Digitization of public administration. Romania of the 21st century

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Abstract: The process of digitization in general, namely digitization of public administration in particular, is one of the priorities of the European Commission, for a few years now, a concrete aspect in the existence of two European strategies for implementing digitalization. The whole process tends to create new concepts, such as e-governance or smart city. In the statistics given to the public by the European Commission (the most recent dating from October 2019), Romania occupies the last place in the degree of implementation of the digitization, paradoxical aspect given the leading position regarding the speed of surfing the internet and the degree of area coverage. The present study proposes to identify the progress that Romania is making in this regard, as we want to identify solutions to accelerate the digitization process in the Romanian public administration.

Keywords: digitization; administration; TIC

The process of digitization in general, respectively of digitization of public administration in particular, is one of the priorities of the European Commission, for several years now, aspect materialized in the existence of two European strategies for implementing digitization.

Information technology has become one of the central elements of managerial reform, and e-government is an essential dimension of governance in a society open to the future and receptive to the challenges of globalization. Information technology has opened up many opportunities to increase managerial efficiency and the quality of public services provided to citizens, has contributed to dramatic changes in politics, in government institutions, in terms of performance management and reduction of bureaucracy[2].

The Digital Agenda for Europe 2020[3] (DAE) is one of the seven flagship initiatives of the Europe 2020 strategy adopted by the Commission and aims to define the key role of catalyst that will have to play the uses of for Technological Information and Communications (TIC) if Europe wants to meet its ambitious 2020 targets.

The Digital Agenda for Europe 2020 has been designed on the following structure:

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[2] V. Stoica, *Electronic Government. Theoretical expectations, methodological dimensions, empirical realities,* Editura Universităţii „Alexandru Ioan Cuza" din Iaşi, 2020, p. 28.
[3] https://ec.europa.eu/digital-single-market/en/europe-2020-strategy, accessed on 04.10.2020.

Pillar I - Digital Single Market - allows free cross-border access to online services and entertainment.

Pillar II - Interoperability & Standards - allows the integration of devices, applications, data and services needed for cross-border interaction.

Pillar III - Trust and Security - increasing the confidence of Internet users in electronic services and online transactions, in order to stimulate the consumption of TIC services.

Pillar IV - Fast and ultra-fast Internet access - aims to invest in broadband infrastructure in order to benefit from the latest electronic technologies and services.

Pillar V - TIC Research and Innovation - stimulates adequate funding to increase the competitive advantage in the field of ICT.

Pillar VI - Increasing the level of digital literacy, skills and inclusion - builds a bridge to the digital divide for all consumers, so that they benefit equally and fully from the benefits of TIC services.

Pillar VII - The benefits of TIC for EU society - focuses on the capacity of TIC to reduce energy consumption, support the assistance of the elderly, revolutionize health services and provide better public services.

Despite recent remarkable improvements, e-government is still in an emerging stage of implementation, both in developed and developing countries[4].

In the context of the implementation of the Digital Single Market at European level[5], it was necessary to give priority to investments in the field of Information and Communication Technology (TIC) in Romania as well. The association of strategic objectives with specific objectives in the field of TIC leads to the development of the digital economy and the transformations on several levels: legislation, innovation, procedural changes, behavioral changes, etc..

Based on the Digital Agenda for Europe 2020 program, was developed the National Strategy on the Digital Agenda for Romania, this being the reference framework for the development of the digital economy 2014 - 2020.

This strategy highlights 5 common general key objectives that should have been achieved at EU level by 2020:

1. Employment - 75% of people between the ages of 20 and 64 should be employed;

2. Research and Development - 3% of EU GDP to be invested in Research and Development;

3. Climate change and energy sustainability

4. Education - at least 40% of people between 30 and 34 years old to complete the third level of education

5. Combating poverty and social exclusion - with at least 20 million fewer people at or at risk of poverty and social exclusion.

