

 <b>SATBAYEV UNIVERSITY</b>	<b>NON-PROFIT JOINT STOCK COMPANY “KAZAKH NATIONAL RESEARCH TECHNICAL UNIVERSITY NAMED AFTER K.I. SATBAYEV”</b>	
Strategy of Implementation on Sustainable Development Goals at NPJSC "KazNRTU named after K.I. Satbayev"	Edition #3 dated« ____ »_____2023	S 029-03-09.3.1-2023

**DRAFT**

**STRATEGY FOR IMPLEMENTING THE SUSTAINABLE  
DEVELOPMENT GOALS OF SATBAYEV UNIVERSITY**

**S 029-03-09.3.1-2023**

**Almaty, 2023**

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## PREFACE

**1 DEVELOPED** by SDG Center at E.A. Turkebayev Institute of Project Management of NPJSC “Kazakh National Research Technical University named after K.I. Satbayev”

**Director of Center**

\_\_\_\_\_ 2023.  
«\_\_\_» \_\_\_\_\_

**2 APPROVED** by the decision of Board dated "\_\_\_" \_\_\_\_\_ 2023. # \_\_\_\_\_

**3 INTRODUCED** for the first time

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## PREFACE

Strategy in the field of sustainable development of NPJSC “Kazakh National Research Technical University named after K.I. Satbayev” (hereinafter – Satbayev University) was elaborated with the purpose to implement the system of regular and continuous adherence to sustainable development principles. Strategy was elaborated in accordance with legislation of the Republic of Kazakhstan and "Development Strategy of non-profit joint stock company "Kazakh National Research Technical University named after K.I. Satbayev" for 2022-2026, elaborated based on Decree of President of the Republic of Kazakhstan dated October 07, 2021 "On approval of the list of national projects", National Development Plan of the Republic of Kazakhstan until 2025, and University’s internal regulatory documents, considering the developing practice in the field of sustainable development in the Republic of Kazakhstan, UN global compact requirements.

Concept of sustainable development is to achieve the strategic goals of the organization without compromising its sustainability in the long term, taking into account the stakeholders’ interests and implies a balanced socio-economic development that ensures the continuous progress of society and does not have a negative impact on the environment.

In 1987, UN Brundtland Commission defined sustainable development as follows: "development in which satisfying the needs of the present does not undermine the ability of future generations to meet their own needs." Brundtland Commission has identified three main components of sustainable development – social, economic and environmental.

Since then, all countries of the world have been making efforts for global collaboration on sustainable development issues. Two important milestones on this path are Earth Summit in 1992 and the adoption of Millennium Development Goals (MDG) in 2000. Based on them, the 2030 Agenda for Sustainable Development and Sustainable Development Goals were adopted by 193 countries at Sustainable Development Summit in September 2015.

Kazakhstan joined the global agenda from the very first days. The First President of the Republic of Kazakhstan N.A. Nazarbayev, together with other leaders of the UN member states, signed a new document for further global development within the framework of 70<sup>th</sup> UN General Assembly, stressing that the goals and targets of Sustainable Development Goals (SDG) fully coincide with the priorities and tasks of Kazakhstan.

SDGs are a comprehensive universal set of 17 goals and indicators until 2030 aimed at improving the quality of citizens’ life, socio-economic growth and environmental sustainability of states. Achieving the SDGs requires a partnership of governments, the private sector, civil society and citizens to make sure we are leaving a better planet for future generations.

Satbayev University, being the leader of research and educational activities in higher technical education sphere in Kazakhstan, has combined the efforts of highly professional scientists and practitioners to introduce the best practices into educational and production processes. University team at all levels fully supports SDG ideas and makes a feasible contribution to their full-scale implementation.

Combining the best traditions of University's 90-year history with the use of scientific, technical and technological innovations, the principles of environmental safety, growth of high-quality higher education, sustainable urban enhancement and urban planning, responsible consumption and production are priorities for Satbayev University in the field of SDG.

Satbayev University intends to effectively use natural, material, human resources, best practices and the latest technologies in environmental safety field. Studying and preventing the environmental challenges and strengthening the environmental security by adapting to climate change and constant careful use of resources; protecting the biodiversity and protecting ecosystems, which will lead to the reduction in environmental pollution and maintenance of clean air, landscape and water resources.

To achieve UN Sustainable Development Goals, Satbayev University actively and successfully operates 6 scientific and educational clusters in IT, Energy, Biotechnology, Earth Science, Extraction, Material Science, where research is conducted in accordance with the priority areas of science and education approved by Higher Scientific and Technical Commission under Government of the Republic of Kazakhstan.

