THE CONCEPT
OF HIGH SECURITY

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Abstract: The article briefly presents a few of the arguments that ground the concept of high security, the cyber process of security management, the main components of the security of national management system, the place and role of national security management, the issue of determining optimal security, the mathematical relation (expression) of determining the level of national security function of preservation, functional re-adjustment, secure functioning.

Keywords: concept of high security, national security management, cyber process, optimal security, national security components, metasecurity

The development of security concept, both practical and theoretical, especially pertaining to inter and trans-disciplinary research is ever more obvious and visible in all domains and at all levels (political-military, economic, social, cultural, environmental etc.).

The last two decades witnessed the emergence of a lot of collocations connected to security among which we could mention: sufficient security; opportune security; obligatory security; optimal security; minimum security; maximum security; absolute security; vital security; total security etc. As we consider that some of these phrases are too farfetched or too formal, in instances such as total security and maximal security, we will propose the phrase **high security,** a quality concept that has to do with quality management and with the fact that security is a quality feature of systems,

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organizations, processes, etc. Therefore, high security or high quality security is a real, scientifically grounded concept. We consider that the arguments on which this concept is based are the following:

- quality, namely high quality are two features that are necessary and sufficient to the security concept;

- maximal, total and absolute are features and desiderates really hard to reach/achieve;

- high quality may be associated to the request for completeness of security, being at the same time a reflection of encompassing its qualitative aspects, namely: the timely response to attacks/threats; deterrence, preventing and combating threats and diminishing consequences /effects;

- high security is, actually, a measure / extent of the quality of security that reflects its image, efficacy and efficiency, bringing it closer to the desiderates of full, complete, or optimal security and corresponds in a much better way to the cyber character of security as a strongly structured, informational, actional, technological and behavioral energetic-informational process that ensures conducting the activity in security and physical, psychological, and informational protection of information. At the same time, it provides regulations for maintaining the state of organization, measures for compensating, re-structuring, and adapting the system /organization/nation etc. in order to increase their degree of organization and their level of security.

The level of security accomplished depends on costs and an optimal value of security can be determined on the basis of the criterion made by the ratio between cost / risk taken.[1]

The management of national security has to ensure an internal and external policy of reducing the identified risks and threats, as well as that of national vulnerabilities. It consists of a series of measures (figure no. 1) that are social, organizational, economic, legal, political, military, cybernetic, technical, ecological and religious that might be coherent in order to ensure

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[1] Siteanu E., Naianu B.P., Ilie G., *Fiabilitatea produselor tehnice,* Editura Aisteda, București, 2000, p. 131.

a highly qualitative functioning of society on the whole and a high level of security.[2]
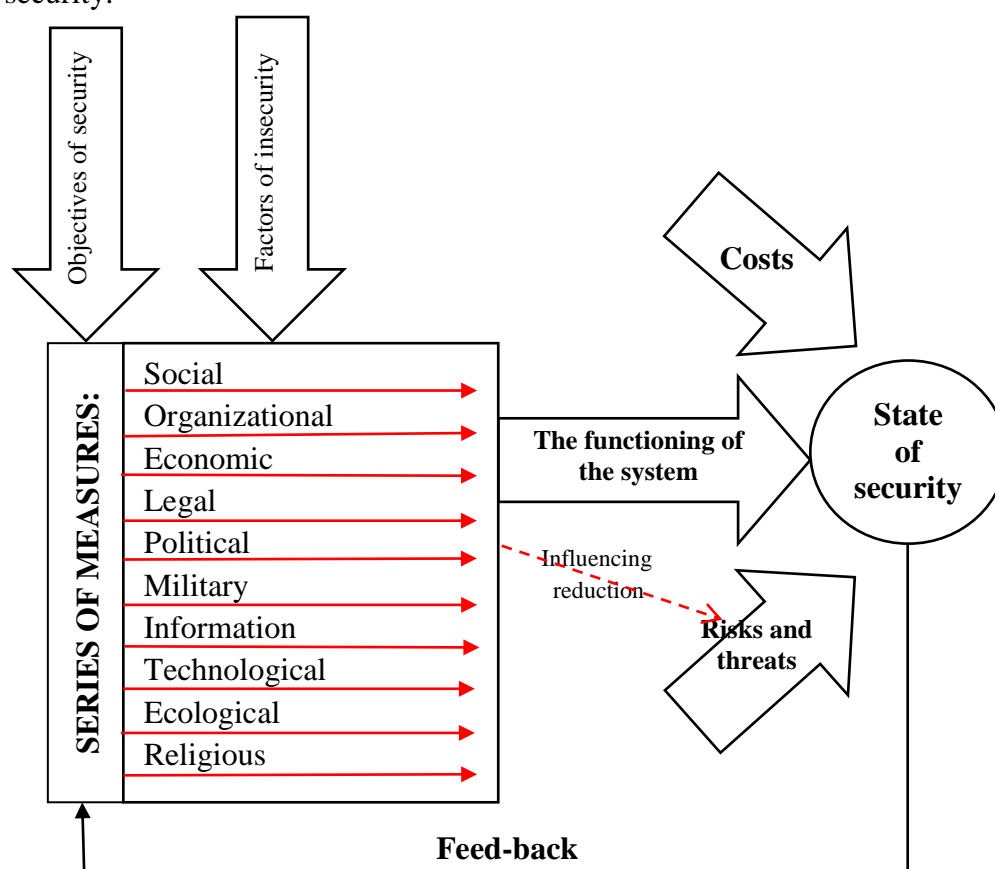

