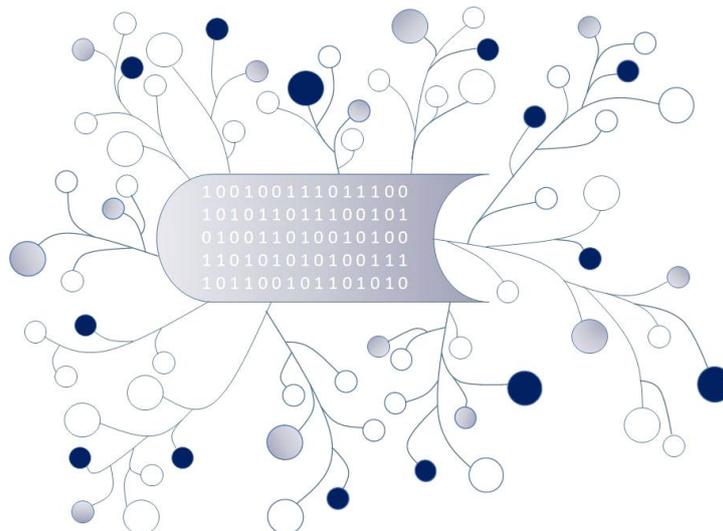




# Digi-VET

## FOSTERING DIGITISATION AND INDUSTRY 4.0 IN VOCATIONAL EDUCATION AND TRAINING



### IO4 – Learner classroom didactical material

#### Module C – Current Status and future developments



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## 1. Current status of Digitisation in Romania.

Digitization in Romania started hard. A 2017 study on perception of digitization<sup>1</sup> by Romanian managers, you can now watch in the joined video clip, shows us some of the stagnation reasons.

<https://www.youtube.com/watch?v=LP33z4zMzGY>



Things have evolved, and the private sector from Romania took important steps in direction of increasing the level of digitization.

It also had a beneficial influence controlled enterprises from abroad - multinationals, whose production of high technology has forced the growth of Digitization and Digitization

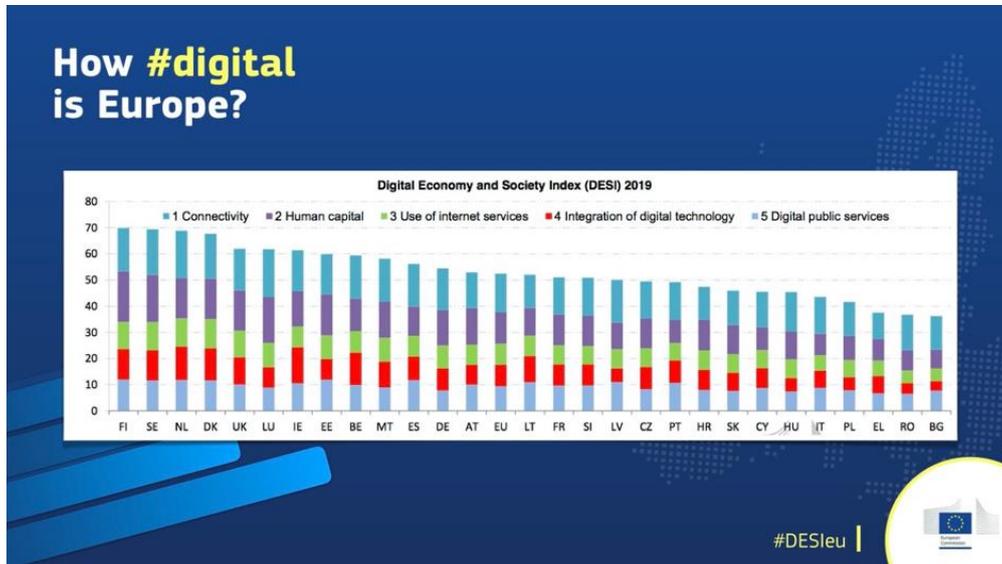
According to the 2019 Country Report of the European Commission's Digital Economy and Society Index<sup>2</sup> (DESI), Romania is on the penultimate place among the 28 EU member states.

