



ATLAS
OF NEW
PROFESSIONS
AND COMPETENCIES
IN KAZAKHSTAN

№
05

TOURISM

ATLAS OF NEW PROFESSIONS AND COMPETENCIES OF KAZAKHSTAN

2020

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MINISTRY OF LABOR
AND SOCIAL PROTECTION
REPUBLIC OF KAZAKHSTAN



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DEVELOPING
WORK SKILLS
AND STIMULATING JOBS



ATLAS
OF NEW
PROFESSIONS
AND COMPETENCIES
IN KAZAKHSTAN





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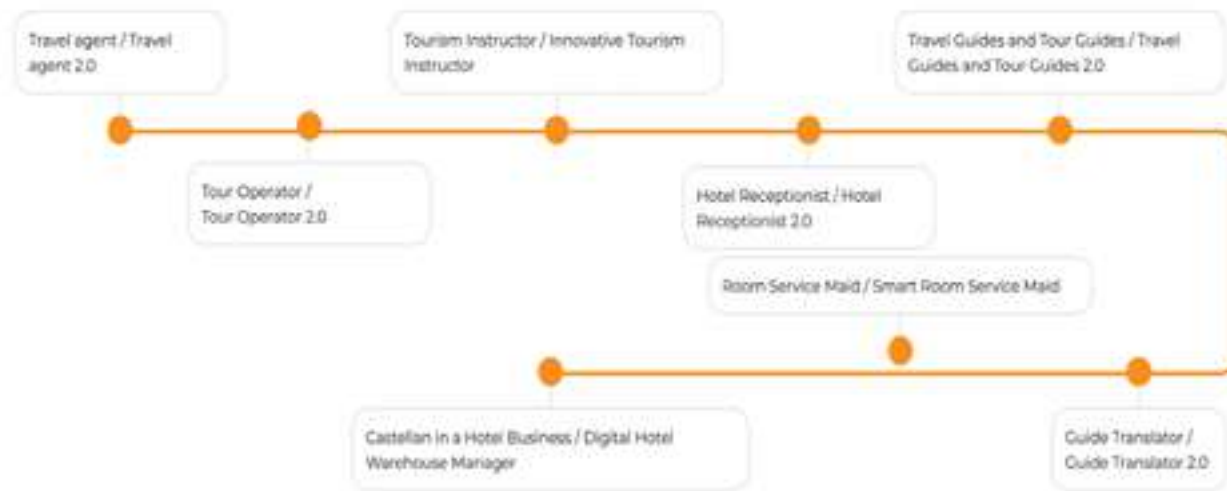
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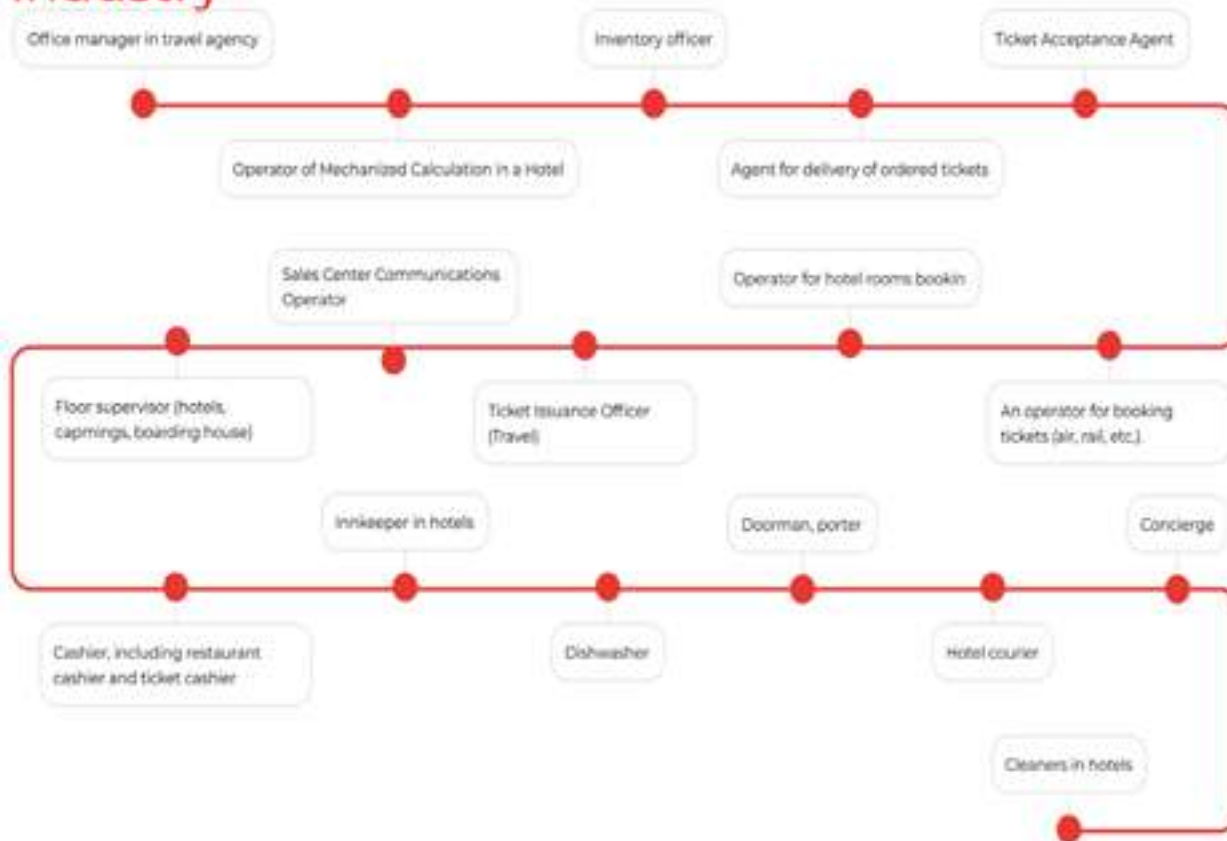
LIST OF ABBREVIATIONS

- ▶ **3D** – 3-dimensional (three-dimensional)
- ▶ **AI** – artificial intelligence
- ▶ **AR** – augmented reality
- ▶ **ICT** – information and communication technologies
- ▶ **IIAP** – International Independent Institute for Agrarian Policy
- ▶ **ILO** – International Labour Organization
- ▶ **IT** – information technologies
- ▶ **IoT** – Internet of Things
- ▶ **KTA** – Kazakhstan Tourism Association
- ▶ **LLP** – limited liability partnership
- ▶ **MES RK** – Ministry of Education and Science of the Republic of Kazakhstan
- ▶ **MICE** – meetings, incentives, conferences, events (business tourism industry)
- ▶ **MNE RK** – Ministry of National Economy of the Republic of Kazakhstan
- ▶ **RF** – Russian Federation
- ▶ **RK** – Republic of Kazakhstan
- ▶ **R&D** – research and development
- ▶ **OTA** – online travel agency
- ▶ **TVET** – technical and vocational education and training
- ▶ **UNWTO** – United Nations World Tourism Organization
- ▶ **VR** – virtual reality (virtual reality)
- ▶ **WEF** – World Economic Forum
- ▶ **WTTC** – World Travel & Tourism Council

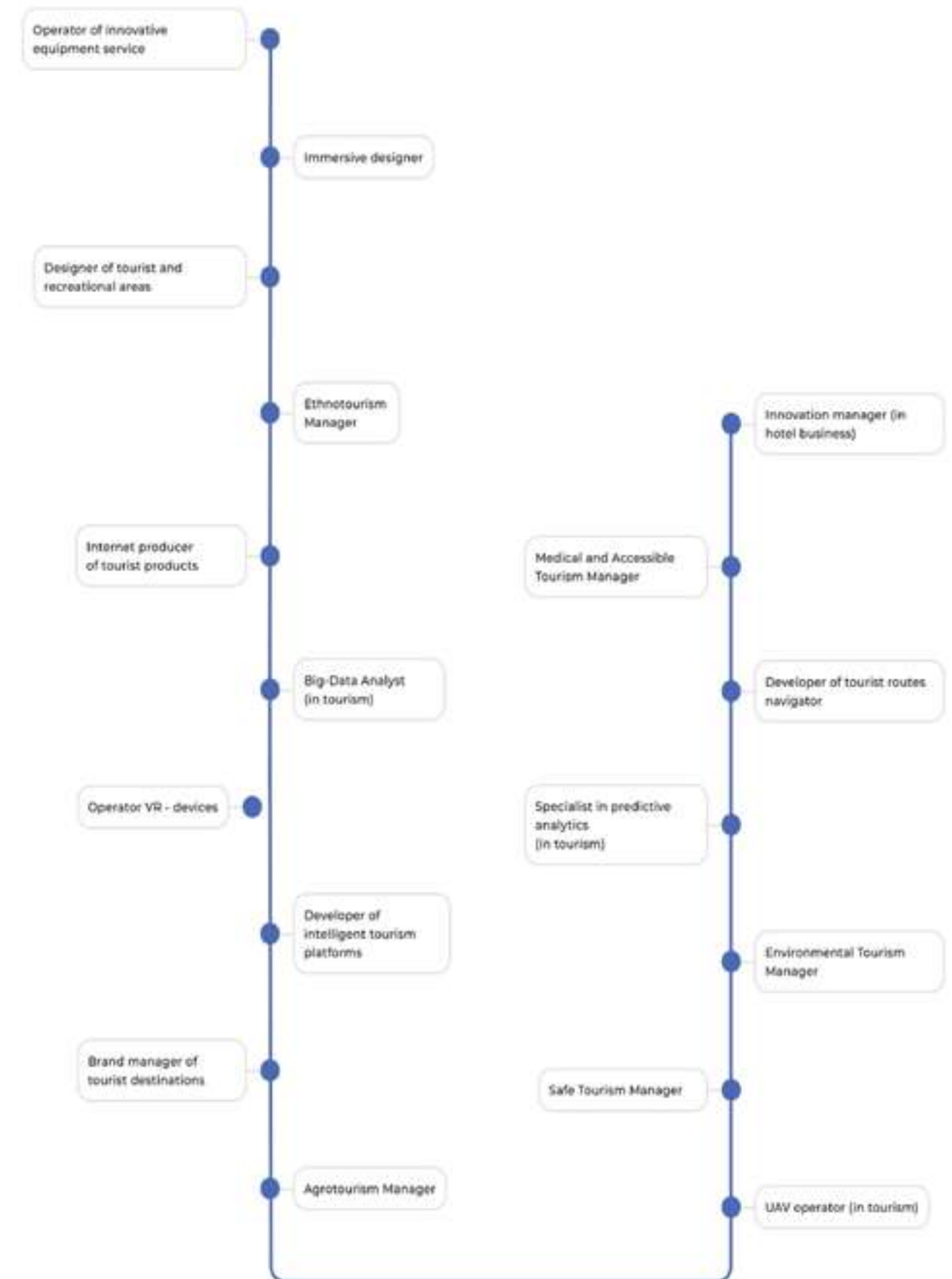
Transforming professions in the tourism industry



Disappearing professions in the tourism industry



New professions in the tourism industry





NAVIGATING THE ATLAS OF NEW PROFESSIONS

1.





NAVIGATING THE ATLAS OF NEW PROFESSIONS

Dear readers!

You've probably noticed how rapidly the world around us has been changing lately. What used to be a pipe dream or even a fantasy is now taking on a real shape. Global trends in recent decades have changed not only cities, our homes, and ourselves, but also the labor market, the professions that we choose.

Remember, not so long ago we were looking forward to the arrival of the postman with a long-awaited letter. Now, to send a message to another continent, one click is enough, and the recipient receives it at the same moment.

And what happened to that large army of previously sought-after postmen, where are they now? They are in the same place where chimney sweeps, skittles, and cabmen... There is a possibility that today the most promising professions will also cease to be relevant at the most unexpected moment. Therefore, now, in order not to increase the army of unneeded specialists, one should take it very seriously choosing their future profession or getting a new specialty when changing a job.

CHOOSING A PROFESSION WE CHOOSE THE FUTURE.

Choosing a profession is one of the most challenging steps in the life of each of us. Of course, we all want the future job to bring both pleasure and financial well-being and benefit others.

Nobody wants to make a mistake; we want to choose a profession that would be relevant in 10 or 20 years.

The Atlas of New Professions is designed to help in this process. It is based on the methodology of forecasting the future based on technological foresight.

Our Atlas will help you figure out which professions will emerge, and which will be transformed or even disappear in the next 10-15 years.

THE PURPOSE OF THE ATLAS OF NEW PROFESSIONS IS TO HELP YOU UNDERSTAND

You will also have the opportunity to make a list of the most-in-demand skills for building a successful career in the future.



IN THE ATLAS OF NEW PROFESSIONS YOU WILL FIND DESCRIPTIONS OF THREE GROUPS OF PROFESSIONS

NEW PROFESSIONS

– professions that don't officially exist yet, but are likely to appear in the near future.

TRANSFORMING PROFESSIONS

– these are already existing professions and specialties that, most likely, will change significantly.

DISAPPEARING PROFESSIONS

— these are the professions and specialties that will most likely disappear in the nearest future.

THE STRUCTURE OF THE ATLAS

TO MAKE IT EASIER TO NAVIGATE THROUGH THE SECTIONS OF THE JOURNAL, WE WILL BRIEFLY INTRODUCE YOU TO WHAT INFORMATION YOU WILL FIND IN EACH PART

TOURISM INDUSTRY IN THE ECONOMY OF KAZAKHSTAN	<p>This section provides</p> <ul style="list-style-type: none">▶ Assessment of the role of tourism in the development of the country's economy▶ Analysis of the current state of the industry and major achievements over the past 10 years.
THE FUTURE OF TOURISM THROUGH THE EYES OF THE INDUSTRY EXPERTS	<p>Here you will learn about</p> <ul style="list-style-type: none">▶ key takeaways from the interviews with leading industry experts,▶ industry development forecasts for the next 10 — 15 years.
TRENDS AND TECHNOLOGIES SHAPING THE FUTURE OF TOURISM IN KAZAKHSTAN	<p>An important section of the journal where you can learn about</p> <ul style="list-style-type: none">▶ leading trends that have the greatest impact on the development of the industry,▶ results achieved through the introduction of advanced technologies.
THE FUTURE IS NOT “OVER THE MOUNTAINS”. WHAT WILL BE THE FUTURE FOR TOURISM?	<ul style="list-style-type: none">▶ A very interesting section for those who want to look into the future of the tourism industry,▶ and most importantly, this section will help you decide whether you want to be a part of this future or not
WHAT SKILLS AND COMPETENCIES ARE NECESSARY FOR A SUCCESSFUL CAREER?	<ul style="list-style-type: none">▶ here you will learn the difference between competencies and skills;▶ you will understand what skills you first need to develop to be successful in the profession.
WHAT SHOULD I STUDY?	<p>A key section of the journal that provides detailed information about</p> <ul style="list-style-type: none">▶ new,▶ transforming and▶ disappearing professions.
WHERE SHOULD I GO TO STUDY?	<p>This section will help you</p> <ul style="list-style-type: none">▶ to determine which universities prepare professionals for the tourism industry;▶ find out where you can get trained for new professions.

COMPETENCIES OF THE FUTURE

To help you understand how to use the Atlas of New Professions, we have built its structure for each industry according to a universal model.

LEADING TRENDS:

1. spreading the introduction of robots and smart systems;
2. expanding the scope of digitalization and Big Data;
3. improving the efficiency of resource management in the industry;
4. increasing requirements for environmental friendliness of services provided;
5. changing needs and requirements of a new generation of employees;
6. changing consumer preferences.

PROFESSION GROUPING FILTERS:

1. industry (nine industries);
2. new\ transforming\ disappearing professions;
3. trends;
4. skills and competencies.

BASIC AND SPECIALIZED SKILLS:

1. lean manufacturing;
2. customer focus;
3. multilingualism and multiculturalism;
4. cross-industry communication skills;
5. artistic skills;
6. programming/ robotics/ artificial intelligence;
7. self-development and adaptability;
8. systemic thinking;
9. process and project management;
10. environmental thinking.

At the heart of forecasting professions in all industry sectors the Atlas contains six leading trends that have the greatest impact on the development of the industry and the country's economy as a whole.

For the convenience of working with Atlas materials, you can use filters that will help you quickly find and choose the right profession.

To describe new professions, we use ten basic specialized skills that are necessary for building a successful career and laying the foundations of professional competencies.

WHAT WILL HAPPEN TO TRANSFORMING AND DISAPPEARING PROFESSIONS?

WHY DO PROFESSIONS CHANGE OR DISAPPEAR?

This happens under the influence of scientific and technological progress. New technologies, automation and digitalization can replace not only the profession of heavy manual labor, but also mental jobs.

HOW SOON WILL THIS HAPPEN?

The process of transformation of professions has already started and its scale will only increase. Some professions will gradually disappear. Therefore, the specialists have time to choose their future professions.

WHERE WILL IT LEAD?

There will be job cuts and increased requirements for existing professions. You will need to make a choice: master additional professional competencies or retrain for a new profession.

HOW TO STAY A SPECIALIST IN DEMAND?

It is necessary to improve constantly your professional level, master new skills and competencies, as well as monitor trends in the labor market.

WHAT ARE THE BENEFITS OF THIS PROCESS?

The professions associated with monotonous, routine work will disappear. They will be replaced by new jobs, where specialists with the competencies and skills of the future will be in demand.



ATLAS OF NEW PROFESSIONS AND COMPETENCIES IN KAZAKHSTAN



Engineering

A branch of the economy that designs, manufactures, maintains, and disposes of all kinds of machines, process equipment, and their parts



Agricultural industry

A branch of the economy that focuses on the production, storage and processing of food (foodstuffs) and raw materials for a number of industries



IT

A sector of the economy that seeks, collects, stores, processes, transmits, and provides useful information through technical means



MMC

A set of related industries and stages of the production process from the extraction of raw materials to the production of finished products-ferrous and non-ferrous metals and their alloys



Energy

A branch of the economy that generates, converts, distributes, and uses all types of energy resources



Oil and gas

Branch of the economy engaged in the extraction, processing, storage and sale of useful natural resources — oil and related petroleum products



Transport and logistics

A branch of the economy that transports passengers, as well as a transport management system (logistics) to optimize cargo and passenger flows



Tourism

A branch of the economy that organizes trips of a person or group of people to another country or area other than the place of residence of the travelers, to get acquainted with the way of life, architecture, gastronomy, nature, etc.



Construction

Branch of the economy that carries out the design, creation (construction) of buildings, structures, structures, as well as performing their major and current repairs





TOURISM INDUSTRY IN THE ECONOMY OF KAZAKHSTAN

2.





TOURISM INDUSTRY IN THE ECONOMY OF KAZAKHSTAN

Tourism is one of the priority sectors, acting as a catalyst for the socio-economic development of Kazakhstan. Tourism has a powerful multiplier effect on the development of all related infrastructure. According to the World Tourism Organization (UNWTO), nowadays tourism is one of the most profitable and dynamic sectors of the world economy.

GRADUATES OF HIGHER EDUCATION INSTITUTIONS BY DIRECTIONS

394

majoring in «Restaurant and Hospitality Business»

227

majoring in «Tourism»

GRADUATES OF TVET INSTITUTIONS BY DIRECTION

911

majoring in «Organization of hotel services»

797

majoring in «Tourism»

NUMBER OF EMPLOYEES AND SALARY

TRAVEL AGENCIES AND OPERATORS

7,4

thousand people

AVERAGE MONTHLY SALARY
95 THOUSAND TENGE



TEMPORARY RESIDENCE PLACES

29,2

thousand people

AVERAGE MONTHLY SALARY
124 THOUSAND TENGE



HEALTH-RESORT ORGANIZATIONS

8,0

thousand people

AVERAGE MONTHLY SALARY
90,7 THOUSAND TENGE



NUMBER OF VISITORS

10,7

million people

OUTBOUND TOURISM



8,8

million people

INBOUND TOURISM



5,9

million people

INTERNAL TOURISM



NUMBER OF ACCOMMODATION FACILITIES 3 592

5-star

24 units

4-star

71 units

3-star

85 units

2-star

15 units

1-star

10 units

Uncategorized

1 890 units

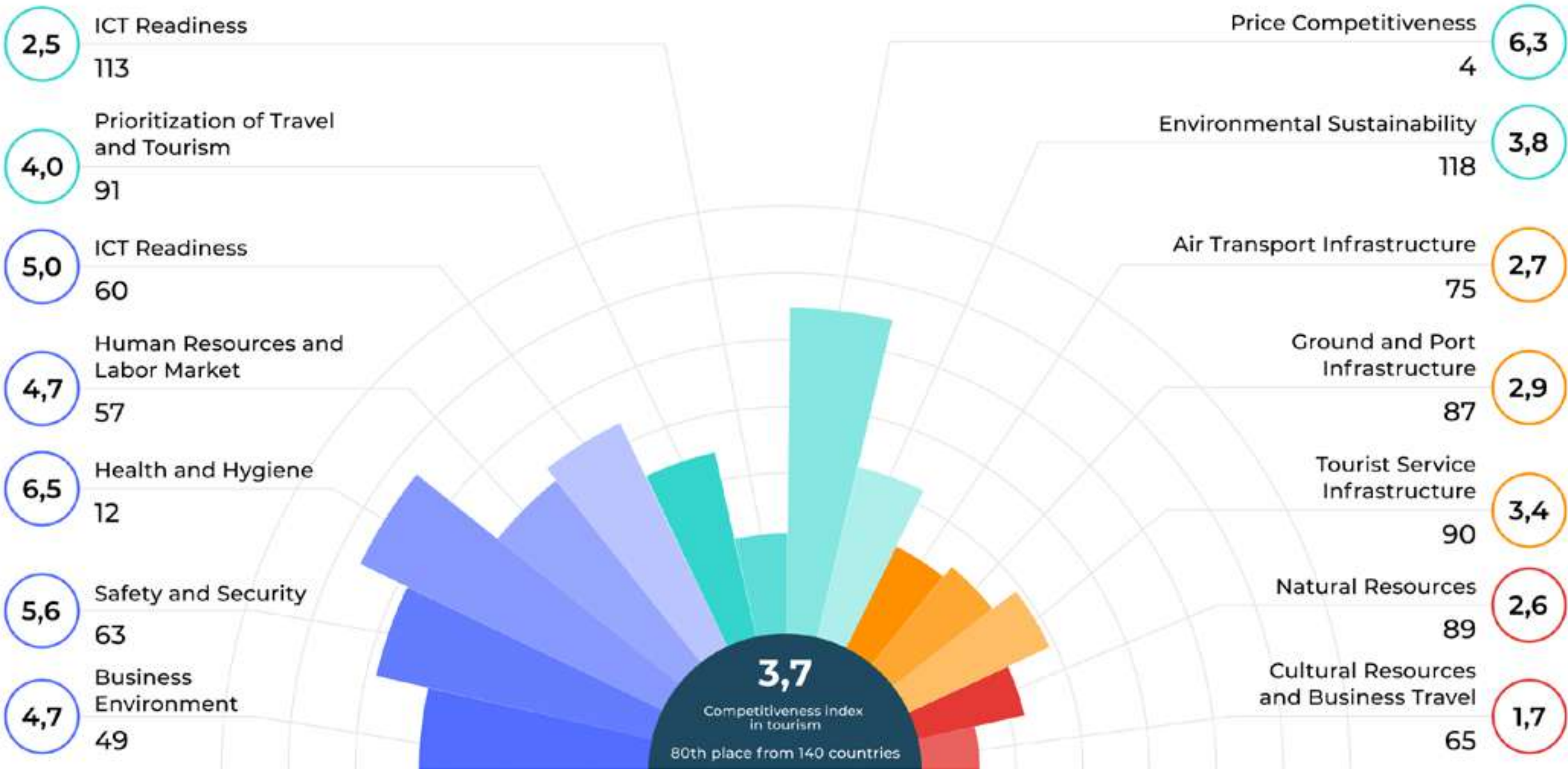
Other places of accommodation

1 497 units

NUMBER OF VISITORS SERVED BY

- accommodation facilities – 6,3 million people
- resort areas – 1,2 million people
- museums – 6,8 million people

KAZAKHSTAN IN THE WORLD TOURISM COMPETITIVENESS INDEX¹



¹ World economic forum, Travel and tourism competitiveness index 2019. — URL: <http://reports.weforum.org/travel-and-tourism-competitiveness-report-2019/country-profiles/>.

PLACES IN KAZAKHSTAN INCLUDED IN THE LIST UNESCO WORLD HERITAGE

CULTURAL SITES:

- ▶ Mausoleum of Khoja Ahmed Yasawi.
- ▶ Petroglyphs within the Archaeological Landscape of
- ▶ Tamgaly.
- ▶ The Silk Road: the routes network the Chang'an-Tianshan corridor.

NATURAL OBJECTS (CROSS-BORDER PROPERTY)

- ▶ Saryarka – Steppe and lakes Northern Kazakhstan.
- ▶ Western Tien-Shan.

PRIORITY DESTINATIONS, THE ACTIVE DEVELOPMENT OF WHICH IS FIXED BY THE STATE PROGRAM FOR THE DEVELOPMENT OF THE TOURIST INDUSTRY OF KAZAKHSTAN FOR 2019-2025:

- ▶ Mountain cluster of the Almaty region - with a potential of 2.5 mn. tourists per year.
- ▶ Lake Alakol - with a potential of 2 mn. tourists per year.
- ▶ Shchuchinsko-Borovsk resort area - with a potential of 2 mn. tourists per year.
- ▶ Development of historical and cultural tourism in Turkestan - with a potential of 1.5 mn. tourists per year.
- ▶ Development of MICE tourism in the city of Nur-Sultan - with a potential of 1 mn. tourists per year.
- ▶ Development of beach tourism
- ▶ in Mangystau - with a potential of 750 thousand tourists per year.
- ▶ Bayanaul resort area - with a potential of 450 thousand tourists per year.
- ▶ Imantau-Shalkar resort area - with a potential of 400 thousand tourists a year.
- ▶ Balkhash Lake - with a potential of 400 thousand tourists per year.
- ▶ Development of the Baikonur tourist zone as an entertainment tourist hub - with a potential of 250 to 500 thousand tourists per year.

Tourism is one of the most dynamically developing sectors of the world economy. Kazakhstani touristic sights are not widely represented on the world tourism market though they have unique natural characteristics and objects of cultural and historical heritage. Our country has a vast potential to occupy a worthy place in world tourism.

Of the 1,121 UNESCO world heritage sites, five belong to Kazakhstan, three of which are cultural heritage sites, and two are natural heritage sites².

But tourism is not only about historical monuments and beautiful places, it is also a good infrastructure, a high level of service, ensuring tourists' safety during traveling, and much more.

Tourism in Kazakhstan is not yet a highly profitable industry and is not an attractive investment area. Tourism services account for only 1.8 % of the country's GDP. Despite this, there are positive changes in the tourism sector. For the last year, the volume of services provided by various companies in the tourism sector increased by 17 %, the flow of visitors to the inbound tourism grew up by 14 %, and by 5.6 % raised the expenses of foreigners on trips to Kazakhstan. The number of tourist accommodations, cultural and entertainment facilities is growing in the country, new thematic exhibitions and parks appear, and tourist destinations are developing.

According to the World Economic Forum, in 2019 Kazakhstan ranked 80th out of 140 countries in the world index of competitiveness in tourism, improving the indicator by one position compared to 2017.³

includes the tourism sector among the priority sectors of the country's economy and pays great attention to its development:

- ▶ the top 10 tourist attractions have been identified as key territories for tourism development;
- ▶ work is underway to implement the e-visa system;
- ▶ special measures improve the safety of tourists in the country and provide them with professional advice;
- ▶ the on-going initiative «Kids go free» provides free air travel for children under 16 years of age, provided that they rest during the holidays in Kazakhstan's resorts.

² In 2019, the UNESCO world heritage List included 1,121 sites in 167 countries, of which 869 are cultural heritage sites, 213 are natural and 39 are mixed heritage sites. — URL: <https://whc.unesco.org/en/list/>.

³ World economic forum, Travel and tourism competitiveness index 2019. — URL: <http://reports.weforum.org/travel-and-tourism-competitiveness-report-2019/country-profiles/>.

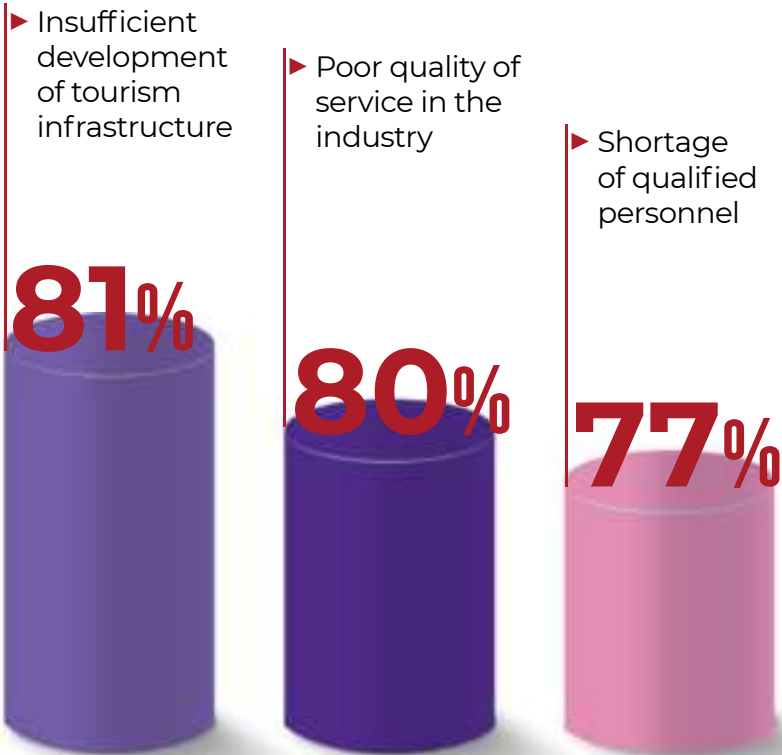
CURRENT
INDUSTRY PROBLEMS

Tourism is the most important industry in the country, which has global objectives. At the same time, the close interaction of a large number of different companies characterizes the tourism sector.

Providing services, these companies face many internal and external problems that have a direct impact on the effectiveness of their activities. Without timely and competent solutions, the further development of the industry will be challenging.

According to industry experts, two groups of problems have the most significant impact on the tourism sector development: services and personnel.

THE LACK OF A DEVELOPED TRANSPORT INFRASTRUCTURE, POOR QUALITY OF SERVICES PROVIDED, AND A SHORTAGE OF QUALIFIED PERSONNEL HINDER TOURISM DEVELOPMENT IN THE COUNTRY.



DEVELOPMENT
OF TOURIST INFRASTRUCTURE

The development of tourist infrastructure has a significant impact on the competitiveness of tourist destinations and the volume of tourist flows.

By the end of 2019, there were 2,095 hotels, 84 holiday homes, 80 health resorts, 52 camp spots, 42 campsites and motels in Kazakhstan.

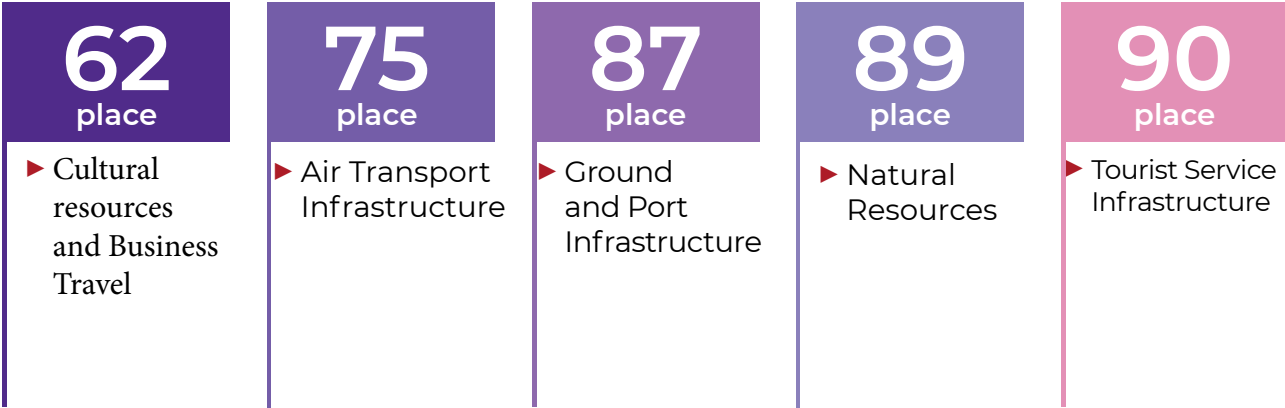
Almost 250 museums, 154 recreation parks, 101 cinemas, 65 theaters, 36 concert organizations, 18 zoos, and three circuses offer tourists cultural and entertainment programs.

At the same time, per 100 thousand visitors to inbound tourism there are about 5

museums, 2 parks, 1 movie theater, and less than one theater, zoo, and circus.

The transport infrastructure comprises 1,000 km total, including 35.3 km of highways with only 30.5 km ways paved. And most rural or mountain tourism sites are not provided with high- quality access roads.

In 2019, Kazakhstan ranks between 65 to 90 places in the global tourism competitiveness index among 140 countries in terms of the level of development of certain areas of infrastructure.



Understanding all this, industry experts, of course, are concerned about the current development of tourist infrastructure in the country, as its current state creates serious issues for them to attract tourists' flows.



SERVICES

According to experts, the low quality of the tourist services provided is the second most important industry problem. Even if there is a well-developed tourist infrastructure that meets all international requirements, the poor quality of services at one stage will lead to a negative assessment of the tourism sector as a whole. Therefore, improving the quality of services in the industry must be addressed comprehensively, starting from marketing promotion of touristic sights, to providing individual services at tourists' request. Industry experts agree that, first of all, the quality of service depends on the professional training of the industry staff.

PERSONNEL

According to experts, the tourism industry is experiencing an acute shortage of qualified personnel at the moment. Experts note that it is very important to deal with tourist destinations, transport, cultural infrastructure, environmental protection, expanding the range of services provided and attracting customers. Also, it is critical to remember about those without whom the tourism industry cannot exist – companies' employees. The service staff is the cornerstone of the tourism industry. Therefore, selection, preparation, and effective personnel management are among the most essential tasks of companies in the industry.

