DIGITAL AGENDA FOR ROMANIA, PROGRESS TOWARDS 2020 TARGETS

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Abstract:

The present article shall provide the reader with a presentation of the main points of the Digital Agenda for Romania, as well as brief pieces of information on how it is to be implemented in Romania in the following years. The first part of the article shall offer a short presentation of the Digital Agenda for Romania, by reference to the Digital Agenda for Europe and by placing the latter in the context of the Europe 2020 Strategy of which it is a part. Another part shall refer to the main institutions in charge with creating the framework of implementation of the Digital Agenda for Romania, namely the Ministry for Communication and Information Security and the Agency for the Digital Agenda for Romania. Within this section, the author shall also deal with the Digital Agenda for Romania website, which can be seen as a means of managing the implementation process within the country. A third part of the article shall present in extenso the main aspects of the National Strategy for the Digital Agenda for Romania, along with the directions and the trajectories to be followed, the expected results and the means of achieving them. Finally, the article shall present examples on how the Digital Agenda for Romania created evolutions in the field in recent months.

Keywords: Internet, Digital Agenda, Romania, information, communication.

Presentation of the Digital Agenda for Romania

In an age of constant electronic development, when the accessing of public services is made via the Internet worldwide, Romania has to learn to adapt to this new technological advancement at a quick pace. This means that electronic systems needs to be extended to a large variety of topics –

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governance, education, culture, healthcare, social media, cloud and open data systems, etc. Given that Romania is a member of the European Union, it needs to adapt its many fields to the requirements formulated by the European officials, and this includes also the electronic and technological domains.

The Digital Agenda for Romania has been created as a form of accommodating the provisions of the Digital Agenda for Europe within a Romanian level. In order to be able to implement the document, a National Strategy has been voted upon, which comprises several directions of actions and activities to be developed in order to reach intended expectations for the 2014-2020 period of time.

The Digital Agenda for Romania (*Agenda Digitală pentru România*) needs to be understood in the larger context provided by the Digital Agenda for Europe 2014-2020. The Digital Agenda for Europe is one of the seven pilot-initiatives of the Europe 2020 Strategy on a European Union level, and defines the major role that Information Technology and Communications is likely to play in the achievement of the Europe 2020 objectives.

This Digital Agenda for Romania contains, in fact, the main elements of the European Agenda, adapted to the Romanian case. This adaption was necessary in order for Romania to be able to access the approximately 30 billion euros, available in the form of cohesion and structural funds, which have been allotted to the country by the European Commission for the 2014-2020 interval¹. Just like in the case of any other European Union document, the transposition of the provisions of the Digital Agenda for Europe, in Romania, had to be done by the creation of a framework which could accommodate the format. Thus, the National Strategy on the Digital Agenda for Romania had been created, under the direct supervision of the Romanian Ministry for Communication and Information Security.

According to the Romanian Ministry for Communication and

¹ Adrian Vasilache, *Guvernul a aprobat Strategia privind Agenda Digitală pentru România 2020: Necesarul de investiții IT&C este de 3.9 miliarde de euro, 2015, [http://economie.hotnews.ro/stiri-telecom-19859288-guvernul-aprobat-strategia-privind-agenda-digitala-pentru-romania-2020-necesarul-investitii-fost-redus-3-9-miliarde-euro-2-4-miliarde-euro-pana-2020-htm], 30 June 2015.*

Information Security, Romanian authorities have to invest 3.9 billion euros in order to be able to implement the provisions of the Agenda. The direct impact of such an investment would be an increase by 13% of the GDP, an increase in the availability of jobs by 11% and the reduction of costs within public administration by 12% in the 2014-2020 interval².

The achievement of this large amount of money is to be done mostly through European funds. According to Morovan³, 850 million euros were likely to be obtained through Investment Operational Programmes, to be divided as follows, for several areas:

Name of the area of	Sum (euros)	Percentage
investment		
E-Governance and	100.000.000	12%
Interoperability		
Cloud computing and	30.000.000	3%
social media		
ITC in Education	85.000.000	10%
ITC in Healthcare	50.000.000	6%
ITC in Culture	15.000.000	2%
ITC in E-commerce	70.000.000	8%
ITC in Research and	5.000.000	1%
Innovation		
Broadband technology	495.000.000	58%
Total	850.000.000	100%

In order to eliminate the significant disparities existing between the necessary investments through the Operational Programme and the needed budget, public institutions had to make sure that they accessed all available complementary financial tools, such as budgeted investments, financed by

 ² Andreea Hanganu, Strategia Națională privind Agenda Digital 2020 a fost aprobată de Guvern,
 2015, [http://digitaldiplomacy.ro/strategia-nationala-privind-agenda-digitala-pentru-roma
 nia-2020-a-fost-aprobata-de-guvern/], 30 June 2015.

³ Ioana Morovan, *O nouă variantă a Strategiei privind Agenda Digitală pentru România* 2014-2020, 2014, [http://arhiva.euractiv.ro/uniunea-european/articles%7CdisplayArticle/articleID_ 2625 2/O-noua-varianta-a-Strategiei-privind-Agenda-Digitala-pentru-Romania-2014-2020publicata.html], 14 July 2015.

the World Bank and the European Bank of Reconstruction and Development, as well as public-private partnerships⁴.

The implementation of the Digital Agenda for Romania is dependent also on the manner in which the country officials give the appropriate destinations to the European Union funds available for the country. However, it appears that this financial issue has been a severe issue to deal with and eventually stalled the implementation of the Digital Agenda.

Given that the Digital Agenda for Romania is part of a larger European Union programme - Europe 2020 Strategy implying the absorption of funds for the 2014-2020 time frame, Romania has to devise proficient tools that will be able to deal with the incoming large amount of money. However, back in 2014, the European Commission manifested lack of confidence in the manner in which Romanian public institutions dealt with the funds allotted. The European Union officials expressed their concern on the fact that the Ponta Government (May 2012-present) did not accomplish the ex-ante conditions established by the Brussels officials on combating fraud in public acquisitions and in sectorial strategies, and has been engaging in a dis-balanced approach towards the usage of the funds⁵.

The allotting of money suggested by the Romanian authorities from the 2014-2020 funds "showed large discrepancies between the proposed budget to face the severe competition challenges, as far as the researchdevelopment sector is concerned, as it is rather a small one, compared with the challenges and obligations corresponding to the economic operators, and the promotion of local and regional infrastructures, contributing thus

 ⁴ Ioana Morovan, O nouă variantă a Strategiei privind Agenda Digitală pentru România 2014-2020, 2014, [http://arhiva.euractiv.ro/uniunea-european/articles%7CdisplayArticle/articleID_
 2625 2/O-noua-varianta-a-Strategiei-privind-Agenda-Digitala-pentru-Romania-2014-2020publicata.html], 14 July 2015.

