



## WHAT JOBS WILL BE IN DEMAND IN THE FUTURE?

In recent years, not only experts and analysts in the field of industrial and economic development, but also people less knowledgeable in this area – parliamentarians, journalists, bloggers, and participants in all kinds of public debates, have spoken about the future challenges in the labor market, such as the reduction, and even disappearance, of certain professions and specialties due to the automation and robotization of jobs. This is quite understandable.

The fear that automation would destroy millions of jobs and thereby deprive a tremendous number of people of their earnings periodically arose in industrialized countries earlier, in particular, in Britain in the middle of the 19<sup>th</sup> century, with the Luddites insistently and loudly speaking about this threat. The panic waves over automation were observed in the middle of the 20<sup>th</sup> century in Europe and the United States. However, lost jobs were always replaced by new ones: the increase in labor productivity through automation reduced costs and prices of goods and services, and consumers began to buy more products than before, which, in turn, created new jobs.

According to the Future of Jobs Report 2018 by the World Economic Forum, 75 million jobs are expected to disappear by 2022 in 20 major countries. At the same time, the report gives an optimistic forecast that the technological progress may also create 133 million new jobs thanks to the “new division of labor between humans, machines and algorithms”. The set of skills required for both old and new professions will change in most industries, transforming work methods and environments. In order to benefit from such changes, at least 54% of all employees will need retraining and advanced training by 2022. U.S. experts have already calculated that transferring 95% of workers at risk to new jobs through retraining could cost more than \$34 billion.

However, before moving masses of people from one sector to another, planning investments and training millions of new specialists in yet unknown new directions, it is necessary to strategically rethink which specific areas of the job creation can bring maximum social benefits. Many believe that the market will require professions that are related to construction (including roads), as well as the oil and gas and other extractive industries. Based on their market research, analysts of the Russian portal HeadHunter believe that the list of the most demanded professions now and in the near future will include porters, laborers, electricians, order

pickers, fitters, and other existing specialties. Experts at the Russian HR Development recruitment agency believe that in the coming years specialties related to robotics, innovative crop cultivation and harvesting, and new industrial technologies will be the most promising. Workers will not be needed as much as IT specialists and engineers who will write software for robots and be responsible for their maintenance since robots will do most of mechanized work.

It seems that these two positions can be reconciled – artificial intelligence and advanced robotics will require basic technological skills from all groups of specialists, including ordinary workers without a higher education diploma. Yet, if we leave aside such exotic professions as a drone pilot, who should be trained first in countries that are not technologically advanced? Each country apparently has its own priorities. For Kazakhstan, there is an urgent need for the development of a clean energy economy, which, if effectively promoted, can provide employment opportunities for a considerable quantity of workforce, from unique working professions to supporting services, giving them an opportunity to participate in creating a safer, inclusive and sustainable society.

Green economy is based on zero-carbon energy sources, develops energy-efficient products and works under more environmentally friendly standards, thus it is most socially oriented. This is particularly important for Kazakhstan, especially after the recently held EXPO-2017, which focused on the theme of “Energy of the Future”. The government was tasked with meeting half of domestic energy needs using renewable sources until 2050, although in 2018 such sources accounted only for 1% of power generation in the country. Meanwhile, experts believe that for Kazakhstan, which is one of the least energy efficient nations in the world, improving energy efficiency and greenery planting are among key factors of competitiveness.

Analysts determined that the transition to a clean energy economy would include 320 unique occupations in such areas as clean energy production (energy production, transmission and distribution), energy efficiency (energy efficient products, energy efficient buildings, and energy efficiency services) and environmental management (environmental management, conservation and regulation). Therefore, for example, not only operators of power stations and wind turbine technicians are involved in the clean

energy production sector, but also workers engaged in the construction, installation, operation and maintenance of alternative electrical networks. This sector also includes workers who produce components for the production of clean energy, such as wind turbines, solar photovoltaic panels, transformers, batteries, and meter readers, as well as office workers, operations managers, and other business operations specialists.

In the energy efficiency sector, which produces new products, the production of the widest range is involved – from home appliances to cars, as well as the construction industry as one of the largest energy consumers. Here we need electricians and mechanics of ventilation and air conditioning systems, architects, civil engineers, and business experts.

