gradually, but surely, will guide humanity towards peaceful globalization, based on the human paradigm and in the interests of the majority. This will put an end to the possibility of an outbreak of thermonuclear warfare.

The implementation of the human paradigm in the military sphere should begin with the field of youth education. Education must be directed towards cultivating love for one's neighbour, for all forms life on Earth. Also, militaries must be educated in the spirit of love towards the Fatherland.

3. Human paradigm in the field of military scientific research and weapons

Military science must be directed to and guided by the human paradigm for the protection of the human life, the protection of the mind and the human body. The mind and the human body are both in danger today. It is no big secret that military science in developed and less developed countries is directed, among others, to understand and use everything that the human mind and body are capable of in extreme and war situations. By all means, it is desired to fortify them in order to have greater successes in case of armed conflict. To this end, the cutting-edge achievements of science and technology are used. However, as far as the world and human beings are concerned, it is important to understand what can and what needs to be changed, what is impossible to change and what should not be changed, even if this is possible[11]. The human paradigm shall guide scientists and military leaders in protecting their own soldiers and their population, but also in protecting the human factor (military and civilian) not only of its own but also its enemy's.

All practical armament has an anti-human character, it is intended to remove the adversary's human force. However, there are certain types of weapons that are sure to kill quickly. In my opinion, all this armament should be banned and replaced with some who can knock out adversaries, temporarily disrupt them, but not to kill them. It would go in accordance with the human paradigm, if all the armament in the equipment of the armies were replaced with such types of non-killer "firearms". And the weapon of mass destruction shall be forbidden to be used and obligatory completely destroyed. I consider that all types of thermonuclear, biological, chemical and new weapons, which can destroy the matter up to the molecular level, etc. must be destroyed. There are also the non-standard cartridges, designed to radically destroy the opposing life force, the devices of mass disturbance of the adversary's mind and the "ecological" weaponry, which can trigger natural forces, directed against the enemy, such as earthquakes, floods, droughts, frosts and so on. All these are double anti-human, which by being used are destroying not only the military forces, but also the peaceful population. However, in this line of thought, one shall also consider the positive impact of the Hague Conventions (1899 and 1907), one of the first formal regulations approaching the laws of war and war crimes. Additionally, one shall also have in view the fact that, nowadays, despite an obvious increase of military expenditures worldwide, conflicts are mostly carried out in economic, information, and cyber areas, all of them implying a restriction of the loss of human life and physical destruction of the enemy state's populations and infrastructure. In the absence of all the international regulation and of the technological advance of civilization war would surely be bloodier and more destructive, but, in my opinion, there is more to be done in this area.

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[11] *Современные тенденции развития эпистемологии.* (Материалы «Круглого стола») Вопросы философии, №10, М., 2118, с. 31-66.

Military science, scientific research, must achieve considerable results in raising the efficiency of military education, including commanders with a high and permanent morality. Commanders and servicemen must be not only of high professional quality, but also morals.

According to H.A. Șerban, the Romanian philosopher C. Petrescu "proposes the image of the noocrat (an intellectual conception): a leader in which the awakening consciousness, the knowledge, the courage to lead and the moral responsibility meet, generating a hierarchy of scientifically justified values, all accompanied by the refusal of suffering. Framed in a critique of the philosophy after Aristotle and of the national specifics, at the same time with the traditionalist doctrines, the ethics proposed by C. Petrescu follows the *substantial value*, which can neither be validated nor invalidated by the national specifics[12].

The concept of noocracy, further explains A.H. Serban, proposed by C. Petrescu in 1940, as part of a scientific philosophical system about substance, an ethical conception, opposed to the mystifications of social and political life, opposed to the crises of history and modernity in order to achieve an order of social and individual development and, at the same time, beyond the historical values, described by the philosopher as relative and cyclical. Thus, not only progress but life itself (of the individual, to some extent and especially of the community) depends on the substance[13].

By virtue of them, noocracy is desirable not only to the military and political leaders, but also to the simple military. Can people with high morality, people of humanity, be educated or not? We think they can. They can be educated through various methods and processes, including moral, spiritual, but also material incentives, through credible examples and models, through friendly competition.

Military science has to say something on the matter of noocracy and military nooocrats. "Learning to be Human in the Global World", the motive of the 24th World Congress of Philosophers, which took place in China on August 13-20, 2018[14]. The motive given is topical for all people, including the military. To be Human in today's global world means to be a noocrat, a ruler and man that is truly moral.

 The universal paradigm of the human must also be implemented in the daily life of the military and their families, which must be ensured with living space, with work place for the wives and other family members, with secured place for kindergarten and school.

The military must also be provided with a decent salary. Loss of work in the event of illness or disability, due to their professional activity, must be compensated. Military education must also provide for the learning of a civilian profession. Only if this is ensured, the military will not demobilize before the deadline, will not change its unit from the country to another from abroad. The fulfilment of these measures will also help to solve the deficiency of completing with the human resources of the defence sector.

It follows from the foregoing that the military sphere requires the implementation of the universal human paradigm basically in all fields. Being the most orderly, organized and disciplined human community, military units basically always jump to the aid of the population in case of accidents, natural and technologic cataclysms. The task of the military educational institutions with the professional training consists in the development in the conscience of the military of the responsibility towards the needs of the colleagues and of the civilian population. The high morality of the military can be educated and supported by the institutions concerned and these are in full agreement with the universal human paradigm.

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[12] H.A. Șerban, "O lectură a imaginii noocratului, un conducător etic", in *Revista de filosofie*, No. 3/2017, Bucharest, p. 358.

[13] *Ibidem.*

[14]Чумаков А.Н., Королёв А.Д. *Учиться быть человеком в глобальном мире* (К итогам XXIV Всемирного философского конгресса). Вопросы философии, № 3, М., 2019, с. 15-21.

Globalization, which is taking place today and will intensify in the future, being based on the indicated paradigm, can lead to peaceful cohesion and collaboration of the majority and even of all the states of the world. This is the way to exclude war and violence from human activity, to the progress of humanity as a whole and of individuals. Life on Earth will progress and diversify and not disappear[15]. Hence the need of a universal paradigm of the human for all areas of life.

I think the armies, in today's sense of the word, will disappear. It is possible, however, that they will be kept modified, professionalized, destined to defend humanity from the cosmic dangers, whichever they may be, from various extreme situations, which may threaten man or the terrestrial population.

4. The refugee problem and the human paradigm

Resuming the logic of implementing the universal paradigm of the human in the military sphere, we highlight another problem. The problem of mass refugees in European countries and beyond, caused by the Islamist rebellion and the war in Syria[16]. According to A. Voicu, the Syrian rebels committed numerous massacres and atrocities that they presented as the work of Bashar al-Assad's regime[17].

Beyond the acts of extreme brutality, says A. Voicu, the arsenal of rebels includes another tactic specific to international jihad: suicide bombings. From spring 2011 to summer 2013 in Syria there were at least 70 suicide attacks, the vast majority targeting government troops, but also Shiite and Christian neighbourhoods in large cities. On May 10, 2012, in one such attack, 55 people were killed and over 400 injured, by detonation by a suicide bomber. Also, according to the documentation of A. Voicu, there were cases in which international press, presented the version offered by the rebels, according to whom the government forces were behind the attack. Not all suicide bombers, says A. Voicu, were volunteers. Often prisoners were used as living bombs. The tactic is simple: the rebels mimic releasing hostages, who are offered a pre-loaded machine with an explosive to be detonated from a distance, near a certain target[18].

Western countries were involved in the civil war in Syria by the rebels' side, and Russia by Bashar al-Assad side. The Syrian civilian population found themselves in a real hell. Many of the rebels reorganized into the so-called Islamic State, which expanded into the territory of several Middle East states. The representatives of the so-called Islamic State, through the atrocities committed by them, fall far away from the specific of the human paradigm and were absolutely in the positions of the anti-human paradigm.

The need for the implementation of the universal human paradigm is required in terms of mass emigration into the European countries of the civilian population from Syria and other countries in the region, Asia and Africa. Most EU countries accepted migrants to their own territories, providing them with asylum, maintenance and allowances for children and the unemployed, and, in perspective, also with jobs with proper training. All these are in accordance with the specific of the human paradigm.

The influx of emigrants, however, was so great that it raised fears and concerns of both the population and the governments of the EU states. Some of them even refuse to take refuge in these huge masses of emigrants. Namely, the issue of emigrants was turned to advantage in

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[15] Ion Sîrbu, "The need for the world's peace for the security life how could it be achieved", in *International Journal of Communication Research*, Vol. 9, No. 2/2019, pp. 120-127.
[16] A. Voicu, "Rebeliunea islamistă din Siria", in *Revista de istorie militară*, No. 5-6/2014, Bucharest, pp. 142-153.
[17] *Ibidem*, p. 143.
[18] *Ibidem*, p. 145.

the pro-Brexit campaign. Turkey, which at the request and financial compensations of the EU provided asylum in its territory for almost 4 million of migrants[19], threatens the EU today that it will direct them to EU's territory, in case EU will not support it in the fight against the Kurds in Syria. We can see that in this extremely complicated problem, there is much work to be done until the triumph of the human paradigm. We hope, however, that this will ultimately take place and humanism will triumph.

CONCLUSIONS

The universal paradigm of the human is required for the military sphere as for all others related to human activity. War, even the contemporary hybrid one, is still war. Globalization based on the human paradigm is the way to exclude any kind of war from human practice.

The military leader, and the simple military must tend to become a noocrat, and, therefore, moral. High morality is given by education and can be successfully implemented by military education institutions, leaders, commanders and noocratic military educators, and especially by the noocratic human society.

The anti-human paradigm, which seems inherent in the military sphere, must give way to the universal human paradigm. And this is possible. Especially in the process of globalization, which is taking place today in the world.

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NATO'S REPOSITIONING
AFTER THE 2014 RUSSIAN-UKRAINIAN CONFLICT

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Abstract: *The hereby paper elaborates on the North-Atlantic Alliance's response to the Russian Federation's aggressive actions against Ukraine in 2014, going through the main steps that the Allies have chronologically taken in order to enhance deterrence and defence, in what was a completely new relation with the Russian Federation, once a partner of NATO. Generally explaining the measures on deterrence and defence, the paper also approaches in a more detailed manner the Allied decisions dedicated to the Northern and the Southern segments of the Eastern border, so as to arrive to the conclusion that, be it the Baltic states, Poland, Romania or Bulgaria, they are all facing the same security threat and measures must be seen in a coherent and unitary approach. Debating on Russia's main reason for its actions in the region, the hereby paper will conclude on the necessity for NATO to have a clear strategy on Russia's assertive actions on the Eastern border.*
Keywords: *Russia; Ukraine; NATO; deterrence and defence; Eastern Europe; Black Sea; strategy.*

INTRODUCTION

2014 remains in history as the year to mark a dramatic change in the international strategic context – the alteration of the NATO-Russia relationship as we knew it, triggered by the illegal and illegitimate occupation of the Crimean Peninsula by the Russian Federation. As a consequence, NATO Allies deemed as imperative to renew their commitment on the line of deterrence and defence in 2014 and consolidate this step by concrete decisions at the NATO Summits in 2016, 2017 and 2018. Thus, the Russian-Ukrainian conflict in 2014 re-wrote the European security paradigm, as well as the Allied deterrence and defence posture for years to come.

Georgia, Ukraine, the Republic of Moldova – they all have European aspirations, and with Georgia also eager for so many years to become a NATO member, Russia sees itself as encircled, with the NATO and EU borders getting very close. What the other states have regarded as self-development, Russia has perceived as entrapment. And the consequence was, in the first place, for Russia to increase its security – and all its military build-up that has commenced with 2014, following the illegal annexation of the Crimean Peninsula, logically translates in a decrease of security of other states. This is, in fact, the security dilemma, as international relations theorists call it. The security dilemma arises "not because of misperception or imagined hostility, but because of the anarchic context of international relations."[1] Russia is currently guaranteeing its security at the expense of other countries and reducing overall security.

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[1] Robert Jervis, *Perception and Misperception in International Politics*, Princeton University Press, Princeton, 1976, p. 64.

In a relationship which continues to be tributary to Russia's refusal to obey the principles of international law, the Allied message towards this state, practitioner of a selective approach in complying with the rules, has constantly reaffirmed the support for Ukraine's sovereignty and territorial integrity, not recognizing the illegal and illegitimate annexation of Crimea; underlined the importance of complying with the Minsk Agreements by all parties involved, as well as the responsibility of the NATO-Russia Commission states to ensure predictability, trust and stability in what concerns military activities.[2]

1. The Turning Point in NATO's Policy

Political analysts have criticized the North-Atlantic Alliance for acting as caught off-guard by Russian actions against Ukraine, if one is to think of the not so distant past, the 2008 Georgia episode respectively which, in this context, seemed a prelude of the year 2014. In Georgia's case, in the aftermath, most Allied states have mobilized themselves in increasing cooperation with Georgia both bilaterally, but particularly in NATO context, focusing on preserving and promoting the open door policy, as well as on strengthening the set of support measures dedicated to Georgia as a partner state – the Substantial NATO-Georgia Package launched at the 2014 Wales Summit (and all the subsequent support measures), the success model of the Alliance when it comes to partners' support – both in point of Allies' commitment and the partner's absorption capacity.

As if trying to compensate for the lack of a prompt reaction in the case of Georgia, NATO's answer to Russia's actions against Ukraine came rather on time and has gradually gained consistence. Thus, in April 2014 NATO suspended all military and civilian cooperation with Moscow as a consequence to Russia's breaching Ukraine's sovereignty and territorial integrity, only preserving the possibility for the political dialogue to continue, necessity-based, at Ambassadorial level and up, so as to allow the parties to exchange points of view primarily on the status of the crisis. The NATO-Russia Council, an important platform for dialogue, has not been suspended though. Up to June 2019, seven such meetings were held since April 2016.

Subsequently, at the Allied Summit in Newport in the same year, the decision was approved at the level of the Heads of States and Governments and, moreover, additional measures in response to Russia's actions were agreed into what was called the Readiness Action Plan. With a purely defensive purpose, it proposed two types of measures: assurance measures – by enhancing military presence on the Eastern border of the Alliance with a view to deter and defend; and adaptation measures – long-term changes in the Allied posture so as to be able to respond most efficiently in crisis situations. Among the decisions most relevant for the security of the Black Sea region there were: enhancing NATO Response Force (eNRF) by raising its readiness level and size from 13,000 to 40,000 troops; establishing a new operational force with a very high level of preparedness for combat – the Very High Readiness Joint Task Force (VJTF), which to be able to be deployed in theatres of operations within 2-3 days since notification; creating eight multinational force integration units (NATO Force Integrations Units/NFIUs) on the territories of the Allies situated on the Eastern border; and strengthening security in the region by additional capabilities of the Standing NATO Maritime Group (SNMG).

Richard Sakwa wrote in his work on the security prospects of Ukraine that *"the Russian-Georgian war in August 2008 was, in fact, the first war to stop NATO enlargement; the Ukrainian crisis in 2014 is the second moment. It is not certain if humanity will survive a*

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[2] Violeta Nicolescu, "Russia's Comeback to Power Politics", in: The 15th International Scientific Conference *Strategies XXI. Global Security and National Defence,* National Defence University "Carol I", Bucharest, 2019.

third one"[3]. Collective defence has thus been, since 2014, en even more present theme on the Allied security agenda, with the Wales Summit as the moment for launching the NATO Readiness Action Plan (RAP) and thus deciding on initiating NATO's adaptation to the abrupt security changes produced in the strategic context. It was just the beginning of a time of international turmoil which was to be later determined by an assertive Russia in the East and the terrorist threat in the South.

Then, at the Warsaw Summit in 2016 – a pivotal NATO Summit, the 27th one since the signing of the Washington Treaty in 1949, the RAP was declared fully implemented, including by tripling in size the NATO Response Force with a brigade-sized high-readiness spearhead force as its core, with the ability to move within a matter of days. As a natural subsequent step, other measures were also agreed so as to complement the progress accomplished. Thus, this high-level Allied reunion in July 2016 also served as the framework for establishing the two main lines of action for NATO for years to come: strengthening the deterrence and defence posture on the one hand, and projecting stability beyond NATO's borders, on the other, thus ensuring the Alliance's adaptation to the new security challenges. Taken as a whole, the measures adopted in Warsaw represent the largest reinforcement of NATO's collective deterrence and defence since the end of the Cold War. It is important though to understand that NATO's response should be seen, from its very beginning, as non-confrontational, but as a defensive, proportionate one, seeking only to defend the Allies.

The NATO Summit in Brussels in 2017 was not a Summit of decisions, but rather of a status check, as an evaluation of the progress on the Warsaw Summit resolutions. Special attention was paid on two particular coordinates: the need for all Allies to comply with the defence investment pledge agreed in 2014 (later on referred to as *burden sharing*), and the need to enhance NATO's efforts in the fight against terrorism, with the Alliance symbolically becoming a member of the US-led Global Coalition against Daesh.

In this context, the 2018 Summit in Brussels came to convey a message of unity and determination in managing the current security challenges; to confirm the solidity and validity of the Transatlantic link (shaken by Donald Trump's mixed messages about the solidity of the relation between North America and Europe); as well as to stand as a point of strengthening previous decisions on deterrence and defence. Additional measures were agreed, among which the most sonorous regards NATO's Readiness Initiative, aiming at increasing the operational and readiness level and at strengthening the Allied deterrence and collective defence efforts. It is based on activating, in case of necessity, additional forces. The initiative, also called the Four Thirties and which seems as a continuation of the Readiness Action Plan and envisages full operational capacity in 2020, asks the Allies to ensure 30 mechanized battalions, 30 air squadrons and 30 combat vessels, ready within 30 days or less since getting notified. The logic behind it regards the necessity for NATO to establish a culture of readiness, so that it could always be prepared to be able to efficiently respond to such security crises as that in 2014.

An important meeting of the Allies also took place in April 2019, at the level of the ministers of foreign affairs, when, celebrating 70 years of NATO, they also agreed a new package of measures to enhance NATO's situational awareness and strengthen support for the Alliance's partners in the Black Sea region, Georgia and Ukraine. Support could include training for maritime forces and coast guards, port visits and exercises, and sharing information.

At the same time, in the context of Russia denouncing, following the US, the Intermediate Range Nuclear Forces / INF Treaty, NATO military officials are exploring

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[3] Richard Sakwa, *Frontline Ukraine: Crisis in the Borderlands*, I.B. Tauris, New York, 2015, p. 55.

whether to upgrade their defence systems to make them capable and more adapted to the current threats posed by the newly deployed Russian intermediate-range nuclear missiles. Any change to the stated mission of NATO's current missile defence system — aimed at threats from outside the region, like Iran — has the prospects to escalate the situation and agree, in a way, to Russia's view on NATO's missile defence site in Romania and the one under construction in Poland. In Russian opinion, they are a threat to Moscow's nuclear arsenal and such a NATO measure would only be in this case a confirmation. The fact that the Alliance is considering new air and missile defence systems is not a secret, as Secretary General Jens Stoltenberg announced[4] such an intention at the Allied defence ministers' meeting in late June 2019, but without revealing details.

Subsequently, on August 2nd 2019, one of the last pillars of the Cold War-era arms control regime fell down. The INF Treaty, which banned the US and Russia from owning land-based missiles with a range between 500 and 5,500 kilometres, became history. A new arms race looks likely, with only one major bilateral agreement, the New START, now keeping the US and Russian nuclear arsenals under control. Arms control has been pursued to temper the dangers of nuclear weapons and to stop political rivalries between major powers. This is why the demise of the treaty is a source of great concern within the whole world. With the restraints under the treaty gone, the United States and Russia are free to deploy any previously INF-prohibited missiles they choose. In both Europe and Asia, there is the prospect of an open-ended arms race in missile deployments.

2019 is the year of NATO's 70th anniversary, when the Summit in London in December, will be the framework to address current and emerging security challenges and how the Alliance continues to invest and adapt to ensure it will remain a pillar of stability in the years to come.

2. Deterrence and Defence on NATO's Eastern Border

Strengthening the deterrence and defence posture translated, among other measures, into enhancing NATO's presence on the Eastern border on both its segments – Northern and Southern. Thus, NATO's enhanced forward presence (eFP) equals multinational forces provided by framework nations and other contributing Allies on a voluntary, sustainable and rotational basis. In point of command and control, the troops are under NATO and they also include a multinational divisional headquarters in Poland. Thus, the enhanced forward presence includes four multinational battle groups deployed in Estonia, Latvia, Lithuania and Poland and led by Great Britain, Canada, Germany and the United States respectively.

As far as the tailored forward presence is concerned, it translates into appropriate measures on voluntary, scalable and rotational basis, tailored to the Black Sea region. As a NATO initiative, it was intended also to send a strong message of solidarity, determination and ability to act. It has been conceptually designed with three components: land, air and sea, complemented by a training feature – the Combined Joint Enhanced Training framework. As to how it looks today, the land element is centred around a multinational framework brigade – the Multinational Brigade South-East, under the Headquarters of the Multinational Division South-East (both hosted by Romania), and benefiting from a coordinated multinational training provided through the training framework above mentioned. The air component is, in its turn, complemented by the enhanced Air Policing missions which fall under the Allied assurance measures. In the maritime domain, a Regional Maritime Coordination Function was established within the Allied Maritime Command, supporting coordination among current

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[4] Press point by NATO Secretary General Jens Stoltenberg following the first meeting of the North Atlantic Council in Foreign Ministers' session, April 4th 2019, URL: https://www.nato.int/cps/en/natohq/ opinions_165234.htm?selectedLocale=en, accessed on September 24th 2019.

contributing naval forces. These are all deterrence measures which are in various stages of implementation – a process which must be determined by coherence and unity.

The Combined Joint Enhanced Training program has an essential role within the tailored forward presence measures, as it was designed in order to create a coherent multinational training framework in the southern part of the Allied Eastern Flank. If properly capitalized, it has the prospects to provide for the big picture on overall Allied participation in the forward presence dedicated to the Black Sea region on all dimensions – land, air and sea. Based on an exercise plan integrated into the NATO exercise and training program, it will be fully effective only if sustained on all three pillars and by the majority of Allies.

The Battle Groups under the enhanced forward presence took shape very fast and effectively in 2016, were certified in 2017, and their current operational level is according to the plan. The tailored forward presence, on the other hand, was differently designed, as it was initially focused on training. Being built upon a Romanian initiative, the tailored forward presence has set off down the road both with an advantage and a handicap. While having a strong starting point – the multinational brigade (for which Romania provided the framework), which aspires to be the core of NATO's presence on the southeast of Alliance territory, there is still dissonance in the way it is perceived rather than how it should be perceived – as a NATO presence tailored to the specific needs of the region. That is why Romania and Bulgaria have been constant supporters of a unitary approach of the Eastern border, as the countries situated in this region, be it the north or the south, face the same security challenge. From the very beginning of the debates at NATO level, Allied perception was fragmented between the North and the South of the Eastern Flank, most states considering the Baltic States and Poland to be more exposed to the Russian threat than the rest of the flank. Consequently, their contribution or involvement was calibrated according to their perception. The NATO Summit in Warsaw has though been somewhat a trigger in what concerns increasing the strategic profile of the Black Sea region by the fact the deterrence and defence posture were addressed to this very region inclusively.

The Black Sea region faces military challenges, but also geopolitical disruption (frozen conflicts) and energy as a key factor in describing the strategic environment. In this spirit, it is imperative for the profile of the Black Sea region to be further strengthened at Allied level. The final communiqué of the NATO Warsaw Summit highlights the importance of this region: *"We face evolving challenges in the Baltic and Black Sea regions, the North Atlantic, as well as in the Mediterranean, which are of strategic importance to the Alliance and to our partners."*

Another element whose importance must not be underestimated in this equation is represented by the non-NATO regional partners – Ukraine, Georgia and the Republic of Moldova. If they are resilient, if NATO keeps on supporting them (e.g. the Defence Capacity Building tool approved and launched at the Summit in Newport in 2014), this will contribute to delivering the stability that encourages the greater development of the whole of Europe. If there will be, in the future, a security strategy for the Black Sea region, it should be built upon two coordinates: effective deterrence and credible collective defence; and stability and security in non-NATO regional partner nations.

CONCLUSIONS

Russia's actions so far have not exited the ex-Soviet space, either we talk about the Russian-Georgian war, Crimea's illegal and illegitimate annexation or Russia's involvement in the civil war in Donbass. Like any other former imperial power, this state is making efforts to maintain an area of influence. Keeping a balance of power has prevented armed conflicts from happening in Europe. After the USSR's dissolution, this balance has gone extinct, and in

the former Soviet space a void of power was created, which resulted in various still ongoing frozen conflicts. Russia, either ruled by Yeltsin or Putin, shall probably never give up maintaining Ukraine in its influence zone.

During his many years at the helm of Russia, Vladimir Putin has learned at least one important lesson which has helped him in his strategy of enlarging the area of influence of his country. Instead of occupying other states' territories and managing them, as it was done back in history, it was now enough to control them, to dictate their foreign and security policy, extract all possible economic benefits and, when it came to their internal problems, leave them manage them by themselves. The best example is, of course, Ukraine.

And, considering a series of elements which have the potential to influence the success of Russia's ambitions – the current leadership in the Republic of Moldova; the way in which his dialogue with the Ukrainian President will develop; the potential developments on the status of the two separatist regions in Georgia (Abkhazia and South Ossetia); as well as the uncertain future after the denouncing by the USA in February 2019 and, subsequently, by the Russian Federation on July 3rd, of the INF Treaty, the North-Atlantic Treaty Alliance will have to go, in its turn, from a punctual response approach to a truly strategic one, adapted to the security situation in the region. And if the need for an answer to the question *why is Black Sea relevant for the European and Euro-Atlantic community* did not seem, a few years ago, as urgent as the one on the Balkans, affected by the Kosovo crisis[5], it now grows more and more imperative. Russia's aggressive posture requires coordinated and efficient measures, which should be translated into NATO strengthening its deterrence and defence posture in the region. There is the need, in this context, of a long-term strategy for the Black Sea region which, among others, to prudently and efficiently manage the Russian approach in the region, as well as to strengthen partners' resilience. The first step was already made in Washington in April 2019 and it stands in the package of measures to improve NATO's situational awareness in the Black Sea region and strengthen support for partners Georgia and Ukraine.

There is also potential which could come from the NATO-EU ongoing cooperation and common efforts on military mobility and on defence capacity building are just two examples where efforts are currently pursued in complementarity. Capacity building is work in progress and it has significantly helped partners such as Georgia to get closer to the Euro-Atlantic track. On the other hand, an initiative which started, in fact, from General Ben Hodges idea, at the time Commander of the US Army Forces in Europe, who initially coined it as *military Schengen*[6], military mobility is necessary to manoeuvre Allied forces and equipment swiftly from West to East and North to South. It's no secret though that it is far from being shaped, on the one hand because it is rather a new project, and on the other hand, because it has so much to do with national regulations which differ in the 24 EU countries which take part in the dedicated PESCO project. It implies efforts on three lines of action – interoperability, infrastructure, and diplomatic clearances. But even with all things that hamper these processes, one must always have in mind that they are long-term projects, hence the outcome will be most visible in the long future.

An ongoing debate at European level regards the idea on the creation of a European Army – which some view as justified, some as an useless duplication of NATO. Beyond its military signification, such a European defence structure would also bear political

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[5] Mihai-Răzvan Ungureanu, "Opinion – The Black Sea Region: New Vision, New Possibilities"*, in Handbook of Foreign Policy Analysis,* Polirom Publishing House, 2010, p. 73.
[6] Speech by General Ben Hodges at the Center for European Policy Analysis (CEPA), November 26, 2015, Warsaw (subsequently, he reiterated the idea during NATO's exercise ANCONDA in 2016), URL: http://cepa.ecms.pl/index/?id=54cb487d58110b0869e7e435175ebad8, accessed on September 24th 2019.

consequences. The political polarization of the West when it comes to common security matters has one sole beneficiary – Russia.

At the same time, part of the international community seems to have begun to forget, as in Georgia's case, Russia's breach of the international laws. Thus, in June 2019, five years after Russia had its voting rights removed because of the annexation of Crimea from Ukraine, the Council of Europe's parliamentary assembly voted to restore them. Russia was thus reintegrated on June 24 into the Council of Europe, Europe's oldest political body, which aims to uphold human rights, democracy and the rule of law across the continent. Russia's return to the Council of Europe, supported by France and Germany, could represent an attempt to gain geopolitical advantage by other European states. In the face of the uncertainty generated by current American policies, perhaps the major European powers are saying to themselves that they need a Russian counterweight.

David Hume, in his classical essay *"Of the Balance of Power",* recommends the principle of power conservation as a constant rule of a balanced policy[7]. The security environment on NATO's Eastern border, in relation to Russia, is hence the result of not complying with such a principle. Also, the low degree of predictability in the evolution of regional crises and non-compliance with international law by some state or non-state actors complicate the regional security situation and lead to increasing risks and threats.

If we are to look back in time, during the Cold War, the USA and Russia managed to come to an understanding when the neutral status of Austria and Finland was in question. And as time has proved, such an agreement has in no way undermined the democratic system of the two countries and has even proved beneficial for their economies and international renown. And it is not by chance that Finland, a neutral state, EU member state and a non-NATO one, has played the mediator role in releasing the tension in the relations between the West and the USSR during the Cold War, alongside the signing of the Helsinki Accords in 1975. Hopefully the strategic context for a win-win situation in the Russian-Ukrainian relation will be met throughout the future.

Following World War II, the US and Europe acted in a unitary manner, focusing their efforts on defending and promoting liberal-democratic values in the world. Political collaboration between the US and Europe was favoured by their military alliance and economic interconnection – which nowadays seem both to be somewhat questioned. Thus, in the long run, it will definitely matter how the US's policy on the EU is shaped, how the NATO-EU cooperation is developing, and how masterfully Russia capitalizes any shortcoming of the other parties in this game.

Today the world seems very different from the international order which used to govern in the years following the Cold War. A more assertive China is emphasizing its role not only in Asia, but among the world powers, and is beginning to gain terrain in the very Europe. Russia's actions starting with 2014 have significantly affected the unity of the European Union member states, which by default affected the cohesion within NATO, when it came to how Allies view the roadmap for the NATO-Russia relation. Since 2014, Europe is in a constant struggle to manage the immigrants coming from the Middle East and Africa, while in the Western Balkans political instability is keeping its ground. 2018 was a a year marked by a weakening of traditional alliances, a rebirth of strategic competition for gaining influence and a place among the world powers, and by the first step of what was to be, in 2019, the demise of the INF Treaty. 2019 has continued on the same path, with an irreversible Brexit, holdbacks in nominating a new European Commission, the US-Iran tensions originating on Iran's nuclear programme, and the Turkey-Syria offensive following US's

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[7] David Hume, *Political Essays* (in Romanian language), Humanitas Publishing House, Bucharest, 2005, p. 176.

troop withdrawal from Syria in October. In a year which, besides the 70 years of NATO existence, also celebrates 30 years since the end of the Cold War by the fall of the Berlin War in 1989, political leadership on the international arena remains central to success in reducing security threats and returning to a conventional status quo.

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CONTESTING INTERNATIONAL NORMS REGARDING SOVEREIGNTY, SELF-DETERMINATION AND LOGIC OF CONFLICT IN THE BLACK SEA REGION. THE NEED FOR LEADERSHIP IN FRONT OF THESE THREATS

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Abstract: *This article presents some considerations regarding the geopolitical and strategic importance of the Black Sea region and potential threats or risks to security, stability, prosperity and cooperation. The study tries to demonstrate the availability of some solutions for the improvement of peace and stability in this part of the world. The international norms regarding the sovereignty and the self-determination, and the logic of conflict in the Black Sea region, needs to be discussed more and have to be analysed in detail.*

Much has been written about the importance of the Montreux Convention (1936) and the United Nations Convention on the Law of the Sea or the International Tribunal for the Law of the Sea in many books, memoirs or studies, and every day around the world, people or organizations discuss the major problems after the Russian-Ukraine conflict.

Political leadership could be the key point for security and prosperity in the Black Sea region, in Euro-Atlantic and Euro-Asian areas. Only together, bridges can be built over the Black Sea for present and future generations.

Keywords*: international law; international norms; sovereignty and self-determination; maritime security; regional security; leadership.*

INTRODUCTION

Today, only five years after the Russian-Ukrainian conflict, Crimea annexation in 2014, and after the Russian-Georgian conflict from 2008 needs to be discussed more about stability and leadership. The primary role of leadership was very clear during the Russian-Georgian conflict. The decision of political and military leaders from the USA, UK, NATO, and EU to react against Russia it was maybe one of the most important event. The world opinion and international leaders' opinion were very important. The key actors, the UN, NATO, UE, the USA (decision makers: President Trump and the United States Congress), the United Kingdom, France, Nederland, Spain or Germany have declared the importance of rules, international laws, international norms, sovereignty and self-determination.

Does Russia have the international support on its side for such occupation or invasion? Now, we have a lot of questions about this tragic event. What are the implications for EU and NATO? Why the Black Sea region is important for the EU and NATO? How can this conflict be prevented from happening in the future?

Is it the right time to analyse the international norms regarding the sovereignty and the self- determination, the logic of conflict in the Black Sea region (BSR), the importance of the

Montreux Convention (1936) and the United Nations Convention on the Law of the Sea (UNCLOS)[1] or the International Tribunal for the Law of the Sea (ITLOS)[2] ?

How could leadership be the key for security, stability and prosperity around the Black Sea, in Euro-Atlantic and Euro-Asian regions?

These are some of the questions for people and leaders around the Black Sea but it doesn't stop here.

The importance of the BSR in nowadays is obvious. This is a very good opportunity to increase the understanding and the trusted common spirit that people's lives could be better. Together, bridges can be built over the Black Sea, to create an analytical framework and develop strategic alternatives in the future to achieve positive objectives. Currently, there is a very good opportunity for leadership to open working relationships, and share a new perspective in this region. Leadership is an art. Professor Milan Vego from United States Naval War College in his book "Joint Operational Warfare, Theory and practice" has a very good approach of leadership concept.

"Leadership is the art of direct and indirect influence and the skill of creating the conditions for sustained organizational success in achieving desired results"[3].

Generally, character, trust, vision, communication, judgment or competence, and the ability to build relationships or teams, to see the big picture are some principles or competencies for a good leader, for leadership.

The Black Sea is a confined, congested, and contested space, yet it is not at all a closed sea, considering its linkages with Mediterranean Sea via Bosporus and Dardanelles Straits, and with the Baltic, White, Caspian and North Sea via a river and canal network. Thus, it is a place where operational effects on land can be easily created from the sea, and vice versa.

Since 2014 we have noted a rapid development of an anti-access/aria denial (A2/AD) capabilities around the Russian occupied Crimea a build up with the same mix of capabilities as in Syria. In this regard, contesting international norms regarding the sovereignty, self-determination and logic of conflict in the BSR is a very important issue.

1. Analysing international norms regarding sovereignty and self-determination

Russia developed in the last few years in the BSR a complex of capabilities – fighters-bombers, long air defence, coastal missile systems, ships, submarines, and modern electronic warfare equipment. It is worth noting the commission by the Russian Black Sea Fleet, besides the well-known Kalibr-equipped submarines and frigates, of new corvettes and fast patrol boats, smaller, but not less lethal.

The response of NATO has been proportionate and defensive in nature, strengthening its deterrence and defence posture in the south-eastern parts of Alliance territory, through a tailored forward presence. Whereas the forces and capabilities of NATO Black Sea riparian nations are the core of NATO's defence in the region, our NATO allies are contributing with selected forces and capabilities on land, at sea, and in the air, thus increasing NATO's overall situational awareness, interoperability and responsiveness.

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[1] ***, United Nation, United Nations Convention on the Law of the Sea, signed on 10 December 1982, Montego Bay, Jamaica, URL: https://www.un.org/Depts/los/convention_agreements/convention_overview_convention.htm, accessed on September 14, 2019.

[2] ***, United Nation, The International Tribunal for the Law of the Sea (ITCLOS), adopted on 10 December 1982, Montego Bay, Jamaica, URL: https://www.itlos.org/en/general-information/, accessed on September 12, 2019.

[3] Milan Vego, *Joint Operational Warfare,* "Theory and practice", Naval War College Press, Newport, Rhode Island, September 20, 2007 pp. 67-84.

The economic importance of the BSR means natural resources, infrastructure for transportation, telecommunications and energy, important human potential, market economy in many states and viable economic infrastructure around the Black Sea. Ten years ago, through the ports in the region, more than 150 million tonnes of goods and products or raw materials are transported daily, including more than 4 million barrel oil daily[4].

Nowadays, more than 87.593 ships transiting the Turkish Straits, 3 million barrels a day of crude oil are transited through Dardanelle and Bosporus Straits, million tonnes of goods and products or raw materials are transported daily, that's all represents obviously that the Turkish Straits are the important busy maritime region[5].

In generic terms, leadership, whether military or civilian, political or economic, is the spirit of the high responsibilities and desire to achieve the main objectives. Political, economic and military leadership must then have the courage and will to grasp the opportunity and the perseverance to carry it through and achieve peace. Success depends on national leadership in it is civilian or military aspects, recognizing that mechanisms and organizations should be synchronized and harmonizing with the military, political, economic areas of national power. In this area the all political, economic, social and military dimensions are currently very important.

The BSR represents a major link that connects several regions like the Caspian Sea, The Balkans, Central Asia and the Middle East. The littoral states and the international organization are concerned with the security, stability and prosperity of the BSR. The Azov Sea, Marmara Sea and Caspian Sea are alongside. The Bosporus Strait connects it to the Marmara Sea and the Strait of the Dardanelles connects it to the Aegean Sea, a region of the Mediterranean. The Strait of Kerch connects it to the Azov Sea. In the Black Sea, navigation and transport serve as a seven corridor of the European Union, with some important elements such as fishing, tourism, fresh water[6].

Legal framework for the BSR, including the main actors: UN, NATO, EU, Russia, Turkey and the littoral states and action at sea, including the dispute settlement mechanisms in accordance with the United Nations Convention on the Law of the Sea and the International Tribunal for the Law of the Sea, have to be discussed in the political dialogues of those international actors.

EU's approach to maritime security in the Black Sea and Mediterranean Sea shows us the importance, the strategic priority for Europe and not only. Stability and security in this area cannot be achieved without a safe and secure maritime domain. Emerging threats for the security of maritime spaces of the BSR, mass irregular migration, terrorism and their influence on the Black Sea states policies are at the same time important in the present analysis.

Russia wants to dominate the former Soviet space and become the most important actor in the Wider Black Sea Region (WBSR). Russia represents a factor of regional instability in this area. Presently Russia – EU relations are very important due to Russia's

[4] ***, Black Sea and Caspian Sea Symposium, International Intelligence Forum, DTIC ADA522834, held in Washington DC, on 9-10 March 2006, National Defence Intelligence College, Defence Technical Information Centre, URL: https://archive.org/details/DTIC_ADA522834/page/n2, accessed on September 12, 2019.
[5] Mehmet Ogutcu, "Status quo, Revision of the Montreux Convention to Avoid the Ship traffic and Energy Transit or What?", Centre for Strategic Studies, 24 April 2018, URL: http://www.bilgesam.org/en/incele/6782/-status-quo--revision-of-the-montreux-convention-to-avoid-the-ship-traffic-and-energy-transit-or-what-/#.XZrr1zYzbIU, accessed on September 2, 2019.
[6] Eugene B. Rumer, Jeffrey Simon, *Toward a Euro-Atlantic Strategy for the Black Sea Region,* Institute for National Strategic Studies Occasional Paper 3, National Defence University Press, Washington D.C., April 2006, URL: https://www.files.ethz.ch/isn/49706/2006-04_Toward%20Euro%20Atlantic%20Strategy.pdf, accessed on September 12, 2019, pp. 6-12.

natural gas resources. Russia is the player in this region with the greatest number of interests: political, military and economic. Russia's aggressive politics, and diplomacy tried to put the Montreux Convention under its own interest and made an important effort trying to developing the bilateral relationship with Turkey.

Paul Globe, a Jamestown Foundation Publication editor, has underlined in Eurasia Daily Monitor Issue by April 23, 2019 that Moscow wants to have it both ways on Montreux Convention developing a complex deployment of forces in the area[7].

This is another example of the contesting international norms regarding the sovereignty, self-determination and logic of conflict in the BSR.

Another important actor in the region, is the United States of America. In the past years, American interests have been pragmatic and very normal: security in the BSR, particularly energy security which is also very important for the EU, NATO and Asia, counterterrorism and the fight against the proliferation of weapons of mass destruction.

After 2014, it was launched the Atlantic Resolve South-Operation and the Black Sea Regional Events (BSRE) that is a very good initiative for assuring measures in the Black Sea area. The Black Sea states took the opportunity to develop important bilateral exercises, PASSEX (Passing Exercise) or PVST (Port Visit Schedule Training).

NATO, another important player in the region have been created the Black Sea Regional Framework under NATO Maritime Command Head Quarter (MARCOM) coordination. The NATO exercises in the region, make the Black Sea a good opportunity for investment and increased cooperation.

Turkey is a Eurasian country and has the second largest standing armed force in NATO, after the United States. Turkey has the largest Black Sea coastline[8].

The Montreux Convention, is an important instrument for the maintenance of maritime stability in the region, as well as for the steady increase in the maritime traffic. The Bosporus Strait improved maritime jurisdiction, security assessment in the Maritime Domain, caused the disappearance of major threats in the region, no systematic illegal activity.

The situational factors, national interests, and policy objectives are numerous in Turkey. Some of the major factors include: the control of the straits (they called the "Turkish Straits": Istanbul Straits and the Canakkale Straits), the second army in the NATO, concern over rising Russia and perceived need for regional ally, Turkey-UE relations, internal political and economic issue, mass migration, globalization and war on terrorism.

Littoral countries - Bulgaria, Romania, Ukraine and Georgia - are trying to reduce the risk, threats and challenges at sea under the NATO or the EU coordinated and integrated approach. How to reinforce interagency cooperation, through of the EU agencies with maritime dimension could be a very good point for the countries from the BSR.

For all of these countries the sovereignty and self-determination are the utmost important elements. They have to construct their own strategy based on their own historical experiences and particular geographic environments. In the Crimean War (1853-1856), we have witnessed the importance and power of the Coalition; The United Kingdom and France had the capability and capacity to demonstrate their naval superiority in a circumstantial environment and in a semi-closed sea. The Coalition conducted a complex operation with large forces and logistic challenges and triumphed, in spite of having lost many lives.

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[7] Paul Goble, "Moscow Wants to Have It Both Ways on Montreux Convention", in *Eurasia Daily Monitor*, Volume 16, Issue 57, April 23, 2019, URL: https://jamestown.org/program/moscow-wants-to-have-it-both-ways-on-montreux-convention/, accessed on September 08th, 2019.

[8] Marius Lungu, *Statele Lumii, Antologie,* Steaua Nordului Publishing house, Bucharest, 2008, pp. 215-230.

2. The logic of conflict in the Black Sea region and analytical recommendations

Security and the stability are two of the most important coordinates that define peace and good neighbourhood in the BSR. These can be reached only through cooperation, using all tools available at the bilateral or regional level. At the Warsaw Summit in 2016, Heads of State or Government agreed to develop a "tailored forward presence" in the Southeast part of the Alliance territory. Appropriate measures, tailored to the BSR, will contribute to the Alliance's strengthened deterrence and defence posture, situational awareness, and peacetime demonstration of NATO's intent to operate without constraints for its members' security and defence, but in full consideration to international recognized laws and treaties.

The future strategy of the BSR should be at the top of the list for the region's leadership. The first major step is to increase security and stability in the region.
A very good observation it was written by Michael I. Handel, Professor of Strategy, and United States Naval War College in the book "Master of War": "The development of the study and theory of war is (and probably will always remain) in a pre-Newtonian, pre-scientific, or non-formal stage. However, even as the laws of gravity operated irrespective of their discovery by Newton, the logic of war still exists whether or not is codified"[9].

Regional threats, such as unresolved territorial disputes, terrorism, proliferation, organized crime and smuggling, and competing religions, have to be examined. Finding the best solution for each problem is the most important task. These regional threats should be analysed with attention by states who work together, to eliminate them in the future. It is important to reduce the vulnerabilities of this region against regional threats. This is the reason for leaders to find and create the frameworks, for stability, security and prosperity in the BSR.