In 2019, Kazakhstan ranked 57th out of 140 countries in the World Tourism Competitiveness Index in human resource development in the labor market.

Highly proficient employees give the company a lot of competitive advantages that affect the efficiency of business and profitability. Experts are concerned about the decline in the level of qualification of personnel.

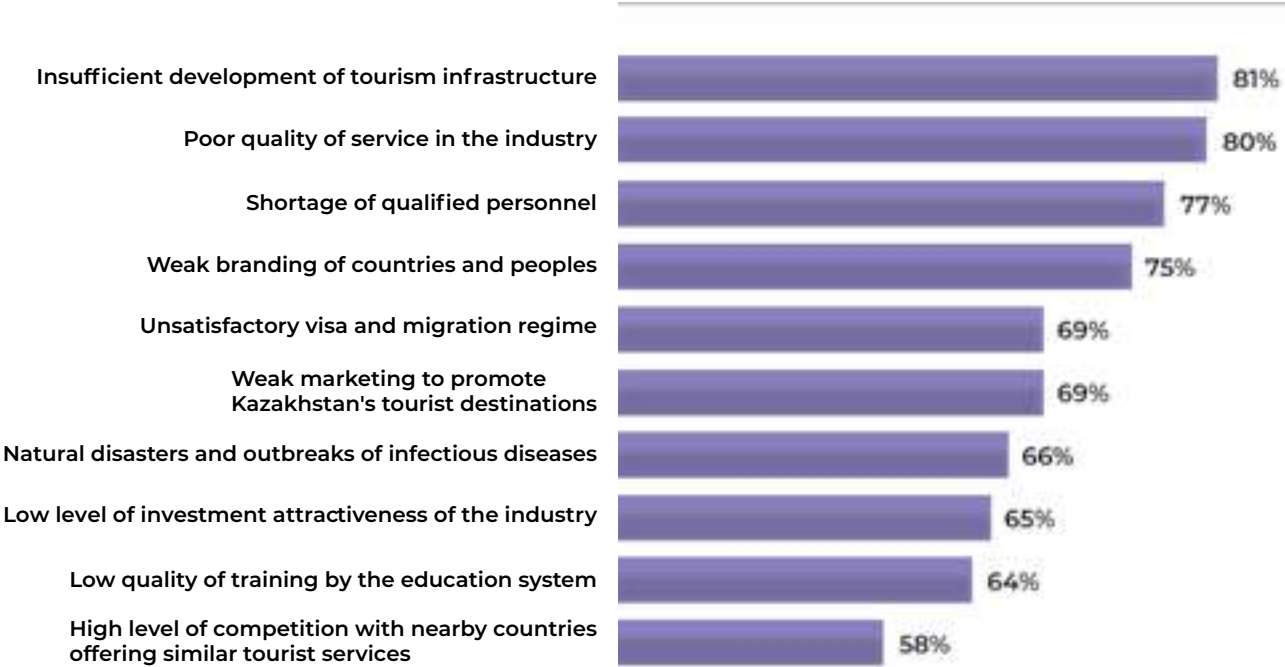
They see a reason for this in the insufficient specialists' training by higher and secondary professional educational institutions and disconnection of study programs with the industry's actual needs.

It is also noteworthy that out of all college graduates of the 2019/20 academic year only 71% received a qualification category,

61% were employed immediately after training, 12% will continue their studies at universities and colleges, and 27% of graduates will independently search for a place to apply their knowledge.

Consequently, more than a quarter of college graduates will find a job in their specialty only if the profession they have received is in demand in the labor market and if their level of professional training meets the requirements of employers.

Diagram 1. ***Top 10 problems of the current development of the tourism sector in Kazakhstan, which have the greatest impact on its development.***



Source: Survey of industry experts.



THE FUTURE OF TOURISM THROUGH THE EYES OF INDUSTRY EXPERTS

3.



3.1. OPINION OF EXPERTS



**SHAIKENOVA
RASHIDA
RASHIDOVNA**

Director
of the CLE «Kazakhstan
Tourist Association»

Tourism is a multi-vector industry, and many sectors directly or indirectly relate to us. Our Association unites participants of many regions of Kazakhstan; we promote the interests of the Association members, their unique tourist products. We are engaged in the development of ecotourism on the territory of Kazakhstan. We supported construction of 150 hotel buildings.

The main problem in tourism is a personnel issue. Our Association works closely with universities and TVET. First of all, we train teachers, introduce them to new trends, changes in legislation, and do everything to ensure that our teachers are the best professionals keeping up with changes in the market.

We also conduct informational tours for foreign tour operators, foreign journalists, and participate in all exhibitions. If we do not promote ourselves, then no one will know and talk about us.

Over the past 5-10 years, changes in the industry have been quite profound. Participants of the Kazakhstani tourist market have finally understood that it is no longer possible to sell only the nature. Just 2-3 years ago, there was a period that I would call the period of rebooting the tourist market.

The competitive environment of quite successful neighbors around our country comes on our heels, they take away our customers, because they have the opportunity to provide more exciting tourist products. We called this period of rebooting the «return to the roots» because it is necessary to serve «nature» in a conjunction with culture and history. Our nomadic



culture and Turkic civilization are very attractive for tourists. Therefore, we conducted a series of seminars and webinars on the in-depth study of cultural history for market participants and worked on filling our tours with our cultural content.

We have also understood the need for digitalization of the tourism business, which is one of the most critical trends. It allows our market participants to expand their customer base and earn a good income. Only recently have we begun to understand that tourism is primarily a business and it is necessary to develop entrepreneurial skills, teach students economy, financial instruments that they can survive in the market and compete in it.

Today, the same manager of a tourist organization is a one-man band who runs several programs and, sitting in the office, can build any tour to any part of the world, wrap it in an attractive package and sell it to the client. And if our staff is not ready for mastering new technologies, we will lose specialists.

With the development of technology, of course, staff will be reduced because people book their own tickets in the age of the Internet. But I believe that there will always be guides because nothing can never replace alive communication. And a manager's work will receive new content, and they will become a kind of human orchestra shifting to technology managers.



**RAY
INNA
YURIEVNA**

Chairman of the Corporate Fund
«Turistik Kamkor», owner and founder
of the travel company «Sayat»

Any tourism is attractive when it is a full-fledged tourist product, with a high level of quality of all elements of the tour: travel to the country, the appropriate hotel base, ease of licensing procedures, availability and readiness of the tour object itself, transport capabilities, ease of navigation, and other elements. There are no small things in tourism. Attractions themselves cannot be a ready-made tourist product. There are no small things in tourism. Attractions themselves can not be a ready-made tourist product.

TOURISM IS A COMBINATION OF CERTAIN ACTIONS THAT CREATE A TOURIST PRODUCT BY THE STATE AND THE TOURIST COMMUNITY.

We don't have such a tourist product, yet it is at the stage of formation, study, and often even description. At the same time, we must keep in mind that we were late in principle. As a phenomenon, tourism has been actively formed in many countries since the beginning of the 19th century and is still developing very consistently.

Developing tourism in the current markets, we will have to reorient tourists. To do this, we need a whole strategy, which we can use to attract them, to turn the flows in our direction.

ON THE OTHER HAND, WE HAVE SUCH POWERFUL TOOLS THAT HAVE APPEARED RECENTLY AS, FOR EXAMPLE, IT TECHNOLOGIES, NEW TYPES OF MARKETING AND INTEGRATION THAT GENERATE PROCESSES FASTER AND DRAMATICALLY INCREASE OUR CHANCES OF SUCCESS.

Besides, the state is involved in this process, which means that our efforts are multiplying. It is all the more inexcusable that, as time has shown, these efforts often turn out to be void and ineffective. Almost none of the adopted state tourism development programs worked.

To speed up the formation of our own tourism product, we need precise state support tools, e.g., tax preferences for those who develop the infrastructure, a system of financial attractiveness for investments, a system of tax incentives. compensation of tour operators' expenses. Such tools are needed but yet to come.

EXPO-2017 gave our government an understanding of the need to create conditions for the liberalization of permits. But as time has shown, this was not the main incentive to travel to Kazakhstan. EXPO was a ready-made tourist product, but the number of tourists had decreased when the event ended.

WE HAVE SOME TOUR OPERATORS THAT HAVE BEEN ENGAGED IN INBOUND TOURISM QUITE SUCCESSFULLY FOR A LONG TIME. BUT IN GENERAL, THE PROBLEM IS NOT SOLVED.

OUR TRAVEL PRODUCTS ARE POORLY PACKED, WE HAVE NO IDEA WHO IS THE CONSUMER OF OUR SERVICES AND, OF COURSE, DO NOT UNDERSTAND WHAT SERVICES TO OFFER THEM.

Talking about the main problems in the development of tourism, we must also say that we are not ready to accept the main challenge of our time, i.e., the lack of appropriate personnel. We provide courses that are focused

on training and retraining of tour guides. Without diminishing their significance, we still mean something different.

Serious training should be provided to travel product organizers, analysts, special marketologists, financiers, tour destination managers, IT specialists, programmers and researchers in tourism.

We must try to compete with similar services in other countries offering our services more efficiently and professionally.

Today, our tourism is most often provided by those who did not manage to do anything else, on a residual basis. Such a situation does not allow for an adequate tourism policy. Only emerging modern hotels introduce requirements for the qualification of staff.

We need specialists who would understand both tourism and touristic products, as well as IT. And probably, tourism managers will go into the background, clients will form a tour for themselves, while at home or work, but they should be able to maintain a virtual connection with the sale office of tourist services.



**BEKBOEVA
YELENA
TIMUROVNA**

Director of the tourist company «Zhetisu», founder of the online school of tourism

Yelena Timurovna, please evaluate the current development of tourism in Kazakhstan? In your opinion, what key events over the past five years have made the greatest impact on the industry development?

Tourism, as an industry, is just making its first steps in Kazakhstan, and if we compare it with the global touristic sector, we are still somewhere in our infancy. Among the events that have affected the field of outbound tourism in the last five years, I would include according to my experience:

- ▶ the bankruptcy of several major tour operators such as Gulnar Tour, Travel system, Natalie Tours;
- ▶ arrival of some big tour operators from the Russian Federation and Turkey to the market, e.g., Pegas Touristik, Anex tour, Pac Group;
- ▶ the pandemic caused by COVID-19 and the closure of borders, both international and regional.

What trends do you think are currently driving the development of tourism in the world? What trends will have the greatest impact on tourism development in Kazakhstan in the next 10-15 years?

Of course, the primary vector of tourism development will relate to technology. And we must accept this fact and use it to our advantage, or we will have to settle (adjust?) for little. If we talk about specific trends, then, in my opinion, we should note the following:

- ▶ Maximum automation of package tours sales to the most popular destinations, e.g., Turkey, Egypt, Thailand. In other words, on the website of

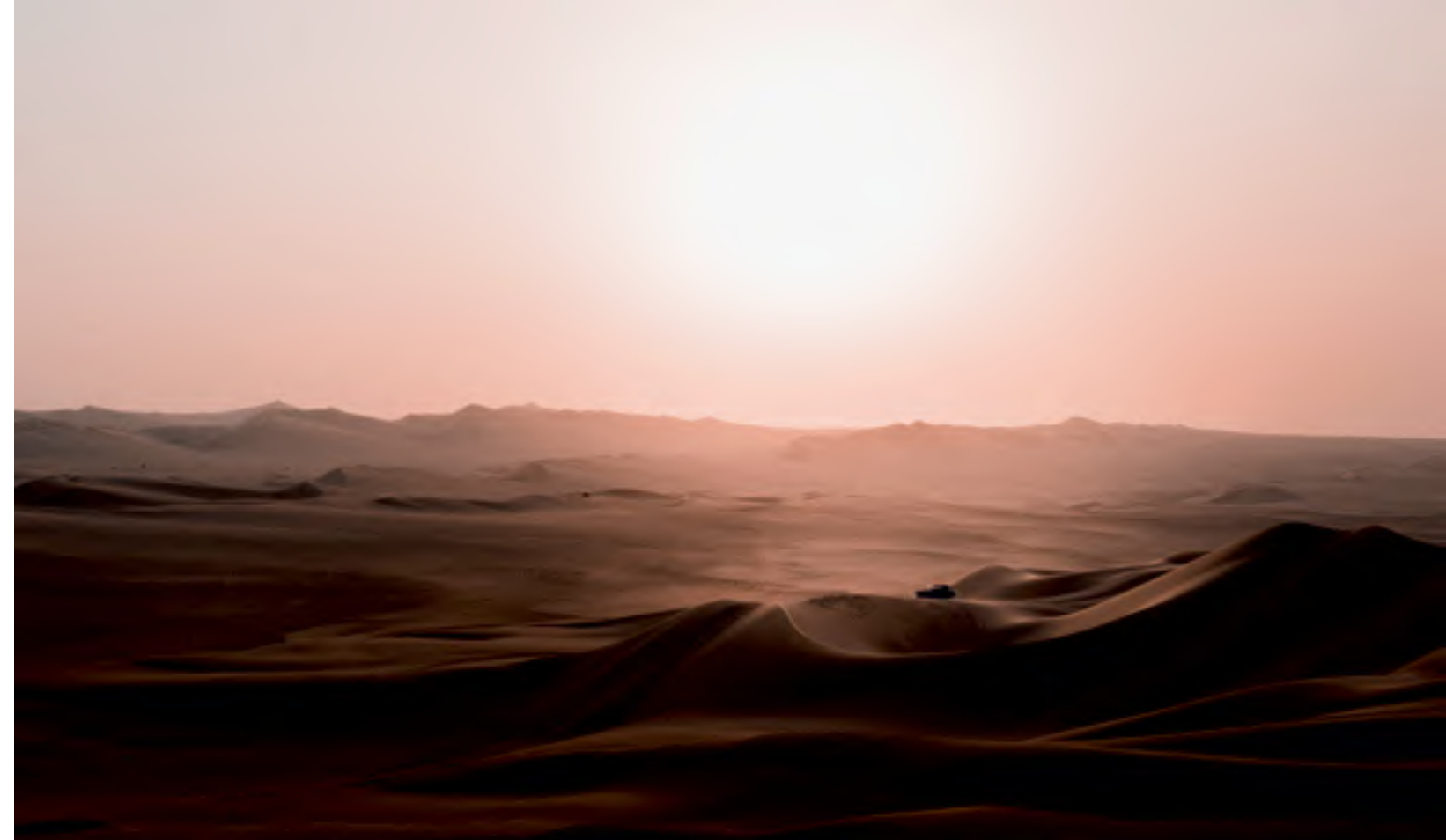
an agency/ operator a tourist selects a tour or other service, pays for it online, and receives documents via email or messenger.

- ▶ In contrast to the first trend, in my opinion, travel consultants will become relevant not as tour sellers, but as holders of valuable information about countries, places of accommodation, attractions, and routes, and, most importantly, able to work with this information by the requests and needs of the tourist.
- ▶ As well as increasing variability in the «assembly» of travel and tours. We are limited by legislation and imperfect technologies, so we often have to do booking of many services by email and make calculations manually. I think that in the near future it will be possible to combine non-standard tours online quickly

and easily.

Yelena Timurovna, in your opinion, which technologies will have a more significant impact on the development of the industry in the near future?

I am not sure that this can be called technology. However it is still a powerful mechanism that now hinders the development of those trends that I have already mentioned – this is the complexity of installation and the high cost of Internet acquiring. And when this service becomes cheaper and easier to install and use, sales automation will increase significantly. There is such a thing in tourism as dynamic packaging. This is the process when the system comprises a tour from a regular flight to a place of accommodation. Currently, this technology is very poorly implemented due to the fact that its full operation requires huge capacities and integration with systems that we are not yet ready



for applying. But over time, I am sure it can be fully implemented and will greatly simplify the lives of both agents and tourists.

The third – it more relates to my personal dream - is to simplify the tours search procedure as much as possible. For example, creating voice control and the results filter, again using voice. Now my colleagues and I spend a lot of time on mechanical operations searching for tours and accommodations.

How do you see the tourism sector in Kazakhstan in 10-15 years?

Everything will depend very much on two main factors: changes in legislation and the epidemiological situation. If the conditions are favorable, the trends and technologies I have mentioned above have every chance for development. This is more than realistic. But this will be possible only if we don't have the severe restrictions currently being imposed.

According to you, the lack of which specialists is the most significant barrier to the development of your company and the industry as a whole? What is the reason for the shortage of these specialists?

In fact, the tourism industry and business in general lack, first of all, concerned and engaged specialists. Also, their specialization and position do not play any role at all. With the proper level of interest and internal motivation, anyone can master every nuance and related areas as they develop. If I lack some knowledge, then I become the specialist who can satisfy this need. Well, I teach other

people as much as possible.

If you look to the future, what new professions may emerge in the tourism industry in the next 10-15 years? Which will lose their relevance or be changed? What competencies will be the most in-demand?

I think that in the tourism business – again, referring to my experience – there will be two main areas: technical specialists supporting search and booking systems, and specialists in working with customers.

Coming back to the question of trends. The first one will ensure the high-quality operation of automatic search systems and booking tours. The second one is the engagement in close work with customers' needs, the choice of specific places, and the formation of individual offers.

Hence, the relevant competencies will be needed, e.g., an understanding of technical processes and administrative skills, application of psychology and knowledge of directions and location specifics.



**TIKENOV
YERKIN
AMANGELDINOVICH**

Director
of «Inside travel» LLP

Yerkin Amangeldinovich, please evaluate the current development of tourism in Kazakhstan? In your opinion, what key events over the past five years have made the greatest impact on the industry development?

The current period of uncertainty is very ambiguous in terms of development prospects. Let's hope to move forward because we have passed the pick of the crisis. I hope that the current lull is a period when the market is lurking before a new leap in development.

Among events of the past five years that influenced the industry are the growth of awareness about Kazakhstan, the liberalization of visa regime during Expo-2017, an intention to open the skyspace, investment in road infrastructure under the Nurly Zhol program and the Nurly Zhol-2 plans. All these are indirect factors, but they have an impact on the competitiveness of tourism.

What trends do you think are currently driving the development of tourism in the world? What trends will have the most significant impact on the industry development in Kazakhstan in the next 10-15 years?

Considering trends, it is worth dividing them into global long-term and regional medium-term ones. International trends of recent years and the next decade, the demand is for sustainable development, environmental friendliness and preservation of natural systems and communities with their authenticity.

From international trends

tourism in recent years and for the next decade, the demand is for sustainable development, environmental friendliness and preservation of natural systems and communities, their authenticity.

The share of online distribution is growing in the structure of sales channels; the need for customers to make non-cash payments in all segments of tourist services is also going up. Online distribution standards have been introduced in Kazakhstan but not yet popular there. The trend for automation is only gaining a foothold in the world and is actively entering the Central Asian market.

The largest transport and hospitality players have long been actively investing in Big Data collection and analysis systems. Small companies have yet to discover the world of data, but they will test hypotheses faster and obtain a competitive advantage.

From the time conditioned trends, I can name the borders' closure and focus on domestic tourism, social distancing, which severely breaks business models, tourist products, and promotion channels.

What technologies do you think will have the most significant impact on the industry development in the near future?

These are tools marketing and sales' effectiveness will gain popularity and the quality of a company's product or service, namely automation, e.g., messenger bots, content creation tools, and sales motivation using AR/VR.

Among long-term trends I see the dominance of travel services

platforms, namely online travel agencies, social networks, geoservices, and search engines, which increasingly occupy significant shares in the travel business.

Technological progress will do the best in tourism verticals where services are more standardized, and there are many big players. And the globalization of the tourist business has already significantly changed the nature of the business, including air transportation, hotel distribution, network placements, dynamic package tours from major operators.

How do you see the tourism sector in Kazakhstan in 10-15 years?

It is difficult to predict what Kazakhstan's tourism industry will be like in 10-15 years. We have made some rosy plans ten years ago. Therefore, it is better to stick to a conservative forecast.

The share of tourism in the economy will not be significant. Still, the volume of services will grow multiple times due to domestic consumption, pushed by the population's income increase and the development of habits to travel locally and abroad. The variety of services cardinal but will not change; the number of suppliers will grow, competition, and quality increase.

It is possible that technological remains lagging behind developed markets if the government does not introduce measures to support the growth of the industry's competitiveness.

According to you, the lack of which specialists today is the

most significant barrier to the development of your company and the industry as a whole? What is the reason for the shortage of these specialists?

In general, companies may lack product managers, marketers, content specialists, technical specialists, and developers who understand the specifics of the industry.

The personnel issue is very acute. The lack of a sufficient number of highly qualified specialists hinders the development of companies and the industry in general. Staff hunger is associated with low wages due to low margins and small guest flows.

If you look to the future, what new professions may emerge in the tourism industry in the next 10-15 years, and which will lose their relevance or be changed? What competencies will be the most in-demand?

New professions for tourism can be architects of new experiences, Big Data analysts, marketers, and narrow developers.

Answering the question about specialties who will disappear or change their profile in the future, I'd like to note that until the work of people costs cheaper than robots', the latter will not come and overcome the industry.

As soon as machines and technologies become cheaper, it will be financially inefficient to hire humans whose work can be replaced by robots. Then the mass transformation of competencies will begin.



WEIMER ALBINA FRIDRIKHOVNA

Director of the Taraz tourist center «Golden caravan», Chairman of the Association of domestic and Inbound Tourism, an international certified guide

Today, in our country, the tourist industry needs to focus and make every effort to develop domestic tourism. Therefore, I think that the main trends that influence the industry transformation are also related to domestic tourism.

The first trend relates to the quarantine restrictions, when people, not able to travel abroad on vacation, paid attention to the beauty of Kazakhstan, how good nature is in our country.

The second trend is the active development of domestic tourism around the world. So, we need to focus on supporting small and medium-sized businesses from the state to develop domestic tourism in Kazakhstan.

The third trend is the need for parents to travel with their children, also within the framework of domestic tourism.

These trends will influence changes in the industry in the future. They are demands of the time, and it is necessary to pay attention to them. We need to invest all our efforts to make the tourist business ready to do what is required, including gaining new experience, certain knowledge, and skills.

In the next ten years, I hope to develop inbound tourism. Kazakhstan is a very beautiful country. Trips to traditional touristic countries are no longer so attractive, and I think it would be more enjoyable for people to visit a country like ours.

In 10-15 years, if everything goes right, Kazakhstan should become a tourist Mecca. I see significant potential for Kazakhstan in the development of agrotourism. I think that people should return to villages



to see the richness of nature, try to cook koumiss themselves and fry six types of boursaks.

And we also need to learn to listen to the opinions of people who have extensive experience in tourism, who want to change something in it. Then tourism will get a chance to develop.

The most urgent matter of the moment is the training of specialists and the shortage of qualified personnel. We definitely need to bring up tour guides. There are also not enough good managers. At the same time, in order to get high-level specialists, it is necessary to involve experienced professionals in training. They are those who have practical knowledge and many years of working background.

Will there be new professions in the field of tourism? I believe that

we have to master the existing professions so that we have professionals, both in management and among guides.

I believe that our industry will have specialists who have knowledge of IT technologies or, for example, who can conduct virtual excursions. At the same time, the most popular and welcomed candidates will be those who enter the tourism field under the guard of their hearts.

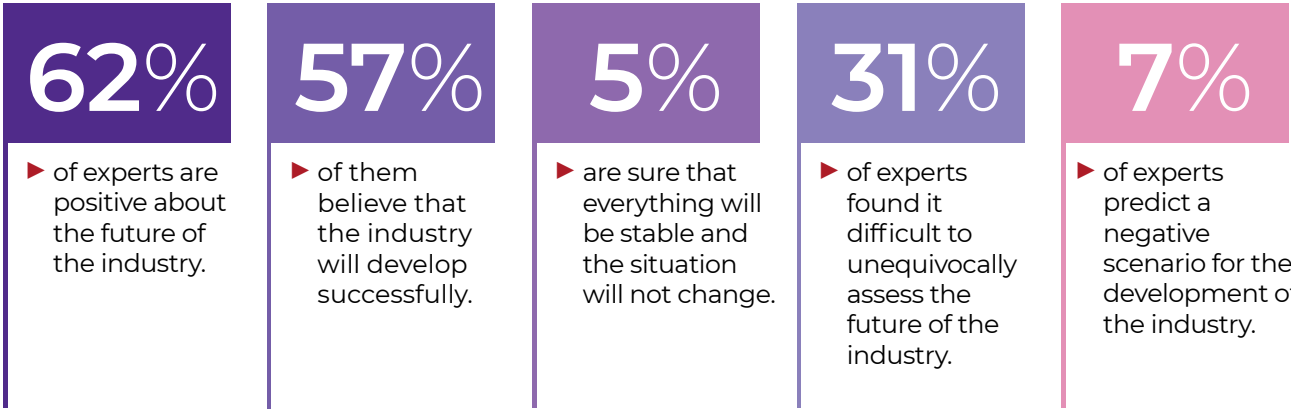
And suppose they also get a high-quality education. In that case, we have specialists who conduct interesting excursions, serve tourists professionally in offices and demonstrate excellent knowledge of their native land.

3.2. INDUSTRY DEVELOPMENT FORECAST

Industry experts, representatives of educational institutions, tried to look for 10-15 years and assess how the tourism sector will develop in the nearest future. As a result, a number of forecasts related to the most important aspects of the industry's future were formed.

FORECAST # 1

THE POTENTIAL FOR SUCCESSFUL DEVELOPMENT IN THE TOURISM SECTOR OF KAZAKHSTAN, WILL BE OBSERVED IN THE NEXT 10-15 YEARS, BUT NOT ALL COMPANIES ARE READY FOR THE UPCOMING CHANGES



Despite the existing problems in the industry, 57% of industry experts assume that the tourism sector in Kazakhstan will thrive in the next 10-15 years.

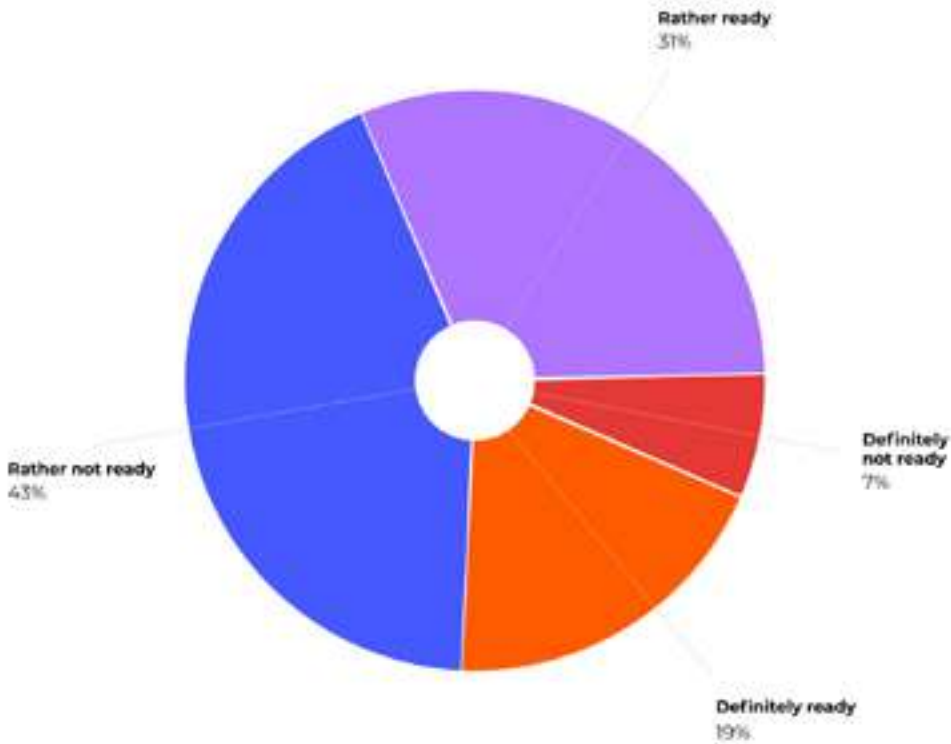
The remarkable fact is that the survey was conducted in the challenging for the industry period. All the activities of the tourism industry were completely suspended due to the pandemic caused by COVID-19. The international transportation was suspended, and tourists had to cancel pre-booked tours.

During this break in their activities, companies have got an opportunity to think about ways and directions of their business development

in the future, whether they are ready for the upcoming changes and implementing the latest technologies in their work.

Answering the question, experts' opinions were evenly divided: 50% believe that the companies are ready for the upcoming changes; 19% of them are unequivocally sure of this. The other half of experts doubt that the industry is ready for changes; 7% of them are confident that the tourism business is definitely not ready.

Diagram 2.
Expert assessment of the industry's readiness for the upcoming changes



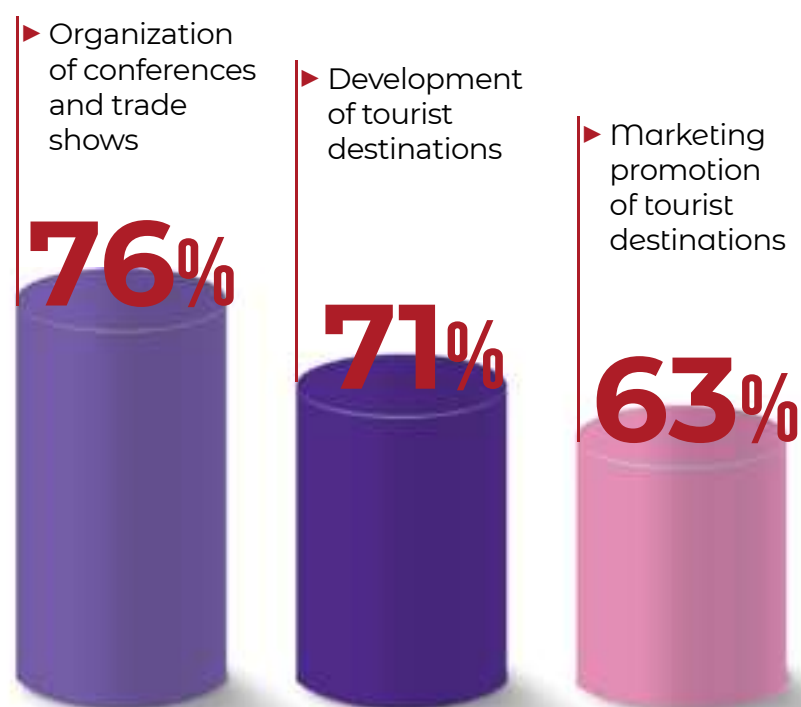
Source: survey of industry experts.



FORECAST # 2

ORGANIZATION OF CONFERENCES AND TRADE EXHIBITIONS,
DEVELOPMENT OF TOURIST DESTINATIONS AND THEIR MARKETING
PROMOTION SPHERES WILL BECOME THE LEADERS OF THE
TECHNOLOGICAL BREAKTHROUGH

Industry experts suggest that the greatest technological breakthroughs can be expected in the following areas of tourism:



ORGANIZATION OF CONFERENCES AND TRADE EXHIBITIONS

Exhibitions have recently become more and more relevant due to the improvement of technologies and methods of their implementation. Also, the use of modern equipment and new methods for exhibition halls' construction and design promoted this trend. Technology is constantly evolving, and every year exhibitions are filled with more colorful and unusual solutions to attract as many visitors as possible. Organizing exhibitions,

compositions use virtual or augmented reality technologies or holographic components. Conference formats will also undergo a major transformation soon. Organizes provide smart devices for voting conference participants and simultaneous translation.

DEVELOPMENT OF TOURIST DESTINATIONS

A tourist destination is an essential element of the touristic business. The experts believe that tourist destinations' development will experience a qualitative technological breakthrough. In the context, they named «smart» destinations, e.g., a «smart» city, discussing such aspects as their preservation and sustainable development, improvement of tourists comfort and safety. Like any other product or service, the value of a destination will increase with its innovative development. Innovation in tourism is a new

destination that can provide high-quality services that are significantly expanding due to introduction of the latest technologies. Among them are virtual tours of historical places, mobile application similar to a tour navigator for local attractions, restaurants, entertainment, and recreation places.

MARKETING PROMOTION
OF TOURIST DESTINATIONS

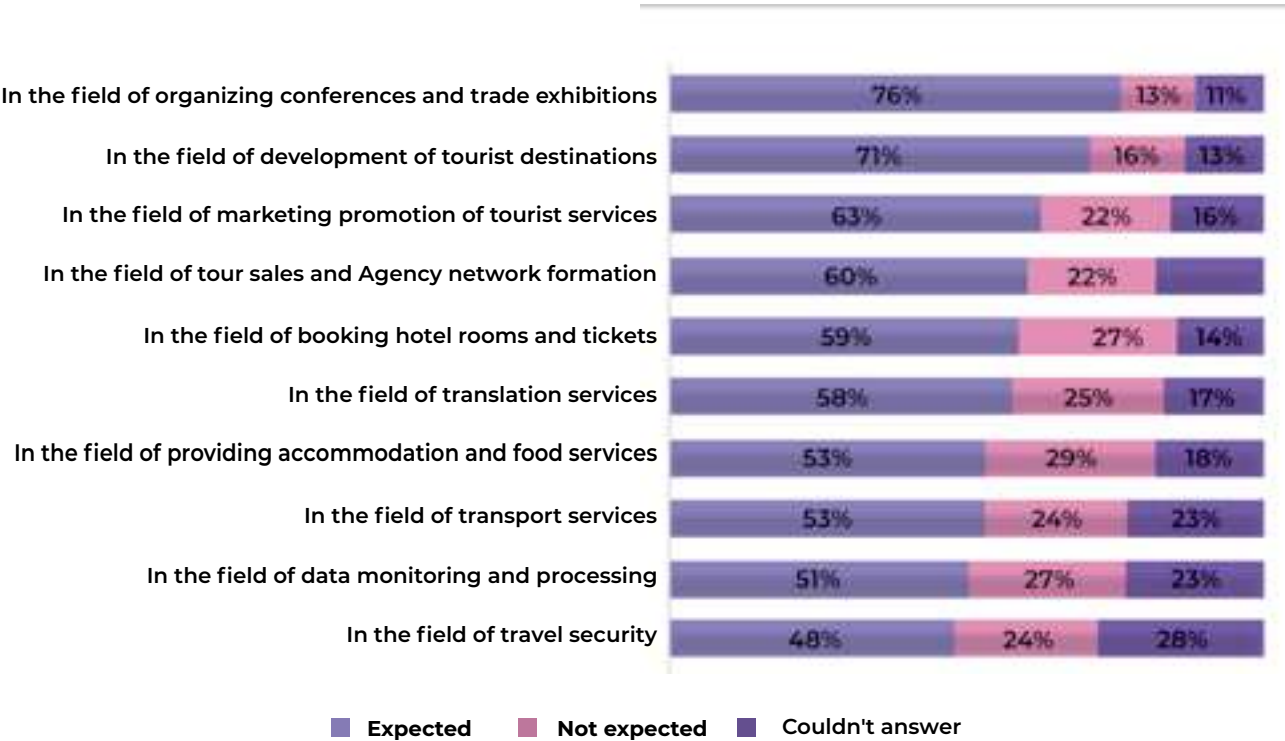
Every year the number of companies providing leisure, accommodation and entertainment services and those acting as mediators between tourists and the destinations grow. And, consequently, competition for each tourist is increasing.

