

NAZARBAYEV INTELLECTUAL SCHOOLS
Autonomous educational organization

DEVELOPMENT STRATEGY

2035



'24



Approved by the decision
of AEO Supreme Board of
Trustees dated 30 March 2024
(minutes №15)

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Astana, 2024

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INTRODUCTION

15 years of success - 15 years of recognition

The strategy of “Nazarbayev Intellectual Schools” autonomous educational organisation (hereinafter – AEO/NIS¹) until 2035 (hereinafter – the Strategy-2035) reflects new global trends in the field of education, based not only on the search for new learning formats, but also on the new roles of all participants in the educational process and their well-being. The Strategy 2035 outlines a long-term roadmap for the sustainable development of AEO, aimed at enhancing the quality of education in Kazakhstan and beyond.

The dynamically changing context in the country and the world requires rapid adaptability and rethinking of the “new normality”. Having integrated the best national and international experience and significant scientific achievements in secondary education, as well as having achieved significant results over 15 years, AEO faced a need to set new goals and objectives. At the same time, it should be noted that a significant part of the set goals of the previous **NIS Development Strategy 2030** has been fulfilled ahead of schedule.

In his **Address to the people of Kazakhstan “Economic course of Fair Kazakhstan” on 1 September 2023, the Head of State Kassym-Jomart Tokayev**² emphasised the importance of psychological safety of children and adolescents, the system of society values, the availability of digital educational resources and the use of artificial intelligence technologies. Global technological progress in education, especially during and after the COVID-19 pandemic, brought new challenges and prospects to education sector – there was a need to introduce new educational formats, digital solutions, artificial intelligence capabilities, as well as the need to adapt educational programmes and methods to new realities. Within the framework

of the “Industry: 5.0” concept, there is a shift from the principle of “efficiency and productivity of intelligent digital technologies” to the principle of “synergy of human creative and critical thinking skills and the speed and accuracy of smart machines”.

In the **Concept of development of preschool, secondary, technical, and vocational education in the Republic of Kazakhstan for 2023-2029**,³ particular attention is paid to the development of universal and national values as the basis of ethical and moral development and education of the individual, based on the teachings of Abai “Tolyk adam” (“Well-rounded person”). It was also noted that there is a need to continue disseminating the **NIS experience to general educational schools in Kazakhstan** with focus on rural schools.

Kazakhstan, being a part of the global educational ecosystem, contributes to achieving the **Sustainable Development Goals**⁴ developed by the United Nations General Assembly (hereinafter – the UN). Within the framework of goal 4 “Quality education”, active work is being carried out to improve the functional and mathematical literacy of students, creating conditions for inclusive education, equipping schools, and improving the skills of teaching staff.

These factors determined the mission and vision, as well as the strategic directions and goals of AEO for the period up to 2035.

Strategy-2035 describes the course of AEO, focused on the implementation of a holistic approach to teaching and educating students of Intellectual schools; ensuring well-being of the entire educational ecosystem of Intellectual schools; decision-making based on data and research; scaling initiatives in the develop-

1 AEO/NIS consists of subsidiary organisations and branches, including Intellectual schools.

2 <https://www.akorda.kz/ru/poslanie-glavy-gosudarstva-kasym-zhomarta-tokaeva-narodu-kazahstana-ekonomicheskij-kurs-spravedlivogo-kazahstana-18588>

3 <https://adilet.zan.kz/rus/docs/P2300000249>

4 <https://www.un.org/sustainabledevelopment/ru/sustainable-development-goals/>

ment of the intellectual capital of the country; digitalization of the content of education and the educational process; expanding the geography of educational activities of AEO beyond Kazakhstan and commitment to the principles of sustainable development. The key directions of AEO development were elaborated during internal and external strategic sessions with the in-

volvement of students and their parents, teachers of Intellectual and general educational schools, experts, authorities in the field of education and general public of Kazakhstan.

The Strategy-2035 builds on the successful 15-year experience of creating, providing, and managing a network of Intellectual schools and disseminating the NIS experience to general educational schools.





15 YEARS OF SUCCESS



15 YEARS OF SUCCESS

Within 15 years, NIS as an experimental platform for the development and implementation of the best national and international educational practices, together with leading experts and international partners, has improved the educational programme, systems for assessing students' academic achievements and professional development of teaching staff on the principles of academic freedom, autonomy, meritocracy, and social responsibility.

Currently, more than **16 000** students study in Intellectual schools⁵, about **18 700** graduates have graduated from Intellectual Schools and have successfully entered leading Kazakh and international higher education institutions, including Ivy League universities and in the top 100 universities according to world university rankings, mainly by winning grants. The majority of graduates choose their professional path in the sphere of science and mathematics (technical, medical, scientific, pedagogical, and economic specialties), thereby forming a personnel reserve for key sectors of the economy of Kazakhstan.

Over the past 6 years, students of Intellectual schools have been recognised as the “Best Olympic team in Science and Mathematics” in national intellectual competitions, and for 5 years they have been the 1st in the ranking for the largest number of medals at the Republican competition of scientific projects. This success is primarily due to the consistent research activity in Intellectual schools, as a result of which students became owners of about **300** copyright certificates and patents for the invention of utility models in various fields of science.