⁵ Claudiu Zamfir, Comisia Europeană critică iarăși Guvernul pentru strategia fondurilor UE 2014-2020: Suntem îngrijorați de alocările dezechilibrate. Nu ați îndeplinit condiționalitățile. Riscurile care se văd de la Bruxelles la București, 2014, [http://economie.hotnews.ro/stiri-eurofonduri-17422643-exclusiv-comisia-europeana-critica-iarasi-guvernul-pentru-strategia-fondurilor-2014-2020-suntem-ingrijorati-alocarile-dezechilibrate-nu-ati-indeplinit-conditionalitatileriscurile-care-vad-bruxelles-b.htm], 13 July 2015.

less directly to the Europe 2020 Strategy or to the specific country recommendations $^{\prime\prime6}\!\!\!.$

As far as the sector of public acquisitions was concerned, the European Commission warned about the lack of transparency displayed by Romanian public institutions in the process – "The transparency of public acquisition procedures is endangered by a lack of coherence and consistency in the permits issues by various institutions. The mechanisms used to detect and prevent conflicts of interests need to be implemented efficiently, despite the source of financing"⁷.

The measures implemented throughout the Digital Agenda for Romania, and implicitly through the National Strategy for the Digital Agenda for Romania, shall concern the following aspects:

- Ensuring the access of citizens and organizations to e-Governance services;
- Improving Internet access through wider coverage of the broadband electronic communication networks;
- Increasing the degree of Internet usage;
- Promotion of electronic commerce;
- Increasing the number of transborder electronic public services;
- Increasing the available digital content and the development of the IT & C infrastructure in the fields of education, healthcare and culture;
- Supporting the increase in added-value in the IT & C domain by supporting research –development practices, as well as innovation in the field⁸.

⁶ Claudiu Zamfir, Comisia Europeană critică iarăși Guvernul pentru strategia fondurilor UE 2014-2020: Suntem îngrijorați de alocările dezechilibrate. Nu ați îndeplinit condiționalitățile. Riscurile care se văd de la Bruxelles la București, 2014, [http://economie.hotnews.ro/stiri-eurofonduri-17422643-exclusiv-comisia-europeana-critica-iarasi-guvernul-pentru-strategia-fondurilor-2014-2020-suntem-ingrijorati-alocarile-dezechilibrate-nu-ati-indeplinit-conditionalitatileriscurile-care-vad-bruxelles-b.htm], 13 July 2015

⁷ Ibidem.

 ⁸ Andreea Hanganu, Strategia Națională privind Agenda Digital 2020 a fost aprobată de Guvern,
 2015, [http://digitaldiplomacy.ro/strategia-nationala-privind-agenda-digitala-pentruromania-2020-a-fost-aprobata-de-guvern/], 30 June 2015.

Thus, it can be stated that the contents of the Digital Agenda for Europe have been transposed and adapted to the Romanian case, in the form of the Digital Agenda for Romania. This means that the contents of the Digital Agenda for Europe have been adapted to the Romanian case and this led to the creation of the Digital Agenda for Romania. The contents are not identical, although there might be similarities. In general, as is the case with any other European Union –related issued document, the contents will be adapted to the national specifics, before being transposed in a domestic document.

Institutions in Charge with the Management of the Digital Agenda for Romania

There are two main institutions which are directly responsible for the management and implementation of the Digital Agenda for Romania.

The first is the Ministry for Communication and Information Security, which can be found at the following link: <u>www.mcsi.ro</u>. The second is the Agency for the Digital Agenda for Romania, an institution functioning subordinated to the Ministry above mentioned, which can be accessed at the following link: <u>www.aadr.ro</u>.

Image no. 1. Agenția pentru Agenda Digitală a României9



Another element to be mentioned here is the website named Digital Agenda for Romania, to be accessed to the following link: <u>www.digitalagenda.ro</u>.

In this part, the author shall refer not only to the main institutions empowered_to manage the Digital Agenda for Romania programme, as well as to the website created for this reason and bearing the same name.

The reference to the website as an entity which is charge with this management is important as it presents the main achievements of the programme, as well as the improvements added to it in time.

The Ministry for Communication and Information Security

The role of the Ministry for Communication and Information Security (also known as the Ministry for an Informational Society (*Ministerul pentru Societatea Informațională*) is the main institution in charge with adapting and creating the implementation framework for the Digital Agenda for Romania. The Ministry had also a particular role, as it was in charge with preparing the specific environment before the actual Agenda

⁹ Agenția pentru Agenda Digitală a României (A.A.D.R.), [http://aadr.ro/aadr_0_2.html], 1 July 2015.

was agreed to. Thus, it 2011, the Ministry organized three debates on the Digital Agenda: in Timișoara (October 3rd 2011), Iași (October 6th 2011) and Cluj (October 11th 2011). Within these meetings, attended by representatives of the major companies (IBM, Microsoft, Ernst& Young, Cisco Romania, SNR-Radiocom, etc.) interested in creating a favorable environment for the development of the provisions of the Digital Agenda, several topics have been discussed.

The first meeting was held in Timişoara, on the 3rd October 2011 and dealt with innovating and developing the European digital platform.

The topics under discussion concerned the means of simplifying the distribution of the creative content through digital means, the issuing of digital signatures in Romania, the establishment of a European platform on cyber-crime, stimulating ITC private investments, creating new electronic services based on cloud computing and the development of the electronic public services¹⁰.

The second meeting was held in Iași, on the 6th October 2011 and featured the issue of eliminating digital barriers. In this sense, the topics approached have been: the means of attracting European funds and encouraging investments in the broadband sector, creating the NGA (Next Generation Access Network), promoting a higher rate of women participation in the IT&C sector, integrating the eLearning system in the national policies of modernizing education and professional development and creating a European framework for the IT& professionals, with the aim of increasing their competences and mobility in Europe¹¹.

The third meeting took place in Cluj, on 11th October 2011 and dealt with the issue of ITC research and education. The participants debated issues related to the means of accessing European Union research funds for the ITC field, elaborating pilot projects through the Competition and Innovation programme (a programme developed at the time in Romania gathering researchers writing research projects to be then implemented through European funds), introducing the "New competences at the work

¹⁰ Ministerul Comunicării și Securității Informațiilor (MCSI) a, *Inovarea și dezvoltarea platformei europene digitale*, 2011, [http://www.mcsi.ro/Minister/Agenda-Digitala/Agenda-Digitala-Timisoara], 5 July 2015.

¹¹ Ministerul Comunicării și Securității Informațiilor (MCSI) b, *Eliminarea barierelor digitale,* 2011, [http://www.mcsi.ro/Minister/Agenda-Digitala/Agenda-Digitala-Iasi], 5 July 2015.

place" initiative, which would feature digital literacy as a priority in professional development, and establishing long term policies concerning digital literacy and informatics' competences¹².