Therefore, today, no company can compete for a potential tourist without using modern technological solutions to promote marketing services in the tourist market.

And since the marketing of tourist

products is quickly shifting to the virtual space, which potential will skyrocket in the coming years, there will be an increased demand for professionals skillful in «smart» marketing promotion of tourist products on the World Wide Web.

Diagram 3.
Assessment of the likelihood of a qualitative technological breakthrough in various areas of the tourism industry in the next 10-15 years

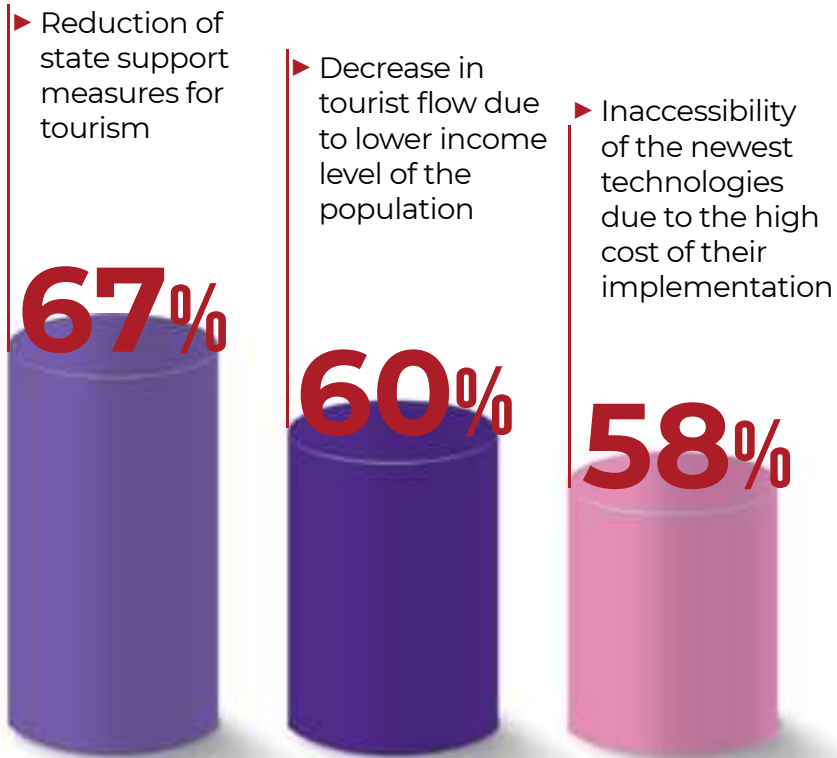


Source: survey of industry experts.

FORECAST #3

THE MAIN PROBLEMS OF THE TOURISM SECTOR IN THE FUTURE INCLUDE A REDUCTION IN STATE SUPPORT MEASURES AND A DECREASE IN TOURIST TRAFFIC DUE TO THE LOW INCOME OF THE POPULATION AND THE HIGH COST OF IMPLEMENTING THE TOP-NOTCH TECHNOLOGIES

Experts in the tourism sector have formed a rating of problems that, in their opinion, they are more likely to face in the next 10-15 years. They listed the main issues as:



REDUCTION OF STATE SUPPORT MEASURES FOR TOURISM

Currently, the government of the country is actively involved in the development of tourism, identifying it as one of the priority sectors of the economy and highlighting the top 10 tourist territories as key areas for the domestic tourism development.

BUT INDUSTRY EXPERTS ARE CONCERNED THAT THESE SUPPORT MEASURES WILL BE REDUCED IN THE FUTURE, AND COMPANIES WILL BE LEFT ALONE WITH PROBLEMS THAT THEY COULD NOT SOLVE ON THEIR OWN.

DECREASE IN TOURIST FLOW DUE TO LOWER INCOME LEVEL OF THE POPULATION

The primary source of income for the population is wages, whose growth rate, according to statistics and the consumer price index, in reality is lower than the growth of

prices themselves, i.e., prices grow faster than wages themselves.

Despite this, the concerns of industry players regarding the

flow of outbound tourism are not fully justified. In recent years, no regularity has been revealed between real wages' decrease and the volume of outbound tourist traffic.

But the growth of the price index for hotels and restaurants, cultural events, entertainment, and recreation, including railway tickets, which growth

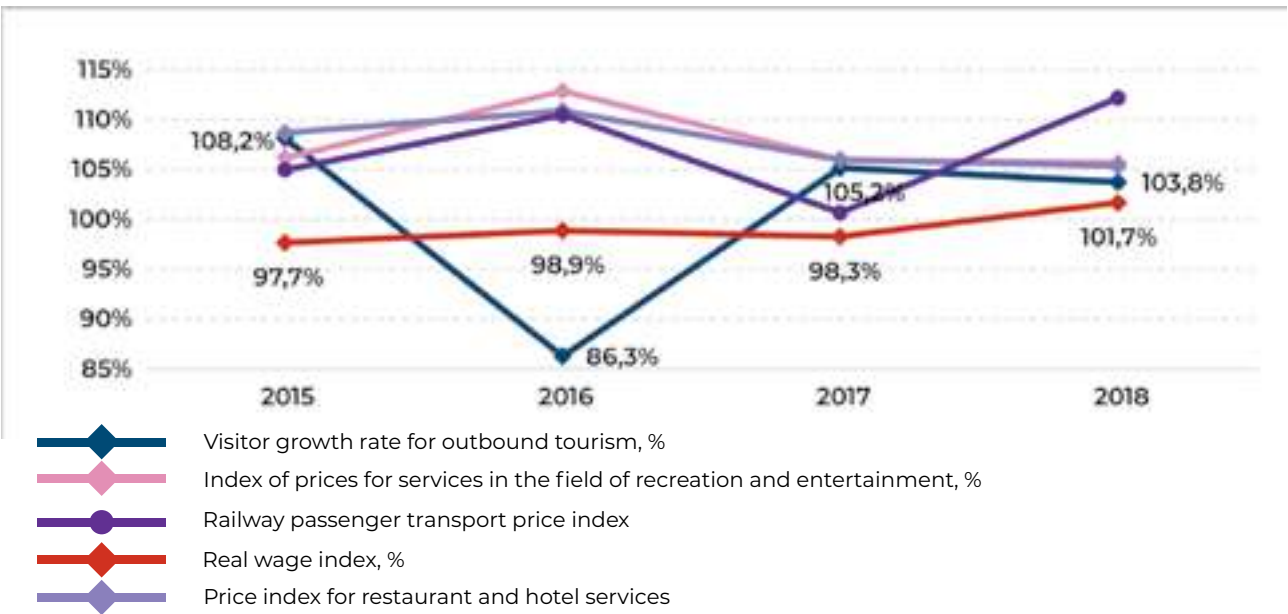
rate is significantly higher than the growth of real wages, can have a critical impact on domestic tourism indicators. And since domestic tourism is gradually gaining momentum in Kazakhstan, the concern of companies in the field is not without reason.

NACCESSIBILITY OF THE LATEST TECHNOLOGIES DUE TO THE HIGH COST OF THEIR INTEGRATION

Travel companies are among the most active supporters of the latest technologies. Modern developments in electronic marketing and artificial intelligence open up new opportunities for the tourism sector. Industry experts clearly understand that without introducing innovative

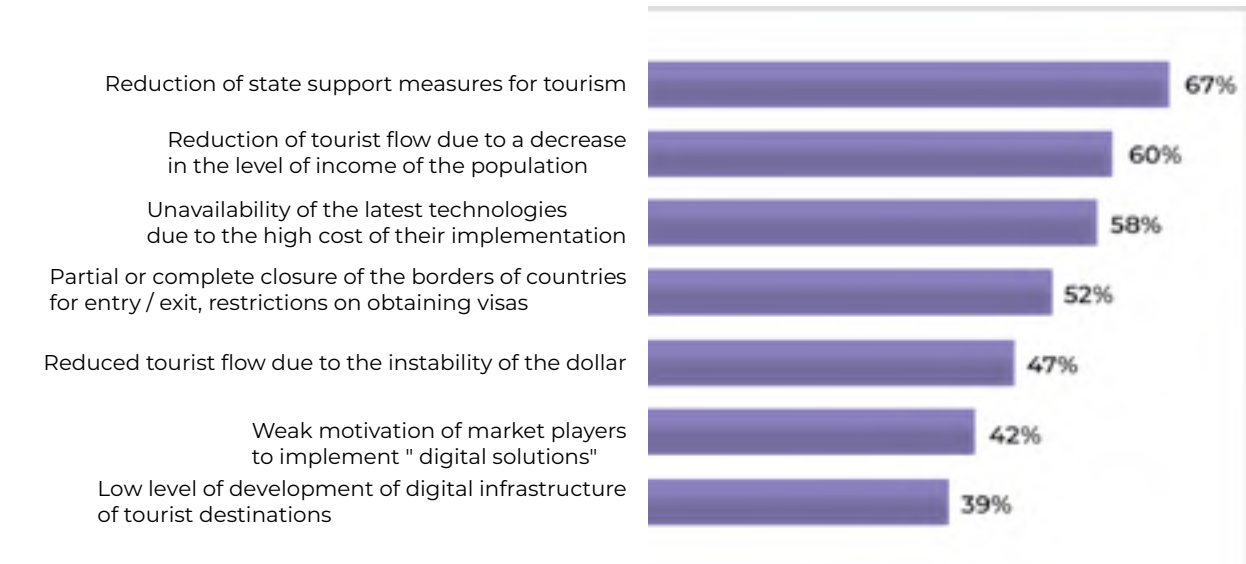
technologies, it will be impossible for them to compete in the market for providing services of a tourist product. At the same time, they note that the latest technologies' high cost does not allow them to introduce these technologies everywhere in their companies.

Diagram 4. Price, Real Wage and Visitor Growth Indices for Outbound Tourism



Source: Committee on statistics of the Ministry of national economy of the Republic of Kazakhstan.

Diagram 5. Assessment of potential risks of the industry in the next 10-15 years

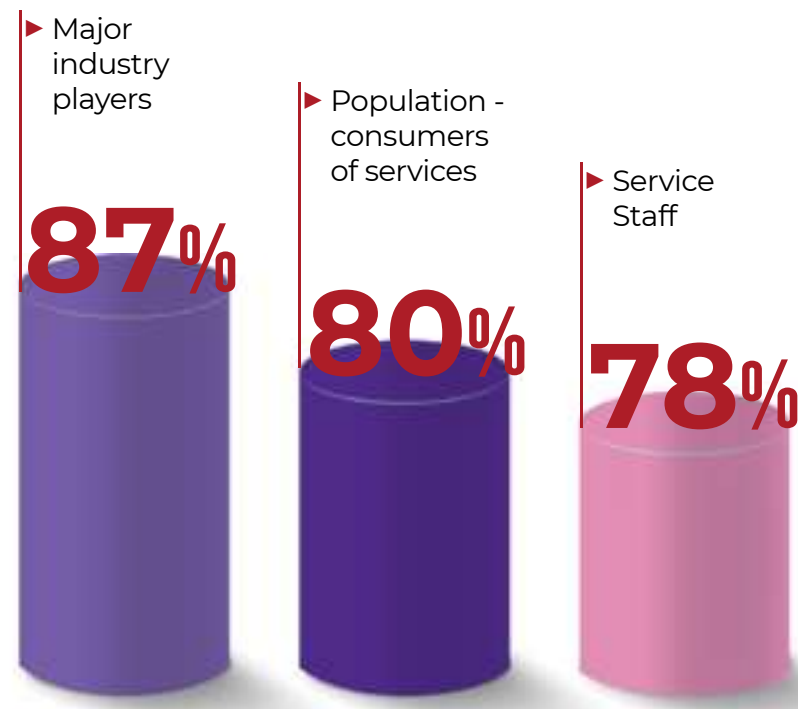


Source: survey of industry experts.

FORECAST # 4

THE FURTHER DEVELOPMENT OF THE TOURISM SECTOR WILL DEPEND ON THE POSITION OF MAJOR PLAYERS IN THE INDUSTRY, THE POPULATION, AS POTENTIAL CONSUMERS OF SERVICES, AND SERVICE PERSONNEL

Three groups of market participants have the most significant influence on the development of domestic tourism:



MAJOR MARKET PLAYERS (MAJOR TOUR OPERATORS)

The industry experts most highly evaluated the impact of this group of market players on domestic tourism

development. Large companies set the development vector for all enterprises in the sector, and they try to match them to compete for

providing tourist services. They have extensive experience, prompt to respond to new trends, and lead in introducing innovative technologies. Large companies in

the tourism business have a critical responsibility for the industry development in the next decade.

POPULATION AS A POTENTIAL CONSUMER OF SERVICES

Recently, the country's population has begun to influence the formation of tourist flow not only for outbound tourism and domestic tourism, which is certainly pleasing. If touristic companies want to entice the Kazakhstanis to visit local

attractions instead of foreign resorts, they need to expand the range of services and improve their quality, which depends primarily on the staff.

SERVICE PERSONNEL

The tourism sector is a service sector in which a lot depends on the level of customer satisfaction. If the customer is satisfied with the service, they will contact the same company again and recommend it to their friends.

Otherwise, the negative reputation will spread even faster.

There is quite serious competition in the market of tourist services, so customers' loyalty and location is the key to success. And this success depends on the staff.

Moreover, an important role is played by the professional training of employees and their personal qualities and ability to work in a team, customer orientation, and even presentability and

appearance (look).

It is worth noting that universities, colleges and other educational institutions are also in the top 10 market participants who have the greatest impact on the industry's development.

THOUGH THEY ARE IN THE LIST, THE EDUCATION SYSTEM DETERMINES HOW WELL PREPARED ARE YOUNG PROFESSIONALS JOINING THE WORKFORCE AND WHETHER COMPANIES NEED TO SPEND TIME ON THEIR RETRAINING.

FORECAST # 5

THE DRIVERS FOR INDUSTRY DEVELOPMENT IN THE FUTURE INCLUDE INCREASING DEMAND FOR DOMESTIC TOURISM SERVICES, HOLDING SPORTS COMPETITIONS IN THE COUNTRY, ON-GOING POLITICAL AND ECONOMIC EVENTS ALL OVER THE WORLD

Industry experts have rated potential opportunities that, in their opinion, are more likely to manifest themselves in the next 10-15 years.

In their opinion, the development of the tourism sector will be promoted by:

- ▶ increasing demand for domestic tourism services (60%);
- ▶ holding various international sports (47%), political and economic (45%) global-scale events in the country;
- ▶ effective state support of companies in the industry that integrate the latest technologies (40%). Influential state support campaigns to implement the latest technologies in the industry.

As you know, during the EXPO-2017 in Kazakhstan, compared to the same period in 2016:

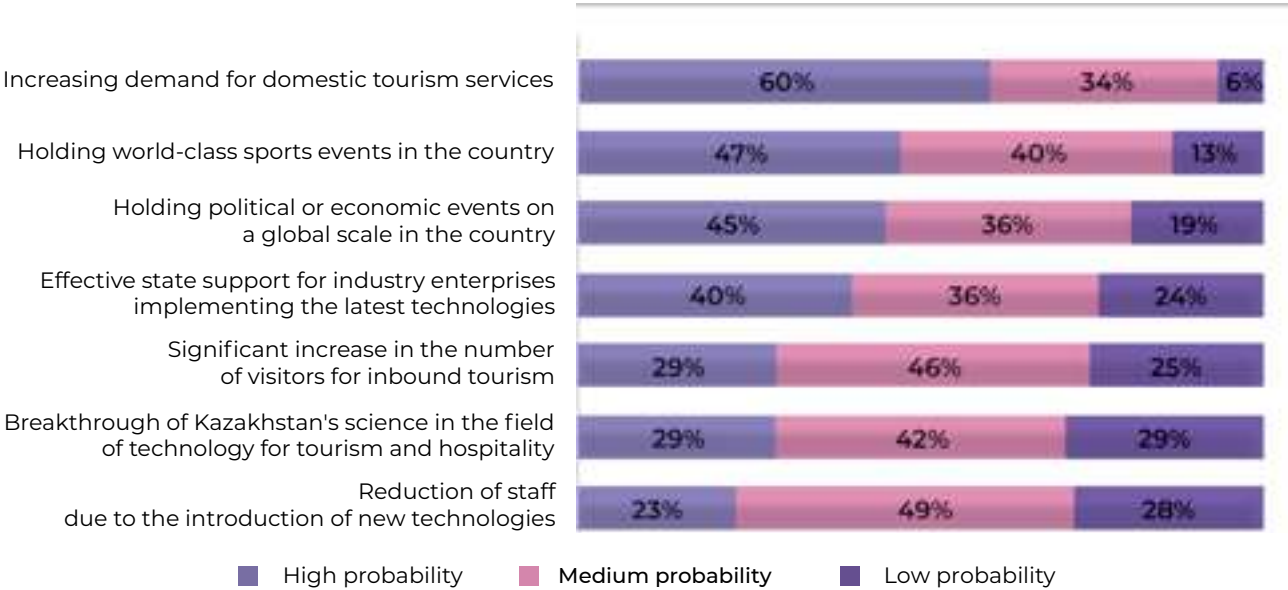
- ▶ there was an increase in demand for the services of

tourist operators by 78%;

- ▶ tax revenues from organizations that provide temporary accommodation and food services tripled;
- ▶ short-term accommodation rates tripled;
- ▶ the number of visitors to cultural and entertainment facilities and shopping centers increased twice.

Several new infrastructure facilities were built for the exhibition, such as the Nurly Zhol railway station or a new airport terminal for international flights. All this undoubtedly has a positive impact on the potential of tourism infrastructure development and increases the recognition of Kazakhstan in the global tourism market.

Diagram 6. Assessment of the industry potential for the next 10-15 years



Source: survey of industry experts.

FORECAST # 6

SUPER-SPECIALIZED SKILLS IN THE LABOR MARKET WILL BE DRIVERS OF SUCCESS IN THE FIELD OF TOURISM

Employers and employment agencies are using the terms «competence» and «skill» much more often.

To master a new profession and build a successful career, you need to understand what skills you need. Leading experts

of Kazakhstani tourism industry rated the most important skill for career growth. In their opinion, it is not enough to only improve your

professional level in the future. The industry's large companies are already more willing to hire and promote those specialists who have leadership qualities and know how to manage work effectively. The most popular thinking styles of the future, according to industry experts, will be creative, logical, and analytical thinking. Among social and interpersonal skills are multilingualism and multiculturalism, customer orientation, ability to work both in a team and independently.

The leading skills of the future in corporate governance will be process and project management,

cross-industry interaction, and flexible planning (Agile methods). The most popular new technologies skills for the future are knowledge of the basics of programming, development, and use of mobile applications, and skills to manage virtual and augmented reality technologies.

feeling of uncertainty about their future. For 90% of the experts, the image of the future includes the potential for comprehensive individual development and unlimited opportunities (33%) and gives confidence for the future (29%). Experts did not ignore the technological component of the future image. Thus 18% are sure

that the future is moving forward, and another 11% rate it as the introduction of breakthrough technologies.

Diagram 7.
Vision of the future by industry experts



Source: survey of industry experts.

FORECAST # 7
**THE FUTURE IS POTENTIAL,
CONFIDENCE AND DEVELOPMENT**

We asked the industry experts to imagine the future in 10-15 years, including opportunities and obstacles they would face.

Analyzing the experts' answers, it was evident that experts were optimistic about their future

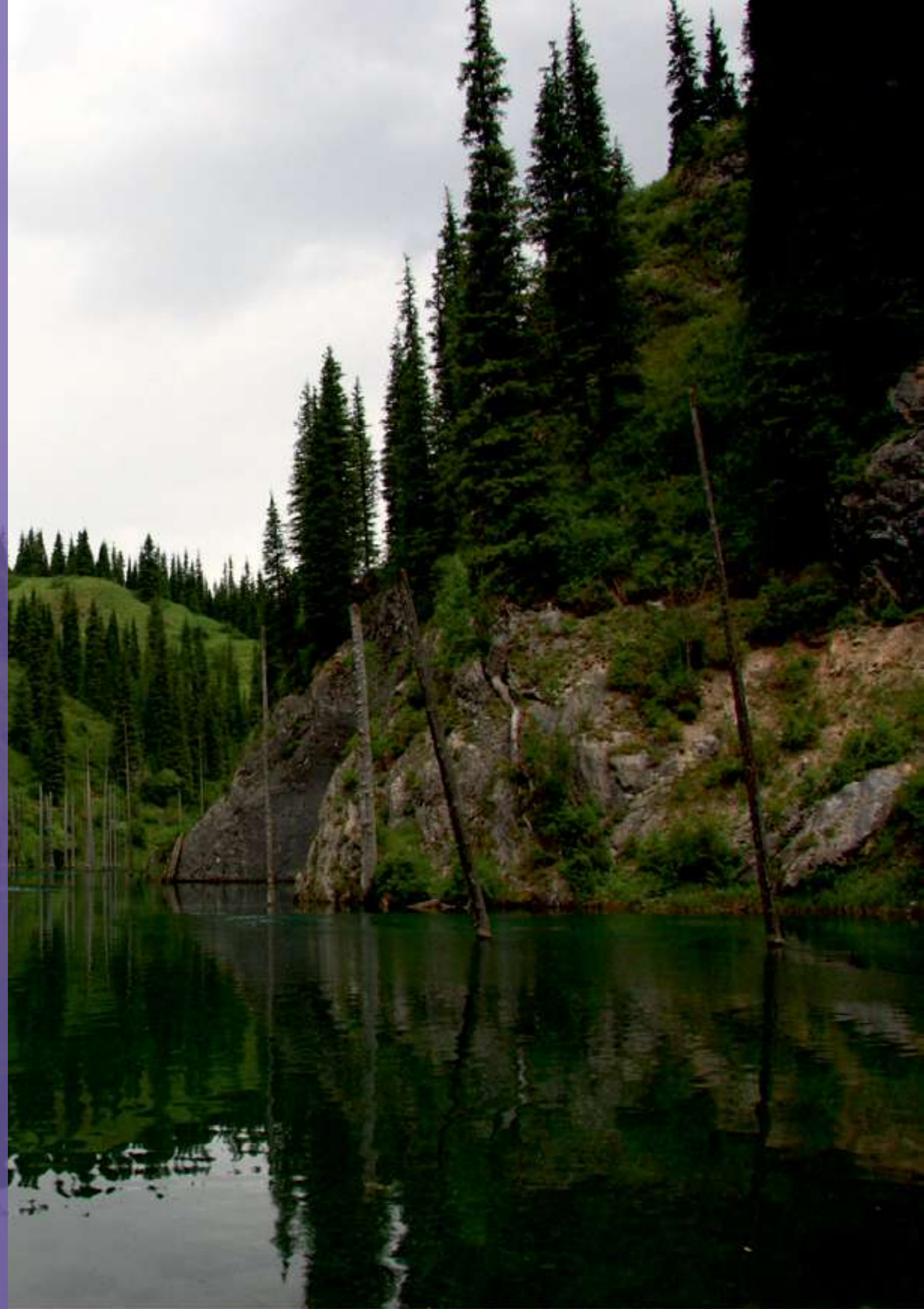
and their business, despite the difficulties in tourism at that time⁴. Only 10% of experts indicated a

⁴ The survey was conducted in April 2020, when borders were closed due to a pandemic caused by the coronavirus infection COVID-19.



TRENDS AND TECHNOLOGIES SHAPING THE FUTURE OF TOURISM IN KAZAKHSTAN

4.





Today, innovations and digitalization are the main drivers of any sphere of human life and economic development. These transient processes require adaptation to the current and future realities on personal and state levels.

The tourism industry is one of the most vulnerable to changes, as it works directly with people whose demands and expectations are constantly growing and expanding.

Therefore, forecasting based on in-depth analysis and expert assessments of the industry's technological and socio-economic evolution should become a permanent research function of the state, which is committed to

the sustainable development of tourism.

Recently, the effectiveness of the tourism business has been significantly affected by the accessibility of digital services provided by tour operators and other industry participants.

A large number of trends influence the transformation of the tourism sector. The industry experts have identified some global and industrial trends that can form six leading groups:



TRENDS AND TECHNOLOGIES SHAPING THE FUTURE OF TOURISM IN KAZAKHSTAN

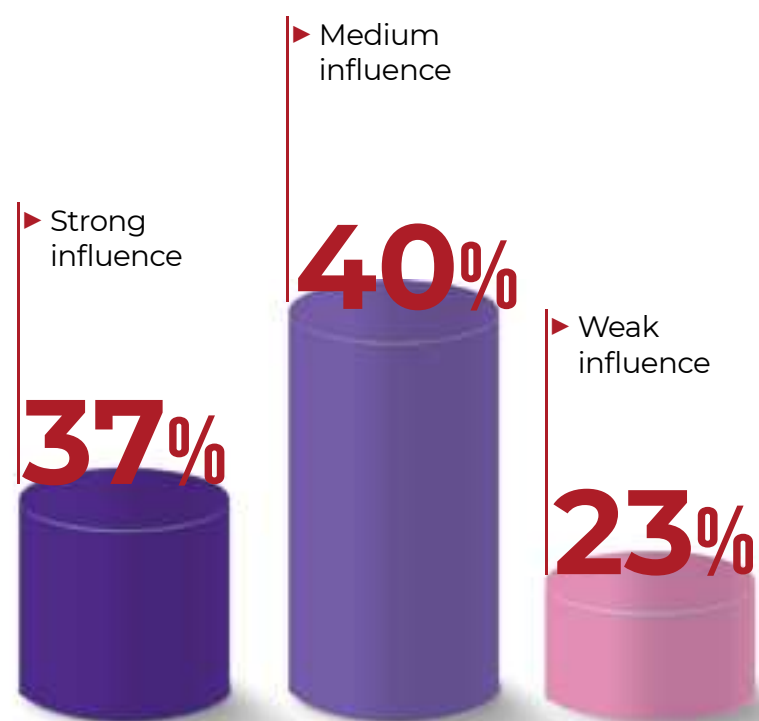
Today innovations and digitalization are the main drivers of any sphere of human life and economic development. These transient processes require adaptation to the current and future realities on personal and state levels.



4.1.

INCREASING THE SCALE OF AUTOMATION AND SMART SYSTEMS IMPLEMENTATION

According to the industry experts, increasing the scale of implementation of automation and smart systems in the next 10-15 years will have a medium impact on the development of domestic tourism.



Implementing innovative technologies in the tourism industry is the most important criterion for evaluating their success.

Automation affects performance indicators, efficiency, and quality of services provided. Complex automation of hotel rooms and tickets booking and online

payment for services rendered is becoming more and more popular in the tourist services market.

In the next 10-15 years, the following trends will have the greatest impact on the tourism automation increase in Kazakhstan:

- Increased demand for online booking and payment services
- Growing demand for introduction of artificial intelligence in the sphere of tourism of Kazakhstan

TREND INCREASING DEMAND FOR ONLINE BOOKING AND PAYMENT

The widespread use of modern information technologies and the increase in the number of Internet users has had a significant impact on the development of e-commerce. The population of Kazakhstan uses various online services for purchasing more often.

DESPITE THE SMALL SHARE OF ELECTRONIC SALES IN THE TOTAL RETAIL TRADE VOLUME (1.4%), ITS GROWTH IS 40% ON AVERAGE IN RECENT YEARS.



2 TREND THE GROWING DEMAND FOR AI INTRODUCTION IN THE TOURISM INDUSTRY OF KAZAKHSTAN

Automation and robotics are rapidly gaining ground in the global tourism business, allowing companies to save resources significantly and optimize management processes. Automation of travel agents and tour operators' work is mainly reduced to the introduction of digitalization, e.g., chatbots that help customers find and book tours, transport, and accommodation using simple questions. The hotel business automation leading areas include providing comfortable conditions for guests' lodging and the hotel staff work's automation. The introduction of various artificial intelligence devices, the Internet of things, and robotics can solve the issues.

Automation of services in hotels is beginning to gain a leading position. It is already difficult to imagine a hotel without a «smart» air conditioner that uses voice control, or an electronic lock that opens without a key.

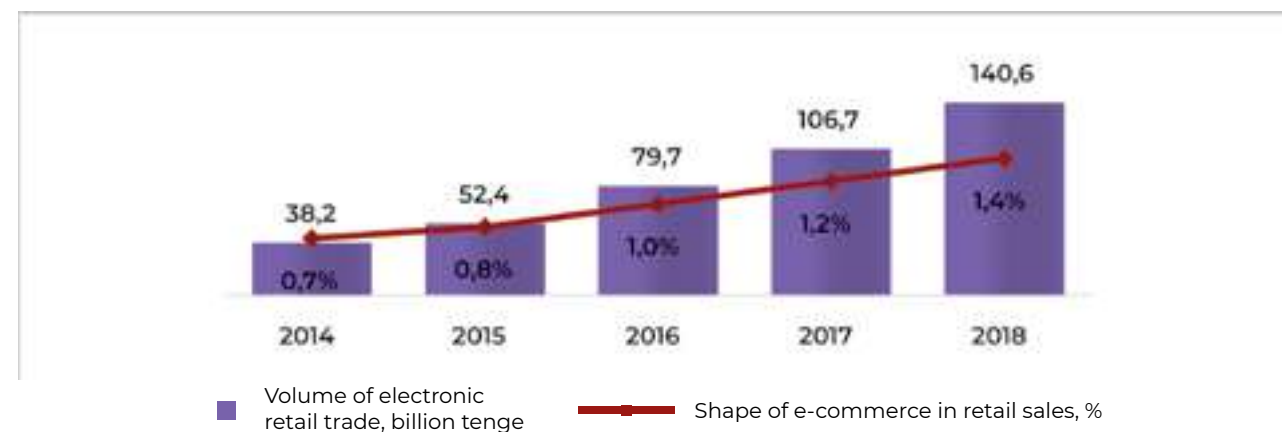
Full automation of hotels allows the staff to monitor the equipment's serviceability remotely and ensure guests' safety.

Therefore, Kazakhstani hoteliers need to actively adopt the experience of world market leaders, implement automated solutions as much as possible in their activities, and train personnel to manage these devices.

The main technologies for developing the trend are:



Diagram 8.
The share of e-commerce in the total volume of retail trade in Kazakhstan



Source: survey of industry experts.

E-commerce has not bypassed, of course, the tourism sector. Self-booking tours, tickets, and hotel rooms are becoming an increasingly popular tool, especially among the younger generation. In the coming years, their number is likely to grow. Online booking of tickets and hotels makes it

easier to choose a tour. It allows you to compare the current prices from different tour operators and purchase the best deal package, saving a lot of money and spending the minimum time.

INTERNET OF THINGS

One of the most exciting new trends in tourism is the Internet of things (IoT). Every year, the impact of IoT expands, and the range of opportunities provided by it grows.

For example, in hotel rooms, the IoT technology helps adjust the lighting parameters or temperature in the room, air conditioning. Guests can also use the IoT to order various services without leaving their rooms.

Smart sensors ensure your guests' safety in hotels, monitor the movement of personnel, and prevent malfunction of the equipment.

EXAMPLE OF USING THE TECHNOLOGY

- a. Starwood Hotels and Resort Worldwide added smart mirrors to some of its hotel rooms in 2016.
- b. The Peninsula Chicago network has implemented a system that uses a tablet to control various devices in the rooms.
- c. In 2017, Wynn Las Vegas became the first hotel to equip more than 4,000 of its rooms with voice assistants, which allow them to control the lighting in the rooms and adjust the room temperature.⁵

ROBOTS

The introduction of robots in hotels has not yet become widespread. However, in Japan, China, the United States, and other countries, hotels equipped with

robots and even fully robotic hotels have already begun to receive their guests. But in fact, not everything was as perfect as it was originally planned.

The first robotic hotel was opened in Japan in 2015. At that time, robots could not replace the classic hotel staff completely, and they demonstrated their inefficiency. Therefore, the hotel management had to «cut» more than half of the robots and again hire people instead.

It turned out that the company spent quite a lot of money on training a large team of staff interacting with robots, maintained, and repaired them because they often failed. But most importantly, according to vacationers, robots eventually began to annoy them. However, robots should not be discarded from the hotel business completely. They effectively replace the staff in restaurants

today, acting as a bartender or waiter, a concierge or elevator operator, and delivering food, beverages, or correspondence. It is too early to talk about the large-scale introduction of robots in Kazakhstani hotels.

However, today 1% of our hotels are equipped with robotic devices that provide services. Time also does not stand still, as well as technological progress. And, perhaps, after 10-15 years, or maybe even earlier, we will hear about our first robot receptionist.

EXAMPLE OF USING THE TECHNOLOGY

- a. A smart-hotel with 30 rooms will be built in Innopolis, a technological urban settlement near Kazan. Artificial intelligence will determine users' preferences based on 300 indicators. After assessing guests' appearance, AI will automatically adjust the temperature and lighting in the room. Robots will perform cleaning, luggage delivery, and cooking.⁶
- b. In the Yotel hotel located in New York, a robot-carrier Yobot welcomes guests. Equipped with touch-screen displays, it can quickly call a hotel employee, and motion sensors help it avoid obstacles.⁷
- c. At the Hilton McLean hotel in Virginia in the United States and at the Hotel Ghent in Belgium, the robot informs guests about the hotel's services, historical and cultural sites and can advise which restaurant is best to visit.⁸

⁶ Robots at the reception: how to build the first robotic hotel in Russia. — URL: <http://robotrends.ru/robo-pedia/gostinicy-i-roboty>.

