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LIST OF ABBREVIATIONS

ADB – Asian Development Bank
ASEAN – Association of South East Asian Nations
CIS – Commonwealth of Independent States
DAI – Digital Adoption Index
EAEU – Eurasian Economic Union
EBRD – European Bank for Reconstruction and Development
EDB – Eurasian Development Bank
EEC – Eurasian Economic Commission
EU – European Union
FAO – Food and Agriculture Organisation of the United Nations
GDP – gross domestic product
IBRD – International Bank for Reconstruction and Development
ICT – information and communication technology
KR – Kyrgyz Republic
MDB – multilateral development banks
MERCOSUR – Southern Common Market, a common market of South American countries
NAFTA – North American Free Trade Agreement
OECD – Organisation for Economic Cooperation and Development
RA – Republic of Armenia
RB – Republic of Belarus
RF – Russian Federation
RK – Republic of Kazakhstan
RT – Republic of Tajikistan
SMEs – small and medium-sized enterprises
UNCTAD – United Nations Conference on Trade and Development
USA – United States of America
THE DIGITAL POTENTIAL OF THE EDB MEMBER COUNTRIES

In recent decades, the world economy has been undergoing a digital transformation that continues to bring about substantial changes in all areas of life. This global trend has had a considerable effect on the business, society and state structures of all the EDB member countries.

After the global crisis of 2008–2009, digital industries became some of the most dynamic and promising ones in the global economy. In many developed countries, growth rates of digital and information industries have overtaken that of GDP. Nevertheless, the growing digital gap between countries and regions, narrow, nation-focused approaches to digital security issues and asymmetric opportunities and risks of the digital economy for different economic agents are among the main barriers to digital transformation and the implementation of breakthrough technology.

International experience shows that digitalisation contributes to the acceleration of regional integration processes. The purpose of this report is to comprehensively analyse and estimate the EDB member countries’ digital potential on the basis of quantitative and qualitative indicators of leading international organisations for a more objective evaluation of the opportunities and challenges presented by digitalisation in the context of the EDB member economies.

The Digital Infrastructure

The digital economy has mainly been developing in industrially developed countries. In 2017, the share of the digital economy in U.S. GDP reached 7%, or USD 1.35 trillion¹, and in 2016, the share of value added created by the digital economy in the European Union was 4% of EU GDP². In 2018, the digital economy accounted for 38.2% of Chinese GDP, or USD 2.32 trillion³.

¹ Bureau of Economic Analysis, https://www.bea.gov/
² The 2019 PREDICT Key Facts Report. An Analysis of ICT R&D in the EU and Beyond.
For reference: According to Huawei Co. of China, in 2016 the world’s digital economy was valued at USD 11.5 trillion, or 15.5% of world GDP. It is expected to grow twice as rapidly as the ‘analogue’ economy, and by 2025 its contribution to world GDP may exceed 24%. Such accelerated development largely results from the investment appeal of digital projects, whose return on investment is six times as high as that of non-digital undertakings.

The EAEU digital economy

In the context of the Eurasian Economic Union (EAEU), of which all the EDB countries except Tajikistan are members, the digital economy’s share in aggregate EAEU GDP is less than 3%.

Causes of the lag

Such underperformance compared to developed countries is attributable to a number of factors: the specific nature of the member countries’ economic models, which are largely dependent on the agro-industrial complex (AIC), relatively slow implementation of digital technology, and the need to catch up with the post-industrial countries in developing science and technology infrastructure.

Broadening internet access

A country’s economy can be fully digitalised only if its population and businesses in its territory gain broader access to ICT networks and related services. To this end, it is essential to work towards the creation and modernisation of its backbone communication infrastructure in order to meet the growing demand for ICT services.

It stands to note that, starting from 2000, development of the digital economy’s basic infrastructure has been quite positive in all the EDB member countries. As can be seen from the figure below, the share of their population with Internet access has grown considerably.

![Figure 1. Percentage of Individuals with Internet Access in 2000–2017](image)

Source: prepared by the author using data from the International Telecommunication Union (ITU)

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5 The Boston Consulting Group.
Digital divide between the EDB member countries

However, according to data on individuals’ Internet access in EDB member countries, a significant digital divide can be seen even within the group of countries. Moreover, due to the countries’ non-uniform infrastructural and economic development disparities in Internet access also exist between regions within countries, mainly in the form of a significant difference between the levels of digitalisation in urban and rural settings.

The statistics of individuals’ access to the Internet show that the EDB member countries can be divided into two groups: one with the broadest access, including four countries: Russia, Belarus, Kazakhstan and Armenia, and a limited access group of Kyrgyzstan and Tajikistan. In 2017, 38.2% and 22% of the population of Kyrgyzstan and Tajikistan, respectively, had access to the global network.

Internet as the foundation of the digital economy

The indicator of the population’s access to the world wide web is quite informative, for the Internet is fundamental to the digital economy and transition to it. As the digital economy takes shape and develops, the Internet gives rise to an entire economic ecosystem and induces drastic changes in the traditional sectors’ nature and competitiveness.

Internet: opportunities for individuals, businesses, and the public sector

The implementation of the required Internet connectivity infrastructure creates a plethora of opportunities for the development of the public sector, provision of State services, doing business, increasing trade flows, optimising the private sector’s economic activities, improving the education and health systems, etc.

Given the above-mentioned opportunities, it is of special interest to compare the growth in Internet access and in the World Bank’s Digital Adoption Index (DAI) across EDB member countries.

Table 1. Digital Adoption Index in 2014 and 2016

<table>
<thead>
<tr>
<th>DAI</th>
<th>DAI Business Sub-index</th>
<th>DAI People Sub-index</th>
<th>DAI Government Sub-index</th>
</tr>
</thead>
<tbody>
<tr>
<td>Armenia</td>
<td>0.62↑ 0.61</td>
<td>0.71↑ 0.68</td>
<td>0.48↑ 0.41</td>
</tr>
<tr>
<td>Belarus</td>
<td>0.59↑ 0.53</td>
<td>0.74↑ 0.70</td>
<td>0.65↑ 0.56</td>
</tr>
<tr>
<td>Kazakhstan</td>
<td>0.67↑ 0.63</td>
<td>0.60↑ 0.54</td>
<td>0.57↑ 0.53</td>
</tr>
<tr>
<td>Kyrgyzstan</td>
<td>0.50↑ 0.43</td>
<td>0.61↑ 0.49</td>
<td>0.35↑ 0.31</td>
</tr>
<tr>
<td>Russia</td>
<td>0.74↑ 0.69</td>
<td>0.71↑ 0.65</td>
<td>0.70↑ 0.60</td>
</tr>
<tr>
<td>Tajikistan</td>
<td>0.32↑ 0.29</td>
<td>0.42↑ 0.20</td>
<td>0.38↑ 0.28</td>
</tr>
</tbody>
</table>


The Digital Adoption Index (DAI) is the World Bank’s international index used in 180 countries reflecting the level of adoption and use of digital technology across three key agents of the economy: people, government, and business. The three economic participants’ sub-indexes are used to calculate the overall statistical average DAI. Each sub-index comprises technologies necessary for the respective agent to promote development in the digital era: increasing productivity and accelerating broad-based growth for business, expanding opportunities and improving welfare for people, and increasing the efficiency of service delivery for government.
The overall DAI index figures of all the States under review are largely comparable to the EDB member countries’ Internet access index (Figure 1).

