

# **The Eurasian Economic Union in the Context of Digital Transformation: Main Directions in the Development of Industrial Cooperation**

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## **Abstract**

The development of digital technologies in organizations and the level of Internet penetration has a significant impact on the volume of the e-Commerce market as an indicator of the potential of the digital economy. The ICT market plays an important role in developing the potential of the digital economy, as global production of ICT goods and services accounts for 6.5% of global GDP. The cost and speed of broadband access play an important role in developing the potential of the digital economy. Russia's technological breakthrough based on the development of digitalization implies the presence of an industrial base that can adequately perceive digital technologies. The article presents the main directions in the development of industrial cooperation of the EEU countries in terms of digital transformation, justified by cluster and subcontracting approach, and also the need to develop new forms of cooperation of innovative character for technological breakthrough in the digital transformation industry.

## **Keywords**

ICT, Digitalization, Development of the Potential of the Digital Economy, Subcontracting, Digital Industry, Digital Production, Digital Economy.

## **Introduction**

The introduction of digital technologies ensures the growth of labor productivity, increasing the efficiency of the production process, and deepening integration and cooperation in the face of global changes. By digital industry, we will understand the introduction of convergent hybrid and additive technologies into the production process, which bring the industrial mode of production to a qualitatively new level, combining machine and non-machine principles of influencing nature to create products that meet human needs at the lowest cost.

The EU countries should be singled out as leaders of digitalization in the industry. The German government's "Industry 4.0" initiative arose in response to the need for horizontal and vertical integration in industry, with the efficient use of information and data, which will make development a continuous process running along the entire value chain.

We should also note that most American companies do not usually consider digital technologies as a means of growth. In fact, "68% indicated that investment in digital technologies is mainly aimed at improving processes and reducing costs, and only 25% mentioned that investment is aimed at helping to establish relationships with customers.

So the focus is on higher operational efficiency, rather than increasing sales, creating new sales channels, or developing new products and services."

## **Literature Review**

In the modern world, the level of development of digital technologies plays a crucial role in the competitiveness of countries and economic unions. The transition to a digital economy is seen by the EEU as a key driver of economic growth. In recent years, the EEU member States have registered significant progress in many areas of digital development.

The impact of globalization on the dynamics of Eurasian cooperation is seen in the works of Russian scientists: E. F. Avdokushin, A. I. Bolvachev, Yu. a. Borko, H. A. Volgina, E. Y. Vinokurov, I. S. Gladkov, S. Yu. Glazyev, A. A. Dynkin, E. V. Zakharova, V. V. Zubenko, C. B. Ivanova, E. G. Kochetov, I. A. Kudryashova, A. M. Libman, E. L.

Loginov, I.e. Millevoi, A. D. Nekipelov, G. V. Podbiralina, V. K. Senchagov, V. A. Slepov, A. N. Spartack, E. D. Holewinski, R. I. Khasbulatov, Chuphrina I. G., Y. V. Shishkov, N. P. Shmelev, M. A. Eskindarov etc.

The prospects and relevance of digital development of the economics of the EEU member States are reflected in the main directions of implementation of the Digital agenda of the EEU until 2025, where digital transformation is a key factor in development.

It is expected that the implementation of the joint Digital agenda will lead to overall economic growth, increased employment in the ICT industry and in the EEU as a whole, as well as increased productivity in priority areas.

## **Methods**

The methodological basis of the research is based on general scientific research methods: system and situational analysis of international integration processes. The research is based on the dialectical method of cognition, as well as the use of logical models.

Abstract-logical, analytical, statistical methods, comparison, grouping, analysis of collected factual material, synthesis, method of logical generalization, algorithmization, system approach to the study of economic phenomena are used.

## **Results**

Digital manufacturing is an integrated computer system that includes tools for numerical modeling, three-dimensional (3D) visualization, engineering analysis and collaboration, designed for the development of product design and manufacturing processes. Digital manufacturing allows you to perform simulation of production processes aimed at reusing existing knowledge and optimizing the technology before the product is released. In addition, digital manufacturing allows you to receive feedback from real technological operations and integrate it into the product design process, so that enterprises can solve production and technological problems at the development stage.

One of the most striking examples of the real results of using digital technologies is the Cat Connect technology from Caterpillar. The system monitors the condition of equipment and allows you to reduce operating costs, monitor the progress of work, and ensure safety at the site. Data on the use of this technology is shown in figure 1.

Analysis of robotization in PJSC "KAMAZ" showed that:

- 60-70% of EBITDA growth was achieved due to increased productivity and flexibility;
- 15-20% – by improving the quality and reducing defects;
- 10-15% - due to savings in the payroll.

In order to maximize the opportunities associated with digital innovation, the world economic forum has launched a digital transformation initiative. The initiative assessed the impact of digitalization on 13 industries and six cross-industry topics. This work has brought us into direct contact with more than 400 executives, policy makers, and experts who have helped uncover some key topics to ensure that the value of digitalization is captured by both business and society.

