

Realizing the digital potential in North and Central Asia for sustainable economic transformation

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Preliminary findings

The project team is in a process of gathering responses from national focal points on the digital transformation in North and Central Asia.

In this presentation, we will show you findings that we have gathered so far based on a desk research and information from the questionnaire

Project scope

- Armenia
- Azerbaijan
- Georgia
- Kazakhstan
- Kyrgyzstan
- Russian Federation
- Uzbekistan
- Tajikistan
- Turkmenistan



Content

- Promises of digital technologies
- The digital transformation in the North and Central Asia
- Case studies (Armenia, Azerbaijan and Georgia)
- Recommendations

Promises of digital technologies

Next Production Revolution

- Transformational changes induced by digital technologies in economy and society are conceptualised under different names:
 - Industry 4.0,
 - Next Production Revolution,
 - Third wave,
 - Smart Manufacturing.
- Combined with other global trends (e.g. depleting resources and global warming), technological advancements will reshape industrial production having tremendous effects on productivity, employability and social well-being.

Effects of the digital transformation on manufacturing

Accelerated business cycles;

- Data as a core resource input (“new oil”);
- Increasing role of open innovations;
- Zero marginal costs of digital products (“scale-without-mass”);
- Servitisation of manufacturing
- Urban agglomerations are drivers of digital economy

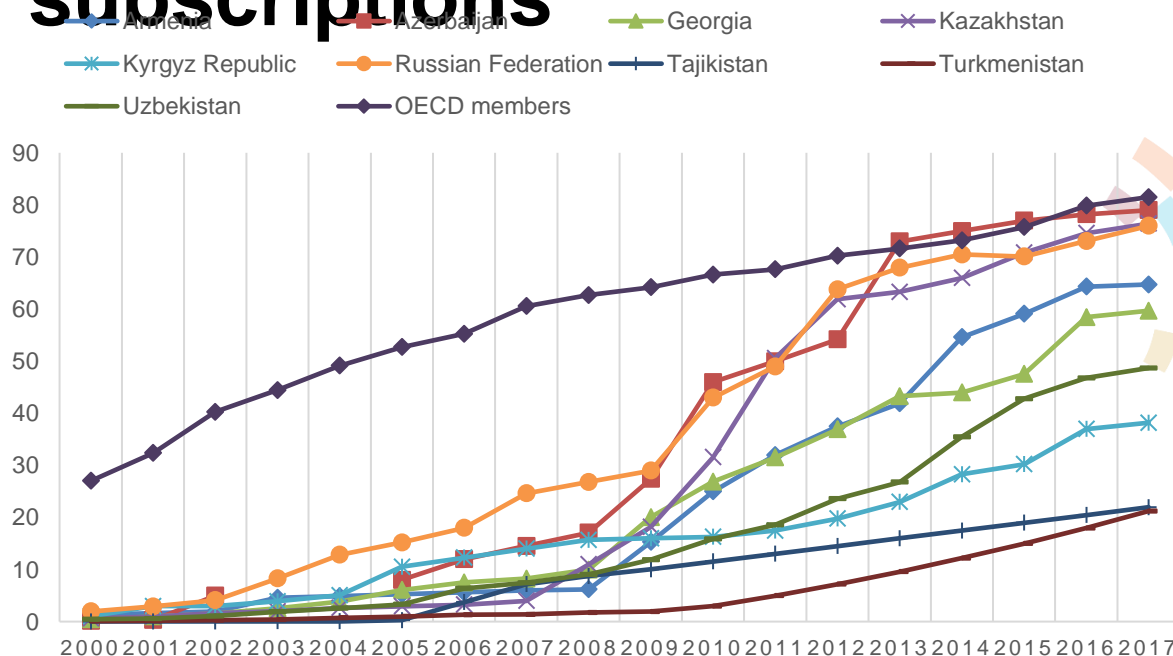


The digital transformation & employment

- Reduction of a number of available jobs and the increase of the unemployment (Frey and Osborne, 2017);
- Low-skilled jobs are in danger in a long-term perspective;
- Digital divides based on gender, geographical location and age