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4   V. Stoica, *op. cit.*, p. 77.
5   Consulted on the website https://ec.europa.eu/digital-single-market/, on 05.10.2020.

Achieving the 5 common objectives of the Digital Agenda for Europe 2020 required the combined efforts of Member States to achieve them. In this context, Romania had to look at investments in TIC as a way to transform the Romanian economy.

These objectives are considered to be closely linked, mutually supportive and promoted as national objectives for each Member State of the European Union.

Thus, by Decision no. 245 / 07.04.2015, the Government of Romania approved the National Strategy on the Digital Agenda for Romania 2020[6]. Through this strategy, a planning of action lines was made, with the activities to be undertaken in each area. Among them we find the Field of action I - GOVERNANCE, INTEROPERABILITY, CYBER SECURITY, CLOUD COMPUTING, OPEN DATA, BIG DATA AND SOCIAL MEDIA.

The implementation of eGovernment takes into account the following aspects:

1. Public services, the link between them and the dissemination of information necessary to ensure transparency;

2. EGovernment platforms and interfaces;

3. The local and central structures, public and private involved in this process and the collaboration between them;

4. Working procedures for the development of eGovernment solutions and for the management of the subsequent eGovernment activity;

5. Centralized electronic system for unique authentication and identification of users, prepared so as to integrate all the requirements of electronic identification resulting from the implementation of online public services.

Public services, as well as a high degree of their efficiency, lead to a significant impact on the economic and social situation throughout the country. The main stated objective of eGovernment projects is to modernize central and local public administrations in order to provide services to citizens and the business environment in an integrated, transparent and secure way.

The aim is to create a modern public administration, to make it more pro-active, to intensify internal efficiency, to achieve greater transparency, to reduce operational costs, to interact with citizens and to develop new sources of growth.

Four factors are critical to creating a successful foundation for e-government: educated citizens, an adequate technical infrastructure, the provision of e-services that citizens need, and determination by government officials to support the necessary changes with financial resources and political vision[7].

Digitization is one of the major impact factors for increasing the performance in the legal-administrative environment, especially by facilitating and involving the citizen in the specific processes of these fields, the digitalized

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[6] Published in the Official Gazette of Romania no. 340 of 19 May 2015, Part I.

[7] Sriramesh, K., Milagros, R.S., *E-government in a corporatist, comunitarian society: the case of Singapore.* New media & society, 8, 707.

democracy representing a real support for the active involvement of the citizen in the democratic process[8].

The eGovernment Strategy in Romania focuses on services that provide elements of Life Events and bring them to level 4 of sophistication. Life events are important steps in the life of a citizen or a business, steps that are usually composed of inter-institutional services that serve a major event of interaction of citizens and the business environment with the Romanian Public Administration[9].

According to the National Reform Program[10], which is a framework platform for defining development priorities that guide Romania's evolution in order to achieve the objectives of the Europe 2020 Strategy, in Chapter 3. "Policies to respond to economic challenges", are the directions for action in terms of streamlining the operation of e-government solutions. The aim is to strengthen the institutional capacity of public authorities by developing e-government tools for citizens and the business environment, including by providing a vision on the directions of action in the field of governance.

In order to achieve the objectives in the sphere of the digital transformation of the Romanian society, through Government Decision no. 89/2020[11] was established the Authority for the Digitalization of Romania ("ADR"). The new authority shall assume the role of carrying out and coordinating the implementation of public policies and strategies regarding the digital transformation of public administration.

ADR takes over the Ministry of Communication and Informational Society's ("MCIS") prerogatives arising from normative acts related to the field of informational society and information technology, together with the prerogatives of the Authority for the Digitalization Agenda of Romania ("ADAR")

The Authority for the Digitalization of Romania supports and contributes to the digital transformation of Romania's economy and society and implements electronic governance with regards to the Romanian public administration.