⁷ Internet of things news. Robots in the hotel business: did you manage to replace people. — URL: <https://iot.ru/gorodskaya-sreda/-roboty-v-gostinichnom-biznese-udalos-li-zamenit-lyudey>.

⁸ The hospitality from the future: six trends the hotel industry. — URL: <https://b2b.ostrovok.ru/blog/goste-priimstvo-iz-budushhego-shest-trendov-gostinichnoj-industrii/>.

⁵ Internet of things news. How IoT is changing the hotel business. — URL: <https://iot.ru/gorodskaya-sreda/kak-iot-menyaet-gostinichnyy-biznes>.



VIRTUAL REALITY (VR) TECHNOLOGY

VR is one of the most promising technology trends for tourism-related companies, as it allows them to transport customers digitally to a virtual destination for their upcoming vacation spot. Hotels get the opportunity to showcase their rooms, the full range of additional services, and even local attractions on their websites to increase customers' interest.

In recent years, travel companies frequently have used virtual reality technology to offer potential tourists a travel destination. Today, under the pandemic's influence, VR technology can get a new turn and go beyond the traditional marketing tool.

Virtual reality can help to recreate ancient monuments and other structures as they were before.

VR technologies allow people with disabilities to travel in virtual space and recreate historical monuments that were once destroyed. However, VR cannot replace a physical tour.

But as VR technology improves, after some time, tourists will consciously use VR technology instead of ordinary travel to preserve the environment.

EXAMPLE OF USING THE TECHNOLOGY

- a. Google and CyArk created the Open Heritage project, which aims to recreate digital duplicates of crumbling historical monuments that cannot be restored.
- b. Thomas Cook Travel company increased its revenue twice only from the implementation of virtual tours to new York.⁹

AUGMENTED REALITY TECHNOLOGY

Lately, Augmented Reality (AR) becomes increasingly popular in the travel industry. For example:

- a. The most common use of AR in tourism is for an interactive introduction of hotels.
- b. AR applications allow tourists to learn more about the object of interest using a smartphone in real-time mode and also reconstruct the artifact's initial outlook. At a restaurant, one can use a phone to get an immediate review or a menu card. Such options can significantly improve the travel experience and allow tourists to reduce the searching time looking for necessary information.
- c. Another use of AR relates to the beacon technology that works via Bluetooth. This technology allows companies and marketers to send

push notifications or enable certain features when people enter a certain place.

This technology allows customers to unlock their hotel room when they are near the door or send reviews, menus, special offers, discount coupons to users in the place where they are most relevant.

EXAMPLE OF USING THE TECHNOLOGY

- a. The Hub hotel at the British Premier Inn resort has made augmented reality compatible with wall maps placed in hotel rooms. When viewing maps on your smartphone or tablet, you can get more information about local attractions.
- b. National Geographic has opened an open-air AR planetarium in Quebec. Augmented reality is superimposed directly on the night sky using the Aruzon AR viewer device with a smartphone inserted.¹⁰

⁹ 100 examples of virtual and augmented reality applications. — URL: <http://vrcorp.ru/?p=1601>.

¹⁰ VR CORP. 100 examples of virtual and augmented reality applications, — URL: <http://vrcorp.ru/?p=1601>.

BIOMETRIC IDENTIFICATION, REMOTE AND VOICE CONTROL TECHNOLOGIES

With the development of information technologies, devices and systems that use biometrics for personal identification are becoming increasingly popular.

The technology includes recognition based on fingerprints, faces, retinas, and other biometric identifiers. The passport control service widely uses this technology.

Identification technology is also used in hotels to allow access

to rooms by fingerprint or for semi-contact verification. This technology enables customers to pay for meals in a hotel restaurant by simply walking through the exit.

Hotels use remote and voice control technologies for adjusting lighting, heating, curtains, etc.

EXAMPLE OF USING TECHNOLOGY

- a. The Ushuaia Ibiza Beach Hotel in Spain was the first in the world to use the fingerprint payment system. The spots that provide paid services in the hotel are equipped with scanners that identify the guests and issue a service invoice.¹¹
- b. In Nigeria, hotels use biometric identification of their staff. This procedure creates a universal database of hotel employees with detailed characteristics. Based on this data, companies recruit staff without even requesting documents from them.¹²

¹¹ Biometric technologies as an innovative direction in the development of tourism enterprises // Concept: Scientific and methodological electronic journal. — URL: <http://e-koncept.ru/2015/65061.htm>.

¹² Hotel employees in Nigeria will undergo biometric identification // Russian biometric portal. — URL: http://www.biometrics.ru/news/sluzhashhie_otelei_v_nigerii_proidut_biometricheskuju_identifikaciju/.



UNMANNED AERIAL VEHICLE

Today, unmanned aerial vehicles (UAVs) have become widely used in the tourism industry. UAVs are easy to operate, low cost, and constantly expanding their scope of application. According to experts, in the future, drones will become even more popular.

Drones, multicopters, and quadcopters are extensively used on beaches and ski resorts to move cargo over short distances.

Recently they have also been used for cargo delivery to remote or hard-to-reach places and even for surfing.

Drones have learned to deliver personal items or drinks from the bar and act as mobile surveillance cameras or lifeguards on the beach, in the woods, or mountainous areas.

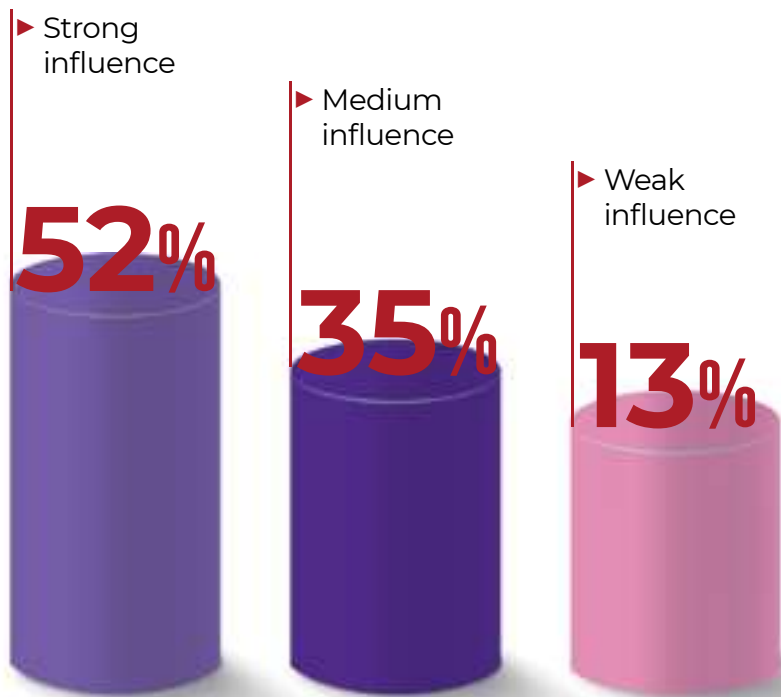
EXAMPLE OF USING THE TECHNOLOGY

University of Technology Sydney has developed a technology that can distinguish a passing shark in the photo with an accuracy of 4 times higher than anything else. The drones are equipped with this program, control the territory of the beaches. Their acoustic system can alert vacationers about the danger and even throw off life jackets, if necessary.¹³

¹³ Apparat, 10 examples of the use of drones. — URL: <https://apparat.cc/world/10-drone/>.

4.2. DIGITALIZATION OF THE TOURISM SECTOR

According to the industry experts, the expansion of digitalization and big data applications in the next 10-15 years will have a strong influence on domestic tourism development.

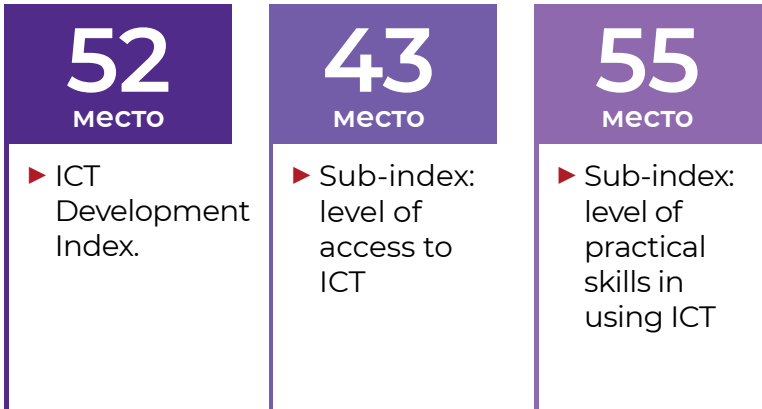


Kazakhstan pays much attention to developing information and communication technologies (ICT) and the introduction of digital innovations.

The state program «Digital Kazakhstan» is a tool that regulates the country’s digitalization. This

program aims to improve the socio – economic climate in the country through the use of digital technologies for the near future and the formation of the digital economy in the long run.

In the world ranking of the development of information and communication technologies in 2017 (ICT Development Index), Kazakhstan is ranked 52nd out of 176 countries.¹⁴

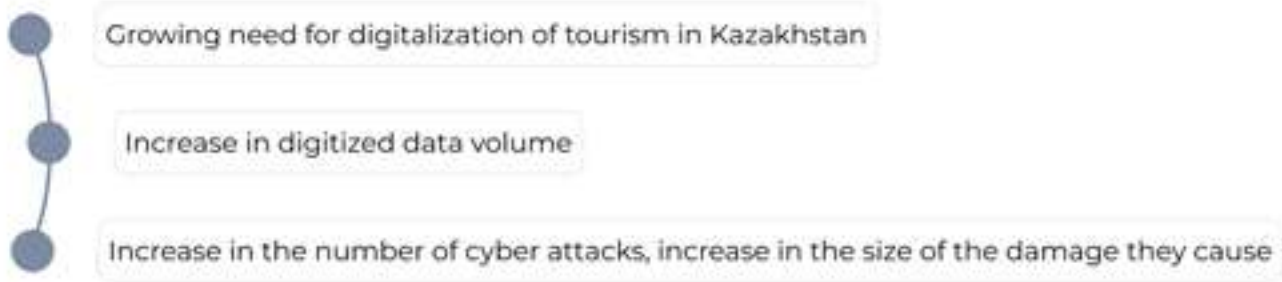


Despite the improvement of Kazakhstan’s position in the world ranking of the ICT Development Index, today the country’s tourism market does not have an integrated application that could provide foreign and domestic tourists with all the necessary information.

It is necessary to expand the range of offers and increase information availability with more creative, innovative solutions, which will increase the number of repeated trips and visits. The expectations of

tomorrow’s travelers are connected with universal access to the complete information about the services provided and the ability to order the most personalized services package.

Digitalization of the tourism sector in Kazakhstan is influenced by trends that relate to the domestic tourism business and the number of global trends.



¹⁴ International Telecommunication Union, ICT Development Index 2017. — URL: <https://www.itu.int/net4/ITU-D/idi/2017/index.html>.

TREND THE GROWING NEED FOR DIGITALIZATION OF THE TOURISM SECTOR IN KAZAKHSTAN

The travel industry is actively beginning to use elements of e-Commerce. Now you can order and pay for tours, airport transfers, plane tickets, cultural events, or a suitable hotel room from anywhere on the Earth without leaving your home.

The introduction of e-commerce improves service quality, reduces customer service time, and expands the range of services provided.

The latest technologies allow you to create new ways of marketing promotion of a tourist product to the market, for example, to organize personalized mailing of advertising cases to the email addresses of potential tourists.

Information systems of travel agencies allow you to collect quickly, structure, and store data about tours, resorts, hotels, transport companies, and the potential tourists' preferences organized based on their purchases and the most frequently visited sites.

Multimedia technologies are used for publishing digital booklets and catalogs that allow a virtual walk along the proposed routes and choose the most fitting services package.

connected to the network will interact with the data every 18 seconds. It is predicted that by 2025, the global volume of data will increase by more than five-fold.

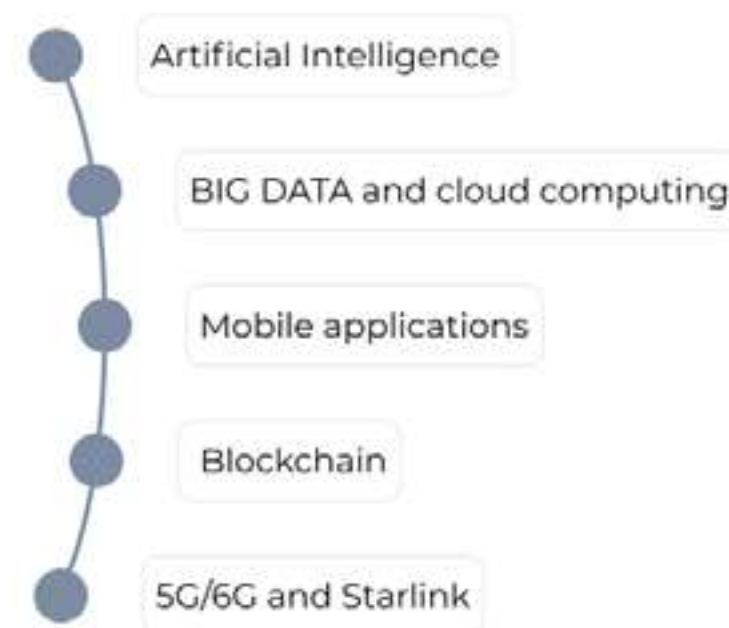
It is predicted that by 2025, the global volume of data will increase by more than five-fold compared to 2018 and will reach 175 zettabytes.

Moreover, 30% of this data will need to be processed in real-time mode.

Big Data in the tourism sector improves the efficiency of services and the process of attracting potential travelers. Using Big Data Analytics allows to

- ▶ provide higher quality services;
- ▶ expand the channels of promotion of tourist products and their functional significance;
- ▶ get closer to the consumer of services by providing the most personalized travel product, thereby increasing customer loyalty;
- ▶ get rid of intermediaries between the potential tourist and the final service provider;
- ▶ increase productivity and make better use of time, money, and human resources.

The main technologies for developing the trend are:



¹⁵ The Digitization of the World. — URL: <https://www.seagate.com/files/www-content/our-story/trends/files/idc-seagate-dataage-whitepaper.pdf>.

2 TREND INCREASING THE VOLUME OF DIGITIZED DATA

Big Data Analytics is one of the most urgent tasks in the era of digital transformation. According to experts from International Data Corporation (IDC), more than five

billion users interact with data every day. By 2025, their number will increase to six billion, which will make up 75 % of the world's population. The users of devices

ARTIFICIAL INTELLIGENCE

The tourism industry is actively using Artificial Intelligence (AI) nowadays. There are chatbots also used to automate and optimize various sales and customer service tasks. Because clients require a faster response and more interaction, chatbots bridge the gap when operators are unavailable. The tourist business should understand what the client wants while competing for every potential tourist today.

Although chatbots are limited in their functionality, they can provide customers with a lot of useful information. Currently, this function is widely used to collect and analyze data on customers' habits and preferences to create the most personalized offer and increase their satisfaction.

EXAMPLE OF USING THE TECHNOLOGY

- a. The Mindsay Chatbot and platform, combined with more than 30 different business platforms, enables online tourism businesses to automate up to 80% of tourist requests in 110 languages of the world.
- b. United Airlines analyzes its customers' data for 150 parameters, including previous ticket purchases, travel directions, and other data. Using this information, the company adjusts its services for a specific client in a matter of seconds. At the same time, the design and text of the address changes significantly increasing their conversion rate.¹⁶

¹⁶ How VR and other technologies are changing the travel business // Rusbase, — URL: <https://rb.ru/long-read/turizm-v-cifre/>.

BIG DATA AND CLOUD COMPUTING (CLOUD COMPUTING)

By analyzing data on past travel experiences, hotels and travel companies can provide customers with personalized recommendations and significantly help in the decision-making process. Systems that are configured to make such decisions allow travel companies to offer the most profitable routes, both for them and customers.

- protecting and securing the data by the qualified system personnel.

According to The Digitization of the World report by IDC, 49% of the world's data will be located on public cloud centers by 2025.

Such an approach allows dividing travelers by several criteria, such as preferences for cost or preferred vacation destination, interests, and so on. It helps create personalized marketing and advertising campaigns for each segment and opens up more opportunities to conduct and develop business.

For the first time, people discussed cloud technologies in the 1960s. However, the active implementation started in 2006, when Amazon began to provide customers with access to remote computing resources.¹⁷

Enterprises that have implemented cloud technologies received some competitive advantages, in particular:

- saving money needed to purchase and maintain the local network;
- accessing permanent and shared data from any device with Internet access;

Meanwhile, at the end of 2019 in Kazakhstan, only 9% of companies used cloud computing.¹⁸

In tourism, 7.3% of companies use cloud data storage. It is 1.4 percent higher than in 2018.

¹⁷ IDC, The Digitization of the World From Edge to Core. — URL: <https://www.seagate.com/files/www-content/our-story/trends/files/idc-seagate-dataage-whitepaper.pdf>.

¹⁸ Use of ICT in enterprises: Sample survey // Information-analytical system «Taldau» Committee on statistics of MNE of RK. — URL: <https://taldau.stat.gov.kz/ru/Search/SearchByKeyword>.

Diagram 9.
Shares of companies in the tourism sector of Kazakhstan using cloud it services via the Internet, by the end of 2019.



Source:: Committee on Statistics of the Ministry of national economy of the Republic of Kazakhstan.

Companies that deal with tickets and hotel room booking, and related services are among active cloud IT services users (23 % of the companies reported). Other industries have a significantly lower level of this technology application.

59% of respondents consider it important to purchase services at the airport and food&drink delivery in the waiting room.¹⁹

5G/6G AND STARLINK

By 2030, the next generation of ultra-fast 5G wireless networks will become ubiquitous, and 6G standards will be available. These technologies will bring computing power closer to the network periphery and reduce data processing time when using complex computing algorithms.

The spread of 5G will create the ground in tourism for a broader application of monitoring devices

that generate real-time intelligent data. A global constellation of Starlink that provides access to the high-quality Internet will unite billions of users into the global cyber-community in the future. In turn, this developement, will have an impact on improving the quality and efficiency of business management.

MOBILE APPLICATION

Regardless of the transport or tourist services a company offers, it should have its smart presence on the Internet. Companies need to get into their customers' smartphones to provide them with free access to the full range of services, e.g., a tour navigator for historical sites or social infrastructure.

This technology is actively used by tourism companies enabling customers to book tickets, tours, and pay for services. In hotels, visitors can book ancillary services such as SPA, taxi, entertainment events, restaurant menus, room service, etc., through the mobile app, rather than using the traditional service through the staff.

Most mobile apps perform one or more service functions.

However, today, consumers of tourist services want to see the entire set of popular services in one application. For example, according to the OAG's research, more than 78% of frequently traveling tourists want to have an app that predicts flights delay or cancellations. Also, 75% want the real-time mode to determine the time of landing.

BLOCKCHAIN

The main feature of a blockchain technology is mathematical calculation algorithms for decision-making with the maximum exclusion of the human factor.

Due to blockchain technology's capabilities to automatically control, record, and store information about digital transactions, the scope of its application has expanded: from the placement of personal information

to the storage of data at all stages of companies' activities.

Initially, this technology aimed to generate trust between clients. In tourism, it helps to improve the companies' reputation and security of confidential information about tourists and services provided.

Blockchain allows tourists to control payment transactions, as money is sent directly to the companies

¹⁹ How VR and other technologies are changing the travel business // Rusbase. — URL: <https://rb.ru/long-read/turizm-v-cifre/>.

(hotels, transport companies, etc.), that are the service provider, and contract parties. This process creates a system of decentralized and transparent transactions.

Travel insurance for tourists is also a promising area for implementing distributed registry technology. The process of getting compensation for a delayed or canceled flight is often fraught with many problems for travelers like loss of time and even money.

Smart contracts can help in this situation, for their specifics allow to pay insurance compensation to injured tourists automatically.

However, the large-scale implementation of blockchain in the tourism sector is hindered by the lack of a sufficient number of qualified specialists in this field and the low level of awareness of company managers about the opportunities provided by blockchain technology.

from cybercrime may reach \$ 8 trillion.²⁰

Government of Kazakhstan pays special attention to the matters of information security, increasing the degree of protection of information and communication infrastructure from unauthorized threats. It has elaborated basic approaches to the development of cybersecurity, approved uniform requirements in the field of ICT and information security, introduced the concept «Cybershield of Kazakhstan».

According to the 2018 official report, Kazakhstan entered the top 40 countries in the international cyber readiness rating. Within a year, Kazakhstan went up from 83rd position to 40th.²¹

According to KZ-Cert, in 2019, Kazakhstan recorded 20.8 thousand cases of unauthorized access to databases, 1.8% higher than in 2018.

The greatest activity was recorded from the following attacks:

3 TREND THE GROWTH OF CYBERATTACKS NUMBER AND THE DAMAGE THEY CAUSE

The use of modern technologies and large-scale digitalization increases the likelihood of unauthorized access to the databases of travel companies to steal money or confidential information or to extort.

Cybersecurity experts note that half of all attacks in recent years are committed against small businesses, with 60 % of companies closing their operations within six months after such an attack.

It is quite difficult to assess the possibility of a threat from intruders. It is even more challenging to give an objective assessment of the consequences of

a potential attack.

According to Cybersecurity Ventures' cybersecurity experts, in 2018, the number of ransomware increased by 3.5 times. In 2016 cyberattacks in the world occurred every 40 seconds, then in 2019, they happened every 14 seconds, and by 2021 their frequency will increase to 11 seconds.

As the number of cyberattacks grows, so does the damage they cause. According to experts, the damage from extortion in 2021 will increase by 57 times compared to 2015. If in 2018, the losses of companies amounted to 1.5 trillion dollars, by 2022, the amount of global damage



Incidents such as malicious software, hacking of Internet resources, and DDoS attacks are less common.²²

If tourism companies want to prevent unauthorized access to information systems or minimize the damage it causes, they need to be serious about the means for database protection and

continuously improve the skills of their professionals.

At the moment, the companies continue to feel a shortage of specialists who provide database security, and the demand for information security specialists will only increase every year.

²⁰ Almanac of cyber security in 2019: 100 facts, figures, forecasts and statistics. — URL: cybersecurityventures.com/cybersecurity-almanac-2019/

²¹ Global Cybersecurity Index (GCI). — URL: https://www.itu.int/dms_pub/itu-d/opb/str/D-STR-GCI.01-2018-PDF-E.pdf

²² KZ-CERT — The computer emergency response team incidents. — URL: https://cert.gov.kz/press_club/infographics

4.3.

IMPROVING THE EFFICIENCY OF RESOURCE MANAGEMENT IN THE INDUSTRY

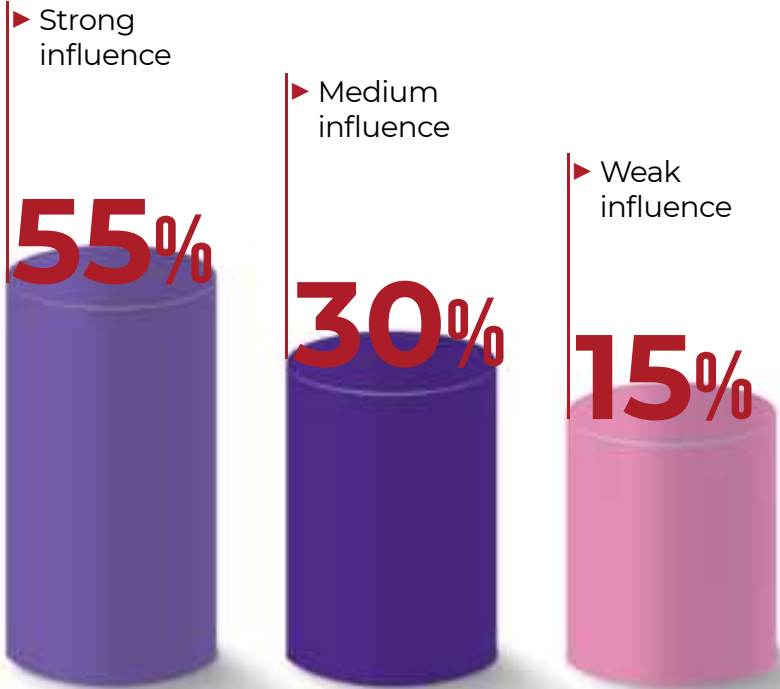
According to experts, improving the efficiency of resource management in the industry in the next 10-15 years will have a strong influence on the development of domestic tourism.



EXAMPLE OF A TREND:

In December 2019, Albany International Airport (NY) experienced a hacker attack. As a result, some of the most critical airport systems failed. To resume operation, the company had to pay a ransom, and the insurance did not cover the damage.²³

²³ URL: <https://travelvesti.ru/novosti/vsled-za-covid-19-turizm-atakuyut-khakery.html>.



Material, production, technological, human, and other resources are the pillars of any industry or company. However, resources cannot be unlimited and need proper management.

According to the industry experts, the growing need for developing

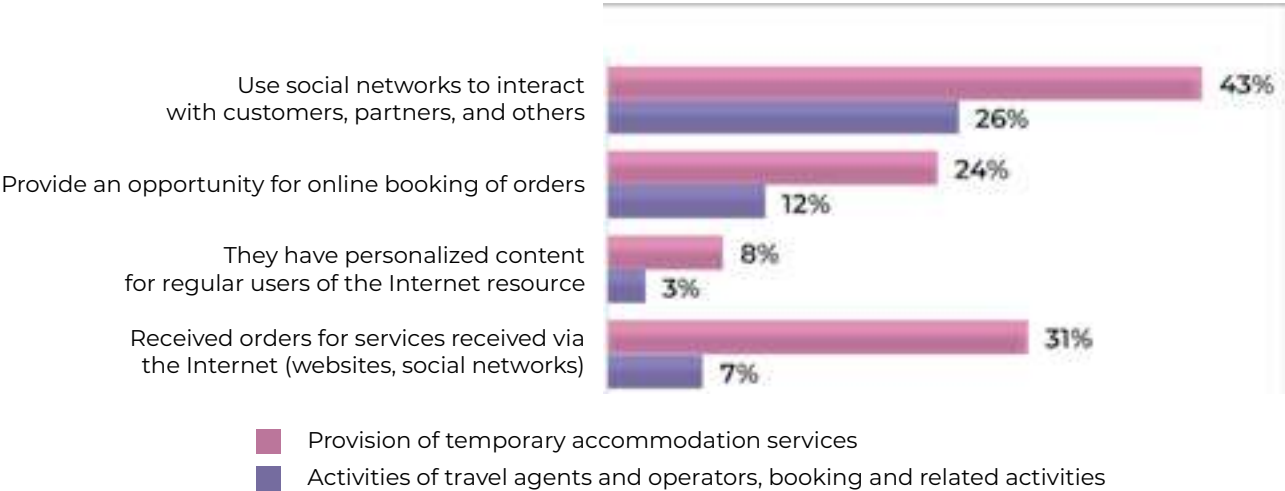
aggregated sites offering hotels, tours, and flights worldwide influences the increase in resource management efficiency. Today, travel industry companies use modern methods of marketing more often to promote their products and services.

However, according to the Statistics Committee of the Republic of Kazakhstan, not all touristic companies have business accounts in social networks or their own websites.

Companies that provide temporary residence are the most active Internet users to promote their services. But even in the hotel business, only 25% of hotels offer

customers the opportunity to book rooms online. At the same time, most industry companies that are equipped with Internet marketing promotion methods, e.g., a website or social networks, receive orders for their services.

Diagram 10.
Shares of tourism companies in the Republic of Kazakhstan using Internet resources to promote their services.



Source: Committee on Statistics of the Ministry of National Economy of the Republic of Kazakhstan.

Of course, companies need to develop and promote their websites. Still we can combine our efforts to create a single tool for promoting tourist services in the domestic and, most importantly, in the international market.

The most powerful marketing solution will be the creation of centralized online travel agencies (OTA). Their platforms will bring together all market participants such as travel agents and tour operators, ticket booking

companies, hoteliers, transport companies, objects in the field of art and entertainment, etc.

These sites will offer tourists various options for air travel, hotel accommodation, transport rent, tours, and excursions.

And most importantly, the client will choose the most suitable flight option or a hotel room and create a tourist service package. They could book or pay for it immediately on the same platform



while comparing companies' prices, following their budget or personal preferences. Of course, the implementation of this project

requires specialists in the IT field.

EXAMPLE OF THE TREND:

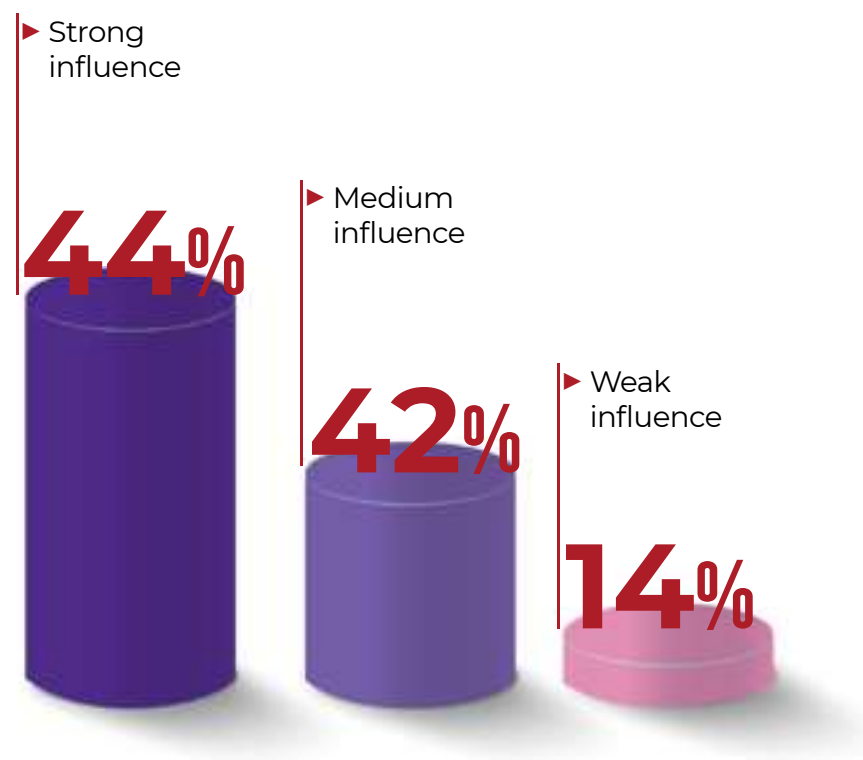
One of the leading domestic tourism market's players is an online travel agency Tickets.kz, which is part of the international OTA Tickets Travel Network (TTN). In just two years, the company has taken more than 25 % of the online booking market.²⁴

²⁴ What are the advantages of online travel agencies over traditional tour operators. — URL: <https://tengrinews.kz/travel/chem-preimuschestva-onlayn-trevel-agentstv-traditsionnyimi-336951/>.

4.4.

INCREASING REQUIREMENTS TO THE ENVIRONMENTAL FRIENDLINESS OF THE SERVICES PROVIDED

According to the industry experts, the growth of environmental requirements for services provided in the next 10-15 years will have strong and medium impacts on the development of the tourism industry in Kazakhstan.



According to experts, tourism generates 5% of global CO2 emissions, 40 % of which belong to air transportation; hotels and

other temporary accommodation give 20 %; other transports and leisure services are responsible for another 40 %. The concept

of transition to sustainable development – the integration of environmental security with balanced economic growth — has become a strategic priority for most countries in recent years. The latest technologies' potential accelerates this process.

Innovations reduce the negative impact on the environment and increase the efficiency of natural resource usage.

The following trends influence the implementation of the concept of transition of the tourism industry to sustainable development:

- Increasing popularity of eco-, ethno- and agro-tourism in Kazakhstan
- The growing popularity of the concept of healthy and informed nutrition

TREND
THE GROWING POPULARITY OF ECO-, ETHNO - AND AGRO-TOURISM IN KAZAKHSTAN

Ecotourism and nature tours are popular around the world and in our country. Every year, the number of tourists who prefer to stay in ecologically clean areas is growing exponentially.

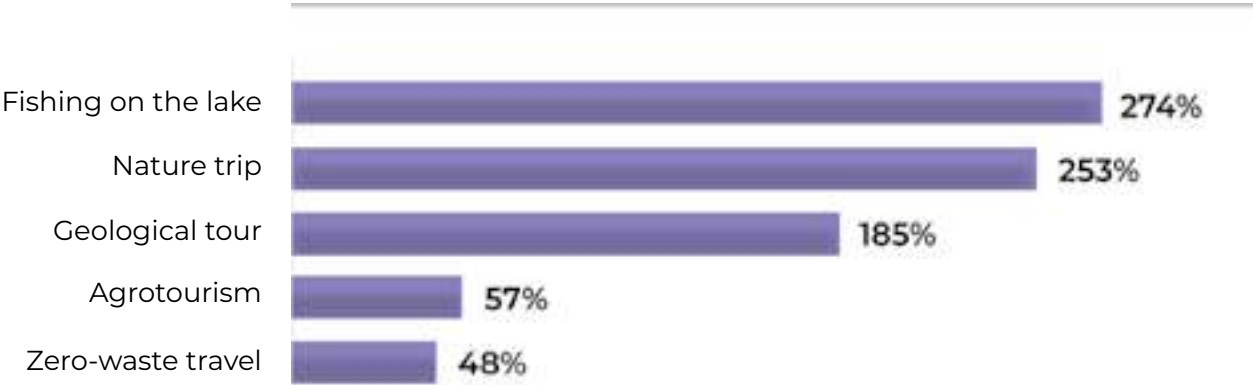
According to the report by the International Independent Institute of Agricultural Policy (Russia), the number of queries related to eco-tourism and outdoor recreation in search engines tends to grow.

²⁵ World conference «Tourism and the energy of the future». — URL: <https://www.e-unwto.org/doi/pdf/10.18111/9789284419517>.

The number of requests «fishing on the lake» increased 2.7 times, «travel to nature» – 2.5 times, «geological excursion» – 1.9 times,

«agrotourism» - by 57%, «travel with zero waste» - by 48%, and «environmentally friendly cities» - by 38%.²⁶

Diagram 11.
An increase in the number of global environmental inquiries in



Source: IIIAP «Global search query trends».