Regional threats, religious differences and unresolved disputes are some of the future challenges for the political leadership. The enlargement of NATO and the EU shows the importance of the region and is a major step for increasing democracy, stability and security in the region.

But in the meantime, the Ukraine-Russia and Georgia-Russia conflicts shows the vulnerability of the democracies and lack of stability in this part of the BSR. Everyone understands that in this period a new crisis between Russia, on the one side, and the United States and the West, on the other side, is starting. The Russia-Ukraine conflict of 2014-2019 including the Azov Sea issue or the Black Sea Economic Exclusive Zone is a big challenge to European security after the Cold War (Figure no. 1).

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[9] Michael I. Handel, *Master of War, Classical Strategic Thought, Frank Cass Publishers,* Third Revised and Expanded Edition, Frank Cass, London-Portland, Great Britain, 2001, p. xvii, URL: http://www.topoelmolino.com.ve/wp-content/uploads/2018/01/Handel-Masters-of-War.-Sun-Tzu-Clausewitz-Jomini-Mao-libro-422-p.pdf, accessed on September 8, 2019.

Figure no. 1: The Black Sea Map[10]

Thucydides, an illustrious Athenian historian and general, understood that after the war the logic of conflict is to continue the fight and try to consolidate the results.
"Nor as an essay which is to win applause of the moment, but as a possession for all time"[11].

On April 4, 2008, in Bucharest at the NATO Summit, Ukraine and Georgia discussed a Membership Action Plan. It was not guaranteed that NATO in the future will offer for Georgia and Ukraine a Membership Action Plan. The reason it was very simple. A country with some problems with its neighbours or with unresolved conflicts can't join NATO or EU.

For Georgia, but especial for Ukraine, the situation is very challenging. The European Union, United States and the nation of Wider Black Sea Region have to help to rebuild Ukraine and Georgia and work together to construct another strategy in region, and create other programs for security of the BSR.

At the same time, United States and EU could warn Russia for the future, about the importance of the energy corridor, and consequences of future actions. The Kurdish question is another sensitive issue for the European Union. The most important aspect of this question is probably the EU's public opinion. The public opinion in Turkey is in retreat about integration in European Union[12].

For the BSR leadership there are some difficulties and important challenges, but also realistic opportunities such as cooperation of partners or allies, promoting transparency and democratic reform, and developing national and regional economies. These opportunities and problems must be a daily agenda item for leaders.

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[10] ***, *Harta Marea Neagră,* URL:http://www.businessmap.ro/harta-marea-neagra/, accessed on September 12, 2019.

[11] Robert B. Strassler*, The Landmark Thucydides, A Comprehensive Guide to the Peloponnesian War,* Touchstone, Rockefeller Center, New York, First Edition, 1998, pp. 76-78.

[12] Ozgehan Senyuva*,* Feuture online paper No. 26, *The Future of EU-Turkey relations: mapping dynamics and testing scenarios,* 3 October 2018, URL: http://www.cidob.org/, accessed on October 5, 2019.

A new security architecture is necessary for this region. We should maintain the internationalization of the region's security, full compliance with the Montreux Convention, the extension of NATO and the EU and the development of strategies, capabilities, procedures, and techniques to manage the regional security situation are all required.

This region requires good management in the future, for foreign investments, modern technologies, and rehabilitation of the transportation infrastructure in the Caspian Sea area. At the same time, it is necessary to adopt new measures against corruption, drug trafficking, terrorism or organized crime and environmental threats. It is important to develop joint projects and training opportunities that involve both, civilian and military organizations.

United States, Russia and China are important players in the region and perhaps the American role is decisive. The first step in the right direction should be for the EU, US and NATO to show exceptional political and military leadership. These states and organizations can build bridges above the Black Sea, and connect different geopolitical axes: Caspian Sea – Black Sea – Mediterranean Sea, the Energy Axis; East – West axis between China and Europe, "the Silk Road" Axis; Baltic Sea – Black Sea, North South Axis; the Rhine – Main – Danube – Black Sea- Mediterranean Sea Axis.

CONCLUSIONS

The possibility of revision of the Montreux Convention right now should be very carefully analysed in accordance the international law. The international norms regarding the sovereignty and the self-determination, and the logic of conflict in the Black Sea region, needs to be discussed more and have to be analysed in detail, after the Russia aggression and Crimea annexation.

The importance of the Montreux Convention (1936) and the UNCLOS or the ITLOS is clear in case of activating the NATO Article 5. Turkey will maintain the Straits opened for NATO forces only if is respected the international norms.

The analysis recently published by Professor Thomas-Durell Young in the Naval War College Review after the site survey on the North Eastern NATO Flank has considerable much more concerns with the BSR than the Baltic Sea.
"Allied naval planners also must account for the operational limitations placed on the deployment of warships from outside the Black Sea, as stipulated by the Montreux Convention regarding the Regime of the Straits."[13] .

In accordance with the Montreux Convention regarding the Regime of the Straits is not allowed to have the deployment longer than 21 days in the Black Sea and no more than 45.000 tonnes at the same time[14].

However, in the present and in the near future, energy will be very important not only for the BSR or WBSR. The national leaders have to resolve this problem in the future. One step for this process is providing security for the energy sources and finding other resources or producing another type of energy. Leadership in the international organizations, EU, NATO, Russia, should take the opportunity to provide financial and technical support for the states in the region to develop the transcontinental energy projects.

These organizations or alliances should act more every day, every month, every year to increase the stability, security and eliminate the risks in the region. Together these

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[13] Thomas-Durell Young, *"NATO's Selective Sea Blindness-Assessing the Alliance's New Navies"*, in *Naval War College Review*, Vol. 72, No. 3, URL: https://digital-commons.usnwc.edu/nwc-review/vol72/iss3/4/, accessed on September 10, 2019.
[14] ***, Montreux Convention, regarding the Regime of the Straits, adopted in Montreux, Switzerland on 20 July 1936, Art. 18/1/b and Art 18/2, URL: https://cil.nus.edu.sg/wp-content/uploads/formidable/18/1936-Convention-Regarding-the-Regime-of-the-Straits.pdf, accessed on September 08, 2019.

organizations can create another framework of the Black Sea Region to develop higher cooperation among states and organizations for stability and peace.

We can start shaping a new strategy and developing new and realistic programs, for our future and our children's future, for stability, security, prosperity, for good cooperation, and peace in general. The future of democracy in the Black Sea area is perhaps the principal element for all countries, and particularly for NATO and EU.

The first step is to consolidate democracy as an important method of achieving security in this region. The second step is to develop market economies, drawing international investment and developing infrastructure. The actual energy resources, and other sources of energy which will be discovered in the future and people should find permanent ways for good cooperation and positive thinking for a better life, because the grass must be kept green around the Black Sea.

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IDENTITY CONSTRUCTION OF STATEHOOD
AND THE IMAGE OF THE ADVERSARY IN THE DE FACTO STATES
ABKHAZIA AND SOUTH OSSETIA

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Abstract: *The paper aims to analyze the modus operandi of the "secessionist vocal regimes" in South Ossetia and Abkhazia and the stages of state identity building and the image of the adversary.*
Based on the Theory of the Regional Security Complex (RSCT/ Barry Buzan) and the Theory of Linkage and Leverage (Steven Levitsky and Lucan A. Way) and analyzing the rhetoric of senior officials in the European Union, the Russian Federation and NATO, the paper attempts to throw a shed light on how domestic and foreign political actors influenced or supported the evolution of unresolved conflicts in the Republic of Georgia.
Keywords: Georgia; Abkhazia; South Ossetia; unresolved conflicts; regional security complex theory.

INTRODUCTION

The conclusion of the bipolar world order generated by the end of the Cold War and the collapse of the Union of Soviet Socialist Republics/ USSR was the basis for the outbreak, at international level, of a new wave of intrastate conflicts, mainly of an ethnic nature.

In the South Caucasus, one of the most diversified regions in the world, the secessionist tendencies of ethnic nature have been one of the most complex challenges after the disappearance of the USSR. The escalation of these conflicts was favored by the new realities generated, internally, by historical discontent, by the effects of political transformations, by the economic development and by the adoption of the new national doctrines, and at the external level, by the support or challenge of the regional and international political actors. The rise of ethnic nationalism in the South Caucasus and the adoption of distinct nationalist doctrines divided the national states and contributed to tensions along the ethnic lines, which led to the reconfirmation of distinct nations. These nations have raised demands for self-determination and cultivated a specific identity, while demanding distinct territories. Georgia also faced this situation where the secessionist conflicts in Abkhazia and South Ossetia, re-emerged in the early 1990s, determined the trajectory of Georgian-Russian relations in the post-Soviet period.

This paper aims to establish the arguments invoked by the authorities in Abkhazia and South Ossetia for the formation of the "new states", the way in which the parties have built the image of the adversary and the evolution of relations between the Russian Federation and Georgia, in the context of competition for exercising influence and control over these territories after the disintegration of the USSR. The article builds on its arguments based on the theory of the regional security complex/ RSCT[1] and the theory of links and leverage[2].

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[1] Barry Buzan and Ole Wæver, Copenhagen School.
[2] L. A. Way, S. Levitsky, "Linkage, Leverage, and the Post-Communist Divide", in *East European Politics & Societies*, No. 21(1), 2007, pp. 48-66.

From a methodological point of view, the article is based on the analysis of the discourse of the high ranking officials from Russia, Georgia and the new *de facto* states - Abkhazia and South Ossetia - starting from the premise that to understand the positions of the new states, it is important to understand the claims political elites and their strategies.

1. Theoretical framework

RSCT argues that the penetration of global powers influences the security dynamics of each region and determines an increased role of the regional level compared to the global level. According to Buzan and Wæver[3], the regional or sub-systemic level "refers to the level at which states or other units are linked sufficiently closely that their titles cannot be considered separate from one another. The regional level is where the extremes of national and global security are played and where most of the action is taking place"[4].

Copenhagen School defines regional security complexes (RSCs) as durable empirical phenomena, characterized by longstanding patterns of friendship and hostility in history, taking the form of sub-global patterns of security interdependence[5]. RSCs "are socially constructed in the sense that they are dependent on the security practice of the actors"[6]. From the structural point of view, RSCs comprises four variables: a) border; b) anarchic structure; c) polarity; and d) social construction[7]. RSCs are defined by two components: power distribution and patterns of amity/enmity. It also defines as the outsourcing the extent to which a unit of a RSCs participates in its formation by designing its own internal security problems outside its borders and penetration, the extent to which external powers outside the RSCs form security alliances with units within it. If the first concept describes the impact of vulnerabilities generated internally by a RSCs unit on bilateral relations and how it influences the vulnerability and dynamics of RSCs, the second concept describes the impact of external powers on RSCs dynamics, which in many cases is significant[8].

Regarding the concept of Linkage and Leverage, Levitsky and Way defined the link as "a multidimensional concept that encompasses the numerous networks of interdependence that link individual policies, economies and societies with Western democratic communities"[9]. The linkage is not applied exclusively to the West, but to other powerful regional or global factors, such as Russia and in this case, the concept of connection and the factors of interdependence offer an interesting perspective on understanding Russian foreign policy. Levitsky and Way support the existence of five types of linkages:

- ▪ economic connection, measured in trade flows, investments and loans;
- ▪ intergovernmental liaison, which includes both bilateral diplomatic and military relations, as well as participation in alliances, treaties and international organizations in the West;
- ▪ social connection, including immigration, exile and refugee flows, diaspora communities and tourism;
- ▪ information linkage, information flows through telecommunications, internet connections and Western media penetration;

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[3] B. Buzan, O. Wæver, *Regions and Powers: The Structure of International Security,* Cambridge University Press, Cambridge and New York, 2003, p. 43.

[4] A. Pop, "From cooperation to confrontation: the impact of bilateral perceptions and interactions on the EU-Russia relations in the context of shared neighbourhood", in *Eastern Journal of European Studies*, Volume 7, Issue 2, December 2016, URL: http://ejes.uaic.ro/articles/EJES2016_0702_POP.pdf, accessed on 27 September 2019.

[5] B. Buzan and O. Wæver, *op. cit.*, p. 430.

[6] *Ibidem*, p. 48.

[7] *Ibidem*, p. 53.

[8] *Ibidem*, p. 51.

[9] L. A. Way, S. Levitsky, *op. cit.*

- links between local civil society and NGOs in the West, religious and international organizations and other transnational networks and geographical proximity to Western Europe or the United States of America[10].

Levitsky and Way define leverage as "the vulnerability of authoritarian governments to external democratizing pressure"[11]. According to them, the leverage can be exercised in various ways, which include punitive sanctions, diplomatic pressure and military intervention. Levistky and Way offer two main factors for leverage:

- the size and power of states and economies of countries as governments in weak economies with smaller economies are more vulnerable to external pressure than those in larger countries with military power and/ or substantial economic;
- competing issues on the western foreign policy agenda and the existence or otherwise of an alternative global or regional power offering the same political, ilitary support[12].

2. Caucasus as a regional security complex

Located in the South Caucasus, Georgia is according to the RSCT, part of the post-Soviet RSCs sub-complex, which includes: North Caucasus - Russian Federation, including Chechnya, Dagestan, North Ossetia, four other units and many ethnic groups; and the South Caucasus, consisting of Armenia, Azerbaijan and Georgia, in whose territories there are unresolved conflicts in Nagorno-Karabakh, Abkhazia and South Ossetia. The structural characteristics of the post-Soviet security complex are, above all, its autonomy relative to the international system and Russian hegemony.The Caucasus makes a mini security complex. The three obvious elements of the mini-complex in the Caucasus all include a regional level: the ethno-territorial conflicts in Georgia, the Nagorno-Karabakh conflict and the potential spread of conflicts between the North and South Caucasus.

Given that both Abkhazia and South Ossetia are largely populated by Russian nationals and are economically, socially and militarily linked to the Russian North Caucasus, Georgia's security interaction is primarily with Russia. Any intervention by Georgia in South Ossetia or Abkhazia will have implications for the North Caucasus due to ethnic relations.

The South Caucasus has been a vitally important region for Russia since the 16th century[13]. After the completion of the colonization of the Caucasus by Russia, in the 19th century, Moscow began to consolidate its power in the region and for this purpose, used political-military means and soft power tools. Russian language and literature were imposed as a means of communication with Europe and later, once communism was established, Russia became the center of political ideology for these states. In the post-independence period, Russia sought to strengthen its position in the South Caucasus, its strategic interests in the region being closely linked to Russia's national security[14].

2.1. Border/Anarchic structure

As argued by Buzan and Waever, a RSC encapsulates a distinct dynamic between a particular set of states within a geopolitical context. The existence of a RSC is highlighted by a clear distinction between those units within the complex and those outside of it. As a result, the

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[10] L. A. Way, S. Levitsky, *op. cit.*

[11] *Ibidem.*

[12] *Ibidem.*

[13] Susan Layton, *Russian litertaure and empire: Conquest of the Caucasus from Pushkin to Tolstoy*, Cambridge University Press, 2005.

[14] Margot Light, "Russia and Transcaucasia", in: John F. R. Wright, Suzanne Goldenberg, Richard Schofield (Eds.), *Transcaucasian Boundaries*, UCL Press, London, 1996.

relationship between the states within the complex is intensified by elements of familiarity and proximity. Anarchic structure - assumes that for a regional subsystem with a clear border is imperative for most of its units to be autonomous. In this respect, both Abkhazia and South Ossetia are ethnically and politically linked to the North Caucasus (Abkhazia from Adygee and South Ossetia from North Ossetia). In the early 1990s, regional elites in the North Caucasus allowed volunteers to mobilize to fight in Abkhazia and South Ossetia[15] and in the armed phase of the Georgian-Ossetian conflict, North Ossetia received a large number of refugees. In turn, Ossetian refugees were also involved in the Ingush-Ossetian conflict over Prigarodniy rayon, which culminated in the withdrawal of the Ingush from this district[16]. Both conflicts strengthened the Confederation of the Mountain Peoples of the Caucasus/ CMPC[17], whose political loyalty to Russia was called into question at that time.

The initial project of the CMPC was the integration of the North Caucasus, including Abkhazia and South Ossetia, and subsequently the creation of a union not subordinate to Russia or Georgia[18]. Being a Caucasian state itself, Russia has had security interests in this region since the break up of the Soviet Union. Export of separatism from the South Caucasus and spill-over of instability, and subsequent destabilisation of the Russian North Caucasus was a major concern of the Yeltsin administration. Both the foreign policy concept and the military doctrine of 1993 stressed the threat of ethnic conflicts in the vicinity of Russian borders and their potential spill-over. In his 1993 speech to the National Security Council, Boris Yeltsin suggested that Russia should be granted special rights and privileges to stop ethnic conflicts in the Former Soviet Union[19].

Abkhazia declared its independence in 1993, following the victory in the Patriotic War of 1992-1993, against the nationalist government of Zviad Gamsakhurdia[20], with the help of the volunteers of the Northern Caucasus Peoples Movement and of the ethnocratic elites of some national republics in the western part of the Caucasus (especially Adygea)[21]. It adopted all the attributes of a national state: flag, national anthem, government, armed forces, uniform, without having a national currency, but the first step towards the reconstruction of sovereignty was the adoption of the *Declaration of State Sovereignty* by the Supreme Council of Abkhazia, on August 25, 1990[22].

On November 26, 1994, the Supreme Council of the Republic of Abkhazia adopted the Constitution of the Republic of Abkhazia, according to which Abkhazia is "a sovereign, democratic, legal state, historically affirmed by the people's right to self-determination"[23]. It was subsequently approved by popular vote on October 3, 1999.

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[15]Sergei Markedonov, "Interesi Rossii v Abkhazii ir Gruzii i puti ix osushestvlenie", in: Paula Garb, Walter Kaufmann Arda Inal Ipa, Paata Zakareishvili (eds.), *Aspekti Gruzino-Abkhazskogo konflikta 12: Rol Rossii: realii I mify*, University of California, Irvine, 2006, p. 26.

[16] Andrei Ryabov, "Gruzino-Abkhazskiy tupik, Pro et Contra", in *Jurnal Rossiyskoy Vnutrennoy i vneshnoy politiki*, vol. 34, no. 5-6, 2006, pp. 29-40.

[17] Which included all 7 peoples of the North Caucasus.

[18] Yusup A. Soslambekov, "Protracted walk on the brink of an abyss: towards the history of one annexation", in *Kavkaz*, No. 1, 1 October 1990, apud *Chervonnaya, Conflict in the Caucasus*, *op. cit.*, p. 201.

[19] Vasiliy Kononenko, Viktor Litovkin, "Rossiyskiy generalitet zhdet ot prezidenta reshitelnikh deystviy po predololeniyu krizisa", in Izvestia, 4 March, 1993. See also Leszek Buszynski, *Russian Foreign Policy after the Cold War*, Praeger, Westport, 1996, p. 113.

[20] S. V. Petrova, *Внешняя политика непризнанных государств (на примере Республики Абхазия)*, Вестник СГУТиКД. 2011. № 2 (16), 2016.

[21] S. Fischer, *The Conflicts over Abkhazia and South Ossetia in Light of the Crisis over Ukraine,* 2014, p. 45.

[22] Декларация О государственном суверенитете Абхазской Советской Социалистической Республики, 25 августа 1990 года., URL:http://www.apsuara.ru/portal/book/export/html/1013, accessed on 2 September 2019.

[23] Статья 1. Конституция республики Абхазия, 1994.

In the first stage, Moscow rejected any secessionist tendency on the territory of Georgia. Although in 1996, in the Council of the Heads of Member States of the Commonwealth of Independent States/ CIS, Moscow pproved the sanctions of Abkhazia arguing that the "destructive position of the Abkhazian authorities prevents the settlement of the conflict" [24], in December 2002, following the decision of President Eduard Shevardnadze to withdraws from the CIS and subsequently from the Collective Security Treaty Organisation (in April 1999), opened a railway line between Abkhazia and Russia. The Georgian-Abkhaz conflict was used as leverage against an independent-minded, anti-Russian Georgia, and to get Georgia into the CIS and agree to Russian military presence in its territory. Both Georgian-Abkhaz and Georgian-Ossetian conflicts had another strategic importance for Russia.

On August 26, 2008, after the so-called "five-day war" between South Ossetia and Georgia, the president of the Russian Federation at that time, Dmitri Medvedev officially recognized the independence of the Republic of Abkhazia and South Ossetia[25] after the West recognized Kosovo's independence. At a meeting with its French counterpart, Nikolas Sarkozy, Putin sayin it "recognized the independence of Abkhazia and South Ossetia in a similar way, as many European countries have recognized Kosovo's independence"[26].

Recognition of the independence of Abkhazia was a turning point in the modern history of the republic, the diplomatic relations between the two countries were established on September 9, 2008, and on September 17, the same year, the *Treaty of Friendship, Cooperation and Mutual Assistance* was signed. The Russian Federation opened an embassy in Sukhumi in 2017 in the presence of the head of Russian diplomacy, Sergey Lavrov.

Against the background of the annexation of Crimea and the outbreak of conflicts in eastern Ukraine, on November 24, 2014, the presidents of the Russian Federation and Abkhazia, Vladimir Putin and Raul Khadzhimba concluded, in Sochi, a ten year strategic alliance and partnership agreement, with the possibility of extension for subsequent periods of five years. The document provides for the gradual establishment of close bilateral cooperation in the social, economic and humanitarian fields, on foreign, defense and security issues. In particular, the agreement provides that "if one of the parties is subjected to aggression (armed attack) by one state or group of states, it will be considered as aggression (armed attack) against the other contracting party" [27]. The document also called for a move from Abkhazia and the Russian border to the Inguri River, which divides Abkhazia from Georgia. He gave Moscow permission to ensure joint control of Abkhazia and the Georgian border of the movement of persons, cargo and transportation in the Abhaz customs. President Raul Khadzimba's speech focused on highlighting that "ties with Russia provide us with a complete security guarantee"[28].

Unlike Abkhazia, South Ossetia has always been linked to Tbilisi, not only politically but also economically, because there was no direct road connection with Russia until 1985 when the road tunnel was built on the Georgian-Russian border in the Caucasus Mountains. The Ossetians also enjoyed cultural and educational autonomy, with secondary education available to local young people in Ossetian language and higher education at the Tskhinvali Institute of Pedagogy. The first incident that ignited tensions between Georgians and Ossetians was the

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[24]Решение Совета глав Государств СНГ о мерах по урегулированию конфликта в Абхазии, Грузия, 19.01.96, URL: http://www.civil.ge/rus/article.php?id=15867, accessed on 2 September 2019.

[25]Министерство Иностранных Дел Республики Абхазия (In English: Ministry of Foreign Affairs of the Republic of Abkhazia), URL: http://mfaapsny.org/ru, accessed on 10 October 2019.

[26] В. Путин, *У нас есть домашние заготовки на случай признания независимости Косова*, 14.02.2008, URL: http://www.vesti.ru/doc.html?id=163610, accessed on 10 October 2019.

[27]David M. Herszenhorn, "Pact Tightens Russian Ties with Abkhazia", in *The New York Times*, 24 November 2014, URL: https://www.nytimes.com/2014/11/25/world/europe/pact-tightens-russian-ties-with-abkhazia.html, accessed on 9 October 2019.

[28] *Ibidem*.

open letter addressed by the leader of the South Ossetian nationalist organization "Adamon Nikhas", Alan Chochiev, to the Abkhazian people, in which he expressed support for the Likhni Declaration[29] and their struggle for Georgia's independence.

The relatively calm and stable situation in South Ossetia got out of control in 1989. The decree issued by the Supreme Council of the SSR of Georgia in August 1989 on the use of Georgian language in public life throughout Georgia. "Adamon Nikhas" organized a protest against the new law in the district capital - Tskhinvali. Local authorities have requested from Tbilisi that Ossetian be declared the state language in the district. This marked the beginning of the so-called "War of the Laws", which will continue until 1992 between Tbilisi and Tskhinvali. On September 20, 1990, the South Ossetian District Council proclaimed the creation of the "Soviet Democratic Republic of South Ossetia" and the withdrawal from Georgia, the South Ossetian government urging citizens to boycott national elections held in Georgia in October 1990. Subsequently, the new Supreme Council of Georgia, led by nationalist Zviad Gamsakhurdia, called on the USSR Supreme Council to recognize South Ossetia as a unitary republic[30].

In January 1991, the Georgian government sent its own police and security forces to Tskhinvali. The new Georgian head of state Eduard Shevardnadze tried to reach a ceasefire agreement in South Ossetia. Paradoxically, the first ceasefire protocol of June 1992 was signed by Eduard Shevardnadze and the leader of North Ossetia, Akhsarbek Galazov[31]. Galazov's signature was an indirect recognition of Russia's participation in the conflict. Two weeks later, this protocol was followed by a broader Russian-Georgian agreement on the principles of resolving the Georgian-Ossetian conflict (the Dagomys Agreement), signed by Russian President Yeltsin and Shevardnadze, thus raising it to the highest interstate level. The agreement provided for the creation of the Joint Control Commission, with the participation of the "parties involved in the conflict", ceasefire, decommissioning of self-defense units and withdrawal of the armed forces[32].

During the inter-war period, until 2004, relations between Georgians and Ossetians were largely restored. The document mediated by the OSCE and initialed by the two parties at the 2000 meeting in Baden (Austria) constituted an *interim* agreement on major principles of final settlement. The situation in the conflict zone began to deteriorate after 2004, when Georgia's "Rose Revolution" tried to bring South Ossetia back under Tbilisi control. The Georgian government had a two-way strategy. First, with the closure of the smuggling market in the de facto border line, it tried to reduce the incomes of the separatist regime and win the hearts of the Ossetians with humanitarian actions. The second approach aimed at strengthening the presence of Georgia peacekeepers in the district. After the failed attempt in 2004, the Georgia government changed tactics and declared openly the need for a gradual and peaceful resolution of the conflict. President Saakashvili and Prime Minister Noghaideli presented the peace plan to PACE and the OSCE Ministerial Council in 2005, where they offered extended rights of autonomy to South Ossetia. The plan consisted of three stages: demilitarization, economic

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[29] In March 1989, Moscow to elevate the status of Abkhazia to union republic. The so-called Likhni Declaration, named after village near Abkhaz stronghold Gudauta was signed by the Abkhaz functionaries. Georgians, the largest ethnic group in Abkhazia comprising 46% of population, were not even consulted.

[30] საქართველოს რესპუბლიკის კანონი სამხრეთ ოსეთის ავტონომიური ოლქის გაუქმების შესახებ, 11 დეკემბერი, 1990 (Law of the Republic of Georgia on abolition of South Ossetia Autonomous District, 11 December, 1990, URL: https://iberiana.wordpress.com/zviad-gamsakhurdia/uzenaesisabcho/, accessed on 30 September 2019.

[31] This is an interesting example in the history of secessionist conflicts when the ceasefire agreement is signed not by the two conflicting parties, but by a single conflicting party and the head of the region of a neighboring country.

[32]Соглашение о принципах урегулирования Грузинско-Осетинског, URL: apsny.ge/notes /1127333974.php 375, accessed on 17 September 2019.

rehabilitation and political status determination. In October 2006, the Georgian government decided to set up a provisional parallel administration in South Ossetia chosen by residents of Tbilisi-controlled areas. The creation of a parallel administration effectively killed the peace process, because the South Ossetian *de facto* leadership refused to continue the peace talks[33].

Starting with 2012, the public discourse of Thinvali authorities focused on the idea of uniting the two Ossetias, the union gaining popularity among experts and politicians.The expert community of Tvhinvali and Vladikavkaz drew attention to "the problem of separation of peoples, as an integral part of the political process", emphasizing that "according to international law, the status of the divisions holds peoples living in their historical territories, but they are in the neighboring states"[34].

Russian Ambassador to South Ossetia, Elbrus Kargiev, in an interview with the South Ossetian "Рес" news agency, said that "Ossetians should focus on the spiritual reunification of the people and gather around a single national ideology"[35]. In this regard, the creation by the South Ossetian politician, Anatoly Bibilov, of the Republican political party "United Ossetia" (September 5, 2012) is considered the initial stage of the unification process through close social and economic integration (September 18, 2012).

The idea took shape precisely on February 6, 2017, when South Ossetian President Leonid Tibilov signed a decree organizing a referendum on April 9, 2017, on renaming South Ossetia as the Republic of South Ossetia – the Alanian state, concomitantly with the presidential elections invoking "the desire of the people of the Republic of South Ossetia to restore the ancient name of their state as an integral part of their cultural and historical heritage and identity, based on the historical and spiritual continuity between the generations" and "in accordance with point 16 of the article 50 of the Constitution of South Ossetia"[36].

Robert Gagloyty, head of the South Ossetian branch of the Ossetian High Council (Styr Nykhas), stressed that "the issue of the renaming of the Republic was examined at the 6th Congress of the International Public Movement Styr Nykhas, held in Tskhinvali, and, in December 2015, the head of state "proposed the renaming of our Republic to the Republic of South Ossetia-Alania" and appointed the South Ossetian Prime Minister, D. Kulumbegov, to present concrete proposals in this regard. Later, President Leonid Tibilov reiterated this topic in his message to the people and Parliament in February 2016[37]. On March 20, 2018, within the national and cultural development program of the Ossetian people for the period 2018-2020, two coordination and consulting bodies were created in Vladikavkaz – the Expert Commission for Cooperation with South Ossetia in the field of national and cultural development of the Ossetian People and the Terminology Commission for the Ossetian Language under the Government of the Republic of North Ossetia-Alania (the head of the Department of Analysis of the Ministry of North Ossetia-Alania on national relations issues, Soslan Bagiyaev, 20.03.2018)[38]. The organization of the "referendum in the Republic of South Ossetia" was seen as "a step towards accession to Russia" and suggests that the practice that took place in Ukraine

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[33] Andrei Illarionov, "The Russian Leadership's Preparation for War 1999-2008", In: Svante Cornell and S. Frederick Starr (Eds), *Guns of August 2008,* Routledge, 2009, pp. 352-379; ***, *Avoiding War in South Ossetia*, ICG Report 159, International Crisis Group, 2004, pp. 12-19.

[34] Объединение двух Осетий, Подробнее, 18.09.2012, URL: https://flnka.ru/digest-analytics/789-i-osetin-s-osetinom-govorit.html, accessed on 23 September 2019.

[35] Южная Осетия станет Государством Алания, 6 февраля 2017, URL: https://eadaily.com/ro/news/2017/02/06/yuzhnaya-osetiya-stanet-gosudarstvom-alaniya, accessed on 23 September 2019.

[36] *Ibidem*.

[37] Леонида Тибилов, 9 февраля 2016, URL: http://osinform.org/56126-otkrytie-sportivnogo-zala-sostoyalos-v-chinvale.html, accessed on 19 September 2019.

[38] Тарханова, Жанна, *Осетины будут «следить» за языком,* 2018, URL: https://www.ekhokavkaza.com/a/29111792.html, accesse on 19 September 2019.

- cataloged as "Putin's doctrine"[39]- could be applied in Georgia as well. However, the fact that Ossetians are Orthodox Christians and even in the event of the emergence of Greater Ossetia, will constitute no more than half of the population in this region, can be considered a risk reducing factor for Russia. On August 23, 2019, Thinvali claimed Tbilisi's attempts to destabilize the state border with South Ossetia, where in the vicinity of Uista village (Tsnelis) where Georgian security forces established a checkpoint. The South Ossetian Parliament appealed to the State Duma and the Council of the Russian Federation for assistance in implementing Article 2 of the Agreement between the Russian Federation and the South Ossetian Republic on Alliance and Integration, according to which "the Russian Federation assumes defense and security, including the protection and protection of the state border of the Republic of South Ossetia"[40]. In order to stabilize the situation, at the initiative of South Ossetia, on August 29 and 30, meetings were convened within the contact group of the Mechanisms for Incident Prevention and Intervention (IPRM) with the participation of representatives of the parties, as well as the monitoring mission of the European Union and the OSCE[41].

On October 9, 2019, in the context of the 49th stage of the international discussions on security and stability in Transcaucaz, held in accordance with the Medvedev-Sarkozy agreements (August 12 and September 8, 2008) and the inauguration of the President-elect of the Republic Abhazia, Raul Khadjimba[42], Thinvali blamed Georgia's leadership for "implementing a frightening occupation plan of Ossetian territories using Western donor finances to directly and totally bribe the population of South Ossetia"[43]. Earlier, the State Security Committee in South Ossetia presented "secret documents" indicating that "Tbilisi's immediate task" is "returning lost territories or joining through financial proposals", emphasizing that "this is the essence of the new Georgian project", the step towards a better future", implemented by the political party "Georgian Dream – Democratic Georgia"[44].

In reply, on October 20, 2019, Georgia asked Russia to "immediately stop the destructive actions", activated a "helpline" and transmitted information to the EU Monitoring Mission in Georgia (EUMM Georgia). The Foreign Ministry of Georgia reported that the Russian Army has begun installing fences to mark the border in the area of Atotsi village (Karelian region), on the line separating the Tskhinvali region[45].

2.2. Polarity

The dynamics of power and balance-of-power theory have largely been used to explain the actions of autonomous states and their pursuit of security within the international system. Penetration of external poles into the South Caucasus has been treated with more sensitivity by

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[39] Putin's doctrine involves measures aimed at secession or accession to Russia of the regions (located in the post-Soviet space and which have separatist impulses), where the Russian-speaking population is the majority or where the pro-Russian people live, giving them political, economic and even military support.

[40] Соглашение между Российской Федерацией и Республикой Южная Осетия о совместных усилиях в охране государственной границы Республики Южная Осетия, Подробнее, URL: http://kremlin.ru/supplement/191/print, accessed at 10 October 2019.

[41] Южная Осетия заявила о возможном рецидиве августовской агрессии, URL: https://sputnik-ossetia.ru/South_Ossetia/20190831/9201653/Yuzhnaya-Osetiya-zayavila-o-vozmozhnom-povtorenii-voyny-v-avguste-2008-go-.html, accessed on 31 August 2019.

[42] Сообщение пресс-службы Министерства иностранных дел Республики Южная Осетия, URL: http://www.mfa-rso.su/node/3053, accessed at 12 September 2019.

Сообщение Югоосетинской делегации для средств массовой информации, 10.10.2019, URL: http://www.mfa-rso.su/node/3054, accessed at 12 September 2019.

[44] *Цхинвал обвинил Тбилиси в "ползучей оккупации" и "прямом подкупе" населения*, 09.10.2019, URL: https://ria.ru/20191009/1559603174.html, accessed at 12 September 2019.

[45] *Georgia accuses Russia of illegal 'borderization' with South Ossetia*, URL: https://uawire.org/georgia-accuses-russia-of-illegal-borderization-with-south-ossetia, accessed at 12 September 2019.

the regional pole because of its objective security concerns here. External penetration of the US and EU in the South Caucasus has been by conflict mediation, presence of the transnational companies in the energy sector and various political, economic and humanitarian projects. Regarding Moscow's policy towards Abkhazia and South Ossetia, we are talking about two distinct periods delimited by the Rose Revolution of 2003 based on Tbilisi's orientation towards NATO and the EU[46].

A turning point in Russian-Georgian relations was the signing of the Partnership for Peace between Georgia and NATO in 2005, followed by the NATO Summit in Bucharest in April 2008, where the Georgian leadership hoped to get an action plan as prospective member, and where President Mihail Saakashvili announced his administration's readiness to grant Abkhazia autonomous rights. Although the proposal provided broad political representation for Abkhazia, including a new post of Georgia's vice president reserved for an Abkhazian ethnic group and the right to impose the Abkhazian language, the proposal was rejected by Abkhazian President Sergei Bagapsh, considering it "propaganda before NATO summit"[47].

An attempt to resolve the conflicts was undertaken by German Foreign Minister Frank-Walter Steinmeier, in July 2008, as chairman of the Friendship Group. He proposed a three-step plan. The plan envisaged, firstly, the signing of the agreement of non-use of force by the parties and the return of the refugees in the first stage; and, secondly, the economic rehabilitation of the region with the help of international donors in the second phase and the determination of the political status of the Abkhazia in the final stage[48]. Steinmeier's plan found support in Tbilisi and Moscow, but was directly rejected by the Abkhazian president on the grounds that the "Republic of Abkhazia is independent"[49]. In general, the peace process both in Abkhazia and South Ossetia from the early 1990s to 2008 practically served to maintain the status quo to the detriment of Georgia's territorial integrity[50].

After recognizing the independence of South Ossetia and Abkhazia, in August the same year, Moscow installed military bases on the territory of the two Georgian provinces, despite opposition from Tbilisi and the West. The 4th United Russian military base is located in South Ossetia, whose task is to protect the sovereignty and security of Russia and the republic. The 7th military base of the Russian Federation is located in Abkhazia[51]. In an interview with Unrepresented Nations and Peoples Organization, British journalist and political analyst Thomas De Waal outlined that, in the Russian version, "integration" took into account Abkhazian and Russian military structures, the "common control" of anything and anyone crosses the borders of Abkhazia and "agreed foreign policy"[52]. On September 23, 2019, Russian

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[46] S. Fischer, *The Conflicts over Abkhazia and South Ossetia in Light of the Crisis over Ukraine*, 2014.

[47] *Abkhazia rejects Georgia's offer of autonomy*, Deutsche Presse Agentur, 29.03.2008, URL: http://reliefweb.int/report/georgia/abkhazia-rejects-georgias-offer-autonomy, accessed at 12 September 2019.

[48] *Ernüchternde Kaukasus-Reise Steinmeiers*, Neue Zurcher Zeitung, 19.07.2008, URL: http://www.nzz.ch/ernuechternde-kaukasus-reise-steinmeiers-1.787073, accessed at 12 September 2019.

[49] ***, "Abkhaz Separatists Reject German Peace Plan", in *Deutsche Welle*, 18.07.2008, URL: https://www.dw.com/en/abkhaz-separatists-reject-german-peace-plan/a-3493198, accessed at 12 September 2019.

[50] Andrei Illarionov, "Preparation of the Russian leader for the war 1999-2008", in: Svante Cornell and S. Frederick Starr (Eds), *Guns of August 2008,* Routledge, 2009, p. 58; ***, *Avoiding War in South Ossetia*, ICG Report 159, International Crisis Group, 2004, pp. 12-19., p. 58.

[51] The Russian military base is located in Abkhazia in accordance with the interstate agreement. "The agreement between the Russian Federation and the Republic of Abkhazia on a unified Russian military base on the territory of the Republic of Abkhazia" was ratified in 2011. The agreement is valid for 49 years and is automatically renewed for subsequent 15-year periods.

[52] T. De Waal, *Abkhazia: Still Isolated*, *Still Proud*, 1 October 2014, URL: http://carnegieeurope.eu/strategiceurope/73579?lang=en, accessed at 14 September 2019.

President Vladimir Putin supported an agreement on Russia's financing of the modernization of the armed forces of Abkhazia[53].

At present, regarding divergent NATO interests and perspectives in the region, certain opinions divergent observed.

Although former NATO Secretary-General Anders Fogh Rasmussen recommended Georgia "join the North Atlantic Alliance without Abkhazia and South Ossetia", the Department of State, Foreign Operations, and Related Programs Appropriations(SFOP)[54] bill for the fiscal year 2020, provides for the allocation of $ 40 million from the Foreign Armed Forces Fund (FMF), but with the mention that "no central government can benefit from the funding provided "if the US Secretary of State establishes and submits to the Lending Committee a report that Georgia has recognized the independence of Russia-occupied Abkhazia and the Tskhinvali Region (South Ossetia) or has established diplomatic relations with them"[55].

Moreover, the statement by the Georgian Prime Minister's special representative on the relations with the Russian Federation, Zurab Abashidze, on the continuation of the Russian-Georgian dialogue, in addition to the international negotiations in Geneva, indicates that the West could bring Georgia and Ukraine into a single political space and diplomatically, removing them from the anti-Russian side, but with the prospect of creating a Georgian-Ukrainian axis on NATO basis, with which Washington, through the draft law warning of Georgia's inadmissibility of the independence of Abkhazia and South Ossetia, disagree[56].

3. Linkage and Leverage

Russia has influenced and supported the efforts of Abkhazia and South Ossetia to achieve independence and has played an important role in building their states' identities, strengthening, especially after 2014, the role and position of regional power in the regional security system in the South Caucasus. Internally, although the Constitution of the Republic of Abkhazia confirms the foundations of a democratic state, it could only reflect the continuing threat of resumption of hostilities[57]. Between 2008 and 2014, it was not easy to establish where the process of building the state of Abkhazia is orientated and which national project is relevant. In domestic politics, the political programs of the different parties could not replace the national project because they often reflected contradictory views of one or another part of the society. The tendencies regarding the construction of the Abhaz state were influenced by the following factors:

- lack of a national anti-corruption program;
- dependence on Russian economic assistance;
- Russian-Abkhazian dual citizenship of the overwhelming majority of citizens;
- implementation of common border protection;
- placement of Russian military bases on the territory of Abkhazia;
- synchronization of the Abkhazian legal system with the Russian one;

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[53]«Затраты невелики»: Россия оплатит модернизацию армии Абхазии, 23.09.2019, URL: https://www.gazeta.ru/army/2019/09/23/12670429.shtml?updated, accessed at 14 September 2019.

[54] S. Rept. 115-282 - Department of State, Foreign Operations, and related Programs Appropriations BILL, 2019, https://www.congress.gov/congressional-report/115th-congress/senate-report/282/1, accessed at 14 September 2019.

[55] *Ibidem*.

[56] Stanislav Tarasov, Кто за и против признания Грузией независимости Абхазии и Южной Осетии?, URL https://regnum.ru/news/polit/2739618.html, accessed at 6 October 2019.

[57] The very adoption of the Constitution of November 26, 1994 took place, despite opposition from Russian politicians, who feared too much the independence of Abkhazia and exerted pressure on the country's top leadership. Under such difficult conditions, the Republic of Abkhazia Parliament assumed full responsibility for adopting the country's main law.

- minimum share of economic links with other countries;
- vertical power consolidation, a partial return to the old administrative schemes;
- the appearance of the individual signs of ethnocracy.

Although the messages of former President Aleksandr Ankvab addressed to the Parliament of the Republic of Abkhazia included government plans in almost all areas of state functioning, the documents could not compensate for the lack of a national development concept with long-term interests and priority areas of the country[58]. This is why the Republic of Abkhazia suffered a "nationalist revolution" in 2014 when thousands of protesters demanded on 27.05.2014 the resignation of the pro-Russian leader from Suhumi whom they accused of corruption, bad governance and especially of issuing Abkhazian passports to Georgian ethnics. Opponents of the former president, including opposition leader Raul Khadzhimba, accused Suhumi's leader of "relying too heavily on Russia's support" and the Abkhaz opposition positioned itself "in favor of a new treaty with Russia under the traditional orientation to Moscow, which to be the only guarantor of respecting its national rights and interests"[59]. On October 2, 2009, the governments of the Russian Federation and Abkhazia concluded an agreement on visa-free travel for citizens of both states. By legalizing the distribution of passports to the inhabitants of Abkhazia and South Ossetia, the Russian Federation has maintained its position of "responsibility to protect" the ethnic Russians strengthened by the statement of Dmitry Medvedev that "Russia will not allow anyone to compromise the life and dignity of their citizens"[60].

The Russian Federation has also implemented soft power mechanisms such as foundations, NGOs, religion, culture, and media. The Russiky Mir Foundation, founded in 2007 and strongly promoted by Patriarch Kirill, had two goals in promoting the "Eurasian" concept of Aleksandr Dughin[61] and many NGOs promoted Russian, the rights of compatriots and "historical realities"[62]. Another element of soft power was the Russian press which played an important role in instigating the maintenance of the conflict. At the end of 2014, a Sputnik channel was set up in the Republic of Abkhazia and the state-run news agency Apsny press is available through the Moscow-controlled Abkhazia-Inform news agency[63]. From an economic perspective, according to official figures, in 2009-2018, Russia allocated Abkhazia 44.6 billion rubles from the Russian budget, and South Ossetia received over 60 billion rubles for the same period. In the same register, Georgia Institute of Public Affairs professor Tornike Sharashenidze believes that the strategy of the Georgian authorities vis-à-vis the occupied regions is

[58] Послание Президента Республики Абхазия А.З. Анкваба Народному Собранию – Парламенту Республики Абхазия о положении в стране и об основных направлениях внутренней и внешней политики в 2013 году, 25 Дек, 2012, URL: http://apsnypress.info/news/7980.html, accessed at 14 September 2019.