So, the given priorities include:

- Rational use of natural resources (including water), geology, processing, new materials and technologies, safe products and structures;
- Energy and mechanical engineering;
- Information, telecommunication and space technologies;
- Scientific research in natural sciences field;
- Scientific research "Mangilik el (education of XXI century, fundamental and applied research in humanities sphere)"

In support of SDG implementation - Satbayev University joined UN Global Contract, fully sharing the mission and commitment to the 10 principles. Mission of UN Global Contract is to mobilize a global movement of responsible companies that, in different political, economic, environmental, cultural, geographical and other conditions, share and implement common ethical principles in the field of human rights, labor relations, environment and anti-corruption, as well as support SDG and contribute to their achievement.

The ten principles of Global Contract on human rights, labor relations, environmental protection and the fight against corruption are based on Universal Declaration of human rights, Declaration of International Labor Organization on

fundamental principles and rights at work, Rio Declaration on environment and growth and UN Convention against corruption.

UN GC, like no other platform, clearly reflects the ongoing rethinking of the specifics and scope of corporate responsibility in its relationship with modernizing the approaches to business modeling in SDG context - the broadest agenda in the field of promoting sustainable development to date.

10 principles of UN Global Contract:

Human rights

Principle 1: The business community should support and respect the protection of internationally proclaimed human rights;

Principle 2: The business community should not be involved in human rights violations.

Labor relations

Principle 3: The business community should support freedom of association and real recognition of the right to conclude collective agreements;

Principle 4: The business community should advocate for eliminating all forms of forced and compulsory labor;

Principle 5: The business community should advocate for the complete elimination of child labor;

Principle 6: The business community should advocate for eliminating the discrimination in work and employment.

Environment

Principle 7: The business community should support a precautionary approach to environmental issues;

Principle 8: The business community should take initiatives aimed at increasing the responsibility for the environment state;

Principle 9: The business community should promote advancement and dissemination of environmentally sound technologies.

Anti-corruption

Principle 10: The business community must resist all forms of corruption, including the extortion and bribery.

Satbayev University, giving priority to the protection of human rights, labor relations, environmental protection and the fight against corruption, is planning through the given strategy to make the implementation of the principles of UN Global Contract in its activities manageable, phased and systematic.

Thus, the activities of all and each employee, student, teaching staff and partners of University at all levels and in all areas of external interaction will be committed to the mission and principles of SDG, where everyone in their place continuously and

responsibly contributes to sustainable development through their daily work, way of action, communication, decision-making and the way of thinking.

### PASSPORT

The name	<b>Satbayev University's Strategy on UN Sustainable Development Goals for 2023– 2030.</b>
The basis for the development	<ol style="list-style-type: none"> <li>1. Transforming our world: the 2030 Agenda for Sustainable Development <a href="https://undocs.org/en/A/RES/70/1">https://undocs.org/en/A/RES/70/1</a></li> <li>2. UN Global Sustainable Development Report (GSDR)</li> <li>3. Kazakhstan's development strategy until 2050.</li> <li>4. National Development Plan of the Republic of Kazakhstan until 2025.</li> <li>5. 5. The concept of development of higher education and science in the Republic of Kazakhstan for 2023-2029 dated March 28, 2023 No. 248.</li> <li>6. Law of the Republic of Kazakhstan dated July 27, 2007 "On education".</li> <li>7. Law of the Republic of Kazakhstan dated February 18, 2011 "On Science".</li> <li>8. Law of the Republic of Kazakhstan dated February 9, 2015 "On State Youth Policy in the Republic of Kazakhstan".</li> <li>9. Law of the Republic of Kazakhstan dated October 31, 2015 "On commercialization of the results of scientific and (or) scientific and technical activities"</li> <li>10. Resolution of Government of the Republic of Kazakhstan dated December 19, 2014 # 1330 "On establishing the non-profit joint stock company "Kazakh National Research Technical University named after K.I. Satbayev".</li> <li>11. Order of Minister of Education and Science of the Republic of Kazakhstan dated October 25, 2018 # 590 "On approval of the structure and rules for advancing the program for the development of higher and (or) postgraduate education".</li> <li>12. Development program of the non-profit joint stock company "Kazakh National Research Technical University named after K.I. Satbayev" for 2023-2027</li> </ol>
Developer	NPJSC "Kazakh National Research Technical University named after K.I. Satbayev" (Satbayev University)
Goal	Promoting the ideas of UN Sustainable Development Goals and their implementation in practice in Kazakhstan on Satbayev University platform