Russia, Kazakhstan and Armenia are leading in the region, while the indices of Kyrgyzstan and Tajikistan are lagging considerably behind. Belarus is an exception as its digital adoption index is much lower than its share of individuals with Internet access. This difference is largely attributable to a low level of adoption of digital technology in the government sector. It should be noted that all the countries showed positive trends in the overall index in 2014–2016.

More detailed analysis of the three sub-indices (those of business, people, and government) makes it possible to establish more accurately which economic participants drive the need for digital transformation in each economy.

**Business as the driver of digitalisation**

From Table 1 it follows that the business sub-index grew considerably in all the countries. Moreover, in Armenia, Belarus, Kyrgyzstan and Tajikistan business acts as the key driving force for digitalisation in those countries.

**Digital technology: optimisation of business processes**

The business community’s great interest in digitalisation is explained by the drive to desire to maximise profit by optimising business processes and efficient resource distribution. This augurs well for the commercial prospects of digital projects intended to introduce innovative business solutions that use digital technology.

**Digitalisation and per capita income**

According to Table 1, in Armenia, Kyrgyzstan and Tajikistan the people’s digital adoption sub-index is below 0.50. Comparing the data from Tables 1 and 2 permits three assumptions: firstly, the general ICT infrastructure in Armenia, Kyrgyzstan and Tajikistan is less developed, as indicated by the people’s narrower access to the Internet.

Secondly, as the World Bank and ITU data show, there is a link between per capita GDP and the percentage of individuals with Internet access (Figure 2). In the cases of Armenia, Kyrgyzstan and Tajikistan lower income levels of the population hinder broader adoption of digital technology.
The ‘digital culture’ and level of the population’s confidence in technology

Consequently, this gives rise to a third assumption: relatively limited penetration of digital technology results in a weaker ‘digital culture’ in the Eurasian countries compared to industrially developed countries. Moreover, the disruptive nature of this technology generates much of the people’s distrust and leads them to voluntarily refrain from using it (see Table 1).

Government Support for the Development of Digital Potential

The role of government measures taken to create a favourable environment

According to the DAI figures in Table 1, in the cases of Kazakhstan and Russia the public sector acts as the main driver of digital transformation (with 0.82 and 0.84 sub-indices, respectively). If we compare these indicators with the data in Figure 1, it becomes clear that the creation of a favourable environment by the State is essential for broader digital technology adoption. Measures taken by the policy-makers may pertain to funding the development of digital infrastructure, as well as the provision of a legal framework that facilitates the digitisation of businesses and an increase in government flexibility to adopt new technologies.
At the same time, comprehensive measures taken to facilitate development of the digital economy are the most effective. The key recommendations on government measures to be taken to this end are stipulated in the OECD report entitled ‘Strengthening Digital Government’. It follows from the report that any government’s political will is essential for healthy development of the digital economy. According to the OECD, the new global and technological realities cause drastic changes in the nature of the economy and in the channels of individuals’ and businesses’ interaction with the government.

### Table 2. Key Indicators of the EDB Member Economies' Competitiveness in the Digitalisation Area in 2018

<table>
<thead>
<tr>
<th>Indicator</th>
<th>RA</th>
<th>RK</th>
<th>KR</th>
<th>RF</th>
<th>RT</th>
</tr>
</thead>
<tbody>
<tr>
<td>E-Participation Index⁷ (0–1)</td>
<td>0.57</td>
<td>0.84</td>
<td>0.69</td>
<td>0.92</td>
<td>0.39</td>
</tr>
<tr>
<td>Future orientation of government (1–7)⁸</td>
<td>3.84</td>
<td>4.13</td>
<td>3.16</td>
<td>3.87</td>
<td>4.46</td>
</tr>
<tr>
<td>Legal framework’s adaptability to digital business models⁹ (1–7)</td>
<td>4.01</td>
<td>4.03</td>
<td>3.03</td>
<td>3.89</td>
<td>3.63</td>
</tr>
<tr>
<td>Mobile communication subscribers (per 100 pop.)</td>
<td>119.04</td>
<td>145.42</td>
<td>121.92</td>
<td>157.89</td>
<td>107.61</td>
</tr>
<tr>
<td>Mobile-broadband subscriptions (per 100 pop.)</td>
<td>66.80</td>
<td>75.06</td>
<td>73.68</td>
<td>80.78</td>
<td>18.29</td>
</tr>
<tr>
<td>Fixed-broadband internet subscriptions (per 100 pop.)</td>
<td>10.76</td>
<td>14.14</td>
<td>4.27</td>
<td>21.44</td>
<td>0.07</td>
</tr>
<tr>
<td>Fibre-to-the-home/building Internet subscriptions (per 100 pop.)</td>
<td>4.70</td>
<td>6.65</td>
<td>2.02</td>
<td>13.50</td>
<td>–</td>
</tr>
<tr>
<td>Internet users (% of individuals)</td>
<td>64.35</td>
<td>74.59</td>
<td>34.50</td>
<td>73.09</td>
<td>20.47</td>
</tr>
<tr>
<td>Digital skills among active population (1–7)</td>
<td>4.42</td>
<td>4.65</td>
<td>3.89</td>
<td>4.82</td>
<td>4.46</td>
</tr>
<tr>
<td>Growth of innovative companies (1–7)</td>
<td>3.89</td>
<td>3.58</td>
<td>2.91</td>
<td>3.75</td>
<td>3.89</td>
</tr>
</tbody>
</table>

**Source:** prepared by the author using World Economic Forum data for 2018

### Digitalisation and the nature of the economy

At the same time, comprehensive measures taken to facilitate development of the digital economy are the most effective. The key recommendations on government measures to be taken to this end are stipulated in the OECD report entitled ‘Strengthening Digital Government’. It follows from the report that any government’s political will is essential for healthy development of the digital economy. According to the OECD, the new global and technological realities cause drastic changes in the nature of the economy and in the channels of individuals’ and businesses’ interaction with the government.