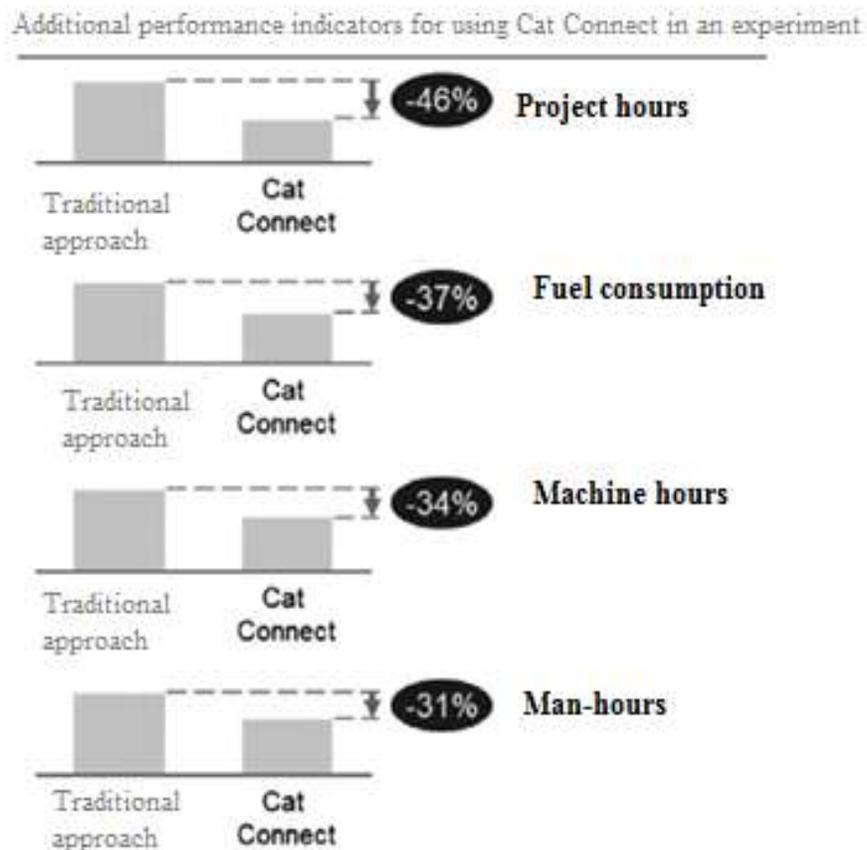
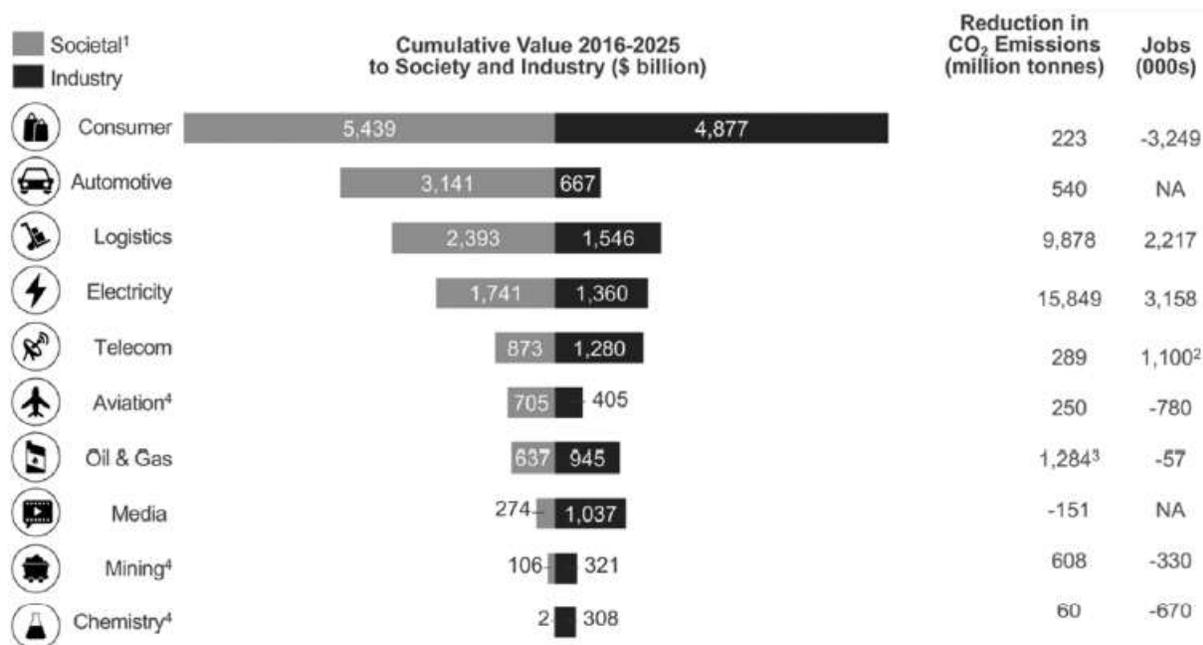


Figure 1. Benefits of Cat Connect technology (11)

To date, this work has confirmed that digitalization has huge potential: according to our estimates it could bring about \$ 100 trillion to businesses and society over the next

decade. There are barriers to its implementation – for example, inadequate regulatory frameworks, infrastructure gaps, lack of public confidence in new technologies-but if stakeholders are properly stimulated, most of this value should go to society.

