

CONTRIBUTIONS TO THE IMPROVEMENT OF THE QUALITY OF THE NONCONVENTIONAL PROCESSES WITHIN THE NATIONAL INFORMATION SYSTEM OF SIGNALING IN THE CONTEXT OF ROMANIA'S ACCESSION TO THE SCHENGEN AREA

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ABSTRACT: The scientific work aims to present the role of the National Signaling Information System within the cooperation in the Schengen Area from the perspective of security risks. We believe that the implementation of a quality management system within the National Signaling Information System would have a positive impact on the quality of services, of the management of the organization which, in fact, influences the quality of the other processes of the organization. We have come to the conclusion that, basically, the simple fact that the manager takes responsibility for the implementation of the system is not enough, but neither is it expected that the manager will "move" to the quality department. The basic idea is that the top manager must express his reasoned point of view to make it obvious to all employees that he is using the quality management system to validate his decisions and to identify areas for improvement in the level of all services and compartments. From the research carried out by the authors up to this point, we have not identified a quality management system within the National Signaling Information System. Completing the process of Romania's accession to the Schengen Area as soon as possible appears as a necessity to ensure more security for European citizens. The biggest responsibility of the manager of the organization that coordinates and manages this IT system is to identify innovative approaches to face the moment of Romania's acceptance into the Schengen Area. The research carried out by the authors in this direction is explained and detailed in this scientific paper.

KEYWORDS: information system, quality management, Schengen space, security risks, processes

1. INTRODUCTION

The need to strengthen European cooperation in the face of the free movement of people must take into account the following common directions of action: the compatibility of the control system at external borders and admission policies, the harmonization of asylum policies, the effectiveness of readmission and return policies, an information system as a means of preventing irregular movements of persons, labor agreements as an alternative to legal migration and preventive measures through international institutionalized specialized cooperation. Organized crime is becoming, day by day, an extremely threatening and diversified phenomenon. The alarming amplification of the cross-border criminal phenomenon, the acquisition of an increasingly well-organized, conspired and internationalized character, forced the European community to be aware of its harmful implications even at the level of the security of states, its combat having to be carried out at a global level, through appropriate legal instruments.

The evolution of migration and terrorist actions, with the main target being the economically developed states in Europe, is becoming more and more worrying. The European policies in the field of Schengen, aimed at free movement without controls at the common borders, involve the regulation of relations at the international level between independent and sovereign member states, the joint administration of compensatory measures through binding legal norms that are directly applicable without the need for transposition into law internal or that produce effects only after being transposed into national legislation or are of an advisory nature, cross-border cooperation, which implies strategic partnerships and the creation of the institutions and instruments necessary to ensure a climate of freedom, security and justice in the interest of all.

Strengthening security by combating terrorism and organized crime can only be achieved by strengthening and perpetuating cooperation between all EU member states and strengthening specialized European agencies: Europol, Eurojust, Frontex.

Thus, improving the exchange of information between member states, expanding and developing common systems and databases (SIS II, VIS, Eurodac) are essential in this process and can only be achieved by increasing mutual trust between partners within the European community [3]. In the process of joining the Schengen area, Romania was obliged, due to technical and legislative developments in the European Union, to develop an IT system, respectively it established the National Signaling Information System, which is compatible with the second generation Schengen Information System.

This national computer system contains alerts/signals of both Schengen and national interest, signals issued by the competent authorities in our country, this computer system being administered and managed by the Ministry of Internal Affairs [9, 11, 12]. The role of this system, in the global context, is to effectively support cooperation between member states, with the aim of combating cross-border crime, human trafficking, combating drug trafficking, and after Romania's accession to the free movement area, it will have an important role strategic, to secure the external border on the eastern side of the European Union.

Most EU Member States have responded to the COVID 19 pandemic by restricting cross-border mobility, both within and outside the EU. The resulting picture is a web of dynamic, multi-level measures, from the reintroduction of internal border controls at certain land, sea and air borders to travel bans within and outside the EU [15].

The resulting picture is a web of dynamic, multi-level measures, from the reintroduction of internal border controls at certain land, sea and air borders to travel bans within and outside the EU. Intra-Schengen border closures and systematic internal border controls were implemented in a unilateral, paranoid, improvised and uncoordinated manner.