ADR has extensive prerogatives to achieve its objectives and implement the digital reform, including attributions in the following domains:

– regulation, supervision and control – elaborates and issues opinions on draft normative acts in its field of activity; issues technical standards and regulations; supervises and controls the compliance with the legal framework in its field of activity (further details in section 3 below);

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[8]   For details see A. Iftimiei, *Consideration on digitalized democracy* in Analele Ştiinţifice ale Universităţii „Alexandru Ioan Cuza" din Iaşi. Seria Ştiinţe Juridice, Vol. LXVI/ I, 2020, pp. 363-371.

[9]   National Strategy on the Digital Agenda for Romania 2020, published in the Official Gazette of Romania no. 340 bis of May 19, 2015.

[10] Consulted on the website https://ec.europa.eu/info/sites/info/files/2019-european-semester-national-reform-programme-romania_ro.pdf. on 05.10.2020.

[11] Published in the Official Gazette of Romania no. 113 of 2020.02.13, part I.

- strategy and planning – drafts national strategies in the field of digital transformation, automation, robotization and artificial intelligence and coordinates their implementation;
- reporting – publishes annually the Catalog of public services, with the purpose of monitoring the progress of digital transformation of the public administration; issues quarterly the report on digitalization which contains, amongst others, the summary of ADR's activity, up-to-date progress and the level of compliance of public authorities with the legal framework within ADR's field of competence;
- representation and European affairs – coordinates the application of international agreements in the fields of information technology signed by Romania; on the basis of a mandate, approved by the prime-minister, supports Romania's position in the process of negotiation and enactment of European initiatives in the field of digitalization and represents Romania in international cooperation bodies in this field;
- projects and technical assistance – advises, initiates and ensures the financing of programs and projects in the field of digital transformation; supports entities with powers in the field of public procurement in the elaboration of technical solutions with regards to information technology projects; advises in the process of analyzation of operational flows.

ADR's powers include supervision and control of compliance with the laws and regulations regarding the technology field, including the legal framework that regulates the usage of technology solutions in important sectors of the economy, as follows:

- electronic signature and provision of trust services – exercises supervisory powers over qualified trust service providers established on Romanian territory, in accordance with eIDAS[1] Regulation, as well as those of the regulatory and supervisory authority in the fields of electronic signature, time stamps and electronic archiving of documents;
- electronic commerce - supervises and controls compliance with the legal provisions in the field of electronic commerce, including those concerning the registration of commercial transactions by electronic means;
- consumer protection – exercises the capacity of competent authority for the implementation of Regulation (EU) 2017/2394[2] on cooperation between national authorities responsible for the enforcement of consumer protection laws, having powers such as: access to any documents, data or information for the application of Regulation (EU) 2017/2394; can impose on any natural or legal person whether public or private, the obligation to make available any information in order to establish whether or not an infringement sanctioned by Regulation (EU) 2017/2394 has occurred; performs on-the-spot inspections, can enter any premises, on any land or in any means of transportation used by the inspected entity to carry out its

activity, in order to examine, confiscate or obtain copies of the information, data or of documents required for the inspection;

− financial services - approves payment instruments with remote access, such as internet banking, home-banking, phone-banking or mobile-banking;

− alternative transport services – approves or authorizes, amongst others, the online alternative transport platforms;

− cross-border portability of online content services – coordinates the application of Regulation (EU) 2017/1128[3] on cross-border portability of online content services in the internal market;

− registry of ".ro" domains - regulates the operation of the register for the ".ro" domain name;

In order to support digitalization programs and strategies, ADR will cooperate with the private sector in order to consult on areas of common interest.

The Romanian Digitalization Authority, in partnership with the General Secretariat of the Government, is implementing the project "Establishing the framework for the development of e-government tools (EGOV)"[12].

The project aims to:

1. reduce the fragmentation and grouping of electronic public services in the form of the concept of life events, according to the objectives established in the Digital Agenda for Romania;

2. ensure the legislative, institutional, procedural and operational framework for the use of e-government tools.