The above mentioned topics are particularly important, as they point out to the effort made by the Ministry (as a public institution) and the private companies taking part in accommodating the European currently debates at the time concerning the Digital Agenda. Also, they highlight the awareness existing and manifesting in Romania with regard to the issues which were in deep need of development – digital literacy, e-learning, etc.

The Agency for the Digital Agenda for Romania

The Agency for the Digital Agenda for Romania (*Agenția pentru Agenda Digitală pentru România*) is a public institution of the central administration, subordinated to the Ministry for Communication and Information Security. The Agency was created by Government Decree No. 1132/2013 and has the role of operating the informational systems available on a national level, connected to electronic governance¹³.

In a more extensive and precise manner, this role concerns the management and operation of several national "e-" services:

- The National E-Governance System (S.E.N.), available at <u>www.e-guvernare.ro</u>;
- The Electronic System of Public Acquisitions (S.E.A.P.) available at <u>www.e-licitatie.ro</u>;
- The informatic system in charge with the electronic attribution of international transport of goods' authorizations and with the electronic attribution of the national itineraries within the transport services related to the county and inter-county networks (S.A.E.T.), available at <u>www.autorizatiiauto.ro</u>;
- The National Electronic System of Electronic Payment by Card of Taxes (S.N.E.P.), available at <u>www.ghiseul.ro</u>;

¹² Ministerul Comunicării şi Securității Informațiilor (MCSI) c, Cercetarea şi educarea în TIC, 2011, [http://www.mcsi.ro/Minister/Agenda-Digitala/Agenda-Digitala-Cluj], 5 July 2015.

¹³ Agenția pentru Agenda Digitală a României (A.A.D.R.), [http://aadr.ro/aadr_0_2.html], 1 July 2015.

 The Single Contact Point (*Punctul de Contact Unic – P.C.U.*) available at <u>www.edirect.e-guvernare.ro</u>¹⁴

The mission and the objectives of the Agency are also highly important and worth mentioning in the following paragraphs. The mission refers to the increasing of citizens' comfort in the usage of such electronic services, through the increase in performance of public administration. In this regard, the team coordinating the Agency for the Digital Agenda for Romania intends to maintain a close and constant interaction between citizens, representatives of the business environment, public institutions and the media¹⁵.

The objectives formulated by the Agency concern mainly the means of improving the services offered to the citizens. Thus, the Agency for the Digital Agenda for Romania focuses on developing the following objectives:

- Constant development and improvement of the e-governance systems (e-governance, electronic payment, electronic system for public acquisitions, the electronic system for public transport, as mentioned above);
- The regulation of those activities which are specific to the supplying of governance systems through electronic means;
- The implementation, coordination and operation on a national level of the information and communication services, with the aim of providing services destined to electronic governance;
- Creating proposals of normative acts which can improve the legislation available in the field of public services through electronic means, as well as in the field concerning the evolution of the informational society;
- Providing specific consultancy for national, regional and international institutions and organizations;
- Accomplishing research, studies, analyses, project development tactics as well as training courses in the areas concerning such egovernance systems;

¹⁴ Agenția pentru Agenda Digitală a României (A.A.D.R.), [http://aadr.ro/aadr_0_2.html], 1 July 2015.

- Keeping an eye on the interoperability of electronic governance apps (applications);
- Achieving and maintaining a constant increase in the quality of those public services provided¹⁶.

Finally, the Agency has been founding its evolution and development on several major principles, which point out to the strong control that the Agency exerts on the e-governance services' market within Romania, as well as to the need to provide both the individual, as well as the private sector representatives (especially companies) with high quality services, on international standards. These principles highlight the need to orient any policy development on the added-value of the e-governance services, to protect competition mechanisms, in order to avoid providing services which are similar to those provided by the IT free market, to be effect-oriented, in order to be able to identify clear targets and achieve positive results for each, to achieve the existence of the central access point which would facilitate an easier access e-governance information and services, for both the individual and companies, and to provide interoperability and re-use of data, between the e-governance systems of different public institutions¹⁷.

The Agency for the Digital Agenda for Romania is important also from another perspective – that of itself being a supplier of a legislative framework in which electronic services function. Thus, those interested in finding more about the manner in which the above mentioned electronic services are regulated in Romania, as well as the additional elements existing in the field, one only has to access the website of the Agency – <u>www.aadr.ro</u>, the section referring to legislation and will find sufficient data there – both national and European pieces of legislation. These pieces concern the general management regulation of electronic governance – related services, but also aspects such as the free access to public interest information (Law No. 544/ 12th October 2001), measures to ensure transparency in the exercise of public functions (Law No. 161/ 19th of April 2003), the means of attributing public acquisition contracts, the

¹⁶ Agenția pentru Agenda Digitală a României (A.A.D.R.), [http://aadr.ro/aadr_0_2.html], 1 July 2015.

¹⁷ Ibidem.

concessioning of public works and of concession contracts (Decree No. 34/2006), the means of collecting statistical data concerning the Single Electronic Contact Point (Decree No. 542/ 2003), the electronic signature (Law No. 455/2001), the regulation of public transport services (Law No. 92/2007), to mention but a few of the topics to be found on the website¹⁸.

As far as the pieces of European legislation are concerned, they are several directives and regulations issued by the European Parliament or the European Commission on the issues of re-usage of information within a public framework (Directive 2003-98-ec), the steps to be followed in the attribution of acquisition contracts (Regulation No. 1177/2009R), the European framework on electronic signatures (Directive 1999/CE), etc¹⁹.

The "Digital Agenda for Romania" website

The "Digital Agenda for Romania website is important from several points of view. Firstly, it contains news related to the topic - the implementation and/or development of new projects, competitions, news about the decisions taken within the European Union framework on the Digital Agenda for Europe, which could also impact Romania, etc.

Examples of the projects and competitions include "The Europas" – the European Awards for Technological Start-ups, launching "eSkills for jobs 2015 Romania" campaign, the Riga Statement on Digital Competences, issued on the occasion of the "eSkills for jobs 2015-2016" campaign, launched on a European Union level and intended to raise awareness on the lack of proportion in digital competences within the European Union countries, the beginning of cooperation between the Romanian Ministry of Communication and Information Security and the Center for Electronic Governance of the Republic of Moldova, etc²⁰. Secondly, the website contains the section named General Framework – "*Cadru General de Acțiune*", which is particularly noteworthy as it refers to specific issues, providing details and then connecting them with documents or initiatives currently under debate. Examples of these initiatives include: the 2020

¹⁸ Digital Agenda for Romania, *Cadru general de acțiune*, 2015, [http://digitalagenda.ro/cadru-de-actiune/], 30 June 2015.

¹⁹ Ibidem.

²⁰ Ibidem.

Europe Strategy, 2020 Digital Agenda for Europe, the concepts of "egovernance" and the usage of broadband connections, the accessing of online services, the main pillars of the Digital Agenda for Europe to be used in electronic services (1. The Single Digital Market, 2. Interoperability and standards, 3. Confidence and Security, 4. High speed Internet, 5. Research and innovation, 6. The improvement of digital competences, 7.