4 238 winners of international Olympiads and scientific competitions

7 254 winners of republican Olympiads and scientific competitions



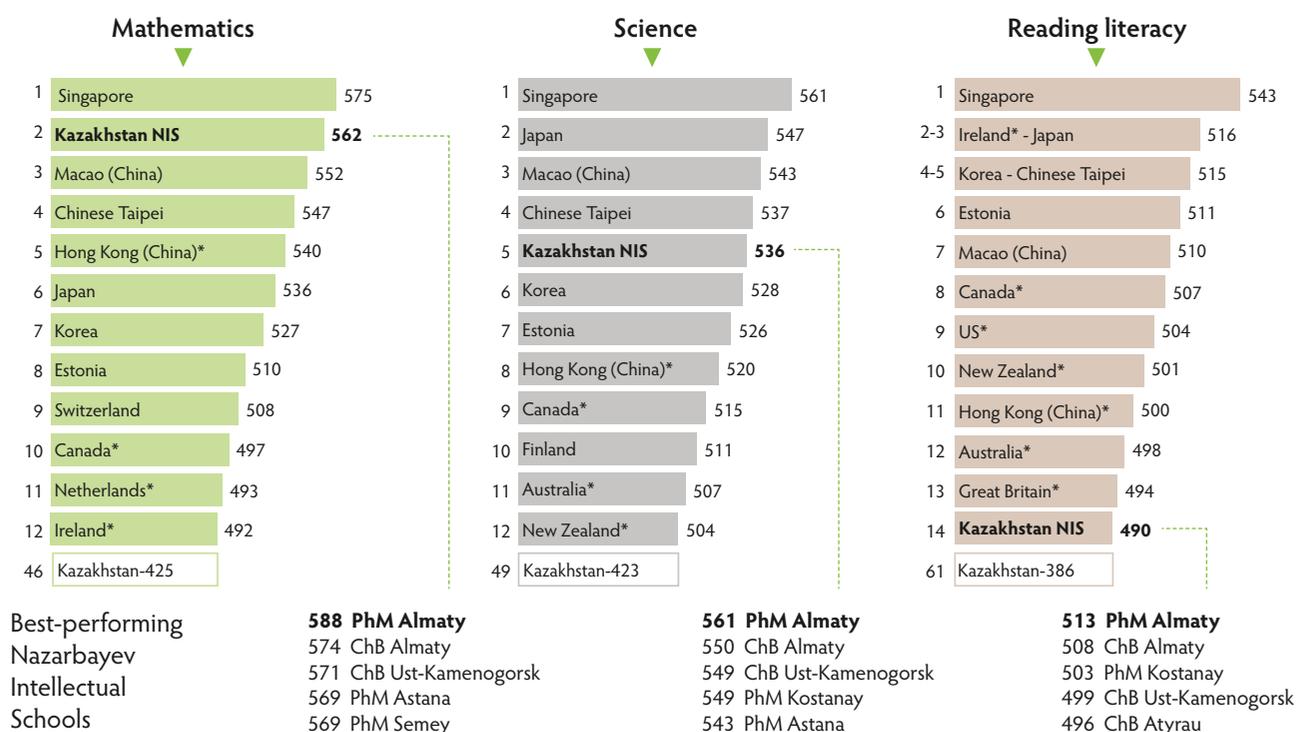
5 In 2024, there are 21 Intellectual schools and the International School of Astana.

CONTENT OF EDUCATION

Intellectual schools successfully implement Educational Programme NIS-Programme (hereinafter – NIS-Programme)⁶, which has received international recognition and is comparable to the international programmes of A-Level, AS-Level (UK), O-Level

(Singapore) and IB-Programme (International Baccalaureate). The results of NIS students in PISA-2022⁷ international study prove the high efficiency of NIS-Programme and the quality of education provided in Intellectual schools:

NIS RESULTS IN PISA-2022 INTERNATIONAL STUDY



* One or more PISA sampling standards were not met.

NIS developed

244 subject programmes and course plans according to NIS-Programme

97 textbooks according to NIS-Programme

96 textbooks according to the State Compulsory Educational Standard of Kazakhstan

To assess the degree of mastering the educational programme and to monitor the educational achievements of students, a comprehensive system of criteria-based assessment has been introduced. It starts with competitive selection and ends with external final certification. During the study, each student receives about **180** individual reports.

6 The Intellectual School of Astana and the International School of Astana implement the International Baccalaureate (IB) programmes.

7 PISA 2022 Database (<https://www.oecd.org/pisa/data/2022database/>). Available online.

More than **100 000** assessment tools have been developed

More than **2 million** reports on the assessment results have been prepared

Fairness, transparency, and high standards of the competitive selection system has been proven by successful independent accreditation by the Research Center for Examination and Certification, the Netherlands.

The project “Being a Proactive Teacher in Formative Assessment” is included in top 100 innovative ideas in the world according to HundrED⁸.

The certificate of a graduate of Intellectual schools, issued following the results of external summative assessment accredited by Cambridge Assessment International Education, is recognised by international qualification organisations, as well as by a growing number of leading universities of Kazakhstan and the world.

EXTRACURRICULAR ACTIVITIES

Intellectual schools successfully operate a system of extracurricular activities, including pastoral work and extended education. To ensure the development of a balanced patriotic, proactive, competitive, and creative personality, NIS implements social projects and practices, elective courses, club activities, sports clubs, interest clubs, summer school and volunteer movement.

Projects like “Tugan elge tagzym”, “100 books”, “Kazak anderi”, “100 kuidin tarikhy”, “Service to society”, “Continuity of Generations”, “Poets of the Great Steppe” and social practices contribute to the formation of values, as well as complement the content of subject programmes, deepening knowledge and developing skills

(cognitive, socio-emotional, practical, and physical)⁹. In NIS-Engineering laboratory, students develop technical skills, as well as engineering and research thinking skills.

In addition to academic achievements, students are successful in national and international creative and sports competitions (in the period from 2021 to 2023, there were **958** winners in creative competitions, and **280** in sports).