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⁷ Belarus is not rated by the World Economic Forum.

⁸ The e-participation index (0 to 1) assesses the use of online services to assist the government in the provision of information to citizens (e-information sharing), interaction with stakeholders (e-consultation) and participation in the decision-making processes (e-decision making).

⁹ Average value of the answers to the following four questions of the poll: ‘How quick is your country’s legal framework to adapt to digital business models (e.g. e-commerce, sharing economy, fintech, etc.)?’ [1 = not quick at all; 7 = very quick]; ‘To what extent does your government provide a stable political environment for doing business in your country?’; ‘To what extent does your country’s government effectively respond to changes (e.g. technological changes, social and demographic trends, and security and economic issues)?’; and, ‘To what extent does your government have a long-term vision in your country?’

¹⁰ The answer to the question of ‘How quick is your country’s legal framework to adapt to digital business models (e.g. e-commerce, sharing economy, fintech, etc.)?’ [1 = not quick at all; 7 = very quick].
Active government involvement is a pre-requisite for digitalisation

For this reason, the OECD has developed a list of measures required for governments to successfully implement a digital agenda:

- Develop a digital government strategy, supported by an action plan and an impact assessment tool.
- Define a framework providing a political mandate, powers and resources for designing, and coordinating the implementation of the digital government strategy.
- Update the legal and regulatory frameworks.
- Finance the development of important key digital enablers (e.g. digital identity, shared data services, shared business processes) and provide incentives for their use across the public sector.
- Focus on developing digital and data-related skills in the public sector.
- Promote and enforce the adoption of digital standards and guidelines to offer more coherent, interoperable and resilient digital government infrastructure (e.g. a standardised model for ICT project management, a standardised model for business cases, service standards, data interoperability).
- Implement a policy to support the development of a data-driven public sector, and promote the strategic use of data and emerging technologies across the public sector.
- Establish an open government data strategy (within the overarching data governance framework and policy), engaging external stakeholders, to manage each stage of the data value chain and support the reuse of open government data for value creation.

National strategies for digital agenda implementation

In the case of the EDB member countries, their State digital economy development measures and priorities are set out in the national strategies and in a number of project documents on this subject matter. In respect of participation of those countries’ governments in digitalisation, the e-government development index is the highest in Kazakhstan and Russia.

A survey carried out by the World Economic Forum found that the most flexible legislative frameworks exist in Armenia and Kazakhstan. In the case of Armenia it is attributable to the relatively fast growth of innovative companies, largely promoted by the Armenian diaspora living in industrially developed countries.
EDB Member Countries’ Initiatives for the Development of the Digital Economy

**Armenia**
In Armenia, positive digitalisation trends have been observed since 2017 following the development and adoption of the Agenda for the Digital Transformation of Armenia to 2030. This document outlines the main priority areas and goals of the country’s digital transformation and determines three main stages of the process: ‘digital leap’, ‘digital acceleration’ and ‘digitalisation-based development’. It should be noted that Armenia is actively engaging relevant organisations to develop projects and roadmaps in such promising areas of digital economy as digital agriculture. In developing its strategy on this subject, Armenia is actively cooperating with the FAO.

**Belarus**
In 2017, Belarus adopted Decree No. 8 ‘On the Development of the Digital Economy’. The Decree’s main purpose is to facilitate the attraction of international IT companies to Belarus by creating and developing the High Technology Park – a special economic area that promotes the development of high technology industries in Belarus. Decree No. 8 also covers new and innovative digital development areas: blockchain and crypto currency.

Working parallel to the decree is a State programme for the development of the digital economy and digital society for 2016–2020, intended to develop the digital economy, information and communication infrastructure and computerisation infrastructure.

Similarly, a Strategy for the Development of Digital Banking in the Republic of Belarus for 2016–2020 has been adopted and is being implemented, aiming to completely transform the national banking sector.

**Kazakhstan**
In 2017, Kazakhstan approved its *Digital Kazakhstan* State programme that includes five key areas: ‘digitalisation of industries’, ‘transition to a digital State’, ‘digital Silk Road implementation’, ‘development of human capital’, and ‘creation of an innovative ecosystem’. The programme is expected to promote structural changes by expanding national technological capacity, start-up industry and other non-commodity industries. Furthermore, the Strategic Plan for the Development of the Republic of Kazakhstan to 2025 specifies the State’s priorities that include ‘laying the foundation for a new economy’ and ‘technological renovation of industries and digitalisation’, and which call for the development of infrastructure, lowering the barriers that hinder digitalisation of the economy. They further include the attraction
of high-productivity technological companies and the localisation of their production processes, together with the development of a digital culture among the country’s population.

Kyrgyzstan

In 2017, Kyrgyzstan adopted its national Taza Koom digital transformation programme aiming to use the capacity of the data industry, technology, and digital infrastructure to improve people’s living standards, create new economic opportunities and a ‘prosperous society’. The Taza Koom programme is a prominent part of the Sustainable Country Development Strategy 2040. The strategy also sets the objective of creating modern information and communication infrastructure in the KR, with a broadband fibre optic network reaching each populated location, and all social facilities provided with high-speed Internet access.

Russia

To further develop the national high technology industries, pursuant to the Strategy of the Development of the Information Society in the Russian Federation for 2017–2030, a programme entitled ‘Digital Economy of the Russian Federation’ was adopted in Russia in 2017 aiming at comprehensive and systematic development and implementation of digital technology in all areas of life. Five main priority areas were specified for the period to 2024: regulation; personnel and education; development of research competencies and technical groundwork; information infrastructure, and information security. The implementation of this programme will help strengthen the role of Russia's digital economy by 2025.

Tajikistan

In 2016, Tajikistan adopted its National Strategy for the Development of the Republic of Tajikistan for the Period to 2030, under which the government is planning three stages of the country’s development: a ‘period of transition to a new model of economic growth’, a ‘stage of accelerated investment-based growth’ and a ‘stage of the completion of accelerated industrialisation’ for development based on knowledge and innovation. The development of technological industries and the innovative economy is to be based on stronger institutional development, implementation of modern information technology at all levels of State governance, stronger protection of property rights, improvement of the legal system, facilitation of the development of a network of info-communication technology parks, and ‘a reduction of the country's relative dependence on food imports, and a switch to importing modern technology’.