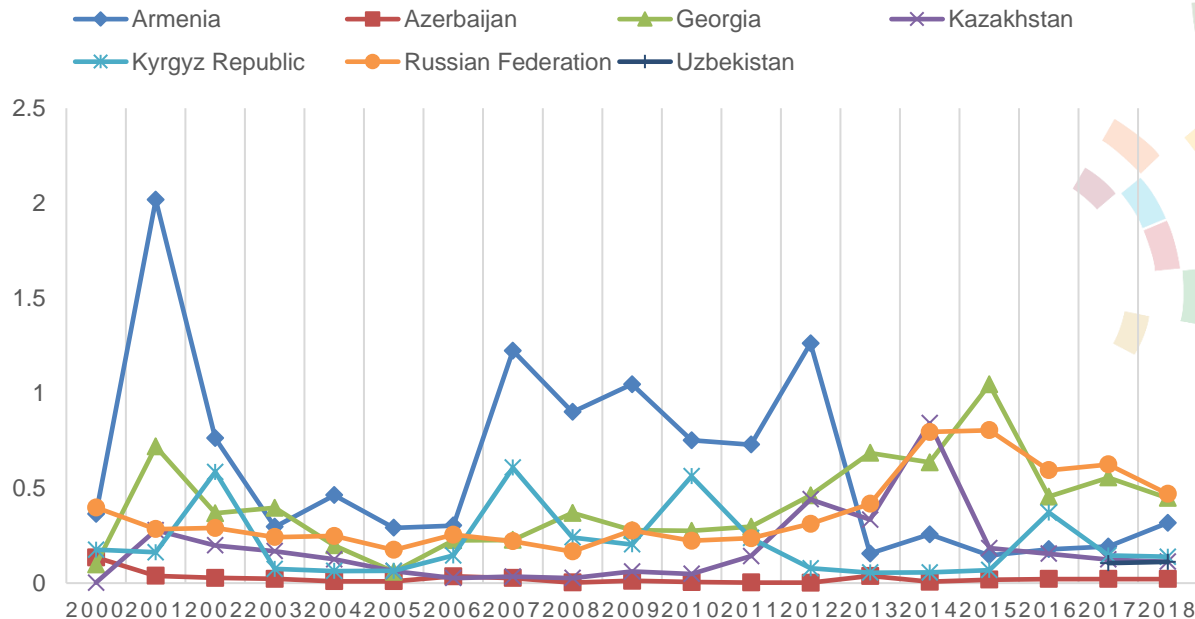
The digital transformation in North and Central Asia

Share of mobile Internet subscriptions



Source: International Telecommunication Union (ITU)

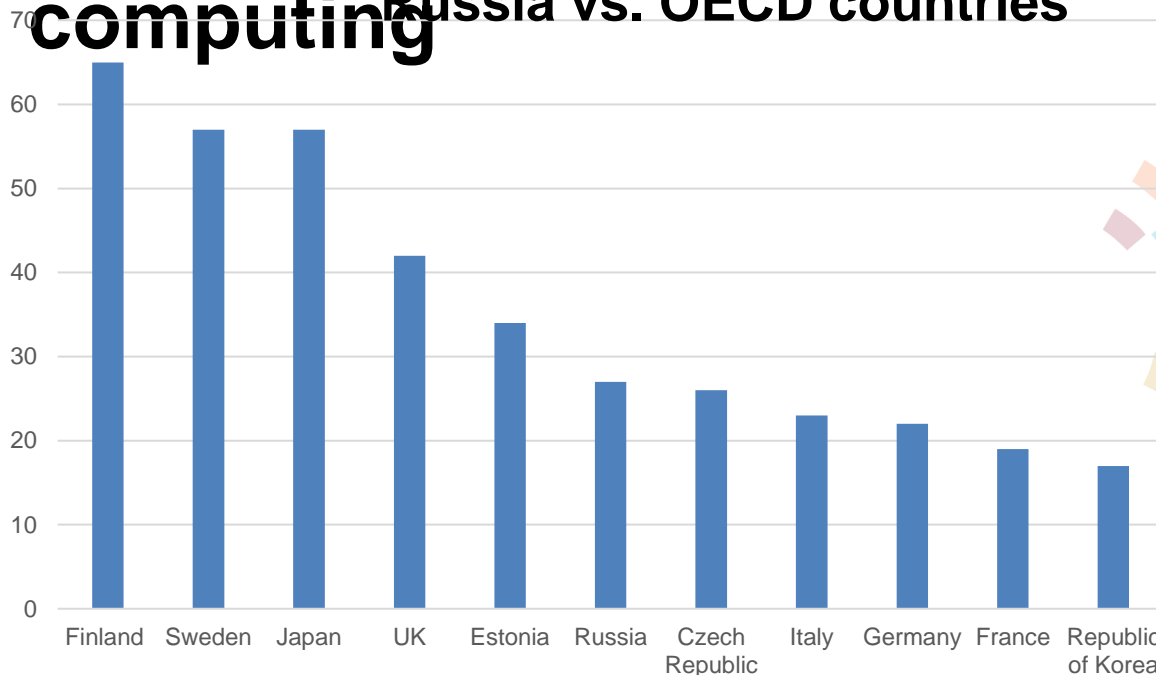
Share of ICT products in exports



Source: International Telecommunication Union (ITU)