Dombra lesson delivered to **1000** students of Intellectual schools entered the Guinness Book of Records

PROFESSIONAL COMMUNITY OF INTELLECTUAL SCHOOLS

Intellectual schools have formed a Professional Learning Community (PLC)¹⁰ of qualified teachers implementing NIS-Programme and the International Baccalaureate programme in three languages. As scientific and methodological specialists, they are developers and experts in subject programmes, assessment procedures and tools, modern teaching and learning technologies, as well as managers in education – multi-level managers responsible for a safe educational environment, the competitiveness of educational services and resources, the consistency of the pedagogical process and the quality of staff.

Currently, **2 740** teachers work in Intellectual schools, including **1** master teacher, **8** research teachers, **649** expert teachers (24%), **986** moderator teachers (36%), **839** teachers (31%) and **257** trainee teachers (9%), and **100** international teachers.

30% of teachers are trainers, **391** of them have international certification¹¹. **70** teachers are graduates of the international scholarship of the President of the Republic of Kazakhstan “Bolashak”, **139** – graduates of Nazarbayev University, **55** – of Intellectual schools.

8 HundrED.Org (Finland) is a non-profit organisation engaged in research in education, supporting and spreading innovations in education in order to share experience and improve education around the world.

9 Bloom’s Revised Taxonomy: Cognitive, Affective, and Psychomotor

10 Professional Learning Community

11 International qualifications: CELTA, DELTA, TKT, STEM, CLIL, CTY, IB, CIS, Robotics, etc.

In 2019, for the first time representative of Kazakhstan, an Intellectual school teacher, took part in the final round of the top 50 “Global Teacher Prize” Award. The top 10 of the national “Global Teacher Prize” award included 6 teachers of Intellectual schools who became ambassadors of the “Global Teacher Prize”.

GLOBAL PARTNERSHIP

An innovative educational programme, textbooks, a comprehensive assessment system, teacher professional development programmes were developed and implemented in the result of AEO cooperation with leading international educational organisations, such as the University of Cambridge, the Johns Hopkins University Center for Talented Youth, the Cito Institute of Pedagogical Measurements, University College London, etc.

AEO’s partnership with leading international organisations covers various fields and projects. In the period of 2016 to 2022, AEO was the national coordinator in the OECD project “The Future of Education and Skills: Education-2030”; it is a member country in the international organisation World Robot Olympiad Association, national coordinator in the World Association of Lesson Studies (WALS), member to the International Association for Educational Assessment (IAEA) and the European Association for Educational Assessment (AEA-Europe), leads the Holistic Assessment Special Interest Group on the AEA-Europe platform. Also, AEO participates in the UNDP project on environmental protection; in the UNESCO project on school well-being, etc.

Cooperation with international organisations on independent external assessment contributes to improving the quality of educational services provided and ensures the sustainable development of schools¹². To this end, in 2014, Intellectual schools started the procedure of international accreditation to confirm the compliance with high international standards. In 2019, 20 Intellectual schools and in 2023, the International School were accredited by

the Council of International Schools (CIS). Every 5 years schools should undergo a reaccreditation process, thereby confirming its commitment to high-quality teaching and learning, continuous growth and improvement. In 2023, 5 Intellectual Schools of Astana (PhM, IB), Kokshetau, Semey and Oskemen successfully competed the re-accreditation level. 19 AEO employees are CIS certified international experts and participate in the accreditation of foreign schools.

EXPERIENCE DISSEMINATION

Disseminating the NIS experience is an important strategic direction. Accumulation of the best world practices, piloting in Intellectual schools with subsequent scaling to state schools allows to develop and increase the human capital of the secondary education system in Kazakhstan.

338 809 state school teachers at all levels of education have been trained

81 071 post-course events on methodological support were held

141 monitoring studies were conducted covering **640 430** respondents

Since 2012, professional development courses have been held for managers and teachers of all levels of education. The course programmes reflect the systemic updates taking place in education, provide teachers with up-to-date professional information, are practice-oriented and are implemented in the following areas: methods and technologies of teaching and learning, education content and assessment, research in teacher practice, management and leadership, education, and well-being of students.

A team of AEO professional specialists, together with international partners, has developed **280** practice-oriented teacher training programmes based on pre-course studies of teachers’ professional needs. **7 463** trainers have been trained and certified according to international standards to effectively implement teacher training courses.

12 OECD (2013). *Synergies for Better Learning: An International Perspective on Evaluation and Assessment*. In OECD Publishing, Paris

11 advanced training programmes have a certificate of compliance with international quality standards of the Accreditation, Certification and Quality Assurance Institute ACQUIN (Germany)

To date, the NIS experience is disseminated to general educational schools through the network of **2000** leading schools. This allows spreading the best practices and methods, developing the quality of education, and raising the level of knowledge of students throughout the country.

The practice of “Leading Schools” entered the top 12 in the nomination “Award for Social Contribution” at the prestigious GESS Education Awards 2023¹³ in recognition of a significant contribution to the development of education in Kazakhstan.

Since 2020, the experience dissemination has been focused on **rural schools**. **79** schools in rural areas are involved in the project “Development of the potential of reference schools in rural areas”. They disseminate the acquired knowledge to other schools in the region using cascade training model. In general, this initiative cultivates the creation of a unified Community of schools in Kazakhstan, contributing to disseminating the best educational practices and improving the quality of education nationwide.

Academic achievements of **16 289** students of reference schools in rural areas were monitored

More than **79 428** reports were generated for students and teachers of schools based on the results of monitoring

In 2016, as part of disseminating the NIS experience, **3** State Compulsory Standards of primary,

basic secondary and general secondary education, **163** subject programmes and **464** course plans were developed and submitted to the Ministry of Education and Science of the Republic of Kazakhstan.

To provide methodological support to teachers, an online platform “Educational Resource Portal” has been functioning since 2016. It contains regulatory documents, materials for each lesson in all subjects from grades 1 to 11 in three languages. As of December 2023, **441 128** users were registered on the platform, **109.7 million** different materials were downloaded.