Strategic areas of activity	<ul style="list-style-type: none"> <li>- Green technologies and "decade of delivery"</li> <li>- Science, education and innovation are the key to quality education</li> <li>- Preservation of cultural and natural heritage of Kazakhstan</li> <li>- Innovation, transfer and commercialization of new technologies (research into production) and creating the startups</li> </ul>
Tasks	<ol style="list-style-type: none"> <li>1. To contribute to the elimination of extreme poverty of Kazakhstanis by 2030 by providing the continuing education, Adult education by 2030.</li> <li>2. For Kazakhstan, the issue of ensuring the food security, improving the nutrition and promoting sustainable agricultural development is more urgent.</li> <li>3. Ensuring a healthy lifestyle and promoting the well-being of students, employees of Satbayev University and their families.</li> <li>4. Ensuring the continuity and succession of obtaining a fair quality education, vocational training in accordance with the needs of the economy and regional characteristics throughout life for all.</li> <li>5. By 2030, to expand the opportunities of lasses and women and protect their rights in education sphere, ensure equal access to education and vocational training.</li> <li>6. By 2030, to minimize as much as possible water-borne diseases and other infectious diseases (AIDS, tuberculosis, malaria and tropical diseases etc.). Ensuring the availability and rational use of water resources and sanitation throughout University.</li> <li>7. By 2030, to intensify international research and technologies in the field of clean energy, including the renewable energy, improving the energy efficiency of fossil fuels use etc.</li> <li>8. Creating the employment and career opportunities for the young.</li> <li>9. Introducing and promoting the new technologies, modernizing the infrastructure and re-equipment of industrial enterprises and laboratories, activation of scientific research will become a sustainable basis for increasing the efficiency of resource use and wider use of clean and environmentally friendly technologies and industrial processes. For achieving the sustainable development, investments in University infrastructure are extremely important.</li> <li>10. Contributing to reducing the inequality for vulnerable groups of the population (refugees and migrants, the elderly, the disabled and children) within the country, as well as between</li> </ol>



	<p>states and peoples.</p> <p>11. Promoting the creation of a global digital ecosystem of Smart city by training highly professional specialists, developing and testing the projects in technological security, industrial and communal infrastructure, artificial intelligence and machine learning, transport system and logistics, ecology and urban planning of urbanizing agglomerations for the benefit of urban residents' all categories.</p> <p>12. Introducing the responsible consumption and production practices at University, including the separate collection and recycling of waste and garbage, energy efficiency, use of renewable energy sources etc.</p> <p>13. Promotion of conservation, restoration and rational use of terrestrial and inland freshwater and mountain ecosystems, including their biodiversity.</p> <p>14. Advancing the Innovation ecosystem created at University provides it with a high rate of scientific and technological development.</p> <p>15. Assistance in building a peaceful and open society in the interests of sustainable development in Kazakhstan, which will ensure the intellectual, spiritual, moral and healthy physical growth of students and University staff, as well as introducing the world achievements in academic and educational processes.</p> <p>16. Promoting the elaboration, dissemination and development of environmentally sound technologies at the national, regional and international levels. Expanding the regional and international cooperation in the fields of science, technology and innovation, as well as access to the given achievements.</p>
Terms and stages of the strategy implementation	2023–2030

Sources of financing	<p>Main sources of financing the events:</p> <ol style="list-style-type: none"> <li>1. Budget funds of the Republic of Kazakhstan: <ul style="list-style-type: none"> <li>- according to the state educational grant of Ministry of Science and Higher Education of the Republic of Kazakhstan and other state programs;</li> <li>- on grant and program-targeted financing;</li> <li>- based on grant programs of commercialization of RSSTA.</li> </ul> </li> <li>2. Extra-budgetary financing: <ul style="list-style-type: none"> <li>- public-private partnership funds;</li> <li>- income from individuals/legal entities under contracts for the provision of educational services;</li> <li>- funds received from organizations, enterprises and institutions under business contracts;</li> <li>- endowment fund dividends.</li> </ul> </li> </ol>
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## 1 MISSION AND VISION

### MISSION

Mission of Satbayev University is "Science and education for the benefit of man".

The knowledge provided by University is characterized not only by high-quality education, preparation of students for professional life, but also develops their desire for science, new technologies and innovations. The given symbiosis of academic knowledge with the practical purpose develops creativity, wide-ranging thinking and strengthens the knowledge of both students and teaching staff.

### VISION

Satbayev University is constantly intensifying the research projects, increasing the level of high-tech science-intensive products and University's commercial demand.

International mutually beneficial cooperation with research and educational institutions in the world, partnership with organizations and companies characterizes the recognition of our University at the world level.

Implementing the directions' objectives of the given Strategy will contribute not only to execution of UN SDG, but also to improving University's position and entering the TOP 200 world universities according to QS World University Rankings by 2026.