2. QUALITY ASSURANCE AND QUALITY MANAGEMENT WITHIN THE NATIONAL SIGNALING INFORMATION SYSTEM

In organizations that tend towards competitiveness, the implementation of the concept of "quality assurance" was based on the expansion of markets, product development and the progressive increase of customer requirements.

A component of quality management is represented by quality assurance, which has the role of guaranteeing that the norms regarding quality will be respected.

The purpose of quality in general and that of quality assurance in particular, involves carrying out the activities of an organization based on technical, professional standards.

The daily operation of an organization is carried out in correlation with the provisions of the standards. The achievements of an organization depend directly on the specialization of the staff but also on the extent to which they apply the standards in their field of activity.

The ISO 9000:2015 standard describes the quality management system as a set of activities through which the organization sets its objectives, defines the processes and establishes their financing to achieve the objectives [1, 2].

The satisfaction of the requirements for the interested parties is obtained as a result of a good coordination of the quality management system responsible for the administration of the processes and their financing for a maximum effectiveness of the results.

The performance of the National Signaling Information System depends on how the human resource behaves within the system in which they work. The staff of the Center will become interested when they fully internalize the norms related to quality and the results that can be achieved.

The efficiency of the quality management system proposed to be integrated within the SINS, depends on the way in which all the staff value their experience, skills and expertise in order to carry out the tasks with which they were entrusted to fulfill the objectives assumed by the organization.

The obligation to provide staff with opportunities to improve these necessary skills rests with the center manager.

In order to achieve awareness within the Center, it is necessary for all officials to realize the importance of their duties and their role in achieving the established objectives.

The effective and planned communication within the SIS Center as well as with the other parties involved have the effect of motivating the staff and making them aware of the requirements imposed to obtain the best results, this representing a basic characteristic of the quality management system.

The improvement of the quality management system is achieved over time by developing it in an active way. This system must design the requirements of the National SIS Center and not be complex.

Planning a quality management system for implementation within the National Signaling Information System is not a singular event, but rather a permanent process. In the situation where the organization learns and the plans develop in relation to the newly created context [10].

Monitoring and analyzing at different time intervals the implementation of the plan and the results of the quality management system is an important activity for the SIS National Center.

To establish the fulfillment of requirements and the existence of risks, it is necessary to audit the quality management system, this activity also having the role of establishing its efficiency. This objective can only be achieved if tangible and intangible evidence is gathered. The acquired knowledge leads to innovation, a situation in which the quality management system becomes more efficient.

We appreciate the fact that this evaluation and supervision therefore takes into account the processes of achieving quality, the results of these processes related to quality and the quality system within the Center. It is proposed to organize the quality function at the level of the National Signaling Information System, a system coordinated and managed by the National SIS Center.

By function is understood the set of homogeneous and/or complementary activities, carried out by personnel with similar specialized training and which contribute to the achievement of the same objectives.

We believe that these activities are more

appropriate to be carried out in a decentralized manner, i.e. the responsibility for all previously identified activities is entrusted to each service and office within the National SIS Centre. Thus, it is proposed to introduce in the organization chart of the National SIS Center, a compartment subordinated to the director of the center, in which activities related to the policy in the field of quality and activities related to the integration of quality management activities in the other services are carried out.

The proposed new organization chart requires the establishment of specific attributions in the field of quality for each service and office.

It assumes that work teams with attributions in the field of quality carry out their activity in each service and office.