In June 2020, AEO together with Bilim Media Group launched a project to develop digital content for online educational platform Online Mektep, designed for students of Kazakhstan in all academic subjects of grades 1 to 11.

26 357 lessons and **550 000** tasks have been developed

Number of users as of December 2023:

5105 state schools,

2.3 million students,

297 thousand teachers

During the COVID-19 pandemic, AEO specialists developed an online course “Learning to teach online” in accordance with the instructions of the Ministry of Education and Science of the Republic of Kazakhstan.

Thanks to this course, more than **400 000** teachers have successfully completed training in asynchronous format and were able to improve their skills in planning, conducting, and organising teaching using distance learning services and platforms. Also, 9 explanatory videos were prepared about the methods and features of teaching in the context of distance learning, which gained more than **700 000** views.

More than **35 000** parents have completed the course “Happy parent – successful child” on increasing the motivation and responsibility of children for studying in the context of distance learning.

13 The award is given to organisations and specialists in the field of education for unique and high-quality educational products, resources, and services.

This work has allowed teachers and parents to master the necessary skills for the effective organisation of distance learning without significant loss of quality.

As part of the transition to the renewed content of secondary education in Kazakhstan, a system of criteria-based assessment of students' learning achievements has been piloted and implemented in secondary schools. It builds on the content of education and allows measuring the achievement of expected learning outcomes. AEO provides methodological and resource support to schools according to the assessment system.

Over **40 000** assessment tools have been developed

About **2 000** methodological recommendations on assessment have been prepared

To ensure continuity between the current and final assessment, the format and content of final certification of students of Grades 9 and 11 was revised in 2020. It now allows for the assessment of students' level of knowledge, as well as their ability to apply knowledge and higher order thinking skills. **157** test specifications, more than **11 thousand** tasks, **21** video tutorials were prepared as part of the new format of final certification.

NIS experience dissemination also includes the organisation of pastoral care and library work in general educational schools.

1095 seminars on the implementation of the pastoral work were held in the framework of personality development projects, the school community "Shanyrak", the local history and research project "Tugan elge tagzym", the parent university, as well as various social projects. **6768** schools and **43 877** teachers participated.

Dissemination of innovative experience of Intellectual school libraries promotes modernisation of state school libraries ensuring the transition to a qualitatively new stage of development in order to form a positive image of the library as a tool of cognition and self-development. **655** seminars on the development of reading culture and creativity, functional literacy, as well as school-based research work were held in almost all schools in Kazakhstan and attended by about **16 000** participants (librarians, teachers, school administrators). In the result of this work a professional community of school libraries was established.

Thus, comprehensive, and consistent dissemination of the NIS experience in the state education system has laid the foundation for the creation of a qualitatively new community of schools striving for a common goal – to increase the intellectual capacity of Kazakhstan.



MISSION. VISION. PRINCIPLES



MISSION. VISION. PRINCIPLES

MISSION

We strive to build intellectual capacity nationally and globally by combining the best of national and international experience.

VISION

- Our schools are committed to a philosophy of holistic learning and education that promotes the academic success and well-being of students, teachers, and the entire school community.
- We contribute to improving the quality of education in Kazakhstan by empowering teachers to become leaders of change through continuous professional development and peer-to-peer learning.
- Our ambition to improve the reputation of Kazakhstani education are implemented in the global education arena.



PRINCIPLES

The following principles guide the activities of AEO:

1. Rule of law and social responsibility

AEO carries out its activities in strict accordance with the Constitution of the Republic of Kazakhstan, the laws of the Republic of Kazakhstan, acts of the President and the Government of the Republic of Kazakhstan, other regulatory legal acts, and the Charter of AEO.

AEO adheres to the concept of a socially responsible organisation that contributes to the general well-being of society by solving social, economic, and environmental problems.

2. Autonomy and self-government

In accordance with the Law of the Republic of Kazakhstan “On the status of Nazarbayev University”, “Nazarbayev Intellectual Schools” and “Nazarbayev Fund”, AEO is given autonomy in management and decision making, combined with responsibility and accountability to society.

3. Collegiality and distributed leadership

Decisions are made collectively by the Supreme Board of Trustees, the Board of Trustees, and the executive body. Schools are governed by the Board of Directors, school management teams, Boards of Trustees, Parent Committees, Student Councils, Pedagogical Councils, and Methodological Councils.

4. Innovation and academic freedom

AEO is constantly striving to use the latest evidence-based methods, including the effective integration of innovative technologies. In accordance with the Law of the Republic of Kazakhstan “On the Status of Nazarbayev University”, “Nazarbayev Intellectual Schools” and “Nazarbayev Fund”, AEO is independent in the development and selection of educational programmes, educational technologies, and areas of scientific research.

5. Transparency

AEO operates according to the principles of transparency, and all activities of the organisation are open to the public, except for cases related to the protection of commercial interests and the non-disclosure of state or other secrets as provided by law.

6. Cooperation and interaction

AEO creates opportunities for continuous education of teachers and students based on cooperation, interaction, exchange of ideas and resources according to the latest global trends. AEO is committed to developing and strengthening relationships with strategic partners in the field of education.

7. Integration of education, science, and practice. Research-based development

The innovations introduced by AEO were developed and studied by Kazakh and international researchers. AEO admits that research and practice are an integral part of the educational process.



STRATEGIC DIRECTIONS



STRATEGIC DIRECTIONS

The Strategy-2035 includes 3 strategic directions based on 3 fundamentals (see Fig. 1). 3 key supporting factors were identified to implement strategic priorities such as research-based development, a digital ecosystem and financial sustainability.