All this demonstrates that, despite the digital gaps among the EDB member countries, active measures are being taken to develop their digital economy.
# FUTURE AREAS OF DIGITALISATION IN EDB MEMBER COUNTRIES

| Digital transformation and deepening integration | Global practice shows that digitalisation can really help deepen integration processes. That is why the digital paradigm is on major integration associations’ agenda. |
| Multilateral efforts to eliminate the digital gap | The leading associations are making efforts to integrate their digital economies, between which there are substantial gaps in their levels of development; in the EU, a common digital agenda is being implemented both in Sweden and in Greece (countries that ranked 5th and 57th, respectively, in terms of the ICT implementation indicator in the Global Competitiveness Report 2018). |
| | In ASEAN there is a growing number of e-commerce initiatives intended to fix the gap in the use of technology in the foreign trade operations of Singapore and Myanmar (whose foreign trade rankings in the World Bank’s Doing Business international rating are 45 and 168, respectively). |
| | In the case of the EDB member States, international organisations regard them as new and promising participants in the global digital economy. The World Bank classifies the EDB member States into two groups: emerging (Tajikistan and Kyrgyzstan) and transitional (Kazakhstan, Belarus, Russia and Armenia) digital economies. Given the significance of the digital component of integration processes, it is important to analyse the future directions of technology implementation in the EDB member countries. |

## Trade in ICT Goods and Services

| The ICT sector’s economic potential | The development of ICT as a sector can make an important contribution to national and regional economies and help make all their industries more competitive. In addition, ICT can be an efficient contributor to international economic integration, improvement of living standards, overcoming the digital divide. |
The digital divide implies extremely unequal access to ICT and limited use of digital technology by businesses and individuals. This manifests itself both at the regional level, among countries, and at the global level, among integration blocs.

**ASEAN leading in ICT share in all exports**

It follows from *Figure 3* that ASEAN is the world’s regional centre of ICT exports, with Singapore accounting for most of these (more than 55% of all ASEAN ICT exports and 6% of the world’s ICT exports in 2017).

**The world’s leading ICT exporter**

The BRICS leading position is driven by dominant volumes of ICT exports from China, which account for 98% of all BRICS ICT exports. It should be said that China is the world’s number one exporter of ICT goods (30.7% of worldwide ICT exports in 2017).

The share of ICT goods in NAFTA exports should be noted as well. That association’s high position is mainly on account of the significant role of the USA, with 66% of NAFTA ICT exports in 2017, and in international markets the USA accounted for 7.3% of worldwide ICT exports.

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11 UNCTAD data

**ASEAN**: Brunei, Cambodia, Indonesia, Laos, Malaysia, Myanmar, Philippines, Singapore, Thailand, and Vietnam.

**BRICS**: Brazil, Russia, India, China, and South Africa.

**EU (28)**: Austria, Belgium, Bulgaria, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, the Netherlands, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden, and the United Kingdom.

**Mercosur**: Argentina, Brazil, Paraguay, and Uruguay.

**NAFTA**: Canada, Mexico, and the USA.

**SADC**: Angola, Botswana, Comoros, DRC, Eswatini, Lesotho, Madagascar, Malawi, Mauritius, Mozambique, Namibia, Tanzania, the Seychelles, South Africa, Zambia, and Zimbabwe.

**CIS**: Armenia, Azerbaijan, Belarus, Kazakhstan, Kyrgyzstan, Moldova, Russia, Tajikistan, Turkmenistan, and Uzbekistan.
The share of ICT goods in total exports of the European Union (28 countries) was 5.2% in 2017, while the EU 28 accounted for some 15% of the world’s total ICT exports. Within the Union, Germany is the main driver (with 3.6% of world ICT exports in 2017).

According to UNCTAD statistics, the share of ICT goods in the overall EAEU export structure is lagging behind figures of other leading integration blocs. In 2017, ICT accounted for 0.5% of the EAEU countries’ total exports, or a mere 0.12% of worldwide ICT goods exports. In the period under review, the total share of those groups of countries showed positive growth.

Analysis of the EDB member countries’ goods structure in 2012–2017 shows that ICT goods are exported and imported by all the countries and not only by the leaders.

However, comparison of ICT goods' share in EDB member countries' exports shows its share to be the most stable in the Belarusian export structure (some 0.7% in the period under review), while in the rest of the countries under scrutiny its trends are quite volatile and there is a considerable gap between its relative volumes.

Turning to the share of ICT imports in the total structure, it shows a considerable gap compared to exports in all the countries under review. All the member countries are net importers of ICT goods, which results from the specifics of the regional countries’ economic models: smaller EDB shareholder economies feature a considerable share of the agricultural sector, which employs a substantial percentage of their workforce. Given

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All the EDB member countries are net importers of ICT goods

**Figure 4.** Percentage of ICT Goods in All Exports of EDB Member Countries in 2012–2017

Source: prepared by the author using UNCTAD data

ICT export balance negative due to economic structure specifics

12 According to the World Bank, in 2017 its share was 27% in Kyrgyzstan, 33% in Armenia, and 51% in Tajikistan.
the considerable proportion of those employed in the sector, the prospect of its digitalisation is especially important, for the adoption of advanced technology and a productivity increase in the sector will multiply its produce export potential and ensure the countries’ food security. In larger EDB economies, the gap is attributable to their relative technical inferiority versus the world leaders, which makes those countries focus on imports of high technology products.

According to UNCTAD (Figure 4), Russia is the country most dependent on ICT imports; in 2017, they accounted for 9.2% of all Russian imports. The considerable 2015 increase in the share of ICT goods in Russian imports occurred as the total volume of imports decreased due to a fall in the exchange rate. Moreover, it should be noted that the 1.3 pp increase of the share of ICT goods in the overall import structure in 2015 is not an objective reflection of reality: comparing the period’s absolute quantities showed that in 2015 the ICT goods import volume dropped by 30% (from USD 22.6 billion in 2014 to USD 16.7 billion in 2015). The growth trend observed in Figure 4 is thus attributable to a considerable decrease in other goods imports, including foods from EU countries, after the sanctions were imposed. Among other EDB member countries, ICT goods are prominent in the total import structures of Kazakhstan and Armenia, with 5.8% and 4.1%, respectively.

All the above-mentioned countries except Tajikistan are members of the EAEU, tasked in 2016 with forming a single information space pursuant to the EAEU 2025 Digital Agenda. According to a joint study by the EEC and the World Bank, the potential economic effect of the implementation of the Digital Agenda will increase the aggregate GDP of the EAEU by the year 2025. The implementation of the common EAEU digital agenda may boost employment.
in the EAEU countries’ ICT sector by nearly 70% and, additionally, increase general employment by 3%, while exports of ICT services will rise by more than 70%.\textsuperscript{13}

The relevance of and promising outlook for digital development of EAEU member economies were reflected in the guidelines for the implementation of the EAEU 2025 Digital Agenda that declare digital transformation a key development factor. The member countries are tasked with developing industrial, research and technological cooperation in order to become more competitive in the world goods and services market.