The environmental management sector regulates environmental issues and is responsible for reducing greenhouse gas emissions and promoting the efficient use of energy and the preservation of natural resources. Waste treatment specialists, collectors, operators of wastewater treatment plants, environmental protection workers, environmentalists, engineers, technicians and city planners, as well as legislators and regulators responsible for legal aspects, are included in the cohort of relevant specialists in this sector.

In total, U.S. clean energy researchers identified 113 different professions in the production of clean energy, which gave their country about 1.3 million jobs; 172 professions for energy efficiency, which provided work to about 4.4 million workers; and 186 professions for environmental management producing about 877,000 jobs.

Apparently, the creation of new curricula and the modernization of existing ones in the field of energy at all levels of education and professional training should be a priority, including short-term courses for personnel retraining. The transition to clean energy is of particular importance, since it will not only contribute to the sustainability of the country’s economy, expand the labor market and create new technological opportunities, but will also have enormous socio-economic effects for residents of all the regions of Kazakhstan without exception, as a solution to one of the most pressing problems for the nation’s welfare and health.

Written by Gulnar Nadirova,  
Eurasian Research Institute, Kazakhstan

## Politics, Foreign Affairs, and Security

- During his visit to Turkey, NATO Secretary General Jens Stoltenberg held talks with Turkish President Recep Tayyip Erdogan and Foreign Minister Mevlut Cavusoglu on the security situation in the region and Ankara's contribution to the alliance's collective defense. The parties also discussed Turkey's plan to purchase the Russian S-400 surface-to-air missile system.
- During the official visit to Turkey, Foreign Minister of Kyrgyzstan Chingiz Aidiarbekov met with his Turkish counterpart Mevlut Cavusoglu to discuss major issues of bilateral relations. Aidiarbekov also held talks with Turkish Minister of National Defense Hulusi Akar to review prospects for cooperation between the two countries in the military and military-technical fields.
- Tajikistan officially started its chairmanship of the OSCE Forum for Security Cooperation. According to the program of the Tajik chairmanship, Dushanbe will focus its attention on politico-military aspects of regional security in Central Asia, the management of the small arms and light weapons and stockpiles of conventional ammunition, and the strengthening of cooperation between the OSCE and other regional organizations.
- During his working visit to Austria, Foreign Minister of Kazakhstan Beibut Atankulov met with OSCE Secretary General Thomas Greminger, Director-General of the UN Office in Vienna Yuri Fedotov, IAEA Director General Yukiya Amano, and Executive Secretary of the Comprehensive Nuclear-Test-Ban Treaty Organization Lassina Zerbo. The parties discussed prospects for deepening Kazakhstan's partnership with these international organizations.
- The Central Election Commission of Kazakhstan registered seven candidates to run for the presidency. The list includes Kassym-Jomart Tokayev (nominated by the Nur Otan Party), Sadybek Tugel (Uly Dala Qyryndary Association), Amangeldy Taspikhov (Federation of Trade Unions), Daniya Yespayeva (Ak Zhol Democratic Party), Toleutay Rakhimbekov (Auyl People's Democratic Patriotic Party), Zhambyl Akhmetbekov (Communist People's Party), and Amirzhan Kossanov (Ult Taghdry Movement).
- 231 nationals of Kazakhstan, including 156 children, 18 of whom are orphans, were evacuated from Syria. The evacuation was part of Operation Jusan, a large-scale humanitarian effort that started in January at the initiative of President Nursultan Nazarbayev. All returnees will be provided medical, psychological and social assistance from the government and nongovernmental organizations.
- The second round of Uzbekistan-China consultations on consular and legal issues was held in Tashkent. The delegations discussed the current state of mutual cooperation in the consular and legal sphere, in particular the implementation of the bilateral consular agreement, and reviewed the draft of an intergovernmental agreement on the simplification of visa procedures for representatives of business circles of the two countries.

