The System Of Education, Training And Research
In The Field Of Security - Managing Change
Through Experience And Knowledge

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Abstract. Security is a complex system of higher order, in the broad sense of the word, and represents a condition that ensures a guaranteed protection by various means of vital interests of person, society and state from any external, internal, environmental, etc. threats and they can make their progress. Security is among the basic individual and group needs that stand out independently of the cost.

Searching for and finding effective means for manageable changes in the system of education, training and scientific research in the sphere of security is crucial not only for the state's security, but for all further democratic development of the Republic of Bulgaria as a dignified partner but a source, not a consumer of security. In order to evolve in modern conditions, the system of education, training and scientific research in the sphere of security must be above all adaptive, i.e., capable of changing to respond to changes in the security environment. Change is not just one of the most important processes in one organization but an opportunity for its active and effective participation in this change.

The focus of the proposed research is on the management of specific intellectual assets and the use of the organizational channels through which knowledge flows in the security system, proposing one of the most important security policies - the transformation of the security sector - to meet the basic principles, approaches and mechanisms for the integrated functioning of institutions in the field of security - because priority threats against security require prioritized actions and reforms in investments concerning priority actions and policies due to the limited and decreasing trends of national resources. Organizational development is the study and application of practices, systems, and techniques that effect organizational change, the goal of which is to change the performance and culture of an organization.

The interrelationship and interdependence between structure, people, and procedures in the security education, training, and research system makes it imperative to follow an integrative model of organizational change that places assessment and design processes at the heart of successful organizational change.

Keywords: change, education, management, science, security.

I. INTRODUCTION

The security environment, where the members of the European Union want to achieve their common object, has changed radically and there are no specific security situations or threats to a particular EU country. The European Security Strategy shows that today's Europe faces new dangers that do not stop at national borders. Common solutions must be sought to address these challenges by building on the successes of the European unification process, developing what we have achieved as an expression of common security interests.

The purpose of this research is to find a scientifically based answer for the decisions in the management of the system of education, training and scientific research in the field of security, which correspond in an appropriate way with the responses of the security system to the dynamic changes in today's society. It is necessary, through the management of knowledge in the system of education, training and scientific research, to form such security for society, which meets society's expectations of stability as a guarantee of public order and sustainable statehood in the European community.

The proposed scientific study examines the design, development and functioning of the complex system of education, training and scientific research in the field of security, taking into account the peculiarities and national requirements for its organization.

II. MATERIALS AND METHODS

Challenges to the national security policy

Ensuring European security implies a serious focus on future threats and challenges - not only as identification but also as preparation of comprehensive response measures. European Security and Defence Policy, through the European Security Strategy, unequivocally shows that if Europe wants to take its share in guaranteeing global

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security, it must have the necessary tools to fill the gaps in resources, capabilities, technology, infrastructure and to wipe out the difference between what it can today and what it would like to be able to do tomorrow. The new NATO Strategic Concept unequivocally reaffirms the close link between security and development, where the lessons from the ongoing operations show an urgent need to strengthen coordination and the need for the closest possible cooperation between political and military authorities in the planning and implementation of missions, because no member state should face the new challenges alone.

The problem of introducing the truly new, fundamental change from which we expect significant new opportunities, new horizons of development in the education, training and security research system is quite different. Continuity is the basis of the stability of traditional security organizations and is largely characteristic of the education, training and security research system. At the same time, we are facing a future full of demographic, social, economic, political, religious, philosophical, scientific and any other changes, problems, conflicts that not only appear to emerge from "nothingness" but are also accelerating, deepening, disappearing or transforming into one another.

The methodological framework of scientific research allows, through a comparative analysis of the studied models of change management, to derive a model that combines the ideas of the systems approach (the "transformational" cycle of knowledge assimilation and the problems of functional management are examined) with those of Kurt Lewin (based on a system concept of dynamic stability and resolution of problem situations as a tool for change management). Our capabilities are not fixed, they can be changed and upgraded because everything can be learned.