The use of IT and communication skills to deal with social changes), etc²¹. The usage of this part of the website is destined to those interested in finding more about the documents and strategies that led to the creation of the Digital Agenda for Romania, as well as brief statements on the main issues of interest to the country. Another benefit of this section of the website is the user-friendly interface, as it provides data to a both specialized and non-specialized public.

Thus, the Digital Agenda for Romania website, available at the following link: <u>http://digitalagenda.ro</u> is an interface between the end user and the existing framework on the topic. This interface is constantly updated (twice a month at least – given that there are not so many news and projects in the field to refer to) and represents a great means of information on the evolutions in the field.



Image no. 2: The website of the Digital Agenda for Romania²²

²¹ Digital Agenda for Romania, *Cadru general de acțiune*, 2015, [http://digitalagenda.ro/cadru-de-actiune/], 30 June 2015
 ²² Ibidem.

The topics referred to concern issues such as: fragmented digital markets, lack of interoperability, rise of cyber-crime and low confidence within the networks, lack of investment in networks, insufficient efforts as far as research and development are concerned, lack of digital competences, and the issue of lost opportunities in the solving of societal competences²³.

Although the website should be dealing with the manner in which the Digital Agenda for Romania is being implemented, the references available concern only the situation for 2010 (there references deal with broadband connections, Internet access, the accessing of online services among the total population as well as among the Internet users, the available e-governance services, electronic commerce and e-business strategies)²⁴.

Another element worth mentioning concerning this website is the annex containing legislative proposals issued by the European Commission together with the dates when these proposals should be presented to the public (or had already been presented to the public). The dates range between 2010 and 2013.

The initiatives suggested referred to the main pillars of electronic services. Thus, they concern:

- the emergence of a dynamic and single digital market (e.g. one directive concerned the management of collective rights on the institution of a pan-European system which could be used to provide licenses for the usage of online rights, another one referred to the facilitation of the digitalization process and the dissemination of orphan cultural works within Europe, etc.),
- *the means of ensuring interoperability and standardization* (e.g. proposals to reform the norms of implementation of IT standards within Europe, with the aim of allowing the usage of the standards already created by different for a and consortia in the field, reports regarding the feasibility of measures which could determine the

²³ Digital Agenda for Romania, Cadru general de acțiune, 2015, [http://digitalagenda.ro/cadrude-actiune/], 30 June 2015

²⁴ Ibidem.

major economic actors to provide licenses on the information concerning interoperability, etc.);

- *confidence and security* (e.g. proposals of measures which can prevent cyber-attacks, the proposal of a Regulation on the modernization of the European Agency on the Security of Data and Information Networks (ENISA), etc.);
- *free, ultra-fast access to Internet* (e.g. proposal for a decision of the European Parliament and of the European Council to establish the first programme of policies in the field of radio frequency, etc.);
- the increase in the levels of digital literacy, digital competences and inclusion (e.g. suggesting digital competences and literacy in the Regulation on the European Social Fund 2014-2020), and
- advantages of IT and communication skills within the European Union society (e.g. revision of the directive concerning the public access to data concerning the environment, a proposal of a directive on the development of maritime e-services, etc.) (Digital Agenda for Romania, 2015).

The National Strategy on the Digital Agenda for Romania

Romania has shown interest and availability throughout time in the implementation of the Digital Agenda for Europe provisions. Thus, in October 2013, Foreign Affairs Secretary of State George Ciamba highlighted, in the meeting of the General Affairs Council, held in Luxembourg, the efforts made by Romania in further developing the research and innovation sectors, especially given their role in stimulating economic growth and competition (the research and innovation fields are important domains included in the Digital Agenda)²⁵.

Also in 2013, the Portal of Participatory Democracy discussed the importance of implementing the provisions of the Digital Agenda for Europe in Romania, in the soon-to-become, the Digital Agenda for Romania. In this sense, the Portal stressed the need to accomplish

²⁵ Ministerul Afacerilor Externe (MAE), G. Ciamba a subliniat, la Luxemburg, susținerea României pentru Agenda Digitală a UE, 2013, [http://catania.mae.ro/romania-news/3496], 13 July 2015.

interoperability between informatics systems, which was likely to lead to efficiency in communication, better coordination among those fields operating on informatic systems and increase the operational aspect of e-Governance systems used by citizens²⁶.

The European Council of October 2013 played a great role in creating the implementation framework for the Digital Agenda for Romania. At this event, Romania had defined as a strategic sector the field of information technology, which Romanian officials considered to be a competition cluster worth exploring, one likely to bring Romania in a competitive advantage with the other European Union countries²⁷. The choice of this field as a herald in the further development and implementation of the future Digital Agenda for Romania was owed to the economic benefits of the sector – in 2013, the high tech and medium tech industries contributed with 26% of the industry's added value, had hired approximately 25% of the total employees of the industry, had 84% expenses in the field of industrial innovation and research and had an 8% added value to the national GDP²⁸.

There have been several debates before the final version of the document on the National Agenda on the Digital Agenda for Romania has been issued. The draft of the document issued in July 2014 is the result of the Romanian authorities following the conditions and suggestions set by the European Commission representatives, who urgent just a month before (in June 2014) that the document be modernized in agreement with the provisions of the National Strategy of Intelligent Specialization (*Strategia Națională de specializare inteligentă*)²⁹.

The National Strategy on the Digital Agenda for Romania (National

²⁶ Portalul Democrației Participative, *Strategia Națională privind Agenda Digitală pentru România*, 2013, [www.portaleromania.ro], 13 July 2015.

²⁷ Cristian Socol, Analiza Agenda Digitală. De ce este importantă poziția României la Consiliul European, 2013, [http://www.zf.ro/zf-24/analiza-agenda-dgitala-de-ce-este-importantapozitia-romaniei-la-consiliul-european-11558408], 13 July 2015.

²⁸ Ibidem.

²⁹ Claudiu Zamfir, Comisia Europeană critică iarăși Guvernul pentru strategia fondurilor UE 2014-2020: Suntem îngrijorați de alocările dezechilibrate. Nu ați îndeplinit condiționalitățile. Riscurile care se văd de la Bruxelles la București, 2014, [http://economie.hotnews.ro/stiri-eurofonduri-17422643-exclusiv-comisia-europeana-critica-iarasi-guvernul-pentru-strategia-fondurilor-2014-2020-suntem-ingrijorati-alocarile-dezechilibrate-nu-ati-indeplinit-conditionalitatileriscurile-care-vad-bruxelles-b.htm], 13 July 2015.

Strategy on the D.A.R. – in short) was issued through Government Decree 245/2015.The document transposes to the Romanian case the provisions of the Digital Agenda for Europe, one of the seven pilot initiatives of the Europe 2020 Strategy, and deals with the major role that the use of information technology and communications (ITC – in short) will have in achieving the Europe 2020 objectives.