## 2 STRATEGIC AREAS OF ACTIVITY, PURPOSE AND OBJECTIVES

### Strategic areas of activity:

#### - **Green technologies and "decade of delivery"**

On May 30, 2013, Kazakhstan approved "Concept for transition of the Republic of Kazakhstan to "green economy" aimed at increasing the innovation activity and competitiveness of the state.

The 2020s are considered "decade of delivery", and those companies that are engaged in this will become or are already leaders in the social and economic spheres of society.

Creating the mini-farms, mini-gardens, vegetable gardens or greenhouses on University grounds for growing own vegetables, fruits, flowers and other products for sale at University and beyond, characterizes not just the growth of eco-food direction, but also additional commercialization of production in our Alma Mater.

One of the most significant issues is related to collecting, sorting and recycling of waste and garbage. In university laboratories, it is possible to produce (purchase) the necessary number of tanks for Plastic recycling, which in turn will lead to discipline, educating the careful attitude to ecosystem among students and University staff.

#### - **Science, education and innovation are the key to quality education**

The result of performing Satbayev University Strategy for UN Sustainable Development Goals will be a high level of scientific research, education and innovation, recognized globally for the entry of Satbayev University among the leading research universities in the world.

Satbayev University can rightfully be considered one of the generators in modernizing the national system of higher technical education and science, making a significant practical contribution to the innovative advancement and global competitiveness of Kazakhstan, as well as obtaining the sustainable results on the issues of UN SDG and confidence-building in the world.

#### - **Preservation of cultural and natural heritage of Kazakhstan**

Preserving the cultural heritage and nature reserves is state-owned, as they are priceless and irreplaceable treasures not of an individual country, but of humanity as a whole.

Therefore, in 1972, UNESCO member states adopted World Heritage Convention on protecting the world cultural and natural heritage, which entered into force in 1975.

Convention emphasizes that the preservation and popularization of World cultural and natural heritage sites is necessary in order to prevent the loss of any part of it due to destruction or disappearance, which will automatically lead to impoverishing the heritage of the world's all peoples. Four sites of Kazakhstan are included in the list of UNESCO World Heritage Sites. These are Mausoleum of

Khoja Akhmet Yassawi, Tamgaly, Saryarka petroglyphs - steppes and lakes of Northern Kazakhstan, as well as the complex of Great Silk Road objects in the Chang'an-Tien-Shan corridor. Preliminary list includes 14 more facilities located in Kazakhstan.

State policy of the Republic of Kazakhstan is aimed at preserving the cultural and natural heritage of our country, as their objects are perceived as part of the culture that has a number of important social functions and has a huge impact on the upbringing of the younger generation.

Satbayev University, as the leader of our country's technical knowledge, does not stand aside from measures to protect the cultural and ecological environment. The University conducts research, cultural and educational events.

**- Innovation, transfer and commercialization of new technologies (research into production) and startups creation**

Attracting the younger generation to solve strategic tasks contributes to formation of culture, development of entrepreneurship, generation of new knowledge (ideas), transformation of knowledge into technology and creation of conditions for startups emergence.

**Goal** of the given Strategy is to promote the ideas of UN Sustainable Development Goals and their implementation in practice in Kazakhstan on Satbayev University platform.

Considering the possible objective and subjective factors, updating and supplementing this Strategy, while remaining committed to the mission of University, is not prohibited.

### **3 THE EXPECTED OUTCOMES**

1. Satbayev University, as a leader of classical and innovative, polytechnic and green technologies (Green technologies), with well-coordinated international cooperation, where science, education and innovation are aimed at the benefit of a person, will successfully promote the ideas of UN sustainable development.

2. University will strengthen its position as a fundamental base for the training of highly qualified specialists, taking into account all the requirements of the market and economy, global challenges.

3. Increasing the competitiveness, promoting and commercializing the achievements and results of University at the national, regional and international levels.

4. Minimizing the modern environmental issues and challenges associated with urbanization, characterized by an increase in the number of urban residents and

a shortage of jobs, congestion of infrastructure and services, deterioration of the situation with air pollution and unplanned urban sprawl, problems with waste collection, with the water supply and sewerage system, poor road conditions and oversaturation of transport.

5. Changing the mental attitude of teachers, students and employees to the ecosystem being created and developed at the University

6. Applying and executing the eco-approach (based on "green office" model) for all Institutes, departments and laboratories throughout University.

7. Developing the eco-food direction on the basis of and for students and staff of University.

8. Improving the social environment, due to social programs and environmentally-friendly technologies.

**REGISTRATION SHEET ON CHANGES**

Serial number of the change	Section, item of the document	Type of the change (to replace, cancel, add)	Notification number and date	The change was made	
				Date	Surname and initials, signature, position