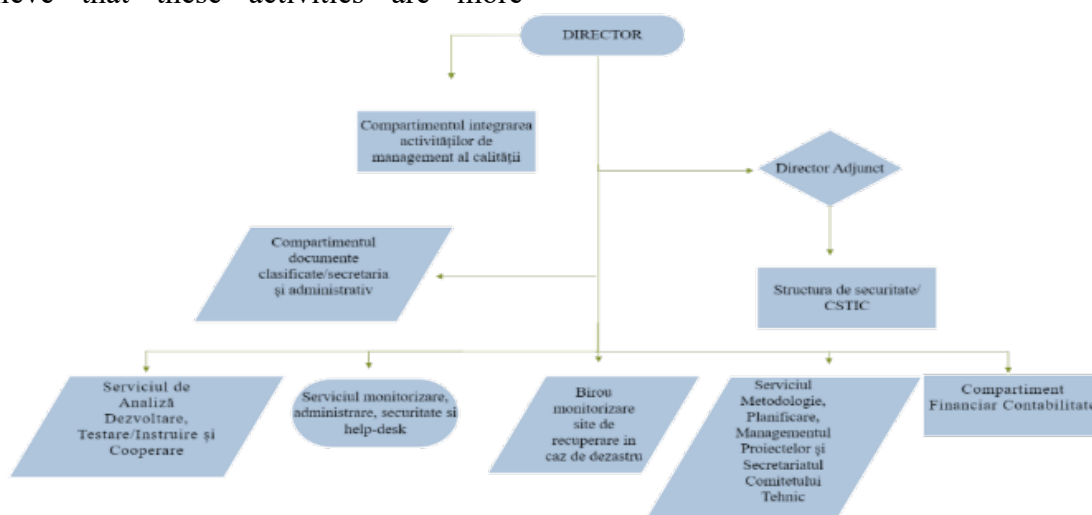


Figure 1. Organization chart of the CNSIS in which the Department regarding management and quality assurance was included

Within the analysis, development, testing, training and cooperation Service, the quality management will perform the following duties: monitoring and establishing the quality regarding the development, implementation, operationalization of N.SIS and connection to the central SIS system; monitoring and establishing the quality of the developed N.SIS software solutions, compatible with the Schengen Information System. Within the monitoring, administration, security and help-desk Service, the quality management will perform duties related to the realization of specifications regarding the security measures of the local communication network (LAN), database maintenance and connectivity.

Within the Methodology, Planning, Project Management Service and the Secretariat of the Technical Committee, quality management will

perform duties related to the quality of the implementation of projects obtained through funding from European funds, supplier evaluation and quality reception duties.

Within the disaster recovery site monitoring office, the quality management will fulfill the following duties: defining the needs regarding the quality of continuous operation of the disaster recovery site, of the interconnection at the site level in case of disaster during the period of unavailability of the main site.

The advantages of the decentralized organization of the quality function at the level of the services and the office within the SIS National Center would be the following:

- decisions and actions regarding quality can be justified because people are directly involved in carrying out current activities;
- to solve the identified problems, decisions can

be made promptly.

The disadvantage of decentralized organization involves great efforts to integrate and coordinate activities related to quality, coordination being realized in different ways through working groups, quality assurance coordinators.

These coordinators must perform the following duties in accordance with the ISO 9001:2015 standard:

- implementing and maintaining the quality system in the respective service and ensuring the permanent link with the Management and Quality Assurance Department ;
- the development, verification and updating of procedures within the compartment;
- participation in the organization of internal audits in the respective service/office and in the audits carried out in the other services;
- ensuring the dissemination and knowledge of regulations in the field of quality;
- administer the copy of the quality manual given and keep records of quality records.

The management and quality assurance department proposed at the level of the National SIS Center, which can become the Quality Assurance Department, will have the following duties:

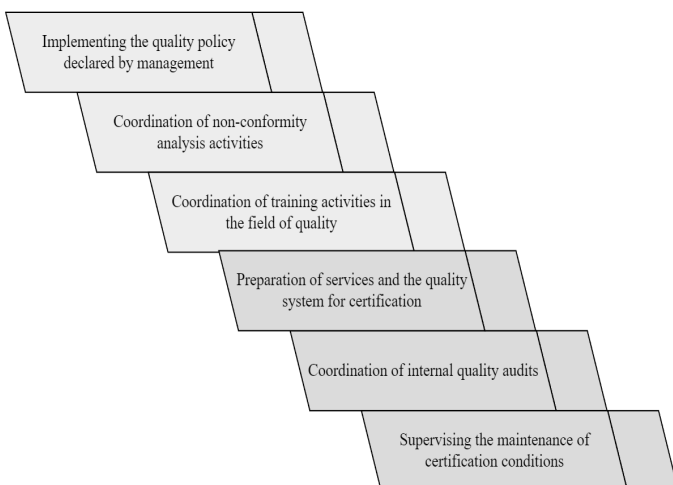


Figure 2.