And if we talk about the Digitalization of Public Administration, Romania is on the last position among the EU states and on the 67th place out of 193 states in the world - study of the United Nations, 2019. The causes identified by the author are: deficient legislative framework in the field of digitization within public institutions, the lack of a concern regarding the development of the necessary digital competences in the administrative apparatus, etc.

In line with the previous report in 2018, Romania has slightly improved its situation, now having an aggregate score of 33.5% (compared to 33.21% in the previous year), so it still registers a level below the EU average.

<sup>1</sup> Valoria survey: CEOs from Romania on digital transformation 2017

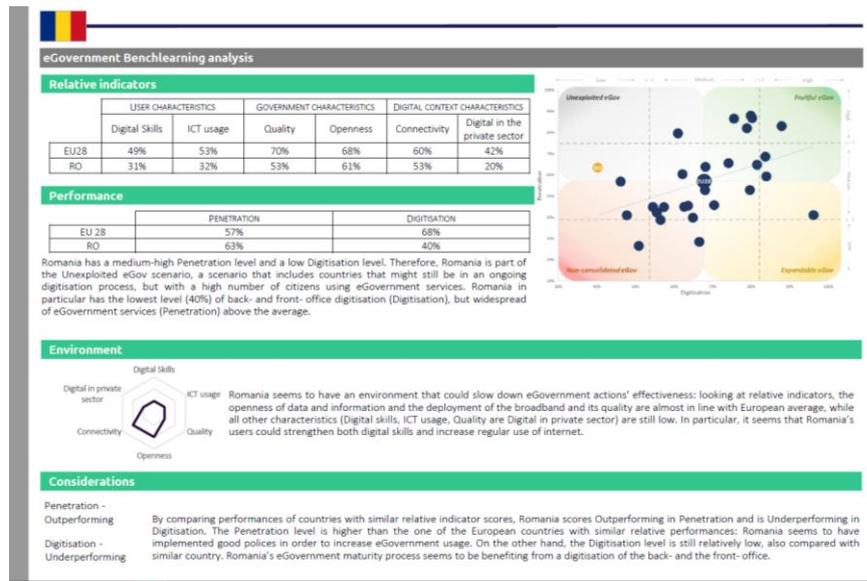
<sup>2</sup> Raportul Comisiei Europene privind guvernarea electronică: eGovernment Benchmark 2019 /romania/file/dataajpg\_roddata.jpg



The graph above shows the 5 main criteria of the DESI Index: Connectivity, Human Capital, Use of the Internet, Integration of digital technologies, digital public services.

### How is Romania in each of them:

- Connectivity. 22nd out of 28. Although coverage with fixed lines (89%) and mobile (63%) is well below the EU average, we compensate with internet speed (70% fast connections) and low costs (1.1% of revenue).
- Human Capital. We are in last place, 28 out of 28. We have the lowest percentage of internet users (56%), we are penultimate in terms of basic skills (28% of the population) and the number of IT employees (1.9%) and on the 17th place in the number of graduates of faculties with IT profile (16 / thousand inhabitants).



- Use of the Internet. We are the last place in the EU, 28 out of 28. 63% of users read news online, 67% listen to music, 6% watch video on demand, 8% use banking services. Only 18% shop online, but 74% use social media.
- Integration of digital technologies. We are the last place in the EU, 28 out of 28. Few companies exchange information electronically (22%), use social platforms to promote themselves (8%), issue electronic invoices (8%), use cloud services (5%) or sell online (7% as number of companies, 4.3% as turnover).
- Digital public services: We are ranked 27th out of 28. Only 6% of internet users access e-government solutions. They contain few pre-filled forms (12%) and completely solve the problem for which they were accessed in 55% of cases. The score for the publication of data by the government is 63%.

And all these come to complete the paradox in Romania and the gap created between the private and the state sector:

- from the most valuable start-up of artificial intelligence in the world (UiPath), to the tons of papers in which ANAF officials are buried, who drag taxpayers into the pit of documents.



- Two images - two extremes: the performance of the private IT&C sector and the freezing of the public administration in the last century.

Romania goes up, the Administration lags behind, like a boulder at the feet of the economy and society.