Through the transition from program-target management to comprehensive approach to security education, its advantages are pointed out as a model that not only seeks to find answers to everyday security problems, but also prioritizes improvements in the security education and training management system in the future. Mindset is the secret to success in every area of life.

Today's society faces the challenge of change, and the only sure thing for the near future is that our world will be constantly changing, much more dynamically and more radically than ever.

Management is a conscious process in which the managers have previously realized and chosen the managerial impact, which is an active, planned and concrete process related to the achievement of the organization's goals. According to the functional approach, the management process is a combination of interconnected core management functions aiming to have a favourable influence on the behaviour of the system through structural change. Change management is often used in scientific circles as a synonym for transition and is a formed structured approach to organisation and system change that make it possible to move from a current to a desired future organization structure.

The challenges to national security policy arising from the existing threats and risks in the new dynamically changing security environment imply the formulation and implementation of a new, science-based security policy and strategy for its implementation.

The problem of changes in the system of education, training and scientific research in the sphere of security and the possibility for their management is particularly relevant and at the same time very complex. This complexity results from the fact that major changes occur in all social, economic, political, group, interpersonal and personal processes, phenomena and relationships, and the external, visible manifestation of these essential changes forms the overall changes in the security system. These changes lead to new expectations and requirements for adaptability of the system of education, training and research to the dynamic changes in the security environment.

The multifaceted and rapid changes in today's integrated security environment and the need for a rapid and effective response of the security system require the structure of the main process of its activity to be a double scheme of current training. Mandatory reviews of the set of manageable variables, the formation of new strategies for their management and the detailed reporting of changes in the consequences are mandatory. This allows, on the basis of information provided and scientifically grounded solutions that security system management appropriately addresses the responses of the system to changes in the security environment.

The development and functioning of sophisticated systems imperatively require that the design and the use of management technology stems from the organization's particularities and requirements. Without a robust system of knowledge and rules for the conduct of the management operations, an efficient management process is not possible. Organizational change is inevitable, continuous, sometimes undesirable, and sometimes instigated.[1]

The first learning curve in the security system is an effective mechanism for constantly raising the knowledge in it (creating new abilities), and the second learning curve is an instrument for forming the specific new knowledge of the system.

Scientifically grounded and completely natural is the possibility of enhancing the learning outlines in the security system with the emergence of a third - "transformational learning curve" aimed at changing the context or the point of view of the system by creating a fundamental change.

### III. RESULTS AND DISCUSSION

**A problem of changes in the system of education, training and scientific research in the sphere of security**

Each organization is an open, dynamic, and complex system for which the main means of survival and sustainability is to maintain a state of dynamic equilibrium with the environment in which it operates [2]. The security system is presumably the most sustainable and most inert part of the public system. The whole public system relies on the stability of the security system as a major pillar of statehood, independent of political, economic and other social changes. In a period of dynamic changes, when the whole public system is reformed and transformed, the security system takes a new place, role and position in the public space, which leads to an urgent need for substantial
security changes to ensure a brand-new balance and interaction of the security system with its environment.

A balanced state security policy is possible only after a nationally responsible scientific analysis of the optimal combination without prioritization of diplomatic, political, cultural, economic and military measures in a future integrated state security sector.

It is necessary to form such a security for the society, which through a system of education, training and research, will be highly sensitive to all dynamic changes and will constantly adapt to these changes. At the same time, it must meet the public’s expectations of stability as a guarantee of public order and sustainable statehood. The main efforts of the security system are focused on improving the effectiveness of the strategies for getting close to the desired results and the formation of knowledge in the training system of national security aimed at internal improvement of the expertise and increasing the efficiency of the system through the mechanisms of the applied strategy.

The first objective of the change is to ensure the selection and implementation of such characteristics of the system of education, training and security research (objectives, structure and processes) that will bring it as close as possible to the state of dynamic equilibrium. The change will create difficulties, but the lack of change creates something far worse for the organizations - entropy or gradual disintegration of the system, i.e. each organization must undergo change or cease functioning.