The analysis of the share of ICT goods and services in the total volume of member countries' exports and imports in 2017 showed that ICT services\textsuperscript{14} hold a more significant place than ICT goods do. Belarus is the leading relative export provider of ICT services, as these accounted for more than 18% of its services exported in 2017. The country least dependent in ICT service exports is Kazakhstan, whose share of ICT services in exports was some 10%. As regards absolute numbers, Table 3 shows that all the countries except Kazakhstan and Russia are net exporters of ICT services. According to the author’s calculations based on UNCTAD data, Russia’s and Kazakhstan’s negative balance of trade in ICT services is USD 127.8 million and USD 204.4 million, respectively.

The greatest surplus of trade in ICT services is observed in Belarus, whose ICT service exports exceed imports by USD 1.14 billion.


\textsuperscript{14} ICT services are the set of computer and telecommunication services (OECD, 2011).
Armenia’s trade in ICT services is in surplus as well: in 2017, its positive balance was USD 169 million.

Table 3. Value of EDB Member Countries’ ICT Services Exports and Imports in 2017, USD Million

<table>
<thead>
<tr>
<th>Country</th>
<th>Exports (USD Million)</th>
<th>Imports (USD Million)</th>
<th>ICT trade balance (USD Million)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Armenia</td>
<td>195.00</td>
<td>26.00</td>
<td>169.00</td>
</tr>
<tr>
<td>Belarus</td>
<td>1 438.00</td>
<td>301.00</td>
<td>1 137.00</td>
</tr>
<tr>
<td>Kazakhstan</td>
<td>115.00</td>
<td>243.00</td>
<td>-128.00</td>
</tr>
<tr>
<td>Kyrgyzstan*</td>
<td>66.00</td>
<td>28.00</td>
<td>38.00</td>
</tr>
<tr>
<td>Russia</td>
<td>4 664.00</td>
<td>4 868.00</td>
<td>-204.00</td>
</tr>
<tr>
<td>Tajikistan</td>
<td>5.00</td>
<td>4.00</td>
<td>1.00</td>
</tr>
</tbody>
</table>

Source: prepared by the author using UNCTAD data
* 2016 data are used

Exports of digitally-deliverable services

Broader development of the digital infrastructure and elimination of the digital gap at the national level will enable countries to step up the share of ICT services in their total services exports.

It is of no less interest to compare data on the shares of digitally deliverable services15 in EDB member countries’ total exports and imports of services in 2017 (Figure 6), where Kazakhstan and Russia are the leaders. Digitally-deliverable services are an aggregation of insurance and pension services, financial services, charges for the use of intellectual property, telecommunications, computer services and audio-visual and related services.

Figure 7. Percentage of Digitally Deliverable Services in All Service Exports and Imports of EDB Member Countries in 2017

Source: prepared by the author using UNCTAD data
* The chart uses 2016 data

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15 The digitally-deliverable services series is based on a concept developed by UNCTAD in a technical note in 2015, as well as in a report of the 47th United Nations Statistical Commission in 2016.
The member countries’ low level of mutual trade mainly results from businesses’ low awareness of the needs and capabilities of industrial manufacturers from EAEU partner countries.

To solve the integration development tasks set by the EAEU, cooperative relations should be strengthened. This objective can particularly be addressed in a digital economy.

By adopting digital technology, businesses can reduce their costs and thus make their operations more efficient and attract more clients and business partners.

**E-commerce**

**E-commerce as a key item on any integration agenda**

E-commerce is high on the agenda of major integration associations, mainly because it is economically beneficial. E-commerce helps eliminate borders between countries and businesses and thus promotes the growth of trade volumes as transaction costs are reduced. This, in turn, can give a new impetus to economic development, for the decrease of transaction and operating costs makes business activity more accessible for most individuals.

However, it is important to note that it is essential to lay a foundation for electronic commerce – to maximise returns and facilitate the growth of trade. One important pre-condition is the required ICT infrastructure in place, discussed in the preceding section. Further, research shows that a number of other fundamental pre-conditions are essential as well.16

**‘Emerging digital economies’**

Thus, in the ADB report entitled ‘Digital Trade in Countries of Europe and Central Asia’ countries were classified by the level of implementation of digital technology for the development of e-commerce. All six EDB member countries were included in the group of ‘emerging digital economies’ whose mutual electronic trade should be facilitated by taking steps to improve their logistical infrastructure.

**Significance of logistical infrastructure**

Reliable logistical infrastructure is required for building efficient e-commerce. Broader access to the Internet may help more businesses, mainly SMEs, to enter new markets – especially in the service sector. High-quality logistical infrastructure is required for building efficient e-commerce.

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for e-commerce development

Infrastructure may make e-commerce much more efficient by helping small and medium-sized enterprises conduct their trade activities effectively.

Development of payment systems

A second key pre-condition is the development of more advanced and interoperable payment systems and better access to financial services. For the development of online payment systems it is important to ensure the security of such technology-based payments.

Symmetrical efforts

Notably, studies show that digitalisation and cyber-security efforts and measures must be taken symmetrically to maximise return from digital technology implementation.

E-commerce for integration

In the context of the EDB member countries, the development of e-commerce will boost mutual trade within the integration bloc. E-commerce will streamline the current overly bureaucratic procedures. The stimulation of intra-regional trade will create more employment opportunities for the countries’ citizens as the barriers faced by small and medium-sized enterprises are lowered and they become more active in foreign trade.

B2B development

The development of e-commerce within this group of countries is to promote the creation of value chains, for the growth of technologically advanced enterprises spurs B2B operations17. The adoption of digital technology facilitates the search of clients and suppliers and thus strengthens the relationships among small and medium-sized businesses.

EAEU industrial cooperation network

Due to digital technology’s potential for the economy, the EEC initiative to create an EAEU industrial cooperation network is increasingly in the spotlight. Enterprises’ presence in the digital industrial cooperation network facilitates their identification. This mainly applies to the SME community, which is the main driver of modern post-industrial society and which should occupy a leading place in the economies of Armenia, Kyrgyzstan and Tajikistan.

Connection to this kind of network will help track production and process chains and choose the most technologically advanced business lines, which will accelerate integrative development.

The banking sector’s and investors’ interest in such a network stems from greater transparency of the industrial ties and simpler selection of the most promising integration projects.