Figure 1. Structure of Strategy-2035

FUNDAMENTALS

1. THE VALUE OF HUMAN CAPITAL AS A KEY SUCCESS FACTOR

The rapid development of innovations and technologies depends on the value of human capital which is a key element of economic development. Adhering to the concept of “economy of the effective human capital”, AEO aims to improve the quality of education at the national and global levels, develop higher-order knowledge and skills, invest in the development of talents, and create a favourable learning and professional environment.

These measures contribute to the economic growth at the national level, and the increase of the UNDP Human Development Index and World Bank Human Capital Index globally.

Within the World Bank Human Capital Project¹⁴, human capital is defined as knowledge, skills, and health which people invest in and accumulate throughout their life. It allows them to fulfil their potential and contribute to the social development.

Literacy and education are measured by the UNDP Human Development Index as the main characteristics of the human potential. The 2021/2022 Human Development Report¹⁵ says that the UNDP emphasises the importance of investment in education which is essential for comprehensive expansion of the human capital goals. This investment performs a stabilisation function helping to protect people during inevitable and immense upheavals.

Investment in human capital is long-term and strategic and enable AEO to strengthen its efforts to improve the well-being and prosperity of the nation as well as global awareness that will be disseminated along with academic achievements.

2. COMMITMENT TO NATIONAL VALUES

Given modern globalisation and development of a single global information space, it is important to harness a synergy between the principles of modernisation and the imperatives for preserving the fundamentals of national values. In this context, AEO is committed to the policy of preserving and augmenting historical and cultural heritage, national identity, patriotism, tolerance, and generational continuity.

This approach should be implemented in all educational activities, professional development of human capital across the NIS network and as part of dissemination of its experience nationally and globally. The aim of education is to form a comprehensive personality in Intellectual schools. This would be the basis for the stability of our state.

3. SUSTAINABLE DEVELOPMENT

In the 21st century, sustainable development is emerging as a crucial concept amidst rapid technological advancement, globalization, climate change, and social challenges. The balance of three basic components of sustainable development (social responsibility, environmental balance, economic growth) are considered to be the aim of AEO to improve the well-being of people, society, the country, and the whole world, while taking into account the needs of current and future generations.

In this regard, AEO is also committed to implement the UN sustainable development goals¹⁶:

- good health and well-being
- quality education
- affordable and clean energy
- decent work and economic growth
- industry, innovation, and infrastructure

14 <https://www.vsemirnyjbank.org/ru/publication/human-capital/brief/the-human-capital-project-frequently-asked-questions#1>

15 <https://hdr.undp.org/system/files/documents/global-report-document/hdr2021-22overviewrupdf.pdf>

16 <https://www.un.org/sustainabledevelopment/ru/>

- reduced inequality
- sustainable cities and communities
- responsible consumption and production
- climate action
- partnership for sustainable development.

The following goals were identified by respondents in a survey of the population of Kazakhstan conducted to identify priority SDGs: "good health and well-being" (65,4%) and "quality education" (59,7%) as the most important areas of development to ensure the well-being of Kazakhstani people¹⁷.

STRATEGIC DIRECTION I

NIS: In pursuit of excellence

AIM: To develop a harmonious personality by integrating the education and training of students, the continuous professional development of teachers and ensuring a high level of well-being school-wide.

1. COMPREHENSIVE DEVELOPMENT OF STUDENTS

"The one who possesses greater knowledge, deeper compassion, and a commitment to justice, is a wise man, a scholar, the one who possesses the world"

Abai Kunanbay

Modern technological innovations change a traditional structure of the labour market integrating new professions and changing the nature of work in traditional areas. It is predicted that in the next 5 years, 44% of workers' skills will be disrupted due to rapid changes in the market requirements (The Future of Jobs Report 2023)¹⁸. According to this study, cognitive skills are growing more quickly, reflecting the increasing importance of complex problem-solving in the workplace. Creative thinking is growing in impor-

The resilience and financial stability of AEO are important factors for successful functioning in conditions of uncertainty and variability. This requires not only innovative organizational solutions, but also cultural and corporate changes within the organization.

Applying the best practices on sustainable development, AEO contributes to ensuring prosperous and secure life for every citizen of the country.

tance slightly more rapidly than analytical thinking. Technology literacy is the third-fastest growing core skill. The socio-emotional attitudes which businesses consider to be growing in importance most quickly are curiosity and lifelong learning; resilience, flexibility, and agility; and motivation and self-awareness. Systems thinking, AI and big data, talent management, and service orientation and customer service complete the top 10 growing skills. Hence, the labour market underscores the crucial need for fostering cognitive and socio-emotional skills." By 2027, about 60% of workers will need retraining or advanced training. In light of these challenges, the development and acquisition of new skills are critically important for individuals to successfully navigate the demands of a changing labour market.

Improvement of the educational programme, its implementation, the system for assessment of students' academic achievements, and student well-being

In order to ensure consistency between the content, assessment system and pedagogy within the curriculum and the current needs worldwide, it is necessary to rigorously revise the curriculum,

17 National voluntary reviews of the sustainable development goals in Kazakhstan prepared in 2019 and 2022 by the Ministry of National Economy of the Republic of Kazakhstan jointly with the Institute of Economic Research JSC with the support of the United Nations Joint SDG Fund: https://economy.kz/ru/Celi_ustojchivogo_razvitija/Nacionalnyj_otchet/

18 <https://www.weforum.org/reports/the-future-of-jobs-report-2023/>

create an innovative and adaptive educational environment. The key steps are as follows:

- updating NIS-Programme by integrating Kazakhstani and international experience
- setting clear standards, evaluating the results, and combining academic and practice-oriented educational programme
- strengthening the educational component to create a friendly environment and ensure continuity of education

The priority is the development of students' **key competencies** including knowledge, types of literacy, skills, and values necessary for an individual to successfully adapt and perform in modern society. They reflect a person's ability to adapt to changing conditions, learn and apply knowledge and skills in real life to solve various tasks related to education, social interaction, personal life, self-development, and future professional activity.