If new strategies are developed, the structure or technology is changed, but the conditions of people's behaviour formation in the system of education, training and security research are not changed, the first objective of change will not be realized. Every change must be realized and accepted by those who will accomplish it, which means they must change themselves. That is why the second objective of each change is to create and implement conditions for new principles of behaviour that are harmonizing with the changes in the objectives, structure and processes of the organization of the system of education, training and security research. “The central issue is never strategy, structure, culture, or systems. The essence of the problem, however, always affects the change in people's behaviour [3].”

According to its importance for the system of the education, training and security research, the organizational change can be tactical (continuous improvement within the organization) or strategic (affecting the foundations of the organization and the behaviour within the system). In the case of the pre-planned change, the system of education, training and security research will try to anticipate the future and become what it should be there. When the system does not meet the requirements of the present, the change is in the form of a reaction. Integrating changes take place within the existing objectives and strategies and are directed to maximum efficiency of processes under the conditions of moderately changing characteristics of the environment in which the system of education, training and security research operates.

The management of changes in the Learning Security System should be structured along the trajectory of the third - the “transformational” loop of knowledge acquisition. This allows the knowledge calculated in the first two contours (aimed at improving the internal operability of the system and changing its operational strategies to be accumulated as a scientific knowledge of the necessary and expected response to the significant changes in the security and defence environment surrounding the system through appropriate knowledge management mechanisms in it, modern tools to achieve the necessary - integration, flexibility, synergy, motivation and readiness for change.

Since the correspondence between strategy, structure, people and processes is never complete, the integrating changes are a continuous process, but their “power” is relatively small. Normally, organizations take well and even tolerate the integrative type of change. Everyone understands the need of them, offers options to deal with problems and acquires new knowledge etc. “For organizations that have correctly chosen their strategies according to the characteristics of the environment, integration leads to a steadily increasing efficiency and internal consistency between the strategy on the one hand and the structure, people and processes on the other [4].” Reforming changes are the consequence of major changes to the strategy, and this means that in order to implement the new strategy, changes in structure, processes and people must be made.

If the integrating changes can be called changes in the system, the reforming changes are changes to the system. An overview of scientific publications on the issue of change management shows that many change management models are derived. We will look at a model that combines the ideas of the system approach with those of Kurt Lewin (based on a systemic concept of dynamic stability and a layered process of change), in which the organization is seen as a living organism going through the following phases [5]:

- Reframe – there are determined the prospects for the development of the organization by creating an internal potential, developing an adequate set of indicators to assess the degree of fulfilment of the objectives.
- Restructure - focusing on long-term success, building a promising model of the organization by synchronizing its goals, indicators and values.
- Revitalize - looking for opportunities for development and growth by focusing on the requirements of applicants, consumers and the market.
- Renew - encouraging the creation and dissemination of new knowledge and skills in the organization. Stimulating individual training, developing the organization and educating employees to a sense of belonging to it.

Organizational change is a specific type of change that affects the nature of the processes, the structure, the systems and the way they are managed. It is the basis of the organizational development. It resolves not only the problems of external adaptation, through restructuring and strategic planning, but internal integration as well as - by means of introduction of new values into the organizational culture. Organizational change management is a planned
process that aims at achieving higher levels of organizational effectiveness.

Structural change in the context of organizational change refers to the improvement of activity through changes in the officially adopted structure of relations between tasks and power. At the same time, it must be acknowledged that the structure creates interpersonal and social interactions, which can gradually become decisive for academic activity.

The internal connection and interdependence between the structure, people and procedures in the education, training, and security research system must be known and understood. Many specialists emphasize that less effort is being made to change if it focuses only on the structure, or only on people, or on procedures alone.

The integrative model of organizational change puts assessment and design processes at the core of the organizational change. Changes in people are principally focused on knowledge and skills expansion – i.e. to make a change through competence management in the system of education, training and security research. Lifelong learning is crucial for introducing changes in human resources into the system of education, training and security research, and in many cases this training should be differentiated from the "traditional" one [6].

This does not mean that we should not conduct preparatory research and try to assess and minimize the risk, to plan, program and prepare the introduction, create conditions, and try to predict and overcome the problems in changing the system of education, training and security research through balance of change and continuity.