There are four main areas targeted by the National Strategy on the D.A.R.:

- Direction 1. E-governance, interoperability, cybersecurity, cloud computing, open data, big data and social media – in these fields, the aims of the Strategy are to increase efficiency and reduce costs within the public sector, by modernizing public administration mechanisms:
- Direction 2. ITC in education, culture and healthcare in these fields, the implementation of new technology will take place on a sector level;
- Direction 3. ITC in e-commerce, as well as research, development and innovation in ITC – these focus on highlighting Romania's comparative regional advantages, and support economic development in the private sector;
- Direction 4. Broadband and digital infrastructure services in these fields, the Strategy is focused on providing social inclusion³⁰.

Each of these topics is approached in a chapter of its own, presenting firstly the European approach, followed by the Romanian one, and the main strategic lines of development to be achieved in the future. Additionally, each of these directions has its own aims and objectives to be accomplished.

Directions ³¹	Aims	Objectives
Direction 1 – E-	The aim is to achieve the	An increase in the transparency
governance,	objective of reforming the	of public administration acts
interoperability, cyber-	manner in which the	through the process of

³⁰ Ministerul Comunicării şi Securității Informațiilor (MCSI), Strategia Națională privind Agenda Digitală pentru România, 2014, [http://www.mcsi.ro], 3 July 2015.
³¹ Ibidem.

security, cloud	government functions,	providing informatized public
computing, open data,	allows access to	services.
big data and social	information, involves the	
media	citizens and provides	An increase in the number of
	services to both external	cybersecurity networks and
	and internal clients, to the	systems.
	benefit of the government	An increase of the access to
	as well as well as of the	digital public services.
	clients it attends to.	Efficient public administrations
		and the decrease of their
		operational costs.
		Improving the business
		environment.
		Improving governance within
		the context of the beginning of
		the operationalization of public
		services.
Direction 2 – ITC in	Investing in population	Support in developing ITC
education, healthcare,	knowledge and skills,	competences
culture and e-Inclusion	with the aim of	Providing social inclusion that
	promoting society	would stimulate growth
	development.	Training the personnel involved
		in the learning and
		management process of the ITC
		-assisted activity
		Developing the ITC
		infrastructure in the areas of
		education, healthcare and
		culture
		culture
Direction 3 - e-	Perfecting the existing e-	E-commerce support for the
Commerce, ITC	commerce framework,	accomplishment of economic
research-development	which would thus offer a	growth and development on the
and innovation	clear legal framework for	single European digital market
	enterprises and	0 1 1 0 1
	consumers and would	Increasing the number of
	invest in innovation	workplaces in the ITC sector
		1
		Building on the existing
		comparative advantages of
		regional Romania

Direction 4 - Broadband	Through the implications	The development of ITC
communication	that the ITC sector has on	broadband infrastructure for a
infrastructure and	economic growth, the	complete and uniform regional
digital services	broadband	coverage
	communication	Improving social inclusion
	infrastructure has a great	through access to the
	role in the future	broadband communication
	development of Romania,	infrastructure
	both on an economic	
	level, as well as far as the	
	improvement of social	
	inclusion conditions is	
	concerned.	

The Strategy has been elaborated as a result of a cooperation effort between the Romanian Ministries of Communication and Information Security, that of Transportation, National Education, Healthcare and Finances, under the close supervision and guidance of the Romanian Government. In this regard, several action trajectories have been established for each of the four main directions, to be implemented by the specific ministry in charge with the respective field, as well as in cooperation with all other ministries which provide public services. In the case of cybersecurity, also the Ministry of Internal Affairs shall be involved.

In the following paragraphs the author shall refer to these action trajectories, in an effort to highlight the multidimensional approach of the National Strategy on the D.A.R., as well as the length at which the Strategy goes in order to provide solutions and cover all possible scenarios.

Direction 1. – e-Governance, Interoperability, Cyber security, Cloud		
Computing, Open Data, Big Data and Social Media ³²		
Action trajectories		
Defining the informational perimeter of public services		
Applying an institutional structure meant to support the implementation of e-		
Governance projects		

³² Ministerul Comunicării și Securității Informațiilor (MCSI), *Strategia Națională privind Agenda Digitală pentru România*, 2014, [http://www.mcsi.ro], 3 July 2015.

Promoting standards

Identifying data registries and their owners in order to facilitate interoperability

Promoting transparency and openness

Promoting e-Participation

Promoting interoperability

Legislation improvements

Consolidating institutional support and monitoring

Promoting cooperation and collaborating with public and private entities

Establishing a feedback and evaluation mechanism

Standardization efforts

Creating the concept of e-identity

Establishing communication portals

Promoting electronic public acquisitions

Establishing a disaffecting model

Improving governance through informatized public services

Promoting innovation

Establishing and implementing a national system of cybersecurity

Improving legislation

Consolidating the partnership between the public and private sectors

Consolidating the knowledge data bases

Consolidating research and development capacities in cyber security

Creating a cybersecurity infrastructure

Implementing the CERT-RO programme

Implementing security standards

Inter-institutional cooperation

Developing public awareness programmes both for the public administration as well as the private sector

Developing educational programmes

ITC competence training

Signing international cooperation agreements in order to improve the reaction capacity in case of major cyber attacks

Participating in international programmes and exercises in the field of cyber security

Promoting national interests in the field of security in the international cooperation formats in which Romania in a member

Consolidating the acquisition process for IT infrastructure within public institutions

Creating a single contact point or a single authentication access point

Creating and putting in practice components and services which make

altogether the basic infrastructure.

Re-evaluating the administrative competences directly involved in the

administration activity of the governmental Cloud

Consolidating Data Centers.

Defining the principles and the general business framework for the communication process within public institutions

Establishing key coordinators and teams in the communication process – the PR and communication Departments of the public institutions

Defining a communication plan adapted to each public institution

Projecting a type of conversation "from one to many" rather than repeatedly use "1 on 1" conversations – a cheaper and faster solution, being one of the most

useful facilities of the social media environment.

Promoting public debates

Support for open governance, given that online social media platforms are based on the three fundamental principles of Open Data: transparency, participation and cooperation.

Support for the usage of Big Data in public administration.

Elaborating a legislative framework on the free access to public information

Implementing a national electronic system to collect relevant data

Identifying and implementing possibilities to combine and manage data

Using relevant standards and formats in the data presentation

Improving the means of accessing and the capacity to use and integrate the information generated by the Open Data towards the society

Educating the population in having a positive attitude towards the representatives of public administration providing Open Data.

Identifying possibilities to attract the necessary funds and partnerships with future support groups (the civil society, data and information donors and investors)

Creating online access to data and services:

The Electronic System of Public Acquisitions (SEAP)

The electronic system attributing transport authorizations (SAET)

Expanding the possibility to fill in online fiscal forms.

Ensuring free online access to national legislation.