[59] საზოგადოებრივი მოძრაობა „ლელო": სასწრაფოდ მოვითხოვთ პროგრესბანკის საქმის გამოძიებას, საზოგადოება, 28.05.2019, URL: https://pia.ge/post/288659-sazogadoebrivi-mozraoba-lelo-saswrafod-movitxovt-progresbankis-saqmis-gamoziebas, accessed at 14 September 2019.

[60] Соглашение от 2 октября 2009 года между правительством Российской Федерациии правительством Республики Абхазия о взаимных безвизовых поездках граждан Российской Федерации и Республики абхазия, 02.10.2009, Подробнее, URL: http://www.consultant.ru/document/cons_doc_LAW_123662/, accessed at 21 October 2019.

[61] Dmitriy Trenin, *The CIS Project – The New Priority of Russian Foreign Policy?* 2010, URL: http://silkroadstudies.org/resources/1409GrandStrategy.pdf, accessed at 14 September 2019..

[62] Brian Whitmore, *Batumi conference "A Partnership that Matters - 10 years and beyond" 2017*, URL: http://batumiconference.ge/2017/en/participants, accessed at 14 September 2019.

[63] Thomas Hammarberg and Magdalena Grono, *Human Rights in Abkhazia Today Report by July 2017*, URL: https://www.palmecenter.se/wp-content/uploads/2017/07/Human-Rights-in-Abkhazia-Today-report-by-Thomas-Hammarberg-and-Magdalena-Grono.pdf, accessed at 14 September 2019.

ineffective, primarily because it involves an identical approach for Abkhazia and the Tskhinvali region[64].

According to ex-Georgian Prime Minister Mamuka Bakhtadze's report on the implementation of the government program for 2018-2020, entitled "Freedom, Rapid Development and Prosperity", in 2018, Georgia spent about 7 million lares (about 2.5 million US dollars) on health services and medicines for residents of occupied Abkhazia and South Ossetia[65]. Georgy Mchedlishvili of the International University of the Black Sea does not consider the strategy of the Georgian authorities in relation to the occupied regions as a "definitive loss"[66]. The expert considers that, from an economic point of view, "the increase of the standard of living in Georgia will increase the chances of restoring its territorial integrity" and "Tbilisi should be prepared for the possible opening of the so-called "windows of opportunity"[67].

CONCLUSIONS

The Kremlin's policy on Georgia, throughout the Caucasus region, remains unchanged - Russia wants to regain full control over the Caucasus region, lost during the collapse of the Soviet Union.

The aim is to prevent the implementation of global transcontinental projects, such as the restoration of the old silk road (China - Middle East - Georgia - Turkey - Europe) and the creation of a new one (China - Central Asia - Caspian - Azerbaijan - Georgia - Turkey - Europe), as well as establishing links in these projects, through Georgia and the Black Sea, with Romania, Bulgaria and Ukraine, but also with an additional route to the West. In implementing these projects, Russia loses its function of being Europe's exclusive supplier not only of energy carriers, but, most importantly, it ceases to be the only land transport corridor for freight across the continent. As a result, the Kremlin will lose leverage over the West. Therefore, Russia has transformed the Caucasus region and beyond, into a powder barrel with gritty wick.

In this context, through the occupation of Crimea and Abkhazia, Russia, with only a low share of its own water area, controls the entire Black Sea. The water area of Abkhazia allows vessels in the Black Sea Fleet of the Russian Federation to be on constant alert as close to Turkey as possible, and Crimea, being the main pillar, covers the entire sea, leaving only a small part of NATO member countries to cross their waters.

Also, Russia's attempt to put Putin's doctrine into practice, by supporting South Ossetia's request to unify with North Ossetia (part of the Russian Federation) will have an impact not only on the situation in the region, but also around the world. The process that started with South Ossetia may lead, in perspective, to similar requests from Abkhazia, Transnistria and even Nagorno-Karabakh.

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[64] ***, "What do Abkhaz and Ossetians make of Georgia's 'A Step Towards a Better Future' proposal?", in *Jam News*, URL: https://jam-news.net/what-do-abkhazians-and-ossetians-make-of-georgias-a-step-towards-a-better-future-proposal /https://jam-news.net/what-do-abkhazians-and-ossetians-make-of-georgias-a-step-towards-a-better-future-proposal/, accessed on 2 October 2019.

[65] Georgian Prime Minister Mamuka Bakhtadze, **"**Georgian PM hails 2018 achievements, vows for an even better year in 2019**"**, in *Agenda.ge*, 20 December 2018, URL: https://agenda.ge/en/news/2018/2705**,** accessed at 14 September 2019.

[66] Georgy Mchedlishvili, "Azerbaijan and Georgia: how firm is the friendship?", 04 July 2019, URL: http://top-center.org/interviews/527-azerbaijan-and-georgia-how-firm-is-their-friendship.html, accessed at 14 September 2019.

[67] *Ibidem*.

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3. ***, Foreign Ministry Republic of Abkhazia [Online interview]. March/April 2018.
4. ***, Russian parliament ratifies agreement on joint Russia-Abkhazia group of forces, URL:http://tass.com/defense/910201
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THE POLITICAL PROGRAM OF PRESIDENT VOLODYMYR ZELENSKY. HIS POSITION TOWARDS CRIMEA AND SELF-PROCLAIMED REPUBLICS DONETK AND LUGANSK

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Abstract: *The victory in the election for Ukrainian President of Comedy Actor, Volodymyr Zelensky, was considered a new political beginning for this country facing an open conflict in the eastern regions, carried by pro-Russian separatists, but also with the loss Crimea following the illegal annexation by the Russian Federation.*
The paper proposes an analysis of the political course of the current leader in Kiev, focusing on the political and oligarchic entities that supported his accession to the supreme function in the state, but also the importance he attaches to the recovery of Crimea, the settlement of the conflict in the Donetsk and Lugansk People's Republics and the new separatist tendencies in Transcarpathia. It also aims to establish the position adopted by the North Atlantic Alliance, the US, the EU and the Russian Federation both towards Kiev and the separatist elements in this country.
Keywords: Ukraine; Crimea; Donetk and Lugansk; regional security complex theory.

INTRODUCTION

Vladimir Zelensky, the candidate of the Servant of the People, was elected President of Ukraine on April 21, 2019, winning with almost 73% of the votes, defeating former President Petro Poroshenko, who obtained only 25% of the votes[1]. His presidential campaign was unusual, entirely virtual, on social media platforms and videos posted on YouTube, and the connection with the mainstream media was minimal. The electoral discourse focused on creative slogans, expressed in a language specific to young people, with which he managed to mobilize a large part of the electorate in the eastern part of the country[2].

In his election program – "Ukraine of my dreams" –, Vladimir Zelensky called for the end of the war in eastern Ukraine, through direct negotiations with Russia, stressing that "he wants to build a strong and free Ukraine[3], which is not Russia's younger sister or a corrupt partner of Europe"[4]. His speech became much more nuanced near the ballot, so that on April 21, 2019[5], Vladimir Zelensky said he would not grant a special status to the Donbass region or sign an amnesty law for militants in the Donetk People's Republic/PDR. Regarding Crimea,

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[1] ***, "Ukraine election: Comedian Zelensky wins presidency by landslide", in *BBC News*, 21 April 2019, URL: https://www.bbc.com/news/world-europe-48007487, accessed on 2 October 2019.
[2] ***, "Alegeri în Ucraina. Victorie fulminantă a lui Volodîmîr Zelensky", in *Deutsche Welle,* 21.04.2019, URL: https://www.dw.com/ro/alegeri-in-ucraina-victorie-fulminanta-a-lui-volodimir-zelenski/a-48412657, accessed at 22 August 2019.
[3] Зеленський заявив про рішення йти у президенти (відео) УНІАН, URL: https://www.unian.ua/elections/10396374-zelenskiy-zayaviv-pro-rishennya-yti-u-prezidenti-video.html, accssed at 2 October 2019.
[4] Народовластие в "Стране мечты": Предвыборная программа Владимира Зеленского, 22.04.2019, читайте на, URL: https://112.ua/glavnye-novosti/narodovlastie-v-strane-mechty-predvybornaya-programma-vladimira-zelenskogo-479939.html, accessed at 2 October 2019.
[5] Three days before the 2019 presidential election.

Vladimir Zelensky listed as realistic the possibility of returning the peninsula under Ukrainian control only "after a regime change in Russia".

In his foreign policy plan, he stressed that his program provides that, by 2024, Ukraine should request an NATO Accession Action Plan (MAP) and EU accession.

His victory in the elections was perceived as a surprise especially that the political party he represented had been registered, relatively recently, in December 2017[6], under the name "Servant of the People", as well as the TV program in which he played, broadcast by the "1 + 1" TV channel owned by the businessman, the oligarch Igor Kolomoiski[7].

Most of the Ukrainian analysts did not see in Zelensky as an independent political figure, suspecting an alliance between him and Igor Kolomoiski, the former governor of Dnipropetrovsk (now Dnipro), whose purpose was to prevent the re-election of Petro Poroshenko, an opponent of the oligarch who resigned from his position as governor (March 25, 2015) and authorized the "nationalization" of the Private Banking Group held by him (2016).

A priority of the new leader from Kiev was the dissolution of the Verkhovna Rada and the organization of early parliamentary elections, after which "Servant of the People" group obtained a sufficient majority to form the new Executive alone. Thus, Vladimir Zelensky strengthened his political position, the decision-making center was concentrated in the presidential administration, the role of the Government was reduced to that of technical executor, and the new Supreme Rada, with a unitary majority and a weak opposition, also lost a significant part of his previous influence. This style of leadership is rather a super-presidential republic than the parliamentary-presidential model, which has existed in Ukraine so far.

Starting from the new realities, the article aims to answer the questions: what policy will the leader of Kiev promote regarding the conflicts in the east and the Crimea, how will he manage the secessionist tendencies in Transncarpathia and how will his decisions strengthen the position in the region of the world political actors (Russia, NATO / USA).

1. The political program of President Vladimir Zelensky in Donbass

Presented by the majority of mass-media as "a comedian without too much experience" Zelensky is a good connoisseur of the political reality and situation, supporting the Euromaidan movement in 2013-2014. During the war in Donbass, in August 2014, he met with Ukrainian military troops deployed in Mariupol and his television company donated one million hryvnia to the Ukrainian army to fund a battalion of volunteers.

From the first days after taking office, the conflict in Donbass was a priority of the president. First, it aimed to change the negotiation teams in the conflict issue in the east of the country and to attract the financial capital of the oligarchs in the reconstruction process of the Donetk region.

Thus, the special representative for the humanitarian problems of the Tripartite Contact Group for the peaceful settlement of the Donbass situation, Viktor Medvedchuk, one of the leaders of the opposition platform – for life, was removed from office. Subsequently, former President Leonid Kuchma was appointed (June 3) Ukraine's representative in the Tripartite Contact Group to resolve the Donbass conflict and Olena Zerkal was appointed (June 10, 2019) the only authorized representative of Ukraine in international courts on the relationship with Russia.

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[6] By workers of the television production company Kvartal 95 (owned by Zelensky).
[7]Зеленський заявив про рішення йти у президенти, 1 stycznia 2019, UNIAN agency, URL: https://www.unian.ua/elections/10396374-zelenskiy-zayaviv-pro-rishennya-yti-u-prezidenti-video.html, accessed on 2 October 2019.

Known for his pro-Russian stance, Viktor Medvedchuk, the head of the presidential administration in the mandate of President Leonid Kuchma, accused the Kiev leader of "opposing the special status for Donbass" and of being "against the amnesty for Ukrainian citizens living in uncontrolled territories"[8]. According to the politician, Zelensky supports the existence of a border between Ukraine and Russia although Ukrainians and Russians are united by a thousand-year history, Slavic roots and Orthodox faith and millions of relatives living in both countries.

Vladimir Zelensky sought to strengthen the position by strengthening relations with Ukrainian oligarchs and involving them in implementing his Donbass plan. On June 20, 2019, Zelensky announced the existence of a large-scale project for the reintegration and restoration of Donbass[9], estimated at over 300 billion hryvnia (approximately $11 billion) and the availability of oligarchs Rinat Akhmetov (owner of CSM), Victor Pinchuk (owner of Interpipe and son-in-law of former President Leonid Kuchima), and Igor Kolomoisky (the owner of the Private Group) to invest in Donbass[10]. The statement came in the context in which Kiev released the clues and subsequently (September 20, 2019), Vladimir Zelensky announced the authorities' intention to implement the Ukrzaliznytsia Strategy until 2023[11], approved by the government on June 12, 2019, which envisages lifting the transport block between Ukraine and DPR, established in 2017[12].

At the same time, Zelensky's team is still quite confused and inconsistent. Representatives of the new government made contradictory statements and presented inconsistent proposals and positions, especially on the two poles of instability – the pro-Russian Donbass and the national-democratic Galicia[13].

The statements of the president of the Verkhovna Rada, leader of the presidential party, Dmitry Razumkov, and the presidential adviser, Nikita Poturaev also go in this line. While Dmitry Razumkov stressed that in order to end the conflict and the return of the Donbass to Ukraine[14], there are necessary efforts in the diplomatic sphere, as well as the continuation of the "pressure of sanctions" and the solution of the problems related to the fight against corruption, economy, infrastructure, social policies, Nikita Poturaev rejected the idea of the head of the presidential administration, Andriy Bogdan, on granting an official status of the Russian language in Donbass. This inconsistency was interpreted by the Ukrainian political analyst Vladimir Skachko as a signal that "the Ukrainian authorities do not have a clear position on the Donbass and that the ruling party does not have the permission of the foreign curators to positively solve the problem in the south-east of the country"[15]. In the same register, the idea

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[8] ***, "Ukraine's Zelensky not ready to recognize special status of Donbass — opposition
So far, Kiev has refused to implement the political section of the Minsk agreements", in *TASS*, 13 June 2019, URL: https://tass.com/world/1063519, accessed at 2 October 2019.

[9] At the Congress of the Party Servant of the People from Kiev.

[10] Олигархи еще не знают: Зеленский убедил скинуться на Донбасс, 20 June 2019, URL: https://www.gazeta.ru/business/2019/06/20/12430639.shtml, accessed on 3 October 2019.

[11] The document states that in case of lifting the transport blockade in 2021, the volume of coal transported to Donbass will be 40% of the quantity in 2016, 30% of the iron ore, and 15% of ferrous metals. Moreover, by 2030, is also expected the doubling of indicators.

[12] ***, "Зеленский готовит план по снятию блокады Донбасса", in *Newzz Feed Agency*, 20 June 2019, URL: https://newzfeed.ru/106114-zelenskij-gotovit-plan-po-snyatiyu-blokady-donbassa/, accessed at 3 October 2019.

[13] ***, Carnegie Moscow: Что означает победа партии Зеленского на парламентских выборах, URL: https://carnegie.ru/commentary/79539, 22 July 2019, accessed on 3 October 2019.

[14] In an interview with the Russian daily Kommersant on May 08, 2019.

[15] ***, "Заявление Разумкова о мире в Донбассе показало, что Киев идет по пути Порошенко", 5 Августа 2019, URL: https://nahnews.org/1012300-zayavlenie-razumkova-o-mire-v-donbasse-pokazalo-chto-kiev-idet-po-puti-poroshenko?utm_source=onesignal&utm_medium=push&utm_campaign=main, accessed on 3 October 2019.

of organizing a referendum was catalogued by Nikolai Mikhalchenko, the head of the Academy of Political Sciences of Ukraine, as a clear signal that, 2at this moment, in the parliamentary faction Servant the People's does not have a coordinated point of view"[16].

However, it was Vladimir Zelensky who took the first step towards Russia. Thus, during a press conference organized with NATO Secretary General Jens Stoltenberg in Brussels (June 05, 2019), the Kiev leader expressed his openness to launch negotiations with Moscow to end the separatist conflict in Donbas and guarantee stability in the Black Sea region. Later, in a video post on Facebook (July 08, 2019), he invited Russian President Vladimir Putin to a face-to-face discussion in Minsk, in the presence of leaders from the United States, France, Germany and the United Kingdom, to discuss "Who belongs to Crimea, and who is or is not present in the Donbas?"[17].

The invitation was launched in the context in which two television stations in Ukraine: NewsONE, owned by Viktor Medvedciuk, and Rossia 24, known as a station representing the interests of Russia, planned a televised debate called "The Bridge of Televisions" on July 12, in which two television stations from Russia were also expected to participate. The title of the show was "We must discuss" and the subject of the bilateral relationship of the two countries including the conflict in Donetsk Valley. The show was to be mediated by Dmitri Kiselyov, whom part of the Ukrainian press claims is a Kremlin propagandist. The project created a major political and social dispute in Ukraine. The new party of former President Petro Poroshenko, "European Solidarity", described the media project as a real danger for the interests, sovereignty and territorial integrity of Ukraine and "Holos" (Voice) party, led by Svietoslav Vakarciuk, declared that the move is a Kremlin challenge.

Another move by the Kiev leader took place (August 7, 2019) amid increasing tensions in the region, despite the armistice regarding ceasefire[18] agreed on July 20, 2019, by the Contact Group for Regulating the Situation in South-East Ukraine[19]. Volodimir Zelensky urged leaders of Russia, Germany and France to resume talks as soon as possible to find a peaceful solution to the separatist conflict in Donbas, after four Ukrainian soldiers were killed the town of Pavlopil, near the strategic port of Mariupol, controlled by Kiev. The same day, he had a telephone conversation with his Russian counterpart Vladimir Putin, who asked him to "influence the other party, so as to stop the killing of people"[20], and with French leader Emmanuel Macron in which he pleaded for a meeting in Normandy format[21].

But the decision of the Ukrainian authorities on solving the situation in eastern Ukraine, with the greatest impact, was the signing, on October 1, 2019, in Minsk, together with the participants in the tripartite contact group for solving the conflict in the east of Ukraine, of the

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[16] *Ibidem*.

[17] ***, "Volodimir Zelensky l-a invitat pe Vladimir Putin la o discuție față-n față, în prezența liderilor SUA, Franței, Germaniei și Marii Britanii", in Radio Europa Libera Moldova, 08 iulie 2019, URL: https://moldova.europalibera.org/a/30043580.html, accessed on 3 October 2019.

[18] The truce entered into force on the day of the early parliamentary elections in Ukraine, from July 21, at 00 and 01 minutes, Kiev time. In the Stansita Luganskaia region, the separation of the parts and military equipment was completed, and the members of the group agreed that all the fortifications in the area should be dismantled at the same time by both parties and that the bridge be repaired at the same time.

[19] Мила Кальмиус, специально для Новостного Агентства «Харьков», Замглавы МИД ЛНР обратилась к гарантам «Минска-2» в связи с эскалацией в Донбассе, 4 Августа 2019, URL: https://nahnews.org/1012287-zamglavy-mid-lnr-obratilas-k-garantam-minska-2-v-svyazi-s-eskalaciei-v-donbasse, accessed on 3 October 2019.

[20]Зеленский после звонка Путину срочно собирает встречу в «нормандском формате», 7 Августа 2019, URL: https://riafan.ru/1201902-zelenskii-posle-zvonka-putinu-srochno-sobiraet-vstrechu-v-normandskom-formate, accessed on 3 October 2019.

[21] Зеленский обсудил с Макроном встречу в нормандском формате, 7 Августа 2019, URL: https://russian.rt.com/ussr/news/656762-zelenskii-makron-vstrecha, accessed on10 October 2019.

"Steinmeier formula"[22]. Ukraine has thus given the preliminary agreement for the organization of local elections in the eastern regions, which could then receive the status of self-government and opened the way to a first international summit, which has not been organized since 2016. The decision was welcomed by the Russian side but generated controversies in the political class, both among nationalists and radical elements, as well as between the leaders of the two popular republics. Ukrainian nationalists staged protests in Kiev, Kharkov, Lviv, Odessa and other cities and the leader of the nationalist "Svoboda" party, Oleh Tiahnibok, said the agreements are merely "a miserable piece of paper"[23] meant to force Ukraine to capitulate in front of the Russian will.

Vladimir Zelensky gave assurances that the elections will be held only after the armed groups leave the separatist territory, and Kiev will have control over the 400 km border segment with Russia[24]. He also stated that the current law on the special status of Donbass, valid until the end of 2019, will be replaced by a new law that will be approved by the Verkhovna Rada in which "no red line will pass, and there will be no capitulation"[25].

The assurances given by the Ukrainian leader were not convincing, the decision of Kiev being perceived as a surrender by the leader of the National Corps Party and the founder of the Azov "volunteer" battalion, Andrey Biletsky. He threatened (27.10.2019) that 10 thousand fighters would arrive in the village of Zolotoye if the authorities would remove "veterans" from the military operations in the southeast of the country from their positions and start withdrawing their forces. He added that, regardless of the "attacked" side, the Ukrainian nationalists will not abandon their positions and "will not allow teaching"[26].

But what is worth noting is the willingness of President Vladimir Zelensky to fulfil the conditions for a meeting of leaders from the countries of Normandy format – Ukraine, France, Germany and Russia[27], which could take place on November 24 or 26. At the meeting, participating countries intend to discuss the implementation of the Minsk agreements, the Steinmeier formula, the special status of Donbass, the Ukrainian border control with Russia and local elections in certain areas of Donetsk and Lugansk regions.

Later, Vladimir Zelensky announced (October 10th, 2019) that a Normandy meeting would also officially discuss the issue of a peacekeeping mission under the UN aegis, in Donbass, on the border between Ukraine and the Russian Federation. The idea of sending UN peacekeepers to Ukraine was backed by Russian President Vladimir Putin, specifying that they would only ensure the security of OSCE employees[28].

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[22] The formula was proposed by former German Foreign Minister Frank-Walter Steinmeier. He said that Donbass should be granted a "special status". The agreements provide that both sides – the Ukrainian army and pro-Russian separatists, actively supported by Moscow, withdraw their weapons and troops; Kiev would amnesty those separatist fighters who did not commit serious crimes; Ukraine would regain control over its eastern border with Russia, but also organize local elections in Donbas, respectively, to grant the region some form of autonomy.

[23] Националисты «Азова» пытались прорвать линию обороны ополчения в Донбассе, 30.08.2019, URL: https://nahnews.org/1012694-nacionalisty-azova-pytalis-prorvat-liniyu-oborony-opolcheniya-v-donbasse?utm_source=onesignal&utm_medium=push&utm_campaign=main, accessed on 10 October 2019.

[24] Which means that all candidates and all political parties will have the right to participate. In the past, separatists have always said they would not allow the registration of Ukrainian nationalist politicians.

[25] *Ibidem.*

[26] Опасные «добровольцы»: основатель «Азова» пригрозил Зеленскому отправить тысячи радикалов в Донбасс, 27 Октября 2019, Об этом сообщает Рамблер, URL: https://news.rambler.ru/army/43061625-opasnye-dobrovoltsy-osnovatel-azova-prigrozil-zelenskomu-otpravit-tysyachi-radikalov-v-donbass, accessed on 10 October 2019.

[27] Negotiations on the conflict settlement in Donbass are held in a Tripartite Contact Group in Minsk (Ukraine, Russia, OSCE), as well as in Normandy Format, with representatives of Ukraine, France, Germany and Russia. The heads of state of the Normany Format met last meeting was on October 19, 2016, in Berlin.

[28] Зеленский: вопрос миротворцев в Донбассе обсудят на встрече"четверки", 10.10.2019, URL: https://ria.ru/20191010/1559618434.html, accessed on 10 October 2019.

On November 11, 2019, Russian President Vladimir Putin and German Chancellor Angela Merkel concluded[29] that an agreement that precedes the granting of a "special status" would be established by a law that would be adopted by Ukraine itself. In addition, the two leaders also discussed an ever-busy Kiev-Moscow-Berlin-Paris summit.

Exponents of the analytical environment in Russia and Ukraine saw in this approach a victory of Moscow that managed to obtain not only the support of Germany and France for the separatists from the east of Ukraine, but also a consolidation of their influence in the region, evidenced by the successful implementation of the process of granting Russian citizenship to the inhabitants of the eastern regions who requested this, and by the results of the most recent opinion poll conducted by New Image Marketing at the request of the Ukrainian Institute of the Future and the newspaper Dzerkalo Tyzhnia.

Thus, according to Ukrainian military prosecutor Anatoly Matios, at the beginning of August 2019, over 13 thousand people from the east of the country had received Russian citizenship[30], especially after on July 17, Vladimir Putin signed a decree on simplifying the acquisition of Russian citizenship by all the residents of Donbass according to which, the citizens of Ukraine and stateless persons with temporary residence permit or residence permit in Russia, as well as a refugee certificate or temporary asylum certificate will be able to apply for a Russian passport in a simplified way.

Regarding the results of the survey, conducted between October 7 and 31, 2019, with an error of no more than 3.2%, on a batch of 1,606 respondents: 800 in Lugansk region and 806 in Donetsk, in a top of the confidence Vladimir Putin occupied the first position, 11.2% of the respondents voting for him, while for Vladimir Zelensky they only voted – 1.3%. According to the survey:

- 34.2% of Donbass residents want to obtain Russian citizenship;
- 7.4% of the respondents stated that they have already received Russian passports;
- 50.9% want union with Russia;
- 13.4% want to become part of Russia, but with a special status.

At the end of September, RDP chief Denis Puşilin called integration with Russia a "priority for the republic"[31].

Ukrainian Defense Minister Andrii Zagorodniuk considered that the position of leader of Vladimir Putin's trust ranking "is the result of the informational war carried out by Moscow in the Donetsk People's Self-proclaimed Republic"[32].

Moreover, political analyst Daria Platonova, from the portal Geopolitika.Ru[33], noted the presence in Kiev, before the protests in early October, of the ideologist Bernard Henri Levy, "a representative of radical globalism" and "craftsman of the Euromaidan"[34]. According to her,

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[29] During a phone conversation.

[30]На Украине допрашивают получивших российские паспорта жителей Донбасса, 02.08.2019, URL: https://ria.ru/20190802/1557126894.html, accessed on 10 October 2019.

[31] Путин обошел Зеленского в украинском рейтинге доверия жителей Донбасса, 10.11.2019, Подробнее на РБК URL: https://www.rbc.ru/society/10/11/2019/5dc7ccdc9a79476ab67f122f, accessed on 10 November 2019.

[32]В Киеве объяснили «зомбированием» доверие жителей ДНР к Путину, 11.10.2019, URL: https://www.rbc.ru/politics/11/11/2019/5dc899fd9a7947183b69a430, accessed on 20 October 2019

[33] Geopolitika.ru Portal is a platform for continuous monitoring of the geopolitical situation in the world, based on the application of methods of classical and postclassical geopolitics. The portal follows the line of the Eurasian approach. The analytical group cooperates closely with the International Eurasian Movement, as well as the Center for Geopolitical Expertises, the Center for Conservative Studies and some ex-members of Katehon think tank.

[34] In her opinion, the radicalism of Levy's understanding of globalism lies in the fact that he views globalism as a philosophical phenomenon, calling it "Empire" in his book *The Empire and the Five Kings*. In this vision, the five kings are – Russia, Iran, China, Turkey and the Sunni states represented by Saudi Arabia, while the rest of the states are the enemies of this Empire.

"Levy's presence indicates that either the country is already under the domination of globalist discourse, or in the near future will be subject to attempts to destabilize the internal situation"[35] in which Russia will play an important role. The analyst recalled that on March 30, 2019, around the Ukrainian presidential elections, Levy had a meeting with the candidate for the Presidency, Vladimir Zelensky, to which the media access was not allowed.

Regarding the US position on the armed conflict in Donbass, the special representative of the State Department for Ukraine, Kurt Walker, considered "quite realistic" a possible involvement of US President Donald Trump in the Normandy talks, emphasizing that "Washington prefers to be based on the actions of the Russian Federation"[36]. However, he assured that the United States is interested in supporting initiatives, including negotiations, which could lead to the end of the armed conflict in Donbass. Later, Kurt Walker claimed that "The Minsk Agreements establish that Ukraine will regain control over the globally recognized border with Russia and that the territory will be returned under its sovereignty"[37].

2. The political program of President Vladimir Zelensky in Crimea

If during the election campaign Vladimir Zelensky did not express a clear position on the status of the peninsula, the candidate for the Presidency considering that the annexed Crimea will not be returned to Ukraine until the change of power in Russia, after the victory in the elections, his official speech focused on the idea of returning Crimea in the composition of Ukraine. Thus, Zelensky named Anton Korinevici the permanent representative of the President of Ukraine in the Autonomous Republic of Crimea, at the end of August, set as the main objective of the Verkhovna Rada, the "return" of the peninsula to the country and, during the Yalta European Strategy Forum (September 13, 2019), he asserted that it will fight for the "return of Crimea not just with words"[38].

For the implementation of his policy, the deputy head of the Office of the President of Ukraine, Ruslan Ryaboshapka, had negotiations with the Permanent Representative of the President of Ukraine in Crimea, Anton Korinevici and with the prosecutor of the Republic of Crimea, Gunduz Mammadov on the need to re-develop a Strategy. According to him, it is preparing the implementation of the concept of transitional justice, which will help to restore peace in the "occupied" territories, to eliminate the violations of the rights of the Ukrainian citizens, to the responsibility of the criminals and to recover the damages but also "to create a working group that will develop "the framework legally for the return of the parties from the Donetsk and Lugansk and Crimea and Sevastopol regions to the control of Ukraine"[39].The main directions of activity of the power group are planned to be presented in the near future, and the first package of specific initiatives is planned for 2020. In his opinion, without having his own experience in post-conflict resolution, Ukraine will take into account international practices[40].

Confirming the priority in his policy of this topic, in his first discurs to the UN General Assembly, Zelensky asked (September 26, 2019) the world's leaders for help, emphasizing that

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[35]Приезд Бернара Анри Леви на Украину назвали «черной меткой», 22 Сентября 2019, URL: https://riafan.ru/1213601-priezd-bernara-anri-levi-na-ukrainu-nazvali-chernoi-metkoi, accessed on 30 October 2019.

[36] Волкер: особый статус Донбасса и амнистия не нанесут политического ущерба Украине 23.09.2019, URL: https://tass.ru/mezhdunarodnaya-panorama/6918029, accessed on 10 October 2019.

[37] *Ibidem.*

[38] Зеленский заявил о намерении «бороться» за Крым «не только словами», 13 сентября 2019, URL: https://russian.rt.com/ussr/news/667939-ukraina-zelenskii-krym, accessed on 13 November 2019.

[39] Зеленский запланировал возвращение Крыма и Донбасса, 15 Августа 2019, Об этом сообщает Рамблер. Далее, URL: https://news.rambler.ru/ukraine/42668631-v-komande-zelenskogo-razrabotayut-plan-povozvras-cheniyu-kryma-i-donbassa/, accessed on 10 November 2019.

[40] *Ibidem.*

"the recovery of all occupied territories of Ukraine is his overriding goal" and then he proposed (October 9, 2019) that the issue of Crimea will be discussed during negotiations in the so-called Normandy format. The president stressed that the government intends to return to Crimea, but that there is no "formula" for this process and Ukraine could not cope with the return of the peninsula without the help of international partners.

Initial support, at least on a declarative basis, was provided by US Secretary of State Mike Pompeo, who presented Washington's position on Crimea. In a discussion at the non-governmental organization of the Washington Economic Club, Pompeo said that Crimea "should return to Ukraine". In addition, Pompeo mentioned that Washington cooperates with the new Ukrainian authorities.

Crimean Parliament Speaker Efim Fix reacted harshly to Pompeo's statement, pointing out that "Washington's position on Crimea's membership is not at all interesting to Crimeans. Crimea is an integral part of the Russian Federation"[41].

3. Vladimir Zelensky's decisions regarding secessionist tendencies

Ever since the first weeks of his term, the Kiev leader has been confronted with ideas about the federalization of Ukraine, launched mainly by exponents of the analytical environment and pro-Russian media.

Political analyst Oleg Khavich[42] presented the scenario for the division of Ukraine into three independent states: Novorossiya, Malorussia[43] and Western Ukraine, which the expert named Ruthenia, after the old Austrian name for this territory (Figure no. 1)[44].

Figure no. 1: Map of Ukraine showing the ambitions
of the pro-Russian separatists in eastern Ukraine[45]

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[41] В Крыму жестко отреагировали на заявление Помпео, 4 Августа 2019, URL: https://sovetov.su/topnews/10479-v-krymu-zhestko-otreagirovali-na-zajavlenie-pompeo/, accessed on 10 November 2019.

[42] Blogger and analyst at the Institute of Western-Ukrainian Studies in Cernăuți, was arrested in 2017, requested political asylum and lives in Warsaw (Poland).

[43] Malorusia – term that in the Czarist era designated the territories that correspond largely to modern Ukraine.

[44] Политолог предлагает поделить Украину на три независимых государства, 29 Мая 2019, URL: https://nahnews.org/1011167-politolog-predlagaet-podelit-ukrainu-na-tri-nezavisimyh-gosudarstva, accessed on 10 November 2019.

[45] Source: Agence France-Presse (AFP), URL: https://www.afp.com/en/products/graphics, accessed on 17 September 2019.

The scenario was interpreted by the Ukrainian political analyst Valery Melnikov as a signal that "Moscow strengthens its position and forces two other guarantors, France and Germany, to take measures to force Ukraine to peace"[46].

Later, after a bilateral meeting with US President Donald Trump at Helsinki, President Vladimir Putin proposed to his American homologue to support a referendum in Donbass, involving international legal organizations, Russian political scientist Sergei Markov presented a possible scenario in which if a referendum will be held in Donetsk and Lugansk, "the Ukrainian regions of Kharkov, Odessa, Zaporizhia and Nikolaev will want to meet with the Russian Federation", arguing that "over 75% of the population of these regions would opt for joining Russia"[47].

In order to protect the sovereignty and territorial integrity of Ukraine, the assistant to the President of Ukraine, Andriy Yermak proposed (on September 23, 2019) the signing of a new international treaty involving the United States of America, the United Kingdom, Germany, France and China, without Russia.

The proposal was commented by former President of Ukraine Petro Poroshenko (in opposition) on his personal Twitter account, pointing out that "an agreement that reliably protects Ukraine's interests is NATO"[48] and the first step towards the organization is the Action Plan for NATO membership (MAP) which should be included on the agenda of the next NATO summit in December[49].

CONCLUSIONS

By adopting Steinmeier's formula, Vladimir Zelensky announced that Kiev is preparing a new law on the special status of uncontrolled areas. If the law can be adopted in a form that is not opposed to the negotiators of the Normandy format and the Minsk Group, this will be an important step in resolving the situation in the eastern republic.

Also, Ukraine is practically forced to sit at the negotiations table with the leadership of the so-called Donetsk and Lugansk republics, thus following the Moscow scenario which, due to this formula, becomes a mediator, and the issue of the aggression executed by Russia is no longer discussed.

At the same time, the support from Germany and France has led to the consolidation of the Russian Federation's position in the region, which indicates that Moscow continues to apply its foreign policy line, the so-called "Space Strategy" in which Ukraine, in the current regional context, under pressure from NATO and the EU, became the most important buffer state for Russia. Given Ukraine's increasingly pro-Euro-Atlantic tendency, Russia continues to implement the two tactics it has frequently used throughout its history: dismantling and destabilizing Ukraine. The purpose of this strategy is to keep the country as weak as possible. From a synoptic point of view, the movements are increasingly visible as it is obvious that the role assumed by the United States in the region is being challenged with increasing intensity by Moscow.

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[46] Валерий Мельников, 29 Мая 2019, Об этом сообщает, URL: https://news.rambler.ru/ukraine/42252041/?utm_content=rnews&utm_medium=read_more&utm_source=copylink Горловская инициатива: станет ли Донбасс снова частью Украины, accessed on 10 November 2019.

[47] «Одесса, Харьков и Запорожье»: в Москве заявили – если Донбасс уйдет, то за ним последует вся Украина, 20.07.2019, URL: https://nahnews.org/1005483-odessa-kharkov-i-zaporozhe-v-moskve-zayavili-esli-donbass-uidet-to-za-nim-posleduet-vsya-ukraina?from=push#at_pco=smlrebv-1.0&at_si=5d5d568ee56f1f5b&at_ab= per-2&at_pos=2&at_tot=6, accessed on 10 November 2019.

[48] Киев предложил новый договор о суверенитете Украины Зачем это Зеленскому, и как отреагирует Москва 23.09.2019, Подробнее на РБК, URL: https://www.rbc.ru/politics/23/09/2019/5d88a1629a79475bd0d2f727, accessed on 10 November 2019.

[49] *Ibidem.*

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UKRAINE TO BOOST ITS DEFENCE AGAINST RUSSIA

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Abstract: The new conflicts that are arising at international level tend not to fall within the sphere of traditional conflicts which humanity saw in the last century, and in our opinion cannot be resolved through actions such as peace treaties, peacekeeping operations or ceasefire conventions. The new clashes are conducted through hybrid actions. Such a conflict has been going on in Ukraine since 2014. The reasons for its outburst and the main actions taken at international level to resolve this conflict will be discussed in this article.
Keywords: Ukrainian crisis; crisis management; hybrid actions; peacekeeping operations; Ukraine war.

> *„I gave you anti-tank busters' while Obama gave you pillows"*
> *President Trump, 28 September, 2019[1]*

1. The Ukrainian crisis

World tends to strife through new conflicts, and Ukraine is a kind of novelty, despite the premonitions of various intelligence actors. To start from the beginning, Ukraine used to be the third world nuclear factor, before Budapest treaty (1994) stripped it in a premier era deal. Ukraine agreed to transfer its nuclear arsenal to Russia, and receiving, in exchange, security guaranties from United States, Russia and United Kingdom.

By analysing this case we will uncover different destabilizing actions that Russia performed, at economic, social or political level. On the military level, Russia opened the Pandora's Box by sending to Ukraine the "little green men", military without declared allegiance, in total disrespect of Geneva Convention that Russia (actually the deceased and resuscitated Soviet Union) signed and ratified in 1960.

Today, it is a certainty among Western analysts, that hybrid actions undertaken by Russia against Ukraine began several years ago. In 2010, the Ukrainian national *cybernetic infrastructure* became the target for a malware known to specialists under the name of Snake. This virus targeted a variety of diplomatic and governmental systems, as well as private accounts. Through it, Russia's intelligence services had unhindered access to some of the most secret information of Kiev.

Other field used by Russia in order to lever Ukraine was the energy sector. The gas pipelines management had been used to influence political leaders in strategic decision making process since 2008. After a main supporter of the Moscow regime, President Victor Yanukovych, was ousted from power in February 2013, after countless street fights between

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[1] Julio Rosas, "Trump tells Ukrainian president: 'I gave you anti-tank busters' while Obama gave you pillows", in *Washington Examiner*, 25 September 2019, URL: https://www.washingtonexaminer.com/news/trump-tells-ukrainian-president-i-gave-you-anti-tank-busters-while-obama-gave-you-pillows, accessed on 10.10.2019.

pro-democracy supporters and Ukrainian law enforcement forces, Russia decided to step in with more material measures. From various documents and evidences presented, both in Brussels, within the EU and in NATO specialized forums, it had been proven that Russia had decided to supply the rebel separatists in eastern Ukraine with weapons, in order to control the region, and ultimately to gain control over the entire east of Ukraine and the Black Sea coastal area.

This type of actions carried out by Russia are not oriented only against the democratic states that have struggled to get rid of its hegemonic and malign influence. We consider that such actions, strongly sustained by an international media campaign through its main outlets (Russia Today and Sputnik), coupled with little or no international material opposition or strong countermeasures, will develop in time some sort of international recognition.

The lack of solid measures taken by the global powers or the international organizations may lead the public opinion to the conclusion that the doctrines and commitments signed by the Western partners may be easily overridden by blunt force. If such an offense is initiated against a less powerful NATO member, one with less developed military capabilities, will the Article 5 of Washington Treaty be enforced? We can be certain of the political unity in such regard, but many NATO members may be reluctant in risking the lives of their citizens in the first place. That is why NATO has put together a system of initial entry force, the Very High Readiness Joint Task Force, and also a pool of forces to follow on (IFFG). These forces are generated by member nations' contribution, on rotational basis, and represent a serious deterrent factor in the Russian equation. Apart from the response force, NATO decided, in 2017, to enforce its most sensitive border, in the Baltic countries and Poland. The initiative engaged four its most vigorous members (United States, United Kingdom, Canada and Germany) as framework nations, and today it is called *Enhanced Forward Presence*. Today this presence consist of up to 5000 soldiers[2] and the capabilities deployed, connected with US close support forces in Germany, proved to act as a strong deterrent factor not only in the capabilities itself, but also in the prospect of alliance unity.

Going back to the crisis in Ukraine, it emerged in November 2013, amid political and economic tensions that led to mass protests against pro-Russian President Viktor Yanukovych. In March 2014 Russia illegally took control over the Crimean Peninsula through force. Only two months apart, Donetsk and Lugansk, two regions in eastern Ukraine, were also shaken by events that led to the launch of a referendum for independence, initiated by pro-Russian separatists[3].

In the conflict that is still going on in eastern Ukraine, between the separatist forces and the Ukrainian army, it is estimated that 10,300 people were killed and approximately 24,000 were injured[4] . Although, Russia never officially acknowledged this, separatist forces in eastern Ukraine were constantly supported with military equipment and troops by Moscow. Testimonies to this fact are the numerous reports issued by the OSCE Monitoring Mission, as well as the official reports presented by Ukraine, NATO or the European Union.

Being in the eastern vicinity of the European and Euro-Atlantic security space, this situation was treated with a special interest because it represents a very high security risk. In February 2015 France, Germany, Russia, Ukraine, the leaders of the self-proclaimed republics of Donetsk and Lugansk, and an OSCE representative sat at the negotiating table trying to find

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[2] ***, NATO's Enhanced Forward Presence. Fact Sheet, March 2019, URL: https://www.nato.int/nato_static_fl2014/assets/pdf/pdf_2019_04/20190402_1904-factsheet_efp_en.pdf, accessed on 10.09.2019.

[3] ***, The crisis in and around Ukraine, OSCE portal, URL: https://www.osce.org/ukrainecrisis, accessed on 11.09. 2019.

[4] ***, Conflict in Ukraine enters its fourth year with no end in sight – UN report, URL: https://www.ohchr.org/en/newsevents/pages/displaynews.aspx?newsid=21730, accessed on 12.09.2019.

a peaceful solution for this conflict. The peace treaty that resulted from this negotiation was called the Minsk Agreement and included 13 points. The most important of them were the ceasefire agreement, the withdrawal of heavy weapons from the front line and the extraction of separatist militias, a range of economic measures and constitutional reforms, as well as unimpeded access of OSCE representatives in the occupied territories and international observers to the local elections[5].

Unfortunately, since there was no serious guarantor of the agreement on the ground, countless violations of this agreement were documented by the OSCE mission members. Both pro-Russian separatist forces and Ukrainian government forces claim that the other party has taken action in order to violate the agreements. According to the latest reports released by OSCE from October to the end of December 2018, there were 212 civilians casualties[6]. A real estimate of the number of people affected by this conflict cannot be made precisely because, in the areas controlled by pro-Russian rebels, access is currently restricted and OSCE monitors cannot provide the necessary information.

Although the main factors involved in this conflict are trying to find viable solutions to avoid escalating the current crisis, we believe that the end of this conflict will not be reached too soon, and the most appropriate solution would be to deploy peacekeeping forces under UN mandate, consisting of a sizable European forces from NATO and non-NATO nations.

2. The reconstruction of the Ukrainian security space

With the proclamation of independence in 1991, Ukraine inherited from the USSR the third largest number of nuclear weapons in the world and, at that time, its army numbered about 780,000 soldiers. On December 5, 1994, the Budapest Memorandum was signed, which guaranteed Ukraine's independence and territorial integrity by the signatory states, Russia, the United Kingdom and the United States of America, and thus Kiev had renounced the entire nuclear arsenal, which was transferred into the Russian Federation. Of the total number of active-duty military personnel at that time, today, with the resignation of the mandatory military service in 2008, the Ukrainian army has about 205,000 active-duty military personnel and about one million reservists. It ranks 29th in the world in number of personnel and firepower[7].

Regarding the Ukrainian Air Forces, they do not have a considerable number of fighter, attack and transport aircrafts, and most of them are old generation dating back from the time when Ukraine belonged to the former Soviet Union. The Land Forces, in terms of the number of military equipment it can rely on, are ranked among the first 10 in the world, with 2,031 tanks, 10,200 armoured carriers and no less than 2,778 artillery pieces. Naval Forces have been directly affected by the illegal annexation of Crimea and, at this moment, they have only 25 ships[8].