Security organizations and their individual employees have their own unique goals, values and expectations, and there is usually an area of overlap where their goals are common. When the organization introduces a change, the overlapping area moves. The goals, values and expectations of the organization are changing, creating a potential conflict for individual employees, and their resistance is a natural and normal response to change. And this is a very human reaction to falling into new or unknown circumstances.

The knowledge-based security strategy - a comprehensive approach to security education

Modern requirements for education in the field of national security require extensive increase of knowledge according to the adopted national security system of the country. In addition to purely national elements, which are security-related, they include elements of NATO and EU allied defence, too.

Often, the results of the scientific and educational activity in the security system remain hidden for society, which inevitably leads to a separation of public opinion regarding the importance of the objectives pursued and the public resources allocated to them. Criticisms of our education system will not spare education in the security system, without taking account responsibilities of each one of us to the security of the country, because social development can cause irreparable damage and create new threats and confrontation between different socially significant groups (teachers, doctors, policemen, miners, military, retirees).

The management of large organizational systems, such as the security system in its historical development, is related to the progress of system management and the approaches and concepts developed by it. Solutions at different hierarchical levels in the security system are confronted through the choice of alternative actions with different effects on threats and security. The cost of resources for the chosen alternative is also different. The effectiveness of management is largely influenced by the type of management constraints and the decisive power of the analytical apparatus linking the effects and costs of management.

It is imperative in solving theoretical, methodological and practical issues of the effectiveness of management of organizations to consider both the management itself through indicators of organizational effectiveness and its effectiveness. The problem of the efficiency of the functioning of the management systems of the complex systems is complex, multifaceted and therefore is decomposed into several main subproblems. Factors that affect the efficiency of a complex system can be divided into two types: internal and external.

The effectiveness of the management of an organization reflects the relationship between the set management goals, the existing conditions, the effects of the activities of the management entity, the final results of the organization and the resources expended.

Efficiency is one of the main evaluation concepts of the organization's management and is a complex concept, which is determined by many factors related to two concepts: economic efficiency, reduced to determining the size of management resources in terms of management effects and social efficiency, determined through the obtained effects of a social nature. Properly formulated management of each organization must ensure an optimal combination of these two types of efficiency, which are mutually determined.

The effectiveness of the functioning of any complex organization is directly dependent on the correctly formulated policies and their implementation in the existing management system. The problem of improving the management systems of organizations in solving the task of creating new and opening and mobilizing existing reserves using the available resources in organizations is becoming increasingly important.

But the functions of the elements are subject to the speed and dynamics of the changing structure of the organization. There is a contradiction between the rapidly changing goals and the more static and structure-related functions. The solution to this problem, as far as possible in functional organizational management, leads to the search for and development of multifunctionality. The practice requires the exclusion of duplication of functions, high integration and efficiency of functions, allowing rapid suppression or development of new functions if necessary. The growing integration of management functions does not provide a solution to the main contradiction of functional management. The discrepancy between the changing environment (and goals) and the adequacy of the actions of
the functional system can be largely overcome by the transition to program (pror-ga-target) management.

The need for a comprehensive approach to security education seems unquestionable, but it requires a model that seeks not only to find answers to the day-to-day issues, but to prioritize improvements to the education management system and security training. An advanced improvement in governance of educational institutions in the security system will allow the discovery of talented people who are experts in decision-making and are capable of taking responsibility. Awareness of our own creativity will bring full satisfaction for the efforts made in the formation of new and clearly necessary knowledge for the future. Security knowledge is compared to the wisdom gained throughout the centuries from the society, through the use of different instruments to achieve its unity and community, because “science-wisdom is knowledge of origin and causes.

In order to achieve higher quality of education and training in the security system, traditions and continuous training of teaching staff, large volumes and diverse teaching materials, skillful compilation, coordination and maintenance of complex plans and programs are needed, creating conditions for formation of knowledge for security in their completeness and interdependence.

