

Digital transformation: challenges and strategic opportunities for development of the countries

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#101047751-EUDI4C



Digital technologies and economic growth

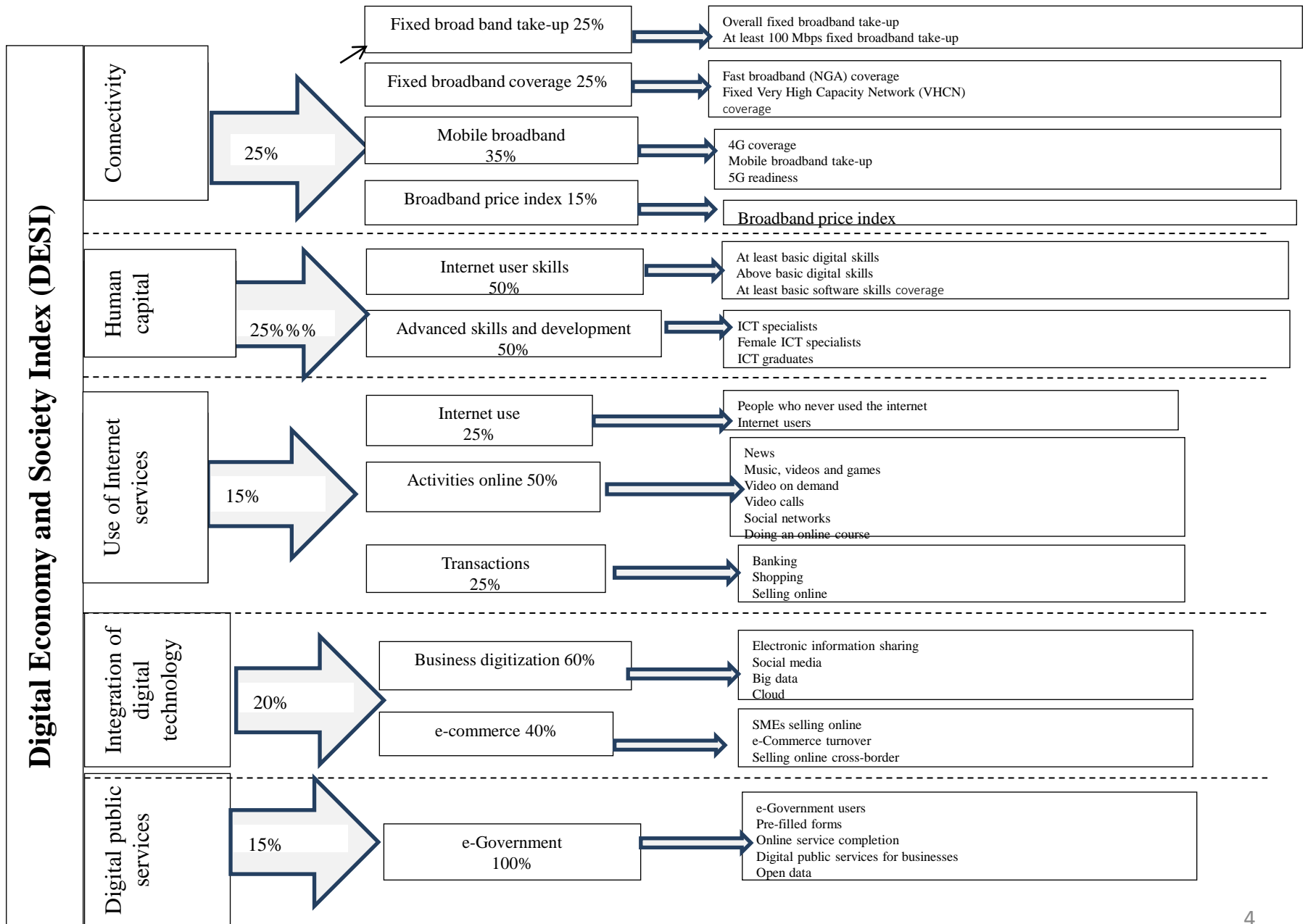
- Digital technologies, which are gaining recently, are rapidly changing the quality of life of people and opening new opportunities for a business.
- The *PricewaterhouseCoopers (PwC)* study found that global GDP could grow to **14%** by **2030** as a result of the development of artificial intelligence