GALA CM 2019: Marian Popa, DB GTC - 10 Reasons why Romania is the new Silicon Country

GALA CM 2019: Marian Popa, DB GTC - 10 Reasons why Romania is the new Silicon Country

## 2. A look at the future of Digitalization in Romania

As Mr. Marian POPA, CEO DB Global Technology Center said, on the occasion of his intervention<sup>3</sup> at the 2019 Mobile COMMUNICATIONS GALA – „DIGITAL TRANSFORMATION @ 5G: 10 Reasons why Romania is the New Silicon Country”, Romania meets all the conditions and has all the advantages to be able to aim for the title of „Silicon Country”.

TASK: watch the next video to it to see the speaker's arguments.

<https://www.youtube.com/watch?v=mZ6liSpmBv0>



GALA CM 2019: Marian Popa, DB GTC - 10 Reasons why Romania is the new Silicon Country



GALA CM 2019: Marian Popa, DB GTC - 10 Reasons why Romania is the new Silicon Country

<sup>3</sup>GALA COMUNICAȚII Mobile 2019 - DIGITAL TRANSFORMATION @ 5G: Hotel Radisson Blu, 9 Decembrie 2019, Bucuresti.



**03 GOOD KNOWLEDGE BASE**

**9<sup>TH</sup> LARGEST COUNTRY IN EUROPE  
2<sup>ND</sup> IN SE EUROPE**

LARGE NUMBER OF UNIVERSITIES.  
GOOD SPREAD OF UNIVERSITIES IN THE COUNTRY  
HIGH DEGREE OF MATHEMATICAL SKILLS  
HIGH LEVEL OF SEVERAL FOREIGN LANGUAGES  
ACCENT FREE SPEAKING

0:18 / 00:22

GALA CM 2019: Marian Popa, DB GTC - 10 Reasons why Romania is the new Silicon Country

**04 GENDER EQUALITY**

**30% OF TECH JOBS ARE DONE BY WOMEN  
13% OF IT STUDENTS ARE GIRLS**  
(VS. 1.12% UK, 0.56% DE, 0.68% FR)

5 TOP TECHNICAL UNIVERSITIES  
59 DOMAIN-SPECIFIC UNIVERSITIES  
174 PRIVATE COLLEGES

0:20 / 00:22

GALA CM 2019: Marian Popa, DB GTC - 10 Reasons why Romania is the new Silicon Country

**02 PERFECT MIX**

STRONG GOVERNMENT INCENTIVES FOR IT SECTOR  
WORLD-CLASS PHYSICAL TELECOMMUNICATIONS INFRASTRUCTURE  
COMMON WORKING HOURS (+1H VS. FRANKFURT, +2H VS. LONDON)  
DEEP IT TALENT POOL  
GLOBAL TECHNOLOGY COMPANIES  
LOW COST ENVIRONMENT

0:18 / 00:22

GALA CM 2019: Marian Popa, DB GTC - 10 Reasons why Romania is the new Silicon Country



An interesting and instructive analysis, about the future of digitalization in the private sector, can be found in the video material below:

Webinar Cosmin Costea - Digitalisation = Survival -  
[https://www.youtube.com/watch?v=exsG2\\_YNL6U](https://www.youtube.com/watch?v=exsG2_YNL6U)



Webinar Cosmin Costea - Digitalizare = Supraviețuire

Because it has become clear to everyone that digitalization and digital transformation have become, from "nice to have", a "must to have" to exist in the current market and especially in the future.

That is why, regarding the digitalization of the state sector in Romania, things have moved to a different level and work is being done with a different speed. But in this field, we must act with great care and responsibility, as well pointed out by Mr. Sabin Sărmaș - President of the Authority for the Digitalization of Romania (newly established - 13.02.2020)<sup>4</sup>.

The problem of the Romanian state is deeper than the fact that the sites are precarious. There is a danger of digitization of bad procedures, which do not work well even undigitized.