In order to meet the objectives of the project, the following documents were developed: Analysis report of the normative acts; Analysis of the operational, procedural and information framework (IT infrastructure) that supports electronic public services; Study on the clarification of the roles, attributions and responsibilities at the level of public administration in the field of information system associated with life events from the perspective of possible overlapping roles and attributions between institutions; Study of the existing situation regarding the specific field of e-government which will target institutions, legislation, processes, working tools, procedures and which will be used as a basis for future activities for electronic public services.

The needs for legislative, operational, procedural, informational and human capacity development were also identified through a review of international models of good practice regarding the framework and procedures specific to the institutions responsible for the identified life events.

A high degree of performance in public services can be obtained only if the citizen becomes the center of gravity of the fulfillment of public services,

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12 Consulted on the website https://www.adr.gov.ro/stabilirea-cadrului-de-dezvoltare-a-instrumentelor-de-e-guvernare-egov/ on 08.10.2020.

meaning that "the assimilation of the Internet and the mobile phone in the reform of public services is a mandatory condition"[13].

The concept of *smart city* is becoming more and more present in everyday life. One such example is the city of Nice in France, where innovative management has been implemented based on Internet of Things projects (eg the provision of data on the occupancy of car parks in the city), which has resulted in improved life of citizens, a mode of administration that has come to be recommended with the title of good practices[14].

With all the efforts made, a report from 2018[15] provides statistical data that we would categorize as worrying regarding the degree of implementation of digitalization in the Romanian governance, respectively: Romania is on the last places in the international rankings (even on the last place among the member states of the European Union), the countries in the first places since the implementation of e-governance since the 1990s. Among the main factors underlying this is on the one hand the lack of a stable and predictable legislative framework, and on the other hand we consider that there is a lack of good officials prepared and stimulated for the exclusive application of digital measures.

Also, according to the 2020 Country Report on the Digital Economy and Society Index (DESI)[16] of the European Commission, Romania ranks 27th out of the 28 EU member states. The index monitors global digital performance in Europe and tracks the progress made by EU countries in terms of digital competitiveness, with 5 main criteria: Connectivity, Human Capital, Use of the Internet, Integration of digital technologies, digital public services. In first place is Denmark, with an aggregate score of 70.68%, the EU average is 52.25%, and Romania has an aggregate score of 33.21%.

The conclusions of this report show that the IT system of the national administration is fragmented, which is an administrative burden for citizens and businesses. In general, the level of interoperability between public administration services is low, as each public institution has focused on its own digital public service. Therefore, it is not clear to what extent the information transmitted is subsequently reused by the other institutions.

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[13] M. Shareef ș.a., „*Public service reformation: Relationship building by mobile technology*", International Journal of Information Management, 49, 2019, pp. 217-227.

[14] D. Grimaldi, V. Fernandez, „*Performance of an internet of things project in the public sector: The case of Nice smart city*", Journal of High Technology Management Research, 30, 2019, pp. 27-39.

[15] Pricewaterhous e coopers Management Consultants SRL, Study on the implementation of digital governance in Romania, September 2018, www.pwc.com, consulted on 10.10 2020.

[16] Consulted on the website https://ec.europa.eu/romania/news/20190611_Romania_ penultimul_loc_UE_DESI_ro, on 09.10.2020.

Given the good practices followed by other countries and the successful implementation of digital initiatives, the following measures can be considered a priority[17]:

- Designation of a government institution responsible for implementing the digital strategy;
- Amend the law on electronic signatures so that all types of signatures (electronic signatures, advanced electronic signatures and qualified electronic signatures) are recognized, thus facilitating the exchange of information and documents between citizens, the business environment and government institutions;
- Conventions concluded between representatives of the business environment and public institutions to optimize the transmission of information (eg improving the agreement with ANAF to allow digital signature, development of a system for electronic processing of seizures, etc.);
- E-tax: implementation of solutions for accessing, submitting and editing various forms and information related to the payment of taxes;
- Extending the functionalities of the online public procurement portal (SEAP), so that all activities are included (bidding, deliverables, invoicing, archiving, etc.);
- Development of an online portal for the registration of companies and extension of the functionalities of the Trade Register.