Developing electronic instruments to manage the procedures on achieving Romanian citizenship.

Developing electronic instruments to manage the procedures connected to the creation of a non-profit moral person.

The Integrated System of Electronic Access to Justice (SIIAEJ).

Identifying a procedure which would correlate the need of the public to have access to information and the publishing of relevant data

Creating and supporting the <u>www.datedeschise.guv.ro</u> platforms

Defining the data sets to be collected

Collecting data from multiple sources (papers, digital documents, access points to governmental networks, websites, social media, and available operational systems).

Defining the analysis process for the collected data sets

Direction 2 – ITC in Education, Healthcare, Culture and eInclusion

Action trajectories

Supplying adequate equipment and infrastructure in schools.

Training professors and teachers on ITC technologies

Provide training courses specific to the ITC activity, directly connected to the improvement of the learning process and digital competence quality.

Implementation efforts as far as ITC is concerned imply, on the one hand ensuring the institutional framework of the respective ITC product and the digitalizing and archiving of the educational content.

Including the Web 2.0 platforms in learning processes

Stimulating students in becoming more involved in the learning process

Encouraging the life-long-learning process

Increasing public awareness on the phenomenon of social exclusion.

Increasing awareness among family and friends in order to benefit from support in developing e-inclusion measures.

Facilitating communication among groups in order to develop social inclusion Developing digital literacy in a uniform manner and using the Internet on a regional level.

Promoting the "learning together" system.

Involving human resources services from companies and public organizations in special campaigns and trainings.

Promoting Open Data as an opportunity for informal education.

Organizing training courses on the usage of the methodology on the development of digital competences.

Providing materials and programmed to facilitate the adapting capacity of trainers to the community needs.

Facilitating access and usage of tele-medicine equipment.

Ensuring equal access to all citizens, especially those coming from vulnerable groups to quality and cost-effective medical services, through and integrated and long-distance delivery of medical services.

Providing interoperable and integrated services for clinical and emergency care.

An integrated platform allowing easy access/e-accessibility to all services, ensuring data confidentiality.

Promoting data sharing between healthcare services suppliers in order to ensure services focused on the patients and the medical performance indicators. Monitoring and control of the above

A unitary approach of entry data, results, management and diagnosis servicerelated organization, as well as health related treatments, care, rehabilitation and promotion.

Increasing the level of information integration, in order to facilitate compliance with the conformity, monitoring and audit criteria.

Facilitating Cloud services in order to ensure smaller property costs, as well as increased delivery flexibility.

Ensuring data portability and live updates in order to provide more visibility to the way in which the government functions.

Analyzing a significant volume of data generated by the healthcare information system, which could be used to the benefit of the healthcare resources' management

Digitalizing Romanian cultural heritage

Achieving a minimal contribution to the European Library (europeana.eu)

Digitalizing cultural content, specific to Romanian communities

Adjusting digital cultural content to each region

Applying a modern ITC infrastructure in public libraries

Promoting cultural experiences through ITC

Increasing public awareness on the phenomenon of social exclusion

Increasing awareness among families and friends in order to benefit from support in the development of e-inclusion measures

Facilitating communication between the target groups with the aim of achieving social inclusion.

Promoting digital literacy and a uniform usage of the Internet on a regional level. Promoting the "learning together" system.

Involving Human Resources' services within companies and public organizations in special campaigns and trainings.

Promoting the Open Data concept as an opportunity for informal education.

Providing materials and programmes to facilitate the trainers' adapting capacity to cater to all community needs.

Direction 3 – e-Commerce, ITC

Action trajectories

Improving the regulation framework to support the e-commerce system and the moving of *en detail* commerce in the online environment

Preparing the strategy and regulation framework with regard to copyright in Romania, in order to help develop the digital commerce sector

ITC support in order to create a uniform tax collection systems (e.g. VAT), in order for the latter not to become a barrier in the development of electronic commerce within Romania

Improving access to online systems

Supporting the development and the implementation of online payments and online delivery systems

Preparing a regulation framework which would allow the solving of litigations caused by online media, through the usage of tools which are also available in the online media, as well as outside the court room, as recommended by the European Union

Improving the communication and cooperation between CERT-RO, the institution in charge with cybersecurity in Romania, and the European Center for Cybersecurity (functioning within Europol), established in 2013.

Promoting development clusters, competition and the specialization of employees in the field, especially in the excellence centers of Bucharest, Cluj, Iași and Timișoara.

Continuous training and the usage of the ITC-based electronic infrastructure for inter-connecting, as well as facilitating the cooperation between the research teams from different geographical areas

Increasing the Romanian participation in international projects on ITC researchdevelopment-innovation, throughout European programmes and resources

Direction 4 – Broadband Communication Infrastructure and Digital Services Action trajectories

Implementing the RoNET project

Later extensions of the inter-connecting and backbone networks (2014 - 2020)

Implementing monitoring mechanisms

Administrative and legislative proposals

Encouraging access to the existing passive infrastructure.

Improving transparency and coordination in the relevant civil works

Simplifying the procedure to obtain authorizations
Establishment of procedures for new developments
The issuing of new norms on the NGA infrastructure for new constructions

As can be easily seen, Direction 1 is the most extensive in providing trajectory actions. The other three directions are also important, but the explanation for the dimension of Direction 1 stems from the fact that it is the most ample and overwhelming one, serving thus as a model for the other three.

In the case of Direction 2 (the role that ITC plays in the development of education, healthcare and culture, the reader might observe the existence of similarities in the designed measures, or even a repetition of these measures. This is due to the fact that the respective measures can be equally applied in all three fields.

The Strategy established the following minimal indicators as target for Romania in 2020:

- At least 35% of the population will use e-governance systems;
- At least 60% of the population would use the Internet regularly;
- At least 30% of the population would shop online;
- At least 80% broadband coverage (speed of over 30 Mbps)³³.

These are very general expectations, as for each of the measures mentioned above to be implemented in the selected timeframe, the National Strategy has established its own expectations and percentages.

Nevertheless, one needs to be realistic about the future evolution of the Digital Agenda for Romania and the results it is likely to have.

According to Nicolae Oaca, telecommunication specialist, the objectives set through the National Strategy are an attempt to get Romania closer to the objectives set by the European Commission for 2020.

Drawbacks are likely to be registered in the coverage of high-speed networks, due to insufficient investment – low coverage will result in low usage, keeping Romania to back of the European Union line³⁴. In Oaca's

³³ Ministerul Comunicării și Securității Informațiilor (MCSI), Strategia Națională privind Agenda Digitală pentru România, 2014, [http://www.mcsi.ro], 3 July 2015.

³⁴ Luiza Sandu, *Ce schimbări poate produce Agenda Digitală pentru România?*, 2015, [http://www.marketwatch.ro/articol/14276/Ce_schimbari_poate_produce_Agenda_Digitala_pentru_Romania/], 13 July 2015.

words, "the (Romanian) government still considers telecommunications as a source of budget income, and not an engine of economic growth; as a result it not only refuses to invest in order to catch the other European Union countries from behind, but also takes money from the sector in order to fuel the
black holes> of national economy"³⁵.