The security system will not be able to maintain its function of supporting the statehood in society, if it didn’t reflect these changes, problems, conflicts and don’t act in accordance with the requirements of each specific moment of these processes and their concrete manifestation within a certain range. It will not be a reality if the relevant organizations in the system of education, training and security research are not constantly changing in order to meet this future [7, 8].

The choice of an alternative for change is based on the comprehension of the essence of the problem for the organizations in the system. And at the same time, it is also influenced by the concrete conditions under which change is made.

Changes in the system of education, training and research into security through “organized improvement” and "exploitation of success" are small successive steps away from the result for a better and wider outcome. In this sense, they do not need special means of introducing beyond the usual ones, namely: the introduction of new administrative products and services, as well as the necessary new techniques and technologies, the training of people for their absorption and application, a gradual change of functions and how these functions are performed. The choice of an alternative for change is based on the comprehension of the essence of the problem for the organizations in the system. And at the same time, it is also influenced by the concrete conditions under which change is made.

The main factors determining the outcome of change management efforts relate to the three types of organizational change in the system of education, training and security research: structural change, change in human behaviour and change in technology and procedures of education and research. Each of these impacting factors can become the focus of the effort for change. What is important in this case is that the change in each of the factors is in line with others, for example a change in the mission-oriented security system leading to the closure of formations and infrastructure contradicts the traditionally sustainable labor relations which must obligatorily exist in the security system.

Knowledge management in the security system encompasses various management tools related to the concepts of intellectual capital management and the idea of a learning organization, including the creation of professional communities, using intranet systems, document management systems, and wiki-based systems [4, 10]. The focus on the management of specific intellectual assets and the use of organizational channels on which knowledge is flowing is that which distinguishes security management knowledge programs in the security system from continuous organizational learning initiatives.

The knowledge-based security strategy should propose and outline one of the most important security policies - the transformation of the security sector by responding to the basic principles, approaches and mechanisms for the integrated functioning of our institutions [3, 11]. Priority threats require prioritized actions and reforms in the investments, concerning priority actions and policies due to the limited and decreasing trend of national resources.

In the security system where there is a high degree of subordination, the people change speed is extremely slow. Organizations in the system of education, training and security research are doomed to be "moderate leaders of change" that create, retain and continually restore the balance between the continuity that is inherent in every state and the changes imposed by the accelerating social time. Peter Drucker sees the solution in the slogan: "Let's change together" and there's probably a good reason of this.

CONCLUSIONS

The dynamics in the development of modern security risks and threats have changed the main components of the modern security environment and the achievement of a balanced state security policy, as a priority objective is possible only after a nationally responsible analysis, optimal combining without prioritizing diplomatic, political, cultural, economic and military measures in a future integrated state security sector. National Security Policy is a set of mutually related priorities and sectoral policies that are on an equal footing, and their role and place in specific situations and periods is determined by the dynamics of the security environment and the necessary actions for the realization of the national interests.

In order to change the organizational culture in the system of education, training and security research, action is needed, not just slogans and spells to change values. These are specific modifications to the strategy, structure and procedures that lead to system development rather than vice versa.

Now, processes of consolidation of the educational system are underway in the Republic of Bulgaria, during which the opinions of specialists in the field of military education are wanted. In this way, the idea of change does not remain only an idea but is implemented in practice through my inclusion in a working group of the Ministry of
Education and Science from the beginning of 2022 and the opinion submitted by me regarding the work of the academic staff, the scientific training of the academic staff, the scientific achievements of the academic staff, as well as its assessment. In the opinion, I also noted the importance of supporting the academic staff for outstanding achievements of a scientific and practical nature in the field of security and defense.

By the end of 2022, it is expected that the change in the law on the development of the academic staff in the Republic of Bulgaria will be developed and adopted.

Now, in the Republic of Bulgaria, the change I am talking about, which is based on competences, is beginning to take place through the necessary change in the legislation regarding laws and regulations for the development of the academic staff, and specifically in the field of security and defense. Military education in Bulgaria needs a common basis, an understanding between the higher military universities and academies, common and synchronized curricula, on which to stand and stably build the future training of its cadets and officers.

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