The main threat the Ukrainian armed forces face today is Russia and its growing appetite towards east, in the Azov Sea and along the Black Sea coastline. At this time, after the illegal annexation of Crimea, the Russian Federation managed to create a very powerful joint force consisting of naval, land and air forces. The plan to upgrade and equip Russia's Black Sea fleet is ambitious and envisages the acquisition of six new diesel submarines of Rostov-on-Don type and six new frigates of Admirals Grigorovych-type. This can only be a cause of concern, not

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[5] ***, Minsk peace agreement: still to be consolidated on the ground. Briefing, European Parliament, 12 February 2015, URL: http://www.europarl.europa.eu/EPRS/EPRS-Briefing-548991-Minsk-peace-summit-FINAL.pdf, accessed on 12.09.2019.
[6] ***, Conflict in Ukraine enters its fourth year with no end in sight – UN report, https://www.ohchr.org/en/newsevents/pages/displaynews.aspx?newsid=21730, accessed on 12.09.2019.
[7] ***, Ukraine military strength, in Global Fire Power, URL: https://www.globalfirepower.com/country-military-strength-detail.asp?country_id=ukraine, accessed on 13.09.2019.
[8] *Ibidem*.

only for Ukraine, but also for NATO member states that have access to this sea. The Anti-Access / Area Denial (A2 / AD) system deployed by Russia on the Crimean peninsula is also a threat to Ukraine's security space[9]. In the event of an attack coming from Russia, no allied country or organisation will be able to intervene until very late, after this system will be, eventually, disengaged.

On the other side, this is not the first time when Russia acts with no respect on regard to the international law. Such actions took place, over time, in Georgia (2008) and the Republic of Moldova (1992), conflicts in which Moscow had intervened both militarily and in providing arms support for the separatists.

The main measures undertaken in order to modernize the Ukrainian armed forces are mainly the purchase of modern combat equipment, but also training with NATO member states' military specialists. As we mentioned in the motto, in March 2018 the United States approved the $47 million sale of 210 missiles and 37 Javelin launchers to Ukraine[10]. The system, named officially FGM-148, is one of the most advanced portable anti-armour missile systems in the world, allowing one infantry soldier to engage the target from range of a minimum 75 metres to maximum 4000 metres, in the fire-and-forget mode, by infrared initial guidance, providing the operator with enough time to take cover before the flight phase becomes visible. The rocket strikes the armoured vehicle from above, where the cover is thinnest, and the success rate exceeds 90% for a qualified operator. If this sale satisfied the tactical force, on the higher, strategic scale, the effects were beyond expectations. It was noticed an immediate withdrawal of all the tanks and armoured vehicles, and the number of casualties met an historic lowest level. It was a clear example that more weapons bring sustainable peace or, at least, the weapon balance is able to do so.

In light of the latest developments, the US Department of State has approved the sale of lethal weaponry to Ukraine, and in July 2018 the Department of Defence announced that it will provide a total of $200 million to develop Ukraine's defence capabilities[11]. These amounts were to be used for purchasing weapons. In June 2019, the Pentagon announced plans to provide $250 million to Ukraine in security cooperation funds for additional training, equipment, and advisory efforts to build the capacity of Ukraine's armed forces. The Department of State separately planned to provide $141 million in aid[12]. The U.S. has committed more than $1.5 billion in security assistance to Ukraine since 2014 and the Department of Defence (DoD) is set to include sniper rifles, rocket-propelled grenade launchers, counter-artillery radars, electronic warfare detection and secure communications, night vision equipment and military medical supplies and treatment. DoD has previously included counter-sniper equipment, modern vehicles and tactical drones as well[13]. It is worth to mention that the US aid for the Ukrainian Army included also Lockheed Martin AN/TPQ-53 radar systems, able to track incoming mortar and short-range artillery fire, anti-armour weapon systems, mortars, crew-

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[9] ***, "Russia's Anti-Access Area Denial", in *Missile Defence Advocacy Alliance*, URL: https://missiledefenseadvocacy.org/missile-threat-and-proliferation/todays-missile-threat/russia-anti-access-area-denial-coming-soon/, accessed on 14.09.2019.

[10] Luis Martinez, "What are Javelin missiles and why they're being mentioned repeatedly during the impeachment hearings", in *ABC News*, 15 November 2019, URL: https://abcnews.go.com/Politics/javelin-missiles-ukraine/story?id=65855233, accessed on 15.11.2019.

[11] Global Conflict Tracker. Ukraine, URL: https://www.cfr.org/interactive/global-conflict-tracker/conflict/conflict-ukraine, accessed on 15.09.2019.

[12] Joe Gould, Howard Altman, "Here's what you need to know about the US aid package to Ukraine that Trump delayed", in *Defense News*, 25 September 2019, URL: https://www.defensenews.com/congress/2019/09/25/what-you-need-to-know-about-the-us-aid-package-to-ukraine-that-trump-delayed/, accessed on 17.10.2019.

[13] *Ibidem.*

served weapons and ammunition, grenade launchers and ammunition, and small arms and ammunition – but also unspecified "cyber" and "electronic warfare" capabilities[14].

CONCLUSIONS

In our opinion, a very important element in the modernization of the Ukrainian armed forces is the replacement of Soviet-era equipment and regulations. The changes must be made in accordance with the allied principles and doctrine, later being validated through joint exercises. We are talking about an immense effort, that some of the newer NATO members are still on the road to become fully conversant with.

On the other side, Russia will not remain passive to the entire set of activities undertaken by NATO in order to actively protect its members. It is well known its cooperation with China, India and Pakistan, to take into account only the Asian area of interest. Venezuela and Brazil are also the next on the "courtship" list. Some African leaders (in Sudan and Central African Republic) also resorted to Russian defence contractors (e.g. Wagner Group), the same that supplied and supported the infamous "little green men" in Ukraine. Another not so known area of interest is the Arctic. U.S Geological Survey estimates that about 20% of the oil and gas unrevealed global reserves are there[15]. In pursuit of the Northern Sea Route concept, Russia has more than 50 ice-breakers (9 of them nuclear powered), while US has only three, and UK one. Another well-known fact is that US owns 11 nuclear carriers, while France has the only non-US nuclear carrier. Russia has only one carrier, diesel powered, that they have sent to repair docks with the most optimistic estimates seeing this carrier operational not sooner than 2021[16].

It may look, as we already pointed above, that the balance of means provides balance in policies as well. The future appears as a race for technological advance, fuelling further access to resources and newer resource markets at a global scale.

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2. ***, "Russia's Anti-Access Area Denial", in *Missile Defence Advocacy Alliance*, URL: https://missiledefenseadvocacy.org/missile-threat-and-proliferation/todays-missile-threat/russia-anti-access-area-denial-coming-soon/
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4. ***, Conflict in Ukraine enters its fourth year with no end in sight – UN report, https://www.ohchr.org/en/newsevents/pages/displaynews.aspx?newsid=21730
5. ***, Minsk peace agreement: still to be consolidated on the ground. Briefing, European Parliament, 12 February 2015, URL: http://www.europarl.europa.eu/EPRS/EPRS-Briefing-548991-Minsk-peace-summit-FINAL.pdf

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[14] *Ibidem.*

[15] ***, "Russia launches new nuclear-powered icebreaker in bid to open up Arctic. Russia is overhauling ports as it readies for more traffic via Northern Sea Route due to warmer climate cycles", in *The Guardian*, 26 May 2019, URL: https://www.theguardian.com/world/2019/may/26/russia-launches-new-nuclear-powered-icebreaker-in-bid-to-open-up-arctic, accessed on 20.09.2019.

[16] BBC News, URL: https://www.bbc.com/news/world-europe-46030113, accessed on 20.09.2019.

6. ***, NATO's Enhanced Forward Presence. Fact Sheet, March 2019, URL: https://www.nato.int/nato_static_fl2014/assets/pdf/pdf_2019_04/20190402_1904-factsheet_efp_en.pdf

7. ***, The crisis in and around Ukraine, OSCE portal, URL: https://www.osce.org/ukrainecrisis

8. ***, Ukraine military strength, in Global Fire Power, URL: https://www.global firepower.com/country-military-strength-detail.asp?country_id=ukraine.

9. Global Conflict Tracker. Ukraine, URL: https://www.cfr.org/interactive/global-conflict-tracker/conflict/conflict-ukraine

10. GOULD, Joe; ALTMAN, Howard, "Here's what you need to know about the US aid package to Ukraine that Trump delayed", in *Defense News*, 25 September 2019, URL: https://www.defensenews.com/congress/2019/09/25/what-you-need-to-know-about-the-us-aid-package-to-ukraine-that-trump-delayed/

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U.S. SPACE FORCE: POSSIBLE IMPLICATIONS
FOR ROMANIA

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Abstract: *Recently, outer space gained attention with President's Trump creation of Space Force. However, the need for a centralized unit to protect American interests in the so-called "next war-fighting domain" raises critical questions about the involvement and the positioning of other state actors on this matter, as well as on the ways in which NATO will react and incorporate space into their future strategies and operations. Consequently, this paper attempts to investigate the problematic of space warfighting capabilities in relation to Romania's geopolitical posture. It argues that Romania should adopt a more assertive attitude, especially in the light of its fresh membership to the European Union Consortium of Space Surveillance and Tracking (EU_SST).*
Keywords: *outer space; space security; NATO Space; Space Force; militarisation of space.*

INTRODUCTION

"Control of space means control of the world"[1]

The era when only few countries had access to space is vanished and replaced by an increasingly dynamic landscape of state and non-state actors, where space systems and technologies represent the backbone of economic, political, technological and military activities, to name a few. In the coming period, space will become a major engine of national, political, economic and military power for whichever nations best organize and operate to exploit that potential.[2] Within this convoluted setting, the countries of the world recognize the advantages of United States (U.S.) space leadership as well as the rise of other actors on the international arena. Therefore, Romania needs to identify not only its positioning, but also its responsibilities and obligations as a North Atlantic Treaty Organization (NATO) and European Union (EU) member state.

Furthermore, with the recent creation of the U.S. Space Command, justified by "the need for a centralized unit to protect American interests in the next war-fighting domain" ,[3] it inevitably elevates the United States' and Allied forces' responsibilities to recruit, train and equip military personnel, but also revives old ideas about conflict in space. In addition to that, it encourages the conflict between historical as well as new adversaries, thus adding more complexity to the already intricate politics of outer space.

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[1] Lyndon B Johnson, Vice President, Senate Armed Services Committee Hearing, January 1959.

[2] ***, *The Future of Space 2060 and Implications for U.S. Strategy: Report on the Space Futures Workshop*, Air Force Space Command, 2019, URL: http://www.spaceref.com/news/viewsr.html?pid=52822, accessed on 10 September 2019.

[3] K. Rogers, H. Cooper, "Trump Authorizes a Space Command. Next, He wants a Space Force", in *The New York Times*, 29 August 2019, URL: https://www.nytimes.com/2019/08/29/us/politics/trump-space-command-force.html, accessed on 4 September 2019.

This paper highlights the emergence of a change in the manner in which warfighting is conceptualized given the spread of disruptive technologies, i.e. artificial intelligence-driven and autonomous systems, big data or biotechnologies, but also the spillover of space activities to proxies, that collectively transformed the nature of contemporary conflict. Consequently, the argument of this paper looks at above-mentioned aspects impact the security and defense of NATO and allied member states. It then discusses the implications of such transformative approaches for Romania before drawing some recommendations and final conclusions.

1. "It's all about space"[4]

President's Trump decision to create a U.S. Space Command contradicts the actions collectively undertaken by the United States, the Soviet Union and other countries that ratified a legally binding international treaty for peaceful use of outer space.[5] Thus, space framed as the newest military operational domain, could outgrowth an arms race in space and make war-fighting there more likely.[6] The U.S. Space Command is technically being reactivated after initially running from 1985 to 2002. The initial combatant command headquartered in Colorado Springs, had as mission to "coordinate the use of Army, Naval and Air Force space forces"[7] and provide space-based missile warning, communications, navigation, weather, and imagery. For most of the command's lifetime, the commander of U.S. Space Command served concurrently as the Commander for both North American Aerospace Defense Command (NORAD) and U.S. Air Force Space Command. The first U.S. Space Command was disbanded after the 9/11 terror attacks in New York resulted in military focus shifting to homeland defense and counter-terrorism, and its responsibilities were handed over to US STRATCOM.

In late 2018, the U.S. President Donald Trump ordered the establishment of a U.S. Space Command, making it the 11th unified combatant command of the U.S. Department of Defense. Its mission is to "protect America's dominance in space" by "employing assigned forces from every branch of the military" and "delivering combat power by operating superior space capabilities such as communications, intelligence, navigation, and early missile detection and warning".[8]

At the same time, space has been designated a warfighting domain. At the meeting in Brussels in May 2018, the North Atlantic Council approved the Policy on Space Support in NATO Operations, which gives clear and precise guidance on how to integrate Space Support within the NATO Command Structure.[9] The policy coagulated a framework whereby space can formally support operations.[10] However, it represents for now only the minimum requirements

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[4] ***, Remarks by President Trump at Event Establishing the US Space Command, 29 August 2019, URL: https://www.whitehouse.gov/briefings-statements/remarks-president-thnrump-event-establishing-u-s-space-command/, accessed on 1 October 2019.

[5] ***, United Nations Treaties and Principles on Use of Space, United Nations 2002, URL: http://www.unoosa.org/pdf/publications/STSPACE11E.pdf, accessed on 1 October 2019.

[6] ***, "Trump in Space", in *The New York Times*, 27 July 2018, URL: https://www.nytimes.com/2018/07/27/opinion/trump-space-force-military.html, accessed 1 October 2019.

[7] United States Space Command, 17 October 2019, URL: https://www.globalsecurity.org/space/agency/usspacecom.htm, accessed 1 October 2019.

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[9] I. Davis, "As alliance military spending exceeds $1 trillion, NATO defence ministers reach out into space, the final frontier, boldly going where no alliance has gone before…", in *NATO Watch*, 2019, URL: https://natowatch.org/default/2019/alliance-military-spending-exceeds-1-trillion-nato-defence-ministers-reach-out-space, accessed on 1 October 2019.

[10] F. Giudice; J. Patrick; R. Kroeger; S. Vrac, "The continued evolution of space effects and capabilities within NATO TRIDENT exercises", in *The Three Swords Magazine*, no. 34, 2019, pp. 76-82.

necessary to integrate space throughout all NATO operations and much work still needs to be done in order for space to become a fully-fledged operational warfighting domain, including allocation of resources.

With the recognition of space as a domain of warfare, vivid debates were initiated over whether NATO should eventually use space weapons that can shut down enemy missiles and air defenses or destroy satellites. NATO explains the need to "declare space a separate territory for military operations" by the emergence of new threats posed by technological progress (see figure no.1). The counterspace continuum represents the range of threats to space-based services, arranged from reversible to nonreversible effects. Reversible effects from denial and deception and electronic warfare are non-destructive and temporary, and the system remains capable of resuming normal operations after the incident.[11] Directed energy weapons, cyberspace threats, and orbital threats can cause temporary or permanent effects. Nonreversible effects from kinetic energy threats, physical attacks against space-related ground infrastructure, and nuclear detonation in space result in degradation or physical destruction of a space capability. In addition to counterspace capabilities already discussed, several others can be used to deny, degrade, or destroy space systems.[12]

At the same time, pacifist debates put an emphasis on the comparison of space warfare plans with NATO's policy in the field of cyberspace operations. In 2016, NATO outlined a common view whereby a cyber-attack can, under certain circumstances, be considered a reason for implementing Article 5 of the North Atlantic Treaty, thus activating the principle of collective defense, which is at the very heart of NATO's founding treaty. However, there have been no mention so far of any joint offensive operations in cyberspace.
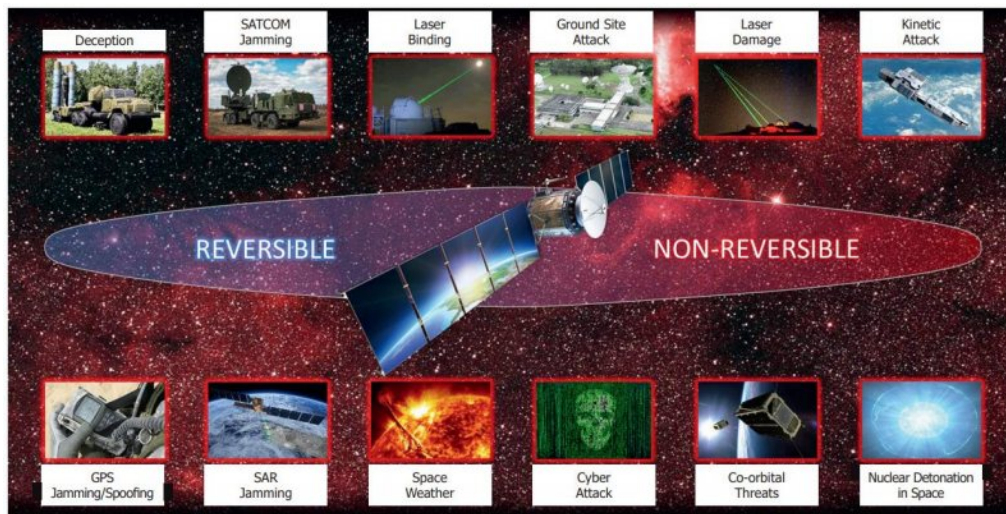

Figure no. 1: The counterspace continuum[13,14]

More critical analysts connect Trump's decision of reviving U.S. Space Force to NATO's adopted Space Strategy. Earlier, president Trump openly expressed his distrust of the

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[11] ***, "Challenges to Security in Space", Defence Intelligence Agency, 2019, URL: https://www.dia.mil/Portals/27/Documents/News/Military%20Power%20Publications/Space_Threat_V14_020119_sm.pdf, accessed on 10 October 2019.

[12] *Ibidem.*

[13] F. Giudice; J. Patrick; R. Kroeger; S. Vrac, *op. cit.*

[14] ***, "Challenges to Security in Space", Defence Intelligence Agency, 2019, URL: https://www.dia.mil/Portals/27/Documents/News/Military%20Power%20Publications/Space_Threat_V14_020119_sm.pdf, accessed on 10 October 2019.

Alliance. During his election campaign, Trump has described NATO as "obsolete," and while in office, he has repeatedly questioned the U.S.'s commitment to the organization's fundamental collective defense principle.[15] Rumors about Trump's desire to pull the United States out of the North Atlantic Alliance started leaking into the media from the very start of his presidency. He openly hinted about his readiness to dramatically downsize US military support for Europe, and even warned that Washington could go it alone" if its European allies "fail to cooperate."[16]

However, NATO's Space Strategy is in line with other countries' space thinking. France, NATO's second biggest space power, recently unveiled a "Space Defense Strategy" with an eye to developing new orbital weapons, creating a "single command" and establishing the armed forces' "direct control over military satellites."[17] Overall, the strategy reinforces the goal of sustaining "strategic autonomy". Moreover, France had plans to launch a new space command under the air force, which would be renamed "the air and space force."[18]

Following these developments, the next parts of this article will first focus on the compelling reasons for reviving the U.S. Space Command. The second enquiry directs the problematic towards NATO Allied Forces and the impact of such a decision. Finally, the article looks at Romania's efforts, especially responsibilities and obligations to set the framework for such a collaborative approach.

2. Challenges to Security in Space

What could be the compelling reasons for the United States of America to revive a unified combatant command on space warfighting? There are a number of possible reasons ranging from the growing threat from space to increased space capabilities of other nations, as well as arming proxies increasingly engaged in hostilities around the world.

The threat to U.S. and allied space assets has grown significantly with regards to space technologies and services. The reliance upon space is ubiquitous in contemporary conflict. From anti-satellite weapons (ASAT) to cyber-attacks against satellites or the ground stations that control them, outer space technologies and services are pervasive in current security and defense-related operations. Space-based capabilities provide integral support to military, civilian and commercial applications. Longstanding barriers for accessing space are falling and more state and non-state actors participate in satellite construction, space launch, space exploration and human spaceflight. Although these advancements create new opportunities,

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[15] Days before his inauguration, in an interview with Germany's Bild on January 15, 2017, Trump claimed the alliance was "obsolete" and threatened to withdraw support. "I said a long time ago that NATO had problems: Number one, it was obsolete, because it was designed many, many years ago". Months later, during a joint news conference with NATO Secretary General Jens Stoltenberg, President Trump retracted his statement, citing changes within the alliance. "Now they fight terrorism". For the full transcript of the initial conversation, see: ***, "Full transcript of interview with Donald Trump", 16 January 2017, in *The Times*, URL: https://www.thetimes.co.uk/article/full-transcript-of-interview-with-donald-trump-5d39sr09d, accessed on 2 October 2019; the transcript of Trump's latter remarks can be found at: ***, Joint Press Conference of President Trump and NATO Secretary General Stoltenberg, 12 April 2017, URL: https://www.whitehouse.gov/briefings-statements/joint-press-conference-president-trump-nato-secretary-general-stoltenberg/,accessed on 2 October 2019.

[16] L. Harding, "Could Trump pull US out of NATO and what would happen if he did?", in *The Guardian*, 12 July 2018, URL: https://www.theguardian.com/world/2018/jul/12/trump-nato-threat-withdraw-what-would-happen, accessed on 2 October 2019.

[17] T. Dubois, "French Government Unveils Space Defense Strategy", in *Aerospace Daily & Defense Report*, 25 July 2019, URL: https://aviationweek.com/space/french-government-unveils-space-defense-strategy, accessed on 2 October 2019.

[18] See more at URL: https://www.defense.gouv.fr/web-documentaire/espace-et-defense/index.html, accessed on 5 October 2019.

new risks for space-enabled services have emerged and thus propose a risk for using space for peaceful purposes. Foreign governments are – overtly or covertly - developing capabilities that threaten others' ability to use space. Among these are China and Russia that developed robust and capable services, including space-based intelligence, surveillance and reconnaissance, in addition to jamming and cyberspace capabilities, directed energy weapons, on-orbit capabilities, and ground-based antisatellite missiles. Chinese and Russian space surveillance networks are capable of searching, tracking, and identifying satellites in all earth orbits that support both space operations and counterspace systems. Russia has sent various communications satellite (satcom) equipment for its private military corporation so called "The Wagner group" that operates in the Central African Republic. Therefore, these capabilities provide their militaries and proxies with the ability to command and control their forces worldwide and also with enhanced situational awareness that enable them to monitor, track and target U.S. and allied forces. In the Russia-Ukraine conflict for instance, Russia has demonstrated the ability to use cyber and information warfare to influence operations to support military and political objectives, and continued preparation of the cyber environment to create a range of options for future action. Moreover, Russia's military intelligence and special services' capabilities branches develop electronic warfare capabilities that will pose a serious challenge to the proper planning and execution of NATO's defense on the entire Eastern Flank.

In 2015, Russia combined the Space Force division that manages their satellites and associated tracking and control networks with their Air Force and aerospace and missile defense force to create what they now call their Russian Aerospace Forces. That same year China engaged in a massive reorganization of their military which saw the creation of the People's Liberation Army Strategic Support Force bringing their electronic network, cyber and space warfare forces together into a single service.[19] In addition, Russia used electronic warfare against space capabilities (satcom, position, navigation and timing, PNT) in operations in Syria and Ukraine. As China, Russia shows activity for testing the Nudol DA-ASAT in 2014, 2015, 2016 and 2018. Moreover, Russian satellite shows mysterious patterns of movement in GEO, including parking next to U.S. commercial satellites from 2014 to today.[20]

China, on the other hand, is testing multiple next-generation capabilities, such as quantum enabled communication, which could supply the means to deflect highly secure communication systems. China also exports its space and artificial intelligence technologies globally as part of the "Belt and Road Initiative",[21] while internally developing jammers that target satcom over a range of frequency bands, including military protected extremely high frequency communications. The People's Liberation Army owns and operates about 60 systems designed for intelligence, surveillance and reconnaissance that could monitor, track and target U.S. and allied forced worldwide, especially throughout Indo-Pacific region, in potential flashpoints such as the Korean Peninsula, Taiwan, and the South China Sea. Moreover, the People's Liberation Army is responsible for conducting signals intelligence for cyber espionage against U.S. and European satellite and aerospace industries. Overall, while NATO countries own about 65% of all satellites in space, China envisions massive constellations of commercial satellites that can offer services ranging from high-speed internet for aircraft to tracking missiles and armed forces on the ground.

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[19] ***, "Does the United States Need a Space Force? (n.d.)", URL: https://www.heritage.org/space-policy/heritage-explains/does-the-united-states-need-space-force, accessed on 7 October 2019.
[20] B. Weeden, "US National Security Space Policy and Strategy: From Sanctuary to Space Force", 6 February 2019, URL: https://swfound.org/media/206359/weeden_sanctuary_space_force_ feb2019.pdf, accessed on 7 October 2019.
[21] Belt and Road Portal, URL: https://eng.yidaiyilu.gov.cn/, accessed on 4 October 2019.

However, not only nation-states such as China and Russia are involved in developing space and counterspace capabilities which are then integrated in their own militaries or proxies. Iran and North Korea have as well strong military research programs and use all means and levers to gather information on their perceived enemies. Iran is ready to equip its proxy Hezbollah with the Global Navigation Satellite System (GNSS) kit that would let them turn their dumb rockets into precise guided missiles. Iranian hackers have penetrated the Pentagon and feel themselves quite comfortable in countries allied to the U.S. that did not develop good cyber defense capabilities. Other countries new to spacefaring such as Saudi Arabia and United Arab Emirates open up the space race in the Middle East, being driven by strategic challenges in the area, politics, prestige and economic benefits. Yet, states sponsorship of proxies in the field of space capabilities is hard to be demonstrated and nevertheless it floats discreetly and subtly in current state and non-state actors' attempts to increase their military capabilities.

Thus, with the first U.S. Strategic Command, the span of their control and operations became too big for one combatant commander to effectively manage. From its stand-up in 1992, U.S. Strategic Command was primarily focused on the strategic nuclear deterrence mission. However, during the 2002 changes, U.S. Strategic Command picked up a number of new missions, including global strike, missile defense, space, cyber, and combatting weapons of mass destruction. Given the increasing integration between the nuclear mission and other emerging domains, there was a strong argument for creating the "new" U.S. Strategic Command in 2002. But as time has gone by—and these emerging domains have continued to evolve—it has become clear that the magnitude of the challenge is too big for a single combatant commander to manage. As a result, over the past several years, U.S. Strategic Command has gradually shed some of the new missions like cyber (to U.S. Cyber Command), combatting weapons of mass destruction (to U.S. Special Operations Command), and now, space (to U.S. Space Command). Therefore, the reviving of such a combatant structure definitely has also an administrative dimension, in an attempt to optimize and effectively manage a range of growing operational tasks and responding to new challenges.

3. NATO and Space

Opening up the discussion about NATO in space while avoiding another long debate about sovereignty of nation-states in space and the legal regime of space represents a real challenge. Yet, this paper attempts to limit this debate by deploying the very simple understanding that NATO collectively represents each member's rights and obligations and therefore one member state's assets in space could be used by all allied forces.

The rules regulating the outer space falls under the regime of *rei communis*. This means as follows: firstly, an occupation by a single state, group of states or any other subject is never permissible. Secondly, there is a right of free access to usage and research of all the States, not just those that are actually capable of conducting such research or usage. Thirdly it states, that a State that registers an object in order to launch it into outer space "shall retain jurisdiction and control over such object, and any personnel thereon, while in outer space".[22] Last but not least, the regime of *rei communis* guarantees an equitable share on potentially appropriated celestial resources to all the states concerned, again not only to those who for the time being own the capabilities necessary for exploitation thereof. In the context of a countless range of activities carried out by NATO, space services such as navigation, prediction of weather, communication, intelligence information and other valuable data are crucial. The relevance of space-based services for military operations has grown to the point that NATO admits its substantial

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[22] ***, United Nations Treaties and Principles on Use of Space, United Nations, 2002 URL: http://www.unoosa.org/pdf/publications/STSPACE11E.pdf, accessed on 1 October 2019.

dependence on space assets.[23] For example, Table 1 presents few examples of space systems made available by member states to NATO use.

Space Capability	NATO Uses	Example Systems
Position, velocity, Time and Navigation	• Precision strike • Force navigation • Support to PR/CSAR • Network timing	• Global Positioning System (US) • Galileo (EU)
Integrated Tactical Warning and Threat Assessment	• Force protection • Attribution • Missile defence	• Space-Based Infrared System (US) • Spirale (FR)
Environmental Monitoring	• Mission planning • Munitions selection • Weather forecasting	• Defence meteorological • EUMETSAT (EU)
Communications	• Command and Control • Unmanned Aerial Vehicle ops • Deployed communications	• Syracuse (FR) • SICRAL (IT) • COMCEPT (FR & IT) • Comsat NG (FR) • SKYNET (UK)
Intelligence, Surveillance and Reconnaissance	• Order of battle • Battle damage assessment • Targeting	• SAR Lupe (DE) • COSMO SKYMED (ITA) • GRAVES (FR) • Musis (multinational)

Table no. 1: NATO's use of space[24,25]

However, NATO does not own assets in space. NATO's needs, with regards to space capabilities, are supplied by the member states, as shown in Table 1. Yet, this year on the 27th of June, NATO Defense Ministers approved a new overarching space policy.[26]

The main agency oriented towards space activities is the Joint Air Power Competence Centre (JAPCC), a structure that belongs to NATO Centers of Excellence, which mainly focuses on training and education, doctrine development, analyses and experiments in the field of its competence. By that, JAPCC operates on an advisory level, without being a policymaker, however subtly influencing the NATO strategy.

Not only is space support critical to military operations, but it is also an important element of deterrence, as vulnerabilities in space support to operations seriously impair deterrence. Therefore, improving the resilience of space systems as a way to preserve military space support became a priority. At NATO, resilience (sometimes also called resiliency) is

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[23] A. Console, "Space Resilience - Why and How?", in *JAPCC Journal*, Issue no. 27/2019.

[24] ***, "Filling the Vacuum: A Framework for a NATO Space Policy", Joint Air Power Competence Center, June 2012, URL: http://www.japcc.org/wp-content/uploads/SPP_2012_web.pdf, accessed on 10 October 2019.

[25] A. Laudrain, "France's 'strategic autonomy' takes to space", in *Military Balance Blog*, 14 august 2019, URL: https://www.iiss.org/blogs/military-balance/2019/08/france-space-strategy, accessed on 5 October 2019.

[26] ***, "NATO Defence Ministers approve new space policy, discuss readiness and mission in Afghanistan", NATO, 27 June 2019, URL: https://www.nato.int/cps/en/natohq/news_167181.htm, accessed on 3 October 2019.

commonly understood as robustness and survivability, i.e. the ability of a system to bounce back from a disturbance of any kind and from any source, to an acceptable and reliable level of service. To complement this concept, in case the system cannot recover by itself, reconstitution brings additional satellites to restore the damaged space-based service.

Ever since the 2016 Warsaw Summit,[27] the Alliance proved its commitment to building in space resilience, i.e. "Commitment to enhance resilience".[28] Therefore, even if NATO is not expected to acquire its own satellite systems in the near future, it should exert its political influence to ensure that Alliance nations apply resilience concepts for the development of their space systems.
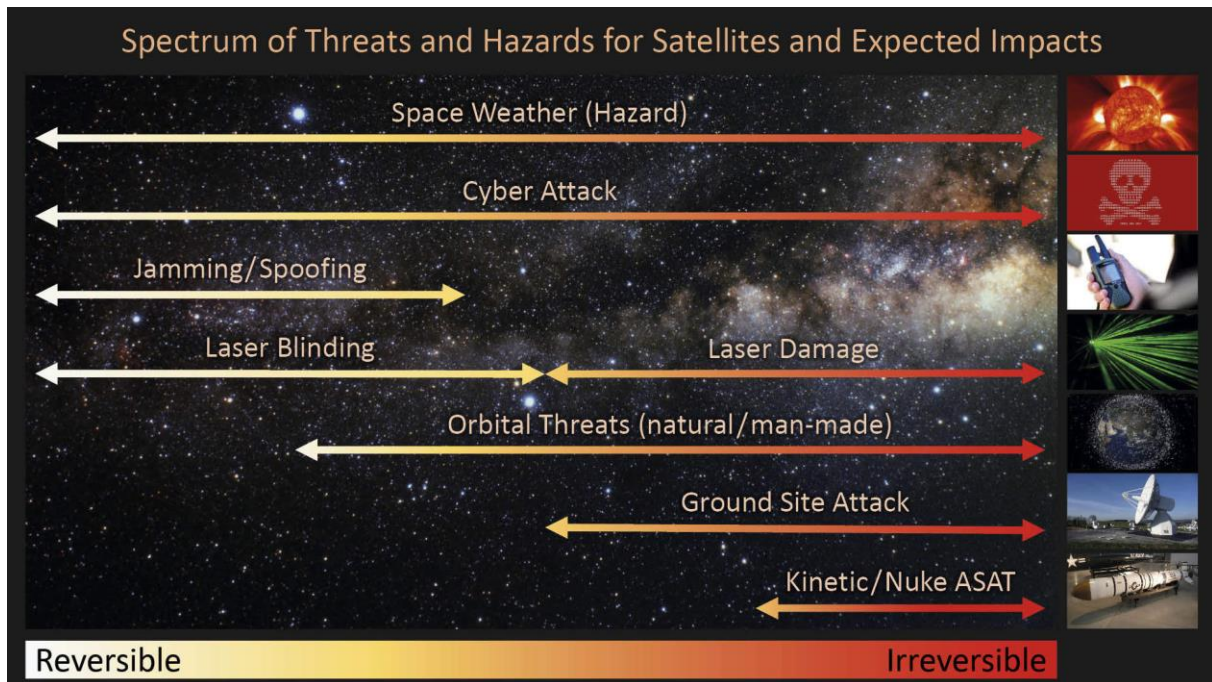

Figure no. 2: NATO's understanding of the spectrum of threats and hazards for satellites and expected impacts[29]

4. Implications for Romania

In the near future, Romania intends to provide operational space services to society and citizens by implementing a European capability for Space Situational Awareness (SSA) in the context of the joint European efforts, while ensuring a maximum safety and security of spatial infrastructure for the development of new and innovative services. These services represent innovative space surveillance tools (such as optical or radio systems, radiation detectors and electromagnetic fields, and others), orthogonal spatial observation systems, as well as development of space observation services as part of Romania's contribution to the European Space Surveillance and Tracking system.

Taking into consideration Romania's geographical location, in south-east of Europe, and the assets proposed to be included in EU_SST Consortium capabilities, Romania must bring a contribution to the EU-SST Framework. It has invested in assets development, dedicated software, standardization of collected data and sensors qualification for SST. Currently, the

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[27] ***, Warsaw Summit Communiqué, URL: https://www.nato.int/cps/ic/natohq/official_texts_133169.htm, accessed on 3 July 2018.

[28] ***, Commitment to enhance resilience, URL: https://www.nato.int/cps/su/natohq/official_texts_133180.htm, accessed on 3 July 2018.

[29] A. Console, "Space Resilience - Why and How?", in *JAPCC Journal*, Issue no. 27/2019.

development of SST realm is supported by Government, Ministry of Research and Innovation and potential future end users of SST services.

Romania's space strategy has had three constant objectives since the 90's, i.e. participation to international space missions and programs (in particular those of European Space Agency, ESA), the development of specific national projects, and capacity building at national level. However, Romania must also add a long-term, national-centred perspective for ensuring its well position among the international partners. This pillar of the strategy should be developed across government, industry and academia to ensure the synergy of efforts to optimize and promote overall Romania's/NATO's/ESA's space power and grand strategies.

Secondly, military entities, probably such as Romanian Air Forces and other relevant units, should commit the resources to complete the strategy by organizing, training, equipping missions, or simply by offering mission support.

Thirdly, the space strategy must address how the national security establishment will defend the full range of expanded national interests in space (i.e. civil and commercial space capabilities) not just the services that directly support national security.

Fourthly, essential capabilities and technologies must be developed through an integrated approach, by the whole governmental structure. An investment, policy, and regulatory strategy must be pursued to ensure those capabilities.

Finally, Romania must (re)commit to invest in science and technology to drive the rapidly changing global space environment as a key element of the strategy. And furthermore, while doing all of the above, it has to integrate strong concepts of resilience into the development of space systems, technologies and services.

CONCLUSIONS

Modern warfare is highly reliant on space. From GPS-guided munitions to communications and intelligence, surveillance and reconnaissance, space is ubiquitous when high-tech military applications are involved.[30] Space systems have become key enablers for a wide variety of applications which have assumed critical proportions within complex infrastructure systems. The challenging security environment of these systems is replete with threats both accidental and deliberate, as well as an emerging power dynamic which threatens the escalation of attempts to militarize space and use it as a vector for disrupting adversaries.

"*All for one and one for all, united we stand divided we fall.*" The old saying of Alexandre Dumas that NATO borrowed to highlight the nature of the Alliance deciphers into the current context as "we are as strong as our weakest member among us". If current trends continue, the U.S. will keep its leading role as military space power. Other nations, such as France, Russia, and China among others, will keep up with the American space systems' development to a level that it would make hard for countries that lost the first start to further align their space military capabilities with. Space as a warfighting domain will have to integrate essential elements in a cross-domain warfare. This idea has at least two immediate implications: on the one hand, military systems will have to become highly resilient, maneuverable, robotically refuelable, highly integrated, artificially intelligence driven, and highly autonomous. On the other hand, civil and commercial capabilities are to support military capabilities and could be used as leverage, therefore the same set of properties from above are also applicable.

NATO should bring nation-states together to consider space resilience as a fundamental driver for future system and foster the creation of new synergies. At the same time, it is pivotal to think resilience of space systems in terms of national-based capabilities and to exploit the

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[30] A. Console, *op. cit.*

concerted effort of national systems, both military and commercial, to improve resilience of space capabilities provided to the Alliance.

NATO, as well as Romania, needs a multidisciplinary and holistic take on the issue of growing dependence on space systems, while promoting an accepted and widely utilized framework of thought to incorporate the protection of space systems and the promotion of resilience into existing effort with developed toolboxes and practices. As Jamie Shea, a former NATO official and now an analyst at Friends of Europe think-tank in Brussels said, "if you don't control space, you don't control the other domains either", because "whoever controls space also controls what happens on land, on the sea and in the air"[31].

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[31] R. Emmott, "NATO aims to make space new frontier in defense", in *Reuters,* 21 June 2019, URL: https://www.reuters.com/article/us-nato-space-exclusive/exclusive-nato-aims-to-make-space-new-frontier-in-defense-idUSKCN1TM1AD, accessed on 3 October 2019.

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COOPERATION ACTIONS IN PESCO FRAMEWORK

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Abstract: *Participation in European cooperation projects in the Permanent Structured Cooperation (PESCO) framework can be not only a multiplier factor for achieving military capabilities, but also a way of developing high-tech industrial sectors within the national economy. The article highlights the cooperation actions in the PESCO framework, in the context of their influence on the development of national military capabilities. The proposed theme will have a great applicability in the pragmatic and coherent approach of Romania's involvement in European military cooperation programs for the development of needed capabilities. Thus, the initiative will contribute to the development of a national vision in the field of international cooperation, by focusing on relevant PESCO projects, developed in a multiannual financial framework.*
Keywords: *Permanent Structured Cooperation; military capabilities; commitments; military expenses; PESCO objectives.*

INTRODUCTION

Due to the fact that PESCO was launched in 2017, there is an incipient stage of scientific research in this field, which offers the possibility of further developments of the concept and practical modalities of cooperation between the partner nations.

The identification of the areas of interest likely to be the subject of extensive European cooperation, the analysis of the conditions for the realization and development of these capacities, respectively of defining the needs of cooperation and research and development within the defense industry, have been elements of long debate at the level of the European Union. A first consequence of these debates was the decision of the Thessaloniki European Council, held in June 2003, on the establishment of the European Defense Agency (EDA), starting in 2004.

Subsequently, in 2013, the EU leaders appreciated that a greater effort was needed in the field of European defense. Thus, it was agreed on the further development of a Common Security and Defense Policy (PSAC), with the objective of increasing the visibility, impact and effectiveness of the PSAC, improving the military capabilities and strengthening the European defense industry. At the strategic level, the EU High Representative was tasked with assessing the future challenges and opportunities for the EU.

All these efforts have led to the development of a Permanent Structured Cooperation (PESCO) Plan, with the aim of making European defense more efficient and delivering more results by ensuring improved coordination and collaboration in the fields of investments, capabilities development and responsiveness capacity.

The article addresses the current status and commitments of PESCO through the level of cooperation between the Member States and its efficiency, with a view to covering operational requirements and developing specific capabilities.

1. The legal framework and the current state of PESCO

The establishment of PESCO by the EU Council in December 2017 is based on the Lisbon Treaty amending the Treaty on European Union (art. 42.6, 46 and Protocol 10). In a previous step, in June 2016, the EU High Representative published a new strategy – *Shared Vision, Common Action: A Stronger Europe. A Global Strategy of the European Union's Foreign and Security Policy*[1], which set out a strategic vision on the EU's global role in the future and measures to achieve its goals.

At the December 2016 European Council Summit, the PSAC Implementation Plan was adopted, as part of a broader package of defense and security measures, which aimed at increased cooperation between the EU and NATO, as well as, the approval by the European Commission of the Action Plan for the European Defense. The Implementation Plan raised the level of ambition of the EU's security and defense policy and set out the priority areas in which Europe must invest appropriately and develop cooperative actions.[2] In order to achieve the set objectives, one of the elements used was the implementation of the Permanent Structured Cooperation (PESCO) mechanism.

In the long term, it has been recognized that "PESCO is both a permanent framework for closer cooperation and a structured process of gradually deepening defense cooperation within the Union. It will be an engine of integration in the field of defense [...]. PESCO will contribute to strengthening the EU's strategic autonomy to act alone when necessary and with partners whenever possible"[3].

Through the actions included in the Action Plan, the European Commission is committed to support the development of defense capabilities throughout the entire cycle, from research and development to the production of that capacity. According to these elements, I distinguish the idea that the management potential of this cycle, in terms of future cooperation, must be realized at a high level of efficiency and effectiveness.

The Joint Notification on Permanent Structured Cooperation was signed at the meeting of the Foreign Affairs Council (including the Defense) by ministers from 23 EU Member States (MS), on November 13, 2017.[4] This was the first official step towards the implementation of PESCO, establishing the principles of the mechanism, the list of commitments that the MS agreed to fulfil, the proposals on the management system and the level of ambition envisaged.

The Joint Notification establishes:

• PESCO principles, emphasizing that "PESCO is an ambitious, binding and comprehensive European legal framework for investments in the security and defense of the EU and its citizens";

• the list of "ambitious and more binding common commitments" that Member States have agreed to undertake, including "periodically increasing defense budgets in real terms in order to reach agreed goals", proposals on PESCO governance, with a general level that

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[1] *Shared Vision, Common Action: A Stronger Europe. A Global Strategy of the European Union's Foreign and Security Policy*, June 2016, URL: https://europa.eu/globalstrategy/en/global-strategy-foreign-and-security-policy-european-union, accessed on 10.03. 2019.

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maintains the coherence and ambition of PESCO, complemented by specific governance procedures at project level;

- PESCO "provides for the possibility of more EU Member States to cooperate more closely in the field of security and defense. This permanent defense cooperation framework will enable those Member States who wish and are able to do so to jointly develop defense capabilities, to invest in joint projects or to improve the contribution and operational readiness of their armed forces"[5].

The difference between PESCO and other forms of cooperation is the compulsory nature of the commitments made by the 25 Member States (MS). At the same time, participation is voluntary and the decision-making process remains at the level of the participating MS within the mechanism. The capabilities created within PESCO will not be an EU asset, nor will they form the basis for the formation of an "EU Army". Thus, any capabilities developed through PESCO will remain owned and operated by the MS, being interoperable and deployabled in other missions in the UN or NATO framework.

On December 11, 2017, the Council adopted a decision establishing a Permanent Structured Cooperation (PESCO), less than one month after receiving the Joint Notification of the Member States about their intention to participate in such a mechanism.[6] This decision lists the participating EU Member States (see Table no. 1) and largely reiterates the content of the Joint Notification on common commitments, governance and administrative arrangements, including funding.

