

# The Schengen Information System: legal support for the automated cross-border business management

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**Abstract.** This study examines the impact of the development of the information and communication technologies on the social, economic and political systems of the member countries of the united Europe, as well as the countries entering into business and production relations with them. The authors reveal the issues of using the Internet as a tool of the loyal border management of the united countries, ensuring the liberalization of the movement of factors of production through the creation of a single space of freedom, security and justice. The infocommunication technologies are researched as a management mechanism with regard to their influence on modern geopolitical, economic, and specifically industrial processes. The indicated approach is implemented simultaneously both as the management of the content of political relations and the management of their form. The Schengen border management information system is regarded as one of the most striking examples of the information technologies use in the political, economic, and specifically industrial sphere. The structure and legal mechanisms of this system operation are analyzed, on the basis of which the advantages and disadvantages of technological and legal nature are revealed. Special attention is paid to the analysis of the draft laws under development aimed at the improvement of the Schengen information system as an electronic technology for the automated border management of the pan-European space of freedom, security and justice. Among other things the authors have taken into account the latest changes in the legal regulation of the Schengen information system, which took place in October 2018. Taking into account the identified shortcomings in the functioning of the Schengen information system, the recommendations for their elimination are formulated. It is concluded that it is necessary to create a single European information portal in order to optimize the processing of data received from the different agencies. The general trends of the SIS II reform are the simplification and acceleration of the procedures, as well as the strengthening of the personal data protection.

## 1. Introduction

Production as a process of creating economic wealth and accompanying resource conversion has been experiencing a real revolution in recent decades. The growth of high-tech industries, the increase in gross expenditures on software and hardware, communication equipment and related services, the increase in the government funding of research in nanotechnologies are becoming a stable trend in the development of the economic system of society. Of course, the processes aimed at building and developing the telecommunications infrastructure of the industry and business cannot but have an impact on the main production factors. It should be emphasized, however, that three of the four factors of production - labor, entrepreneurship and capital – are cross-border.



Work as the most important factor of production is an appropriate, conscious human activity aimed at meeting the needs of the individual and society. The market of the subjects of labor activity possessing a set of personal qualities, knowledge, skills, physical forces applied in the industry becomes unusually competitive environment. With the development of integration relations in the economy, a person gets the opportunity to realize himself in the industry (both as an employee and as an entrepreneur) not only on the territory of his country, but also abroad, if this state seems to him more attractive in terms of technology development, creation of conditions for work and creativity and other factors. Cross-border movement of people, as well as interethnic interaction of business entities invariably generates cross-border movement of capital. In this connection, the management of migration and financial flows has a direct impact on the intensification and efficiency of production processes.

The integration activities of international organizations, which have been actively developed in recent decades, are aimed at the liberalization of social relations and all factors of production. The interstate communication in the sphere of production in the context of globalization of the world economy involves the free movement of financial and human capital. One of the manifestations of such liberalization is the reform of the management of migration flows in the direction of simplification and acceleration of the administrative procedures.

In view of the increasing development of the information and communication technologies and communication systems in recent decades, particularly, in the light of the ubiquity of the broadband Internet access, mankind has acquired the tremendous opportunities for communication, as well as for the receipt, dissemination and transmission of information. The information culture has received the status of the most important factor and integral indicator of the society development. [1] In virtual communication, the need for a personal contact with the interlocutor disappears, which can significantly reduce the time of exchange of significant information and neglect the distance between the subjects of communication. Of course, such a powerful instrument of interaction could not be ignored by the political systems of the world.

The information and telecommunication network "Internet" is characterized by the cross-border nature. At the same time, the clearly defined state borders, which are subject to the sovereign jurisdiction of the state power, are being eroded. In this regard, the actions of the subjects of virtual communication should be considered through the prism of international law. [2] The modern political scientists note that the political stability of the current political systems becomes directly dependent on the infocommunication potential of the socio-political relations and the effectiveness of its implementation by the state and civil subjects in a current political practice. [3] At the same time, to date, the main focus of the subjects of interaction is transferred not so much to the transmitted information, but to the development and use of the accessible, functional mechanisms, as well as the mass communication channels.

The impact of the information and communication technologies on modern geopolitical processes is reduced to the two main areas: the management of the content of political relations and the management of their form.

The management of the content of political relations with the help of the information and communication technologies is actively expressed in the western doctrine. In particular, Ronald Deibert emphasizes that any changes in the methods of communication lead to the global consequences in the form of redistribution of power in society, the changes in individual and social consciousness, and the axiological changes. [4]

It should be noted that by the information management of the form of political relations the authors mean the creation of new public institutions, models and mechanisms of interaction between the government and society, which operate on the basis of the modern high-tech means of communication. This view correlates with some doctrinal statements. Thus, L. Smorgunov expresses the idea that the possibilities of information and communication technologies are now understood much wider than before. While the concept of e-government, i.e. a static state in which the government information is open and accessible and public services are provided online, was initially dominant in public

administration, the idea of e-government is now embedded in electronic interaction. Thus, there is an extension of the form and sphere of influence of citizens on the process of making and implementing political decisions. [5] In other words, the emphasis of the dominant subject in the public legal relationship shifts from the state body to the citizen.