Subject programmes according to the renewed educational programme NIS-Programme 2.0 aim to develop research skills, systems thinking and engineering thinking. The digital world provides an opportunity to access huge amounts of data and changes information behaviour of users in everyday life, therefore, NIS-Programme 2.0 pays particular attention to the development of digital skills. In addition, to implement **value-based learning**, each lesson provides for the development of a harmoniously developed personality by instilling values.

The educational programme is implemented through the development of educational resources (including digital ones), professional development programmes for NIS teachers and other documents related to education in Intellectual Schools.

The integrated assessment system aims to enhance students' learning abilities and improve teaching methods by providing analytical and pre-

dictive data, integrating the following innovative approaches:

- **Comprehensive approach** aims to assess knowledge and skills, develop students' social and emotional skills, and improve teaching practices
- **Student-centered approach** involves considering the specific needs and abilities of each student when choosing the task difficulty level during lesson planning
- **Contextual approach** adjusts the assessment context to regional peculiarities and educational trends
- **Technological innovation** uses digital solutions and tools including online testing, computer adaptive testing and online assessment platforms
- **Cooperation and feedback** involve students, teachers, parents, and other stakeholders in the assessment process, and the provision of feedback
- **Compliance with social expectations** prepares graduates for successful integration in society and professional determination

A distinctive feature of the assessment system is a focus on the development of higher order skills as well as social and emotional skills. Mastering such skills encourages students to regulate their behaviour and emotions, improves their interaction with peers and teachers, facilitates their adaptation to a school environment and allows to achieve better academic results.

AEO has developed a conceptual assessment framework, adjusted, and tested assessment tools and plans to develop a digital platform.