Austria	France	Netherland	Finland
Belgia	Germany	Poland	Luxemburg
Bulgaria	Greece	Portugal	Sweden
Czech Republic	Italy	Romania	Hungary
Croatia	Irlanda	Slovakia	Lituania
Cyprus	Latvia	Slovenia	Spain
Estonia			

Table no. 1: List of PESCO member states (25)

In October 2018, the Council adopted a Recommendation setting out the steps to meet the objectives of 20 commitments undertaken for the implementation of PESCO in the long term, including the fulfillment of broader commitments, such as the expenditure objectives, initially agreed in the 2017 joint notification.[7] As specified in the Recommendation, "the participating Member States will review and update their national implementation plans and communicate them to the PESCO Secretariat", and "the PESCO Secretariat will update the standard model used for national implementation plans".

Romania acceded to PESCO on the basis of the Memorandum to the Decision of the Supreme Council of the Defense of the Country (CSAȚ) no. 112/2017, stating that "PESCO will represent an intensification of cooperation on the dimension of the Common Security and Defense Policy (PSAC), by re-launching the process of developing the defense capabilities at

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[5] ***, "Defence: 23 EU member states sign up for permanent structured cooperation", 13 November 2017, URL: https://eeas.europa.eu/headquarters/headquarters-homepage/35496/defence-23-eu-member-states-sign-permanent-structured-cooperation_en, accessed on 11.03.2019.

[6] Council Decision (CFSP) 2017/2315 of 11 December 2017 establishing permanent structured cooperation (PESCO) and determining the list of participating Member States, URL: https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32017D2315&from=DE, accessed on 11.03.2019.

[7] Council Recommendation of 15 October 2018 concerning the sequencing of the fulfilment of the more binding commitments undertaken in the framework of permanent structured cooperation (PESCO) and specifying more precise objectives (2018/C 374/01), URL: https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32018H1016(01)&rid=6, accessed on 11.03.2019.

European level on a solid basis, by reducing duplications and putting jointly of the resources"[8]. At the same time, this Decision approved the preliminary intention to participate in an initial set of 10 projects and to initiate the process of elaboration of the National Implementation Plan by the MoND, together with other ministries and responsible structures and the defense industry.

Romania's participation in the PESCO mechanism did not impose any legislative steps, this being done on the basis of the EU Treaty. Subsequently, modifications of the legal framework may be necessary, in case additional elements that exceed the current legislation in the field will be identified.

2. PESCO objectives and commitments

In order to reach the level of ambition of PESCO in the achievement of military capabilities, a number of objectives have been established, first of all, to jointly reach a whole spectrum of defense capabilities available to the Member States for national and multinational missions and operations (EU, NATO, UN etc.). This is believed to enhance the EU's capacity as an international security actor, contribute to the protection of EU citizens and maximize the efficiency of defense spending through the economies of scale achieved.

Annex II of the Joint Notification[9] establishes the specific commitments that the participating states must fulfill in 5 areas established by art. 2 of the Protocol no. 10. The areas in which objectives are set for fulfilling the commitments undertaken by the MS are the following:

"(a) Cooperation, starting with the entry into force of the Treaty of Lisbon, in order to achieve the approved objectives regarding the level of investment expenditure for defense equipment and the periodic review of these objectives, taking into account the security environment and the international responsibilities of the Union";

"(b) Coordination of the defense system as much as possible, in particular by harmonizing the identification of their military needs, by pooling and, where appropriate, by specializing their means and capabilities of defense and by encouraging cooperation in the fields of training and logistics";

"(c) Take concrete measures to increase the availability, interoperability, flexibility and ability to deploy their forces, in particular by identifying common objectives for enlisting forces, including possibly revising national decision-making procedures";

"(d) Collaboration to ensure that necessary measures are taken to overcome, including through multinational approaches and without prejudice to commitments in this regard within the North Atlantic Treaty Organization, the shortcomings perceived in the capability development mechanism";

"(e) Participation, as the case may be, in the elaboration of major common or European equipment programs within the European Defense Agency".

I will continue to analyze the commitments[10] that are proposed for MS in the first area, as follows:

1. Increased defense budgets, regularly and in real terms, to meet the objectives agreed.

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[8] *** Memorandumul nr. C1-1/3513 din 03.10.2017 privind cooperarea structurată permanentă (PESCO) în domeniul apărării la nivelul UE, p. 1.

[9] Notification on Permanent Structured Cooperation (PESCO) to the Council and to the High Representative of the Union for Foreign Affairs and Security Policy, URL: https://www.consilium.europa.eu/media/31511/171113-pesco-notification.pdf, accessed on 11.03.2019.

[10] Council Decision (CFSP) 2017/2315 of 11 December 2017 establishing permanent structured cooperation (PESCO) and determining the list of participating Member States, pp. 6-8, URL: https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32017D2315&from=DE, accessed on 11.03.2019.

The commitment reflects the change of approach at EU level regarding the financing of the defense and the assumption of the increase of the defense budgets, as well as the correlation of the resources allocated to the defense with the new risks and threats. Romania fulfills this criterion, taking into account the political commitments regarding the allocation of 2% of the Gross Domestic Product (GDP) for defense.

2. *Successive increases, in the medium term, of the investment expenses for the defense capabilities up to 20% of the total defense expenses.*

The commitment is similar to that undertaken at NATO level and aims to focus attention on capability deficits and to avoid allocating resources to other categories of expenditure. The situation of the budget allocations for major equipment purchases from the MoND budget until 2017, is presented in Table no. 2. Compared to 2015, in 2017 we see the increase of more than 3 times the value of expenses for purchases (in nominal terms) and doubling their percentage from the MoND budget.

		2013	2014	2015	2016	2017
Expenditure on major equipment purchases	thousands lei	875	1.422	2.031	2.194	6.184
	% of the MoND budget	10,72	15,78	19,65	20,43	37,89

Table no. 2: Budget allocations for major equipment purchases[11]

3. *Increasing the number of joint and collaborative military capabilities projects, supported through the EU Defense Fund (EDF), if necessary.*

In the medium term, it is necessary for Romania to redefine the way it refers to the cooperation projects, so that the political commitments are sustained through effective participation in the launched projects, especially in those where there is potential to bring added value, under the conditions in which PESCO projects benefit from an additional allocation of 10% of the EDF. It is considered that the participation in such projects must be correlated with the provisions of the "Program on the transformation, development, and endowment of the Romanian Army until 2026 and in perspective" and with the level of participation of the national defense industry in the endowment process.

4. *Increase the percentage of defense and technology spending to 2% of total defense spending.*

Currently, the level of financial resources allocated to the field is below 0.1% of the defense budget, first of all, due to the limited capacity of the military R&D sector to use the resources allocated to the requirements level. Fulfilling this commitment will involve reforming the entire military research-development system, as well as legislative changes regarding civil-military cooperation in the development of military or dual-use technologies.

5. *Creating a process of periodic review of these commitments, in order to obtain the approval of the Council.*

In the field (b), "Coordination of the defense system", MS have undertaken the following commitments:

6. *Assume a substantial role in the development of capabilities within the EU, including the Annual Coordinated Defense Review process (CARD), to ensure the availability of the capabilities needed to achieve the planned level of ambition.*

The commitment aims to encourage MS PESCO to fully engage, including through national defense planning processes, in joint capability projects. Thus, should be considered

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[11] *** Memorandumul nr. C1-1/3513 din 03.10.2017 privind cooperarea structurată permanentă (PESCO) în domeniul apărării la nivelul UE.

that a more compelling commitment of the MS in developing the capabilities is desired compared to the current voluntary process.

7. *Commitment to fully support of the CARD methodology, however, recognizing the voluntary nature of the review process and the specific constraints of the MS*.

CARD aims to generate a structured mechanism, based on assessments of national defense plans, with the objective of facilitating cooperation between MS in the process of developing defense capabilities at EU level. Romania's participation in the CARD is carried out in accordance with the methodology developed by EDA.

8. *The intense involvement of the future EDF in multinational procurement processes, which generates high added value for the EU*.

This commitment aims to support massive financial allocations for the development of military capabilities, including equipment that would benefit from the EU R&D budget. In the long term, this criterion could determine the orientation of procurement processes on the European market. MS are the ones that provide the necessary funds for the joint development and acquisition of military capabilities. EU funds can complement national funding programs and provide incentives for launching collaborative development projects, by funding post-research activities, such as defining technical requirements, feasibility studies, developing prototypes and testing activities.

9. *Harmonize the requirements for all the capabilities identified as being eligible by MS PESCO and give priority to a European collaboration approach to overcome the lack of nationally identified capabilities*. As a general rule, an *exclusively national approach* should be used only once the evaluation has been carried out. This commitment limits the national decision in defining the final architecture of the military capabilities of interest, but it is in fact the foundation of the defense organization system based on collective effort, interoperability, efficient use of resources and mutual support.

10. *Commitment to consider sharing existing capabilities to increase the efficiency of the use of available resources and to contribute to EU battle groups*.

11. *Increased cooperation efforts in the field of cyber defense, on dimensions such as information exchange, training and operational support.* Meeting this criterion would require a roadmap on developing cyber capabilities and increasing options for cooperation.

In field (c), I identified the following commitments:

12. *The availability and the capacity to deploy forces imply the commitment of the MS to take actions to provide the deployable strategic formations in order to achieve the level of ambition of the EU*, to develop a solid instrument that will register the available capabilities and with high capacity of displacement, accessible only SM PESCO, making national political commitments, providing substantial support for operations under the CSDP (EUFOR type) and training missions (EUTM), important contributions to the EU Battle Group by confirming contributions at least four years in advance and simplification and standardization of cross-border military travel in Europe, in order to facilitate the rapid deployment of military equipment and personnel.

13. *Develop the level of interoperability of forces and optimize existing multinational structures (eg EUROCORPS). Romania joined the Center for Coordination of Movement in Europe-MCCE in 2008 and participates as a partner nation at EUROCORPS*.

14. *Extend joint financing of CSDP operations and missions outside the ATHENA mechanism*.

Within field (d), the following commitments can be distinguished:

15. *Overcoming the shortcomings perceived in the capacity development mechanism, to strengthen the technological and industrial basis of the European defense (EDTIB)*. Practical support for these efforts starts from the premise of adhering to the principle of a

single package of forces and capabilities made available by NATO and the EU, for which the identification of deficits will have to result from the correlation at national level of the mechanisms used at NATO and EU level.

16. *Collaborative approach to cover the deficiencies regarding the capabilities identified at national level.* The commitment can introduce an additional stage in the national evaluations, examining the possibilities of collaborative development, which can be regarded as a limitation.

17. *Participation in at least one project within PESCO, which will develop or deliver the capabilities identified as being strategically relevant.*

Within the domain (e), we identified the following commitments:

Use of EDA as a European forum for joint capability development.

18. Ensuring that all projects contribute to the competitiveness of the European defense industry, through an appropriate industrial policy, which avoids unnecessary duplication.

This commitment can provide support for the relaunch of the national defense industry, so it is essential to identify those capability projects that will contribute to this relaunch.

19. *Ensuring that cooperation programs and procurement strategies adopted by MS will have a positive impact on EDTIB.*

The commitment concerns the acquisition by MS of the goods and services needed for the military sector that are produced in Europe or come from European companies or with majority European capital.

The Council Recommendation of October 15, 2018 set out the stages of fulfilling the stricter commitments undertaken within PESCO and specified more specific objectives to be achieved "which also define agreed indicators to support the participating Member States in fulfilling the commitment and to evaluate the progress made in this regard"[12].

CONCLUSIONS

PESCO commitments will be implemented in two stages 2018-2021 and 2021-2025. After each stage there will be a strategic review of PESCO, which will also identify additional commitments that can be made.

From the analysis, I determined the main elements of the commitments undertaken by the Member States to which Romania has subscribed, finding that it is necessary to take into account the best practices at European level, in order to achieve a rapid impact of increasing the efficiency of the use of the defense budget.

I have also identified the relationship between the legal framework, the objectives and the commitments of PESCO, which represents a first step in achieving cooperation opportunities for the development of military capabilities at European and national level. The commitment term was defined and I identified the budget allocations for major equipment purchases from the MoND budget until 2017, in the context of ensuring the level of 2% of GDP for the reference period, leading to the achievement of military capabilities in the European context.

PESCO cooperation actions have a major influence on the development of military capabilities as there is an undeniable connection between them, on the one hand, and reaching EU's level of ambition. We can consider that through cooperation within PESCO, military

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[12] Council Recommendation of 15 October 2018 concerning the sequencing of the fulfilment of the more binding commitments undertaken in the framework of permanent structured cooperation (PESCO) and specifying more precise objectives (2018/C 374/01), URL: https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32018H1016(01)&rid=6, accessed on 11.03.2019.

capabilities developments would be improved effectively, but, in the abscence of an efficient national budgeting and of a coherent plan of national needs, it is rather less probable for Romania to turn to advantage this European defence approach.

Cooperation actions in the PESCO framework have a major influence on the development of military capabilities, with an undeniable link between them and the achievement of the EU's level of ambition. It can be considered that through cooperation under the auspices of PESCO, there is an improvement in the level of accumulation of military capabilities, effectively, but without an efficient allocation of resources and a coherent plan of national needs, it is unlikely that Romania or other MS will benefit from the advantage offered by the new European defense approach.

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DEVELOPING A MORE STABLE AND SUSTAINABLE BUSINESS ENVIRONMENT THROUGH COMPETITIVE INTELLIGENCE

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Abstract: *After the economic crisis of 2008-2014, the vast majority of business have assessed their mechanism of equilibrium bringing forward a new strategy to deal with complex macro-systemic problems. For the period 2021-2027, the European Commission intend to double the budget for the social sector, entrepreneurship and infrastructure in order to develop a sustainable economy that achieves its environmental and social goals.*
We, therefore, see a sharp increase in interest in the development of entrepreneurship, and this increases competition in all markets. A company's competitors are those organizations that can have an adverse effect on sales through their own success in winning business. Using Competitive Intelligence techniques, companies inform themselves about every aspect of their rivals' activities and performance. This helps small firms, on the one hand, to keep up with the movements of the big players on the market and to anticipate their next endeavors more easily; and, on the other hand, it helps large companies to enter new markets, to make acquisitions and strategic investments easier.
As it is well known, no competitive environment is static. Anticipating fluctuations is the key to the harmonious development of the business environment.
Keywords: *competitive intelligence; entrepreneurship; business environment; business competition; economic forecasts.*

INTRODUCTION

One of the principles of economic security is that we start any analysis on the assumption that economic agents work more competitively on an uncertain market. It goes without saying that in the economic environment we cannot speak of perfect safety and balance. So uncertainty increases competitiveness, stimulates creative spirit, analytical and predictive capabilities.

Competing is as natural as breathing and although the competitive process is not always enjoyable, winning is one of the most pleasurable human sensations. The desire to be a winner, to gain the prize or to succeed makes the effort or the pain of competing worthwhile.[1]

The development and spread of technology and internet have made it possible to access information very fast, even in real time. For the companies, extending the services, internationalization and promotion are becoming more and more accessible and less expensive. Paradoxically, the work carried out by specialists in the fields of marketing, publicity, promotion, is becoming more and more difficult, the abundance of ideas, brands, offers, allows the competitive game to change continuously while companies are required to adapt.

At the same time, the abundance of information existing, the easiness with which they are accessed and the permanent variations of the markets make a manager's job more and more difficult. On one side he must be informed on everything relevant that is happening about and in relation to his company and, on the other side, he must protect data, information, internal analyses from competition.

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[1] Chris West, *Competitive Intelligence*, Palgrave Publishing, 2001, pp. 1-3.

Therefore, we observe the importance of the *Competitive Intelligence* (CI) field and of its specialists. CI specialists work with a wide range of data, with different representations and considerations, from collecting to turning them into intelligence, this last stage being the most difficult but most important. Generic data is filtered out by selecting relevant information, moving from quantitative to qualitative.

Developing the business environment implies, for economic actors, an intrinsic upgrading to the economic realities of the era of digitization. In order to achieve their goals and make profit, companies need forecasts and opinions about the future instead of mere information about current or past situations.

1. The European Vision

For what is related to the 2021-2027 period, the European Commission foresaw a doubling of the budget for the social sector, entrepreneurship and sustainable infrastructure. "The Commission - based on recommendations from a high-level expert group - also set out a roadmap to boost the role of finance in achieving a well-performing economy that delivers on environmental and social goals. The Action Plan on Sustainable Finance and the legislative proposals that followed will help investors to make informed investment decisions, based on clear criteria of what is a sustainable investment. This should facilitate speeding up and scaling up broader investments in sustainable projects both in the EU and worldwide, as well as incentivise investors to step out of investments that are unsustainable"[2].

A significant percentage of all enterprises present within the European Union is represented by SMEs (Small and Medium-sized Enterprises) and micro-enterprises. In this respect, the *Small Business Act*, communicated by the European Commission, aims to promote entrepreneurship, ease access to finance and the single European market. This act, although not binding, has received the support of the European Parliament and provides a guideline and direction for the European business environment.

Europe's economic growth and jobs depend on its ability to support the growth of enterprises. Entrepreneurship creates new companies, opens up new markets, and nurtures new skills. The most important sources of employment in the EU are SMEs. The Commission's objective is to encourage people to become entrepreneurs and also make it easier for them to set up and grow their businesses.[3] This program requires a set of principles, very important for business development:

• Create an environment where entrepreneurs and family businesses can thrive and where entrepreneurship is rewarded;

• Ensure that honest entrepreneurs who have gone bankrupt can quickly benefit from second chance;

• Adapting public intervention to the needs of SMEs by facilitating SME participation in public procurement and better access to state aid for SMEs;

• Facilitating SMEs' access to finance and developing a legal and commercial environment that promotes the punctuality of payments on commercial transactions;

• Allows SMEs to transform environmental challenges into opportunities;

• Encourage and support SMEs to benefit from market growth.[4]

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[2] *Reflection Paper: Towards a Sustainable Europe by 2030*, European Commission, 2019, p. 29, URL: https://ec.europa.eu/commission/sites/beta-political/files/rp_sustainable_europe_30-01_en_web.pdf, accessed on 01.06.2019.

[3] *The small business act for Europe*, 2008, URL: https://ec.europa.eu/growth/smes/business-friendly-environment/small-business-act_en, accessed on 01.06.2019.

[4] Idem.

At the same time, in terms of facilitating access to finance, there is the *COSME* program (Europe's program for SMEs). This one occurred due to the fact that access to finance remains one of the fundamental problems. It helps businesses to access markets in the EU and beyond. It funds the Enterprise Europe Network that helps SMEs find business and technology partners, and understand EU legislation. It also finances the Your Europe Business portal[5] that provides practical information on doing business within Europe and a number of IPR (intellectual property rights) SME Helpdesks.[6]

COSME aims to help with mentoring and guidance programs for young entrepreneurs, especially those in Young, Woman, Senior, who need more help and support in starting a new business. Launched in 2014 with a budget of € 2.3 million, this program aims to attract as many people as possible to the business environment, develop competitiveness and entrepreneurship.

Approximately 23 million SMEs have generated more than € 3.5 billion in 2015 as value added while also providing jobs for 90 million people, due to the emphasis on entrepreneurship, innovation and sustainable economic development[7]. There is, therefore, a growing interest in the European Union in terms of business environment and its development. An improvement in public information and access to information is needed in terms of business environment, the role and involvement of the European Union, its processes and mechanisms.

There is a need for constant adaptation of SMEs to enter new markets, but also to maintain and grow steadily. In addition to funding, European Union programs also offer know-how that is so useful in starting a business. Emphasis is placed on innovation and entrepreneurship, sustainable development and encouragement of the initiative.

Business creativity is rewarded by profit, which is ultimately the goal of everyone starting a business. But beyond profit, one must bear in mind the role of these firms in reducing unemployment by hiring staff, training and qualification.

It is desirable to make a transition from the Administrator level to the Entrepreneur level (an upgrade). If the former only deals with accounting, financial and reporting data, the latter must first of all have vision, critical thinking and developed analytical spirit, to make informed decisions, with a large number of data available.

2. Competitive Intelligence Techniques Improving 21st Century Business

In order for the business environment to grow and develop, it is necessary that as many companies as possible adapt to the new technologies (this does not simply mean adopting them, but understanding their impact - whether positive or negative), work based on strategies, on plans related to budgets and performance criteria.

2.1. Open Source Intelligence

Although it is confused many times with espionage, CI delimits itself substantially from it. Firstly, espionage is the prerogative of a country and of its institutions and, mostly, it is an illegal activity and, as such, it is punished. Besides that, although espionage too aims, essentially, at establishing a competitive advantage, the working methods differ and the need to maintain secrecy is fundamental. On the other side, CI works, first, with open sources (OSINT), defined as *public information that is open, available to all, which do not cause legal*

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[5] *Practical guide to doing business in Europe*, URL: https://europa.eu/youreurope/business/index_en.htm, accessed on 01.06.2019.
[6] *International IPR SME Helpdesk*, URL: https://www.ipr-hub.eu, accessed on 01.06.2019.
[7] Marcin Szczepański, *Helping European SMEs to grow*, European Parliamentary Research Service, June2017, p. 4.

implications and which can be collected, validated and analyzed in order to produce intelligence.[8]

OSINT offers fast and affordable access to a vast domain of information that can prove their strategic, operational or tactical usefulness, they offer a framework that broadens the information already obtained by contributing to an overview.[9]

The intelligence obtained is subject to an analysis that does not refer much to processing information as much as it does to concentrating work toward managing the uncertainty level. The literature divides the open sources in two categories: primary ones (people who are in a position to impart intelligence about companies when questioned) and secondary ones (those that are publicly available, published or held in databases)[10]. We, therefore, find that *the intelligence analysis combines the dynamics of journalistic activities with solving a scientific problem*[11].

Although the multitude of open sources available offers a wide range of information, the issue is not collecting them but what happens with them after that. Evidently, for a manager or entrepreneur, having enough time to analyze, to select what is relevant and, moreover, to be able to make pertinent analyses on the competitive environment and to set middle and long-term strategies, is an almost impossible task.

2.2. Competitive Intelligence Advantages

Competitive intelligence is the process by which companies inform themselves about every aspect of their rival's activities and performance. No battle can be fought without intelligence on the opposing forces.[12] Intelligence on competitors can be used in three circumstances: curiosity, emulation and anticipation. But the latter represents, essentially, the purpose of the work carried out by a CI analyst. The discovery of news related to the competitive environment is necessary, but not necessarily enough. The large accumulation of data collected must converge toward augment added value to the company and in planning the new strategies applied in winning a competitive advantage.

Designing a detailed business plan and strategy is now mandatory taking into account what Douglas Bernhardt, an economic and CI analyst, said in his paper "How to Acquire and Use Corporate Intelligence and Counter-Intelligence": *the strategy that is not based on intelligence is not a strategy but a guess.*[13]

There are six types of intelligence useful for any company that wants to obtain a competitive advantage[14]:

• *Financial intelligence* – usually under the form of economic indicators, these data are very relevant because they shed a light on a company's real situation, on the balance of profits and losses, on the investments and the debts. In Romania these information are public and any person interested can find out about a company's financial situation by accessing one of the websites: listafirme.ro, paginiaurii.ro, risco.ro. On these platforms we can find out, for each company, the information related to the number of employees, the profit's level and its

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[8] Mark Lowenthal, Robert Clark, *The five disciplines of intelligence collection*, Sage, 2016, p. 5.
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[12] Chris West, *op. cit.*, 2001, p. 12.
[13] Bernhardt, Douglas, *Competitive Intelligence. How to acquire and use corporate intelligence and counter-intelligence*, FT PrenticeHall, 2003, pp. 87-90.
[14] Chris West, *op. cit.*, 2001, pp. 42-45.

evolution, the business turnover, debts toward the state or third parties, work productivity or even payment defaults.

• *Technical intelligence* – these data refers to everything that is related to products, production methods and production processes. The need to continuously adapt generates a need to continuously update. Although licenses are not public and there are secret product recipes, certain technological improvements are fast taken by other competitors in the field.

• *Marketing and sales intelligence*. Marketing analysis can tell us many things about a company: how it is seen and how it places itself, the relationship it has with the customers and the one it wishes to have, its position on the market. This analysis is extremely useful because, on one side, it helps us observe where a company is positioned, who are its customers and the market's coverage, while on the other side we can observe toward what it aims and what is its target audience. (For example, depending on the language used, in a publicity spot it is easy to observe to which category of people is the respective product/service addressed. But, beside language, there are many other elements that must be analyzed by the specialists.) The analysis of the sales is required because it shows the market share owed by each company and, also, its intentions related to extension, deployment or penetration into other markets.

• *Pricing and discount intelligence*. Although, in our days, the competition based solely on the level of the prices is obsolete, this information cannot be lacking in a complete analysis. For example, if a company offers a smaller price for cash payments and a bigger price for on term payment, this fact shows that the respective company needs cash. The discounts are important as well because they can highlight the existence of too large stocks for what is related to certain products while the company wishes to decrease them by offering discount-type facility when acquiring a large quantity of products.

• *People intelligence*. Irrespective of the technological changes that are specific of the period through which we are going through, people continue to remain a company's most important resource. The employees' motivation level, the organizational culture to which they belong and their loyalty is extremely useful in maintaining a company on the market at a high level. Also, the collection of data related to the management structure and to the shareholders is essential: which companies have they managed before, and to which companies do they belong? What is their motivation, their experience but, also, what is their leadership and decision-making style?

• *Operational intelligence* – covers the way in which competitors are organized, staff efficiency and staffing levels, the ways in which the company makes decisions, partnership and the prevailing culture within the company.

The volume of data collected above is a considerable one and, surely, it requires an extended period of time to collect and, also, high costs. Therefore, when the financial situation does not allow such a vast analysis, certain priorities must be set. First, the essential information must be collected in order to allow the analysis to begin and the errors caused by own management to be rectified.

3. CI and economic security

In his work *Security: A New Framework for Analysis*, Barry Buzan, Ole Weaver and Jaap de Wilde extend the security agenda by offering a perspective approach to five dimensions: political, military, economic, societal and environmental. Here economic security is an important part of national security. They analyse the way in which political doctrines relate to the role and the freedom they must grant the economic environment with. On the one hand, the conservatory doctrines see economic security as being a state policy. On the other hand, liberals

do not encourage the state's interference by placing the economy on lead position, as the latter must be placed at the origin of the social base.[15]

The Romania's National Defense Strategy provides, among the national security objectives, the *securing an efficient, dynamic and competitive economic environment, at an investment and entrepreneurial level, as well as the state's financial-budgetary stability*[16], while reminding, among the national interests, the *capitalizing on our country's resources and geostrategic position, in order to reach the welfare level that citizens are entitled to*[17]. The following are stipulated among the actions for what is related to the economic and energetic dimension: *ensuring the competitive framework and competitiveness by reducing factors that affect the sound functioning of the business environment* and *ensuring transparency of local markets and their capacity to function connectedly with external markets*[18].

Economic development and security do influence each other reciprocally, these concepts being impossible to separate. Without a powerful and stable economy, we cannot talk about prosperity and safety at a society's level. At the same time, paradoxically, the insecurity of the environment in which the economic agents operate, is beneficial to society. Free market competition gives birth to progress and the utmost exploration of the possibilities for development. The state creates the premises (laws, regulations) to allow the companies to grow and to be prosperous, the purpose being represented by assuring a high level of consumer satisfaction in accordance with a rational use of the resources. For what is related to the economic environment, the state's interests must not come in contradiction with those of the companies and of the people.

The actual evolution of the society allows the fight for the resources to be a globalized one, even beyond the countries' borders. The development of technology has brought with it an unexpected onset of electronic commerce, so that, two companies, on two different continents, who never met, can fight for the same market share. The competition has moved more and more toward the online environment and now can come from anywhere.

We can easily observe how the need to know and to understand the markets is impetuously necessary. But it is, also, evident that globalization makes it more difficult for a manager to be informed through information flow and the size of the databases. Evidently, following an "international" competition is hard to do, so that awarding this task to CI experts is more than necessary.

The liberal policies to which I was referring above do not encourage the state's protectionism but a competitive environment that is as free and as developed as possible. The companies are forced to appeal to levers to help them resist and evolve in this environment that is constantly unsafe and changing. The companies' managers cannot be also intelligence analysts, this is why CI experts offer the leadership processed information, with news input and major relevance in establishing action strategies or plans.

Strategic intelligence is destined to offer the officials with an overall picture of the security environment and long-term projections with the purpose of planning measures aimed at countering the threats against national security[19]. By extrapolating, the same can, also, be said for the business environment, the countermeasures against the threats can be taken only

[15] Barry Buzan, Ole Weaver, Jaap de Wilde, *Securitatea. Un nou cadru de analiză*, CA Publishing, 2011, pp. 141-150.
[16] *National Defense Strategy 2015-2019: A Strong Romania within Europe and the World*, The Presidential Administration, Bucharest, 2015, p. 9.
[17] Ibidem, p. 8.
[18] Ibidem, p. 20.
[19] Bruce Berkowitz, Allan Goodman, *Best Truth – Intelligence in the Information Age*, Yale University Press, 2000, p. 63.

through intelligence, data collection and processing, analysis and long-term decisional projections.

CONCLUSIONS

The need to update and to align the companies to the European standards is all the more accelerated as the organizations of the European Union are also making efforts in this way. The transition from the management level to the entrepreneurial one must be done fast so that critical thought, the latter's ingeniousness and creativity are attributes that are absolutely necessary today.

The markets have extended growing beyond the countries' borders, so that the need for pertinent, in real time, information is high. The need to know what is happening around has become a necessity. That is why the periodic analyses carried out on the competitors are, rather, harmful, because they become fast obsolete. Therefore a holistic approach and a continuous collection and analysis of information is required.

Once with the CI's intense activity, it is necessary to protect the internal data and to restrict the access to them, being aware of the fact that, the activity related to collecting and analyzing the market information is available to all, including our competitors.

Theoretically, success can be reduced to taking better decisions in a shorter time than the competitors. As such, the need for in-real time information is much more necessary in the era of globalization in which we live and, much more than that, the need to discern from the multitude of information which ones are useful and pertinent.

The access, the analysis and the discovery of new opportunities represents the prerogative of competitive intelligence activity, which is more and more necessary to the actual business environment. Being an iterative and meticulous procedure, it becomes necessary to approach experts on the field and to use their expertise. But, for the business environment, the result is an essential one, the connection between the informed entrepreneurs and a stable and sustainable business environment in which they carry out their activity being evident.

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THE FUTURE OF EUROPEAN SECURITY.
MEASURING RESILIENCE

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Abstract: This paper underlines some directions for measuring the resilience of European Union in the field of Security, achieved through analysis and extrapolation of several indicators released by the International Futures with Pardee Program[1]: (1) the state failure index (SFI), (2) the technology power (TP), (3) the threat sent to the rest of the world (TSRW) and (4) the threat received from the rest of the world (TRRW). The paper starts from the assumption that resilience represents a tool for shaping efficiency in European Security. The results of projected indexes in 2035 reveals the need for a commonly shaped resilience framework. The research shows that the increased technological development and innovation capacity will generate potential disruptive technologies with applications in the field of security and defence. Finally, the paper takes into account four Weak Signals for shaping a more mature and a more resilient Union in 2035.
Keywords: resilience; state failure index (SFI); Weak Signals; International Futures; European security; integrated systems.

INTRODUCTION

Resilience is a topic that gained momentum in the international state of art quite recently, with a high rate of expansion. Google Scholar counted about 2.4 billion articles analysing this topic from which 20 thousand dated from 2019[2]. Indeed, resilience is somehow a *raisson d'etre* of new approaches in planning and foresight. Cambridge Dictionary defines resilience in large terms as *"the ability to be happy and successful again after something difficult or bad has happened"[3]*. In the same time, Merriam – Webster Dictionary defines resilience as *"the capability of a strained body to recover its size and shape after deformation caused especially by compressive stress"[4]*. On a more articulated scientific approach, authors like Flinn[5] or Cavelty et al[6] retrieve the peculiarities of resilience in accordance to the domain of applicability.

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[1] International Futures with Pardee Software ed. 7.45 (2019), www.ifs.edu, site consulted on 01.10.2019.
[2] ***, Google Scholar, www.scholar.google.com, accessed on 01.10.2019.
[3] ***, Cambridge Dictionary, https://dictionary.cambridge.org/, accessed on 01.10.2019.
[4] ***, Merriam – Webster Dictionary, https://www.merriam-webster.com/, accessed on 01.10.2019.
[5] Flynn, S., A National Security Perspective on Resilience in *Resilience: Interdiscilipary Perspectives on Science and Humanitarianism*, 2011, p. 2.
[6] Cavelty, D. M., Mareile, K., & Kristian Søby, K., Resilience and (in)security: Practices, subjects, temporalities. *Security Dialogue*, 2015, pp. 3-14.

Overall, being resilient means different thing to different people, and the lack of a common accepted definition is putting stress on security practitioners and scholars. However, there are three main interpretations of the concept as Flinn mentions: (a) a general way of thinking – describing resilience as an ability of a system to transition between two states; (b) in systemic theory and natural studies – resilience being the capacity of a system to counter and reject risks without failing; (c) in management and law studies– as the ability to return to a set of conditions in order preserve identity[7]. When shifting towards European Security, resilience becomes a *sui generis* approach of shaping efficiency. It means that a more resilient European Union will determine a strong and more secure European space. Directed by this thesis, the current paper tries to offer solutions designed to increase EU resilience on the long term.

1. Measuring Resilience

As Schipper (2015) noted, measuring resilience is not an easy endeavour. When talking about European Security, few resources are available. As the analysis pointed out, no systemic approach, that contains all the three interpretations of Flinn's taxonomy, has been developed. From our point of view, the process of measuring the resilience of the EU has to tackle the following three layers: (1) the failure of a state (of the Union) – seen as a result of weak resilience, (2) the development of research and technology – seen as a facilitator of mature resilience and (3) perception of threat – seen as a sign of a monitoring function specific to a more mature resilience. In order to approach those layers, we used a set of indicators generated by *International Futures with Pardee* (2019).

Those indicators are: *(1) the state failure index (SFI), (2) the technology power (TP), (3) the threat sent to the rest of the world (TSRW) and (4) the threat received from the rest of the world (TRRW).* The indicators are returning the posture of the EU 27 without the participation of the Great Britain in a scenario-based environment. The used scenarios are largely described by IF (2019).

The state failure index is a multilayer index (demography, economy, governance, structural balance risk) developed by *International Futures with Pardee Centre* that measures the capacity of a state to maintain its functionality and to recover from potential crises (IF, 2019), meaning its' resilience. When looking to the numbers from the Figure 1, one sees that SFI is decreasing on all layers: demography layer (SFDEM), economy layer (SFECONDEM), governance layer (SFGOV) and structural balance layer (SFIMBAL), pointing under 0.2 in all scenarios for 2035. This could be interpreted twofold: Firstly, the Union's resilience is growing on all sectors and plans, but pressures appear on some layers. Secondly, the sectors that are sensitive in the future are the demography and the structural balance. However, one should take into account that, historically speaking, governance layer had a wide influence over the failure of a state.

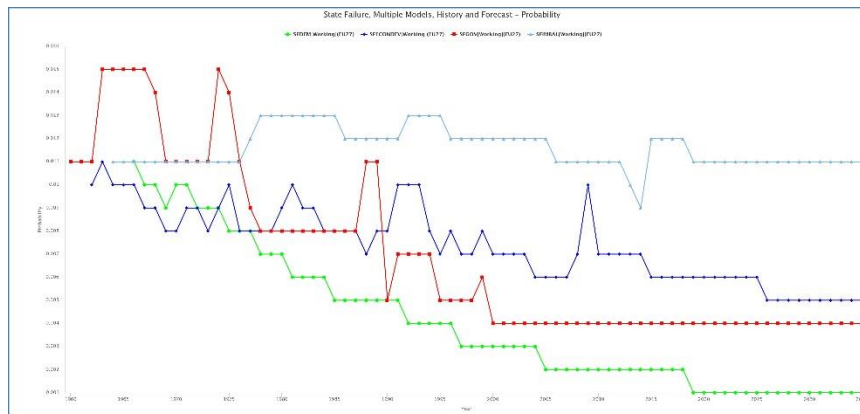[7] Cavelty, D. M., Resilence in security policy in *CSS Analysis in Security Policy*, 2013.

Figure no. 1*: State Failure Risk[8]*

When analysing the state failure index in relation to the possible internal wars (SFIIW), we observe an interesting behaviour: the SFIIW is decreasing, as a bigger tendency. However, if the Union will be more active on pushing the limits of its states' security, the probability of the index is raising itself, as seen in Figure 2. This is a paradox, often analyzed in the literature under the prisoner's dilemma framework. SFIIW points out the need for resilience in a more secure environment.
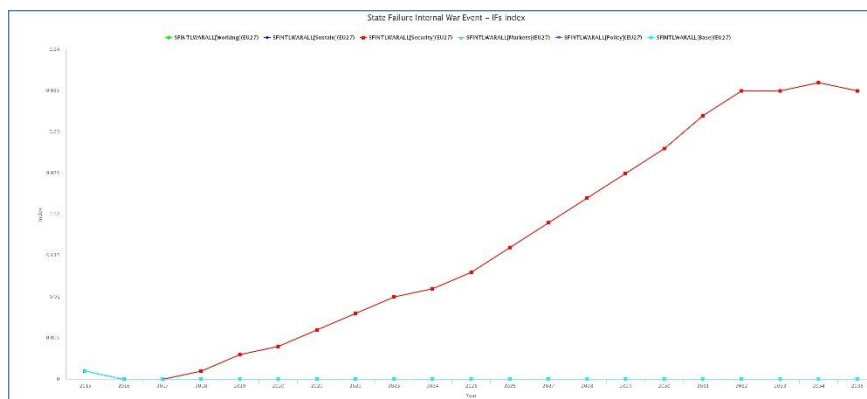
Figure no. 2: *State Failure Risk - internal war event[9]*

When analysing the state failure index in relation to the *structural imbalance* (SFRSI), one observes that the lowest values that this index achieves in 2035 is less than 0.01 (Figure no. 3). This figure however is correlated with a more secure environment, promoted by a common policy of security and defence.

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[8] Source: International Futures with Pardee (2019), ifs.edu
[9] Source: International Futures with Pardee (2019), ifs.edu
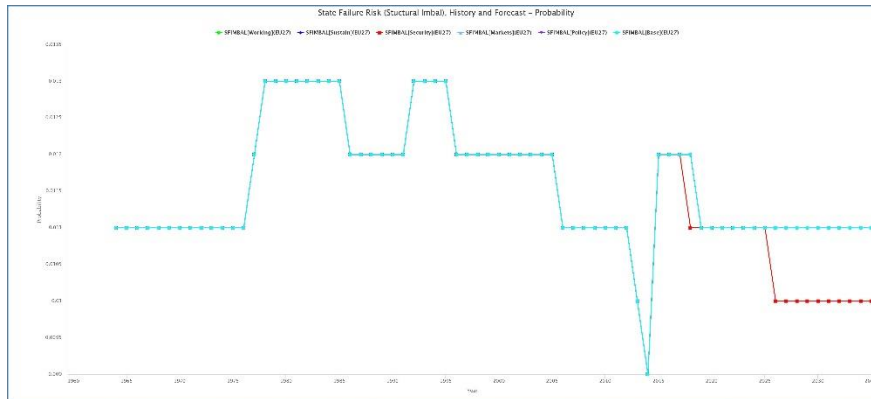
Figure no. 3: *State Failure Risk – Structural Imbalance*[10]

The state failure risk (SFR) − no matter its forms − must be correlated with another indicator, namely the *Threat in correlation with the rest of the world*. There are also two main directions here to take into account: threats from the rest of the world and threats sent to the rest of the world. As observed in Figure 4, the most threatful scenario is the security-based scenario, with a score that amounts around 8.5%. This approach might provide the Union with security, but also forces the states from the Union to be more adaptive and more resilient to threats.
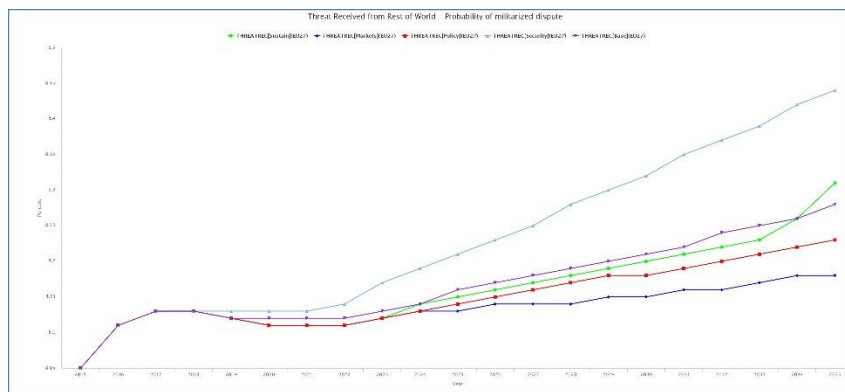
Figure no. 4: *Threat Received from the Rest of the World*[11]

Concurrently, *the threat sent to the rest of the world (TSRW)* has a similar behaviour in the security scenario, with a maximum value amounting around 8.45% (Figure no. 5).
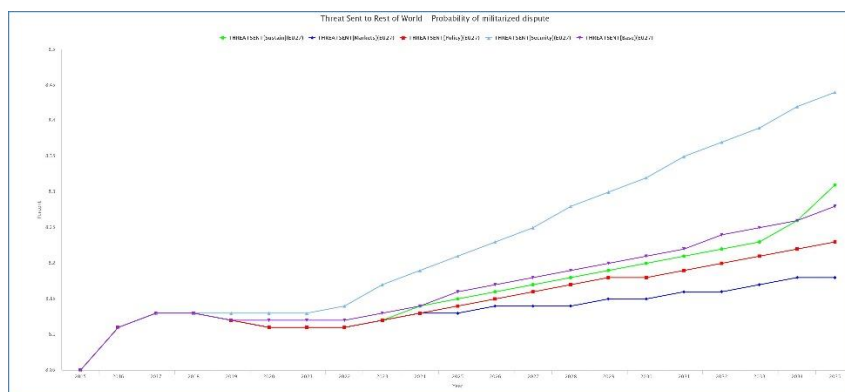

Figure no. 5: *Threat Sent to the Rest of the World*[12]

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[10] Source: International Futures with Pardee (2019), ifs.edu
[11] Source: International Futures with Pardee (2019), ifs.edu
[12] Source: International Futures with Pardee (2019), ifs.edu

The third main component of the current analysis is represented by the *Technology Power* (TP). Lots of scholars such as Panwar[13], De Spiegeleire[14], Kang[15] or Cummings[16] have analysed diverse technologies and their future impact on security and defence. Per their conclusions, TP will have a crucial effect over life, security and resilience in European Union. When looking to IF's projections for 2035 (Figure 6), one sees that the biggest transformation is to be sustained by a complex market-oriented scenario (1045 points), security having a smaller impact over the main picture (900 points). In reality, a blended approach might be needed, an approach that combines and defines resilience through a set of priorities in several relevants domains.
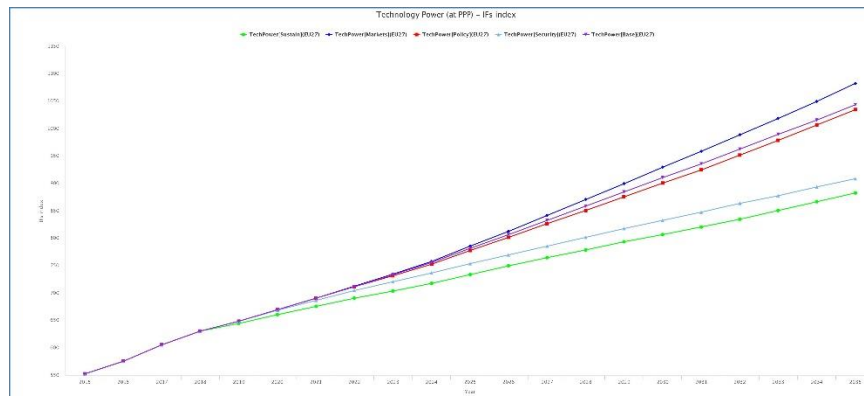

Figure no. 6: *Technology Power[17]*

CONCLUSIONS

This paper argues that resilience becomes a *sui generis* approach of shaping efficiency in European Security. For analysing the resilience capacity of the European Union, four projected indicators from the *International Futures with Pardee Program* (IF, 2019) were used: *(1) the state failure index (SFI), (2) the technology power (TP), (3) the threat sent to the rest of the world (TSRW) and (4) the threat received from the rest of the world (TRRW).* Those indicators highlight the need for commonly shaped security framework. Although the SFI will be quite low, the historical analysis points out the possible impact of some internal components over the system (government, democracy). The SFI also indicates that a paradox similar to prisoner's dilemma will always influence how the process of building security will unfold. The TP index raise awareness about the crucial effect of technology over life, security and resilience in European Union.