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17 The term ‘Business to Business’ means a type of information and economic interaction among legal entities.
Digital economy development through the enhancement of e-commerce gives rise to new forms of cooperation. This promotes the involvement of organisations in the world economy, boosts market competition and assists innovation, labour productivity growth, and more efficient utilisation of capital.

The Financial Sector

Digital technology in banking

The implementation of digital technology causes structural changes in the business environment by helping enterprises of any size integrate into the regional and global economy.

In the context of the financial and banking sectors, the improvement of digital potential primarily means a higher degree of integration, broader utilisation of high technology, acceleration of processes, making the existing systems more flexible, and greater security and transparency.

Table 4. Global Findex Indicators of EDB Member Countries in 2014 and 2017 (Percentage of Population Aged 15+)

<table>
<thead>
<tr>
<th>Year</th>
<th>Country</th>
<th>Account</th>
<th>Account, rural population</th>
<th>Used the internet to buy something online in the past year</th>
<th>Used a mobile phone or the internet to access an account</th>
<th>Received government payments: through a mobile phone</th>
<th>Made or received digital payments in the past year</th>
</tr>
</thead>
<tbody>
<tr>
<td>2014</td>
<td>RA</td>
<td>18%</td>
<td>16%</td>
<td>–</td>
<td>–</td>
<td>0%</td>
<td>12%</td>
</tr>
<tr>
<td>2017</td>
<td>RA</td>
<td>48%</td>
<td>47%</td>
<td>9%</td>
<td>11%</td>
<td>3%</td>
<td>42%</td>
</tr>
<tr>
<td>2014</td>
<td>RB</td>
<td>72%</td>
<td>63%</td>
<td>–</td>
<td>–</td>
<td>0%</td>
<td>61%</td>
</tr>
<tr>
<td>2017</td>
<td>RB</td>
<td>81%</td>
<td>75%</td>
<td>30%</td>
<td>32%</td>
<td>1%</td>
<td>79%</td>
</tr>
<tr>
<td>2014</td>
<td>RK</td>
<td>54%</td>
<td>49%</td>
<td>–</td>
<td>–</td>
<td>0%</td>
<td>40%</td>
</tr>
<tr>
<td>2017</td>
<td>RK</td>
<td>59%</td>
<td>57%</td>
<td>15%</td>
<td>18%</td>
<td>2%</td>
<td>54%</td>
</tr>
<tr>
<td>2014</td>
<td>KR</td>
<td>18%</td>
<td>16%</td>
<td>–</td>
<td>–</td>
<td>0%</td>
<td>14%</td>
</tr>
<tr>
<td>2017</td>
<td>KR</td>
<td>40%</td>
<td>39%</td>
<td>3%</td>
<td>6%</td>
<td>0%</td>
<td>36%</td>
</tr>
<tr>
<td>2014</td>
<td>RF</td>
<td>67%</td>
<td>62%</td>
<td>–</td>
<td>–</td>
<td>0%</td>
<td>53%</td>
</tr>
<tr>
<td>2017</td>
<td>RF</td>
<td>76%</td>
<td>76%</td>
<td>27%</td>
<td>33%</td>
<td>1%</td>
<td>71%</td>
</tr>
<tr>
<td>2014</td>
<td>RT</td>
<td>11%</td>
<td>10%</td>
<td>–</td>
<td>–</td>
<td>0%</td>
<td>8%</td>
</tr>
<tr>
<td>2017</td>
<td>RT</td>
<td>47%</td>
<td>46%</td>
<td>8%</td>
<td>8%</td>
<td>3%</td>
<td>44%</td>
</tr>
</tbody>
</table>

Source: prepared by the author using the World Bank’s Global Findex database
Positive changes in digital transformation of the banking sector

Analysis of the World Bank’s Global Findex for 2014–2017 shows that the development of the banking industry and adoption of digital technology have generally displayed highly positive trends in the EDB member States.

The best performers are Belarus and Russia, whose populations are the most active in using digital technology to access their bank accounts for making online payments and purchases.

Comparing EDB member States’ indicators with average ones across their income groups of countries shows that the ‘analogue’ banking sector is fairly accessible in all the EDB member countries, but the availability of digital banking services in those countries varies widely.

Belarus is the group leader in banking sector digitalisation, with indicators similar to and sometimes exceeding the upper-middle-income economies’ average figures.

Table 5. Global Findex Indicators of Income Groups of Countries in 2017\(^\text{18}\)
(Percentage of Population Aged 15+)

<table>
<thead>
<tr>
<th></th>
<th>Account, rural population</th>
<th>Used the internet to buy something online in the past year</th>
<th>Used a mobile phone or the internet to access an account</th>
<th>Received government payments: through a mobile phone</th>
<th>Made or received digital payments in the past year</th>
<th>Mobile money account</th>
</tr>
</thead>
<tbody>
<tr>
<td>High-income economies</td>
<td>94%</td>
<td>94%</td>
<td>59%</td>
<td>52%</td>
<td>2%</td>
<td>91%</td>
</tr>
<tr>
<td>Upper-middle-income</td>
<td>73%</td>
<td>73%</td>
<td>32%</td>
<td>31%</td>
<td>2%</td>
<td>62%</td>
</tr>
<tr>
<td>Middle income economies</td>
<td>65%</td>
<td>65%</td>
<td>18%</td>
<td>19%</td>
<td>1%</td>
<td>45%</td>
</tr>
<tr>
<td>Lower-middle-income</td>
<td>58%</td>
<td>58%</td>
<td>5%</td>
<td>8%</td>
<td>1%</td>
<td>29%</td>
</tr>
<tr>
<td>Low-income economies</td>
<td>35%</td>
<td>32%</td>
<td>2%</td>
<td>17%</td>
<td>1%</td>
<td>26%</td>
</tr>
</tbody>
</table>

Source: prepared by the author using the World Bank’s Global Findex database

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\(^\text{18}\) As classified by the World Bank.
Digital technologies guarantee inclusiveness

Digital technology usually has a positive effect on ‘banking sector inclusiveness’; in other words, it makes financial services readily available. Broader access to financial services means growing demand for them, which drives further development of the banking sector. This confirms that individuals’ demand promotes the digitalisation of the financial sector and that potential for synergetic development exists in this area of the digital economy.

The effects of the digitalisation of the financial sector for the government will include increasing transparency of cash flows in the economy and a broader area for cash-free payments.

In the case of Belarus, it is greater transparency remains a key task to the Government under the Digital Banking Development Strategy for 2016–2020, which includes a list of comprehensive and connected measures intended to ‘broaden, by 2021, interaction among banks, their clients, the Republic’s State authorities and commercial organisations via electronic communication channels’19.