Figure no. 1. Picture of the cyber-process of security management

This series of measures (figure no. 1) are elaborated by a national management system; the security of this system has four main components: processual component; physical component; information component; personnel component [3] and the other dimensions:

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[2] Gheorghe Ilie, *Risc și securitate, articole, comunicări și prelegeri,* Vol. I, Editura UTI Press, București, 2015, p. 33.

[3] Cătălin Zisu, Liviu Scrieciu, Alexandru Mihalcea, *Capacitatea operațională a sistemelor manageriale*, Editura Militară, București, 2008, pp. 178-180.

- legal;
- organizational;
- physical;
- scientific;
- economic;
- information;
- political-military;
- cultural;
- environmental.

The concept of high security gives security the quality of putting together a series of aspects of scientific, legal, processual, organizational, physical, information, and personnel-related nature in highly qualitative environments. In this respect it is necessary to have efficient, viable mechanisms, adaptive and perfectible, in order to counter a series of threats predicted and treated by assuming a rational risk within the limits of a reasonable cost.[4]

The management of national security is meant to prevent triggering the causes of risks and to minimize the human, material, and financial loss in order to ensure national safety, security and stability (figure no. 2[5]).

The high quality of the personnel within the security system, the high professionalism, the quality of the security strategy and the measures taken represent a guarantee of ensuring a high level of national security at a cost that was assumed by the decision factors.
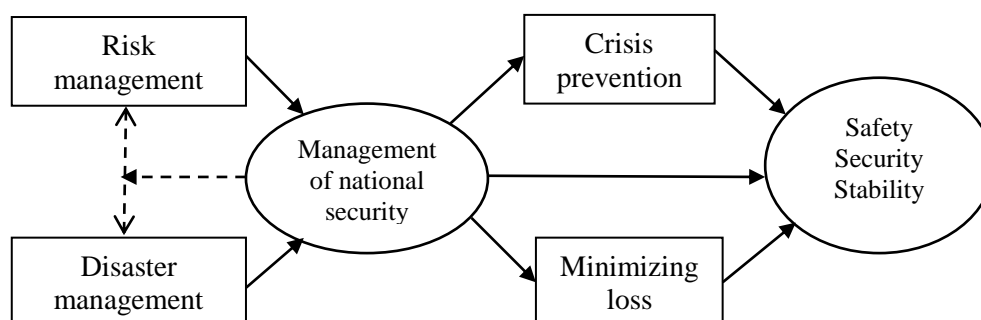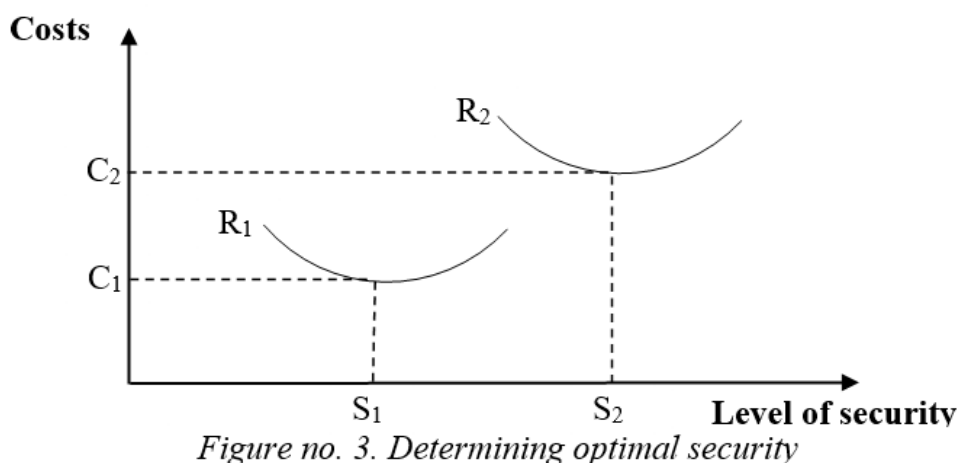

Figure no. 2. Place and role of the management of national security

[4] Gheorghe Ilie, *Op. cit.,* p. 13.
[5] *Ibidem*, p. 32.