The undoubted positive aspects of such management are that the electronic administration in the process of public administration significantly increases the speed of feedback between the public authorities and citizens, significantly reduces the financial costs associated with the maintenance of bureaucracy, which is replaced by an automated system; paperwork disappears, as well as the range of entities that have the opportunity to interact with the public authorities (in particular, we are talking about persons with disabilities) is enlarged. [6]

One of the clearest examples of the implementation of e-government is the European Union. The analysis of the European Union's policy on research and technology shows that providing an innovative way of economic development is only possible through the creation of new innovative institutions with active state participation. [7] A distinctive feature of most European programs and the strategies for their implementation is that all the used online technologies – e-commerce, e-government, e-business, etc. - are not considered as isolated activity areas, but as a global environment, which is the basis for transition to the digital economy and the information society. [8]

## 2. Research

The Schengen information system (SIS), which emerged on March 26, 1995, is a unique phenomenon of the information society. It is the Unified Information System, whose main material and technological base, including the main data bank, is located in Strasbourg. [9] Having passed 3 stages in 23 years of its existence (SIS, SIS1+, SIS II), the Schengen information system performs the most important function of the legal border management of the European Union, maintaining the balance between the interests of the national security and the respect for human rights. The Schengen rules provide for the abolition of border and customs control at the internal borders between its member countries, introduce the unified rules of entry/exit for all external borders of the contracting countries, declare the cooperation of the law enforcement agencies to combat the international crime, as well as introduce the unified requirements of the rules of extradition and registration of all border crossings in the database. Being organically integrated into the centralized information system, including such elements as VIS, EURODAC, ECRIS, the Schengen information system is attentive to data protection. This is expressly provided for in article 102 of the Schengen agreement, which expressly prohibits copying data from one national section of the SIS to other national files (paragraph 2) except in cases of prevention of the highest serious threat to public order and security (paragraph 3).

The mechanism of functioning this system is as follows. The elements of the Schengen information system are the national sections. Each contracting party shall designate a specialized body to act as an information aggregator, whose officials shall be responsible for the proper functioning of the national section. (art. 108, para. 1-2). The interaction of aggregators is carried out through the depository. The access of persons to the information contained in the SIS is controlled by the national supervisory authority, which determines the circle of persons and the way of the information transmission. They are united by the international monitoring body – the European Agency for the management of the large-scale IT systems in the field of freedom, security and justice - consisting of two representatives from each national monitoring body and headed by the European data protection inspector. [10] The Control is carried out in the following areas: the control over the device access, database, data input, use, access, and transport.

Any person has the right to request verification of the data concerning him, to correct the factual inaccuracies about him or her and to initiate proceedings before a court for the purpose of correcting, destroying or sending up a report about him or receiving compensation in this regard. The damage caused to a person in connection with the use of the national SIS data file is borne by the specific information aggregator. The period for information storage depends on the specific type of data and can range from 1 to 10 years.

The development of the information and communication technologies makes it possible to improve the quality of interaction between the services that ensure the security of European countries by storing a new type of data-biometric information (fingerprints registered through the automatic fingerprint identification system (AFIS), photos for visas and documents). The reform that the Schengen information system underwent in the spring of 2013 also made it possible to provide the intelligence services of the contracting countries with information on hijacked aircrafts, ships, stolen containers and banknotes, arrest warrants, residence permits and means of payment.

Despite these innovative changes, the literature notes the weakness of SIS II and its inability to fully meet its challenges. [11]

First of all, the freedom of movement within the Schengen States enjoyed by the European citizens has worsened the terrorist situation, as the practice has shown. [12] In our opinion, the measures taken by the leadership of the European Union, in particular, the conduct of random checks of the EU citizens on certain categories of databases, are very resource-intensive and ineffective, since the full coverage of persons who are potentially dangerous to the terrorist situation is impossible. A vivid proof of this is the formation of the areas inhabited by former refugees from the Eastern countries, who do not want to assimilate and pose a threat to the national security because of the opposite radical European ideological attitudes.

In addition, the information management architecture for the borders and security is fragmented, because the information is stored separately in the unrelated systems: the EES, VIS, ETIAS, EURODAC, SIS II, ECRIS-TCN, SIRENE and EUROPOL. [13] In this regard, the end – users – border guards, police, customs officials, judges, consulates, as well as offices responsible for vehicle registration – in some cases are unable to quickly access the information that is necessary in their professional activities to ensure security.[14] At the same time, the certain restrictions related to the competence of the office should certainly be retained in order to prevent the right abuse.