Usage of digital technologies triggered by COVID-19

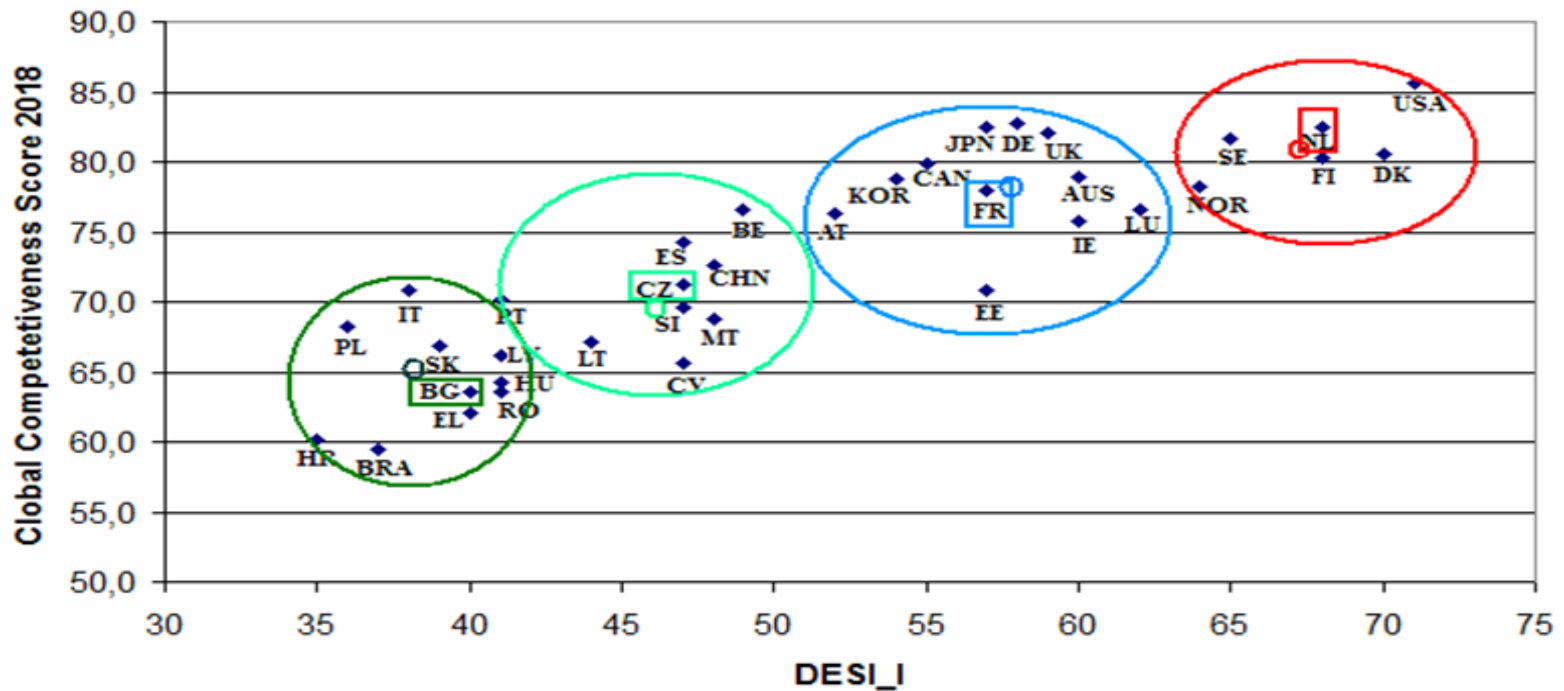
Area of usage	Percent increase
Facebook Messenger	50 %
Facebook Video calling	100 %
Video conference Zoom	300 %

Source: Analysys Mason, 2020.