The analysis of those indicators supports the main idea of the paper that a more resilient European Union will determine a more secure European space. In order to achieve a corresponding degree of resilience at least four Weak Signals have to be taken into account. Thus, the increased technological development and innovation capacity could generate some

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[17] Source: International Futures with Pardee (2019), ifs.edu

disruptive technologies and therefore, a homogenous/uniform EU policy and a solid funding in the field of security and defence are requirements of a paramount importance. Also, one can infer that EU policy fragmentation makes the Union weak, especially regarding the availability of technologies and the supply systems. Moreover, a Weak Signal and Wild Card approach is needed Popper in order to classify the risks to European Security[18].

As argued in this paper, resilience means different things to different people. Therefore, a common European approach for measuring resilience is also an important milestone in achieving maturity.

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CYBERSECURITY IS A WAY OF LIFE

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Abstract*: In today's industry, there are numerous cyber security incidents, such as leaks, ransomware, viruses, etc. The problem is the existence of a constant evolution in the area of cyber threats for which the employees of companies do not develop a preventive culture. The technology continues to develop and adopt advanced software for detection and/or prevention, but most of the problems are still caused by human vulnerabilities. This article aims to develop measures to raise awareness of the need for cyber security for individuals with their own PCs, but also for employees of an organization.*
Keywords: *awareness training; cyber security; change management; information security.*

INTRODUCTION

Due to the ubiquitous dependence on information technology, the security of communications systems and equipment is essential to society, the community and organizations.

The security of the data in our digital systems has become a subject that dominates conversations throughout the cyber community in recent years. This topic of discussion is based on a continuous and growing series of digital breaches that have affected organizations.

According to CISCO [1], cybersecurity is the way in which various systems, networks or programs can be protected against cyber-attacks.

Implementing effective cyber security measures is becoming increasingly difficult due to the large number of devices. The problem will grow exponentially, taking into account the current developments in the field of telecommunications - 5G and IoT.

In "Four domains of Cybersecurity: a risk-based systems approach to cyber decisions", is presented the idea that the solutions obtained in the field of cyber security focused on the technical problems of hardware and software, encryption, modes of prevention, powerful antivirus, etc. and less on the ways of addressing the risks caused by humans. They were never intended to cause financial or social harm to the organization, but they caused certain problems through neglect, fatigue or even lack of knowledge.

This work comprises two main aspects:

1. the way in which mistakes caused by people can affect the integrity, image or financial part of an organization
2. the way in which these problems can be improved, and the people involved can be learned to prevent or raise awareness of various attacks

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[1] https://www.cisco.com/c/en/us/products/security/what-is-cybersecurity.html, accessed on October 14, 2019.

1. Human threats

At present, information is vital for individuals and organizations, being an important tool that can be easily disseminated. Instead, the concern for threats to confidentiality, integrity and availability of information increases.

Most companies and/or organizations are aware of the risks they face and the fact that prevention measures are the most effective. The problem arises, however, in the way of applying these measures because the cyber security strategy is determined by the technology available in the organization, thus not having a general plan to be applied.

The first step towards resolving these shortcomings could be the assessment of the general and specific risks (as well as their sensitivity levels) to which the organization is subject. Thus, the prevention plan applicable for each department would also be created.

In essence, cybersecurity culture in the workplace refers to the promotion of safe cybersecurity practices that perfectly integrate with the aspects and requirements of the job. This makes it possible for employees to be directly involved and thus to raise awareness of cyber security threats. The main effect that results is to modify their behaviour to prevent or mitigate threats. Among the key concepts with which employees should be educated is understanding phishing attacks, promoting better password management and the basics of encrypting a system or password - even with a simple md5 hash.
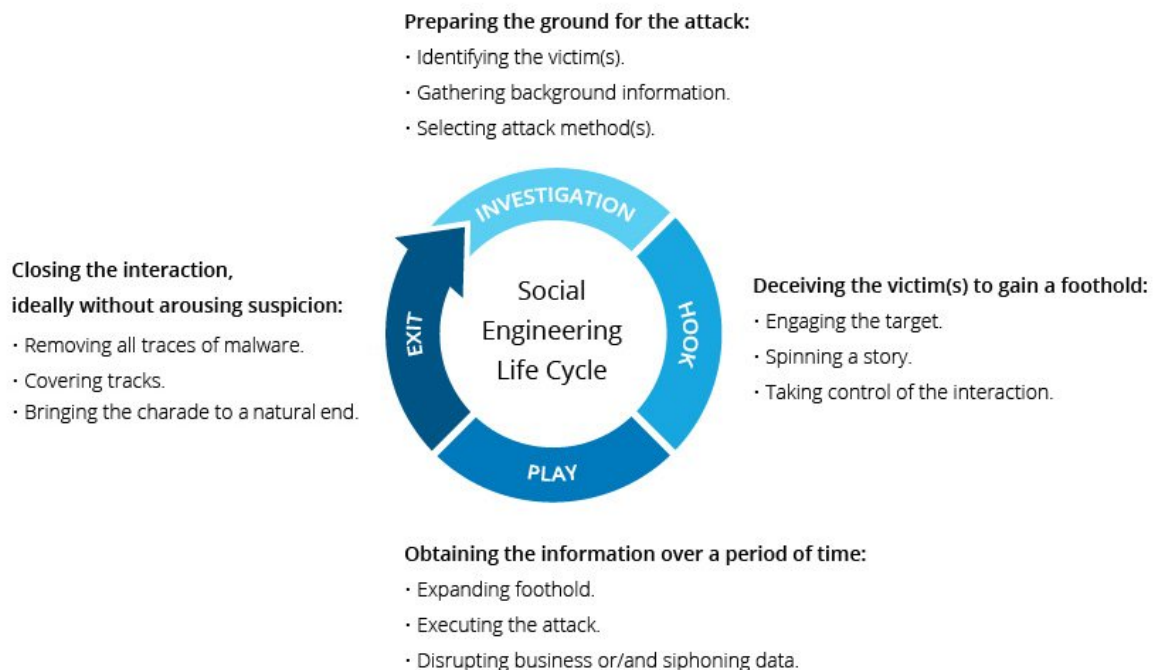
1.1 Social engineering

Preparing the ground for the attack:
· Identifying the victim(s).
· Gathering background information.
· Selecting attack method(s).

INVESTIGATION

Social Engineering Life Cycle

HOOK

EXIT

PLAY

Closing the interaction,
ideally without arousing suspicion:
· Removing all traces of malware.
· Covering tracks.
· Bringing the charade to a natural end.

Deceiving the victim(s) to gain a foothold:
· Engaging the target.
· Spinning a story.
· Taking control of the interaction.

Obtaining the information over a period of time:
· Expanding foothold.
· Executing the attack.
· Disrupting business or/and siphoning data.

Figure no. 1: Social engineering life cycle ([2])

Social engineering has always been a major threat to the security of information systems. In fact, some of the early attacks in social engineering have involved hacking trash cans from PCs to find documents that contain relevant information about the organization. Nowadays, many interesting information is publicly available on social media or accessible to

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[2] https://www.imperva.com/learn/application-security/social-engineering-attack/, accessed on October 15, 2019.

the victim's friends. Errors caused by the employees are very common in the case of the "social engineering" technique. Thus, they are tempted not to carry out additional checks when loading a web page of a known form. Hackers know this detail and make replicas of real pages like authentication or send incredibly compelling phishing emails.

According to Australian Computer Society Report[3], no firewall or security software can resist to a user who clicks on any link received via email or who is convinced to give the authentication data to anyone that claims to be from the IT department.

Spear phishing is a form of phishing in which the attack is directed against a single person. The hacker's message contains large amounts of information about the victim in order to convince the interlocutor of the authenticity of the communication.

Another typical attack on social media systems is identity theft, which can occur either on a site where the victim already has a profile (cloning the profile) or on a different site. In both cases, it is easy to convince the victim's acquaintances to accept the friendship from the fake profile and then to reveal confidential data.

Ways to protect yourself:

1. Delete any requests for personal information or passwords - no one should contact you for personal information via email.

2. Reject applications for technical support that you have never requested.

3. Set the spam filters to high level.

4. Secure your devices against advertisements or pages that require authentication.

1.2 Human error

Human errors refer to unintentional or accidental actions caused by certain employees or even groups of employees collectively. This is the main cause of data and security breaches that has no purpose in destroying systems or distributing confidential information. This aspect makes it the most difficult to fight. The most common types of violations occur as a result of someone sending data to the wrong person or displaying their passwords in plain view on a sticky note stuck on a computer. Employees tend to make these mistakes because they have learned a behaviour related to a certain action. Thus, they will react impulsively when they are in a new situation, not knowing what rules to apply and not wishing to call someone from the IT support team for help. From here can derive two situations:

1. the problem will be ignored - "I didn't see anything / it didn't happen to me"
2. the employee will apply certain rules that he or she considers appropriate, which resembles something that has happened to him in the past in a certain context.

Major mistakes made by employees in the cyber security field:

1. Use of weak passwords

Every company must use clear rules for employees about using strong passwords to restrict access to sensitive data. An additional measure in this case is even two-factor authentication. However, this additional measure becomes useless when employees' passwords contain personal data that can be easily exploited from social networks or are made up of extremely lightweight keypad combinations ("eszrdx", "ygvtfc").

Also, it should be kept in mind that passwords in your organization may not be too heavy to require storing them in a word file and uploading them to Google Drive or writing them on sticky notes and pasting them on your desktop or computer monitor.

Another problem could be using a single password for multiple accounts, including personal ones, or changing them when requested by the system (using passwords that do not expire).

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[3] Australian Computer Society Report - https://www.acs.org.au/content/dam/acs/acs-publications/ACS_Cybersecurity_Guide.pdf, accessed on October 15, 2019.

Another aspect worth mentioning could be sharing the credentials of a computer, to a colleague in need of that computer, through an unencrypted SMS or an unencrypted message from a social network.

2. Use of outdated software

An outdated software is a hacker's best friend because it has known vulnerabilities and can be easily exploited.

Therefore, employees should not ignore software updates, disable security features (this happens when they want to use the computer at work for personal purposes or when they download a certain virus file they want - a program without a license that will simplify some of their work - and the antivirus won't let them open it (if it's not virus-free, it may contain known vulnerabilities).

3. Lack of knowledge of cyber security

Most employees are completely focused on their work and do not show too much concern for security procedures. Thus, they are often the easiest way to access data or to introduce malware into a system through a strategically placed "lost" USB.

4. Problems caused by human factors (fatigue, inattention)

Given that, in many organizations, employees work with sensitive data every day, many incidents result from fatigue or neglect. A first impact of these issues can be the deletion of files with sensitive data - for example the file with users and passwords is deleted. Another effect is the removal of some files without understanding their importance or sending some emails without doing a further verification of the recipient.

Figure no. 2: Ways to protect yourself ([4,5,6])

Ways to protect yourself:

1. Conducting security training to motivate employees to be aware of the potential threats and the costs that come from their mistakes.

2. Use of privileged access to data according to the needs of each employee / group of employees. Thus, data leakage or accidental deletion can be prevented.

3. Employee monitoring through additional filters - web access certification, additional passwords, etc.

2. Cybersecurity culture

A survey by CompTIA (Computing Technology Industry Association) found that almost 50% of the employees they managed to question never received training in cyber

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[4] https://businessnn.wordpress.com/2015/05/05/8-ways-to-increase-motivation-in-employees/, accessed on October 15, 2019.

[5] https://windowsreport.com/fix-denied-access-windows-8-windows-10-computer/, accessed on October 15, 2019.

[6] https://reputationresolutions.com/5-places-need-monitor-online-reputation/, accessed on October 15, 2019.

security. In addition, even today, 96% of employees save passwords on devices instead of manually entering them, and 64% send working documents to personal e-mail, which clearly denotes concerns.

The human contribution to cyber risk is clear. However, raising awareness and influencing employee behaviour to mitigate these risks is paramount, but are extremely difficult task. Thus, employees will always want to avoid security policies that hinder their access to certain information, prevent them from performing other functions than those provided, prevent them from developing personal activities at the office.

Why this behaviour? Because they consider information security a way to limit information or an additional, unjustified burden. Thus, the use of private devices for personal access or the imposition of encrypted passwords are considered cumbersome policies.

Organizational culture is a complex value system that can guide the behaviour and attitude of some employees.

In order to replace the existing cyber security culture, its deficiencies must be identified and communicated with all employees, after which the new culture can be introduced by changing behaviour. These aspects should be carried out in a safe and anxiety-free environment to prevent defensive attitudes.

Basically, in an organization, clear rules will be defined, followed by clear sanctions or, on the contrary, clear rewards for those who violate, respect or denounce certain types of behaviours. The initial changes should be used in the working environment and the senior management, and then, to be operated by the responsibility and involvement of everyone within the organization. The new organizational culture for the cyber security domain should impose both basic rules, which are to be respected by everyone, as well as specific rules for each department / group of employees (HR department does not have to follow the same rules as IT department, because they do not have the same access privileges and do not have to have the same information).

To facilitate the acceptance of new policies among employees, everyone in an organization should be encouraged to participate in the development and integration of information security policies. This ensures that the security measures are not adapted to the hierarchical differences within the company and that no one will be "favoured by their non-compliance", which would make it easier for everyone to accept.

A plan that the training should follow is:
1. General notions about security and its impact in an organization
2. Password formation policies
3. The way you can check if an email or a website contains viruses / malware
4. The way of storing some information / passwords within the devices
5. Secure remote access modes
6. How to apply strategies in case of violation of one / more policies

The way in which the training of the employees will be carried out is another important challenge because it must provide criteria related to psychology.

Thus, a small training will have to be carried out in which the employees of each department should review things relevant to the service functions of each one. It should not include a theory about cyber security or its history of incidents that are not related to the specificity of the organization, but should include the basic aspects for understanding certain concepts and threats specific to the field of activity, as well as how to prevent or action in case of infection with a virus/malware.

Another important aspect to consider, should be that incident prevention actions do not disrupt the daily flow of an employee's activities. If this does not happen, the employee will develop anxiety, find it difficult to comply with the new rules and, possibly, to give up taking these into account.

During the training, real, demonstrative examples, even films or interactive activities should be used, from which to denote the need of cyber security. Because, any tips that can be applied in the personal life of the employee, will be listened to and adopted easier. Thus, they will become more motivated to respect the new rules and apply them all the time.

Now, the natural question would be – What if that training is not enough? How will employees react when they have encrypted passwords that they are not allowed to write anywhere? Will anyone respect this fact? Or will they attend the training, learn about the encrypted passwords that will be changed at certain time intervals and the next step will be to write them on some stickynotes and hide them under the keyboard? How should this aspect be resolved, in fact?

The answer is very simple - there will always be people who will do this. But people who want to follow the new rules will have to follow a simple step in terms of passwords. It will be to make passwords based on something known and to associate that with the new password in different forms. He or she might even write that word on a sticky note and stick it on the desk because it will be something only they will be able to recognize.

Another natural question that can be asked at the end of the training is - How much will this matter in the long run? Of course, immediately after completing the training, for several weeks (favourable case), each employee will change their password, check each recipient of each email and perform each software update on time. But this will last for how long? The key aspect would be that this training should not be done in a week-intensive package, but be done over a longer period, integrated into daily activities, thus building the foundation of a stable culture, in the field of cyber security.

Recent news in the domain:

A new report from Kaspersky Lab has revealed that security incidents in public cloud infrastructure are more likely to occur as a result of a customer's employees rather than by actions carried out by cloud providers. The cybersecurity firm's understanding security of the cloud: from adoption benefits to threats and concern reports shed light on the fact that 90 percent of corporate data breaches in the cloud happen due to social engineering attacks which target customers' employees and not because of problems caused by their cloud providers.

CONCLUSIONS

In conclusion, we should not think only about the material or social advantages that the implementation of such an algorithm would bring or the financial implications that a proper training could have. Considerably more, the advantages of establishing a cyber security culture should be taken into account both at the level of the organization and at the personal level of the employee.

Also, the psychological, motivational and even personal aspects of employees are extremely important at the time of their establishment. Is necessary to involve all the employees in the development of the new policies, a training is necessary, one developed over a longer period in order to increase the adaptability and not to influence the daily activities, and it is obligatory that every employee, including the CEO of the organization be involved and be an example, for everyone to be considered equal.

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INTELLIGENT THREAT DETECTION IN IOT

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Abstract: Connected devices are now present in agriculture, factories (Industry 4.0), power grids, military, healthcare, transport, education, entertainment and homes. The number of such devices will grow in the near future. Because IoT devices present various vulnerabilities and can be exposed to a great number of threats, the need for IoT security and threat modeling increases. In this paper, we provide an overview of the main threats to IoT devices and networks, and the ways in which machine learning can improve IoT security.
Keywords: IoT; security; machine learning; cellular IoT; LTE-M; NB-IoT.

INTRODUCTION

IoT devices and networks are exposed to many threats, such as malware, DoS, eavesdropping attacks, packet injections, RF jamming etc.

Attacks on IoT networks and devices have grown at an alarming rate. This is caused by using default passwords, using old protocols (e.g. Telnet), lack of firmware updates and patches, unjustified root permissions, unjustified use of SSH, unsecured ports. A big part of the security challenges associated with IoT devices is that some of them are located in remote locations and do not have remote upgrade capability.

The rise of IoT-powered DDoS attacks and cryptocurrency mining, made possible by using malware to create botnets, such as Mirai (first identified in 2016 by MalwareMustDie research group) and Emotet, led to the development of numerous variants and botnets, but also to a rise in IoT security research and efforts[1]. Mirai is a prime example of using open Telnet ports plus brute-force login attempts with default creditentials. Device owners may not even be aware that their devices are infected because they rarely have security controls or means to monitor their network and performance issues are insignificant or attributed to other possible causes. Enterprise networks have the necessary means to do so, but detecting traffic patterns associated with botnets is not a priority.

Due to the fact that IoT devices have limitations regarding power consumption, memory, and computing power, traditional security approaches are not applicable. The large ammount of network traffic also calls for alternative, more efficient traffic analysis methods. ML-assisted techniques are a promising solution for threat detection and mitigation.

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[1] C. Kolias, G. Kambourakis, A. Stavrou, J. Voas, *DDoS in the IoT: Mirai and Other Botnets*, Computer, 2017, pp. 80-84.

1. Machine Learning Techniques for Malware and Traffic Analysis

Machine learning can be applied to all five types of security tasks: prediction, prevention, detection, response and monitoring. Each machine learning method and algorithm is better suited for a specific task, but all of them have applicability in cybersecurity.

Machine learning methods:

1.1. Supervised learning

In supervised learning, the model is trained on a labelled data set. These data sets have known input and output parameters. The validation data set is also labelled. Supervised learning algorithms include linear regression, nearest neighbor, naive Bayes, decision trees, random forest. In cybersecurity, it can be used for abnormal traffic classification, detection of NoSQL injections and network intrusion detection[2].

1.2. Unsupervised learning

In unsupervised learning, the model is trained on unclassified and unlabeled data sets. It is data driven and it is intended to find anomalies in data. The drawback is that it is less precise than supervised learning. It can be used for network traffic classification, detecting insider threat on cloud services and on premise computing infrastructure[3].

1.3. Semi-supervised learning

In semi-supervised learning, the model is trained using a combination of labelled and unlabeled data sets. Most of the data is unlabeled. The major applications of semi-supervised learning are speech analysis and proteomics. In cybersecurity, it is used in intrusion detection systems[4].

1.4. Deep learning

Deep learning is a machine learning method that extracts high-level features from low-level data. Deep learning models rely on artificial neural networks of various architectures: deep belief networks, deep neural networks, convolutional neural networks, recurrent neural networks.

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[2] L. Yi, Y. Shi, "Research on abnormal traffic classification of web camera based on supervised learning and semi - Supervised learning 2017", *3rd IEEE International Conference on Computer and Communications (ICCC),* 2017; R. Ul Islam, S. Islam, Z.Ahmed, A. Iqbal, R. Shahriyar, "Automatic Detection of NoSQL Injection Using Supervised Learning", 2019, IEEE 43rd Annual Computer Software and Applications Conference (COMPSAC), 2019; V. R. Saraswathy, N. Kasthuri, I. P. Ramyadevi, "Multi-granularity approach for enhancing the performance of network intrusion detection with supervised learning", 2016, *10th International Conference on Intelligent Systems and Control (ISCO),* 2016.

[3] H. Singh, "Performance Analysis of Unsupervised Machine Learning Techniques for Network Traffic Classification", 2015, Fifth International Conference on Advanced Computing & Communication Technologies, 2015; W. Feng, W. Yan, S. Wu, N. Liu, "Wavelet transform and unsupervised machine learning to detect insider threat on cloud file-sharing", 2017, *IEEE International Conference on Intelligence and Security Informatics (IS*I), 2017; P. Parveen, B. Thuraisingham, "Unsupervised incremental sequence learning for insider threat detection", 2012 IEEE International Conference on Intelligence and Security Informatics, 2012.

[4] S. K. Wagh, S. R. Kolhe, "Effective intrusion detection system using semi-supervised learning", 2014, International Conference on Data Mining and Intelligent Computing (ICDMIC), 2014; A. Jaiswal, A. S. Manjunatha, B. R. Madhu, P. Chidananda Murthy, "Predicting unlabeled traffic for intrusion detection using semi-supervised machine learning", *International Conference on Electrical, Electronics, Communication, Computer and Optimization Techniques (ICEECCOT),* 2016.

Deep learning has been successfully used in many fields, and is now used in malware detection. For example, the authors of[5] used features obtained by static and dynamic analysis of Android malware in order to build a deep belief network based model. They reported a detection accuracy of 96 % Deep learning is also used for network intrusion detection.

Deep Recurrent Neural Network approaches have been proposed for IoT malware detection. [1] The deep neural network was trained and evaluated using a data set based on OpCode extracted from IoT malware and benignware samples, with focus on ARM-based IoT applications (such as Raspberry Pi). LSTM (Long Short Term Memory) structures prove to have a 98% accuracy in identifying IoT malware based on its OpCode sequence.

Malware detection modules decide if an object is a threat by collecting and examining data on it, pre-execution or post-execution[6].

Malware analysis can be classified in two major categories: static analysis and dynamic analysis. Static analysis examines the malware code without execution. Dynamic analysis examines malware by executing the code in a monitored and controlled environment (sandbox). Automated malware analysis has been successfully used for Android and iOS malware. Algorithms used for malware detection must be adaptive, scalable and return as few false results as possible.

Malware can target everything from consumer devices (such as IP cameras, smart home appliances and home routers) to industrial and critical infrastructure IoT devices. Most of the existing IoT oriented ML-based malware detection approaches OpCode[7] and energy consumption patterns[8].

Industrial IoT devices are a prime target for attackers. They can easily become infected with malware. Because they are important targets, they will be infected with malware that is capable of analysis evasion. The constant development of malware detection evasion techniques prompts for the development of new, more efficient, automated analysis techniques that are scalable and robust. The authors of[9] propose a new sandbox system which can detect the analysis evasion techniques of malware and force it to exhibit its full functionality.

IoT networks can be targets, irrespective of access technology.

Network traffic analysis techniques can be classified as follows:

1) Volume based: it identifies anomalies by major changes in traffic volume. It can be used to detect DDoS attacks

2) Feature based: it detects anomalies based on the contents of the packet header. This requires header inspection for each packet, and it is time and resource consuming, thus making it difficult to apply.

Most IoT devices use wireless communications, and the physical layer can be targeted by jamming attacks. The complex nature of real life scenarios with various interference sources

[5] D. Yuxin, Z. Siyi, Malware detection based on deep learning algorithm, *Neural Computing and Applications*, 2019, pp. 461-472.

[6] Kaspersky Lab, Machine Learning Methods for Malware Detection, *Kaspersky Lab Whitepaper*, 2019.

[7] I.Santos, F.Brezo, J.Nieves, Y.K.Penya, B.Sanz, C.Laorden, P.G.Bringas, "Idea: Opcode-sequence-based malware detection, International Symposium on Engineering Secure Software and Systems", *ESSoS 2010: Engineering Secure Software and Systems*, 2010, pp. 35-43; I.Santos, F.Brezo, X.Ugarte-Pedrero, P.G.Bringas, "Opcode sequences as representation of executables for data-mining-based unknown malware detection", Information Sciences, 2013, pp. 64-82.

[8] A. Azmoodeh, A. Dehghantanha, M. Conti, K.-K. R. Choo, "Detecting crypto-ransomware in IoT networks based on energy consumption footprint", *Journal of Ambient Intelligence and Humanized Computing*, 2017, pp. 1141-1152.

[9] M. Noor, H. Abbas, W. Bin Shahid, "Countering cyber threats for industrial applications: An automated approach for malware evasion detection and analysis", *Journal of Network and Computer Applications*, 2018, pp. 249-261.

and propagation conditions and the numerous types of jamming attacks leads to a complex problem that would benefit from machine learning.

Machine learning can be used to detect RF jamming attacks. An example of this is using unsupervised learning k-means algorithm for detecting RF jamming attacks in VANETs. Speed, RSSI, PDR and SINR metrics are used to generate a new metric, RSV (relative speed of the involved vehicles), that is used in the k-means algorithm. The algorithm is able to differentiate natural interference from malicious RF jamming[10].

As we can see in the following chapter, cellular IoT technologies can also present vulnerabilities and are susceptible to exploits. Machine learning and artificial intelligence can be applied to such networks. Commercial solutions already exist, used in automated NOCs.

2. Cellular Iot and Legacy Vulnerabilities

Cellular IoT technologies (NB-IoT, LTE-M and EC-GSMIoT) are widely used, due to the fact that many IoT devices are deployed in remote areas and have battery life limitations. NB-IoT and LTE-M are based on LTE.

Legacy LTE exploits/attacks include IMSI catchers, eavesdropping, blocking devices, jamming, physical signal overshadowing[11], signaling storms, flooding, sniffing base station configurations (broadcasted unencrypted in MIB and SIB messages)[12], RAT downgrades, location leaks. Most of these can be successfully applied in IoT scenarios.

Attack	Interface/layer/node
Traffic modification	Radio interface
Flooding	HSS
Smart jamming	Physical channels, S1, S8
Signaling	HSS
Diameter injected signaling flood	Core network elements
Resource reservation	eNB
TAU vulnerabilities used against MME	SGW
GTP scanning, abnormal GTP packets	SGW, PGW

Table no. 1: Legacy LTE attacks and their targets

By sniffing base station configurations, an attacker can create a rogue eNodeB to carry out attacks like forcing TAU updates with spoofed reject messages. Because such an attack causes the device to become disconnected from the network, they can be semi-persistent in remote M2M deployment scenarios.

Location leaks and device tracking are particularly important for healthcare and other IoT applications where privacy is a concern.
Recently, cellular technologies were updated with IoT-specific security optimizations.

Mobile operators are implementing security features such as secure communications channels, whitelists, disabling certain connectivity capabilities in the HSS, DoNAS (Data over

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[10] D. Karagiannis, A. Argyriou, "Jamming attack detection in a pair of RF communicating vehicles using unsupervised machine learning", Vehicular Communications, 2018, pp. 56-63.

[11] H. Yang, S. Bae, M. Son, H. Kim, S. Min Kim, Y. Kim, "Hiding in Plain Signal: Physical Signal Overshadowing Attack on LTE", *Proceedings of the 28th USENIX Security Symposium*, 2019, pp. 55-72.

[12] M. Lichtman, R. Piqueras Jover, M. Labib, R. Rao, V. Marojevic, J. H. Reed, LTE/LTE-A "Jamming, Spoofing and Sniffing: Threat Assessment and Mitigation", *IEEE Communications Magazine*, 2016, pp. 54-61.

NAS), NIDD (Non-IP Data Delivery)[13].These, along with regular updates and patching, disabling unused ports and changing the default creditentials, should provide better security for IoT devices and networks.

Some IoT devices such as sensors send small amounts of data (eg. pressure, humidity, temperature readings). This data is not sent as IP packets due to the large size of IP headers leading to inefficient data-to-overhead ratio. In such cases, Non-IP Data Delivery (NIDD) is used to allow the network to transport non-IP data.

NIDD is used in conjunction with DoNAS. It can be supported by the network in two ways, either using a PtP SG interface tunnel, or using SCEF. When using a point-to-point serving gateway interface tunnel, the device can only communicate with a pre-defined application server. When using the service capability exposure function, the SCEF securely exposes service and network capabilities through network APIs, thus the access to the IoT devices is restricted to application servers that were authenticated and authorized to access them.

NIDD was introduced in 3GPP LTE Release 13 (features for LTE-M).
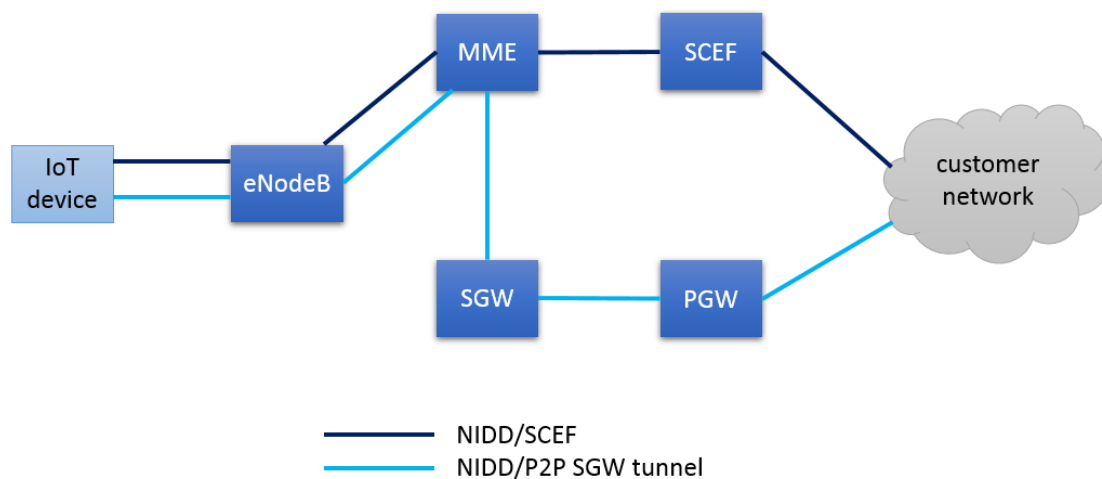
Figure no. 1: NIDD data path[14]

DoNAS is a control plane feature that permits the transport of user data within signalling messages. It transports user data via the MME by encapsulating it in NAS signalling messages. It can be used for IP and non-IP traffic. The major benefit of DoNAS is that the data is encrypted and protected using the mechanism for network signalling.

DoNAS was introduced in 3GPP LTE Release 13 (features for NB-IoT).

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[13] GSMA, Security Features of LTE-M and NB-IoT Networks, Mobile IoT Security Report, 2019.
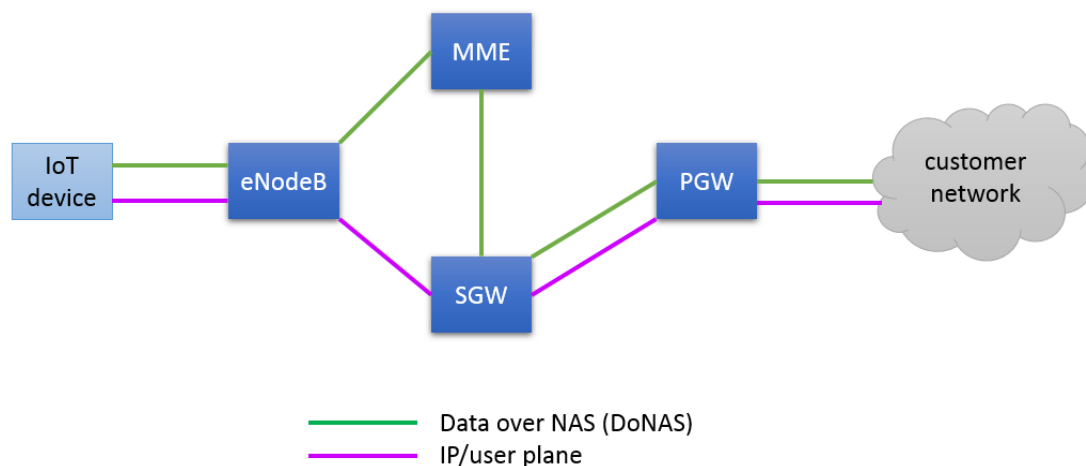
[14] *Ibidem.*

Figure no. 2: DoNAS data path[15]

Network traffic analysis is important for cellular IoT because most of the attacks that target LTE/LTE-M/NB-IoT networks can be detected by observing anomalies in network traffic.

Big data analytics and machine learning have a big role in traffic anomaly detection and can be succesfully applied to cellular network traffic. For example, the authors of[16] propose a semi-supervised learning, statistical based anomaly detector algorithm; the purpose is to identify anomalies which have low probability.

Industrial IoT applications rely on robust and stable internet connectivity. In many cases, a combination of shorter-range protocols (802.11, BLE) may increase flexibility, but the coexistence of cellular IoT with non-3GPP access networks (such as BLE, WLANs, LoRa) introduces another set of security issues. Even if cellular IoT is secure-by-design because of the contractual obligation of MNOs to deliver QoS and the fact that cellular user data is encrypted, the integration of less secure technologies into the network brings a new threat models and attacks.

CONCLUSION

IoT security, in all applications - industrial, vehicular, military, consumer, is an emerging field. The widespread adoption of cellular IoT technologies and their coexistence with shorter-range and less secure technologies, along with unpatched vulnerabilities and open problems from legacy technologies, prompt for further security research and improvement. The massive amounts of data generated by IoT devices and networks require novel approaches towards security. Machine learning and artificial intelligence prove to be a useful tool in threat detection and mitigation in this vast, diverse and dynamic landscape.

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[15] *Ibidem.*

[16] B. Hussain, Q. Du, P. Ren, "Big data-driven anomaly detection in cellular networks", 2017, *IEEE/CIC International Conference on Communications*, China (ICCC), 2017.

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CRITICAL INFRASTRUCTURE MODELING AND SIMULATION

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Abstract: Cybersecurity for critical infrastructures was not a priority all the time. At the beginning the focus was on other aspects of critical infrastructures like physical reliability and redundancy. Nowadays, however with the fast-growing digital world and the multitude of threats continuously evolving, cybersecurity became a top priority. The first part of the paper will present the critical sectors of modern society, the cybersecurity problem and the interdependencies that are between critical infrastructures. The second part illustrates how critical infrastructures can be modeled and simulated in order to better understand them and discover unknown vulnerabilities. Finally, the third part will have as purpose to analyze the sources of vulnerabilities, and to bring in our attention two models for increasing cybersecurity in infrastructures, used in present.
Keywords: Critical infrastructure; modeling; simulation; cybersecurity.

INTRODUCTION

Over the last decades, organizations have significantly changed the way how they provide services to their customers. Their productivity has considerably grown, the main factor of this change being the information technology solutions. These organization as well as people consume electricity, use the telecommunication infrastructure, the transport infrastructure and so on, but without this infrastructures many organization would cease to exist and the society will be seriously affected[1].

Nowadays, the protection of critical assets is considered a supreme objective by all modern nations around the world. But it is a long way from having a portrait of what critical infrastructure is and what critical infrastructure protection actually means. We need firstly to understand the degree of complexity of the situation we are confronting with.

In Europe the entity that deals with the critical infrastructure protection is the European Programme for Critical Infrastructure Protection (EPCIP). EPCIP is based on the 2008 Directive on European Critical Infrastructures. It has the job to identify critical infrastructures from the European territory and to find the best approach in trying to improve their protection.

Critical infrastructure protection is a topic that cuts across many disciplines and jurisdictions. It has a lot of policy issues at one corner which are so different form the scientific and engineering issues from the other corner.

1. Critical Infrastructures

Critical infrastructures (CI), are most often seen as facilities and services with a great impact on the society's wellness. In a more comprehensive wording, critical infrastructure is

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[1] T. Viira, *Lessons Learned: Critical Information Infrastructure Protection - How to protect critical information infrastructure*, January 2018.

referring to the processes, systems, technologies, networks, assets and services essential for safety, health, development of the economy and well functioning of the society[2].

The term "critical infrastructure" did not existed before the 1990s. The first sectors that were considered critical infrastructures where the freshwater sector and the electrical energy sector, because the public wanted always to have water at the faucet and the electric bulb always to produce light when the switch is on. The number of critical sectors quickly grown and until 2003, when there were 13 sectors plus 5 key assets, which again expanded to 18 sectors and consolidated in 2013 to 16 sectors[3]. Critical infrastructure sectors:

- *Freshwater and wastewater sector* - water treatment, storage, drainage and sewerage;
- *Energy sector* - electricity, oil and natural gas;
- *Transport sector* - includes terrestrial, naval and air transport;
- *Nuclear power plants, nuclear material and nuclear waste* - includes nuclear reactors and nuclear medicine;
- *Health care and public health* - includes hospitals, clinics, mental health services, youth care and family service;
- *Government institutions* - federal governmental buildings;
- *Information technology* - hardware, software, services and systems;
- *Food and agriculture sector* - includes farms, animals, restaurants, food production, processing and storage;
- *Financial services sector* - includes investments, loans, insurance;
- *Industrial defense bases* - where design and development of military weapon systems are carried out;
- *Emergency services* - police and fire departments, medical services and public works;
- *Communications sector* - including the Internet, telephone and transmission lines, wireless communications frequencies, GPS satellites, television or satellite calls;
- *Critical production sector* - includes the production of primary metals, electrical and transport equipment, and various types of machinery;
- *Dams* - used for hydroelectric power, water supply, irrigation, flood control, river control and recreation;
- *The chemical sector* - this includes basic chemicals, specialized chemicals, pharmaceuticals and consumer products;
- *Commercial facilities* - including events, public gatherings, sports leagues etc[4].

1.1. Cybersecurity problem in CI

Nowadays all facilities are controlled by an Industrial Control System (ICS). An ICS integrates systems such as Supervisory Control and Data Acquisition (SCADA) and Distributed Control Systems (DCS). These digitized systems are common in a critical infrastructure and thus the number of cyber-attacks has continuously grown over the years. In order to properly function, ICSs are using operating systems, applications and other software components. To have a decent level of security these components must have availability and integrity, followed by confidentiality. Probably the most important principle is availability, because an unavailable CI can conduct in worst case scenario to a true disaster.
Another threat comes from the lack of knowledge about internal components. Human error can cause misconfiguration of components like the Programmable Logic Controllers (PLC) or

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[2] T. Brown, *Multiple Modeling Approaches and Insights for Critical Infrastructure Protection*.
[3] T. G. Lewis., *Critical Infrastructure Protection in Homeland Security: Defending a Networked Nation, 2nd Edition.* Wiley, 2014.
[4] T. Brown, *Multiple Modeling Approaches and Insights for Critical Infrastructure Protection*.

the Intelligent Electronic Devices (IED). Many years before, the ICSs were using a private network, which was not connected to the Internet, this made the ICS network pretty secure. Time has changed, and so the expectations, today real time monitoring, concurrency, remote operation, have made ICS more prone to attacks, being exposed to more threats. Because they are so complex and having a considerably number of components a good practice in trying to secure SCADA systems is to use the defense in depth technique.

We can conclude with the rising problem, how we can protect a huge network of such complexity. One thing is for sure clear, that it is economically impossible to protect every single component of any critical sector[5].

1.2. Critical infrastructures interdependencies

Because the entire society is based on the proper functioning of critical infrastructures among all sectors, a disruption for example of only one facility that is considered critical, will have a massive negative impact, not only in the sector of residency, but in others, too. This is happening due to the interdependencies of CIs. The following diagram shows the dependencies between different critical sectors.
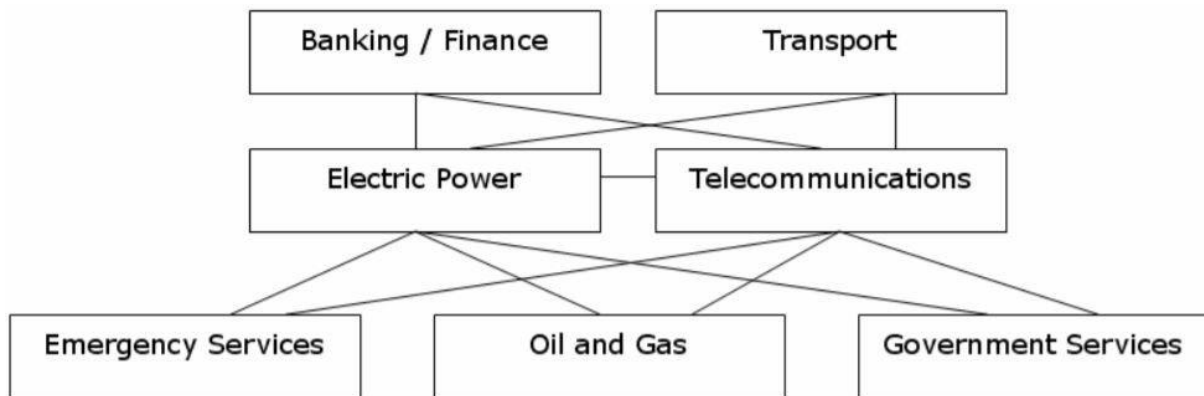

Figure no. 1: Different CI depending on each other[6]

When a CI is dependent directly by another one, this is called *direct dependency*. An *indirect dependency* is when let's say CI2 is dependent on CI1 by a direct dependency, and also CI3 is directly dependent on CI2, this means that CI3 is indirectly dependent on CI1. In contrast to the dependencies, interdependencies are bidirectional relationships. Often dependencies are so complex and cannot be easily found, one of the reason which increases difficulty is that some dependencies depend on the critical infrastructure's state. Being in state 1 is possible that a CI to have different dependencies, unlike those that it might have being in state 2, for example. The dependencies and interdependencies are structured into four classes:

- *Physical interdependencies* - It can be said that two infrastructures are physically interdependent if the operation of one of them is dependent on the output of the other one.
- *Cyber (inter)dependencies* - An infrastructure has cyber interdependency if it is dependent on the information transmitted through the information network.
- *Geographical (inter)dependencies* - Two or more infrastructures have geographical interdependencies if they are spatially close one to each other. Events such as explosions may affect nearby elements of another infrastructure.

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[5] H. J Leandros, A. Maglarasa, Ki-Hyung Kimb, in "Cyber security of critical infrastructures", February 2018.
[6] T. K. K. Rinaldi Steven M., James P. Peerenboom, "Identifying, Understanding, and Analyzing Critical Infrastructure Interdependencies", in *IEEE Control Systems Magazine*, December 2001.

- *Logical (inter)dependencies* - Two infrastructures are logical dependent if the state of one is dependent by the state of the other one by not a physical, geographical or cyber dependency. This type occurs via the control procedures or other mechanisms[7].

In finding vulnerabilities, interdependencies are very important. All the interdependencies must be found, if some are not traced, vulnerabilities related to them will not be known.

2. Critical infrastructure modelling and simulation

The interdependencies are playing a very important role here. Because of their dependencies critical infrastructures are forming huge networks. A good start in trying protecting these needful assets is to describe and evaluate them, in order to be easier to find vulnerabilities.