We see the solution to this problem in the integration of all the above databases. The integration processes have led to the emergence of an initiative to create a unified European Search Portal (ESP). In our opinion, the concept of a platform for sending requests to the existing information resources is very convenient, because it allows you to get all the necessary information in a single window. At the same time, the radical restructuring of the formed information systems and, as a result, serious financial costs are not required, and the data security remains protected.

Thus, the creation of the ESP is a way out of the current situation of the information isolation within the various departments and in the future will allow the competent authorities and officials more effectively and in a shorter time to carry out the documents verification through a single search and obtain the results from all the systems to which they have the right of access.[15] This will simplify the immigration and asylum procedure, since the distortion of the identity data will be much more complicated.

A new round of the gradual reform of the Schengen information system began in April 2016, when the imperfection of SIS II after three years of operation was officially confirmed. In December 2016, the European Commission officially presented a legislative package aimed at improving the SIS system from a technical point of view and a number of measures to counter the development of some forms of serious crimes, including terrorism. [16] Since then, there has been an active legislative process. After years of refinement and approval, The General data protection regulation (GDPR) came into force on May 2, 2018. In general, this regulation is intended to increase the level of control over the personal data of users and legal entities. The right of the user and the company to information about what data are available on the network and how this information is used. Although this is a general law, it also applies to the SIS.

On the technical side, the development of SIS II can be traced in three main areas: the maximization of benefits of the functioning information systems, the development of new additional systems for the purpose of dealing with the gaps in information and, finally, the convergence of the information systems and increasing their interoperability. [17]

A number of important changes were discussed in Brussels on June 12 this year. The draft reform contains very innovative developments, such as the inclusion of a DNA profile to facilitate the identification of missing persons in cases where fingerprint or photo data are not available or suitable for the identification. [16]

The draft regulation introduces additional information categories in SIS II. The warnings are issued for the investigative purposes and are an intermediate step to a preliminary investigation that allows people to be interviewed. The alerts also help to prevent the abduction of children by one of the parents as well as children and persons in a helpless state, in respect of whom there is a risk of deprivation of freedom of movement (for example, in cases where the exit might lead to the conclusion of a forced marriage, human trafficking, etc.). It will also be possible to send alerts about unknown suspects and wanted persons, which include the introduction into SIS II the fingerprints or palms of a perpetrator found at the scene of a crime or terrorist act.

In addition, it is planned to include a new European service, the border and coast guard agency, in the circle of entities with the access to the SIS II data within its competence. It is also planned to open the access to all categories of data and exchange additional information for Europol. All Schengen countries will be obliged to inform Europol of any attacks where a person is wanted in connection with a terrorist offence.

It is also necessary to note the problems of protection of personal data from distortion, theft and illegal use. Considering the problem a priority, the European Commission supports the development of informatization in the sphere of control not only through the legislation, but also financially. Thus, 1.7 million euros were allocated to co-finance the training of data protection specialists in 2018, another 2 million to support the national data protection authorities. [18]

The latest changes in the legal regulation of the Schengen information system took place on October 24, 2018. The European Parliament adopted a law that introduces a new type of notification—the notification of the decisions of the national authorities in respect of foreign citizens illegally staying on the territory of the European Union. This innovation is certainly important because the lack of inter-state cooperation on this issue has allowed third-country nationals against whom the extradition or deportation was ordered to move to another European state and to avoid the enforcement of such a decision. [19]

### 3. Results

As a result of the study, it can be concluded that the development of modern political management methods is largely associated with the development of the information and communication technologies and communication systems. The way in which the information is transmitted, the circle of subjects and the speed with which it is transmitted, may determine the adoption of the most important state decisions that shape its policy.

The electronic administration on the example of the Schengen information system has proved its convenience and efficiency. A well-designed three-stage system of interaction of the elements of SIS II allows processing and storing a significant amount of information and performing the functions related to the security of the member states of the Schengen agreement in a short time.

Despite a number of advantages of SIS II, it is impossible not to note the shortcomings of this system, which were particularly clearly revealed in the period from 2015 to 2017. The main ones are the lack of interconnection between different European information systems and the complication of access to the information stored in different databases of the intelligence services.

The solution to this problem is seen in the development of a unified European search portal, which is the link for all the European information systems. The result of the creation of such a portal will be a significant reduction in the time to process significant amounts of information.

Currently, the Schengen information system is one of the most frequently used information systems. The statistics show more than 5 billion uses by the member states, with more than 240,000 foreign alerts sent and viewed. [20] Therefore, the reform of SIS II should take place in the direction

of simplification and acceleration of the procedures, as well as in the direction of strengthening the protection of personal data.

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