Contemporary travelers are more eco- friendly than ever. They prefer walking to driving, eat only natural products, and take care of the environment.

Airlines, tour operators, car rental companies, and hotels also picked up the theme of environmental friendliness and began to develop their business accordingly.

For example, car rental companies offer – some even specialize in - electric vehicles. Hotels and resorts focused on sustainable technologies are emerging all over the world.

THE MAIN DIFFERENCE BETWEEN ECO — FRIENDLY

HOTELS AND TRADITIONAL ONES IS THAT THE FORMER PROVIDE THEIR GUESTS WITH OUTDOOR RECREATION AT THEIR LOCATION, OFFER ORGANIC PRODUCTS, AND USE ONLY ECO-FRIENDLY MATERIALS TO DECORATE THE ROOMS.

The world tourism industry already has such hotels where you cannot use cellphones or electricity. The water is heated by sunlight, and personal hygiene products do not harm the environment.

EXAMPLE OF A TREND:

Kyzylaray is a popular place for ecotourists in Kazakhstan. If they want, tourists can stay in a Kazakh yurt (a mobile house) and learn about the life of local people.

Charyn Canyon, located 200 km from Almaty, is also very popular among tourists. This canyon is a unique place with singing sands and bizarre rock formations in the shape of castles. It is often compared with the Grand Canyon in Arizona.

Hunting with birds of prey takes a top position among touristic attractions. Some foreigners specially travel to Kazakhstan to learn this type of hunting.

2 TREND THE GROWING POPULARITY OF THE CONSCIOUS AND HEALTHY EATING CONCEPT

Healthy lifestyle and informed food choices are becoming a global trend.

People today have become more concerned about their health. They plan their diet correctly and want to stick to it when traveling.

The tourism industry cannot stand by and ignore the impact of this trend. Therefore, for this category of clients, travel companies develop

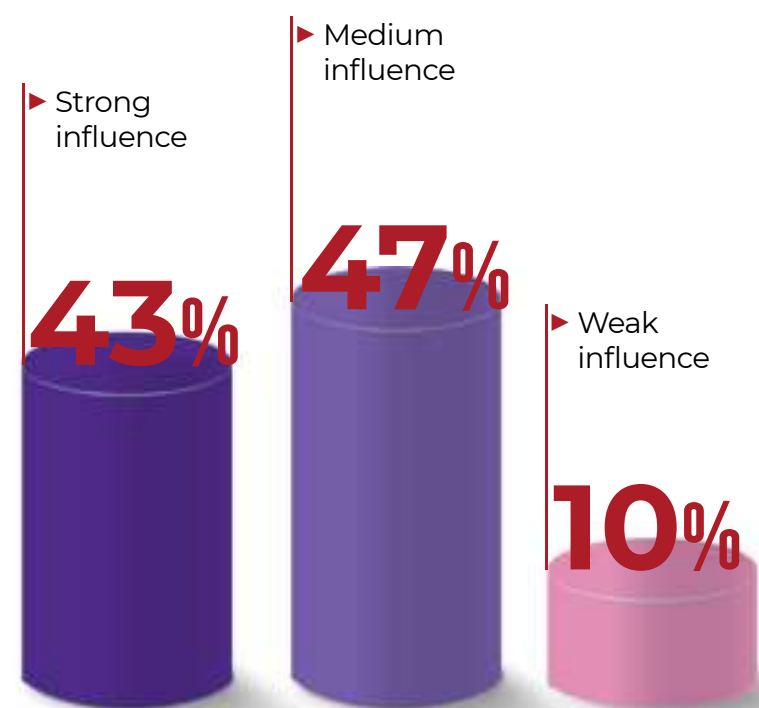
offers focused on including only healthy, natural, and fresh products into the diet. They also offer separate meals for those who are on special diets.

Hotels and resorts combine health and recreation with innovative cuisine, often emphasizing fresh local ingredients and regional recipes. Some resorts promote specific goals, such as weight loss.

²⁶ IIIAP «Global search query trends». — URL: <http://xn--80aplem.xn--p1ai/analytics/Globalnye-trendy-poiskovyh-zaprosov/>.

4.5. CHANGING REQUIREMENTS

Changes in the needs of Y and Z generations' specialists in the next 10-15 years will have medium and strong impacts on the development of the tourism sector in Kazakhstan.



Young people born in the era of computers, the Internet, and social networks, have completely different values and behaviors than previous generations. They

begin to take an increasingly active position in the labor market. At the same time, employers are increasingly facing difficulties in hiring young professionals.



The younger generation is more demanding in terms of working conditions and remuneration, workplace equipment, career advancement opportunities, etc. According to industry experts, a new generation of specialists changes their demands under the growing need for professionals with required competencies.

Tourism is one of the few industries where young people are more likely to work. In addition, the introduction of the latest technologies requires advanced knowledge of computer programs. Young people quickly master such skills. At the same time, young people do not want to stay in one workplace for a long time, which negatively affects business efficiency and the quality of services. Therefore, employers have to retrain a new specialist. Sometimes they face a situation when there is no suitable candidate, and no one to replace the employee who left.

In this situation, employers

are forced to train a specialist independently with the maximum number of professional competencies to perform duties beyond their primary job responsibilities, if necessary.

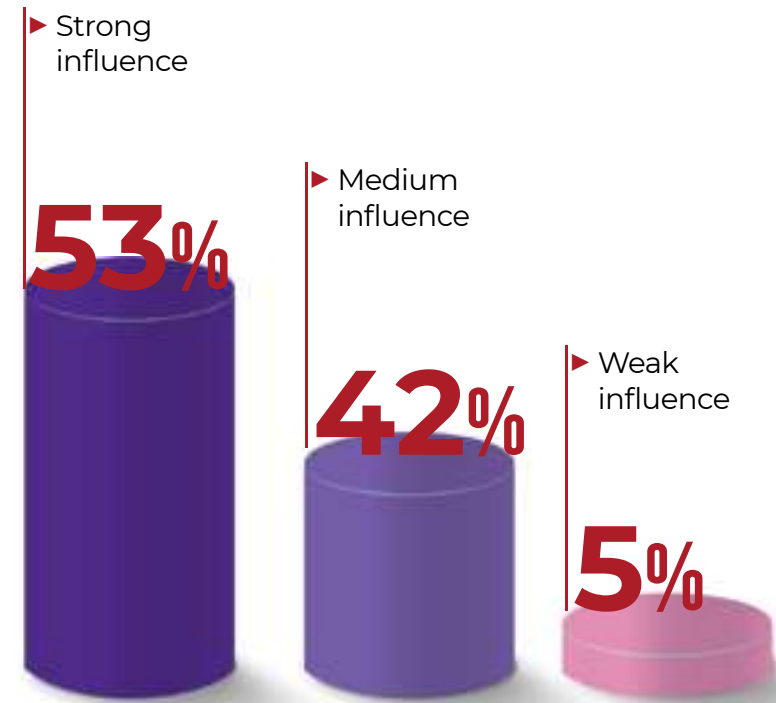
Industry experts even call a tourism manager a one-man band who knows how to do everything, e.g., negotiates clients, sets an advertisement on the site, meets and accompanies tourists, speaks several languages, and acts as an interpreter.

The development of related specialties helps companies distribute the duties among the staff so that the workload is the maximum for each employee. That helps quickly resolve issues of replacing some employees with others.

4.6.

CHANGES IN CONSUMER PREFERENCES

Changes in consumer preferences in the next 10-15 years will have a substantial impact on the development of tourism in Kazakhstan



It has recently been emphasized that companies that provide public services should focus on consumers, their needs, habits, and wishes. For

companies, this means finding new opportunities, expanding the range of services, and improving service quality to meet their customers'

needs. Those companies that do not follow this trend and make no change are likely to lose their market position one day.

According to the industry experts, the following trends influence changes in consumer preferences in the tourism sector:



TREND

INCREASE OF HIGHLY PERSONALIZED TRAVEL PRODUCT OFFERS

For the last decade, travel marketing has been primarily based on specific potential client's data. The most frequently visited sites, previous purchases, and other information are used to adjust advertising, thus promoting it to the target group. For example,

targeted ads or ads on the web browser of potential customers can offer discounts on air tickets, hotel rooms or suggest some useful services tips, depending on what they were most interested in recently.

2 TREND INCREASED DEMAND FOR INDIVIDUAL TOURS

Previously, families or small companies often went on vacation. While this is still relevant for many, more and more people choose to travel alone.

Traveling alone is no longer unusual, and travel trends are increasingly reflecting this.

According to The Global Search Trends report by IIAF (Russia), the number of queries for individual tours increased by 49% over the

past period of 2020.

The needs of individual travelers are diverse. Some just want to travel without distracting a fellow passenger.

Others use this opportunity to expand their friends' circle; still others consider it as an alternative to traditional care for the elderly. This trend in tourism, according to experts, will grow and develop.

3 TREND GROWING DEMAND FOR TOURS WITH A FOCUS ON LOCAL EXPERIENCES

If earlier travelers tried to stay within the resort, consume familiar food, and communicate mainly with their compatriots, modern travelers now seek to commune with the people, cultures, and landscapes of the country they visit.

Local food is a key feature of many

trips, and people are eager to try something new. The cultural experience is the culmination of many journeys, and modern travelers seek to witness the traditions of the people who inhabit territory and take part in them.

4 TREND THE GROWING POPULARITY OF REMOTE WORK AND WORKING WHILE TRAVELING

Today, a significantly larger number of people work remotely than it was a few years ago.

This trend will only grow. Skype and similar video conferencing applications have proven that one does not need to be in the same room for effective meetings with colleagues or negotiations with clients. Traveling in your spare

time is an increasingly popular phenomenon among the «digital nomads».

Freelancers, whose number is growing, or remote employees are not tied to a specific workplace and can freely travel around the world with laptops.

This type of tourism is widespread among the Millennials.

5 TREND THE GROWING POPULARITY OF CAR SHARING SERVICES AMONG TOURISTS

The number of users of carsharing, a short-term car rental service, is snowballing. The service is available to tourists at any time of the day, on any day of the week. The parking lots for such cars are usually located in the busiest areas of the city. The main idea is that a ride on a shared vehicle should cost less than on a taxi. Usually, people use the so-called «mobile carsharing», which

means trips without returning cars to the carsharing parking lot. However, hoteliers can create their own specialized services cooperating with the company used by their customers. But to do this, you must provide an opportunity to register foreigners in the mobile applications of car sharing operators.

²⁷ IIAF «Global search query trends». — URL: <http://xn--80aplem.xn--p1ai/analytics/Globalnye-trendy-poiskovyh-zaprosov/>.

6 TREND

FOCUS ON CUSTOMER EXPERIENCE AND SATISFACTION

Enriching the customer experience is vital in today's travel and tourism industry. Customers have more options than ever, so ensuring loyalty and satisfaction are becoming more critical.

Strategies and technologies available to tourism market participants play an important role in creating a positive consumer experience. From the chatbots used for booking a trip to the food offered, smart devices in hotel rooms and AR apps that help guests navigate their destinations relate to improving the customer's perception of their journey or stay.

When adopting a new development strategy, it is essential to ask, «How

can this improve customer service quality?» Thus, the key trend is to focus on generating positive feedback from customers by meeting their needs.

Domestic tourism is not yet strongly influenced by the following global trends. However, in the future, they will also become relevant to our tourists.



7 TREND

GROWING DEMAND FOR VIRTUAL TOURS

The travel market is witnessing a growing demand for virtual tours that allow you to «visit» any corner of the globe without leaving your apartment.

The latest virtual and augmented

reality technologies allow you to wander through the cozy streets of Wiesbaden, visit the Niagara Falls or the Louvre exhibition, and find out about the original look of the ancient ruins of Greece.



8 TREND THE INCREASING NUMBER OF AGED TRAVELERS

Modern retirees, especially from developed countries, are increasingly paying attention to active recreation and travel. This trend puts the industry in need of developing a range of services for elderly clients, who often need support and exceptional care, including the medical one. According to Booking.com, a

leader in the global online booking market, 64% of respondents of that age group from the Russian Federation consider traveling a good option for their free time.²⁸

9 TREND THE GROWING DEMAND FOR TRAVELING WITH PETS

Pets have long been equal members of families. Therefore, it is not surprising that in the last few years, when choosing accommodation, travelers pay attention to the possibility of settling them together with their pets.

Such «guests» are offered various services, including free dog beds, SPA, special room service, and even restaurants for pets.

If earlier this trend was relevant only in Western Europe, the United States, and other developed countries, today it is conquering the Russian tourist market. Research initiated by Booking.com showed

that for 32 % of respondents from Russian pet owners, an important factor in deciding about a trip is the availability of services for their pets in the accommodation.

According to The Global Search Queries Trends by IIAP (Russia), the number of queries on «pet resort increased 2.3 times for the past period of 2020».²⁹

²⁸ Booking.com. Main Travel Trends for 2020. — URL: <https://news.booking.com>.

²⁹ IIAP «Global search query trends». — URL: <http://xn--80aplem.xn--p1ai/analytics/Globalnye-trendy-poiskovyh-zaprosov/>.



10 TREND THE INCREASING DEMAND FOR SPACE TOURISM

All over the world, the interest in visiting launch sites of space shuttles is growing. For Kazakhstan, space tourism development can become a new, unique course. The prerequisites for its development in our country are huge, including special attention that the Government of Kazakhstan pays to space tourism development.

Also, among the critical trends that will impact the domestic tourist market development in the next 10-15 years are the following:

- ▶ The increased mobility of the population (easy decision-making to move from place to place).

- ▶ The growth of short-term trips, e.g., on weekends.
- ▶ The increase in trips made during the year.
- ▶ The growth of travel expenses.
- ▶ The expanding demand for non-traditional accommodation (mountain chalets, hunting lodges, bungalows, etc.)



THE FUTURE IS NOT
OVER THE MOUNTAINS.
WHAT WILL IT BE LIKE
FOR THE TOURISM
INDUSTRY?

5.





THE FUTURE IS AROUND THE CORNER. WHAT WILL IT BE FOR THE TOURISM SECTOR?

What will the tourism industry of the future look like? Not in a couple of years, but in 10-15 years? What trends will have the greatest impact on the tourism sector? What innovations of the Fourth Industrial Revolution will come to the tourism market and stay there, and which ones will not win it?

In the world changing at an incredible pace, what seemed impossible just a few years ago can become a reality of today's daily lives. This transformation is based on innovative technologies. How will they change the tourism industry?

Tourism of the future uses a breakthrough of the Internet of things, which will manifest itself in personal gadgets and advanced technologies installed in airports, hotels, and recreation areas. They will completely organize any trip almost without the participation of the tourist.

Let's try to imagine what the journey for the average tourist will be in 2035.

As you know, any trip begins with the selection, booking, and payment of the tour.

Traditional tour packages are no longer as popular as they used to be. They were replaced by individual offers that best meet each tourist's needs and preferences of, e.g., from choosing a travel route to ordering a diet meal in a restaurant.

A tourist can book and pay for a trip in a few minutes, without leaving home, on the online travel platform, since there are no physical offices of travel agencies and tour operators for a long time. All their work has moved into the online space. A personal travel consultant serves only the elite segment of tourism.

The online travel platform that unites all the leading players in the travel industry (air carriers, hotels, tour operators, entertainment facilities, etc.) has access to a potential tourist

profile and instantly gives out the most suitable offers for tourist destinations.

The most frequently visited tourist sites, thematic groups in social networks, previous trips, purchases, hobbies, and interests of users form customers' profiles.

The service also knows whether they like to watch movies at home with their family or prefer to go to another city or country for the World Cup final. Sometimes it seems that the platform understands tourists' needs better than they do.

«Smart» personal gadgets help to analyze the available information. For example, financial conditions of traveler's accounts; availability and order of the documents; access to discounted tickets; hotels with the best seasonal prices; sightseeing and attractions; the weather forecast, and a mn. other essential characteristics. Here you can also make a payment for the generated package of services.

When choosing a hotel room, the tourist uses the built-in virtual service to view available rooms at the time of travel, selecting the most comfortable environment for themselves, up to the color of the walls and curtains on the windows.

And now, after choosing and paying for the tour, after packing the suitcases...

The tourist goes to the airport, where the procedure for passing customs control is so simplified that the tourist does not need to provide their documents. It happens due to the biometric identification technology integrated with a mobile

application. An electronic ticket check-in for a plane takes a couple of minutes because the tourist's identity is confirmed, and information about the route is already in the database. Smart sensors instantly check the luggage for items prohibited from carrying.

At the same time, unique digital tags are placed on the baggage so that the passenger can track its location in real-time, thereby minimizing the risk of losing luggage.

Upon arrival, the tourist **automatically downloads a tour navigator** on a smartphone. It operates in an understandable language, orients in a new place, directs to the booked hotel, advice which places and facilities to visit, and finds restaurants with vegetarian cuisine.

A fleet of self-driving car-sharing vehicles is waiting for a tourist at the airport exit or train station to deliver to the specified address comfortably. Voice commands control the «smart» car system. A trip along the client's route is accompanied either by a story about the sights the tourist sees at this moment or by creating a comfortable, relaxing atmosphere.

So the tourist arrives at the hotel, where a doorman in livery meets him/her if it is an elite hotel. Otherwise, guests meet the traditional staff or a robot-butler, which is programmed to greet guests in their native language and tell them how to go through the registration process.

At the very moment when tourists get into the hotel lobby, their biometrics is scanned, and they encounter no problem

with the luggage. The robot-porter immediately delivers the suitcases to the reserved room or, if necessary, places them in the luggage storage room.

The hotel reception desk is more like a meeting place for people who have known each other for a long time than a torturing spot for filling out registration forms and issuing the key. And the key is no longer there. Tourists get to their rooms using electronic keys installed on their mobiles or using biometric ID devices.

The entire infrastructure of the hotel is equipped with a large number of different monitoring sensors, which makes the tourist's stay comfortable and completely safe. Hotel rooms have built-in smart home systems that use voice control devices or a mobile app. Our tourists easily manage the fragrance and background music in the room. The sensors that automatically read the guests' body parameters select a comfortable mode for lighting and temperature in the room. The giant TV is already pre-configured to watch visitors' favorite movies and programs. Even the room walls' design tourists select themselves, for example, choosing a projection of the Niagara Falls or Mountain Everest's peaks.

Service is carried out using the built-in assistant, which will wake you up at the appointed time, order transport, book a ticket to the holographic show, and give the chef instructions about changes in the menu. These intuitive and easy-to-manage innovative technologies make a tourist's stay at the hotel as comfortable and cozy as at home.

New health and safety standards are of great importance in hotels,

in their rooms, swimming pools, fitness centers, spas, and other places.

An important part of tourism services is the journey itself, for which this trip is organized. What will a tour look like in 2035?

Active or sluggish? Virtual or real? What new types of tourism will appear, and which will get the most popularity?

In 2035 virtual tours cannot surprise anyone; they have become common. Visiting a virtual exhibition at the Doge's Palace in Venice and examining each canvas presented; witnessing the eruption of Vesuvius riding through the African savanna of the Serengeti - these are a few examples of what our tourist can allow without leaving their home. However, they experience the effect of the real presence in the place. But the idea of visiting an immersive show with holographic effects attracts thousands of tourists worldwide.

Of course, virtual tourism will never replace traditional recreation. Therefore, in 2035, tourists choose both the conventional tours, such as excursions to historical and cultural heritage sights, or sea voyages, and tours that have become popular in the last decade

As you know, by this time eco- tourism was widespread.

It subjects everything to the principles of naturalness and respect for nature, from the use of environmentally friendly materials in the construction of guest houses to the rejection of plastic and even cellular communication.

Agricultural tourism is also in the top five tourist destinations.

Therefore, our tourist is happy to go for a walk in an apple orchard or vineyard, taking part in the harvest, visiting a livestock farm, and learning to care properly for a newborn foal.

In 2035, ethnotourism is also among the most frequently ordered tours. An increasingly popular type of tourism that gains market positions relates to getting to know indigenous peoples' life, habits, traditions, and rituals. Going on such a trip, a tourist wants to learn how to set up a yurt, learn the secrets of hunting bekkrutchi, take part in the wedding ceremony. Such tourists are interested in learning everything that is significantly different from their daily life.

A special place in the tourism of the future is reserved for people with disabilities, health tourists and aged travelers. This category of the population is becoming more and more socially active, so the infrastructure of tourist facilities is equipped with all the necessary devices to develop tourism accessible to them.

The tourist of 2035 often goes for holidays, prefers short tours to less popular cities, avoids booking an elite hotel, but chooses a small mountain Chalet. Pets also get travelers' status, since going on vacation, the tourist does not want to leave their pet for a long time.

These trends change the tourist infrastructure, increase the number of single rooms and playrooms for children, and organize accommodation for traveling animals.



Upon returning home, the tourist leaves a review of their trip on the online travel platform. After reviewing other travelers make the right decision about choosing a trip for themselves.

Some will say that this is all from the realm of science fiction. No, this is a description of a fairly realistic picture of the future. For world-leading travel companies, the above description is not the future, but the present or even the past.

Countries such as Japan, China, and others already offer tourists accommodation in fully robotic hotels. The world practice includes long present online travel platforms for booking tours and contactless payments. Biometric identification has already been used when passing customs control at airports. The next development stage for the travel industry giants will be fully autonomous and eco-friendly hotels, capsule or underwater

hotels with 3D printers in the rooms, and beds with a choice of sleep, thanks to non-retro technologies connected to it. Tourists will be offered flights to the stratosphere or send on a real space trip.

After assessing the level of tourism development in our country, we can note that it is not yet as developed as the world leaders in the tourism industry. We still have a lot to improve or even implement from scratch. However, the industry trends in recent years inspire optimism and give hope that the domestic tourism sector will receive a new impetus to go forward soon.

Of the technologies that the world tourism market has received recently or getting familiar with within the last few years, only some are likely to come to Kazakhstan in the medium term.

Let's then decide what the tourism

of the future in Kazakhstan will be, and which technologies will find real implementation in the tourism sector until 2035.

The development of the tourism sector will go under the influence of the expanded automation and AI introduction.

- ▶ Promotion of the tourist product will be carried out through online travel platforms that bring together leading market players.
- ▶ The development of such platforms will increase awareness of Kazakhstan in the world tourism market and attract new travelers of domestic and even inbound tourism.
- ▶ Contactless and online payment technologies will be widely used, simplifying payment for services provided. This change will be vital for foreign tourists, who will increase their loyalty.
- ▶ Big Data and technologies for augmented and virtual reality will be widely used to attract and serve tourists. This shift will allow potential customers to get the most personalized offer.
- ▶ New mobile applications of tour navigators will quickly orient tourists on location and build an individual travel route.
- ▶ The introduction of biometric identification technologies will simplify customs control. Baggage tracking will use digital tags that are placed automatically at the time of passenger check-in.
- ▶ The large companies in the hotel business will be the first to introduce gradually the concept of a “smart hotel” that uses monitoring sensors to improve the guests’ service and security levels. Intelligent scanners and digital tags will help in recording inventory items.
- ▶ Drones and other UAVs will gradually penetrate the sphere of domestic tourism as a means of panoramic photography, delivery of goods to hard-to-reach places, and tourists’ safety during travel. And in the future, UAVs can also be used for organizing excursions by air.
- ▶ Large hotels will start implementing virtual and augmented reality technologies in the form of interactive reference boards.
- ▶ Service robots are not yet available, but they will get a large-scale implementation. Large hoteliers will start using them in some work, mostly to increase guests’ interest in themselves.



2. *The main areas of tourism development in Kazakhstan will become eco-, ethno- and agrotourism.*

- ▶ The local and international markets will pay significant attention to the development of tourist and recreational areas and the promotion of tourist destinations.
- ▶ The main principle will be the transition to a green economy and the achievement of sustainable development goals. Travel companies, the locals, and tourists, all together, will take care of the environment and preserve the national culture.
- ▶ Domestic tourism will significantly increase its popularity. Kazakhstan will become more recognizable in the global tourism industry, contributing to a gradual increase in visitors to inbound tourism.

- ▶ Two segments will represent tourism itself. The first segment is publicly open and accessible to almost everyone. The second one is an elite personalized travel product, expensive and associated with personal manager assistance at all stages.
- ▶ Ecotourism, ethno-tourism, and agro-tourism are the most popular types of tourism. Also, a lot of attention will be paid to space tourism development (e.g., visiting the Baikonur launch site).

3. *The activities of travel agencies and tour operators will go online.*

- ▶ The activities of travel agencies and tour operators will entirely switch to the online space.
- ▶ They will go into two categories: the first one will represent the technical administrator of booking

systems (administration of technical issues of online booking, service, and sale of tour packages on the site travel agencies), the second category is a personal travel consultant (personal consulting and tours selection, work in the elite segment and individual traveling).

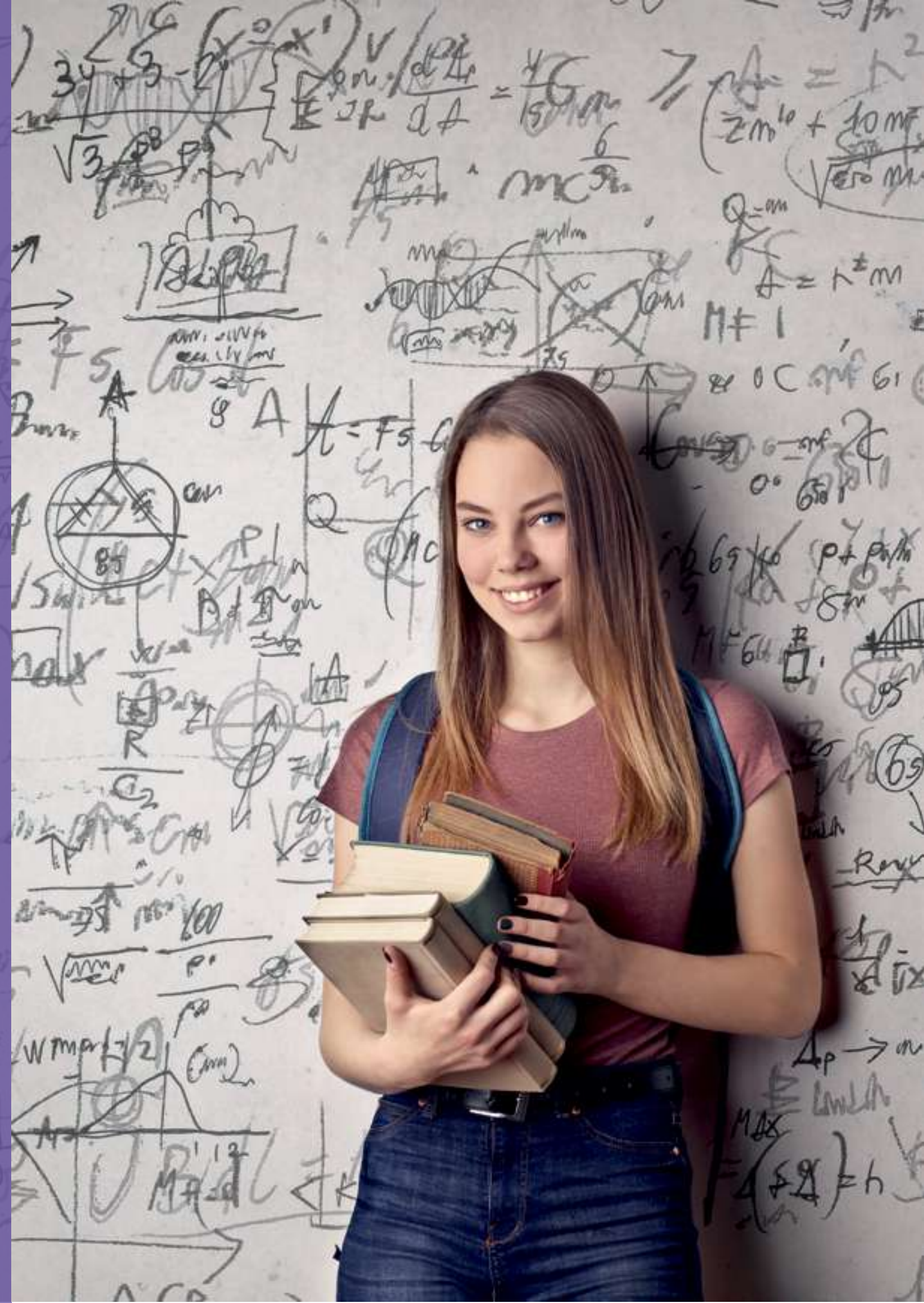
- ▶ A manager in the tourism sector will turn into a specialist who can do everything, e.g., negotiates with the client, sets up advertising on the site, meets and accompanies tourists, speaks several languages, and acts as an interpreter.
- ▶ Tourism business entities will actively attract investors for the development of tourist destinations and local handicrafts. They will effectively cooperate with educational institutions in training qualified specialists for the industry.

Summing up, we can briefly denote the future domestic tourism image, as consistently personalizable services, moving towards eco-friendly, ethno - and agro-tourism. It focuses on the personal needs and interests of each client, who can choose between creating their own tourist product using the online travel platform or contacting the travel company for exclusive services directly.



WHAT SKILLS AND COMPETENCIES ARE NEEDED FOR A SUCCESSFUL CAREER

6.





WHAT SKILLS AND COMPETENCIES ARE NEEDED FOR A SUCCESSFUL CAREER

More often, employers and recruiting agencies have been using the terms «competence» and «skill».

We will also use these terms to describe new and changing professions. But first, let us define these concepts.

Translated from Latin competo – achieve, match, fit.

If you open a Large encyclopedic Dictionary, you will see:
«Competence —

1. the scope of powers granted by law, a charter, or other act to a specific body or official;
2. knowledge and experience in a particular field.

According to the Ushakov Explanatory Dictionary,

«competence is a skill created by habit» It is an action that is due to repetition can be performed unconsciously or automatically.

Based on the above definitions, the concept of «competence» will refer to the professional activity of employees (professional competence), and «skill» is what goes beyond professional knowledge and abilities (superprofile skills).

6.7. PROFESSIONAL COMPETENCES

As mentioned above, professional competencies, refer to professional skills (hard skills — «hard skills») that we receive in the course of training, develop and apply in our work. They can be clearly demonstrated and even evaluated or measured.

This approach fully coincides with the position of representatives of the British school of labor psychology, who understand professional competencies as the ability to act in accordance with the

standards of work performance. This approach does not focus on employees' personal characteristics, but on the quality of their job responsibilities, consisting of specific operations.

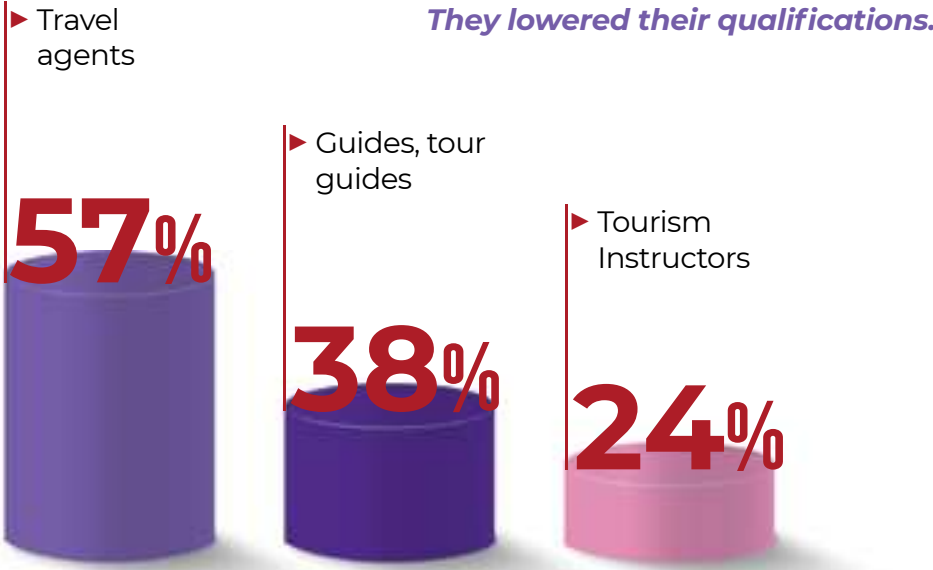


For example, professional competencies include: selecting tours according to the wishes and needs of clients, preparing people to complete complex tourist routes, booking tickets, hotel accommodation, etc. Each profession has its own list of competencies presented to a specific employee depending on their skill level. Therefore, in this section, we will not dwell on examples of the professional competencies of employees in the tourism sector. Key professional competencies will accompany each new profession in the section «The List of New Professions». However, it is worth paying attention to the current situation with the qualification of specialists in the industry. We asked industry experts to answer this question. As it

turned out, experts are seriously concerned about the situation with the level of staff qualifications.

58% of experts note the deterioration in the qualifications of industry personnel in recent years. According to 29 % of them, the level of qualification has deteriorated in all professions. The same number of experts believe that the professional level for some positions has improved, but degraded for others.

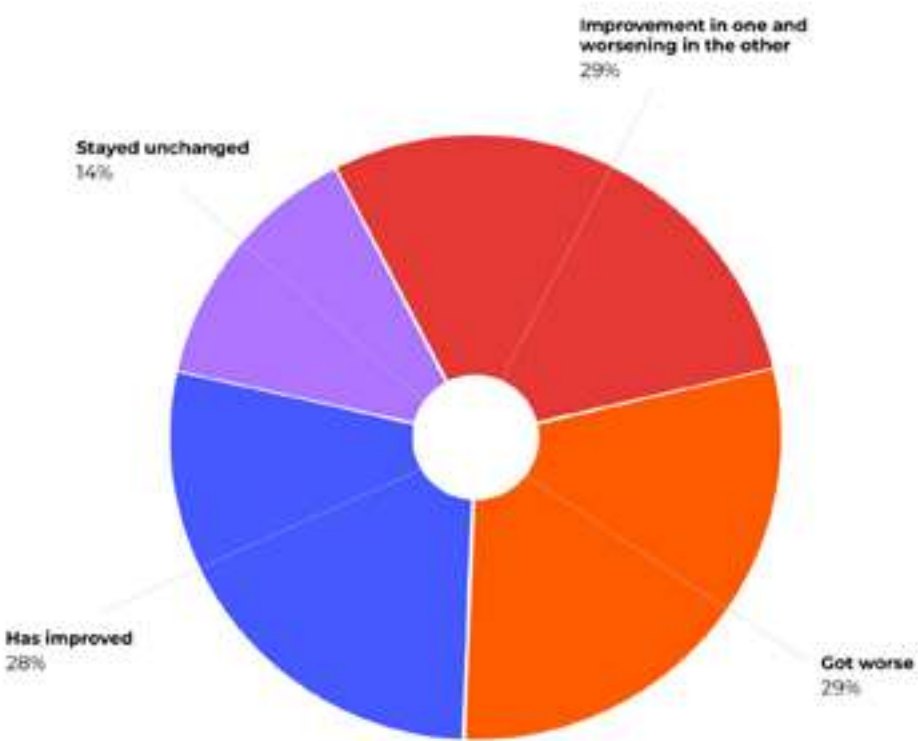
At the same time, 28 % of industry experts note a tendency to improve the professional competencies of industry specialists.