Digital Economy and Society Index structure



Results of DESI_I – Global Competitiveness Score cluster analysis



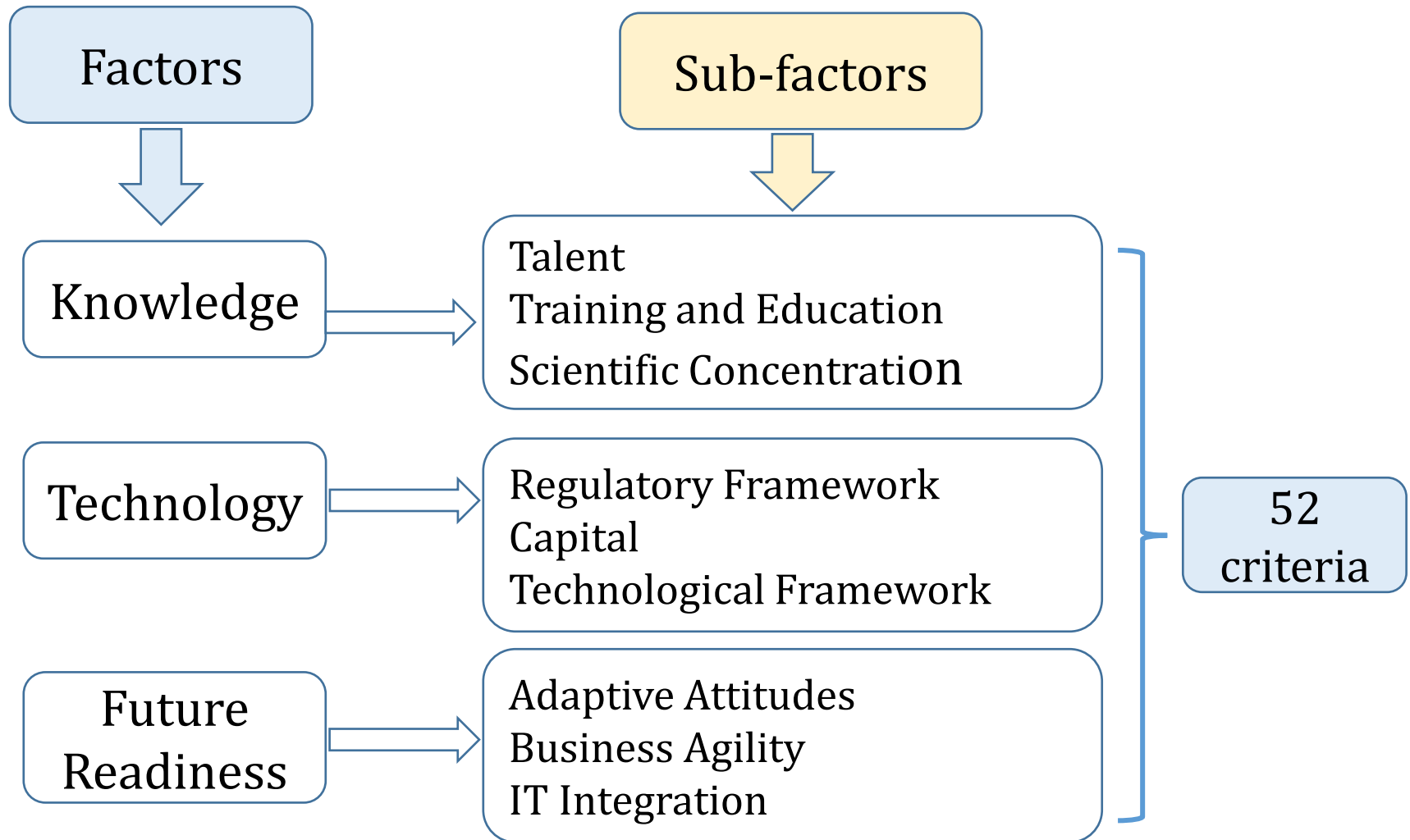
Source: calculated by authors

Values of Global Competitiveness Ranking, IDI and HDI indexes for EU countries with the distribution by clusters

EU member due to DESI-productivity clusters	Cluster in DESI_I vs Global Competitiveness Ranking 2019 Score	Global Competitiveness Ranking 2019 Score	Position in 2019 ICT development Index (IDI)	Position in 2019 Human development Index (HDI)
Leading cluster				
Denmark	leading	80,6	4	11
Finland	leading	80,3	22	15
Sweden	leading	81,7	11	7
Netherlands	leading	82,4	7	10
Perspective cluster				
UK	perspective	82,0	5	14
Ireland	perspective	75,7	20	4
Malta	follower	68,8	24	29
Estonia	perspective	70,8	17	30
Belgium	follower	76,6	25	17
Luxembourg	perspective	76,6	9	21
Spain	follower	74,2	27	26
Follower cluster				
EU	-	-	-	-
Germany	perspective	82,8	12	5
Austria	perspective	76,3	21	20
Czechia	follower	71,2	43	27
Lithuania	follower	67,1	41	35
France	perspective	78,0	15	24
Slovenia	follower	69,6	33	25
Portugal	follower	70,2	44	41
Latvia	transiting	66,2	35	41
Transiting cluster				
Croatia	transiting	60,1	36	46
Hungary	transiting	64,3	48	45
Slovakia	transiting	66,8	46	38
Poland	transiting	68,2	49	33
Cyprus	transiting	65,6	28	32
Italy	transiting	70,8	47	28
Romania	transiting	63,5	58	52
Greece	transiting	62,1	38	31
Bulgaria	transiting	63,6	50	51