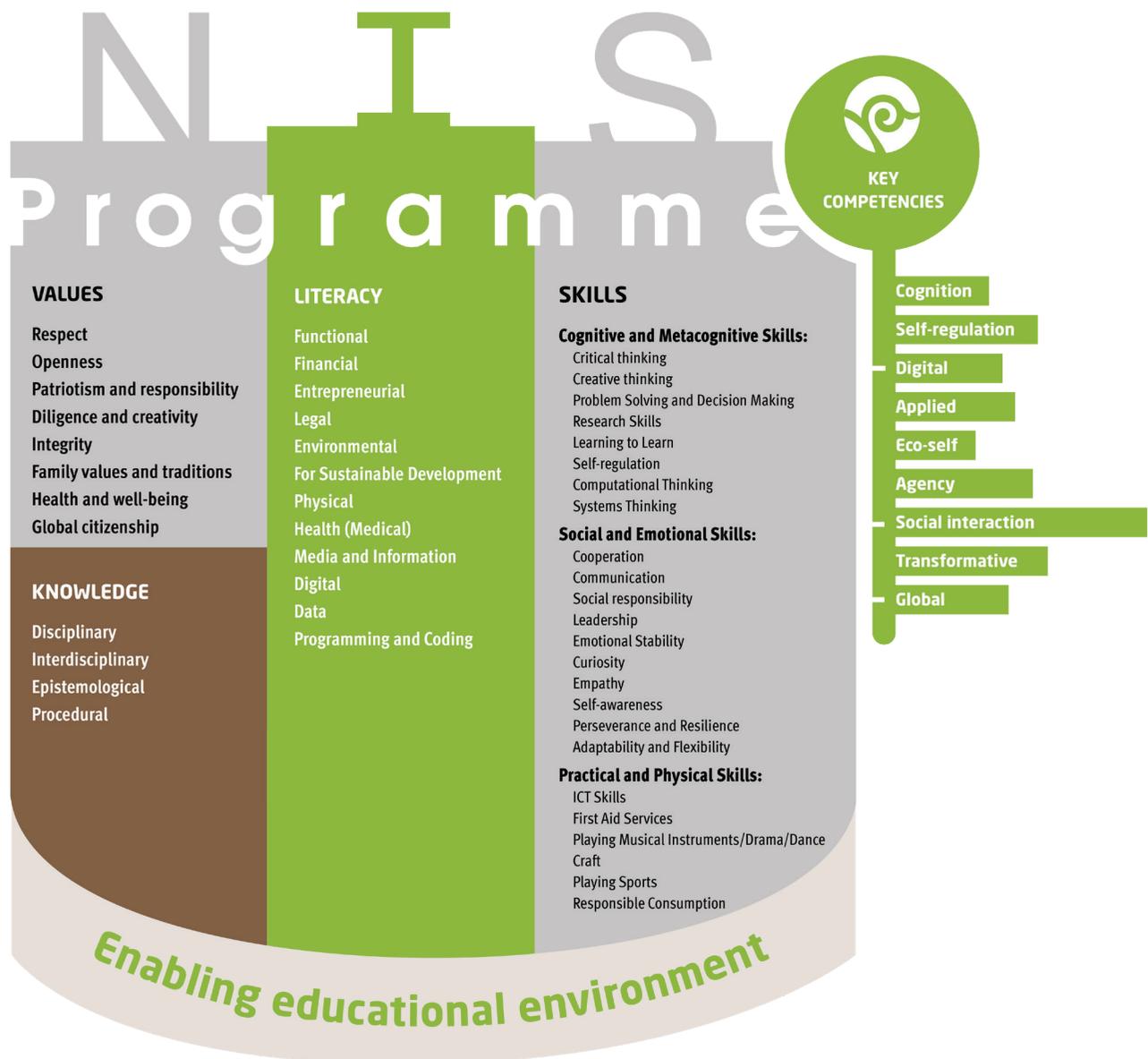


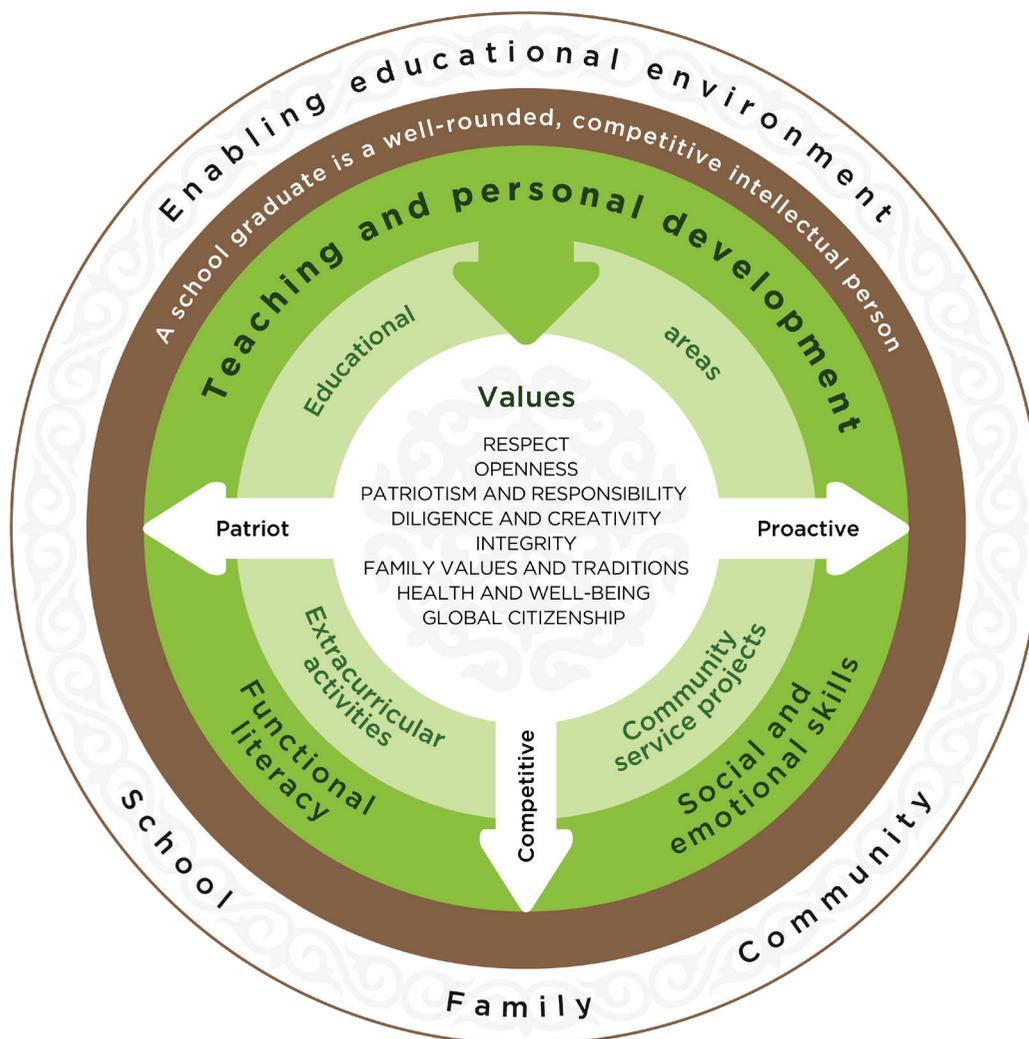
Figure 2. NIS-Programme 2.0

Values-Based Education

“Holistic education is an approach to learning that takes into account the whole person – body, mind, and spirit.”¹⁹

Comprehensive development of students builds on the values that contribute to the formation of a personality capable of fulfilling own potential, improve the quality of their life and the environment.

NIS-Programme 2.0 educational programme determines the following fundamental values: **respect, openness, patriotism and responsibility, labour and creativity, integrity, family values and traditions, health and well-being, global citizenship.** These universal and national values serve as life guidelines and enable a student to become a harmoniously developed intellectual personality.



19 Miller, J. P., Karsten, S., Denton, D., Orr, D., & Colalillo Kates, I. (2005). *Holistic learning and spirituality in education: Breaking new ground* (c. 250).

Comprehensive system of personal development (academic, extracurricular) is aimed at comprehensive support of the educational process which contributes to implementation of the aims of the educational programme and holistic (cognitive, social, emotional, moral, and physical) development of a student. Extracurricular activities are implemented through elective courses, olympiads, scientific projects, startup projects, creative and sports clubs, sports contests, hackathons, social practices, art festivals, flash mobs, consultations of teacher-psychologists and etc.

Intellectual schools aim to actively involve students in volunteer activities, which play a crucial role in their education and personal development. This activity contributes to the development of leadership skills and effective communication skills, as well as fostering creative and innovative thinking. It also increases social responsibility and strengthens a sense of belonging to society, the local community, and the school environment. Moreover, it promotes the formation of civic engagement, moral values, and ethical principles. Volunteering provides students with the opportunity to face new challenges, overcome difficulties and develop as a person.

In order to measure the level of students' cognitive and non-cognitive skills and to ensure their further development, NIS conducts research the results of which are used to improve approaches and tools for a comprehensive development of students. A digital solution for managing comprehensive development will encourage students to develop key (social, communicative, personal, and moral) competencies on their own and feel belonged to the school community. This system and tools are defined in the pedagogical concept for a comprehensive development of NIS students.