In developing a model would be much easier if the critical sectors would have been used decoupled systems, but that is not the case. Firstly, we need to prioritize the sectors, in order to have a better view of how they impact the society. In figure 2 we can see how the scientists from the National Infrastructure Simulation and Analysis Center from Albuquerque thought to prioritize the critical sectors.
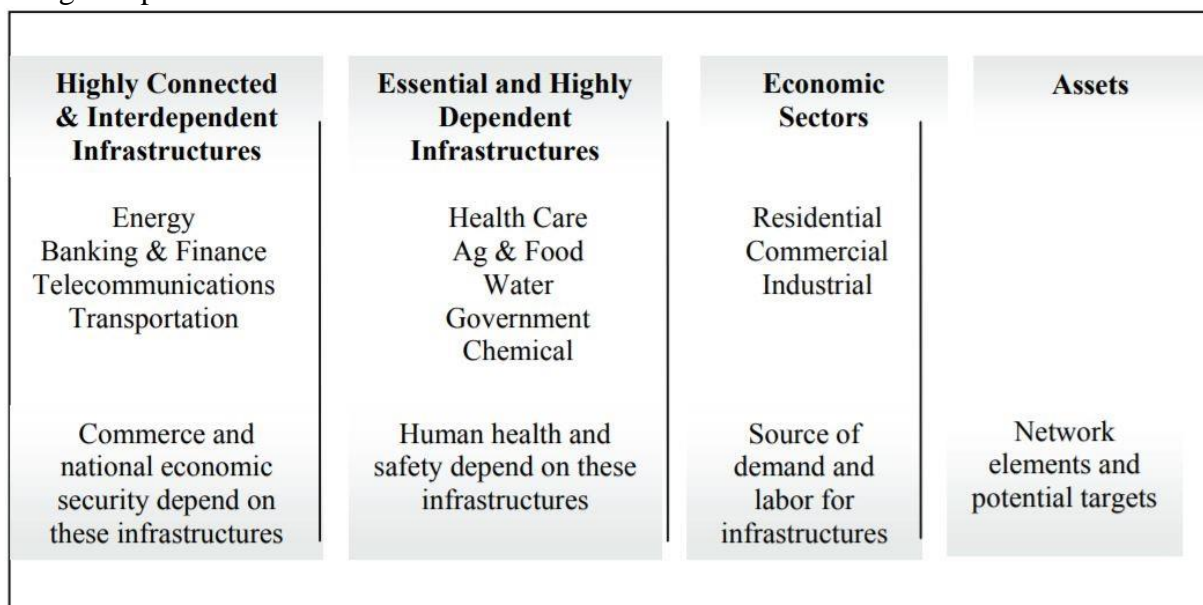
Highly Connected & Interdependent Infrastructures	Essential and Highly Dependent Infrastructures	Economic Sectors	Assets
Energy Banking & Finance Telecommunications Transportation	Health Care Ag & Food Water Government Chemical	Residential Commercial Industrial	
Commerce and national economic security depend on these infrastructures	Human health and safety depend on these infrastructures	Source of demand and labor for infrastructures	Network elements and potential targets

Figure no. 2: Critical sectors classification based on their characteristics[8]

A way in which we can classify the models is by how realistic or abstract they are. A realistic model is a model that has a high level of trust. In a simulation such a model can behave like how a system is behaving in real world, with a high fidelity rate. Real models are very difficult to develop due to their high complexity and because they may or may not describe accurately the system under conditions that are not known yet, abstract models are preferred. Abstract models are much more simple, implying much less details, computation and development time. This type of models under simulation can also evaluate a system in uncertain conditions[9].

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[7] E.-s Rosslin. C., John Robles, Min-kyu Choi, "Common Treats and Vulnerabilities of Critical Infrastructures", in *International Journal of Control and Automation*, vol. 7, 2014.

[8] J. F. Christopher, Muneer Jason Fowad, *Cybersecurity capability maturity model (C2M2)*, February 2014.

[9] *Ibidem.*

Modeling and simulation of critical infrastructures can be done following several criteria: modeling focus, methodical design strategies, types of interdependencies, types of events, course of triggered events, data needs and monitoring area.

1. *Modeling focus* - may follow two approaches: *qualitative* and *quantitative*. The qualitative approach is done through interdependencies analysis, in this way the interdependencies are analyzed for their dimensions and characteristics. This type of analysis is usually completed after hours of debate and usually does not uncover critical vulnerabilities. The quantitative approach is done through system analysis. System analysis is usually done by computers, being very complex and time consuming.

2. *Methodical design strategies* - two strategies can be followed: *bottom-up* and *top-down*. In the bottom-up approach the system is described starting from its smallest functional parts. This type of approach is easy to implement in code and as long as the input data is sufficient, the results are very precise. It is also less prone to errors than the other approach. The top-down approach is focusing on the all system properties. It cannot accurately identify the low-level factors, which in the end can alter the final results.

3. *Types of dependencies* - usually in modeling and simulation not all types of interdependencies are taken into account. The interdependency types have been discussed in a previous chapter.

4. *Types of events* - There are three types of events that can occur: accidents, attacks and failure events. Accidents have a large range of sources, like natural disasters or transport accidents and others. This type of sources usually came from outside of the system. Attacks are events done by an entity, usually with the purpose to gain financial benefit. Cyber attacks include information theft, intrusion or denial of service. Failure is the event with the result of a component being out of order. Failures happen mostly due to poor design or due to human operation errors.

5. *Course of triggered events* - interdependencies have disastrous effects when an unwanted event is triggered. They can create loops which in some cases are degrading the systems very fast. There are four types of events:

   - *cascading events*, in this case an unwanted event in one part of the infrastructure, has bad effects in other parts.
   - *escalating events* are a consequence of the cascading events. An escalating event propagates to another infrastructure different of the one where it started. In the infrastructure where it arrives, it may cause serious problems, even stopping infrastructure's operation.
   - *common cause events*, a common cause event is a type of unwanted events, which when it happens can create problems to multiple different system simultaneously. For example, if an accident occurs at the intersection of a street with a rail way both the traffic on street and on rail will be blocked, with just one event.
   - *confined events* this type of events are events that have no cascading, escalating or common cause consequences.

6. *Data needs* - a model usually needs input data related to the topology of the system, commodity flows, functioning, modeling parameters and others. Veridical results are influenced by the quality of data, lack of a data availability and data quality has negative consequences to the final results. A model can have a high demand of data or a low demand of data. In the first case to provide reasonable modeling outputs high quantity and quality of data is demanded. We need to be sure that we have the necessary amount of data before we start the simulation. In the second case the quality and quantity of data are irrelevant. In this case the outputs will only be plausible.

7. *Monitoring area* refers to how modeling and simulations are done and also to the output data. Depending on the what is pursued, the interdependencies models can be divided into four categories:

- *vulnerability assessment* with the goal to identify the vulnerabilities.
- *failure analysis* is the first step for vulnerability analysis. Through failure analysis the system's critical components are identified.
- *mitigation, prevention and self healing strategies* have the goal to prevent or confine the appearance of new vulnerabilities and also to try eradicate the existing ones.
- *information generation* has the goal to generate some data at the beginning, when the system characteristics and mechanics are still unknown, to see if some information regarding interdependencies is found.

There are a few of modeling techniques, from them it will be chose the one that is suitable. Some of this techniques are: agent-based modeling, supply demand graphs, hybrid system modeling, system dynamics, game theoretic model, input-output model, hierarchical holographic modeling, high level architecture, critical path method, Petri nets, etc. Further we will have a brief overview of the agent-base model and high level architecture[10].

Agent-base model (ABM)

Agent-base model, has the main objective to follow the actions and interactions between agents. Agents are software objects, but they can also be seen as nodes in a computer network. An agent has the ability to communicate with other agents. They even have the ability to learn from the input data which will help them later to be able to change their behavior. Because it's based on other underlying techniques like for example Monte-Carlo, it is seen as a modeling framework.

In critical infrastructure modeling ABM it is important because it has the possibility to emulate an emergent behavior. The agents are shaped after a set of rules. Each rule is based on three characteristics: *location*, *capabilities* and *history*. The location describes where the agent is located, like coordinates or geographic region, capabilities describe how agents interact and how they adopt changes. History is information about agent's past like its states for example. ABM proved that is it a good simulation and analysis solution for electrical gird infrastructure. The ABM has also some disadvantages. It is very time consuming and needs large amounts of input data, which cannot be always available. Agent-base model is successful used in economics and informatics[11].

High level architecture (HLA)

High level architecture is an architecture used for modeling and simulating complex systems. Its focus on breaking down a system in multiple sub-systems. In HLA the actions of the sub-systems are managed by the so called run-time infrastructure (RTI). HLA has three main components:

- *interface specification* this component defines how HLA interacts with RTI.
- *object model template* is like a framework, which makes possible the communication between the numerous HLA simulations.
- *rules* which needs to be obeyed in order to be in line with the standard[12].

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[10] *Cyber Security Awareness Week 5: Protecting Critical Infrastructure from Cyber Threats*, URL: https://bit.ly/2vVlXqX, accessed on 09.08.2017.

[11] *Idem*.

[12] *Ibidem*.

HLA is used in many scientific domains and it is the technical architecture standard for all US Department of Defense.

3. Threats, vulnerabilities and cybersecurity

Massive modernization of critical infrastructures through industrial control systems have made possible the management of these structures in a much easier way. But ICS has not brought only benefits, the high connectivity and openness of this systems brought new ways of system infiltration. Another problem is that some ICS are still using old software like, old operating systems and applications which have no longer support.

Security for CIs three decades ago was not so important, the most important aspect was the system's physical reliability. This has quickly change during the last years, when CIs have become prone to ordinary computer threats like malware for example and also the number of actors has increased. There are multiple entities responsible for the attacks against CI:

- *Nation states* are a new type of actors. Because a CI is a valuable target, some states aim to weakness their adversary.
- *Non-state organized threat groups*, also called "cyber-terrorists".
- *Hacktivists* have limited technical skills and they are relying on software developed by someone else. They are usually doing protests.
- *Business-oriented attackers* are that type of attackers who will trigger an attack against a competitor-controlled CI for business gain.
- *Casual attackers* are attackers that can launch an attack without a real purpose. There are examples of attacks against CI initiated by them[13].

Lack of security in CI can have so many impacts and even in a worst case scenario loss of human life. To improve or establish CI security, some models or frameworks were developed like for example the NIST Framework for Improving Critical Infrastructure Cybersecurity.

3.1. Vulnerabilities

CI have in their composition, critical components. Models and simulation can help in analyzing these components in order to find some of the vulnerabilities of these individual components and also the ones of their interdependencies. The modeling and simulation can be a first step in trying to reveal the vulnerabilities. Even though critical components are usually fail safe, attackers can find ways to bypass the fail-safe mechanisms. This is usually possible due to application layer, which has vulnerabilities and lacks of security. Beside the logical and design, vulnerabilities can also have other sources:

1. *Security administration* - All ICSs must be governed by security policies. Security related procedures must be predicted upon developing policies, in order for them to be effective. Important components of these security procedures are security plans, implementation guides, security guides and auditing. Security trainings are also a very important way to have an effective staff with a good knowledge, but trainings are often omitted due to their cost. An experienced security administration is every time a must in such a case of CIs, due to the impact that these structures have.
2. *Network* - Critical infrastructures are controlled by installations. These installations are connected through several networks that are predisposed to attacks. In the last years there was a trend of migrating from proprietary SCADA communication protocols to standards that are more common, like Ethernet and TCP/IP. This thing came along with advantages and also disadvantages. One advantage is that many proprietary protocols usually did not have security features built-in and with the migration a plus of protection

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[13] *Critical Infrastructures*. URL: https://bit.ly/2MupG8r, accessed on 07.08.2017.

was applied. Also using TCP/IP the systems could be monitored from the corporate networks. But this transition had its bad effects, too. For example, SCADA is now vulnerable to some application layer and TCP/IP-based attacks which creates a serious problem. Equipment with technologies like wireless sensor networks which use IEEE standards that are low on security were also introduced.

3. *Applications* - Applications in a distributed system can be deployed on each individual component or on a central server and all components to later make calls to it. The communication between components can lead to security violations due to this, in order to prevent data leakage, the channel needs to be protected. In such an environment a trusted infrastructure is needed, in order for messages to be secret and to be checked for integrity. Also the applications for managing critical components need to be very well tested when are developed in order to eliminate a potential zero-day vulnerability.

4. *Business and personal* - The expansion of CI's network connectivity has facilitated remote monitoring and control. Accessing critical components from distance has increase the attack surface. All the personal, ordinary business and everyone else who is interacting with the systems increases the possible attack surface. Employees are considered a point of failure for the security of an infrastructure. Most often they are victims of social engineering or spear phishing attacks[14].

3.2. Establishing cybersecurity in CI

Defending a CI against threats no matter their types is a challenge that intrigues many security researchers. An absolute protection of this assets will never be possible due to the costs and the large number of individual components that needs to be protected. There were many debates on this topic and as a result models and frameworks for analyzing and consolidating the cybersecurity were developed. For example, the C2M2 model released in May 2012 focuses on the implementation and management of cybersecurity practices from the perspective of information technology and operations technology assets. C2M2 can strengthen the cybersecurity capabilities, prioritize actions and investments to improve cybersecurity, share knowledge and best practices regarding to his topic[15]. In February 2014 NIST released the Framework for Improving Critical Infrastructure Cybersecurity (CSF). CSF consists of standards, guidelines, and best practices to manage cybersecurity-related risk.
There are also many other models but probably CSF is the most complete one, even if it is not the most used one.

CONCLUSIONS

This paper is an introduction in the wide domain of critical infrastructure protection. We saw how many sectors are considered critical and why the interdependency is complicating so much the security problem. We also saw what threats and vulnerabilities are common to CIs.

A good first approach in finding the vulnerabilities when interdependencies are around, is to model the infrastructure and to do a simulation in order to have a better view of the situation. There are a lot of models to choose from, but always the most proper one for that particular CI, need to be used. To ensure or improve cybersecurity a best practice is to enforce some policies of standards.

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[14] *Idem.*

[15] W. K. Irene Eusgeld, David Henzi, *Comparative Evaluation of Modeling and Simulation Techniques for Interdependent Critical Infrastructures*, April 2008.

As a future work, the NIST Framework for Improving Critical Infrastructures Cybersecurity, will be discussed to see what benefits it brings in the cybersecurity field of critical infrastructures.

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CYBERTHREATS TO CRITICAL INFRASTRUCTURE AND IOT

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Abstract: *This Research report tries to answer the question "What You Should Consider When Designing a Safe, Secure, and Reliable IoT Critical Infrastructure System?" and to assists Critical Infrastructures or other organizations, in strengthening their cybersecurity risk management by helping them to determine an appropriate implementation of the Framework for Improving Critical Infrastructure Cybersecurity. This document facilitates the strategies through five core functions: Identify, Protect, Detect, Respond, Recover.*
Keywords: *Critical Infrastructure (CI); SCADA systems; Internet of Things (IoT), Security Issues; Risks and challenges; Cybersecurity Framework.*

INTRODUCTION

Having a security culture and a functional working community is vital for critical infrastructure protection. Sometimes, the ideas help all of us adapt to a new changing world and keep us in a state of readiness. Cybersecurity threats exploit the complexity and interconnectivity of CI, placing the security, economy, public safety and health of a nation at risk. Public and private owners, many operators and different entities with a role in securing the Nation's infrastructure represent the CI community. Members of each critical infrastructure perform activities supported by information technology, industrial control systems, cyber-physical systems, or Internet of Things (IoT). In the past, Industrial Control Systems were operated as separated networks unconnected to public communication infrastructures, but today such isolation that protected these systems has declined. The benefits afforded by real time monitoring, peer to peer communications, multiple sessions and redundancy have enhanced the services provided for consumers and operators. Moreover, this interconnectedness will grow with the implementation of smart grids and execution of the Internet of Things. These advances are fuelling excitement around many emergent applications for the IoT. We should be concerned about using IoT applications in critical infrastructure systems, particularly those involving any: *Telecommunications grid, railway transportation system, air transportation network, electrical power system, water supply chain, road transportation system, public safety service, healthcare system.*
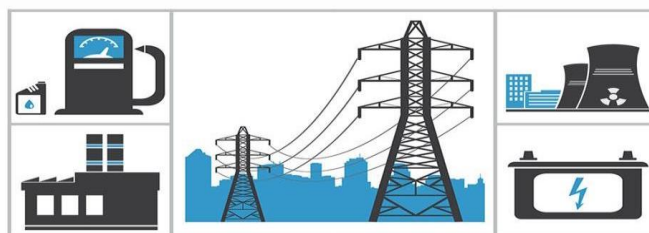

Figure no. 1

In any of these applications, certain failures could lead to serious injury and death (including on a large scale).

1. Critical Infrastructure and the IoT

Critical infrastructure, the systems which contain the assets and networks (physical or virtual) determine the security, well-being and resilience of an entire nation. In this context, the Internet of Things (IoT) becomes the important element within a larger spectrum of networked products and digital sensors which caused many applications, marking a fundamental shift in the way human beings interact with the Internet and amplifying both opportunities and challenges in this world. The Internet of Things (IoT) will fundamentally change all industries, from agriculture to transportation to healthcare. In the next few decades, nearly everything in our world will become connected.[1]

The immense opportunities and benefits of IoT must be balanced by appropriate security measures which are keeping pace with IoT technology.

1.1 Risks and challenges for the IoT

An IoT application includes different structures such as sensors, data streams and different cyber devices. Inputs are transmitted by wireless / communications to a point of contact, where processors apply different algorithms to make decisions, and then send control signals to the actuators associated with the devices in implementation. Each of these points can cause a failure, and in critical infrastructures, such failure can cause catastrophes. Moreover, the interactions (both planned and unplanned) between critical and non-critical systems in IoT create problems that arise from differences in the vocabulary of the field, harmonization of standards and confusion and unwanted emergent behaviors. These interactive, dynamic and intersecting IoT ecosystems also create the potential for increased threat vectors, new vulnerabilities and tragedies.

Connectivity through portable devices, smart homes / cars and wireless devices increases cyber-attacks. In fact, the vulnerabilities of critical infrastructure systems have already been reported. For example, there are known vulnerabilities in some smart power meters and older SCADA systems that control many of the critical infrastructure systems around the world. More recently, it has been proven that certain traffic control sensors and smart LED bulbs connected to the network can be used by hackers. These vulnerabilities can be encountered in any of the ecosystems in the scenario mentioned above - car systems, rail transport systems, even flight systems. In fact, these vulnerabilities can be found almost everywhere, even in home appliances. The attack surface is going to expand greatly.

1.2 SCADA – then and now

In the past, the main scope of the SCADA systems was to collect data and monitor processes via mainframe computers. Now though, with 64bit computing, bulk configuration tools, and next-level graphical user interfaces (GUIs) native to most SCADA products, traditional barriers to entry no longer exist. [15]

SCADA systems are the end-to-end system that receives data from intelligent electrical devices (IEDs) or remote terminal units (RTUs) and are connected to sensors through a communications network. The system analyzes this data and submits orders with individual SCADA applications. In the early days, the system was used to control and monitor processes through costly and slow mainframe computers, which initially laid the foundation for data recording technology. With the introduction of advanced graphical user interfaces

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[1] URL: http://uk.businessinsider.com/internet-of-things-infrastructure-architecture-management-2016-10

(GUIs) and mass configuration tools, it has become more efficient and accurate.[2] Today, SCADA is used in various industries, such as the mining industry which uses SCADA to monitor environmental parameters, the oil and gas industry that uses it for real-time monitoring of pipelines and extraction processes from a remote location, or in railways industries where uses it to manage communication, traction control and train control automation implementation.[3]

The Internet of Things is the next phase of smart production that enhances SCADA, making it smarter and smarter. IoT complements both the distributed control system (DCS) and SCADA by expanding existing capabilities such as real-time data capture, anomaly / machine malfunction alerts, real-time control, data recording, data analysis and visualization.

1.3 Industrial SCADA IoT infrastructure Architecture

The components of a SCADA system consist of sensors and actuators which are responsible for collecting physical parametric data from field devices. These signals are usually stored in an analogue format and are converted using a Remote Terminal Unit, Programmable Logic Controllers or Intelligent electronic device (IED). Once the data is converted, they are transmitted via a communication channel to the SCADA presentation and control unit where the collected data is processed, and operations are transmitted back to the devices on the field. The SCADA control uses a Human Machine Interface (HMI) that is responsible for presenting the collected data to the operator in a human readable form. However, there is a further expansion of the architecture in situations where we have an operator outside the industrial network area who is trying to control the devices from remote locations. Communication between the field devices and the SCADA host can be via dial-up, satellite, serial, radio, telephone, or WLAN. Also, specialised communication protocols like DNP, DNP3, ICCP, MODBUS, and ProfiBus etc. are adopted within the SCADA network. Because some of these protocols existed over 20 years ago when security was not much of a problem, the focus was on efficient operation and not security

With up to 4 layers (collection, conversion, communication and control) within the SCADA system, we see that any of the layers can be used as an attack entry point into the system. A physical attack where the field devices are adjusted by an attacker or a malicious insider changes the data that is sent to the HMI. Some of the popular protocols that are still used till date do not include authenticity and encryption during their development, and these shortcomings can be exploited in intercepting the data that is transferred between the devices. Operational errors from insiders or lack of proper access management can leave the HMI vulnerable and malicious attacker can exploit HMI vulnerabilities to interfere with industrial processes.

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[2] URL: https://insight.ieeeusa.org/articles/critical-infrastructure-and-the-iot-a-licensing-perspective/
[3] *Ibidem.*

Traditional SCADA	IoT takes it to the next level
Autonomous commands	Data aggregation
Remote monitoring	Predictive analytics (what will happen in the future)
Supervisory control	Prescriptive analytics (What you should do)
Alarms and alerts	Data creates value in multiple applications
Reporting	Enabling new business models
Decrease operations and maintenance costs	

Figure no. 1: IoT takes SCADA systems to the next level[4]

1.4. Cyber threats to Critical Infrastructure

Threats to critical infrastructure are increasingly through electronic, radiofrequency or computer-based attacks on the information that control it. The IT systems with cyber components form the main core of IC nearly all of which use IT to facilitate core business processes. The cyber systems are high-value targets for attack, because the disruption of them determine many and important economic, political and social effects. Numerous kinds of threats exploit certain kinds of cyber systems of critical infrastructure. Nadav Morag (2014)[5] describe in her study, computer systems are generally vulnerable to six types of risk:

- risks due to IT (hardware, software, people, processes);
- risks due to interconnection with outside parties and providers (banks, other companies, and so on);
- risks due to outside suppliers (cloud providers, subcontractors, and so on);
- risks due to disruptions in IT equipment and logistics;
- new technologies (such as the IoT); and
- threats to upstream infrastructure (power supply, water supply, and so on). (Nadav Morag, Cybercrime, Cyberespionage, and Cybersabotage: Understanding Emerging Threats, 2014)

1.5. Security Issues of Industrial SCADA IoT Infrastructure
1.5.1 HMI Vulnerabilities

An attacker can exploit the industrial SCADA system by exploiting the inherent vulnerabilities that exists in the HMI of the system.

- *Hardcoded Credentials*. A hijack of the HMI component can allow a remote attacker to control the field devices. Inherent vulnerabilities that can be exploited includes embedded username and password code in plain text within the Java code used in designing Web HMIs. This can leave authentication insecurities as a remote attacker can infiltrate into the system and decompile the codes. The usernames and password can then be used to access the SCADA system through a web interface.
- *Poor Input Field Validation*. Also, improper coding techniques can allow an attacker to run queries via the input field of a web HMI resulting in SQL injection attacks. This is due to a lack of proper validation techniques in the input field of the web interface. An

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[4] URL: https://www.softwebsolutions.com/resources/transform-old-machines-into-smart-machines-using
[5] Morag, Nadav. 2014, "Cybercrime, Cyberespionage, and Cybersabotage: Understanding Emerging Threats." Colorado Technical University, October, www.coloradotech.edu/~/media/CTU/Files/Thought Leadership/cybercrime-white-paper.ashx

attacker can, therefore, run queries such as INSERT, SELECT, UPDATE, DELETE that are sent directly to manipulate the database.

- *Poor Authentication and Authorization*. Poor authentication techniques are a loophole in the system. For example, lack of a two-factor authentication system in a critical infrastructure leave the attacker with an opportunity to access a system without many efforts.

- *Zero Day Exploits*. Unidentified vulnerabilities by the system software manufacturers is one of the most common threats exploited by SCADA network attackers. Due to the nature of the vulnerability, attackers can infiltrate into a system performing reconnaissance and scanning and entry without being detected. Zero days in SCADA HMI can be used to exploit vulnerabilities such as memory corruption, buffer overflow, critical credential managements, injections, insecure defaults etc.

1.5.2 PLC (Programmable Logic Controller) Vulnerabilities

The PLC, sensors and actuators serve as data aggregators on the industrial field. It is possible that an attacker assumes the control of a PLC by exploiting their inherent vulnerabilities and then directly or indirectly interfering with the industrial processes. The exploitation of the PLC firmware vulnerabilities by an attacker can provide direct access to the sensors and actuators on the field. The PLC firmware works as the operating system acting as an intermediary between the hardware and its programmable layer. Because of this, an attacker can directly change the readings of the field devices and then send an incorrect data to the SCADA master. Although the attack on the SCADA system via the PLC is not common, technically there is a possibility.

1.5.3 Social Engineering

Cyber attackers can leverage social engineering techniques to infiltrate into a network. Checking IoT databases like shodan.io[6] for device default username and passwords is one method of learning about the network. Email spear phishing methods can also be adopted as an entry point into the corporate network if an attacker's intent is to inject malware over a network. Tricking an insider to physically connect a device (e.g. USB, disk drive) to spread a malware is also possible.

1.5.4 Inadequate Physical Security

The field devices themselves are responsible for the operation of the industrial process and improper physical security procedures can allow an unauthorised attacker to gain physical access to the devices. The consequence of this is that even though the SCADA monitor generates an alarm due to the inappropriate data received, it will be difficult to correct the situation except by physical means

1.5.5 SCADA Protocol Vulnerabilities

Most of the common protocols used within the SCADA networks are designed for operational efficiency and effectiveness and not security. They do not include authentication mechanisms common in traditional IT systems used to verify the identity of the sender or receiver of the data thereby enabling attackers to compromise the integrity and confidentiality of sensor reading values.

1.5.6 Connection with Corporate network

Earlier SCADA systems rely on point to point networks. To adjust the scale of SCADA networks to fit into the current organisational needs, SCADA systems are being connected to the corporate network via secure gateways. Corporate networks run as the same as general IT networks and with the same attack surface, they are susceptible to attacks like SQL injection, crosssite-scripting, phishing, spear phishing, and other vulnerability exploitations. Now it is possible to exploit the vulnerabilities present in the outside network to

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[6] URL: https://www.shodan.io/ - The search engine

gain access into the internal industrial network. According to, part of the events of the Ukrainian power plant attack in December 2015 was that the attackers tried to gain control of the Ukrainian power plant first via the internal network by coordinating a spear phishing attack first to the internal staff to spread malware. The attackers eventually found their way into the system and then stole access credentials that were used in other stages of the attack. This was an effort to gain access to the HMI and control it from a command and control server.

2. Cybersecurity Framework

Security is one of the crucial requirements. Let's think about it from the very start of planning/developing your system or service. Without sufficient security measures in place, IoT cannot be a part of secure life/social infrastructures.[7]

Cybersecurity Framework[8] consists of standards, guidelines, and best practices to manage the risks of CI. The Cybersecurity Framework promotes the protection and resilience of critical infrastructure and other important sectors for economy and/or national security.[9]

2.1. Framework Components

The Cybersecurity Framework consists of three main levels:
- Implementation Tiers
- Framework Core
- Profiles

2.1.1 Framework Core

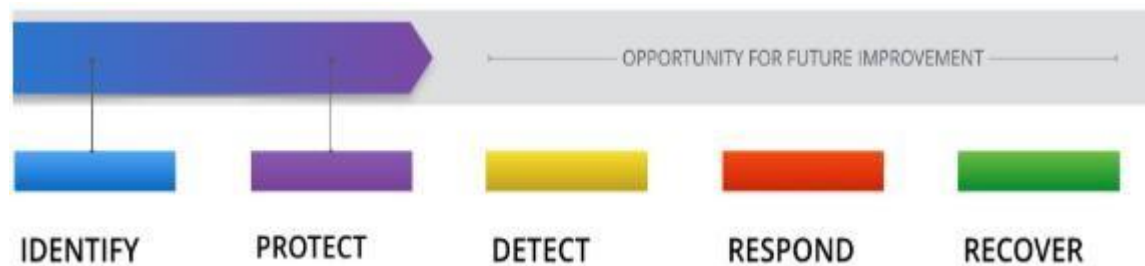The core of the framework has five functions – identify, protect, detect, respond and recover.[10]

Figure no. 2: NIST Framework Core[11]

Core consists of cybersecurity activities and applicable references established through five concurrent and continuous functions—Identify, Protect, Detect, Respond and Recover—that provide a view of the lifecycle to manage the cybersecurity risks at the organisational level. The Core principles can be the main ways for how the organization implements its cybersecurity practices:
- *Identify* - the identification of critical assets and intellectual property;
- *Protect* - the development and the implementation of the procedures to protect the critical assets;
- *Detect* - the identification of a cybersecurity breach;
- *Respond* - having procedures to respond to cyberattacks;

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[7] URL: https://www.nist.gov/cyberframework/online-learning/uses-and-benefits-framework
[8] URL: https://www.nist.gov/cyberframework
[9] *Idem.*
[10] *Ibidem.*
[11] URL: http://techno-lounge.com/nist-cybersecurity-framework/

- *Recover* from a breach, if and when one occurs.

Cybersecurity Framework presents Framework Core - a list that represents the Functions, the Categories, the Subcategories, and the Informative References that describe specific cybersecurity activities which are common for all critical infrastructure.

The Framework Core represents a common set of activities for managing cybersecurity risk.

Function Unique Identifier	Function	Category Unique Identifier	Category
ID	Identify	ID.AM	Asset Management
		ID.BE	Business Environment
		ID.GV	Governance
		ID.RA	Risk Assessment
		ID.RM	Risk Management Strategy
		ID.SC	Supply Chain Risk Management
PR	Protect	PR.AC	Identity Management and Access Control
		PR.AT	Awareness and Training
		PR.DS	Data Security
		PR.IP	Information Protection Processes and Procedures
		PR.MA	Maintenance
		PR.PT	Protective Technology
DE	Detect	DE.AE	Anomalies and Events
		DE.CM	Security Continuous Monitoring
		DE.DP	Detection Processes
RS	Respond	RS.RP	Response Planning
		RS.CO	Communications
		RS.AN	Analysis
		RS.MI	Mitigation
		RS.IM	Improvements
RC	Recover	RC.RP	Recovery Planning
		RC.IM	Improvements
		RC.CO	Communications

Figure no. 3: Function and Category Unique Identifiers[12]

2.1.2 The Framework Implementation Tiers

Tiers describe the degree to which an organization manages the cybersecurity risk based on characteristics defined in the Framework. The Tiers range from Tier 1- Partial to Adaptive - Tier 4 describes how well integrated cybersecurity risk decisions are into broader risk decisions, and the way in which the organization receives and shared the information about cybersecurity from external parties

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[12] URL: https://nvlpubs.nist.gov/nistpubs/CSWP/NIST.CSWP.04162018.pdf - Appendix A: Framework Core

Figure 4: Framework Implementation Tiers[13]

2.1.3 Framework Profiles

Profiles represent how the organization aligns with the organizational requirements and objectives, accepts the risk and uses the resources in relation to the desired results of the framework core. Profiles can be used for improving cybersecurity of organisation by comparing a "Current" Profile with a "Target" Profile.

2.2. Why Use a Cybersecurity Framework?[14]

The Framework provides a common language and systematic methodology for managing cybersecurity risk. The Core includes activities to be incorporated in a cybersecurity program that can be tailored to meet any organization's needs. The Framework is designed to complement, not replace, an organization's cybersecurity program and risk management processes.[15]

NIST Framework was designed with Critical Infrastructure (CI) in mind, and it is extremely versatile.

The Cybersecurity Framework is designed to reduce cybersecurity risks by improving the management of organisation. Using the Framework, the organizations will be able to measure and assign values to their risk along with the cost and benefits of steps taken to reduce risk to acceptable values. The better an organization measures the risk, costs and benefits of cyber security actions, the more efficient and valuable its cybersecurity approach and investments will be.

CONCLUSIONS

Therefore, with critical infrastructure we need to know for the worst case and conduct regular training exercises to prepare for this event. This will help reduce the impact of a successful attack and protect from unnecessary damage. However, before the systems are developed, and people are educated about the risks, there needs to be a secure foundation to build up from. The fundamental standards, which IoT devices have to comply to, have to be secure so that no one device can be an entry point for the whole system. While the benefits of the IoT are great, and should be explored, it is simply unwise for critical applications to follow the early adopter path.[16]

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[13] URL: https://www.nist.gov/cyberframework/online-learning/components-framework

[14] URL: https://www.nist.gov/cyberframework/online-learning/uses-and-benefits-framework

[15] *Idem.*

[16] URL: https://www.softwebsolutions.com/resources/transform-old-machines-into-smart-machines-using-iot.html

Engineering safe IoT systems for critical infrastructure involves anticipating these scenarios. It also requires a comprehensive approach involving selecting the correct engineering lifecycle model and associated processes, embracing process discipline and standards compliance, understanding complex interactions and selecting the right tools for use throughout the systems lifecycle.

Connected systems are easier to use, and streamlined utilization can make a big difference when time is of the essence. When these systems aren't protected correctly, though, they could fall into the wrong hands and be used in a way that wasn't initially intended.

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15. https://www.securitymagazine.com/blogs/14-security-blog/post/88890-how-to-use-the-nistcybersecurity-framework
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17. https://www.tripwire.com/state-of-security/security-data-protection/iot/protecting-criticalinfrastructure-age-iot/

SYSTEM ARCHITECTURE FOR IOT DEVICES
IN THE DOMESTIC ENVIRONMENT

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Abstract: Nowadays, IoT devices are a part of our lives and we use them directly or indirectly. A common problem with these devices is the security and protection of data which is generated by its. In the paper it is proposed an architecture which aim to improve the security of IoT devices in the domestic environment. This architecture will improve the security level of IoT devices in any "Smart home" by creating an initial communication footprint for each IoT device identified in the network, also, will identify behavioural and traffic anomalies of IoT devices by generating security alerts in a dashboard based on configurable security thresholds. By interconnecting the monitoring and the protection module of the IoT devices in the domestic environment the possible problems regarding the security of the IoT devices can be detected and recommendations for increasing the security can be generated to the producers.
Keywords: IoT devices; smart home; security; cyber-attacks; IoT security.

INTRODUCTION

When we speak by Internet of Things (IoT) we have in mind a structure of physical objects, or "things", endowed with electronic components, software, sensors and Internet connections, through which data is collected and distributed. The objects can communicate with each other, locally or globally, without human intervention, only based on IP connectivity, and, also, these objects are uniquely identified in the network[1].

Moreover, IoT has its own systems of management, monitoring, statistical calculations and data analysis. In IoT, a "thing" also refers to a person with a monitored cardiac or electric implant or any other natural or artificial object to whom an IP address can be attached and who is capable of transferring data through internet. Nowadays, the Internet of Things is a daily presence in our lives: in our homes, by using smart meters which coordinate and save electricity consumption; in our cars where provides technical assistance if needed or send alerts if the car is stolen[2]. The determining factors in the proliferation and success of the IoT

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[1] URL: https://internetofthingsagenda.techtarget.com/definition/Internet-of-Things-IoT, accessed on Oct. 10, 2019.

[2] Ravi & Jain Kodali Vishal & Bose, Suvadeep & Boppana, Lakshmi, 2016, *IoT based smart security and home automation system*. 1286-1289. 10.1109/CCAA.2016.7813916.

are the emergence and development of artificial intelligence, machine learning and data mining methods.

In a current study made by IDC is mentioned that the evolution in connected IoT devices is anticipated to generate 79.4ZB of data in 2025, also it is estimated that there will be 41.6 billion connected IoT devices and the quantity of data created by IoT devices will see a compound annual growth rate (CAGR) of 28.7% over the 2018-2025 forecast period[3].

A smart home currently has a lot of IoT devices that are ready for automation. Some are located in the entertainment area (e.g. smart TVs), others are home appliances, or lighting, home access and security devices. Using artificial intelligence methods, managing these IoT devices can lead to increased quality of life. Implementing IoT on a global scale, affecting billions of people and devices, has not only benefits. Two aspects - cyber security and the protection of personal privacy - are the essential risks currently facing the IoT domain[4]. Secondly, problems related to the integration, reliability and scalability of the used data can be listed. Cyber-attack statistics vary by source, but all agree that they are growing. Regardless of the numbers, two trends are evident in the IoT world[5]:

• Cyber attacks are constantly growing;

• Cyber attacks are becoming more destructive, and the impact of attacks is getting stronger.

Although the specialists credit IoT solutions and services with huge development potential, for this to materialize at the level of expectations, an acceleration of the technology maturation phenomenon is needed. One of the priorities for the development of IoT technology is the Security[6]. The nomination is justified in the context of the constant increase of the volume, complexity and diversity of computer threats. According to Avast, the IoT devices can be hacked just like any other device connected to the internet, because, also the IoT devices are connected to the internet. On the other hand, to protect the network, it's important to understand the security weaknesses of the IoT devices. An important role in IoT security issues is the growth of attack surfaces due to an increased number of IoT devices[7]. Experts estimate that, in the coming years, efforts to secure connected objects will focus on the area of device management, analysis and provisioning, which will move the centre of gravity to integrated management platforms, capable of integrating advanced monitoring functionality, detection, access control etc. Another direction of development is the new generation of cloud services, security, dedicated to the IoT area, which, benefiting from the native advantage of scalability and flexibility, will register a growing demand.

People should be able to use smart IoT devices in the domestic environment without worry, but today's reality makes this a challenge. The way in which today's IoT devices are designed and built put their functionality in the forefront and often bring security as a further solution. First, there is the issue of confidentiality. Several IoT devices have the function of recording or transmitting audio-visual information in the cloud or to their management platform. If an attacker is able to intercept this communication, then he can see and hear everything that is happening in people's homes[8]. Given that the functionality of many IoT devices is based on cloud-based components provided by the companies that built them, in the

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[3] URL: https://www.idc.com/getdoc.jsp?containerId=prUS44596319, accessed on Oct. 10, 2019.

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[5] URL: https://www.nato.int/cps/en/natohq/opinions_166039.htm, accessed on Oct. 10, 2019.

[6] URL: https://www.smart-energy.com/industry-sectors/business-finance-regulation/new-study-highlights-2019-priorities-for-iot-developers/, accessed on Oct. 15, 2019.

[7] URL: https://blog.avast.com/iot-security-business-risk, accessed on Oct. 15, 2019.

[8] URL: https://businessinsights.bitdefender.com/iot-security-businesses-environment, accessed on Oct. 15, 2019.

event that these companies will be shut down (bankruptcy / insolvency) or absorbed by other companies, there is a risk that support for these devices should be limited or non-existent.

The factors contributing to these risks are internal and external. Internal factors are things that can be controlled either by IoT manufacturers or by home users; the external ones are those outside their sphere of influence. An example of an external factor is attackers who can spy on domestic users. Attackers can take advantage of the lack of security of IoT devices to gather their data and to better profile their targets. Attackers can also perform "man-in-the-middle" attacks to send malware to IoT devices in the home environment. They can stop for example fire alarms, manipulate smart bulbs, and possibly manipulate other smart home devices until they are destroyed or compromised. Many risks arise from the way home users have configured their IoT devices[9]. Configured wireless home networks are the best attack vector for attackers trying to get an entry point into a smart home. If a user, for example, does not change the default password on their own IoT device, it makes them more exposed to attackers. Manufacturers of IoT devices can also be blamed for exposing their users to risks when they do not update their firmware for IoT devices.

Given that, unlike PCs and smartphones, existing IoT devices on the market do not use an operating system or a restricted set of operating systems, it makes it more difficult for potential attackers to launch large-scale attacks. In recent years, there have been reports published by security researchers that have shown that smart devices can indeed be compromised. These researchers decided to break these gadgets with the sole intention of informing manufacturers about the areas they need to improve in terms of functionality and device security. For example, they have shown that it is possible for an attacker to remotely view information about smart IoT devices. These experiments were conducted in a controlled regime, without causing any harm in the real world.

In literature here are a lot of papers regarding the security and protection of the IoT devices in home environment. For example, Roshmi S. and his colleagues propose a system developed by using the characteristics of IoT that which enables to monitor an IoT device installed at home from anywhere at any time over the Internet when data is stored in the cloud[10]. Other authors develop a tool, named HomeGuard. This tool is used to detect possible weaknesses in the applications developed for remote control of smart home devices. More exactly, the tool initial identifies data flows associated to sensitive control and data messages, and second checks where such data flows to and whether the data is properly encrypted[11]. In another approach is presented the issue of identification of the IoT devices at network level. The authors start from the idea that implementing a controlled machine learning algorithm in the network has two issues: neither scales well nor can identify new devices. So, in order to challenge these issues, they developed a distributed device fingerprinting technique (DEFT), that addresses and exploits the existence of usual devices, including new devices, across smart homes and enterprises in a network[12].

Also, the European Union acknowledges the importance of research and testing on the Internet of Things, for the purpose to support the development and take-up of the

[9] M. Barcena, C. Wueest, "Insecurity in the Internet of Things", Mar 2015, [online] URL: https://www.symantec.com/content/en/us/enterprise/media/security_response/whiteoaoers/insecuritv-in-the-internet-of-things.pdf.

[10] R. Sarmah, M. Bhuyan and M. H. Bhuyan, "SURE-H: A Secure IoT Enabled Smart Home System," 2019 *IEEE 5th World Forum on Internet of Things (WF-IoT)*, Limerick, Ireland, 2019, pp. 59-63.

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technology[13]. The future design of the IoT applications depends on the development of advanced platform architectures for smart objects, embedded intelligence and smart networks, considering distributed data analytics, actuation, security, and adaptive behaviour. In 2016 the 'IoT European Platform Initiative' was launched, which include seven research and innovation IoT projects funded by the Horizon 2020 programme. The INTER-IoT project[14] aim is to design, implement and test a framework that will allow interoperability among different Internet of Things (IoT) platforms. Within the AGILE project[15] will be build a modular hardware and software gateway for the IoT with support for protocol interoperability, device and data management, IoT apps execution, and external Cloud communication, featuring diverse pilot activities, Open Calls & Community building. Another project is symbIoTe which aims to devise an interoperability framework across existing and future IoT platforms[16].

In the next section is proposed our system architecture. This architecture will improve the security level of IoT devices in any smart home by creating an initial communication footprint for each IoT device identified in the network, also, will identify behavioural and traffic anomalies of IoT devices by generating security alerts in a dashboard based on configurable security thresholds.

System Architecture

The paper aims to develop a system of inventory, monitoring and protection of IoT devices in the domestic environment that use WiFi, Bluetooth and TCP / IP technologies for data transmission. The proposed system will use VPN, Firewall and "SSL Termination" techniques for accessing, monitoring and protecting IoT devices in the domestic environment, analyzing security risks based on event history, inspecting network traffic and identifying behavioral and traffic anomalies against the fingerprint, initial communication as well as generating security alerts. The system architecture is presented in figure 1.
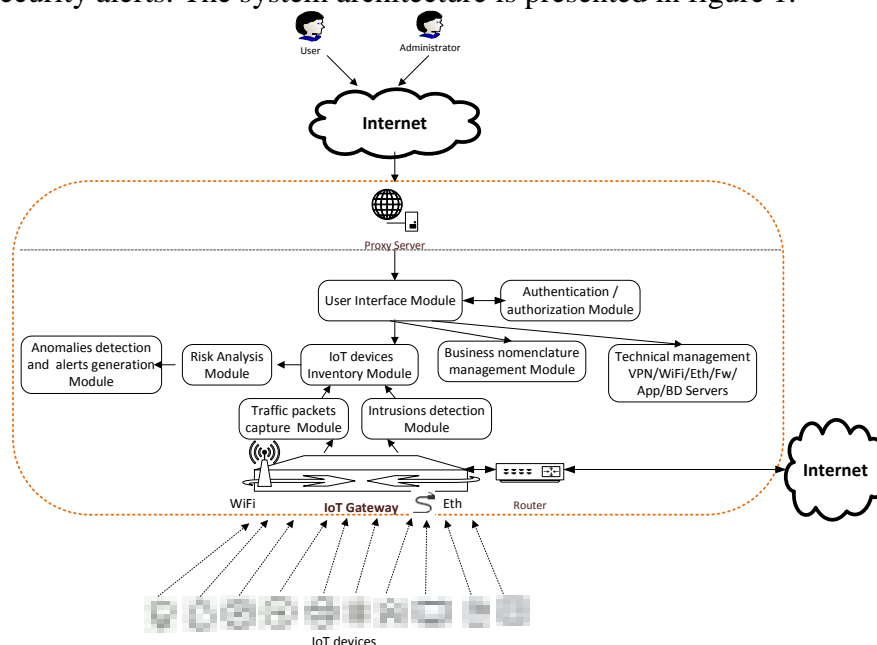

Figure no. 1: Architecture of the system

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[13] URL: https://ec.europa.eu/digital-single-market/en/research-innovation-iot accessed on Oct. 10, 2019.

[14] URL: https://inter-iot.eu/ accessed on Oct. 15, 2019.