Tourism agents were mostly affected by the deterioration of their qualifications, according to 57 % of industry experts. Guides and tour guides occupy the second position of the anti-rating with a share of 38%, and tourism instructors took the third position (24 %). Moreover, in their opinion, these are the most critical and popular professions in the tourism sector.

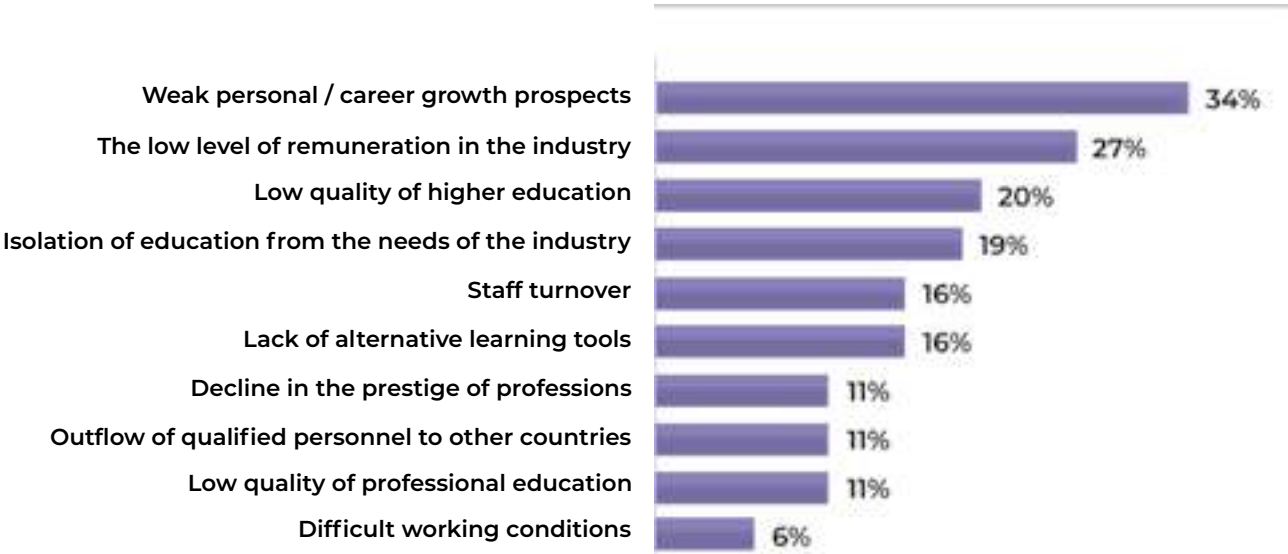
Weak prospects for personal and career growth, low wages, poor quality of higher education, and isolation of education from the industry's real needs, according to industry experts, are the main reasons for the decline in the level of qualifications of specialists in the field of tourism.

Diagram 12.
Assessment of changes in the level of qualifications of industry specialists in recent years, as a % to the number of industry experts



Source: Survey of industry experts.

Diagram 13.
Rating of reasons for the decline in the level of qualification of industry specialists.



Source: Survey of industry experts.



6.2. BASIC AND SPECIALIZED SKILLS OF FUTURE PROFESSIONS

To master a new profession and build a successful career, you need to understand what skills you need to have. Leading experts in Kazakhstan’s tourism sector assessed the most popular skills for career growth in the industry.

In their opinion, to remain an in-demand specialist in the future, it is not enough to improve one’s professional level. Even now, leading companies in the industry are more willing to hire and promote those

specialists who have leadership qualities and know how to manage effectively. Though today soft skills are not popular, they will be a prerequisite for young professionals’ career growth in 5-7 years. At the

same time, the list of required soft skills will be continuously expanding.

All of this will lead to a change in the model of education. If the so-called “the factory model of education,” which has been used for decades, was built according

to the «school — college — university — higher school» algorithm, now the emphasis is shifting towards lifelong learning.

Distinguishing features of the old model:	Hallmarks of the new model will be:
<div><div>1.</div>Getting an education in adolescence;</div> <div><div>2.</div>One education for life;</div> <div><div>3.</div>Long-term training in the received specialty from three to five years, depending on the level of education;</div> <div><div>4.</div>Fundamental technical training;</div> <div><div>5.</div>After receiving education, advanced training is optional, it is not necessary, the exceptions are established by law;</div> <div><div>6.</div>The training system is localized in the educational institution;</div> <div><div>7.</div>The new model of education has not yet formed, and different authors describe it in different ways</div>	<div><div><i>Continuing education of mixed age groups:</i></div><div><div>1.</div>It will become the norm to get a new profession in adulthood. New teaching methods will be created, taking into account the age characteristics of students: weakening of memory, a higher level of responsibility and perseverance.</div><div><div>2.</div>The emergence of educational programs of various duration, from ultra-short (10-15 hours) to ultra-long.</div><div><div>3.</div>Globalization of the educational space. On the one hand, residents of the regions will have more opportunities for access to quality education. Moving to the capital or highly developed countries will no longer be the only opportunity to get a specific education, for example, in biology, astrophysics, etc. More equal opportunities will be observed.</div><div><div>4.</div>The emergence of educational ecosystems and unified thematic educational platforms in the country (unified medical, engineering and other platforms uniting classical universities).</div></div>

Continuing education of mixed age groups:

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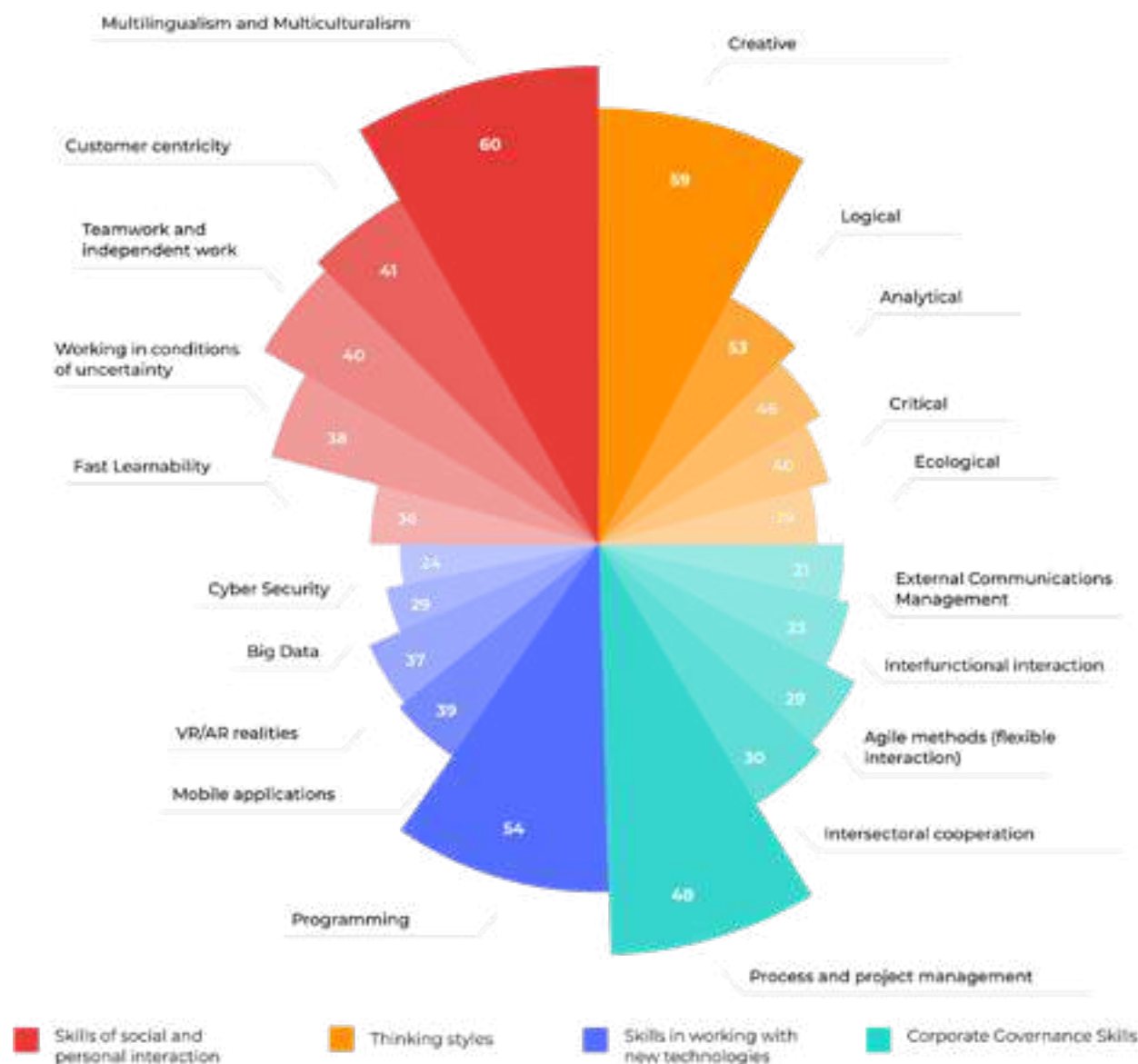
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4.

The emergence of educational ecosystems and unified thematic educational platforms in the country (unified medical, engineering and other platforms uniting classical universities).

**WITHIN THE FRAMEWORK
OF THE PROJECT «THE ATLAS
OF NEW PROFESSIONS AND
COMPETENCIES OF KAZAKHSTAN,»
SUPER-SPECIALIZED SKILLS WERE
GROUPED INTO FOUR BLOCKS:**

- ▶ Style of thinking.
- ▶ Social and personal interaction skills.
- ▶ Skills in the area of corporate governance.
- ▶ Skills in working with new technologies.



The following basic and specialized skills in the presented Atlas are selected:

1. lean manufacturing;
2. customer focus;
3. multilingualism and multiculturalism;
4. cross-industry communication skills;
5. creativity skills;
6. programming/ robotics/ artificial intelligence;
7. self-development and adaptability;
8. systemic thinking;
9. process and project management;
10. environmental thinking.

LEAN MANUFACTURING

Lean manufacturing is an enterprise management concept based on the constant search for, reduction, or elimination of losses. Losses are defined as actions, processes, or operations that consume resources (human, temporary, material, etc.) but do not add value to the final or intermediate consumer. Lean manufacturing is changing the approach to enterprise performance management from extensive (work more and faster)

to intensive (work more efficiently, i.e., do only what you want; it is also necessary not to do what you can avoid).

The relevance of lean management methods is increasing because traditional management methods have already reached their peak. Further business development will increasingly focus on intensive development and lean improvement methods.

2 CUSTOMER FOCUS

Customer orientation refers to the ability to work with customer requests, the ability of the company and employees to identify customer needs promptly and satisfy them with their products or services with maximum benefit.

Competition for consumers is growing all the time, and all employers want to see customer-oriented employees. This requirement has become critical to the success of companies. In the

second half of the 20th century, the concept of an internal client appeared, i.e., an intermediate consumer located further along the production chain within the same company. This skill allows you to accurately understand the client's request and offer the most suitable solution for it and build the production and service process more efficiently, excluding stages that are not important for the client.



4 CROSS-INDUSTRY COMMUNICATION SKILLS

Cross-industry communication is characterized by understanding technologies, processes, and the market situation in various related and non-adjacent industries, including cross-functional cross-disciplinary interaction. The intersection of different sectors creates more and more advanced

products, so specialists need to understand several areas of knowledge at the same time.

Specialists with this competence can create unexpected, unique, and breakthrough solutions.

5 CREATIVE SKILLS

Creativity skills include the ability to express feelings and emotions symbolically, create new artistic images, and the presence of a developed aesthetic taste. In the future, robots and machines will replace humans in many areas. Creativity is the only area that remains inaccessible to artificial intelligence. Specialists

with creative skills will gain an advantage in almost all areas of business. The emerging trend of personification and individualization of goods and services will continue to develop. And the day will come soon when all products and services will become as personalized as possible.

3 MULTICULTURALITY AND MULTILINGUAL

Multiculturalism and multilingualism in the enterprise involves taking into account national or religious cultures, and thinking patterns, psycho types, communication, and individual characteristics.

Even today, companies with international staff are widely spread.

The multiculturalism and multilingualism policy sets the vector of interaction between diverse people for recognizing each other, not confronting. The changes that are taking place today raise new challenges unknown before.

It is generally recognized that the most effective solutions are born at

the intersection of different areas of knowledge, approaches, and cultures.

The most effective teams include people with various thinking, psychology, and distribution of roles in the team.

Multicultural teams can find effective unusual solutions and even solve problems that are still unsolved.

8 SYSTEMIC THINKING

System thinking includes a specialist's ability to combine (generalize) particular facts into an overall picture, build the hierarchy to understand various situations (economic, political, business), and make long-term decisions.

An important quality is understanding how changes to one element will affect other aspects in the future.

Currently, under the influence of ongoing transformations, the focus of the system approach has shifted. Previously, the system and its component generated much interest.

The primary attention now is to the system environment, what part of a more global system it is, and how it interacts with other systems.

Professionals with skills in systemic thinking can perform complex

analysis of large amounts of information;

- ▶ perform complex analysis of large amounts of information;
- ▶ identify patterns and cause-and-effect relationships;
- ▶ form a complete picture of what is happening;
- ▶ evaluate the risks and opportunities associated with making individual decisions.

Increasing the scale of digitalization and the latest technologies, expanding the range of subjects interacting with each other within the same process leads to increased demand for specialists with system thinking. And this trend will not only maintain its pace but also increase it.

9 ABILITY TO MANAGE PROCESSES AND PROJECTS

Process and project management skills include the ability to focus on project goals, plan and organize team actions correctly to complete tasks effectively, and assess existing risks and opportunities for all interaction sides.

A specialist with these skills knows how to organize project work properly within the specified funding and correctly distribute work to meet the project's deadlines.

Such a specialist is constantly learning something new, is not

6 PROGRAMMING, ROBOTICS, ARTIFICIAL INTELLIGENCE (AI)

This field includes various skills related to the development and configuration of AI systems, setting up and configuring robots, and developing programs for managing production processes and individual machines.

Automation and robotization are rapidly penetrating all areas, primarily in production. It is expected that in 15-20 years, machines will replace humans in

most routine operations that do not require creative skills. Therefore, the need for specialists with these skills will grow in all industries.

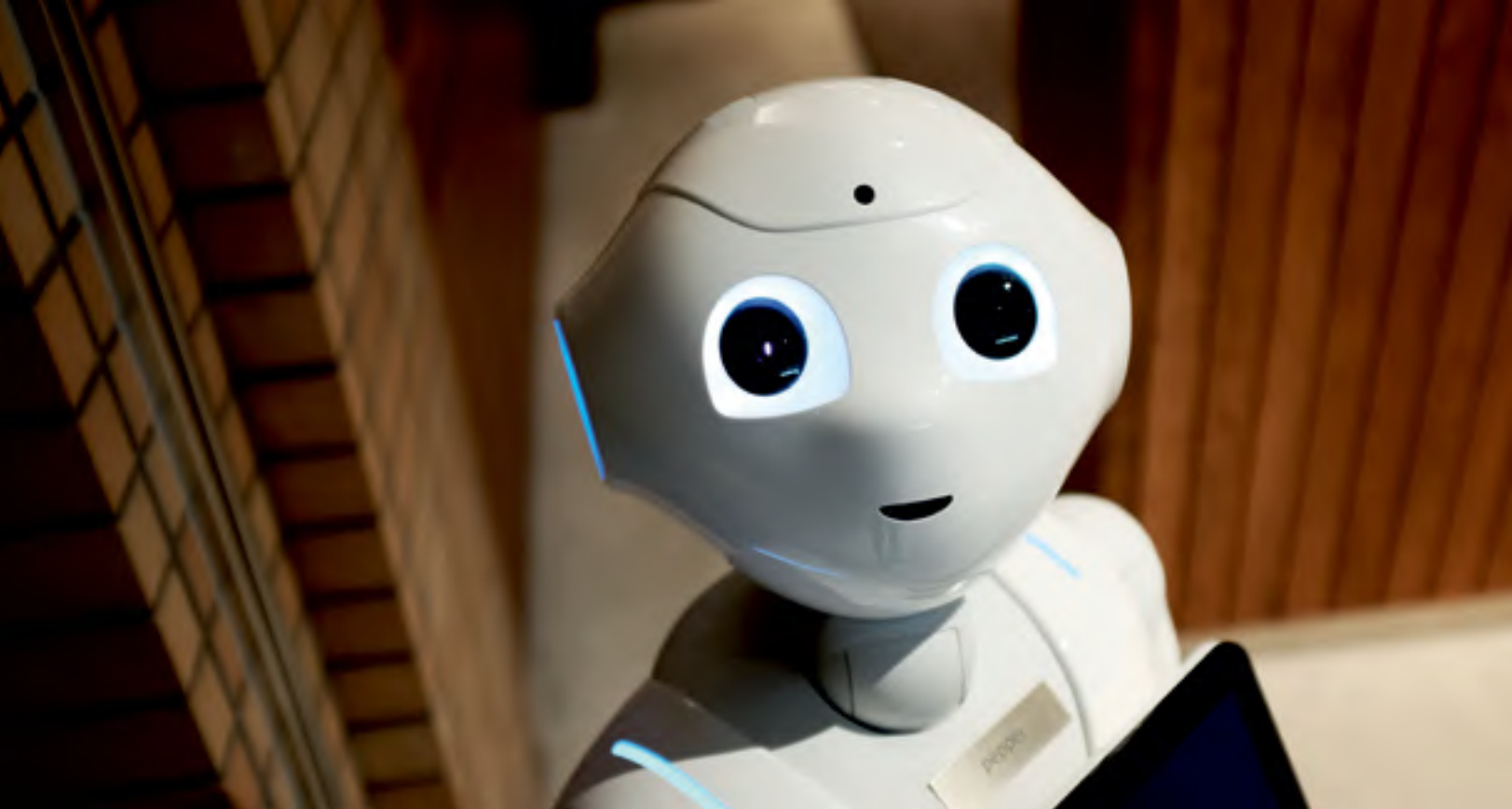
These specialists will have to ensure the mass arrival of machines in all sectors of the economy. Specialists will be in demand of servicing and configuring the equipment, robots, and systems that make algorithmic decisions.

7 SELF-DEVELOPMENT AND ADAPTABILITY

Self-development is a process of meaningful, purposeful transformation of oneself as a person or specialist. Self-development consists of self-improvement of the level of their knowledge, development of personal qualities, professional competencies. The presence of motivation and self-development suggests that the specialist is personally ready to make efforts to more fully realize their capabilities in professional activities, to achieve maximum results.

Unfortunately, not everyone has the

qualities necessary for responsible work on themselves. Therefore, specialists with self-development skills stand out significantly from other employees, and will always be in demand at any stage of the production chain. The effective discovery of each employee's potential can form a decisive competitive advantage for future enterprises.



6.3.

ASSESSMENT OF DEMAND FOR SPECIALIZED SKILLS DEVELOPMENT IN THE NEXT 10-15 YEARS

Industry experts' assessments and a survey conducted helped to form a rating of the most popular skills of tourism specialists in the coming 10-15 years.

afraid to make mistakes, and can generate new effective ways to solve problems and tasks. The demand for specialists with knowledge and tools in project management will increase as companies consider project

activities the most critical factor in their effective development.

10 ENVIRONMENTAL THINKING

Environmental thinking focuses on achieving harmony between business and the environment.

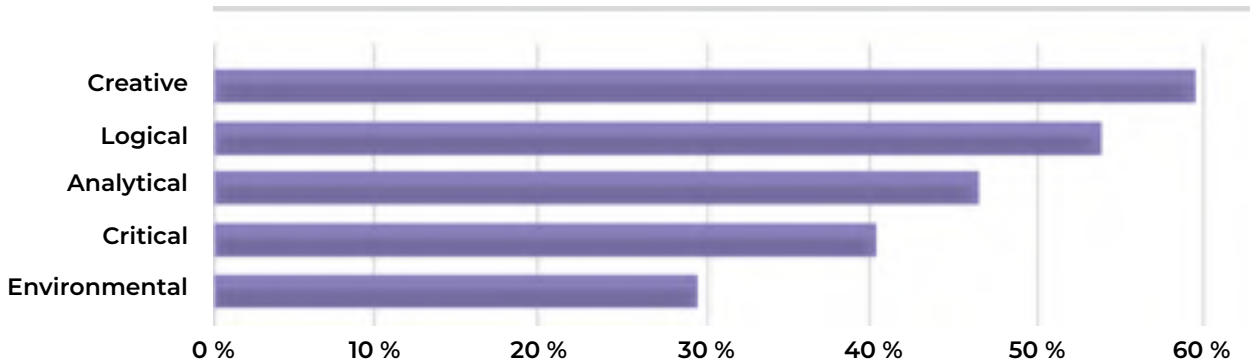
Environmental thinking places the highest priority on health and sustainable development. The importance of ecological thinking increases because industry development has reached its limit. All further models of sustainable growth of society, economy, and business should be built based

on mutual interests with nature and ecosystem to maintain and develop them. Specialists with environmental thinking skills could solve such problems as careful attitude access to resources, achieving zero emissions of harmful substances into the environment, recycling, and use of secondary resources.

STYLE OF THINKING

THE MOST POPULAR THINKING STYLES OF THE FUTURE, ACCORDING TO THE INDUSTRY EXPERTS, WILL BE CREATIVE, ANALYTICAL, AND LOGICAL THINKING.

Diagram 14.
Top 5 thinking styles that are most in-demand among industry professionals in the next 10-15 years



Source: survey of industry experts.

ANALYTICAL
AND LOGICAL THINKING

For a particular reason, managers of most companies attach great importance to the presence or absence of analytical and logical thinking among employees. After all, such an employee performs their duties more effectively, perceives incoming information critically, based on objective factors, and uses cases that have already happened to predict the development of events in the near or long term.

Tourism is like any other service providing industry interacts with a lot of consumers it serves.

As a result, a large amount of

information emerges that needs to be professionally processed and analyzed in real-time rather than collected. Therefore, to improve the business efficiency and the competitiveness of companies in the market, managers are interested in attracting employees who can do it efficiently.

The survey results of industry experts confirm the fact of increased demand for analytical skills and logical thinking among tourism specialists in the next 10 — 15 years. More than 40% of respondents put these skills among top priorities.

CRITICAL
THINKING

An ability to think critically is vital for service delivery when employees constantly have to work with many people and a significant amount of heterogeneous information.

Tourism professionals must be attentive, notice inconsistencies in others logic and arguments, determine the truth of assumptions, justify and defend their point of view.

Critical thinking allows us to solve problems and conflict situations

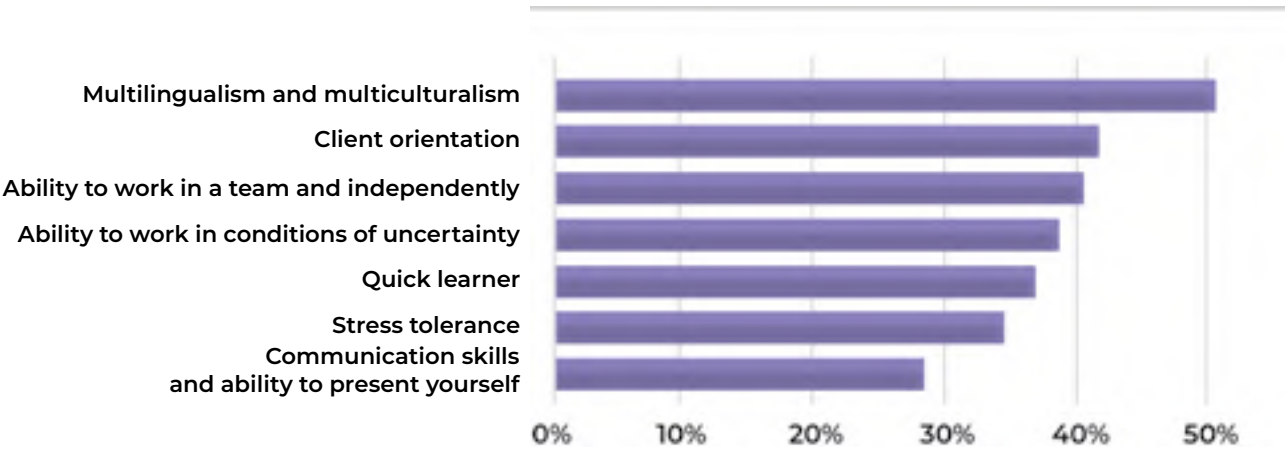
more effectively, understand others' beliefs and actions.

Therefore, employers pay great attention to the presence or absence of this skill among candidates when selecting personnel.

All these thinking styles were selected as basic skills, while analytical, logical, and critical thinking were grouped into systems thinking.

SOCIAL AND INTERPERSONAL INTERACTION SKILLS
AMONG THE SKILLS OF SOCIAL AND INTERPERSONAL
INTERACTION, MULTILINGUALISM AND MULTICULTURALISM,
CUSTOMER ORIENTATION, AND THE ABILITY TO WORK IN A TEAM
WILL BE MOST IN DEMAND.

Diagram 15.
A rating of social and interpersonal skills that are most in-demand among industry specialists in the next 10-15 years.



Source: survey of industry experts.

TEAM-WORKING SKILL

Although the concepts of team spirit and team building began to be implemented back in the 1950s in the US and Western Europe, the skill of teamwork remains relevant today. It is one of the leading components of improving the competitiveness of any enterprise.

Teamwork effectiveness increases when each team member competently interacts with others and does not allow conflicts to arise, who performs the assigned

work explicitly and willingly helps colleagues can admit their mistakes and accept others' opinions putting the company's interests above personal ambitions.

Tourism is the field where employees interact with each other and perform various functions, e.g., from searching for potential clients to developing an individual tour to providing guide-interpreter services.

The skill to interact effectively with

others increases customers' loyalty and repeated requests quantity. That is why teamwork skills are so required in the industry. And this trend will only increase.



SKILL TO WORK
UNDER UNCERTAINTY

Under the influence of current changes, company personnel often have to work in conditions of much more significant uncertainty than before, or even in entirely new environments.

The speed of technology change leads to problems of rapid obsolescence of information. Sometimes, before adjusting to current new technologies, the companies' staff should get training in more advanced innovations.

If companies do not consider

uncertainty a negative factor, they can come to large breakthroughs, professional growth, and increase self-confidence. Such an attitude can help them learn to make quick decisions, overcome problems, and difficulties, manage time efficiently, and achieve their goals.

According to industry experts, the demand for employees ready to work under uncertainty will enjoy a stable growth in the next 10-15 years.

QUICK
LEARNER SKILLS

You can't help but notice how fast the world around us is changing. New technologies replace old ones, advanced data processing algorithms develop very quickly, and the latest interaction method with potential customers emerge in the market. And if an employee does not improve their education, then at some point, the number of skills, experience, and

knowledge they previously received begins to play a secondary role.

In the context of global changes, such qualities as unwillingness to act with template methods come out in the first place, the desire to constantly improve, gain new knowledge, and the ability to quickly assimilate them.

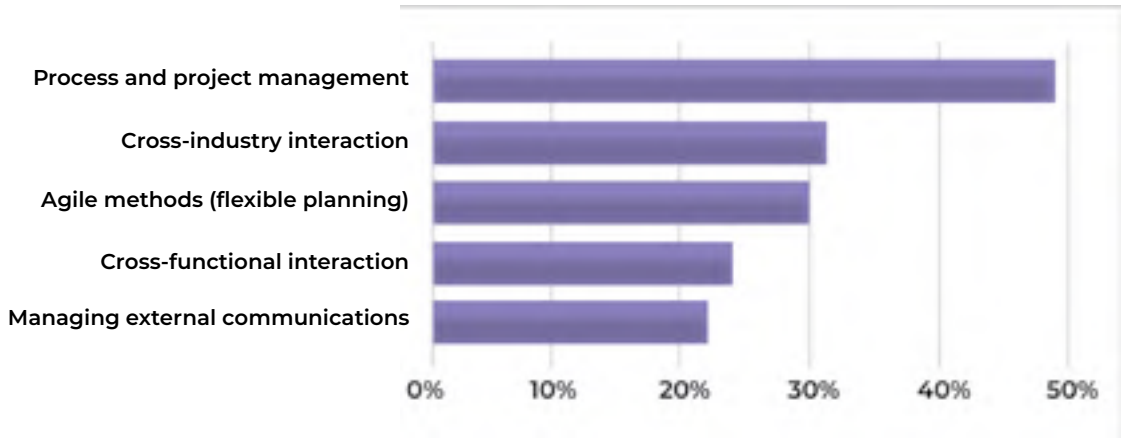
The management of companies also notes the speed of changes. Therefore, when hiring, employers prefer those candidates who have a high level of learnability. Such people are attentive, look at things from different perspectives, are flexible in thinking, and quickly generate new ideas. They are ready to take risks and make mistakes. They are continuously learning

something and, therefore, are more likely to succeed than their colleagues who are less interested in continuous learning.

Here we have chosen the customer focus, multilingualism and multiculturalism skills from the social and interpersonal interaction category.

SKILLS IN CORPORATE GOVERNANCE
THE FUTURE LEADING SKILLS IN CORPORATE GOVERNANCE
WILL BE PRODUCTION MANAGEMENT, FLEXIBLE PLANNING, AND
CROSS-INDUSTRY INTERACTION

Diagram 16.
Top-5 skills in corporate governance to be most-in-demand among industry specialists in the coming 10-15 years.



Source: survey of industry experts.

AGILE PLANNINGS SKILLS

The essential thing in flexible planning is to focus on the needs of customers. This method allows you to plan interaction with service consumers more effectively and quickly make changes to the package of services offered. The transparency of all stages accompanies all this.

Projects that use agile methods are many times more successful than those that follow the standard approach. And the staff has flexible planning skills that allow them to take into account the constantly changing conditions of the external

and internal environment and effectively use feedback from all interaction subjects. This approach encourages employees to experiment and find new solutions without limiting themselves to rigid frameworks and standards.

Specialists with Agile skills are already in demand in the labor market. A large-scale transformation of the tourism sector will further increase the need for such employees.

CROSS-FUNCTIONAL INTERACTION SKILLS

The classic production management model, which is characterized by strict subordination, narrow specialization of individual employees, in which everyone is responsible for performing only their duties, stops working.

There is a need to find new solutions to improve staff interaction quality and efficiency at each stage of work and develop employees' skills in cross-functional interaction. Cross-functional interaction includes the

principles of cross-functional team interaction between the company's staff and managers.

Personnel with cross-functional interaction skills can build effective communication channels between departments, easily solve conflicts, and take a more responsible approach to their official duties performance. Therefore, in the next 10 — 15 years, the availability of cross-functional interaction skills will be an essential criterion when hiring employees and moving them up the corporate ladder.

³⁰ Cross-functional collaboration is collaboration that allows employees to interact quickly and comprehensively to achieve common goals.



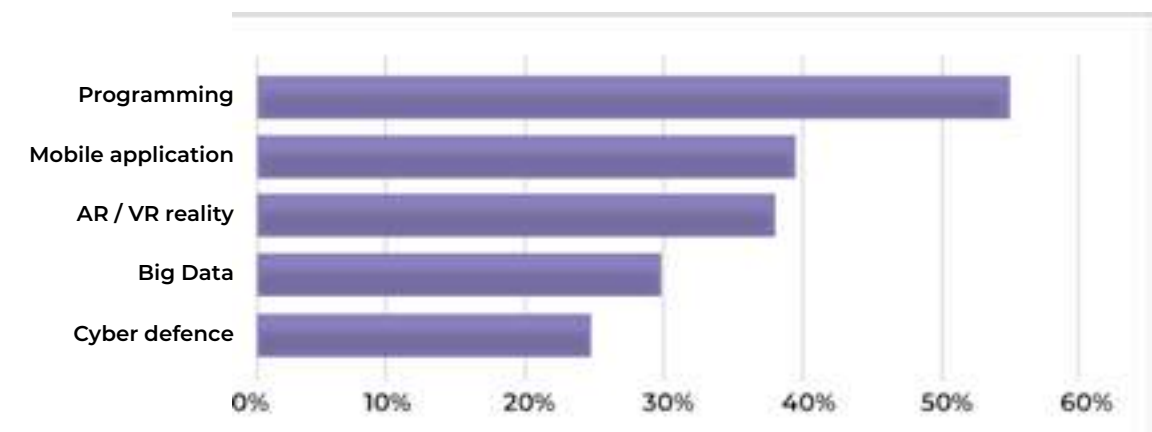
The necessary skills of project management and inter-industry interaction are highlighted in the block of super-specialized corporate governance skills.

SKILLS IN WORKING WITH NEW TECHNOLOGIES

THE FUTURE SKILLS IN WORKING WITH TECHNOLOGIES INCLUDE KNOWLEDGE OF PROGRAMMING BASICS AND WORKING WITH MOBILE APPLICATIONS AND BIG DATA

Diagram 17.

Top 5 skills in working with new technologies that are highly required among industry professionals in the next 10-15 years



Source: survey of industry experts.

SKILLS PROGRAMMINGS

Of course, for some people, programming is the primary functional responsibility. But here, we consider programming as additional knowledge to the leading professional competencies.

In 1981 at the 3rd world conference in Lausanne A.Yershov, a Soviet computer scientist, presented a report entitled Programming Is the second Literacy. According to him, «if the development and spread of a printing press have led to universal literacy, the development and spread of computers will lead to universal programming skills».

Employers have long been aware of the value of employees who have basic programming skills.