Source: constructed by authors

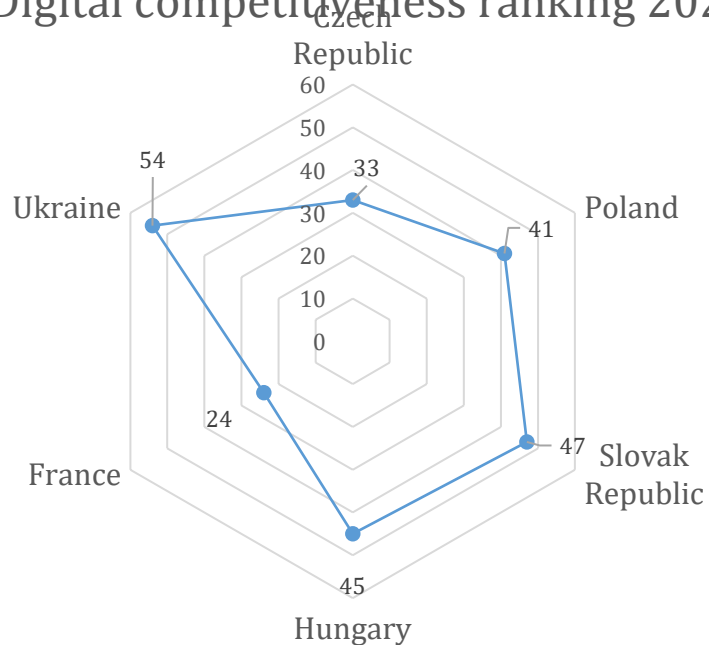
IMD World Digital Competitiveness ranking



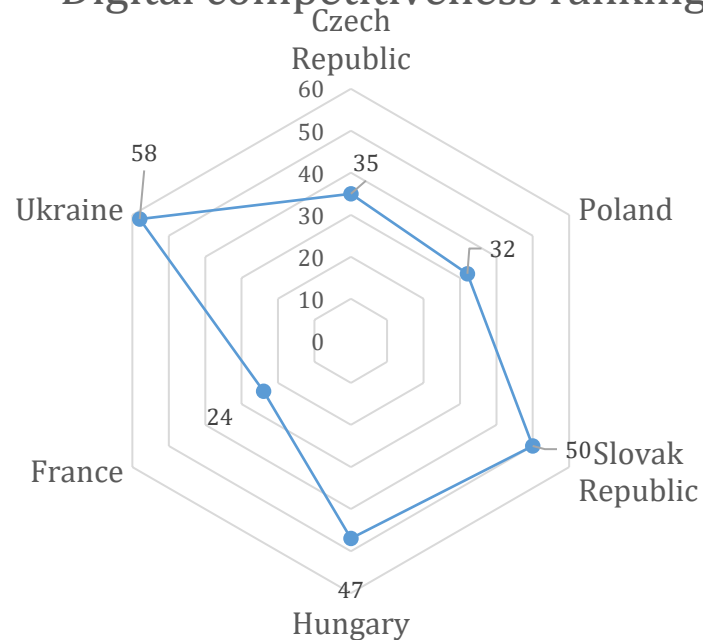
Source: constructed by authors, based on IMD World Digital Competitiveness Ranking 2021