The management of national security has the role of influencing /reducing risks and threats through a rational policy (both internal and external) that might take advantage of each opportunity that emerged, prevent them, detect in a timely manner the moment of triggering them, delay them and stop hostile (insecure) actions, as well as ensure resuming the activities that were disturbed /stopped by the insecure (destabilizing) effects, ending the management cycle with post-factum analysis (figure no. 4[6]).

Figure no. 3. Determining optimal security

NOTE:
R_1 and R_2 are the risks taken; $R_1 > R_2$
C_1 is the minimal cost for R_1
C_2 is the minimal cost for R_2
S_1 is the optimal security for R_1
S_2 is the optimal security for R_2 risk level.

If the costs for ensuring national security are not higher than C_2 then S_2 will be the optimal level of Security. However, if there are higher financial resources available for a R_3 security risk (so that $R_3 < R_2$) then at a value of expenses $C_3 > C_2$, optimal security will be $S_3 > S_2$.

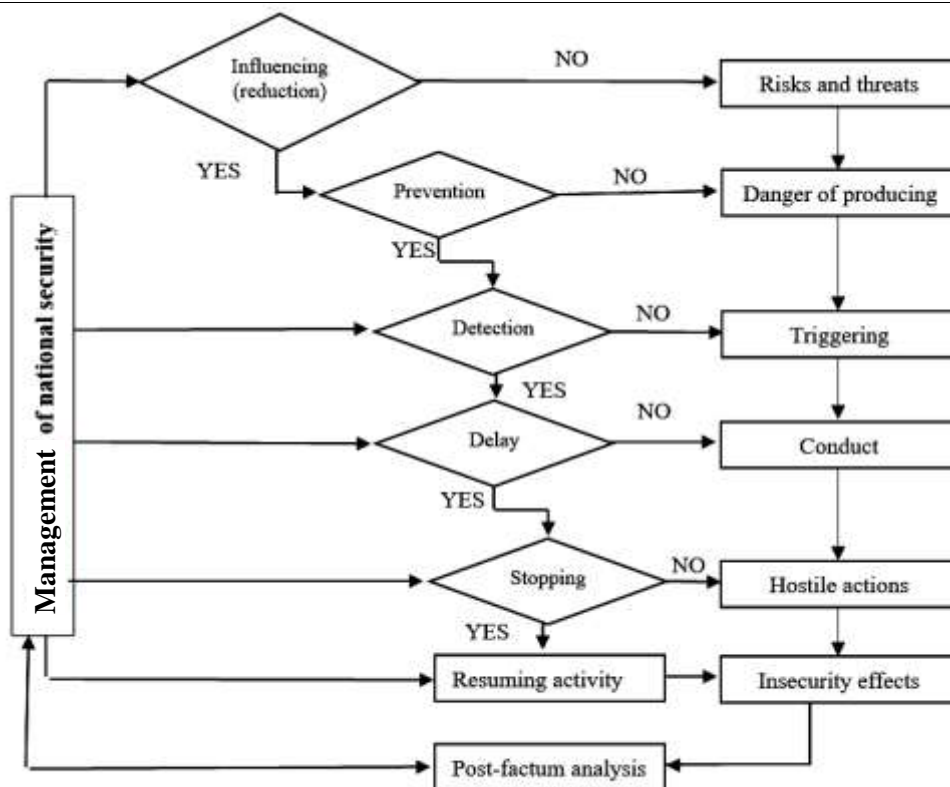[6] Gheorghe Ilie, *Op. cit.,* p. 35.

Figure no. 4. Role of the management of national security

Starting from the association between the concept of quality and that of security we could determine the cyber model of accomplishing high security, in a similar manner to the cyber model of optimal security elaborated by Ilie Gheorghe.[7]

The essence of security is the dynamic balance between the threats and vulnerabilities to all those threats as well as a state or a result of coherence of elements and actions developed in the respective system, organization and processes. Metasecurity is a post-security or a security that is transformed from the initial security, a dynamic security or a super-security, a way of emerging from the state of classical security and passing

[7] Siteanu E., Naianu B.P., Ilie G., *Op. cit.*, pp. 139-140.

into a new type which is different from what it was in its previous stage, a security that will provide a plus or a minus of security. Thus, security is also a process in which metasecurity is a new state of the old security, depicted in relation (1) as ±Ms.[8]