Regarding this last point, it should be mentioned that the Ministry of Justice and the National Office of the Trade Register started, on June 22, 2020, the consultations for the revision of the legislation in order to simplify and digitize the procedures for setting up a company.[18] On this occasion, 30 proposals were presented by the Ministry of Justice and ONRC for the revision of the legislation in order to simplify and digitize the procedures for setting up a company, including[19]: adoption, as a final solution, of the temporary measure provided in art. 27 of GEO no. 70/2020[20], in the sense that the declarations on own responsibility

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[17] Pricewaterhouse Coopers Management Consultants SRL, *Study on the implementation of digital governance in Romania*, September 2018, www.pwc.com, consulted on 10.10 2020.

[18] According to a communiqué consulted at the website address http://www.just.ro/olivia-diana-morar-secretar-de-stat-in-ministerul-justitiei-actionam-pentru-ca-investitorii-sa-poata-infiinta-o-firma-cu-buletinul-si-actul-constitutiv-cat-mai-repede/ on 10.10.2020.

[19] http://www.just.ro/wp-content/uploads/2020/06/procedura-simplificare-ONRC-MJ-4-1-vz-002.pdf consulted on 12.10.2020.

[20] Emergency Ordinance no 70/2020 on the regulation of certain measures, starting with May 15, 2020, in the context of the epidemiological situation determined by the spread of the SARS-CoV-2 coronavirus, for the extension of some terms, for the amendment and completion of Law no. 227/2015 regarding the Fiscal Code, of the National

annexed to the application for registration / other applications may be in the form of a private signature or in electronic form and may be transmitted to the trade register office, in original, by electronic means, with electronic signature or by postal and courier services; regulating the possibility that the registration certificate provided in art. 8 of Law no. 359/2004[21], with subsequent amendments and completions, to be issued in electronic form; approval of the model and security features of the electronic registration certificate.

One of the recent government initiatives concerns the creation of GovITHub which is a government program developed together with the private sector and the business environment, in order to increase the quality of public services through technology[22]. Together with public administration representatives, GovITHub members develop open source IT projects and online public service platforms for citizens, in order to transparently improve and digitize the Romanian public administration.

According to the National Reform Program 2020[23], in order to increase the use of e-government systems, projects have been implemented according to the contracts signed for this purpose:

− Big Data section - of the three approved projects, the SII ANALYTICS project - IT system for integration and operational and analytical capitalization of large data volumes has been completed, and the other two are in the implementation phase: the project Improving data processing capacity and increasing ONRC's reporting performance through Big Data architectures and technologies (declared implementation stage: 44.92% - ongoing contract for the main IT system); the project Optimizing the interaction with the business environment and implementing advanced mechanisms of analysis and data exchange by implementing a Big Data e-government and analysis IT system within the Competition Council (implementation stage -37%).

− the Government Cloudcomputing section and social networks in public institutions - the project is expected to be submitted, by August 28, 2020, for the National Government Cloud Platform. The project will provide public institutions with the technological resources to deliver electronic public services, allowing easy implementation of interoperable, uniform, secure IT systems with low costs and implementation times.

− e-government and interoperability section - three projects are being implemented. At the level of the Ministry of Administration and Interior, two

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Education Law no. 1/2011, as well as other normative acts, published in the Official Gazette no 394 of 14.05.2020.

[21] Law no 359/2004 on the simplification of formalities for the registration in the trade register of natural persons, family associations and legal entities, their fiscal registration, as well as for the authorization of the functioning of legal entities published in the Official Gazette no 839 of 19.09.2004.

[22] http://ithub.gov.ro consulted on 12.10.2020.