Digital competitiveness ranking 2021

Digital competitiveness ranking 2021

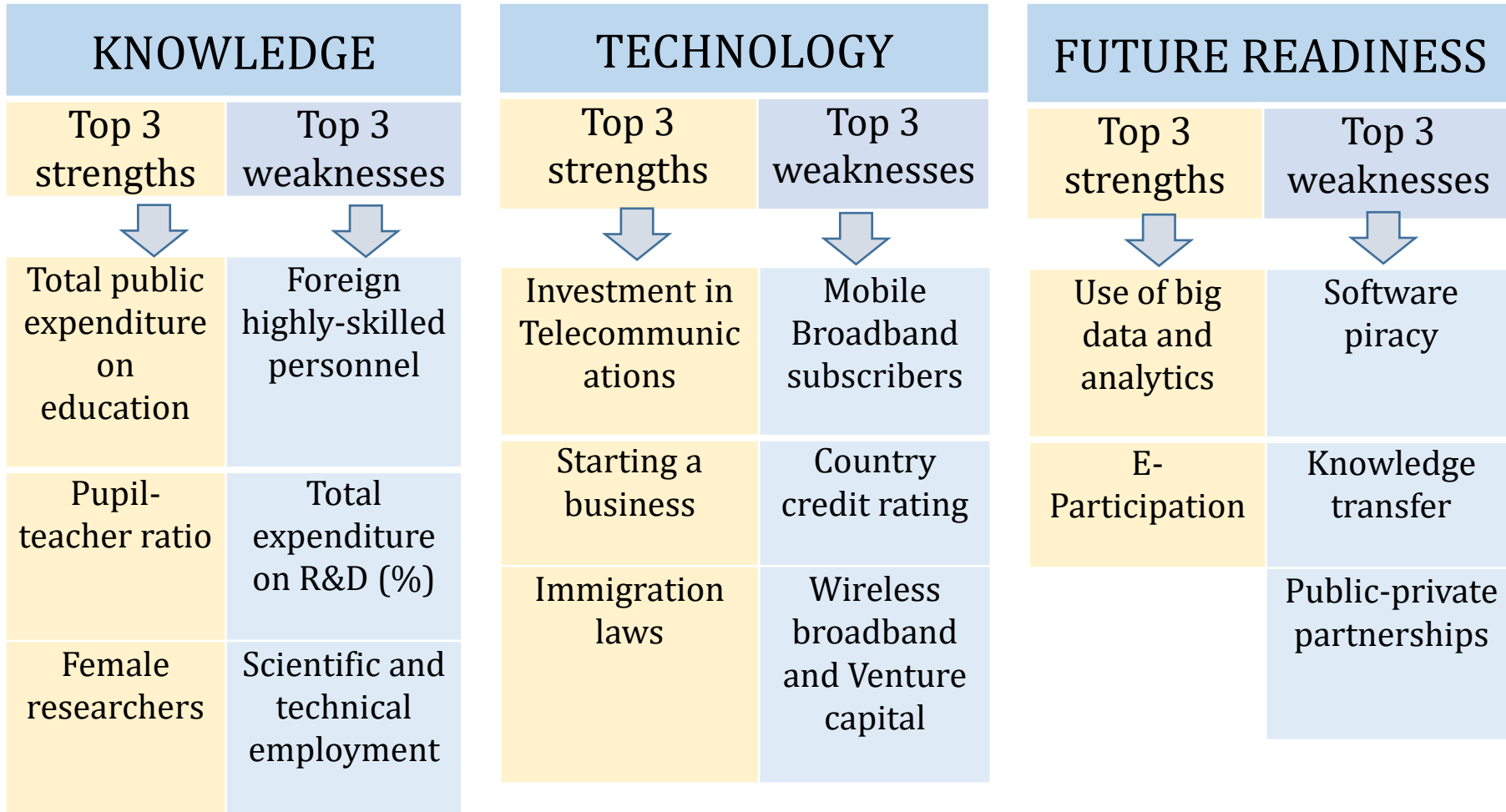


Digital competitiveness ranking 2020



Source: constructed by authors, based on IMD World Digital Competitiveness Ranking 2021

Digital competitiveness ranking 2021, Ukraine



Source: constructed by authors, based on IMD World Digital Competitiveness Ranking 2021

Challenges of digital transformation

- Lack of **digital skills** of the staff as well as to work in digital environments
- Lack of information technologies and **digital innovations**
- Lack of digital strategy for public and private sector including **government framework**
- Limited **capacity** of the business of digital transformation
- Disparities in the level of availability of digital services and their use, leads to the formation of the **digital gap** and **inequalities**.
- Lack of **funding on science and innovation**, especially in the business sector
- Restraining investments in R&D
- Increasing tensions between states over technological dominance
- **Cyberattacks** as a more important threat

Digital transformation: social and economic opportunities

- Improving the **quality of life**
- Increasing labor productivity and improving product quality
- Emergence of **new business** models and forms, ensuring the availability and promotion of goods and services, which will **increase competitiveness and profitability**
- Increasing the **transparency** of economic transactions and ensuring the possibility of their monitoring
- Synchronization and **acceleration of all business** processes, including reducing communication time

Conclusions

- **Digitalization** has become a global trend that allows countries and individuals to get a number of benefits for economic and social development. Digital development provides new opportunities for business development, ensures the development of human capital and competitiveness of the state.
- Every country is trying to promote **digital innovation** through **regulatory policies**. However, the results of such policies vary for different countries, creating digitalization gaps. Such gaps existence can motivate countries to accelerate digital processes.
- According to the Ukrainian policy of European integration it is important to take into account the **European experience** in determining the directions of encouraging business and the population to implement artificial intelligence and cooperation in building a **digital environment**.
- Public authorities must play a crucial role in the formation and development of **digital technologies** in order to ensure a transparent and efficient decision-making process and **cybersecurity**, as well as to overcome the crisis caused by the pandemic.



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JMO project #101047751-EUDI4C

«Ukraine-EU: Digital Innovations making connections 4 changes»