“ Problema statului este mai profundă decât faptul că site-urile sunt precare. Apare pericolul digitalizării unor proceduri proaste, care nu funcționează bine nici nedigitalizate ”

**Sabin SĂRMAȘ**

Președinte, Autoritatea pentru Digitalizarea României

<sup>4</sup> <https://www.upgrade100.com/updates/exclusiv-digitalizam-romania-sau-birocratia-ce-e-autoritatea-pentru-digitalizarea-romaniei-si-ce-planuri-are-sabin-sarmas-presedintele-noii-structuri/>



The Government's vision regarding the future of IT in Romania was presented by Mr. Marian Murgulet - Secretary of State; Chief Information Officer of the Romanian Government, on the occasion of the Conference "Romania's Digital Transformation Agenda":

<https://www.youtube.com/watch?v=rSocsXWbbQc>

2. A look at the future of Digitalization in Romania

Task:

Watch the video joined, in order to have a perception on the proposals and future actions of the Romanian Government, in the field of Digitalization.

<https://www.youtube.com/watch?v=rSocsXWbbQc>

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From the presented material, emerge the three pillars on which the future development of Romania will be based:

### 1. PEOPLE

85% of jobs in 2030 have not yet been invented.

### 2. TECHNOLOGY

5G networks, Quantum Computing, A.I., Cyber Security – enabling a smarter society.

### 3. GOVERNANCE – DIGITAL TRANSFORMATION

citizens want an "experience" - not just excellent IT.



### 3. Conclusions

Although Romania has moved hard, now, with the organization and functioning of the Romanian Digitization Authority ("ADR"), a government structure that has taken on the role of achieving and coordinating the implementation of public strategies and policies on digital transformation of public administration, things will take another course.

Through this plans and its future plans to be implemented, Romania wants to climb at least 10 places in the DESI ranking.

**IT projects with big impact on our citizens – other relevant projects**

**Contracted projects:**

- MoE: SIMS = 225 MIL LEI
- MoE: EDULIB = 230 MIL LEI
- ONRC: E-GOV, life events = 189 MIL LEI
- MoI: services HUB (ID, PASS, DRIVING LICENSE) = 90 MIL LEI
- MoFA: ePASS = 62 MIL LEI
- ANPD: SNMD = 45 MIL LEI
- CERT-RO: RO-SAT = 69 MIL LEI

**IT projects with big impact on our citizens**

We need to identify and support, both the governmental and private sector, those IT projects with big impact on our citizens lives, to set up a list of 3-5 projects for example and implement them:

- eID card
- Governmental cloud
- The Interoperability Hub
- The Single Point of Contact

Marian Murguleț, CIO Guvern: Sprijin total pentru digitalizarea României



## References.

- Digital transformation agenda of Romania; Marian Murgulet – Secretary of State; Chief Information Officer Government of Romania
- Cât de înapoiată e Administrația României față de economie și societate: Propuneri și soluții pentru digitalizare

<https://cursdeguvernare.ro/cat-de-inapoiata-e-administratia-romaniei-fata-de-economie-si-societate-propuneri-si-solutii-pentru-digitalizare>

- Cum evoluează statul în relația online cu cetățenii. Sabin Sărmaș, președinte ADR

<https://www.upgrade100.com/updates/exclusiv-digitalizam-romania-sau-birocratia-ce-e-autoritata-pentru-digitalizarea-romaniei-si-ce-planuri-are-sabin-sarmas-presedintele-noii-structuri/>

- Raportul Comisiei Europene privind guvernarea electronică: eGovernment Benchmark 2019

[https://ec.europa.eu/romania/news/20191018\\_Raport\\_comisia\\_eguvernare\\_ro](https://ec.europa.eu/romania/news/20191018_Raport_comisia_eguvernare_ro)

- Autoritatea pentru Digitalizarea României. Revitalizarea modernizării administrației publice.

<https://www.reff-associates.ro/re/en/pages/news-and-resources/legal-alerts/autoritatea-pentru-digitalizarea-romaniei-revitalizarea-modernizarii-administratiei-publice.html>

- Digitalizarea României are tot ce-i trebuie: lipsesc doar viziunea, voința politică și procedura de implementare.

<https://cursdeguvernare.ro/>

## YouTube:

- <https://www.youtube.com/watch?v=rSocsXWbbQc>