Today, when most processes are automated, the volume of data that requires processing and analysis is rapidly growing. The value of such specialists increases significantly. The figures of the survey confirm this fact. More than 50 % of the industry experts ranked programming as one of the most popular tourism industry skills in the next 10 — 15 years.



MOBILE APPS WORKING SKILLS

Tourism is one of the most mobile businesses. Its staff needs to be in touch with clients 24/7, promptly answer their inquiries and requests, and remotely coordinate. Mobile apps become indispensable helpers in this process.

Mobile technologies significantly impact the quality of services provided, customer loyalty, and optimization of communication processes. Therefore, the staff must have excellent skills to work with specially created apps using mobile information.

Companies that want to succeed in the tourist services market and maintain their positions in the future will continue to implement mobile technologies actively.

Therefore, the demand for specialists who possess the skills of working with these technologies, will grow.

VIRTUAL AND AUGMENTED REALITY TECHNOLOGY SKILLS

Over the past few years, technologies with virtual and augmented reality elements have actively penetrated various fields. To compete in the tourist services market, hoteliers, transport companies, and travel agencies apply these technologies, thereby radically changing the process of making tours.

Frequently companies use virtual reality technologies for attracting potential tourists, e.g., conduct sightseeing tours, display rooms at residencies, present the environment, etc. For effective demonstration of virtual objects, company personnel must have the skills to work with such equipment

and independently create and develop virtual reality elements.

Since the scope of virtual and augmented reality technologies will only expand, the demand for specialists who possess these skills will only increase every year.

We have identified programming, interaction with smart equipment, and robots as the super profile skills in working with new technologies.

³¹ Programming — the second literacy. — URL: http://ershov.iis.nsk.su/ru/second_literacy/article.



WHAT PROFESSION TO STUDY FOR?

7.





WHAT PROFESSION TO STUDY FOR?

The new technological revolution is leading to a global transformation of the world of work.

Analyzing the problems and risks of innovative technologies introduction, many experts believe that in the future, robotization of jobs, large-scale automation of management processes, and expanded usage of additive technologies and new materials will result in growing unemployment.

However, not all global experts share this opinion, believing that digitalization and robotization will lead to a surge in technological unemployment. They will create new jobs that require higher skills and/or the availability of competencies in related professions.

Of course, robots and AI will gradually replace many professions in the manual and unskilled labor sector and some intellectual jobs. Employees of these professions need to understand that the only way out may be to acquire additional skills in related occupations or acquire knowledge to master a new work.

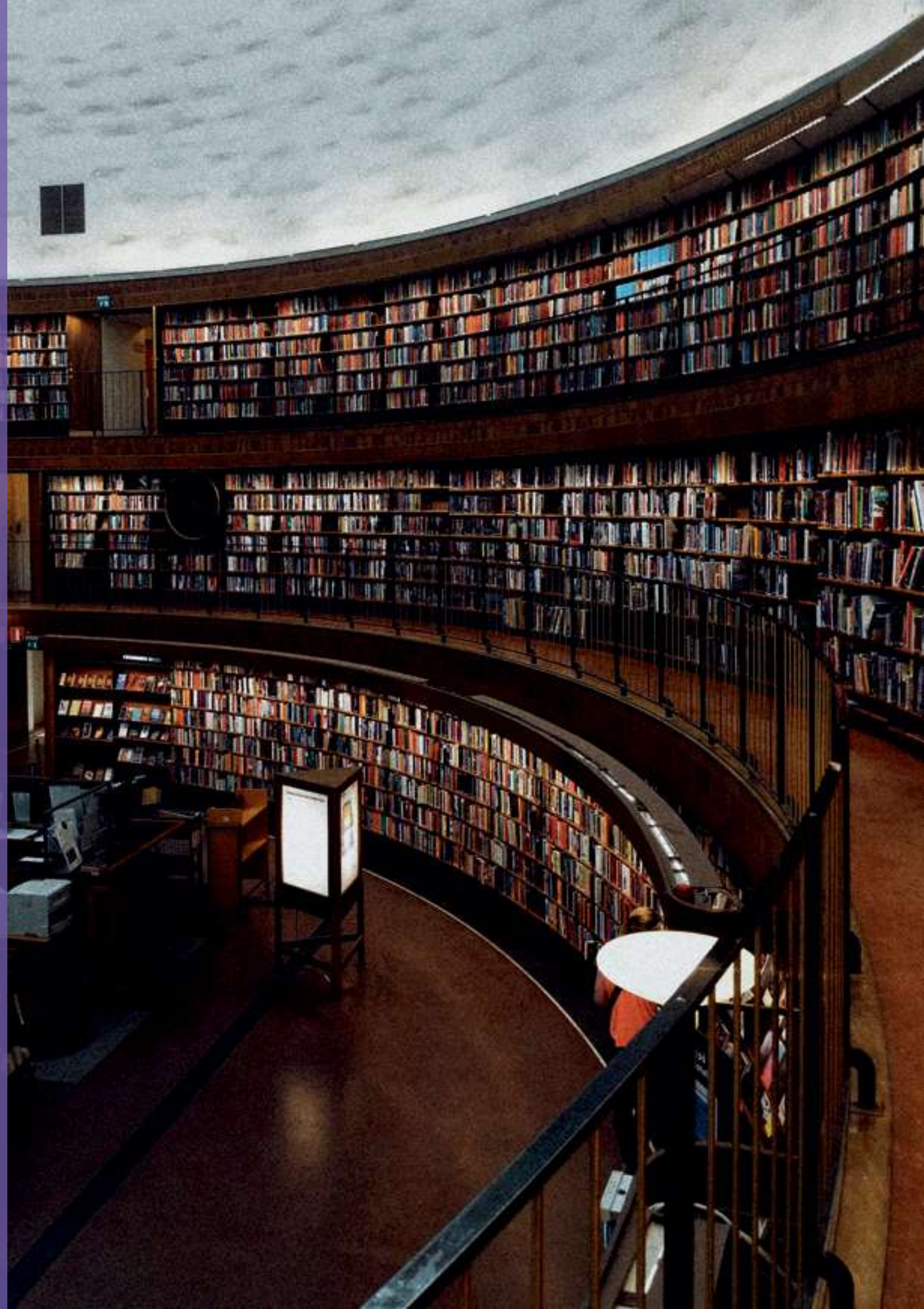
At the same time, according to the International Labor Organization, about 70 % of professions in the future, even retaining their names will significantly change the set of required professional competencies.

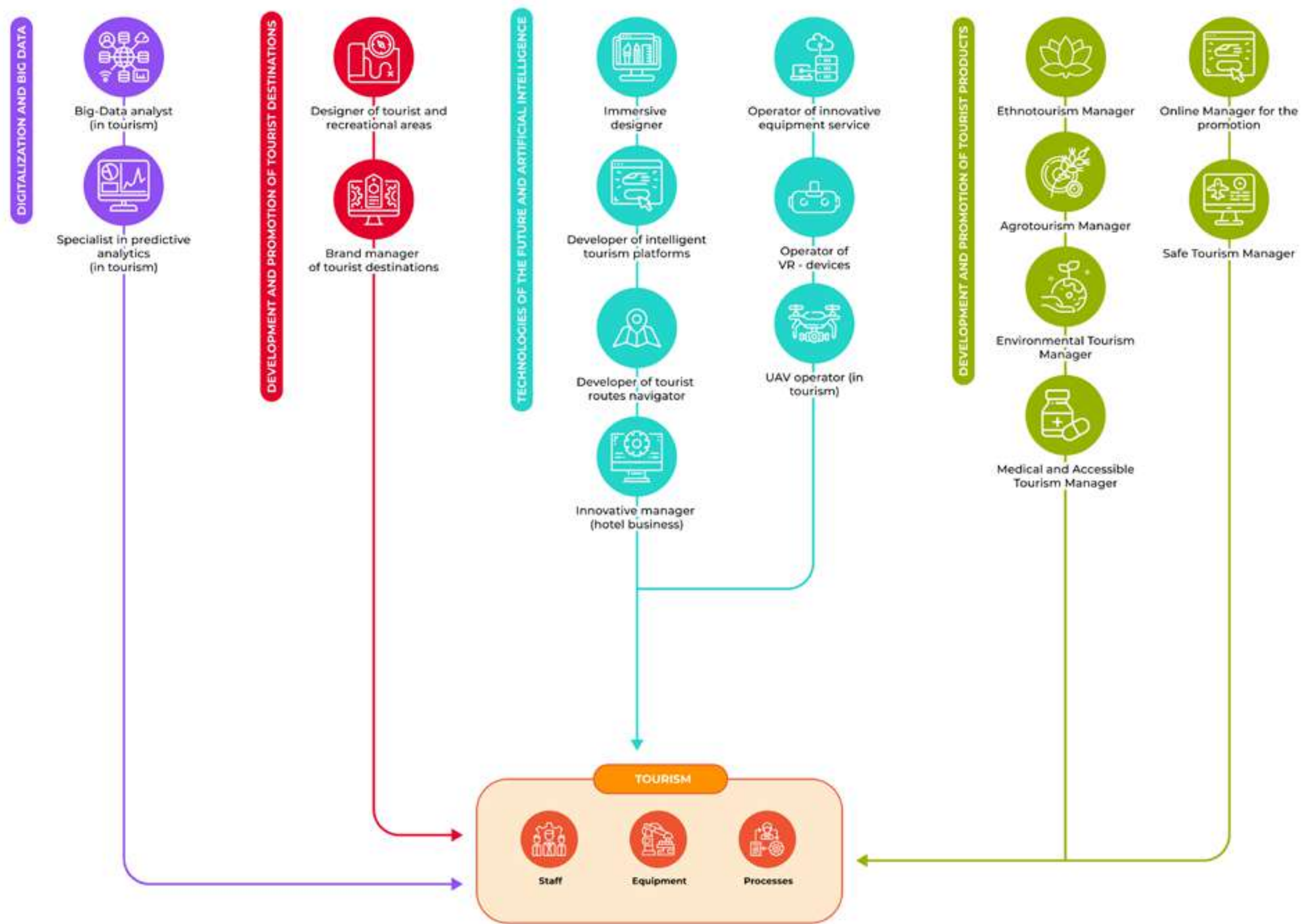
Industry experts expressed their opinion on what professions would appear, be changed or disappear in the coming 10 — 15 years in the Kazakhstani tourism sector during the foresight-session held on August 19 — 21, 2020. It was a year-long foresight session as part of preparing the Atlas of New Professions in Tourism Industry. It also included a survey of experts. The results summary is in the following sections.



NEW PROFESSIONS OF TOURISM INDUSTRY

7.1.





DIGITALIZATION AND BIG DATA



Big Data ANALYST (in the field of tourism)

Responsibilities

- ▶ development of the concept of data collection from various sources for its subsequent processing, ensuring the completeness and reliability of information, building a chain of its relationships;
- ▶ analysis and structuring of the received information, preparation of summary analytical reports necessary for the development of further business decisions.

TRENDS

- ▶ Increased demand for online booking and payment of tours and tickets.
- ▶ Increase the volume of digitized data.

SUPERPROFESSIONAL skills and abilities

- ▶ Customer focus.
- ▶ Systemic thinking.
- ▶ Cross-industry communication skills.
- ▶ Ability to manage projects and processes.

APPEARANCE
horizon ▶ 2025

NOVELTY of the profession

- ▶ Processing a large volume of data with a complex and heterogeneous structure obtained from various sources.

KEY competencies

- ▶ Knowledge of programming basics and data processing methods.
- ▶ Knowledge of methods for collecting, processing and analyzing information.
- ▶ Ability to work with large amounts of data.
- ▶ Collects and analyzes a large amount of data with a complex and heterogeneous structure, coming from various sources about the preferences and habits of potential tourists.



APPEARANCE
horizon ► **2030**

NOVELTY
of the profession

- Deep analysis of a large amount of data obtained from various sources, including connected smart devices and monitoring sensors.
- Forecasting based on predictive analytics of risks and opportunities for the development of the company and the market as a whole.

KEY
competencies

- Knowledge of programming, machine learning, and mathematical statistics.
- Knowledge in the field of multidimensional and predictive data analysis.
- Skills in working with data visualization tools.

SPECIALIST
IN PREDICTIVE
ANALYTICS
(in the field of tourism)

- By using methods of mathematical statistics, predictive analysis, undertakes an assessment of the current state and forecast of further development of the tourist market, potential risks and opportunities. Develops the company's business solutions.

Responsibilities

- building hypotheses, checking their relationships with trends affecting the tourism sector, making forecasts;
- analysis of the effectiveness of the company's activities, analysis of risks and opportunities, ways out of the company's crisis situation;
- development of solutions for business optimization, development of business solutions based on the analysis and forecasting of consumer behavior.

TRENDS

- Increased demand for online booking and payment of tours and tickets.
- Increase in the volume of digitized data.
- Growing demand for the introduction of artificial intelligence in the tourism sector.

SUPERPROFESSIONAL
skills and abilities

- Lean production.
- Systems thinking.
- Cross-industry communication skills.
- Ability to manage projects and processes.

2. TECHNOLOGIES OF THE FUTURE AND ARTIFICIAL INTELLIGENCE



▶ 2.1



IMMERSIVE DESIGNER

APPEARANCE
horizon ▶ **2030**

NOVELTY
of the profession

- ▶ Using the latest technologies (virtual, augmented reality, holography) to create shows, exhibition compositions, and virtual tours.

KEY
competencies

- ▶ Knowledge of web design and programming.
- ▶ The presence of skills in creation of a digital object in a virtual and augmented reality, applications of holography.

- ▶ A specialist who creates shows or trips that immerse the participant in a non-existent simulated reality in such a way that they fully understand what is happening.
- ▶ Develops a virtual prototype of places of interest, territories, and spaces. Develops applications for virtual tourism, presentation of museum exhibits, exhibitions, etc.

TRENDS

- ▶ Growing demand for the introduction of artificial intelligence in the tourism sector.
- ▶ Changing consumer preferences.

SUPERPROFESSIONAL
skills and abilities

- ▶ Customer focus.
- ▶ Cross-industry communication skills.
- ▶ Artistic skills.
- ▶ Programming/ robotics/ artificial intelligence.
- ▶ Ability to manage projects and processes.

▶ 2.2



DEVELOPER OF INTELLIGENT TRAVEL PLATFORMS

APPEARANCE ▶ *already required*
horizon

NOVELTY
of the profession

- ▶ Combining all tourism business entities on one digital platform.
- ▶ Automatic offer of the most suitable travel product based on the behavioral factors of potential customers.

KEY
competencies

- ▶ Knowledge in programming and web design.

- ▶ A specialist who creates programs, systems and platforms for automated tour selection, booking tickets and hotel rooms, and accepting online payments.
- ▶ The developed system brings together all travel service providers (travel agents, tour operators, temporary accommodation, transport sector, etc.) on one platform, making it easier for potential customers to find the most profitable offer.
- ▶ When developing services, to select the most suitable tour, the maximum individual needs, habits and preferences of potential tourists are taken into account based on their behavioral factors in the online space.

TRENDS

- ▶ Increased demand for online booking and payment of tours and tickets.
- ▶ Growing demand for the introduction of artificial intelligence in the tourism sector.
- ▶ Changing consumer preferences.

SUPERPROFESSIONAL
skills and abilities

- ▶ Customer focus.
- ▶ Multilingualism and multiculturalism.
- ▶ Systemic thinking.
- ▶ Ability to manage projects and processes.

▶ 2.3

**DEVELOPER
OF THE TOURIST ROUTE
NAVIGATOR**



APPEARANCE ▶ *already
horizon required*

**NOVELTY
of the profession**

- ▶ Designing an application that will display historical and cultural attractions, social infrastructure, and Hiking trails in such a way that the tourist can easily build a travel route with regard to his/her interests and needs.
- ▶ The map will contain detailed information about all objects (for example, historical information, working hours, etc.).

- ▶ Creates programs and applications for building a travel route that takes into account individual interests and requests of tourists, for quickly orienting them on the terrain (for example, interactive maps of tourist routes, maps for adventure tourism, sacred maps for pilgrimage tours, etc.).

TRENDS

- ▶ Growing demand for the introduction of artificial intelligence in the tourism sector.
- ▶ The growing need for digitalization of the tourism sector.
- ▶ Changing consumer preferences.

**SUPERPROFESSIONAL
skills and abilities**

- ▶ Cross-industry communication skills.
- ▶ Artistic skills.
- ▶ Customer focus.
- ▶ Multilingualism and multiculturalism.
- ▶ Systemic thinking.

**KEY
competencies**

- ▶ Knowledge in programming and web design..
- ▶ Knowledge of historical and cultural attractions.

▶ 2.4

**INNOVATIVE
MANAGER
(HOTEL BUSINESS)**



APPEARANCE ▶ *2030
horizon*

**NOVELTY
of the profession**

- ▶ Design of the hotel's service infrastructure taking into account the introduction of intelligent systems.

TRENDS

- ▶ Growing demand for the introduction of artificial intelligence in the tourism sector (hotel business).
- ▶ Changing consumer preferences.

- ▶ Specialist – designer of «smart» hotel, who is in search of innovation, is responsible for the development and implementation of the concept of digital transformation hotel business, including intelligent control system of lighting; comfortable and safe habitat guests; energy saving systems of heating, ventilation and air-conditioning; automated and remote management of the entire supports the infrastructure of the hotel.

Responsibilities:

- ▶ identify the need for new technologies and plan the company's innovative development strategy;
- ▶ coordination and control of implementation and adaptation of innovative technologies in accordance with regulations and technical documentation;
- ▶ search for promising developments and potential partners, as well as suppliers of the necessary equipment; analysis of possible risks resulting from the introduction of innovations and preparation of proposals for their neutralization.

**SUPERPROFESSIONAL
skills and abilities**

- ▶ Lean production.
- ▶ Customer focus.
- ▶ Cross-industry communication skills.
- ▶ Programming/ robotics/ artificial intelligence.
- ▶ Systemic thinking.
- ▶ Ability to manage projects and processes.
- ▶ Ecological thinking.

**KEY
competencies**

- ▶ Knowledge in the field of innovative developments, electrical engineering, electronics and safety engineering, preparation of project documentation.

▶ 2.5



APPEARANCE
horizon ▶ 2030

NOVELTY
of the profession

- ▶ The introduction of innovative devices into the hotel business, and later service robots, will require mastering the skills of their maintenance and centralized control over their performance.

OPERATOR
OF INNOVATIVE
EQUIPMENT
MAINTENANCE

- ▶ Deals with the maintenance of hotel robots and intelligent service devices, centralized control over their smooth operation and configuration. Instructs staff on working with innovative equipment, monitors compliance with rules and safety regulations.

TRENDS

- ▶ Growing demand for the introduction of artificial intelligence in the tourism sector.
- ▶ Changing consumer preferences.

SUPERPROFESSIONAL
skills and abilities

KEY
competencies

- ▶ Knowledge in the field of maintenance and configuration of monitoring sensors, smart systems and service robots.
- ▶ The ability to diagnose the correct operation of the devices.

- ▶ Lean production.
- ▶ Cross-industry communication skills.
- ▶ Programming/ robotics/ artificial intelligence.
- ▶ Ecological thinking.

▶ 2.6



APPEARANCE
horizon ▶ 2035

NOVELTY
of the profession

- ▶ The use of the latest technologies (virtual, augmented reality, holography) to create shows, exhibition compositions and virtual tours.

OPERATOR OF
VR DEVICES

- ▶ Filling with thematic content of demonstration programs (based on already prepared scripts);
- ▶ Monitoring the performance of VR equipment, operation and maintenance of equipment.

TRENDS

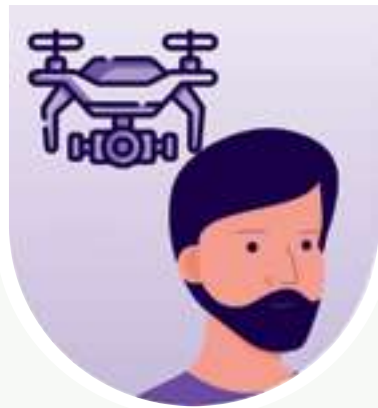
- ▶ Growing demand for the introduction of artificial intelligence in the tourism sector.
- ▶ Changing consumer preferences.
- ▶ The rise in popularity of virtual tourism.

SUPERPROFESSIONAL
skills and abilities

KEY
competencies

- ▶ Setting up equipment and demonstration programs for virtual or holographic presentation of museum exhibits, exhibitions, information boards, etc.;

- ▶ Lean production.
- ▶ Cross-industry communication skills.
- ▶ Programming/ robotics/ artificial intelligence.
- ▶ Ecological thinking.



APPEARANCE
horizon ▶ **2030**

NOVELTY
of the profession

- ▶ Use of a new type of «transport» to move both tourists and small loads, as well as to ensure travel safety.

KEY
competencies

- ▶ Knowledge in the field of unmanned aerial vehicle (UAV) maintenance and configuration.
- ▶ The ability to diagnose the correct operation of the devices.
- ▶ Flight safety.

UAV OPERATORS (IN TOURISM)

- ▶ (UAVs) in tourism will be used for organizing excursions to hard-to-reach places, delivering cargo, food and medicine, as well as «rescuers», providing constant monitoring of the movement of tourists (for example, in the mountains, on the beach, in extreme types of tourism).
- ▶ A UAV operator is a specialist who remotely controls unmanned aerial vehicles, performs remote monitoring of the tourist route, and participates in search and rescue operations for lost people tourists'. His duties include preparing the UAV for flight (adjustment, configuration), maintenance and flight safety.

TRENDS

- ▶ Growing demand for the introduction of artificial intelligence in the tourism sector.
- ▶ Increasing requirements for environmental friendliness of tourist services.
- ▶ Changing consumer preferences.

SUPERPROFESSIONAL
skills and abilities

- ▶ Lean production.
- ▶ Customer focus.
- ▶ Cross-industry communication skills.
- ▶ Systemic thinking.
- ▶ Ecological thinking.

3. «DEVELOPMENT AND PROMOTION OF TOURIST DESTINATIONS»



▶ 3.1



APPEARANCE
horizon ▶ **2025**

NOVELTY
of the profession

- ▶ Design of service infrastructure of tourist recreation in two directions-maximum implementation of innovative solutions or preservation of national color.

KEY
competencies

- ▶ Knowledge in the field of ecology, creation of infrastructure that ensures the life of objects, project documentation.

DESIGNER
OF TOURIST
AND RECREATIONAL ZONES

- ▶ Specialist who designs ethnic villages, campsites and other facilities, equipping them with the necessary infrastructure (telecommunications, transport, cultural and leisure, medical, etc. objects).
- ▶ Is engaged in search of innovative solutions, responsible for the development, implementation and adaptation of the concept of digital transformation of tourist recreational areas, as well as solutions that ensure the preservation of natural resources and centuries-old heritage.

TRENDS

- ▶ Increasing requirements for environmental friendliness of tourist services.
- ▶ Changing consumer preferences.

SUPERPROFESSIONAL
skills and abilities

- ▶ Lean production.
- ▶ Customer focus.
- ▶ Artistic skills.
- ▶ Programming/ robotics/ artificial intelligence.
- ▶ Systemic thinking.
- ▶ Ability to manage projects and processes.
- ▶ Ecological thinking.

▶ 3.2



APPEARANCE ▶ **already required**
horizon

NOVELTY
of the profession

- ▶ Creating a brand of domestic tourist destinations at the domestic and global level.

KEY
competencies

- ▶ Knowledge in the field of marketing, specifics of promoting tourist destinations.
- ▶ Knowledge of tourism, geography, history and cultural heritage.
- ▶ Understand the psychology of consumers of tourist services.

BRAND MANAGER
OF TOURIST DESTINATIONS

- ▶ A specialist, who creates the brand of a tourist destination, creates a portrait, positioning strategy and promotion concept (technical task) for tourist services and destinations for advertising agencies, as well as ensuring that their reputation is maintained.
- ▶ Determines the target audience for the offer of tourist services, identifies their requirements as consumers, and attitude to the services offered. Develops marketing policies and promotes the brand of a tourist destination.

TRENDS

- ▶ Increasing requirements for eco-friendly tourism.
- ▶ Changing consumer preferences.

SUPERPROFESSIONAL
skills and abilities

- ▶ Customer focus.
- ▶ Cross-industry communication skills.
- ▶ Artistic skills.
- ▶ Systemic thinking.
- ▶ Ability to manage projects and processes.
- ▶ Ecological thinking.

4. THE DEVELOPMENT AND PROMOTION OF TOURIST PRODUCTS



▶ 4.1



APPEARANCE
horizon ▶ 2025

NOVELTY
of the profession

- ▶ Selection of ethno-tourism as an independent direction in view of the increased demand for this type of tourist services.

KEY
competencies

- ▶ Knowledge of objects of cultural and historical heritage of the country, customs, traditions of the population living in this territory.
- ▶ Knowledge of the basics of tourist product development.

MANAGER OF ETHNO-TOURISM

- ▶ The duties of the ethno-tourism Manager include the organization of all types of work on the creation and promotion of this type of tourism: interaction with local authorities, attracting investors, monitoring the fulfillment of all contractual obligations of interested parties. Develops the concept of ethno-tours.

TRENDS

- ▶ The rising popularity of eco-, ethno - and agro-tourism.
- ▶ Increasing requirements for environmental friendliness of tourist services.

SUPERPROFESSIONAL
skills and abilities

- ▶ Lean production.
- ▶ Customer focus.
- ▶ Multilingualism and multiculturalism.
- ▶ Systemic thinking.
- ▶ Ability to manage projects and processes.
- ▶ Ecological thinking.

▶ 4.2

AGRO-TOURISM MANAGER



APPEARANCE
horizon ▶ 2025

NOVELTY of the profession

- ▶ Allocation of agrotourism as an independent direction in view of increasing demand for this type of tourist services.

KEY competencies

- ▶ Knowledge of the basics of animal husbandry, crop production and gardening, national traditions and customs.
- ▶ Knowledge of the basics of tourist product development.

- ▶ The duties of the agro-tourism manager include the organization of all types of work on the creation and promotion of this type of tourism: interaction with local authorities, attracting investors, monitoring the fulfillment of all contractual obligations of interested parties. Deals with the development of the agrotourism concept.

TRENDS

- ▶ The rising popularity of eco-, ethno - and agro-tourism.
- ▶ Growing demand for tours with a focus on local experiences.
- ▶ Increasing demands for environmental friendliness of tourist services.

SUPERPROFESSIONAL skills and abilities

- ▶ Lean production.
- ▶ Customer focus.
- ▶ Multilingualism and multiculturalism.
- ▶ Cross-industry communication skills.
- ▶ Systemic thinking.
- ▶ Ability to manage projects and processes.
- ▶ Ecological thinking.

▶ 4.3

ENVIRONMENTAL TOURISM MANAGER



APPEARANCE
horizon ▶ 2025

NOVELTY of the profession

- ▶ Allocation of ecological tourism as an independent direction in view of the increased demand for this type of tourist services.

KEY competencies

- ▶ Knowledge in the field of ecology, environmental protection, rules of conduct in protected areas.
- ▶ Knowledge of the basics of tourist product development.

- ▶ Responsible for organizing all types of activities for the creation and promotion of this tourism destination: interaction with local authorities, attracting investors, monitoring the fulfillment of all contractual obligations of interested parties. Develops the concept of eco-tours, strategic development of tourist destinations within the framework of the concept of sustainable development, develops and monitors key indicators of sustainable development, and is responsible for the careful management of use of all resources. Responsibilities include developing, implementing and improving the system for monitoring the activities of tourist destinations within the framework of the concept of sustainable development; monitoring key indicators of sustainable development; studying and implementing international standards and best practices in the field of sustainable development, controlling and monitoring their implementation.

TRENDS

- ▶ The rising popularity of eco-, ethno - and agro-tourism.
- ▶ Increasing requirements for eco-friendly tourism.

SUPERPROFESSIONAL skills and abilities

- ▶ Customer focus.
- ▶ Multilingualism and multiculturalism.
- ▶ Cross-industry communication skills.
- ▶ Systemic thinking.
- ▶ Ability to manage projects and processes.
- ▶ Ecological thinking.

▶ 4.4



APPEARANCE
horizon ▶ **2030**

NOVELTY
of the profession

- ▶ Allocation of medical and affordable tourism as an independent destination in view of increasing demand for this type of tourist services.

KEY
competencies

- ▶ Knowledge of areas of service provision for medical and health resort facilities.
- ▶ Knowledge of classification of major diseases.
- ▶ Knowledge of the basics of psychology of interaction with sick patients and negotiating with medical organizations.

MANAGER
OF MEDICAL
AND AFFORDABLE TOURISM

- ▶ Searches for a medical facility according to the patient's medical indications. Provides personal interaction between the patient and the relevant medical professional or acts as an intermediary between them. Provides conditions for transporting the patient to and from a medical facility, as well as accompanying tourists on trips with disabilities.

TRENDS

- ▶ Increase in the number of aged travelers.
- ▶ Growing demand for travel for people with disabilities and medical tourism.

SUPERPROFESSIONAL
skills and abilities

- ▶ Customer focus.
- ▶ Multilingualism and multiculturalism.
- ▶ Cross-industry communication skills.
- ▶ Systemic thinking.

▶ 4.5



APPEARANCE
horizon ▶ **2025**

NOVELTY
of the profession

- ▶ Promotion of a tourist product on the Internet with the possibility of studying it in detail, booking and paying for a tour.

KEY
competencies

- ▶ Knowledge in the field of web design, marketing and advertising in the Internet space.
- ▶ Knowledge in the field of tourism and promoted tourist products, geography, history and cultural heritage.
- ▶ Knowledge of the basics of the market economy and market conditions.

ONLINE MANAGER
FOR THE PROMOTION
OF TOURIST PRODUCTS

- ▶ A specialist who uses modern Internet tools to promote tourist products on the market in order to reach more potential customers.
- ▶ Develops and fills the content of websites, searching for ways to increase popularity, website traffic and user activity.
- ▶ Monitoring and analysis of sales of tourism services, to carry out activities for the promotion of tourism services.

TRENDS

- ▶ Increased demand for online booking and payment of tours and tickets.
- ▶ The growing need for digitalization of the tourism sector.
- ▶ Changing consumer preferences.

SUPERPROFESSIONAL
skills and abilities

- ▶ Customer focus.
- ▶ Multilingualism and multiculturalism.
- ▶ Cross-industry communication skills.
- ▶ Artistic skills.
- ▶ Systemic thinking.
- ▶ Ability to manage projects and processes.

▶ 4.6



SAFE TOURISM MANAGER

APPEARANCE
horizon ▶ 2030

NOVELTY
of the profession

- ▶ Increased attention to security due to the growing number of natural disasters, the spread of terrorism and infectious diseases.

KEY
competencies

- ▶ Knowledge in the field of international law and jurisprudence.
- ▶ Basic knowledge of general medicine for primary care.
- ▶ Skills in psychology and conflict management.

- ▶ Specialist who is responsible for the safety of tourists during their travels. Responsibilities monitoring compliance with safety rules, both in places of accommodation, and during excursions and hikes. Provides instructions for tourists upon arrival at their vacation spots and for service personnel. Provides timely evacuation of tourists from hotbeds of danger provides primary medical care, places tourists in medical institutions if necessary.
- ▶ Provides a legal support to tourists.

TRENDS

- ▶ Increase in the number of highly personalized travel product offers.
- ▶ Increased demand for individual travel.

SUPERPROFESSIONAL
skills and abilities

- ▶ Customer focus.
- ▶ Multilingualism and multiculturalism.
- ▶ Cross-industry communication skills.
- ▶ Systemic thinking.
- ▶ Ability to manage projects and processes.





A composite image of a workspace. The left half is overlaid with a semi-transparent purple filter. On the left, a silver camera is visible. In the center, a silver laptop is open. In the bottom left, a blue mug of coffee and a black watch with a silver face are shown. The right half of the image shows the same items without the filter, revealing the natural colors of the wooden desk, the silver laptop, the silver camera, the blue coffee mug, and the black watch.

TRANSFORMING PROFESSIONS OF TOURISM INDUSTRY

7.2.



7.2.

TRANSFORMING PROFESSIONS OF TOURISM INDUSTRY

It is impossible not to notice what a strong transformation the labor market has been going through in recent years. There are not only new platforms in the digital space to offer their knowledge and search for employees. The requirements of employers have changed significantly and the list of professional competencies required for job applicants has expanded.

The root cause of these changes is the large-scale digitalization and automation of all sectors of the economy without exception, the introduction of artificial intelligence and the Internet of things. This will lead to the fact that in the near future the labor market will be dominated by a tendency to move away from strict requirements for specialization, to a combination of different professional competencies and the demand for skills to work at the intersection of different professions. Knowledge of related professions, as well as knowledge

in the field of it, will become the leading drivers of professional competitiveness in the next 10-15 years.

In the field of domestic tourism, the transformation will affect almost all professions, but the most significant changes will be observed in relation to the professions listed in this section.



TRIGGER

- ▶ Increase in the number of independent online booking of tours by tourists.
- ▶ Promotion of individual tours.

TRAVEL AGENT

TRAVEL AGENT 2.0

A specialist who, depending on the qualification level:

- ▶ develops and organizes tours for outbound, inbound and domestic tourism;
- ▶ selects information on tourist products, tour operators, accommodation, transport and leisure companies;
- ▶ adapts the package of services to meet the individual needs of tourists;
- ▶ carries out the sale of tourist products;
- ▶ ensures quality and effective interaction with the client at every stage of their journey (from choosing a tour to returning home).

DIFFERENCE

Specialists will be transformed into two categories:

- ▶ technical administrator of the booking system (administration of technical issues of online booking, service and sale of tour packages on the travel agency's website);
- ▶ personal travel consultant (personal consulting and selection of tours, work in the elite segment and individual travel).



🕒 2025

TOUR OPERATOR



TRIGGER

- ▶ Introduction of automation and digitalization.
- ▶ Interaction with potential tourists in the online space.

TRAVEL OPERATOR 2.0

Specialist, whose responsibilities, depending on the qualification level, include:

- ▶ development and organization of tours for inbound and domestic tourism;
- ▶ organization of transfer, accommodation and food for visitors;
- ▶ development of excursion programs, selection of places to visit;
- ▶ preparation of necessary documentation and calculation of the cost of tours and expenses for it;
- ▶ ensuring the safety of tourists' stay during the trip.