Recent Evolutions of the Digital Agenda for Romania

The establishment of the Digital Agenda for Romania is highly beneficial, as was highlighted by Răzvan Cotovelea (2014), the Minister for Communication and Information Security, in a conference held in Bucharest, in October 2014, entitled "Digital Agenda 2014-2020 European Policies on the IT&C sector"³⁶. According to him, "Romania signed in August (2014) the document with the European Commission and at the present moment we have a clear image on the manner to implement structural and investment funds in the timeframe 2014-2020. Throughout the Digital Agenda one can clearly introduce the main public interventions to be financed in the following period of time: public funds, private funds, public-private partnership. [...] Last, but not least, we will consider 2015 the *année de grace* of the IT & C field in Romania, when things should start taking place.[...] We will support and apply for financing projects in the fields of research-development and professional training in the IT& C sector"³⁷.

According to Sorin Mihai Grindeanu, the current Minister for an Informational Society, "The National Strategy on the Digital Agenda for Romania has been a long awaited document by both the ITC market, as well as the public authorities. The next step consists of issuing policies and

³⁵ Luiza Sandu, *Ce schimbări poate produce Agenda Digitală pentru România?*, 2015, [http://www.marketwatch.ro/articol/14276/Ce_schimbari_poate_produce_Agenda_Digitala_ pentru_Romania/], 13 July 2015.

³⁶ Fundația Națională a Tinerilor Manageri (FNTM), *Declarații de la evenimentul Agenda Digitala 2014-2020, 2014, [http://www.fntm.ro/comunicat-de-presa-agenda-digitala-2014-2020-2680.html], 3 July 2015.*

³⁷ Fundația Națională a Tinerilor Manageri (FNTM), *Declarații de la evenimentul Agenda Digitala 2014-2020,* 2014, [http://www.fntm.ro/comunicat-de-presa-agenda-digitala-2014-2020-2680.html], 3 July 2015.

programmes which would lead to a visible change in the usage of technology in Romania⁷⁷³⁸.

Although the National Strategy on the Digital Agenda for Romania has been established only in July 2014, and further approved in April 2015 there have been certain evolutions to be noted.

The first is the "interoperability platform", which is meant to connect existing electronic systems and is intended to be completely implemented with both public and local administration by the end of 2015.

According to Diana Voicu (2014), State Secretary in the Ministry of Communication and Information Security "there have been many investments between 2007- 2013 in different electronic systems, and now we must make them communicate between each other. It is imperative to build this platform [...] It remains to be seen who will manage it, how will the tasks be distributed so that national registries will be reunited in one place, in order to have data bases accessible both on a local and national level"³⁹.

The second evolution is to be seen as a pledge to development in the future, as it concerns the development of telemedicine solutions. At the time when Romanian joined the Digital Agenda efforts, there was already a telemedicine project. As Raed Arafat, State Secretary in the Ministry of Internal Affairs, said during the conference, "while we have managed to implement telemedicine capacity on ambulances, [...] and connected them in a system with the support of the Service of Special Telecommunications, allowing the contacting of the command center, and sending the EKG or other tests for analysis [...]"⁴⁰, there are endless possibilities to use telemedicine solutions in Romania. The first direction would be that of tele – radiology – given that not all Romanian hospitals have radiologists.

³⁸ Luiza Sandu, *Ce schimbări poate produce Agenda Digitală pentru România?*, 2015, [http://www.marketwatch.ro/articol/14276/Ce_schimbari_poate_produce_Agenda_Digitala_ pentru_Romania/], 13 July 2015.

³⁹ Diana Voicu, Platforma care va conecta sistemele electronice din administrație, funcțională până la finalul lui 2015, 2014, [http://arhiva.euractiv.ro/uniunea-europeana/articles %7cdisplayArticle/articleID_26669/Diana-Voicu-MSI-Platforma-care-va conecta-sistemeleelectronice-din-administratie-functionala-pana-la-finalul-lui-2015.html], 3 July 2015.

⁴⁰ Fundația Națională a Tinerilor Manageri (FNTM), *Declarații de la evenimentul Agenda Digitala 2014-2020,* 2014, [http://www.fntm.ro/comunicat-de-presa-agenda-digitala-2014-2020-2680.html], 3 July 2015.

Another direction is that of spreading tele-medicine solutions in General Practitioner's clinics. Finally, tele-medicine could be implemented in Romania in the assistance of those home-treated patients, who are not always visited by the doctors, but rather by nurses and who are deprived of modern medical techniques. Tele-medicine is likely, in Arafat's opinion, to remedy all these problems⁴¹.

Given that one of the objectives set by the Digital Agenda for Romania concerns the increase in online services' accessing, Dorin Pena, General Manager of CISCO Romania highlights the fact that evolutions in the field are occurring very quickly – "there is an increase in the complexity of what interaction between informatics systems as well as the interaction with informatics systems mean, as there is a larger number of devices involved. If 10 years ago, the smartphone was a science fiction matter, today, a large majority of people owns one. [...] If one is to analyze the evolution of cyber-attacks, 10-15 years ago, they would be committed out of please or the rush of adrenaline (nowadays, motivations have changed, with the attacks being specifically directed towards affecting the evolution of processes"⁴².

A noteworthy evolution is the rate at which Romanians access and use the e-Governance services. According to Stan⁴³, in January 2015, one third of the population accessed such services, while the European average in this regard ranges at approximately 40%. Romanian authorities managed to significantly increase the degree of e-Governance services to approximately 31%, while the target by the end of 2015 ranges at 50%.

However, while this increase is considered a breakthrough in Romania, on a European Union level, the country still lags behind as the world e-governance index (resulting from the assessment of three factors – online services, telecom infrastructure and human capital) places it at the

⁴¹ Fundația Națională a Tinerilor Manageri (FNTM), *Declarații de la evenimentul Agenda Digitala 2014-2020,* 2014, [http://www.fntm.ro/comunicat-de-presa-agenda-digitala-2014-2020-2680.html], 3 July 2015.

⁴² Ibidem.

⁴³ Filip Stan, *Agenda Digitală* 2014-2020: *Circa o treime din populația României utilizează serviciile de e-Guvernare*, 2015, [http://www.romaniatv.net/agenda-digitala-2014-2020-circa-o-treime-din-populatia-romaniei-utilizeaza-serviciile-de-e-guvernare_196599.html], 13 July 2015.

level of 0.6060, while the European Union average for Eastern Europe is situated at 0.6333⁴⁴.