Knowing the security components (figure no. 5), security can be expressed through the relation:

$$Sec = Cv + Ra + Si \pm Ms \tag{1}$$

From this expression (1) it follows that security is an internal function of the system, process, organization, nation, etc. and metasecurity is a new configuration of security that may mean a plus or a minus of security and even in some situations /circumstances, a state of insecurity such as, for instance, Romania's adhering to the EU with respect to agricultural issues (the mechanical, indiscriminate adjustment of Romania's agriculture to EU's constraints).
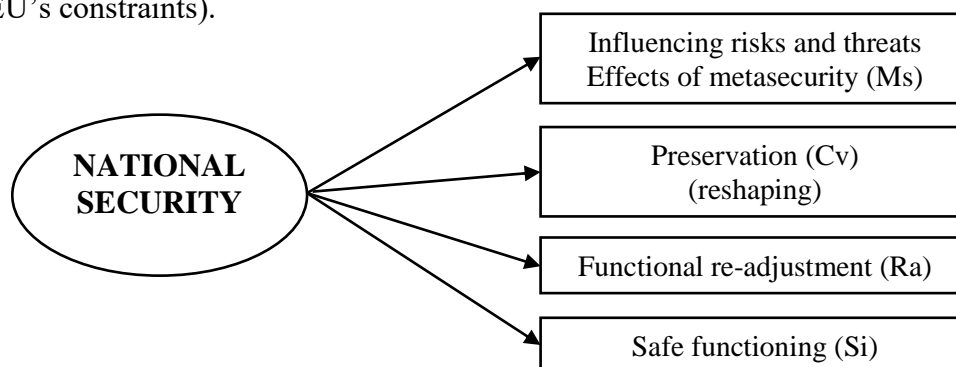

Figure no. 5. Components of security

Passing from a state of security (insecurity) to a new state is very complicated, but necessary and compulsory, given the circumstances of current civilization. In the figure below (*Figure no. 6*), we actually suggest the principle of this type of dynamic processual metamorphosis from the security space, as well as from the insecurity space (actually, one and the same), which would also be one of the means of acknowledgement and understanding the metasecurity concept.

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[8] Eugen Siteanu, *Metasecurity – a concept of intempestive geometry*, Annals Series on Military Sciences, Volume 9, 2017, Issue 1, pp. 42-61.

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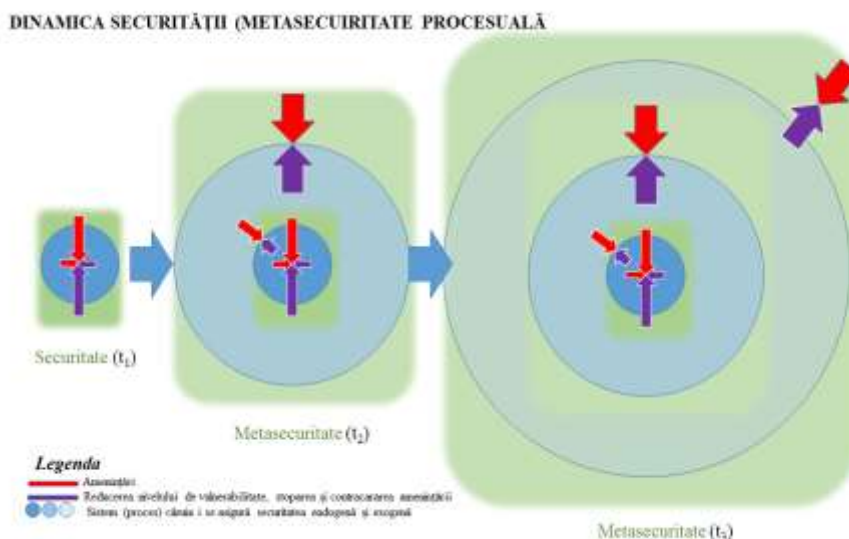*Brigadier General Professor Gheorghe CALOPĂREANU, PhD*

DINAMICA SECURITĂȚII (METASECUIRITATE PROCESUALĂ

Figure no. 6. Metasecurity concept

In the process of transformation (passing from the state of security and insecurity) in place at t_1 (time) to the one in place at t_2, and from the one in place at t_2, to a new state, that in place at t_3 etc., the entire internal elements are kept and they are added the newly introduced ones. In our case, the security risk, defined on the junction between threats (red) and vulnerabilities (violet) is taken over, through the transformation process, and incorporated, holistically, in the security state (metasecurity) resulted from the transformation process, at t_2, then t_3, …, t_n.

In conclusion, we may say that security is at the same time science, art and practice as well, all of them having a strong social, political-military, cultural, economic, demographic, environmental etc. impact as the main issues concerning mankind may be solved first of all by ensuring the security of the society generally speaking, and especially of all organizations, which presupposes an appropriate and efficient management of human (individual) security, organizations, systems and human society in equal measure.

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