The director of the SIS National Center implementing a quality system is obliged to appoint a person who, independently of other responsibilities, must have the authority mentioned according to ISO 9001:2015 standards, for:

- to ensure that the quality system is defined, implemented and maintained according to the standard chosen as a benchmark;
- to communicate to the management how the quality system works, to be analyzed in order to improve it.

The appointed person must be granted the right of access to the management at the highest level of the National SIS Center, respectively at the director and deputy director level, directly communicating to them the findings he makes, having the power to decide to interrupt the activities which do not conform to the requirements of the quality system.

We further propose a system of good practices at managerial level for the National SIS Centre:

A. PLANNING

- short-term orientation;
- decision-making should be done jointly, based on consensus;
- few people with management positions involved in decision-making and its communication to people with different value systems;
- the decision starts from the bottom up and then vice versa;
- the work of the decision takes a long time, its implementation is fast;
- staff share decision-making power and responsibility;
- the person's purpose is clear;
- operational decisions are strategic.

B. ORGANIZATION

- collective responsibility;
- clarity and specificity in the responsibility of the decision;
- egalitarian organizational and informational structure;
- the traditional culture and philosophy of the organization are well known. Competitive spirit towards other organizations;
- hiring young people directly from the school, but also from other organizations;
- gradual promotion over time in rank and position;
- professionalism;
- frequent evaluations of the organization's performance by young employees;
- appreciation of long-term performance;
- rewarding long-term performance;
- promotions based on multiple criteria;
- formation and training of staff at regular intervals;
- multiple possibilities of manifestation within the organization, including addressing several

functions of the organization;

- employment for an indefinite period.
- C. COORDINATION-COMMAND**
- the leader as a social factor, is part of the group;
 - command style, strong, authoritative, firm, decisive;
 - common values facilitate cooperation;
 - the assessment is done clearly;
 - clear separation between work and private life;
 - bottom-up communication;
 - emphasis on written communication.

E. CONTROL - EVALUATION

- control by superiors;
- control focused on group performance;
- encouraging the saving of honor;
- extensive use of "quality circles".

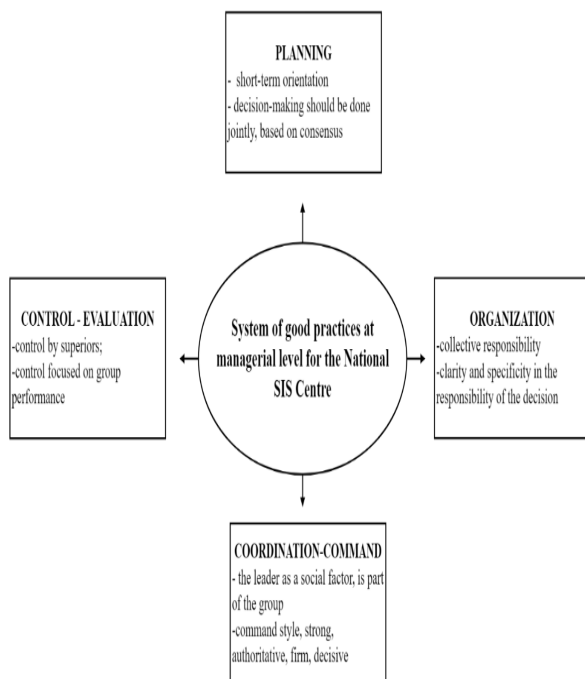


Figure 3. System of good practices at managerial level for the SIS National Center

In the vision, ISO:9001:2015, special importance must be given to the systemic approach of the "network of processes" of the National SIS Center by integrating the processes that intervene in the relationship with the beneficiaries, in this case with the law enforcement authorities and with the other institutions of the member states, with those corresponding to the activities inside the center, starting with the definition of requirements related to management, finding the necessary resources, up to the evaluation and analysis of the results [2]. This analysis is prepared by the center's top management, with the aim of identifying opportunities to improve the quality management, so that the services offered are better satisfied.

We appreciate the fact that by involving the management in the expected implementations, the cycle is restarted, thus ensuring the premises for the continuous improvement of the quality management system.