Significance of flexible policy and legal framework

Efficient digitalisation of the banking sector requires an appropriate policy and a flexible legal framework that banks can use to actively apply breakthrough technology and develop their own innovative products and services. No less important is active involvement of the private sector in the establishment of such a framework.

State measures to promote digital culture

In addition, the Government can and should actively promote the digital culture among citizens, in particular, by switching to digital payments between the federal and municipal authorities, on the one hand, and citizens, on the other. Such measures by the Government should increase confidence in digital banking and the financial sector’s transparency.

Digital technology enhances the stability of the banking industry. Commercial banks can assess their client risks more promptly and accurately using innovative technology and Big Data. A more transparent banking system will have a positive effect on the country’s investment attractiveness as well, and can expand significantly most economic agents’ funding opportunities.

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E-agriculture

New areas of digital transformation

In analysing the EDB member countries’ digital potential, it is essential to take into account the specifics of their economic structure – first and foremost, the significance of agriculture as a key sector in some EDB member countries. At first glance, digitalisation and the technological breakthrough seem contrary to the development of the agricultural sector, for the implementation of technology reduces demand for human resources and, consequently, employment in that sector. However, as world experience shows, ‘disruptive technologies’ may structurally transform agriculture and support more efficient management of resources.

Comparing the share of agriculture in EDB member countries’ GDP with the share of the employed population working in the sector shows that, except in Belarus and Russia, the sector is characterised by fairly low productivity. Tajikistan is a vivid example, with more than 50% of the employed population working in a sector that produces just 20% of GDP.

![Figure 8. Share of Agriculture in EDB Member Countries' GDP, and Percentage of Population Employed in the Agricultural Sector in 2017](source: prepared by the author using World Bank data)

Strategic potential of e-agriculture

E-agriculture aims to raise the productivity of the agricultural sector. The term ‘digital agriculture’ means combining advanced technology with big data for more efficient resources management and for taking into account such important external factors as the weather conditions or growth of demand for food produce, in order to increase yield.

This new area is of special interest, for it not only raises the productivity of agricultural sectors but also works directly to enable the Government
to ensure the country’s food security and make its food exports more competitive. Given its influence on issues of national strategic importance, we should note that support by the Government, in cooperation with agribusiness and private innovative enterprises, is essential for healthy implementation of ‘smarter’ agriculture and transition to it.

**E-agriculture as a global trend**

The analysis of 15 countries’ experience\(^{20}\) in developing e-agriculture carried out by the OECD\(^{21}\) confirms that most of the countries under review are making active efforts to develop cooperation between the public and private sectors. Furthermore, the analysis stresses the importance of international cooperation in this area, for it means lower costs, pooling of resources, and using synergies to address both regional and global issues in the field of agriculture.

In the Eurasian space, e-agriculture is still at an early stage of development; most countries lack national strategies in this field, but possess considerable potential as assessed by the FAO. To date the Russian Ministry of Agriculture has been developing one of the most advanced ministerial projects on e-agriculture in Eurasia\(^{22}\).

**Comprehensive measures to develop e-agriculture**

The purpose of the e-agriculture project is to achieve a technological breakthrough in the agro-industrial complex through the implementation of digital technology in agriculture, to eventually double labour productivity at agricultural enterprises by 2021. Notable among its key stages is the creation of a Smart System of State Support Measures for the strategically important agricultural sector. The system will use data from the Russian Meteorological Service and the Ministry for Emergency Situations to adjust subsidies to individual regions in response to natural disasters. Moreover, smart sectoral planning is to be introduced in all the federal subjects to promote the cultivation of the most profitable crops, taking into account the transportation leg to the processors or consumers. The project also envisages a complete switch to electronic contracting with recipients of State financial support, so that all export produce can be tracked using a paperless system ‘from field to port’.

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\(^{20}\) Argentina, Australia, Brazil, Canada, China, Colombia, Estonia, Japan, Korea, Latvia, the Netherlands, Sweden, Switzerland, Turkey, and the USA.

\(^{21}\) Innovation, Productivity and Sustainability in Food and Agriculture: Main Policy Lessons from Selected OECD Country Reviews, 2019, OECD.

Cross-sectoral economic effects

Given the significant potential of e-agriculture, it is essential to develop it in other EDB member countries. It may give a powerful impetus to economic growth, increase of incomes and improvement of the rural populations’ quality of life by boosting the whole sector’s productivity and value chain development. This factor is especially important in Armenia and Tajikistan with their high proportion of rural population.

Agriculture and ICT

A key advantage resulting from the cross-sectoral nature of ICT consists of the inevitable stimulation of other sectors, which helps offset the decrease in demand for labour in agriculture as technology is implemented. According to FAO experts, the implementation of a unique ICT platform may improve interaction among a number of sectors. ICT helps to collect more information on the quantity and quality of products, ensure the timely delivery of produce to markets, and enable agribusiness to establish links between small producers and markets.
THE REALISATION OF EDB MEMBER COUNTRIES’ DIGITAL POTENTIAL

**Multilateral digital initiatives**

A review of the digital potential of the Eurasian space shows the importance of multilateral initiatives undertaken by EAEU countries pursuant to the Digital Agenda of the Eurasian Economic Commission with the principal aim of shaping and developing the digital space. The measures to be taken to implement the Agenda should promote the creation of ‘a space of digital processes, data, digitised images of physical objects, and an aggregate of digital infrastructures and socio-technical mechanisms for the organisation, management and use of digital processes in the EAEU territory’.

The EEC Digital Agenda is primarily aimed at the attainment of key objectives that will enable the EAEU countries to lay the foundation for a regional digital economy.

The digital transformation of the region is meant to include:

1. Digital transformation of industries.
2. Digital modernisation of governance mechanisms and integration processes.
3. Formation of an EAEU digital market.
5. Legal and regulatory support of the transformation process.

**Strategic importance of cyber-security**

The coordination of cyber-security efforts remains a pending issue when any multilateral ICT instrument is adopted. This is due to the fact that integration which promotes supra-nationally initiated development and implementation of digital technology also poses the risk of larger-scale cyber-attacks on a whole number of industries in all the countries integrated into a single digital ecosystem. In developing and implementing common digitalisation

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23, 25 Strategic Priorities for Shaping the Digital Space of the Eurasian Economic Union to 2025.
measures, it is also important to envisage a common plan for maintaining a uniform level of security. Many integration associations implementing common digital agendas are currently far less attentive to this issue. It is evident that an integration association will be just as strong in the digital space as its least protected members.