## Economy, Finance, and Energy

- The railway authorities of Azerbaijan, Russia and Turkey signed a memorandum of understanding in Ankara to generate more economic activity on the Baku-Tbilisi-Kars railway. The trilateral deal aims to increase the volume of cargo transportation through boosting commercial operations along the 829-km railway inaugurated in October 2017.
- The 11<sup>th</sup> meeting of the intergovernmental Turkmenistan-Russia commission on economic cooperation was held in Ashgabat. The parties discussed key aspects of bilateral relations, focusing on trade and economic issues, as well as prospects of mutually beneficial cooperation in the industrial, construction, transport, oil and gas, gas chemical and electric power sectors.
- The sixth meeting of the Uzbekistan-Italy intergovernmental working group on trade, economic and industrial cooperation and export credits was held in Rome. In particular, the delegations discussed Italy's interest in enhancing cooperation with Central Asia, including through China's Belt and Road Initiative. During the subsequent business forum, Italian officials and representatives of business circles learned about Uzbekistan's investment potential.
- According to the World Gold Council, in the first quarter of 2019, Uzbekistan was the world leader in gold sales, with 6.2 tons sold, followed by Mongolia (3.4 tons) and Tajikistan (1 ton). Russia purchased 55.3 tons of gold bringing its gold reserves to 2,168.3 tons and became the main buyer of gold, ahead of Turkey (40.1 tons), China (33 tons) and Kazakhstan (11.2 tons).
- According to Kazakhstan's Ministry of Agriculture, the country exports 113 types of food and agricultural products to China, including 16 types of livestock products, 16 types of crop products and 81 types of processed products. The leading export items are wheat, vegetable oil, oil seeds, fibers, flour, soy and fish, while mutton and honey were exported for the first time in 2018.
- Tajikistan launched the trade portal ([www.tjtrade.tj](http://www.tjtrade.tj)), containing information about the country's trade system, and import and export regulations. The online platform is aimed at facilitating trade and investment operations for foreign and domestic representatives of the private sector. The project was implemented with support from the International Trade Centre, the Swiss government, UNCTAD, UNDP and the OSCE.
- The Eurasian Economic Commission and the World Intellectual Property Organization signed a memorandum of understanding in Geneva. The document aims to enhance cooperation between the organizations in the protection and enforcement of intellectual property rights. The parties agreed to exchange information and work jointly in developing recommendations and resolving disputes in this field.

## Society and Culture

- A ceremony devoted to the opening of a monument to Kazakh World War II hero Aliya Moldagulova was held in St. Petersburg. During the war, Aliya was a sniper and eliminated 78 enemy soldiers and officers before being mortally wounded in January 1944. Kazakh sculptor Yedige Rakhmadiyev is the author of the monument made of granite and bronze from Kazakhstan.
- The second meeting of officials in charge of information and media of the Turkic Council member states was held in Baku to discuss issues related to generating common content about history, culture and contemporary life of the Turkic World. During the meeting, national TV channels of the Turkic-speaking countries signed a cooperation protocol.
- Composers from Azerbaijan, Kazakhstan, Kyrgyzstan, Turkmenistan, Bashkortostan and Tatarstan gathered for their traditional annual event held by TURKSOY in the Turkish town of Bey-pazari. During the event aimed to foster interaction and cooperation among composers of the Turkic World, the participants had an opportunity to work together on their compositions and share experience.
- The Caspian Ecological Service of Turkmenistan started to conduct environmental monitoring of the Turkmen Caspian Sea coast and territorial waters. The agency that has a mobile environmental laboratory and stationary monitoring posts inspects enterprises and organizations of all forms of ownership to control compliance with the country's environmental legislation and the rational use of land and water resources.
- During a workshop in Dushanbe organized by Tajikistan's Ministry of Economic Development and Trade with support from the UN Food and Agriculture Organization and the EU, the inter-agency working group presented a draft of the country's national food safety strategy. The document will serve as a comprehensive, step-by-step plan for strengthening Tajikistan's food quality control system.
- OSCE Representative on Freedom of the Media Harlem Desir called on the government of Tajikistan to reinstate full and unrestricted access of Tajik citizens to numerous national and international web resources. According to reports, most online news media, social platforms, search engines and messenger applications, including Facebook, Twitter, YouTube, WhatsApp, Viber, and Telegram, are intermittently blocked.
- Kyrgyzstan will join for the first time the Child Friendly Cities Initiative contest with a prize fund of 6 million soms. The Kyrgyz State Agency for Youth Affairs, Physical Culture and Sports and the UN Children's Fund plan to evaluate the situation in the country's 18 cities and towns regarding the well-being of children and young people, including access to education, health services, safety, etc.