A possible procedure of the quality management system within the National SIS Center should describe the objectives and the manner of carrying out the various activities with an impact on quality and the responsibilities, authority and relationships between the persons who coordinate, perform, verify or analyze those activities.

Quality tools proposed to be used in the decision-making process at the level of the SIS National Center

Continuous improvement as a goal forces the organization to find solutions to improve activities. In order to provide services, the National SIS Center must know everything that is practiced in its area of competence in relation to organizations of the same profile within the member states. This data serves to establish priorities for areas that should be improved [6].

Addressing these issues in an innovative way improves the quality of services. Continuous improvement, on the other hand, leads to a slow but sure increase in quality. The national SIS center must assess the risk to which it is exposed. In the situation where this risk occurs, the most important strategy to apply is continuous improvement. A way to promoting continuous improvement is the innovative adaptation of the best practices in technology [14].

The National SIS Center can implement information from profile organizations in Member States considered leaders to improve their processes. Continuous improvement is fostered by benchmarking. This practice enables the Center to accelerate its level of progress.

Benchmarking is an ongoing process of evaluating an organization's own performance against that of other organizations recognized as market leaders. In other words, benchmarking is actually a process of evaluating the effectiveness of reference organizations in the processes of obtaining their performances, in a way to establish the "best practices" that made possible the full satisfaction of the requirements [8].

We believe that the National Signaling Information System managed by the SIS Center, in the situation where benchmarking is carried out, would have the opportunity to learn from the organization that manages the central site of the Schengen Information System, located in Strasbourg (France), from The European Agency (Eu_Lisa) that manages SIS II and to implement what has been learned to improve its own performance.

A successful benchmarking represents the organizational culture, works on the existing infrastructure and is in harmony with the decisions of the management. Benchmarking is not only about establishing best practices but it helps in determining the best method that can be applied in the organization. The top value of benchmarking it is only achieved where the organization has successfully implemented its best practices in its operations [8].

3. CONCLUSION

With the acquisition of full membership of the European Union, on 1 January 2007, our country has entered a new phase, which provides for the establishment and implementation of useful provisions for the lifting of internal border controls, for integration into the area of free movement.

Integration into the Schengen Area is, for Romania, both a right and an obligation: a right arising from the status of a member state of the European Union, but also an obligation stemming from the Act of Accession to the EU itself, and starting from the moment of accession to the EU, Romania applies the provisions of the Schengen acquis of category I.

Achieving the objectives for integration into the Schengen Area are the responsibility of the Ministry of Internal Affairs, as they are provided for in the National Strategy for accession to the Schengen Area.

Currently, Romania acts as a de facto member with a significant contribution to the very security of the Schengen Area, managing with responsibility and efficiency more than 2000 km of the external border of the European Union.

The principles of quality management as stated in Standard 9001:2015 are also consistent with the process-based approach.

Such an approach provides a more practical picture of the activities and interfaces between processes. The role of the process-based approach is to increase the efficiency of the organization to achieve the established objectives.

We proposed the introduction in the organizational chart of the SIS National Center, a compartment called "*Quality assurance and management department*" subordinate to the director of the SIS National Center, in which activities related to quality policy and activities related to the integration of quality management activities in other services are carried out.

Practically, the activities that should be imposed consist in improving the knowledge and skills of the staff, by participating in specialized courses, these

activities being important not only to ensure the improvement of performance, but also to face the challenges at the time of accession, bearing in mind that the member states aim to improve the performance of the specialized staff operating the Schengen Information System.

The Director of the National SIS Center is responsible for coordinating the quality improvement process by presenting the objectives to be achieved, by continuously improving their own work processes, by supporting a climate of communication, teamwork and respect for those around them, as well as by ensuring the conditions and empowering each employee of the National SIS Center to improve their own work processes. Achieving quality is an extensive process that involves the integration of all beneficiary and participating spheres of interest in its achievement.

In our opinion, the type of benchmarking that could be applied for SINS, would be the horizontal one aimed at establishing "best practices" in the operation of the processes of the organization that manages the central site of the SIS, as leaders in the functional IT system in the Schengen Area but which does not compete with the National Signaling Information System, operational in our country.

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