Conclusions

As can be seen from the above pages, Romanian authorities have been making strong efforts to accommodate the provisions of the Digital Agenda for Romania and create an actual change. The Ministry for Communication and Information Security played a great role in collecting points of views and suggestions for the future implementation of the Digital Agenda for Romania in the consultation meetings it organized in 2011, years before the actual coting of the National Strategy on the topic.

Afterwards, a specific Agency has been created – the Agency for the Digital Agenda for Europe, which will provide an umbrella of guidance and counselling for the implementation of the Digital Agenda. The main roles of this Agency concern the management of the existing e-services, improving services offered to the citizens and supplying a legislative framework in which electronic services function. The legislation present is dealing with both national and European Union cases.

The Digital Agenda for Romania also has a specific website called "Digital Agenda", which contains news on projects and issues related to the topic, as well as basic information on the Agenda, and the framework in which it evolved, both on a European Union level as well as the national one.

The article explored also the National Strategy for the Digital Agenda for Romania, a document which has been voted by the Romanian Government in 2015 and has been creating effects ever since. The Strategy identified four main directions which are, in fact, four main domains in need of thorough improvement within Romania. Aspects such as interoperability, cybersecurity, open data and e-governance are particular fields where Romania needs to be aligned with European Union countries.

Additionally, it needs to develop ITC infrastructure and systems with regard to education, culture, healthcare, e-commerce, researchdevelopment and innovation. Finally, according to the National Strategy, the broadband and digital infrastructure services need to be developed in

⁴⁴ Ibidem.

Romania.

The trajectory actions, aims and objectives as they were established in the National Strategy are a direct result of the cooperation and dialogue existing between the Ministries and the many public administration institutions involved in the process.

The ending of the article refers to the echo that the Digital Agenda for Romania had since its implementation. The "interoperability platform" is meant to connect the existing e-services into a single data base to be accessed nationally, while there are possibilities to use the electronic services in telemedicine solutions as well as cybersecurity related ones.

Bibliography:

- 1. Agenția pentru Agenda Digitală a României (A.A.D.R.), [http://aadr.ro/aadr_0_2.html], 1 July 2015.
- 2. Digital Agenda for Romania (2015), *Cadru general de acțiune*, [http://digitalagenda.ro/cadru-de-actiune/], 30 June 2015.
- 3. Fundația Națională a Tinerilor Manageri (FNTM) (2014), *Declarații de la evenimentul Agenda Digitala 2014-2020*, [http://www.fntm.ro/comunicat-de-presa-agenda-digitala-2014-2020-2680.html], 3 July 2015.
- 4. Hanganu, Andreea (2015), *Strategia Națională privind Agenda Digital* 2020 *a fost aprobată de Guvern*, [http://digitaldiplomacy.ro/strategia-nationalaprivind-agenda-digitala-pentru-romania-2020-a-fost-aprobata-deguvern/], 30 June 2015.
- Ministerul Comunicării şi Securității Informațiilor (MCSI) a (2011), Inovarea şi dezvoltarea platformei europene digitale, [http://www.mcsi.ro/Minister/Agenda-Digitala/Agenda-Digitala-Timisoara], 5 July 2015.
- 6. Ministerul Comunicării și Securității Informațiilor (MCSI) b (2011), *Eliminarea barierelor digitale*, [http://www.mcsi.ro/Minister/Agenda-Digitala/Agenda-Digitala-Iasi], 5 July 2015.
- Ministerul Comunicării şi Securității Informațiilor (MCSI) c (2011), Cercetarea şi educarea în TIC, [http://www.mcsi.ro/Minister/Agenda-Digitala/Agenda-Digitala-Cluj], 5 July 2015.
- 8. Ministerul Comunicării și Securității Informațiilor (MCSI) (2014), Strategia Națională privind Agenda Digitală pentru România, [http://www.mcsi.ro], 3 July 2015.

- 9. Ministerul Afacerilor Externe (MAE) (2013), *G. Ciamba a subliniat, la Luxemburg, susținerea României pentru Agenda Digitală a UE,* [http://catania.mae.ro/romania-news/3496], 13 July 2015.
- Morovan, Ioana (2014), O nouă variantă a Strategiei privind Agenda Digitală pentru România 2014-2020, [http://arhiva.euractiv.ro/uniuneaeuropean/articles%7CdisplayArticle/articleID_ 2625 2/O-noua-variantaa-Strategiei-privind-Agenda-Digitala-pentru-Romania-2014-2020publicata.html], 14 July 2015.
- 11. Portalul Democrației Participative (2013), Strategia Națională privind Agenda Digitală pentru România, [www.portaleromania.ro], 13 July 2015.
- Sandu, Luiza (2015), Ce schimbări poate produce Agenda Digitală pentru România? [http://www.marketwatch.ro/articol/14276/Ce_schimbari_poate_produc e_Agenda_Digitala_pentru_Romania/], 13 July 2015.
- 13. Socol, Cristian (2013), Analiza Agenda Digitală. De ce este importantă poziția României la Consiliul European, [http://www.zf.ro/zf-24/analiza-agenda-dgitala-de-ce-este-importanta-pozitia-romaniei-la-consiliul-european-11558408], 13 July 2015.
- 14. Stan, Filip (2015), Agenda Digitală 2014-2020: Circa o treime din populația României utilizează serviciile de e-Guvernare, [http://www.romaniatv.net/agenda-digitala-2014-2020-circa-o-treimedin-populatia-romaniei-utilizeaza-serviciile-de-eguvernare_196599.html], 13 July 2015.
- 15. Vasilache, Adrian (2015), Guvernul a aprobat Strategia privind Agenda Digitală pentru România 2020: Necesarul de investiții IT&C este de 3.9 miliarde de euro, [http://economie.hotnews.ro/stiri-telecom-19859288guvernul-aprobat-strategia-privind-agenda-digitala-pentru-romania-2020-necesarul-investitii-fost-redus-3-9-miliarde-euro-2-4-miliardeeuro-pana-2020-htm], 30 June 2015.
- Voicu, Diana (2014), Platforma care va conecta sistemele electronice din administrație, funcțională până la finalul lui 2015, [http://arhiva.euractiv.ro/uniunea-europeana/articles %7cdisplayArticle/articleID_26669/Diana-Voicu-MSI-Platforma-care-va conecta-sistemele-electronice-din-administratie-functionala-pana-lafinalul-lui-2015.html], 3 July 2015.

17. Zamfir, Claudiu (2014), Comisia Europeană critică iarăși Guvernul pentru strategia fondurilor UE 2014-2020: Suntem îngrijorați de alocările dezechilibrate. Nu ați îndeplinit condiționalitățile. Riscurile care se văd de la Bruxelles la București, [http://economie.hotnews.ro/stiri-eurofonduri-17422643-exclusiv-comisia-europeana-critica-iarasi-guvernul-pentrustrategia-fondurilor-2014-2020-suntem-ingrijorati-alocariledezechilibrate-nu-ati-indeplinit-conditionalitatile-riscurile-care-vadbruxelles-b.htm], 13 July 2015.