DIFFERENCE

The specialist will:

- ▶ have the skills to work with potential tourists in the online space;
- ▶ be able to select a travel product to meet the individual needs of customers, using information obtained from various sources, about the preferences of tourists, their shopping habits, and other personal information;
- ▶ there will be 2 categories of employees (technical administrators and personal consultants).

🕒 2030

THE INSTRUCTOR ON TOURISM



TRIGGER

- ▶ Growing popularity of extreme and individual tours.
- ▶ The need to develop interactive maps of the routes.
- ▶ Innovation for the safety of tourists.

INNOVATIVE TOURISM INSTRUCTOR

A specialist who, depending on the qualification level:

- ▶ develops tours for inbound and domestic tourism (schemes and schedules of the route depending on its goals and type);
- ▶ instructs tourists about safety rules during the trip and teaches them how to complete the route;
- ▶ responsible for the safety of tourists and provides first medical aid.

DIFFERENCE

The specialist will:

- ▶ have the skills to create interactive route maps for adventure, mountain, etc. kind of tourism;
- ▶ monitor the movement of tourists using UAVs and innovative devices.



🕒 2035



TRIGGER

- ▶ Introduction of digitalization and automation.
- ▶ The use of smart devices.

THE RECEPTIONIST OF THE HOTEL

HOTEL RECEPTIONIST 2.0

is a specialist who:

- ▶ keeps reports on occupancy and availability of rooms;
- ▶ supervises the preparation of rooms for the reception of guests;
- ▶ deals with registration of documents for hotel accommodation and payment issues;
- ▶ informs guests about the available services in the hotel;
- ▶ accepts guest requests for services and monitors the timeliness and quality of their implementation by the staff;
- ▶ books rooms for future guests.

DIFFERENCE

- ▶ The functions of the receptionist will be partially transferred to artificial intelligence devices, for example, biometric identification technologies will be used at the stage of hotel check-in, or systems for automated registration of the number of rooms and registration of guests' accommodation.
- ▶ Guests will book their own rooms online, so the specialist will have to ensure that information about available rooms and prices is up-to-date on online platforms.

🕒 2030



TRIGGER

- ▶ Introduction of digitalization and innovative technologies.
- ▶ Growing popularity of virtual tours.

TOURIST AND EXCURSION GUIDES

TOURIST AND EXCURSION GUIDES 2.0

Specialist who, depending on the qualification level:

- ▶ organizes and conducts group and individual excursions to cultural and historical attractions, protected natural areas;
- ▶ ensures the safety of tourists during the tour, provides first aid to tourists;
- ▶ participates in the preparation and organization of talks, lectures, educational seminars related to ecology, cultural and historical heritage, etc.

DIFFERENCE

The specialist will:

- ▶ have the skills to organize and conduct remote excursions or in a virtual space;
- ▶ understand the operation of innovative devices, such as virtual or augmented reality glasses, online translators, etc.



2030

ROOM SERVICE MAID

07



MAID SERVICE FOR «SMART» ROOMS

Maid:

- ▶ provides rooms with sets of necessary linen, hygiene products, and other consumables;
- ▶ performs current and general cleaning of rooms, prepares rooms for new guests.

TRIGGER

- ▶ Introduction of household robots.
- ▶ Introduction of innovative technologies.

DIFFERENCE

- ▶ There will be a need to master the skills of working with innovative devices of the «Smart hotel», as well as robotic equipment for cleaning rooms.

2030

GUIDE-INTERPRETER

06



GUIDE-INTERPRETER 2.0

- ▶ Specialist who provides simultaneous translation of information about historical and cultural sites during a tour to cultural or historical heritage sites.

TRIGGER

- ▶ Implementation of automated translation systems.
- ▶ Growing popularity of virtual tours.

DIFFERENCE

The specialist will:

- ▶ be able to work with virtual and augmented reality devices;
- ▶ add content in various languages to virtual tours and exhibitions, as well as special online applications about historical and cultural attractions.
- ▶ due to the large-scale spread of online translators, the need for specialists will gradually decrease, but they will remain in the segment of individual tours and the elite segment.

2035

A CASTELLAN IN A HOTEL COMPANY

08



MANAGER OF A DIGITAL HOTEL WAREHOUSE

Employee in this position:

- ▶ receives and sorts hotel linen and other inventory items (goods and materials);
- ▶ ensures the safety of goods and materials and their storage modes;
- ▶ prepares documentation for the write-off of old linen, uniforms, and other items and places an order for new shipments;
- ▶ conducting an inventory.

TRIGGER

- ▶ Introduction of digitalization and automation.
- ▶ Using smart sensors and RFID tags.

DIFFERENCE

- ▶ An automated system will be implemented for tracking the needs and movement of hotel inventory, linen, and supplies.
- ▶ Introduction of automation, RFID tags, scanners and sensors will require a specialist to develop new professional competencies.



DISAPPEARING PROFESSIONS OF TOURISM INDUSTRY

7.3.



7.3.

DISAPPERING PROFESSIONS OF TOURISM INDUSTRY

In his 2018 speech at the World Economic Forum in Davos, Oliver Kann said that the labor market will change significantly in the coming years. The process of labor market transformation will be influenced by the large-scale spread of robots, digitalization and automation of processes in all areas of the economy.



According to Oliver Kahn, by 2022 this trend will affect 29 — 42 % of professions, and 75 mn. people in the world will lose their jobs. At the same time, he noted that there will be 133 mn. new jobs, which will require applicants to have a higher level of professional qualification.³³

In order to remain constantly in demand in the labor market, it is necessary to consciously approach the choice of your future profession,

to study the trends that influence the tourism industry, because in the next 10-15 years a number of professions in this area will be gradually disappear. Of course, some of the professions in the tourism sector will not disappear completely, they will remain in the elite segment, where the emphasis will be on an individual approach to each client.

However, these professions will not be so popular EN masse.

2025	2030	2035
<div>Office manager in travel agency</div>		
<div>Operator of mechanized calculation in the hotel</div>		
<div>Agent for delivery of ordered tickets</div>		
<div>Ticket Acceptance Agent</div>		
<div>An operator for booking tickets (air, rail, etc.)</div>		
<div>Ticket Issuance Officer (Travel)</div>		
<div>Sales Center Communications Operator</div>		
<div>Floor supervisor (hotels, campings, boarding house)</div>		
<div>Cashier, including restaurant cashier and ticket cashier</div>		
<div>Dishwasher</div>		
	<div>Concierge</div>	
	<div>Operator for hotel rooms booking</div>	
	<div>Hotel courier</div>	
	<div>Cleaners in hotels</div>	
		<div>Inventory officer</div>
		<div>Innkeeper in hotels</div>
		<div>Doorman, porter</div>

³² Oliver Kahn —expert, member of the Executive Committee of the World Economic Forum 2018.
³³ URL: <https://utalents.ru/news/2019/09/17/professii-budushchego-kak-podgotovitsya-k-izmeneniyam-na-rynke-truda>.

▶ 2025

▶ 7



OFFICE MANAGER AT A TRAVEL AGENCY

- ▶ With the transition to remote work and electronic document management, there is no need to create a physical office. All work will be carried out in the online space.

▶ 2025

▶ 2



OPERATOR OF THE MECHANIZED CALCULATION IN THE HOTEL

- ▶ Due to the transition to online payments for stays in hotels and other places of temporary residence, as well as the introduction of automation of the movement of room stock and accounting, the need for such specialists will gradually disappear.

▶ 2035

▶ 3



INVENTORY CLERK

- ▶ Large-scale implementation of smart sensors, scanners, the use of RFID tags for inventory accounting and automation of their accounting, will lead to the fact that all inventory items of hotels and other places of temporary residence will be digitized. Smart devices will monitor the movement of inventory items, the timing of replacement and failure, and the functions of monitoring these devices will be transferred to the castellan or manager of the digital warehouse.

▶ 2020

▶ 4



AGENT FOR DELIVERY OF BOOKED TICKETS

- ▶ Already today, due to the transition to online ticket booking, there is no need for such employees. This category of specialists will need to look for another job as a delivery agent in other industries, such as delivering food from restaurants, or learn skills in another profession.



▶ 2025

▶ 5



AGENT

FOR ACCEPTING ORDERS FOR TICKETS

- ▶ Ordering or booking of air, railway and other tickets goes into the online space.
- ▶ Online travel agencies and carrier companies' websites make it easy to compare prices and choose the most convenient way to travel. Therefore, agents who will select the route of movement, perform intermediary services between the tourist and the carrier company, will not be in demand.
- ▶ Today, these specialists still remain in the staffing table of individual companies (some categories of the population do not fully trust online orders yet or do not have the skills to work in the Internet), but by 2025 in a year, the need for them will completely disappear.

▶ 2025

▶ 6



OPERATOR

FOR BOOKING TICKETS (AIR, RAILWAY, ETC.)

- ▶ In order to book a plane ticket, today you do not need intermediaries. In the online space, for example, on integrated travel platforms or websites of transport companies, anyone can choose the most favorable travel route (in terms of time and price) and book it.
- ▶ Specialists who previously performed these functions are no longer in demand.

▶ 2030

▶ 7



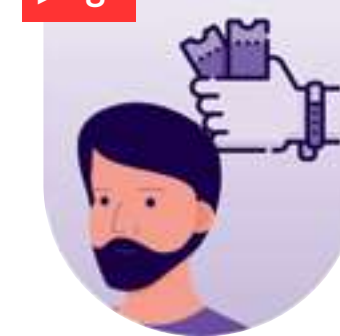
Room reservation OPERATOR in the hotel

- ▶ The functions of booking rooms in hotels and other places of temporary residence will be transferred to artificial intelligence devices. In addition to booking a room, each visitor will be able to choose remotely the room that suits them best from the rooms that were not reserved at that time, by using the virtual twin of the hotel.



► 2020

► 8



TICKETING CLERK (TRAVEL)

- The transition to online booking and payment of tickets will lead to the fact that the employees on the issuance of tourist vouchers and tickets will not be in demand. In exceptional cases, this function can be performed by a travel agent.



► 2025

► 9



COMMUNICATION OPERATOR OF THE SALES CENTER

- Telecom operators in sales centers are already being actively replaced by chat bots. The level of development of this service is so developed that sometimes a buyer who contacts a sales center cannot distinguish who is communicating with him - a live person or a bot.



► 2025

► 10



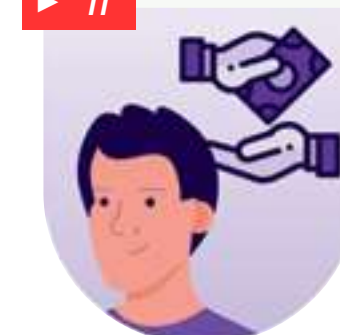
FLOOR ATTENDANT (HOTELS, CAMPING, BOARDING HOUSE)

- The functions of a floor attendant will be transferred to AI devices: video recorders and emergency sensors will monitor order, which will transmit all information to the central security point. Communication with the hotel staff and administration will be carried out directly from the rooms using voice and remote control devices.



► 2025

► 11



CASHIER, INCLUDING RESTAURANT CASHIER AND TICKET TELLER

- Contactless types of online payments are developing, and the use of cash is decreasing. This will lead to the release of workers who service cash registers and accept cash to pay a bill in a restaurant, bar, cafe or at the box office when buying a ticket.

▶ 2025

▶ 12



DISHWASHER

- ▶ Already today, dishwashers are widely used in restaurants, cafes, bars, canteens, etc. even for fragile appliances. Automation of this area of work will free up a large number of workers who washed the dishes by hand. In some segments, such workers will remain for some time, but by 2025 dishwashing equipment will completely oust them from the labor market.

▶ 2035

▶ 13



HOTEL PORTER

- ▶ The introduction of service robots will oust hotel porters from the labor market. The delivery of luggage to the room will be entrusted to service robots. In the elite segment, in which all services will be carried out by classic personnel, and the share of which will be minimal, such personnel will remain. But in the mass segment, they will gradually disappear.

▶ 2030

▶ 14



BELLBOY AT THE HOTEL

- ▶ Currently, according to the industry experts, most hotels no longer have this category of personnel. In large hotels, where it is still impossible to do without messengers today, correspondence, food and drinks, small loads will be delivered to hotel guests in the future by drones or mini service robots. But in the mass segment, they will gradually disappear.

▶ 2035

▶ 15



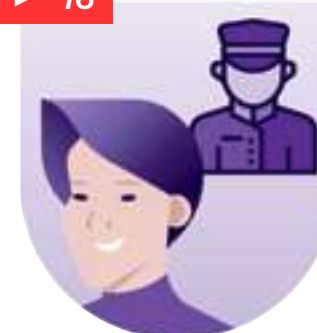
DOORMAN, RECEPTIONIST

- ▶ Doors in hotels will automatically open and close, smart devices will greet visitors. This category of employees can only remain in the elite segment.



▶ 2030

▶ 16



CONCIERGE

- ▶ The functions of advising guests on hotel services and attractions, as well as placing orders for additional services for guests, will be transferred to AI devices.

▶ 2030

▶ 17



CLEANERS IN HOTELS

- ▶ The service will be outsourced to cleaning companies; it will not be profitable for hotels to maintain their own of cleaning staff.

A | WHERE
TO GO
TO STUDY?

8.





WHERE TO GO TO STUDY?

The next stage in the development and implementation of the Atlas of new professions in Kazakhstan is the localization of new professions (professions of the future) of the tourism industry in Kazakhstan, which were developed and proposed by leading experts in this industry. Within the framework of localization, it is proposed to consider the potential of 20 leading universities, the list of which was formed on the basis of the ranking of «Educational programs of universities in Tourism at the end of 2019», presented by NCE «Atameken».

Table 1.

Ranking of universities for the localization of new tourism professions industry of the Republic of Kazakhstan.

	University	Ranking	Quantity of new professions
1	University of international business	3.61	8
2	Al-Farabi Kazakh national University	3.49	14
3	Almaty Technological University	3.41	9
4	Kazakh University of Economics, Finance and International Trade	3.31	7
5	University of foreign languages and business career	3.29	2
6	L. N. Gumilyov Eurasian national University	3.25	12
7	Kazakhstan innovation Academy	3.234	7
8	Kazakh University of international relations and world languages. Abylai Khan	3.232	2
9	Narxoz University	3.226	10
10	S. Toraighyrov Pavlodar state University	3.22	13
11	Almaty University	3.215	6
12	Kazakh-American free University	3.206	5
13	Sh. Esenov Caspian state University of technology and engineering	3.09	10
14	South Kazakhstan state University named after M. Auezov	3.06	13
15	Kazakh state women's pedagogical University	3.01	6
16	Zhetysu state University named after I. Zhansugurov	2.99	9
17	Taraz state University named after M. H. Dulati	2.85	11
18	Kazakh-Russian international University	2.77	8
19	Aktobe regional state University named after K. Zhubanov	2.743	10
20	Turan University	2.736	9

Source: Rating of «Educational programs of higher education institutions in the specialty «Tourism».³⁴

³⁴ URL: [https://atameken.kz/uploads/content/files/Туризм\(3\).pdf](https://atameken.kz/uploads/content/files/Туризм(3).pdf)

The following table shows the new professions of tourism branches, the training of which takes place in universities, as well as educational specializations, on the basis of which it is possible to deploy the localization of new professions.

Localization of new professions is an activity aimed at developing teaching materials and special educational practices for teaching knowledge, skills and competencies for new tasks of the industry.



Table 2.
The list of faculties required for the localization of new professions in the tourism industry of the Republic of Kazakhstan.

Profession		List of specializations, faculties and departments required for the localization of new professions in the industry
1	DIGITALIZATION AND BIG DATA	
1.1	Big Data Analyst (in the field of tourism)	5B090200 — Tourism 5B070400 — Computer engineering and software
1.2	Specialist in predictive analytics (in the field of tourism)	5B090200 — Tourism 5B070400 — Computer engineering and software
2	TECHNOLOGIES OF THE FUTURE AND ARTIFICIAL INTELLIGENCE	
2.1	Immersive designer	5B090200 — Tourism 5B070300 — Information system
2.2	Developer of intelligent travel platforms	5B090200 — Tourism 5B070300 — Information system
2.3	Innovative manager (hotel business)	5B090200 — Tourism 5B070300 — Information system
2.4	Operator of innovative equipment maintenance	5B091200 — Restaurant and hotel business 6M051700 — Innovation management
2.5	Operator of VR-devices	5B090200 — Tourism 5B070400 — Computer engineering and software
2.6	UAV operators (in tourism)	5B090200 — Tourism 5B070300 — Information system
3	DEVELOPMENT AND PROMOTION OF TOURIST DESTINATIONS	

Profession		List of specializations, faculties and departments required for the localization of new professions in the industry
3.1	Designer of tourist and recreational zones	5B090200 — Tourism 5B075200 — Engineering systems and networks
3.2	Brand manager of tourist destinations	5B090200 — Tourism 6M051700 — Innovation management and/or 5B050700 — Management
4	DEVELOPMENT AND PROMOTION OF TOURIST PRODUCTS	
4.1	Manager of ethno-tourism	5B090200 — Tourism 5B020800 — Archaeology and Ethnology
4.2	Agro-tourism manager	5B090200 — Tourism 5B080100 — Agronomy
4.3	Environmental tourism manager	5B090200 — Tourism 5B060800 — Ecology
4.4	Manager of medical and affordable tourism	5B090200 — Tourism 5B130100 — General medicine
4.5	Online manager for the promotion of tourist products	5B090200 — Tourism 5B051100 — Marketing
4.6	Safe tourism manager	5B090200 — Tourism 5B073100 — Life safety and environmental protection

TABLE 3.
MAP OF LOCALIZATION OF NEW PROFESSIONS
IN UNIVERSITIES OF THE REPUBLIC OF KAZAKHSTAN

N°	Names of professions	University of International Business	Al-Farabi Kazakh National University	Kazakh Academy of Sports and Tourism	Almaty Technological University	Kazakh University of Economics, Finance and International Trade	University of Foreign Languages and Business Careers	Eurasian National University L.N. Gumilyova	Kazakhstan Innovation Academy	Kazakh University of International Relations and World Languages Abdylay Khan	Narxoz University	Bokeydar State University S. Toraygrov	University of Almaty	Kazakhstan American Free University	Caspian State University of Technology and Engineering S. Erlinsas	South Kazakhstan State University M. Auezov	Kazakh State Teacher Training University for Women	Zhetysay State University I. Zhankowsky	Taras State University M.H.Dulai	Kazakh-Brazilian International University	Almaty Regional State University K. Zhubanyev	University "Turan"
Direction "Digitalization and big data"																						
01	Big-Data analyst (in the field of tourism)	●	●		●	●		●	●		●	●			●			●	●	●	●	●
02	Specialist in predictive analytics (in the field of tourism)	●	●		●	●		●	●		●	●			●			●	●	●	●	●
Direction "Technologies of the Future and Artificial Intelligence"																						
01	Immersive designer	●	●		●	●		●	●		●	●	●	●	●	●	●	●	●	●	●	●
02	Developer of intelligent travel platforms	●	●		●	●		●	●		●	●	●	●	●	●	●	●	●	●	●	●
03	Innovative manager (hotel business)		●		●	●		●	●		●	●	●	●	●	●	●	●	●	●	●	●
04	Operator of innovative equipment maintenance		●					●														
05	Operator of VR-devices	●	●		●	●		●	●	●	●	●			●	●			●	●	●	●
06	UAV operators (in tourism)	●	●		●			●	●		●	●	●	●	●	●	●	●	●	●	●	●
Direction "Development and promotion of tourist destinations"																						
01	Designer of tourist and recreational zones							●														
02	Brand manager of tourist destinations	●	●	●	●	●	●	●		●	●	●	●	●	●	●	●	●	●		●	●
Direction "Development and promotion of tourist products"																						
01	Manager of ethno-tourism		●	●				●				●				●						
02	Agro-tourism manager			●								●				●		●	●			
03	Environmental tourism manager		●	●	●			●			●	●			●	●	●	●	●		●	
04	Manager of medical and affordable tourism		●	●	●																	
05	Online manager for the promotion of tourist products	●	●			●	●			●	●	●	●			●		●		●	●	●
06	Safe tourism manager		●	●								●			●	●		●	●	●		
Total:		8	15	6	9	7	2	12	7	2	10	13	6	5	10	11	6	9	11	8	10	9

A | CONCLUSION

9.





CONCLUSION

Tourism is one of the most profitable and fastest growing sectors of the world economy. In Kazakhstan, the tourism sector is also one of the priority sectors of the economy, acting as a kind of catalyst for the country's socio-economic development, as it has a powerful multiplier effect on the associated infrastructure of transport, trade, entertainment, etc.

Therefore, it is so important to realistically assess and understand at what stage of development the tourism industry is today, in which direction is it moving, what plans does it make for the future? This is what we, with the help of experts from the tourism industry, tried to figure out. The result of the work done together is the magazine that you are holding in your hands now.

As a result of the systematization of a large amount of information obtained during the foresight sessions, supported by in-depth interviews with leading industry experts and a survey of experts using the questionnaire method, a vision of the current state of the tourism sector, as well as the prospects for its development for the next 10-15 years, was formed. The tourism industry is about to receive a generation of future professionals, which will be significantly different from those who worked yesterday and even from those who work today. They will have higher requirements for their workplace, working conditions and remuneration, career advancement opportunities.

According to the industry experts, the tourism industry

in Kazakhstan today is going through difficult times - there is an insufficient level of development of tourist infrastructure, which has a significant impact on the competitiveness of tourist destinations and the volume of tourist flows, the lag of domestic tourism in terms of the level of service provided by world leaders in the field of tourism. And although the tourist destinations of Kazakhstan are not yet widely represented in the world tourism market, but possessing unique natural resources and objects of cultural and historical heritage, our country has enormous potential to occupy a worthy place in world tourism.

The development of the tourism industry today, and in the next decade, will be most influenced by trends related to digitalization and automation, changes in consumer preferences of travelers.

The complex automation of booking hotel rooms and tickets, online payment for services provided is becoming more and more popular in the market of tourist services. Thanks to which travel agencies and tour operators will provide potential customers with the opportunity to independently choose the most suitable tour and method of travel for themselves.

The fourth industrial revolution not only opened up a large number of innovative technologies for industrial enterprises, but also for

the tourism sector.

In tourism in Kazakhstan, according to the industry experts, Big Data processing technologies, virtual and augmented reality, biometric identification, remote and voice control of intelligent devices in the hotel infrastructure will play an important role in the next 10-15 years.

The most powerful and significant transformation of the industry will be the creation of centralized online travel agencies, the sites of which will unite all market participants - travel agents and tour operators, ticket booking companies, hoteliers, transport companies, art and entertainment facilities, etc.

The introduction of these innovative technologies will allow industry companies to improve the quality of services and the safety of travelers in our country, attract new tourists and increase the recognition of our country on the map of the world tourism industry.

Industry experts attach great importance to the level of personnel qualifications, issues of their training and retraining.

The technological transformation and automation of the tourism industry will contribute to the release of a significant number of personnel, whose work can be easily outsourced to artificial intelligence devices. The increasing complexity of technology will require employees

of companies to master new skills and competencies. At the same time, individual technological innovations will require not only the emergence of new professions, which industry experts have tried to predict within the framework of this project, but also a brand new system of their training.

Along with this, a very great responsibility for the development of the tourism of the future in Kazakhstan will be assigned to the specialists of the new generation. Their professionalism and active life position will determine how much the industry will be able to strengthen its position in the world market, what level of technological development of the industry will be achieved, and what types of services it will focus on.

Therefore, already today, choosing a profession for themselves, the younger generation should be aware of how much the tourism industry will change in the future, and how much they can personally do for this.

The tourism industry will soon have a generation of specialists of the future, which will be significantly different from those who worked yesterday and even from those who work today. They will have higher requirements for their workplace, working conditions and pay, and opportunities to move up the career ladder.



PROJECT TEAM

**The composition of the research team that performed work within the framework of the project «Atlas of new professions and competencies of the tourism industry of the Republic of Kazakhstan»*

1. Aisautov Timur	Project Team Leader
2. Yerekeshev Azamat	Project Manager
3. Jelle Willart	International Expert
4. Kalkenova Botagoz	National Expert
5. Tileubergenov Ilyas	National Expert
6. Semibratova Galina	National Expert
7. Kurganbaev Yerdos	National Expert
8. Kabylbekov Zhantas	National Expert
9. Kassabekov Madi	National Expert
10. Mukatov Arman	National Expert
11. Nurmakhanov Berik	National Expert
12. Vokarchuk Evgeny	National Expert
13. Taigulova Zhanar	National Expert
14. Argynbaeva Gulzhan	National Expert
15. Madenov Batyr	National Expert
16. Yermagambet Dastan	Junior Expert
17. Doszhan Nurkanat	Junior Expert

A | RESEARCH PROJECT TEAM

TEAM OF INDUSTRIAL EXPERTS OF ATLAS (TOURIST INDUSTRY)

**List of industry experts who took part in the foresight session as part of the Atlas of New Professions and Competencies of the Tourism Industry of the Republic of Kazakhstan.*

- | | | | |
|-----|--------------------|-----|------------------------|
| 1. | Abdenov Aydin | 26. | Bekboeva Elena |
| 2. | Abdullayev Bekzhan | 27. | Bekbosynova Gulbany |
| 3. | Abdullina Akzhunus | 28. | Bekhazhaeva Aigul |
| 4. | Abisheva Gulmira | 29. | Bikmurzin Kuanysh |
| 5. | Abishov Nurzhan | 30. | Bolat Kenjebek |
| 6. | Adieva Pakizat | 31. | Borasheva Saule |
| 7. | Iguina Saniya | 32. | Bunakova Irina |
| 8. | Aidarova Akmaral | 33. | Veimer Albina |
| 9. | Ainabekov Nurzhan | 34. | Vernickaya Tatiana |
| 10. | Aytakova Kuralay | 35. | Vitchenko Vladimir |
| 11. | Aitkazina Madina | 36. | Vyshnevsky Alexey |
| 12. | Akazhanova Aigerim | 37. | Ginayat Erniyaz |
| 13. | Aktymbaeva Aliya | 38. | Gubarenko Anastasia |
| 14. | Amangeldi Arailym | 39. | Davletova Guzel |
| 15. | Amangeldi Danat | 40. | Dauletbakova Alina |
| 16. | Arapova Gulmira | 41. | Daurenbekova Karlygash |
| 17. | Argimbaeva Gulzhan | 42. | Jardemov Diaz |
| 18. | Askarova Aziza | 43. | Jeksenova Ainur |
| 19. | Akberdieva Gulmira | 44. | Duisembekova Gulzhan |
| 20. | Ahilova Akmaral | 45. | Yerkinova Saulet |
| 21. | Akhmetova Sania | 46. | Yerubayeva Gulzhan |
| 22. | Bayzhanov Nurbol | 47. | Esenaliev Daulet |
| 23. | Balgabaeva Venera | 48. | Esenalieva Aigerim |
| 24. | Batyrbekov Nurzhan | 49. | Esenalieva Aigerim |
| 25. | Beymbetova Aigul | 50. | Esenova Aiman |

- | | | | |
|-----|-------------------------|------|------------------------|
| 51. | Yessim Ayana | 94. | Poluyanov Natalia |
| 52. | Yessimova Dinara | 95. | Rakhymzhanova Saltanat |
| 53. | Eshenkulova Gauhar | 96. | Ramashova Aisulu |
| 54. | Jangozhaeva Elvira | 97. | Amantayevna Raushan |
| 55. | Jangosimova Ayagoz | 98. | Ray Inna |
| 56. | Zhumagulova Gulmira | 99. | Ruslan Kydyrali |
| 57. | Zhunusova Aliya | 100. | Sabyrbaeva Saltanat |
| 58. | Zhusupova Aliya | 101. | Sadykov Zhasulan |
| 59. | Imangulova Tatiana | 102. | Sakenov Aidos |
| 60. | Isagalieva Elina | 103. | Sanieva Zulfira |
| 61. | Islambekova Aliya | 104. | Sarsenbayev Abylkhan |
| 62. | Kabdulova Saule | 105. | Seidahmetov Marat |
| 63. | Kadyrbekova Dinara | 106. | Seminar Erkegul |
| 64. | Kairova Shnar | 107. | Seraev Khamet |
| 65. | Kapenova Gulmira | 108. | Sergeeva Aigul |
| 66. | Karbozova Agzhan | 109. | Sokolkina Svetlana |
| 67. | Kastalskaya Tatiana | 110. | Sokolova Larisa |
| 68. | Kassymova Aigerim | 111. | Suleymenova Gulzhanat |
| 69. | Ken Saytzhan | 112. | Sultanova Victoria |
| 70. | Kovtun Vera | 113. | Tereshchenko Elena |
| 71. | Kozbagarova Assem | 114. | Tikenov Erkin |
| 72. | Lukbanova Dina | 115. | Tukenov Darkhan |
| 73. | Mazhikeeva Saule | 116. | Tuleyev Askar |
| 74. | Malshakova Valeria | 117. | Tulepbergenova Bota |
| 75. | Mamutova Klara | 118. | Musaeva Aliya |
| 76. | Mamyrbekova Dinara | 119. | Uspaeva Arai |
| 77. | Masalitin Vyacheslav | 120. | Ushtebaeva Saltanat |
| 78. | Mataeva Botagoz | 121. | Utkina Nadezhda |
| 79. | Makhambetova Saule | 122. | Filippova Nina |
| 80. | Mussaev Muhamedali | 123. | Khasanova Yana |
| 81. | Mutalieva Layla | 124. | Khasenov Yerkebulan |
| 82. | Mukhamedzhanova Raushan | 125. | Khodorovskaya Tatiana |
| 83. | Nazarbekov Erkinbek | 126. | Khusainova Gulnar |
| 84. | Nizamatdinova Zhulduz | 127. | Shaikenova Rashida |
| 85. | Nikitinskiy Yevgeniy | 128. | Shamil Raushan |
| 86. | Nurgalieva Almagul | 129. | Shatalina Olga |
| 87. | Nusupova Larisa | 130. | Shklovsky Lev |
| 88. | Ogienko Nadezhda | 131. | Shonaeva Lyazzat |
| 89. | Omarov Kairat | 132. | Shukenova Rosa |
| 90. | Omarova Aiganym | 133. | Shumakova Gulnur |
| 91. | Omirezakova Miroslava | 134. | Yakupchak Juliana |
| 92. | Orynbasaruly Nurzhan | 135. | Yakutova Elena |
| 93. | Plokhiih Roman | | |

INDUSTRY EXPERTS REPRESENTED THE FOLLOWING COMPANIES

- ▶ Committee of the Tourism Industry of the Ministry of Culture and Sports of the Republic of Kazakhstan
- ▶ Department of Tourism of the Turkestan region
- ▶ ALE «Kazakhstan Tourist Association»
- ▶ ALE «National Resort Association of the Republic of Kazakhstan»
- ▶ ALE «Kazakhstan Association of Hotels and Restaurants»
- ▶ ALE «Capital Tourism Association»
- ▶ ALE «Eurasian Tourism Association»
- ▶ ALE «Association of the tourism and recreation industry» Burabay»
- ▶ «Industry Tourism Association of Central Asia (ITACA)»
- ▶ «Association of Domestic and Inbound Tourism»
- ▶ Tourist Association of the North Kazakhstan region
- ▶ «Tourist Kamkor» Fund
- ▶ Human Capital Development Department of NCE Atameken
- ▶ Regional center of physical culture and children and youth tourism of the Education Department of Akimat of Kostanay region
- ▶ Public fund of artisans of Kostanay region «Qoloner»
- ▶ OPO Almaty mountain cluster
- ▶ Air travel agency «OTRAR TRAVEL»
- ▶ JSC «Kazakh Tourism»
- ▶ International travel company «Complete Service»
- ▶ LLP «Global Air»
- ▶ LLP «Inside Travel»
- ▶ LLP «Karat»
- ▶ LLP «PSN Nur-Sultan 15»
- ▶ LLP «Tumar-Trans»
- ▶ LLP «Turkestan Elite Tour»
- ▶ LLP «MOUZENIDIS TRAVEL ASTANA»
- ▶ LLP «SkyWay LTD»
- ▶ LLP «Transavia Tour»
- ▶ LLP «V. SULTAN»
- ▶ LLP Tourist company «Zhetisu»
- ▶ LLP Tourist center «Golden Caravan»
- ▶ LLP «Open Travel Advisory»
- ▶ Travel company «Sayat»
- ▶ Travel company «Gvidon Tour»
- ▶ Tour operator of domestic tourism «Quanysh»
- ▶ LLP «Travel Club Kazakhstan»
- ▶ Hotel «Rahat Palace»
- ▶ Hotel «The Ritz-Carlton»
- ▶ Hotel «Dostyk»
- ▶ Hotel «Rixos Almaty»
- ▶ Hotel chain «Kaz Zhol»
- ▶ Hotel «Takhar»
- ▶ Hotel «Grand Sapphire»
- ▶ Zhubanov University
- ▶ Almaty Management University
- ▶ Atyrau University named after Kh. Dosmukhamedov
- ▶ L. N. Gumilyov Eurasian National University
- ▶ Eurasian Technological University

- ▶ Zhetysu State University named after I.Zhansugurov
- ▶ Kazakh Academy of Sports and Tourism
- ▶ Al-Farabi Kazakh National University
- ▶ Kazakh University of Technology and Business
- ▶ Kazakh University of Economics, Finance and International Trade
- ▶ Kazakh American Free University
- ▶ Karaganda Economics University of Kazpotrebsoyuz
- ▶ Yessenov University
- ▶ Kokshetau University named after Abai Myrzakhmetov
- ▶ Kostanay State University named after Akhmet Baitursynov
- ▶ Kyzylorda State University named after Korkyt Ata
- ▶ The International Kazakh-Turkish University named after Akhmet Yassawi
- ▶ Toraighyrov University
- ▶ Taraz Innovative Humanitarian University
- ▶ LLP School of Contemporary Art «Altyn Adam «
- ▶ Turan-Astana University
- ▶ M. Narikbayev KAZGUU University
- ▶ University of International Business
- ▶ Center for Education and Tourism «Best.kz»
- ▶ M.Auezov South Kazakhstan University



PROJECT PARTNERS:



Committee of the Tourism Industry of the Ministry of Culture and Sports of the Republic of Kazakhstan



Казахстанская туристская ассоциация