[23] Consulted on the website https://sgg.gov.ro/new/wp-content/uploads/ 2020/05/ ANEXA-5.pdf on 12.10.2020.

projects: Service Hub (center for providing electronic services), launched on July 11, 2019, which aims to computerize services that affect the following life events for citizens and business: obtaining the book identity; obtaining a passport; obtaining a driving license; vehicle registration; Integrated Information System for Issuing Civil Status Documents - SIIEASC (stage in implementation - 40%) and at MTIC level, the project Technological interoperability system with EU member states SITUE, started on May 29, 2018, aims to achieve the technological interoperability system with EU member states. It will be based on the construction of the eIDAS node for Romania and will interconnect with the eIDAS nodes of the other member states and with the providers of identity and electronic services in Romania.

– Section E-Government and Open Data - of the five projects submitted, four are under implementation: the Ministry ui Labor and Social Security - National Management System Project on Disability , p the Draft Information System national adoption - SINA; the M MINISTRY OF doings E xterne - projects Integrated IT system for issuing and managing electronic passport, diplomatic passport and service and securities travel offices consular posts (ePass) and Integrated alerting personalized and constant updating of indicators risk to citizens' travel destinations ; the Ministry ui Transport, Infrastructure and Communications - Software Platform project centralized digital identification (PSCID) is under contract.

– section E-government and life events - continues the implementation of the project Integrated electronic system of the National Office of the Trade Register consolidated and interoperable for e-government services focused on life events, started on April 4, 2019 (the declared stage is 39%, the procurement procedure for the main IT system implementation services is in progress).

Improving transparency and the public procurement system has remained a priority objective , and several steps have been taken in this regard. Increasing transparency and its effectiveness remain the main objectives in the attention of the authorities with responsibilities in the field. At this time, almost all procedures for awarding works / services / supply contracts are carried out electronically, through The Electronic System for Public Procurement (SEAP), the online platform where contract notices are published and through which most of public procurement procedures are organized, therefore a digitized process to ensure transparency and legality.

In order to streamline the ex-ante control, GEO no. 98/2017 on the ex ante control function of the process of awarding public procurement contracts / framework agreements, sectoral contracts / framework agreements and works concession and service concession contracts[24] was amended by GEO no. 23/2020 on amending and supplementing some normative acts with impact on the public procurement system[25], with the consequence of implementing new facilities for the

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[24]   Published in the Official Gazette of Romania no. 1004 of 18.12.2017.
[25]   Published in the Official Gazette of Romania no. 106 of 12.12.2020.

management of the national public procurement system through SEAP, respectively: digitization of *ex ante* control by introducing the electronic signature; facilitating the access in SEAP to the documents of the procurement procedure for the personnel performing the ex-ante control; The National Appeals Resolution Council and the courts will be able to directly access the procurement documents in the SEAP based on the electronic signature.

Conclusions

Although there has been an evolution in the use of governance tools in recent years, their functional implementation needs a boost, as is clear from various international rankings that use clear criteria for assessing the maturity of this area.

The low degree of adherence of public institutions and authorities to national / horizontal e-government instruments contributes to maintaining the situation in which they continue to develop ad-hoc IT systems, focused on internal needs. Thus, the stage of e-government in Romania is affected by a high degree of fragmentation or heterogeneity of electronic public services that have been developed over time by various public institutions and authorities.

It is also clear that a comprehensive assessment of the extent to which public institutions have electronic platforms open to interaction with beneficiaries cannot be made.

The progress of recent years in the field has focused on the digitization of electronic public services associated with life events established in SNADR 2020, along with various other initiatives for the development of such services on their own by several local public authorities. Also, the absence of firm legal obligations for the development of electronic public services has led to the situation in which public institutions and authorities develop these services at different rates, the legislation accurately reflecting the different maturity of their digitization.

We can say that one of the problems to be found regarding e-government is the insufficient development in Romania of electronic public services. This problem, which affects the entire population of the country, both public and private, positions the country, despite the developments, still at the bottom of the list of international rankings relevant to the field.

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