[15] URL: http://agile-iot.eu/ accessed on Oct. 15, 2019.

[16] URL: https://www.symbiote-h2020.eu/ accessed on Oct. 15, 2019.

The proposed architecture is composed of the following modules:

● The *IoT Gateway Module* is a HW/SW device with network traffic routing capabilities and high wireless performance. The module has the next functionalities:

- enables the connection and detection of IoT devices that work with Wi-Fi, Bluetooth and Ethernet interfaces;

- provides support for the following interfaces: Sata, 10/100/1000 Mb Ethernet, USB 3.0/USB 2.0, HDMI, WIFI & Bluetooth 802.11b/g/n;

- can run on the following operating systems: OpenWRT, Debian, Ubuntu, Raspbian, Android;

- provides the possibility for administrators to VPN and secure TCP/IP communication using Ipsec protocol and implementing IKE (Internet Key Exchange) v1 and v2 security protocols;

- provides the possibility of "SSL Termination" and then the access on the IoT devices;

- provides firewall functionality and the ability to cut connections for certain IoT devices considered suspicious, based on Access Control Lists (ACLs) implemented using IPtables utilities / services.

● The *Traffic packets capture module* represents APIs / libraries interfaces that capture the analysis and filtering of TCP/IP network traffic and transmits the collected network traffic to the Inventory module of the network devices.

● The *Intrusions detection / prevention module* has the following functionalities:

- performs real-time or near-real-time network traffic inspection and identifies protocols and ports used by IoT devices;

- performs internal analysis and logs the network traffic into a set of log files;

- performs extensive logging related to detected events.

The collected data can be used to confirm the validity of alerts, to investigate incidents and to correlate events with other logging sources. The data fields recorded include the following:

(i)   timestamp (usually the date and time);
(ii)   the connection or the session ID (usually a consecutive or unique number assigned to each TCP connection or to some packet groups corresponding to the offline protocols);
(iii)   type of event or alert;
(iv)   evaluation (priority, severity, impact, confidence level);
(v)   protocol level: network, transport, or application;
(vi)   source and destination IP addresses;
(vii)   source and destination TCP / UDP ports or ICMP types and related codes;
(viii) number of bytes transmitted;
(ix)   data decoded from payload, such as application requests and responses;
(x)   status information (e.g. authenticated username);
(xi)   preventive action taken (if applicable).

Also, the module generates additional meta-information which is send to the next module - Inventory of network devices to detect if the current traffic and behavior matches the initial communication footprint existing at the level of the Inventory Module of network devices. Other functionalities of the module are:

- Uses closely linked detection methods, both signature-based detection, anomaly detection and stateful protocol analysis techniques to perform in-depth analysis of common protocols;

- Contains a state-of-the-art protocol analysis engine that can divide the analyzed activity into requests and answers, each part being examined for anomalies and compared to the signatures of activities known to be malicious;

- Detects events such as:

(i) Attacks at the TCP stack application layer (e.g. banner grabbing, buffer overflow, string attacks format, password guessing, malware transmission). Most application-specific protocols are analyzed. We include here: DHCP (Dynamic Host Configuration Protocol), DNS (Domain Name Server), Finger, FTP (File Transfer Protocol), IMAP (Internet Message Access Protocol), IRC (Internet Relay Chat), NFS (Network File System), POP (Post Office Protocol), HTTP6, RPC (Remote Call Procedure), SIP (Session Initiation Protocol), SMB (Server Message Block), SMTP (Simple Mail Transfer Protocol), SNMP (Simple Network Management Protocol), Telnet and TFTP (Trivial File Transfer Protocol), as well as database specific protocols, instant messaging applications and peer-to-peer file sharing software;

(ii) Attacks at the Transport (port scanning, unusual packet fragmentation, floods with SYN). The most commonly analyzed protocols are TCP and UDP;

(iii) Attacks at the Internet / network layer (fake IP addresses, illegal values in the IP header). The most commonly analyzed protocols are IPv4, ICMP, and IGMP, IPv6;

(iv) Unforeseen services / applications (e.g. tunneling protocols, backdoors, hosts running unauthorized applications / services). These attacks are usually detected by analyzing stateful protocols, which can determine if the activity in a connection is in accordance with the protocol used, or by methods of detecting anomalies that can identify changes in network flows and open ports;

(v) Violation of security policies (e.g. use of inappropriate websites, use of prohibited applications). Some types of security policy violations can be detected by IDPS, allowing administrators to specify the features of activities that should not be allowed, such as TCP / UDP port numbers, IP addresses, website names, and other data that can be identified by examining network traffic.

● The *IoT devices inventory module* performs the management of the identified IoT devices and their connections (performs the identification and display of the attributes of the networked IoT devices in a web interface, identifying the non-communicating IoT devices), manages events related to each IoT device, identified by the packet capture and intrusion detection modules and, also, manages the initial communication footprint for each IoT device identified in the network;

● the *Risk analysis module* performs security risk analysis based on the history of events managed in the IoT device inventory module, identifies suspicious connections of IoT devices and identifies risks associated with suspicious connections related to IoT devices. Also, generates recommendations for identified IoT networks and devices.

● The *Anomalies detection and alerts generation module* has the following functionalities:

- provides the functionality of "Machine Learning" and "Data Mining" by identifying behavioral and traffic anomalies of the IoT devices (for example, port changes, protocols, behavior towards the initial communication footprint of each device Networked IoT);

- generates security alerts in a dashboard based on the thresholds set in the Risk Analysis module;

- offers the possibility to redirect security alerts to administrator / operator e-mail and push on their mobile terminals;

- offers the possibility of manual intervention of the human operator / administrator in the dashboard in order to make decisions regarding the IoT devices following the receipt of the darkness alerts (including the isolation of the suspected IoT devices);

- offers the possibility of automatic intervention of the system by isolating IoT devices in case of exceeding security thresholds considered critical;

- provides functionality for reporting traffic statistics per IoT device per period.

● The *Business nomenclature management module* performs the nomenclature management of users, roles, rights, types of IoT devices, types of networks, etc. and provides the possibility of configuring / operating the system in the following modes:

(i) "Learning Mode" - operating mode in learning mode;

(ii) "Production Mode" - actual / in production mode.

● The *Technical management module* (VPN / Wi-Fi / Eth / Fw / Server App / BD) provides a web interface for administration/configuration at system, hardware, network (access control, IP and port addresses, web server logging, interface user, operating system, language displayed, page indexing, authentication, themes, blocked hosts and users, SSL encryption, certification authority, databases, Firewall, VPN, Eth).

● The *User interface module* provides a user-friendly web interface, accessible through https protocol and a unique web access interface for system users, optimal performance at all levels and guarantees the best response time for them.

● The *Authentication/Authorization module*. Within this module the authentication and authorization of users within the monitoring and protection system of IoT devices in the domestic environment are performed by the application server. Access to system functions is allowed only to users who have the necessary rights. Rights are allocated to roles and not directly to users. The role model is designed to be hierarchical. Roles can inherit rights. To each user can be assigned any number of roles. Users are only once logged in a session. Password-based authentication is performed by the core components of the system and the next session is created. Subsequent calls from the same client are connected to that session. The application server automatically assigns rights corresponding to those calls. Sessions expire by explicit logout or by configurable timeout. The core of the system provides the functionality to define the minimum complexity of user passwords and to require changing passwords at defined time intervals.

CONCLUSIONS

The proposed architecture to be implemented within the paper aims to solve the security problems related to the IoT devices in the domestic environment by scanning and inspecting network traffic, real-time identification of anomalies behavior and traffic of IoT devices in the home environment and sending alerts to users/administrator.

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SYSTEM ARCHITECTURE AND REQUIREMENTS FOR A SIMULATION PLATFORM OF CYBER ATTACKS OR IIOT DEVICES IN SMART CITY ENVIRONMENT

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Abstract: The present paper presents the architecture and requirements necessary to develop an intelligent simulating platform tailored to the IIoT smart city environment, with an emphasis on resilience to different type of security attacks. Specifically, we intend to detect malicious traffic in Intelligent IoT (IIoT) radio networks, based on the initial radio fingerprint of the IIoT devices. The solution proposed in this paper will offer security and will facilitate the interoperability between different communication protocols used in IIoT for smart city applications. We intend to evaluate the proposed solution using both real network attacks traces in order to provide the proof of concept, and using simulation tools in order to proof its scalability.
Keywords: IIoT devices; cyber-attacks; IoT; security; platform.

INTRODUCTION

The Internet of Things (IoT) is one of the key elements of the ICT infrastructure for sustainable smart cities as the urban development advances to higher potential and environmental sustainability. As an ICT vision, the IoT is associated with big data analytics, necessary in many urban domains for reducing energy consumption, the energy waste as well as big cities decongesting, thus mitigate the environmental effects. This implies effective use of natural resource, intelligent management of infrastructures and facilities, and enhanced delivery of services in support of the environment. As such, the IoT and related big data applications can play a key role in improving the process of environmentally sustainable development. Recent studies tend to deal largely with the IoT and related big data applications in connection with economic growth and the quality of life in the realm of smart cities, but largely ignore their role in improving environmental sustainability in the context of smart sustainable cities of the future. In[1] a number of challenges affecting to the Intelligent IoT Systems (IIoT) and the associated data base management and analysis, as well as some of the

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[1] S. E. Bibri, The IoT for smart sustainable cities of the future "An analytical framework for sensor-based big data applications for environmental sustainability. Sustainable Cities and Society", 2018 Apr 1, 38:230-53.

open issues are conferred. The paper discusses also the prospect and implications of complementing the informational data bases associated to sustainable smart cities with additional big data and associated applications necessary to achieve a mandatory level of sustainability.

The numerous advancements mixed communication technologies that arise during the last decade enabled the IIoT devices that coexists in smart cities to interact one another through different type of networks[2]. We are currently existing in the era of 5G networks, in which smartphones, tablets or other wireless devices are shifting our life environment, making it more flexible, interactive and adaptive[3]. The Internet of Things (IoT) evolved towards Internet of Everything, that implies the development of a new ecosystem that includes evolved wireless networks, sensors, cloud and fog computing, other interactive technologies, as well as associated smart devices, to offer technical solutions in which the smart objects are connected to the existing networks and are assigned identifier to make possible object-to-object interactions. Innovation in wired and wireless networks, as well as in IIoT, offers a large range of solutions or applications. From e-transport to e-health, from smart houses to e-manufacturing and many other e-solutions. In this new intelligent-environment, the effects of cyber attacks on the systems or on particular devices, combined with the system or devices inherent vulnerabilities rise increasing concern to clients but manufacturers and vendors as well, and needs to be solved in order to increase the client confidence[4].

However, these communication technologies cannot provide flawless connectivity in smart cities due to the coexistence of thousands of devices, which brings about several problems. In[5] several communication and networking systems used in smart cities there are presented a number of case studies, as well as the challenges associated to each of them, from which there can be mentioned: mobility management, interference management, interoperability between diverse wireless networks, scalable wireless solutions, and so on.

When a cyber-security incident implying one or several critical components of the smart city infrastructure happens, appropriate measures needs to be taken in order to identify and enumerate tangible evidence necessary to aid the forensic investigation process. Such forensic experience gained from past events might help defend the environment against future such incidents. In[6] the authors present a comprehensive view of the security overall-scene of a smart city environment, identifying security threats. In[7] the authors evaluate the taxonomy of different types of system vulnerabilities which affect the infrastructure of IoT systems and applications to different cyber attacks and a case-study has been established in this

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[2] I. Yaqoob, I.A.T. Hashem, Y. Mehmood, A. Gani, S. Mokhtar, and S. Guizani, 2017, "Enabling communication technologies for smart cities", *IEEE Communications Magazine*, 55(1), pp. 112-120.

[3] M. Witti, and D. Konstantas, 2018, December, "A Secure and Privacy-preserving Internet of Things Framework for Smart City", in *Proceedings of the 6th International Conference on Information Technology: IoT a nd Smart City*, ACM, pp. 145-150.

[4] S. Tweneboah-Koduah, K.E. Skouby and R. Tadayoni, 2017, "Cyber security threats to IoT applications and service domains", *Wireless Personal Communications*, 95(1), pp. 169-185.

[5] I. Yaqoob, Hashem, Mehmood I.A.T., Gani Y., S. A. Mokhtar and S. Guizani, 2017, "Enabling communication technologies for smart cities", *IEEE Communications Magazine*, 55(1), pp. 112-120.

[6] Z.A. Baig, P. Szewczyk, C. Valli, P. Rabadia, P. Hannay, M. Chernyshev, M. Johnstone, P. Kerai, A. Ibrahim, K. Sansurooah and N. Syed, 2017, "Future challenges for smart cities: Cyber-security and digital forensics", Digital Investigation, 22, pp. 3-13.

[7] S.Tweneboah-Koduah, K.E. Skouby and R. Tadayoni, 2017, "Cyber security threats to IoT applications and service domains", *Wireless Personal Communications*, 95(1), pp. 169-185.

technologies that are under development. In[8] the authors propose a framework to increase the security and protect the citizen's privacy for a smart city environment while in[9] different cyber security approaches are studied and analysed in based on smart city infrastructure. In[10] the authors propose cognitive and scalable IoT structure oriented towards a smart city network architecture, in which the data are collected from a number of sensors, while in[11] an extensive literature review that addresses the topic of Smart Cities is performed, and a comprehensive analysis of the concept and existing platforms is achieved. Moreover, the authors offer an architecture model that that uses a multilayer platform developed in order to offer a number of service services that can be installed in such an environment, like energy management, healthcare, leisure, employability, etc. The architecture has been validated with the three case studies presented.

According to Horizon Europe (2021-2027) presentation[12], two of the key focus area are Climate-neutral and smart cities that uses Key digital and enabling technologies as well as Cybersecurity. A special cluster for Civil security for society, that includes the Cybersecurity, is included in the second pillar with a total budget of 52.7 billion €. Even in H2020 a large number of projects have been proposed and several has been founded. The REPLICATE research project[13] is trying to accelerate the development of new technologies as well as organisational and economic keys necessary to increase the resource and energy efficiency, to improve the quality of urban transportation system, and reduce the gas emissions in urban areas. The project aims to enhance the transition process to a smart city in three areas: energy efficiency, sustainable mobility and integrated ICT infrastructures in the cities of Bristol (UK), Florence (Italy) and San-Sebastian (Spain). However, the security issues are only briefly covered. Enact[14] is a project that started in 2018 and is still under development, whose main technical goal is to develop novel IoT platform, that uses smart IIoT devices and to augment them with novel concepts in order to ensure an end-to-end security and privacy, resilience and robustness taking into account the challenges related to "collaborative" actuation and actuation conflicts.

The remainder of the paper is organized as follows: in chapter 1 are presented a number of security issues in IoT systems for the existing transmission protocols, in chapter 2 is presented the proposed solution and a system architecture with its' main blocks and functionality, and in the final chapter are presented a number of conclusions regarding the utility of such platform and possible applications.

1. Security issues in IIoT Systems

The inter-connected computer systems or intelligent devices are extremely vulnerable to cyber attackers for a number of reasons, from which there can be mentioned:

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[8] M. Witti and D. Konstantas, 2018, December, "A Secure and Privacy-preserving Internet of Things Framework for Smart City" in *Proceedings of the 6th International Conference on Information Technology: IoT and Smart City*, ACM, pp. 145-150.

[9] B. Hyman, Z. Alisha and S. Gordon, 2019, "Secure Controls for Smart Cities; Applications in Intelligent Transportation Systems and Smart Buildings Applications", *International Journal of Science and Engineering Applications*, 2019, 8 (6), pp.167-171.

[10] J. H. Park, M. M. Salim, J.H. Jo, J.C.S. Sicato, S. Rathore and J.H. Park, 2019, "CIoT-Net: a scalable cognitive IoT based smart city network architecture", *Human-centric Computing and Information Sciences*, 9(1), p. 29.

[11] P. Chamoso, A. González-Briones, S. Rodríguez and J.M. Corchado, 2018, "Tendencies of technologies and platforms in smart cities: a state-of-the-art review", *Wireless Communications and Mobile Computing*, 2018.

[12] URL: https://ec.europa.eu/info/sites/info/files/research_and_innovation/strategy_on_research_and_innovation/ presentations /horizon_europe_en_investing_to_shape_our_future.pdf, accessed on Oct. 10, 2019.

[13] URL: http://www.replicate-project.eu, accessed on Oct. 15, 2019.

[14] URL: https://www.enact-project.eu/, accessed on Sept. 10, 2019.

1) Most IIoT devices operate independently, without human supervision, thus being relatively easy for an attacker to gain access to them either physically or remotely.

2) Most IIoT components are interconnected via different types of wired and wireless networks, such that an attacker could use eavesdropping technique in order to obtain confidential.

3) Most IIoT components are unable to support complicated security devices of software, since most of them use low power and have limited computing resource capabilities.

In addition, cyber-attacks can be performed on any IIoT devices, causing possible damage or disfunction of the overall network, jeopardising the system users or producing important economic damage to their owners[15]. Examples of such attacks might be the ones on home automation systems, like taking control of the central heating systems or air conditioning, or extracting information regarding the activity in such intelligent house using the available smart devices. Also, such cyber-attacks can also be launched against important public infrastructure, like the utility systems (like power, gas distribution or water distribution systems) to break the water, gas or electricity sources access for the inhabitants.

In fact, the critical IIoT systems, networks and even individual devices should be guarded against any threats that can affect a good functionality. Generally, most IIoT devices are vulnerable to different types of attacks due to their characteristics. Especially in smart cities, even before identifying the possible security threats, the most vulnerable system components (assets) of the IIoT system must first be identified. It is important to understand the critical asset inventory, including all IIoT components, devices and services and their importance for the end user. The most vulnerable assets of any IIoT system are the hardware components (from buildings to computer networks) as well as the associated software which offers services to the end-user.

Communication requirements vary widely among the different types of IIoT networks, depending on their purpose and resource constraints. The selection of protocols to be used in a particular deployment of IIoT ecosystems depends on the requirements of the use-case. The combination of different protocols within IIoT ecosystems is a common practice, using gateways to ensure interoperability.

IIoT communication systems rely on the ability to both transmit and receive information in a structured manner, with services located either nearby or in a distant location, using different, but interoperable kinds of network types and protocols. These networks have different set of properties such as QoS, resilience, security and management. The communication protocols within IIoT ecosystems can be either wireless or wireline-based.

There exists an excess of wireless communication protocols, including short-range radio protocols such as ZigBee, Bluetooth/Bluetooth Low Energy (BLE), Wi-Fi/Wi-Fi HaLow, Near Field Communication (NFC) or Radio Frequency Identification (RFID); mobile networks and longer-range radio protocols such as LoRaWAN, SigFox NarrowBand-IoT (NB-IoT), or LTE-M.

Wireless technologies have different characteristics, such as a specific signal range, bandwidth, etc. and can be classified as Wireless Personal Area Networks (WPAN), Wireless Local Area Networks (WLAN) or Wireless Wide Area Networks (WWAN).

2. Proposed solution and System Architecture

Within this paper we propose an architecture for an intelligent simulating platform tailored to the IIoT smart city environment based on LoRa technology with an emphasis on

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[15] M. Abomhara, "Cyber security and the internet of things: vulnerabilities, threats, intruders and attacks", *Journal of Cyber Security and Mobility*, 2015 Jan 31, pp. 65-88.

resilience to different type of security attacks. Specifically, we intend to use deep-learning algorithms to identify malicious data traffic in IIoT radio networks based on the initial radio fingerprint of the IIoT devices. This solution will provide "security as a service" and might facilitate the interoperability between different communication protocols used in IIoT. We evaluate the proposed detection framework using both real-network attack traces for providing a proof of concept, and using simulation for providing evidence of its scalability. Our experimental results will, hopefully, confirm that the proposed intrusion-detection system can detect real-world intrusions efficiently.

Our solution will monitor the radio activity of different type of IIoT devices, on those frequencies known to be used by IIoT communications in a smart city virtual network using LoRa technology. The test platform will evaluate only the intensity of the received signal, regardless protocol specifications. Also, the platform does not require any modification of the existing devices. This process will be performed in two stages. In stage one, a reference model will be created, including the radio finger-print of the IIoT under study, considering that no cyber-attack has been performed to alter their functionality. In the second stage we will detect the behavioural changes of the devices with respect to the initial fingerprint. It consists in:

1) capture of the radio activity of the sensitive IIoT devices (like automatic reading of the energy, water or power consumption)
2) compare of the data captured with the initial fingerprints created using well known patterns.
3) generate specific alerts any time there is identified a deviation from the original pattern.

The signal detected will be processed with GNU Radio toolkit that provides a free open-source software that implements the main signal processing blocks necessary to implement software-defined radios[16]. It can be easily used and with relatively low-cost external hardware to implement "software-defined" radio devices, or without additional hardware, in a simulation platform.

GNU Radio performs all the data processing necessary to recover the signal. It can be used it to write applications to transmit and receive data with existing RF hardware, or to create simulate the RF chain, from transmitter to receiver end. GNU Radio has implemented different types of filters, channel encoders/decoder, synchronization blocks, channel equalizers, demodulators and many other types of blocks, which are typically found in signal processing systems. More importantly, it allows software interconnecting these blocks and data transfer towards the virtual radio system. The purpose of our work is to provide a mean to recognize devices based on their network behaviour. Therefore, we need to define features that will appropriately describe the network activity. The purpose of our work is to provide a mean to recognize devices based on their network behaviour. Therefore, we intend to define features that will appropriately describe the network activity. The purpose of our work is to provide a mean to recognize devices based on their network behaviour. Therefore, we need to define features that will appropriately describe the network activity.

Using a popular SDR HackRF One which has a number of robust features and it is well supported by a large variety of open-source software on most standard computer like SDR sharp, our platform can identify most common IIoT device connected in a LoRaWAN. The basic SDR# includes a standard FFT display, a frequency manager, a digital recording tool and a noise reduction software instruments. SDR# can also decode RDS signals from broadcast FM.

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[16] URL: https://bestestredteam.com/2018/10/16/gnuradio-introduction/, accessed on Oct. 13, 2019.

At first we will record the radio activities generated by the IIoT devices that operates unaffected by malware or other type of attacks. These data will be used as training set to validate a reference model. In a second phase we will simulate some attacks cyber-attacks on identified IIoT devices. The attack injection campaign is composed of two steps:

1) Definition and simulation of the attack: since our detection relies only on the analysis of RF activities, it is sufficient to simulate these attacks by generating radio activity behaviour similar RF behaviour with the IIoT devices under attack.

2) Injection of the attack: in which the virtual attacks are injected into the system using a software attack generator tool.

In the present work we developed an architecture, named SyIIOT that will include the following modules/functionalities, as presented in Figure 1.

(A) The radio spectrum scanning of the IIoT devices module – that will be accomplished using SDR platforms, that h

(B) Have a large flexibility with respect to the gain and frequency bandwidth that is desired to be analysed. The SDR platforms available CO can cover a frequency range between 100Hz to 6 GHz and can accommodate bandwidths of about 25 MHz.

(C) The radio processing module – the data received via different SDR platforms will be processed using a GNU Radio module that will contain specific data processing chains, depending on the specificity of the IIoT device identified by the platform.

(D) The IIoT device identification module – based on the radio processing module, this block will identify the IIoT devices accessible in the area analysed by the system. This module will provide specific capabilities for retrieving the data from sensors and recording them in the database, will be able manage the IIoT devices in real time and to access the data associated to each such device.

(E) The simulating module – simulate different attacks on IIoT devices, used in critical industrial environment, like the ones used in intelligent metering of water, electrical current or gas and analyse the security risks of the different IIoT devices under the coverage area, presents them to an evaluation system and generates recommendations regarding the possible cyber-attacks, the probability of occurrence and the associated risks. Machine Learning and Data Mining techniques will be used to implement this module. Different behavioural and traffic anomalies will be identified, like port ID changes, protocol changes, behaviour change from the initial communication footprint of each IoT device, etc. The results will be used to establish the electromagnetic compatibility in a given space, in order to reduce the radio interference areas and to avoid collisions or harmful effects on the existing RF systems, and will offer the possibility to establish the technical or organizational measures necessary to minimize / eliminate the induced effects.

(F) The user interface module – will offer a friendly, accessible and configurable web interface for all the system users, with minimum response delay.
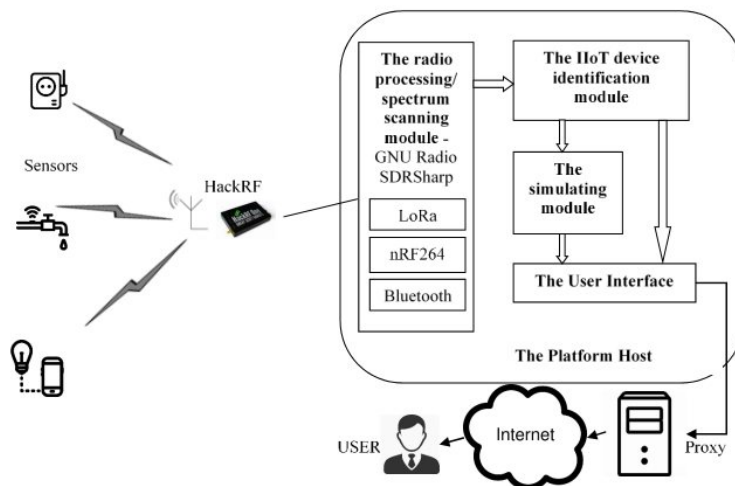
Figure no. 1: The block diagram of the SyIIoT platform

Such platform is an innovative product, since, in present, there is no similar offer on the market, and has a potential impact both on the national and on the international market. Among its benefits there can be mentioned:

- efficient identification of possible cyber-attacks on IIoT networked devices;
- identification of the principal functionalities of the IIoT devices and of the possible threats;
- efficient finding of the IIoT devices that coexists in a given perimeter and of their radio communication parameters and protocol used for data transmission
- implementation of "Machine Learning" and "Data Mining" functionalities to identify behavioural and traffic anomalies of the IIoT devices with respect to their initial footprint.

The test platform resulted and the results obtained based on simulation of different type of attacks is a laboratory prototype to evaluate the behaviour, the potential risks and to offer recommendations for such a IIoT interconnected system. The resulting platform will validate the components and the ensemble in laboratory conditions, and it can be patented and used further in industrial development. It is useful to increase the security level of the IIoT devices that are interconnected using different radio protocols, identify unusual behaviour of such devices and generates recommendation regarding the security risks of such networks.

CONCLUSIONS

The platform architecture proposed within the paper aims to solve the security issues related to the IIoT devices in the domestic environment by scanning and inspecting network traffic, real-time identification of anomalies behaviour and traffic of IoT devices in the home environment and sending alerts to users/administrator. After the implementation and testing of the above-mentioned platform in laboratory environment, it will be further used as basis for laboratory experiments or it can be further developed by interested industrial partners in developing it as a product.

Such a platform will be a novelty in the domain in Romania and one of the very few existing in Europe, some of them still under development[17,18]. Moreover, the platform is designed to be accessed either locally or remotely, giving an increased degree of flexibility from the user point of view, thus offering a novelty even at European level. Such platform can also be used for training IoT specialists in security aspects for IIoT devices in smart city

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[17] URL:http://www.replicate-project.eu, accessed on Oct 10, 2019.

[18] URL: https://www.enact-project.eu/, accessed on Sept 11, 2019.

environment, oriented towards control and protection systems in critical infrastructures, where there is a massive lack of personnel on labour market.

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AN INTEGRATED PLATFORM FOR PROJECT MANAGEMENT

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Abstract: *Project management is an area with exponential growth in Romania, given the open access of Romania's to European funding, for both structural programs and community programs such as the Framework Program for research - development – innovation and the Competitiveness and Innovation Program. For the latter, the competition is organized in Brussels, the evaluation is carried out by independent experts selected by the European Commission, and the financing contract is signed directly between the Commission and the participants. For an efficient management of community programs, the demand is very high for people with specific project management skills, able to operate in a dynamic, specific and complex environment, enabling the European research to generate innovation and scientific advancements.*
Keywords: *project management; integrated platform; Horizon 2020; IT solution; innovation; research and development.*

1. EU policy in the field of scientific research

The capability of a good project coordinator implies - beyond his/hers recognized scientific excellence and leadership skills - the ability to attract a critical mass of renowned research European organizations as well as the ability to draft, promote and manage complex project plans. It is widely accepted that knowledge-based development strategies are an important pre-condition for economic growth.[1] Research and development are intertwined, forming a complex knowledge-based socio-economic system. Like innovation, research is a process based on swift information exchange, on efficient cooperation and precise regulations. The knowledge-based society is no longer just a general concept, far from everyday life - it has become a tangible reality. The so-called knowledge triangle, *education - research - innovation* has become the motto of all societies where economic competition, based on novelty, is the engine of economic development.

In the EU, the member states and the Commission agreed to develop the European Research Area (ERA)[2] to contribute to Europe's sustainable development and competitiveness. In accordance with the European vision[3], by 2020, all actors in this field should benefit from:

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[1] Europe's regional research systems: current trends and structures (Dr. Henning Kroll and Dr. Thomas Stahlecker, Fraunhofer ISI), URL:http://ec.europa.eu/research/era/docs, accessed on 27.09.2019.
[2] European Research Area.
[3] 2020 Vision for ERA.

- the fifth freedom of ERA: free movement of researchers, knowledge and technology;
- good conditions by conducting research and investing in the intensive research European sectors;
- a better Europe through scientific competition, together with an adequate level of cooperation and coordination.

In the future European Research Area there should be an expanded European market for researchers as well as a single market for knowledge and innovative services and goods; the scientific and technological communities should continuously cooperate based on mutual trust; actors should benefit from a publicly supported technological base and infrastructure, as well as from international research capabilities; there should be common research, education and innovation policies, as well as programmes for all levels; major challenges should be met through strategic partnerships involving the Community, Member States and Associated Countries, based on a common foresight; Europe should be allowed to speak with a single voice to its international partners in international forums.

In this context, Romania is making constant efforts to reduce the current differences in the fields of knowledge and infrastructure, in research and development. In addition to European funds, partnerships between the academic and industrial sectors are needed, as well as support for fundamental research, all being steps towards integration within the EU. Figure no. *1* below presents the allocation of financial resources for research, in 2003 (Henning & Stahlecker).
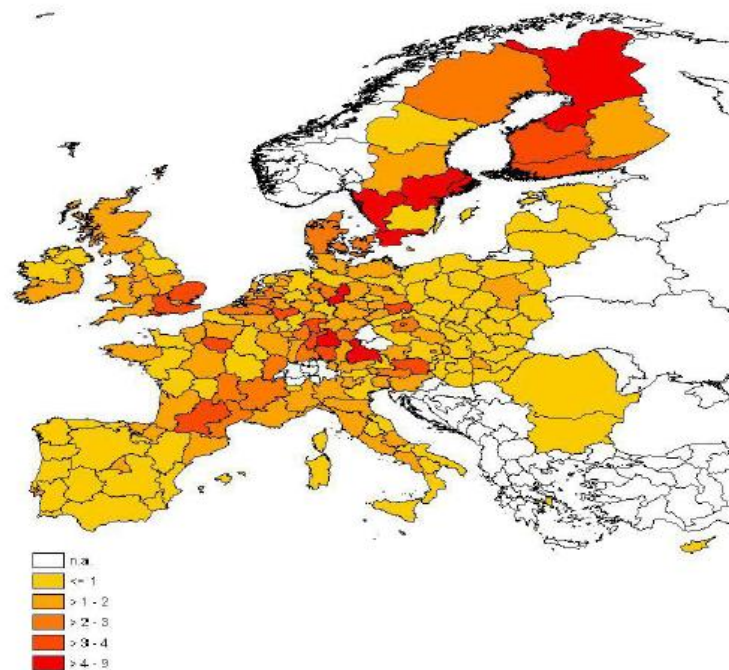

Figure no. 1: Research intensity (GERD as% of GDP)

In this ever-changing world, the European Union is striving to become what we can call a "smart economy", with a sustainable evolution which favours inclusion. All these priorities must be mutually supportive and help the European Union achieve a high level of employment, productivity and social cohesion. Specifically, the European Union has set some major objectives related to: education, innovation, employment, social inclusion, environment /

energy, which are to be achieved by 2020. In order to measure the progress made towards achieving the objectives of the 2020 Strategy, five important goals have been set:

1. In the field of employment: to reach an employment rate of 75% among the population aged between 20 and 64 years;

2. In the field of research, development and innovation: to reach a level of both public and private investments of 3% of the GDP of the European Union;

3. Concerning climate change and energy: to reduce greenhouse gas emissions by 20% (maybe by 30% if possible) compared to the reference levels recorded in 1990. Other additional aims are to ensure the increase of renewable energy resources up to 20% and a 20% increase in energy efficiency;

4. In education, the goal is to reduce the school drop-out rate to less than 10% and to increase to at least 40% the number of higher studies graduates in the population aged between 30 and 34 years;

5. To combat poverty and social exclusion, actions must be taken to reduce by 20 million the number of people who are affected or at risk of being affected by poverty and social exclusion.

These objectives clearly define the status that the European Union should have in 2020 regarding certain major parameters which:

- are translated into national objectives so that each state can monitor their progress;

- are common and involve burden-sharing since they can be carried out both through national and European actions;

- support each other and are interdependent: educational progress helps improving professional prospects and reducing poverty.

At the same time, an increased volume of research and innovation, together with the efficient use of resources, are prerequisites for becoming more competitive, offering favorable conditions for job creation. Additionally, significant investments in green technologies are needed to combat climate changes and create new business opportunities (which further translates into new jobs). The EU has identified some areas that could ensure the promotion of economic development and job creation. All of these can be achieved through the implementation of seven major initiatives. For each initiative, both European and national authorities must work to coordinate their efforts in order to support each other. Since 2010, most of these initiatives have been presented by the Commission.

The research points out that smart growth is possible through creating a digital agenda for Europe, launching a Union of innovation and supporting Youth on the Move. Thus, to ensure sustainable growth the EU should use all resources as efficiently as possible while developing and implementing an industrial policy adequate to the age of globalization. Also, growth to favour inclusion is possible by pursuing a clear agenda to develop new skills for new jobs and developing a European platform to combat poverty.

As far as research, development and innovation are concerned, one of the most important initiative is the one called "Innovation Union". This is the premise of an ambitious approach, at strategic level, to use and increase the strengths by taking advantage of new, productive ways. This also requires maintaining the economic foundation that supports both the quality of life and the social model, especially under the particular conditions generated by demographic ageing. Obviously, if the current situation remains the same ("business as usual") it will lead to the gradual loss of all the competitive advantages of the EU and to its constant decline.[4]

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[4] Communication from the Comission to the European Parliament, Council , The European Economic and Social Committee and the Committee of the Regions: Flagship Initiative of the Europe 2020 Strategy: Innovation Union, SEC(2010) 1161.

Thus, in order to achieve the "Innovation Union", several measures are required:

1. In these times of obvious budgetary restrictions, there should be investments in education, research / development / innovation and ICT, both at EU level and at the level of the Member States. Such investments should not only be protected in the context of budget cuts, but also benefit from increased funding.

2. Funding should be synchronized with reforms that increase the profitability of those investments and solve the problems of fragmentation. Research /innovation must be coordinated more effectively to achieve better results.

3. Obviously, national education systems should be modernized at all levels and the guiding principle should be *excellence*. World-class universities are needed and skills need to be improved in order to attract top talents from other regions.

4. The teams of innovators and researchers should perform and cooperate throughout the European Union as easily as they do at national level. In all European research areas, this decision must be operationalized within a maximum of four years, thus establishing an adequate framework for free movement of knowledge.

5. Access to European Union programmes should be simplified, so that their leverage effect on all investments in the private sector is greatly enhanced, with assistance from the European Investment Bank. In this regard, the role of the European Research Council needs to be strengthened. Obviously, the contribution of the framework programme for SME development needs to be increased. Therefore, the European Regional Development Fund must be used in order to develop all the capacities in the EU field of research and innovation based on regional strategies and *smart* planning.

6. In this highly dynamic environment, European research must generate more innovation. It is necessary to intensify the cooperation between the field of science and the business world, especially by removing obstacles and creating incentives.

7. All the obstacles in the path of entrepreneurs (who want to "bring ideas to the market") need to be removed. In this respect, better access to funding should be offered, especially for SMEs and intellectual property rights should be protected. Additionally, regulations must be ensured and smart, more ambitious goals must be set, simultaneously with establishing interoperable standards and the strategic use of budgets allocated to procurement in the public domain. As an intermediate step, an agreement on EU patents should be reached before the end of 2019.

8. Obviously, partnerships in the field of innovation need to be launched in order to accelerate research, development and marketing of innovative products, to address all major societal challenges. Information and resources should be shared while boosting competitiveness in the EU industrial field, starting with the field of aging in the best health conditions.

9. Given the current challenges, the EU strengths in the area of design and creativity must be exploited as effectively as possible. Innovation in the complex social area must also be promoted, i.e. innovation in the public sector. The visibility of successful initiatives should be increased as it is useful to compare the progress that was made.

10. In addition, it is necessary to work better with the international partners of the EU. This requires facilitating access to our research and development (R&D) programmes, while ensuring conditions comparable to those from abroad. So measures should be taken to create a common European front in order to protect our interests, when necessary.

From this set of achievements, the resulting privileges are conclusive: according to the current assessments, if we manage to reach the goal of spending 3% of the European Union GDP for R&D by 2020, and create at least 3.7 million jobs, by 2025 that would lead to an annual GDP growth of approximately EUR 800 billion.

2. Research Framework Programme - an efficient tool for EU policies implementation

The EU Research Framework Programme is obviously the most important Pan-European cooperation framework, a tool by which the Union succeeds in implementing its policies in the field of scientific research. The first Framework Programme was carried out between 1984 and 1988[5], benefiting from a small budget of the European Union, at that time.[6] The Framework Programmes of the European Union are of particular importance, and the contribution of the European Union (of approximately EUR 7 billion) will lead by 2030 to an increase of the European GDP with EUR 200 billion/year.[7]

Since 1984 (when they were launched), the Framework Programmes have played a fundamental role in multidisciplinary (and transdisciplinary) research for cooperation activities, both in Europe and beyond. *Horizon 2020* proves to be more comprehensive and elaborate than previously promoted research framework programmes. The budget allocated to *Horizon 2020* is EUR 80 billion for seven years, so far being the most important fund investment for this type of programmes.

2.1. Process innovation: the need for a project drafting platform

One of the criteria for evaluating project proposals for *Horizon 2020* refers to the quality and efficiency of implementation / management (found in criterion 2 - *Quality and efficiency of the implementation and the management*), with a mean of 33.3% from the total score. Along with the evaluation criteria no. 1 (*Scientific and / or technological excellence relevant to the topics addressed by the call*) and no. 3 (*Potential impact through the development, dissemination and use of project results*), targeting both the scientific and technical competence of researchers, project management comes into play, considered as "another job", for which scientists often do not have the necessary qualifications. The qualifications required to successfully draft the management part of a project, as well as the implementation of the project, are different from the scientific competences.

In this regard, when drawing up the project proposal, a person needs to have the necessary project management training so as to complement the competences of the team. The management competences and professional skills of the project manager must be complemented by dedicated tools (*i.e.* the platform for drafting *Horizon 2020* project proposals). Combining the professional capacity of the project manager with the technical instruments - that gather the experience of over 500 associations which have proposed projects for *Horizon 2020* calls, increase the chances that the proposals receive funding.

A contemporary analysis[8] of the frequent deviations registered in the *Horizon 2020*[9] project proposals proved that 24% of the applicants obtained only 3 points out of the 5 allocated to evaluation criterion 2. One of the causes is the inability of the consortium to render the management structures of the project proposal and the efficiency of the implementation. Mention must be made that the Practical Guide for drafting *Horizon 2020* project proposals

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[5] URL: http://en.wikipedia.org/wiki/Framework_Programmes_for_Research_and_Technological_ Development# cite_note-0

[6] URL: http://ec.europa.eu/research/rtdinfo/special_fp7/fp7/01/article_fp709_en.html

[7] U. Muldur, et al., "A New Deal for an Effective European Research Policy," Springer 2006 ISBN 978-1-4020-5550-8.

[8] Frequent errors identified in project proposals submitted on theme 6 – Environment (including climate change) and theme 3, Information and Communication Technologies of the 7th Framework Programme of the European Union, Banciu, D, Vulturescu, V., Dumitrache, N., Vasile, D., *Revista română de Informatică şi Telecomunicaţii*, vol. 21, nr. 3, p. 21.

[9] Viorel Vulturescu, Doina Banciu, C.N. Bodea, D. Vasile, *Redactarea propunerilor de proiecte de cercetare în Programul Cadru 7 al Uniunii Europene*, Editura Universităţii Transilvania, 2011, p. 25.

provides the necessary information for improving the quality of the proposals. In this context, it should be noted that management elements do not interfere with the scientific elements of the project.

2.2. How does the collaborative platform contribute to project drafting?

It is important to remember that management competence is a key element in any project and sometimes good researchers are not necessarily good managers. Even though often the project manager has no scientific duties, the role is key in the relation with the project financer. Also, the Criterion no. 2, "management and organization", has a weight of 33.3% in the score of a project and can make the difference among scientifically excellent project proposals.

Typologies, objectives, participants and rules are specific to each programme. Project management follows the same principles. But *Horizon 2020* has some particularities that must be taken into account when drafting the proposal for a research project:

- (Pan-European) consortia may include non-European partners. Obviously, multiculturalism is an important element that impacts on the success of a project;

- meetings within the project (although important) are difficult to organize, due to the large distances among partners;

- numerous types of entities participate in the projects: academic institutions, companies and NGOs;

- the personnel participating in the project can change, even organizations can change their name, status, goals and financial structure, with impact for long term projects.

All these elements must be mentioned in the contingency plan developed for each project. When drafting the project proposal, partners must communicate intensely, especially the "core" of the project (the group that started the discussions and will lead the project). Thus, besides meetings, telephone calls, teleconferences (VoIP), it is important to have an accessible tool connected to the Internet through which to collaborate in the process of drafting the project proposal. Obviously, only web technology can meet these requirements. But, partners must use the same database, with materials that can be completed / modified by anyone who has the right to modify / complete or delete that record. An efficient tool for drafting *Horizon 2020* project proposals can contribute to:

- *Lowering the costs for drafting the proposal* - it is known that for the *Horizon 2020* project proposals, the partners will use approximately 1 man-month, with approximately 2 meetings with the partners in Europe. With web tools, direct meetings are no longer needed; the cost of communications is reduced almost to zero through VoIP technology.

- *Increasing the quality of the project proposal* - as mentioned, the project manager has an important role, being a catalyst for scientific experts. At the same time, he is responsible for the financial and administrative parts of the project.

- *Facilitating communication with project partners* - although project partners may not meet before drafting the proposal, the web technologies and Internet communication facilitate on-line meetings among people from different countries, and even from different continents.

- *Improving the management of the project proposal,* because the project manager and the project coordinator can easily and quickly change the management team, the risk management plans, as well as the tasks of each structure / person within the project.

- *Reducing the risks during project implementation* - this idea is based on the following principle: the more rigorously a project has been drafted, the easier its implementation, will be, although the related activities will start in about 12 months.

- *Increasing knowledge transfer useful for drafting and facilitating the planning process*, which the core drafting the project actually needs.

Taking everything into account, an electronic tool is required, to be available to both the scientific and industrial communities involved in the drafting of *Horizon 2020* project proposals. This tool should have the following general characteristics:

- To be user-friendly and accessible.
- To be made with technical means available to software developers (shareware or freeware programmes).
- To highlight, in a synthetic form, the errors made by a relevant number of predecessors / users, so that the new structures/teams could avoid them.
- To include the knowledge of evaluators from the EU selected by the European Commission for the evaluation of project proposals.
- To clearly stipulate good practice ideas from the experience of people with relevant activities in the Framework Programme 7.
- To include the explanations presented in the project submission forms that are to be found in the Participant's Guide
- To offer samples of language and expressions. This factor is particularly important because:

a. the project proposals are all submitted in English;

b. the evaluation of these proposals is carried out by persons who are seldom native English speakers.

CONCLUSION

It is clear that an online drafting tool is necessary to facilitate the activities, especially in an area where developers of similar products cannot act. Let us not forget that all the research data and results of a project are translated into a web-accessible IT product, made with open source software. Obviously, using open sources will greatly reduce the costs of system implementation, requiring only *hard* resources to "host" the IT product, specialized IT information and time to launch those programmes.

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