**Cyber-security within integration associations**

The EU is currently a leading integration association as regards the development and implementation of a coordinated strategy and measures in the cyber-security area. In 2013, the first EU Cyber-Security Strategy was adopted, and in 2018 the European Parliament and Council enacted a directive on measures that ensure a high degree of security of the network and information systems. Moreover, since 2005 the European cyber-security infrastructure has included the European Network and Information Security Agency (ENISA) – an all-European cyber-security expertise centre responsible for the development of recommendations, analytical support of State structures and implementation of new projects such as a system for the certification of digital goods and services.

**Significance of a coordinated strategy**

The measures being taken by the EU should largely serve as an example for other integration associations working to create a common digital space. This emphasises the importance of a coordinated security strategy as part of the digital agenda.

It should also be noted that the implementation of the agenda brings the risk of the digital gap among the five EAEU countries and Tajikistan further widening.

As the integration processes in the EAEU imply strengthening economic ties by removing the barriers that hinder cross-border interaction, there appears a need for coordinated initiatives on a larger regional scale, in particular, in the digital economy. In this case, multilateral initiatives sponsored by other international development organisations and institutions of which the EDB countries are members acquire greater significance.

**The Role of MDBs in the Realisation of Digital Potential**

**Advantages of MDBs’ participation in digitalisation**

Also of interest are the digital economy and ICT activities by multilateral development banks in the Eurasian space. MDBs can occupy an important place in the digital dialogue due to the international nature of their operations, their financial capacity and their accumulated experience in implementing projects jointly with Governments and private companies. Moreover, in
addition to lending, MDBs can offer other instruments for developing the digital economy in their member States – including technical support or grants.

The EDB member countries are currently members of other MDBs as well, which gives them more financial and technical support opportunities as they implement large-scale innovation projects.

**MDBs’ strategic approach as part of the digital agenda**

It should be noted, however, that in the case of the EDB member countries, MDBs’ participation in the implementation of digitalisation and ICT projects is rather limited – while such MDBs as the ADB and EBRD have quite detailed industry strategies for the development of the ICT sector in their member countries.

**EBRD**

In the ICT area, the EBRD has been the most active in the region, particularly in Russia, which accounts for 9% of the bank’s current portfolio of ICT projects. This share consists of open investment projects approved before 2014, after which the EBRD suspended the approval of new projects in the country. Central Asian projects account for 0.7% of its current ICT portfolio. Notable among its significant projects is a regional venture capital investment programme (VCIP I and II) under which the EBRD is developing investment in fast-growing small and medium-sized innovative companies at the seed and growth stages in the form of equity and quasi-equity instruments. The project’s aim is to render financial support to technology companies that have difficulty in obtaining financing as the venture investment business is not developed in their countries.

**IBRD**

The IBRD is actively investing in ICT projects, but due to the specifics of its activities (the IBRD issues sovereign loans and grants only) the number of projects and the member countries’ own interest primarily depend on the Governments’ plans and willingness to develop the digital economy. The IBRD is more active in implementing innovative government projects in Kyrgyzstan than anywhere else. This is exemplified by the multi-stage Digital CASA project intended to broaden Internet access by developing regional integrated digital infrastructure and a favourable environment. The project aims to increase the percentage of individuals with Internet access from 34.5% at the beginning of the project to 60%, to raise the volume of private investment in ICT to USD 60 million under the project, and to increase the length of the fibre-optical network to 1,000 km. The IBRD intends to implement this project by 2022.

**ADB**

The ADB is less active in the ICT area specifically in the EDB member countries, and often prefers to implement technical support projects rather than larger-scale investment projects. Since 2015, the ADB has embarked on just one ICT
project and is now contemplating a regional technical support programme in
digital agriculture to be implemented in Vietnam, Pakistan, and Tajikistan.

On the whole, the ADB conducts quite extensive operations specifically in
South-East Asian countries and analyses in detail its member economies’
digital transformation potential and prospects. The ADB analysts have
highlighted the key areas of digital transformation of the financial services
market in which international development institutions may participate.
These include:

- assisting the regulatory authorities in creating favourable conditions for
  regulation;

- cooperation in the standardisation of rules across the region to expand
  opportunities;

- capacity-building assistance to regulators and politicians for stronger
  control and supervision of responsible and inclusive digital financial
  services;

- supporting dialogue among industry, regulators and politicians for ‘smarter’
  regulation; and

- identification and elimination of the digital gap, and supporting the
  development of relevant digital infrastructure.

At present, the EDB continues to accumulate experience in implementing
ICT investment projects as it performs its mission to promote the emergence
and development of its member States’ digital economy, their economic
growth, and the expansion of their mutual trade and economic ties through
investment activities. Moreover, the Eurasian Development Bank Strategy
for the Period from 2018 to 2022 highlights information technologies as a
sector attractive for the Bank. According to the EDB priorities, its work in this
area includes the creation of IT infrastructure and development of software
and platforms, including those using blockchain technologies. Since 2014,
the EDB has embarked on five projects involving the ICT sector. In 2018,
the EDB issued a loan for the construction of the hardware and software
complex of the Makat – Mangyshlak fibre optic line in Kazakhstan. The
complex will promote the implementation of a project for the automation of
the accounting, control and analysis of energy consumption on the rolling
stock of the national KTZ National Railway Company, which will help reduce
its operating costs. Given the integration potential of ICT projects, we can
expect the EDB’s interest in such projects to grow.
Analysis of the EDB member countries’ digital potential has shown that the countries involved in the Eurasian integration project possess considerable resources for creating a digital economy, but the development potential is rather asymmetrical across different States. This poses a risk of the digital gaps among them further widening. In the region generally, there is a need to develop a digital culture: for now, business is the key driver of the digitalisation process in all the EDB member countries.

The building of modern ICT infrastructure and modernisation of the existing basic infrastructure are a stage of paramount importance for accelerated development of the digital economy. The information infrastructure should be developed to include a set of information centres, sub-systems, data and knowledge banks, communication systems, control centres, hardware and software facilities, and information collection, storage, processing and transfer technology.

Moreover, the existing model of the economy may pre-determine the key priorities for the initial stages of digital potential development. Thus, in countries with a high proportion of those employed in agriculture there is a pent-up need to develop digital agriculture and thus increase the sector’s productivity. A favourable innovation environment, mainly created with the State’s support, is no less important for the development of the digital component.

Given the beneficial effect of digitalisation on integration processes, regional associations and multilateral development institutions will be interested in implementing projects and initiatives intended to enhance integrative interaction among their member countries. Institutional willingness to develop the digital economy, the EBD’s financial potential and the private sector’s innovation appetite will thus combine into a synergy conducive to the development of the digital economy.
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