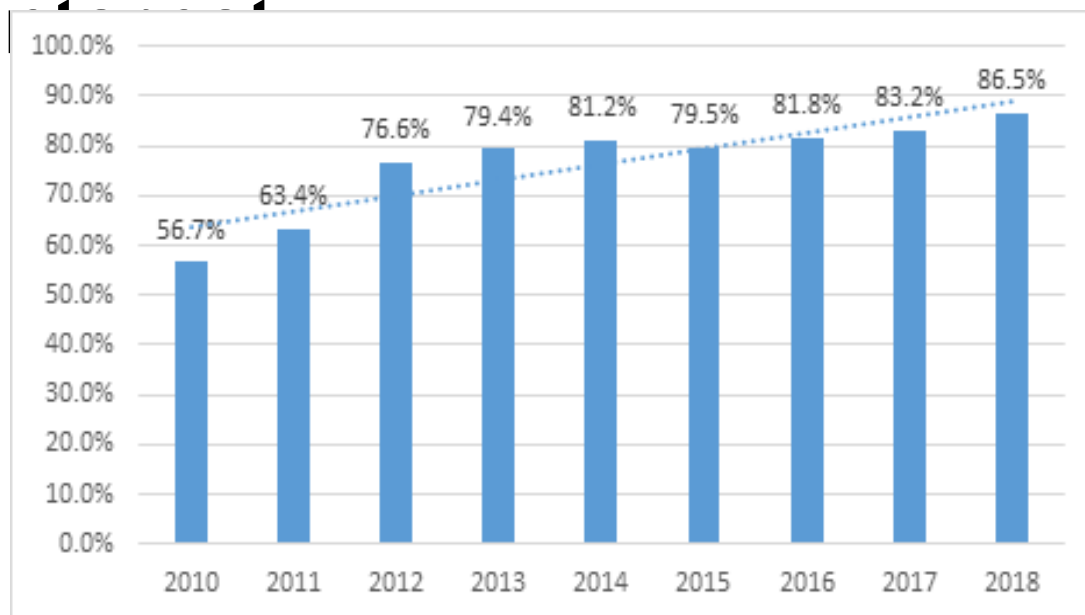
Share of firms using cloud computing

Russia vs. OECD countries



Source: Abdrakhmanova et al, 2019

Share of Russian organizations with access to broadband



Source: *The Russian Federal State Statistic Service*



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Case studies

The digital transformation in Armenia

Digital
economy

Digital
government

- the Enterprise Incubator Foundation (EIF);
 - Gyumri and Vanadzor Technology Centers;
 - ViaSpere Technopark;
 - Kolba Social Innovations Lab;
 - Start-up Academy
-
- The SDG Innovation Lab seeks to align the UN Sustainable Development Goals (SDGs) with specificities of the national development in Armenia. The lab is actively involved in providing data analytics and offering digital services to the Armenian government

The digital transformation in Georgia

Digital
government

The Data Exchange Agency, developed under the Ministry of Justice in 2010, is an e-governance development agency that has created a national open database and led projects in cybersecurity and data exchange infrastructure

Digital
education

- Digitalization is a key priority area in the Unified Strategy of Education and Science 2017-2021. eSchool management information system was launched to improve governance quality of educational institutions through data collection, processing and reporting.

Digital
economy

- Georgia's Innovation and Technology Agency (GITA) and Enterprise Georgia developed grants and training opportunities to support the growth of the ICT sector

The digital transformation in Azerbaijan

Digital
government

The State Agency for Public Service and Social Innovations (SAPSSI) has further established an E-GOV Development Centre with two operational portals for public services in place;

- The technological backbone of digitalisation of the public sector is the Government Cloud (G-Cloud)
- the Digital Trade Hub platform, connecting SMEs to global markets regardless of their location.
- Baku State Vocational Education Center of Industry and Innovations, launched in September 2019
- Women empowerment platforms seek to increase the share of women participation (WoWomen, TechTech Khanum)

Digital
economy

Digital
divides

Recommendations

Recommendations

Issue

- The pace of the digital transformation of economy has been far too slow in the majority of the North and Central Asian countries.

Solution

- Design clear national priorities on the development of digital economy jointly with the industry and the civil society;
- Foster academia-industry collaboration through direct and indirect forms of investments, reforms of governance in HEIs, and the development of public-private partnerships in the field of digital economy.
- Introduce supporting mechanisms through the redesign of tax regulations and public procurement

Recommendations

Issue

- Participation in life-long learning is low in the region.

Solution

- National governments need to design training programmes to improve skills and capabilities of jobseekers and increase their ability to face demands of digital economy;
- Use subsidies to encourage continuing education, especially for disadvantaged social groups: women, people in rural areas, people with health problems.

Recommendations

Issue

- The development of digital government is rather nascent

Solution

- The national governments need to lead the digital transformation by example by improving interoperability and data exchanges among government databases and designing user-friendly digital public services

Recommendations

Issue

- A lack of statistical data on digital economy prevents formulation and design of policy initiatives

Solution

- National governments and national statistical services need to implement international statistical standards of Eurostat and the OECD on collection and analysis of data on innovation activities and the OECD roadmap on measuring the digital transformation.

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