The significance of digitalization in the industries analyzed by the digital transformation Initiative is shown in figure 2. This figure shows how the accumulated value will change from 2016 to 2025 due to changes occurring in the context of digital transformation in various industries.



(1) Total societal value at stake includes impact on customers, society and the environment; the impact on external industries has not been considered; (2) Excludes the Extending Connectivity digital initiative; (3) Reduction in emissions for Oil and Gas refers to reduction in CO<sub>2</sub>e emissions (4) Aviation refers to Aviation, Travel and Tourism industry, Mining refers to Mining and Metals industry. Chemistry refers to Chemistry & Advanced Materials industry. Source: World Economic Forum/Accenture analysis

**Fig. 2. Digital agenda and digitalization programs of the EEU member States (12)**

The decision of the Eurasian intergovernmental Council at the level of heads of government dated September 8, 2015 No. 9 "On the main directions of industrial cooperation within the framework of the Eurasian economic Union" defines the creation of conditions for the digital transformation of industry in the member states and the formation of a single digital space for industry.

In this regard, the EEU member states approved the digital agenda and developed digitalization programs at national levels and adopted them for implementation. We cannot fail to note the different level of digitalization of the economy and the

implementation of projects in different sectors, but there is no reason to deny the need for joint projects in the field of industrial cooperation.

In terms of the industrial transformation of the Russian Federation, we should note the creation of the State industrial information system (SIIS), which is provided for by the Federal law "on industrial policy". SIIS provides services for all subjects of industrial activity, from the authorities of the Russian Federation to individual enterprises and individual entrepreneurs. The basis of the SIIS is a database of industrial and scientific organizations, a classifier of industrial products and services in industry, as well as a catalog of industrial goods and services in industry. The key service of the SIIS is a B2B platform for searching for orders for the supply of industrial goods and services and placing them for execution. Another system commissioned by the Ministry of industry and trade of Russia is the geo-information system of industrial parks, technoparks, and clusters (GISIP), which provides information about all objects of industrial and innovative infrastructure located on the territory, and about their residents. There is also a similar system for clusters, called the Russian cluster Observatory.

## **Conclusions**

However, for more effective cooperation, it is necessary to apply the cluster approach not only at the national, but also at the supranational levels. At the national level, it is possible to identify clusters, industrial complexes and nodes at the regional level, on the basis of which it is possible to form integration industrial nodes and complexes in the form of contract and sub-contract models within the region, and then search for links for interstate cooperation. This interaction is represented by the European model of sub-contract cooperation through a combination of vertical (subject-oriented) and horizontal (technology-oriented) market sectors, adapted to the EEU.

As a Contractor, we suggest considering the head office of the corresponding production, SC 1-the first-level subcontractor is located at the national level, and SC 2 – the second-level subcontractors (small, medium and large enterprises, research institutes and ICT companies) located in the regions of the state-member of the EAEU. The mechanism of interaction will be provided with the formation of a database of enterprises of the appropriate level that produce high-quality products that meet the technical regulations of the integration Association through a digital technology platform of the appropriate orientation. This type of structure will be an interstate innovation and industrial cluster, which will allow organizing interaction not only between business structures, but also between developers in the form of research institutes.

The Union's member states have created more than 1,150 different objects of industrial and innovative infrastructure in the field of industry and innovation, including 50 free economic zones, 100 industrial parks, 100 different clusters and development zones, 200 technoparks, 300 business incubators, and 400 centers for the development of science and innovation.

The formation of a single digital industrial space is primarily aimed at developing and deepening cooperation between countries in the field of industrial cooperation in the scientific, technical, design, technological and innovation-industrial areas, as well as with the aim of reindustrializing and modernizing the existing production potential in industry and creating a new infrastructure that meets modern innovative trends.

Great opportunities are opening up for the EEU member states in the field of automotive industry through the introduction of "digital twins" technology, the production of parts and spare parts, both in the passenger and cargo segments, and the expansion of agricultural machinery production through the implementation of the digital technology platform project.

As priority tasks of industrial cooperation, we should consider the creation of Union innovation and industrial clusters in the main designated areas for cooperation, research in information and communication and computer technologies, big data technologies, and supercomputer technologies, since in these areas we can see the potential in all five member states of the EEU; cognitive technologies, artificial intelligence technologies, robotics, digital design and modeling are areas where all countries can also realize their capabilities and for this purpose, network universities and other educational technologies open up opportunities in a single digital educational space. Expansion of research in the field of Internet technologies in industry, transport technologies, space technologies, energy efficiency and energy conservation, new energy sources; security technologies and other areas of joint development will ensure the technological breakthrough of the EEU as a whole and be more competitive within the framework of global digital changes in the run-up to the Fourth industrial revolution.

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