Students are educated within a close cooperation and interaction of a school community, family, and society. This interaction allows to provide optimal conditions for the development and well-being of every student.

Career guidance

There is a career guidance system across the Intellectual Schools that includes close interac-

tion of school management team, psychologists, teachers, and parents. The online platform designed for upper-secondary school students allows everyone to build an individual route to choose a profession and then enroll into the university. Alumni NIS also plays a significant role. Its members share their own experience of enrolling and studying in leading national and international universities by organizing forums, meetings, and master classes.

Taking into account the changing policies and requirements for admission to national and international universities, and fluctuations in the labour market, students have to develop their professional competencies. For this reason, NIS will enhance its interaction with students by encouraging them to self-determine consciously in terms of subjects and learning trajectory in the future.

It will also proceed to exchange experience with leading organisations such as National Association for College Admission Counseling, International Association for College Admission Counseling and CIS Global Forum on International Admission and Guidance.

Alumni Association

Alumni Nazarbayev Intellectual School plays an important role in maintaining relationships between graduates, encourages their professional development and makes a significant contribution to the social development of Kazakhstan and beyond. Alumni NIS aims to create an environment where graduates will share their knowledge, experience and resources contributing to their personal and professional development; and a network of social and professional ties for cooperation in different areas and support of social and cultural initiatives. The Association aims to recognise its important role in the development of education and society as a whole.

Pursuing its goals, Alumni NIS proceeds to strengthen and expand a social and professional network of graduates and establish partnerships with Kazakhstani and international educational and social institutions.

The aim of NIS Endowment Fund is to raise funds by graduates to support educational and charity initiatives. One example of these initiatives

is allocation of NIS educational grants for students from socially vulnerable families.

The initiative of NIS Global Ambassadors aims to create a network of the Association representatives in international universities. Their objective is to strengthen ties and establish partnerships with foreign universities to promote Kazakhstan's educational image.

EXPECTED OUTCOME:

An educated proactive personality with digital and applied skills, self-regulation skills, environmental awareness, social interaction, and global orientation skills, is ready for transformation and prepared for further education, life and the labour market.

2. PROFESSIONAL COMMUNITY OF NIS TEACHERS

In Intellectual Schools, a professional community of qualified teachers is built up as a result of the quality selection of talented personnel and their continuous professional development and growth.

The teaching staff is formed through:

- two-stage competitive selection based on the principles such as equal opportunities, objectivity, transparency, publicity and making a collegial decision;

- a pool of teachers built based on the results of a competition or pedagogical practice of university students including dual learning;

- recruitment of highly qualified specialists and the best graduates of top universities based on non-competitive admission and assignment of a high level of pedagogical excellence in accordance with the qualification requirements.

To improve the quality of competitive selection, it is planned to test a social and emotional component of teachers' qualification; train school managers how to recruit talented young people and highly qualified specialists; develop a system for building a candidate pool by improving the efficiency of students' pedagogical practices across Intellectual Schools and the adaptation system.

An optimized teacher evaluation system, methodological and language support ensures a horizontal (by levels of pedagogical excellence),

vertical (by levels of management) and diagonal (research and methodological activities) career growth. Following the results of research on professional well-being, NIS develops mechanisms for stimulating and motivating teachers. Intellectual Schools can become a platform for master's and doctoral research studies and a pool of certified trainers.

Professional development of teachers should be continuous and build a cluster of leaders including job-embedded professional development within school activities: coaching; mentoring; Lesson Study, Action Research, Case Study, Case Discussions; research groups created for collecting, analyzing and interpreting data on current school problems; groups for analyzing children's educational results: independent assessment and current control data; portfolios as a tool for teachers' professional development; joint assessment of students' papers; professional learning communities (PLC) etc.

PLCs play a key role in creating platforms for the exchange of pedagogical practices and ideas. They enhance teachers' professional competencies by facilitating discussions on the complexities of learning and teaching, and by exploring new approaches. Reflective dialogue in these communities is based on the analysis of the practice and experience of the participants, which helps to develop and improve teaching methods. Moreover, they function as platforms for exchanging relevant research and emerging trends, thereby fostering the professional growth of teachers, and enhancing the overall quality of education.

The principal's role in a PLC is to create an environment conducive to the successful development of each team member, fostering positive relationships and facilitating effective interaction. The principal plays a crucial role in uniting teachers' efforts, fostering interaction, and ensuring that the voice of each teacher is heard.

Three big ideas of PLC (focused on improving the quality of teaching and learning, developing interaction practices, and managing the educational process based on the research findings) allow to consider these communities as a tool for

creating a new organisational culture and ethics in Intellectual Schools.

EXPECTED OUTCOME:

Qualified teachers united in a professional community of leaders and innovators working towards a common goal – high quality education and school well-being.

3. SCHOOL WELL-BEING INDEX

The next step in improving the overall educational activities of Intellectual Schools is to create a favourable and comfortable environment that ensures a high quality of well-being for the school community.

Ensuring a high quality of students' well-being

Over the past 5 years, well-being has been a fundamental trend in education, reflecting the growing need to develop the 'whole child' with cognitive, social, and emotional skills. This thesis is confirmed by the OECD experts who regularly publish the "Trends in Education" report. Since 2018, well-being has been a leading priority in education²⁰.

Students with high levels of well-being tend to have high self-esteem, to be satisfied with their school and life, and to have friendly relationships with others. The PISA-2022 results showed a positive relationship between academic performance at school and well-being, including a sense of belonging to school and life satisfaction²¹. Schooling affects children's overall well-being, with the school environment, and the level of student involvement and positive relationships with peers and teachers playing a key role in creating a favourable environment for students.

Well-being in Intellectual Schools is a positive educational environment that maintains health, ensures safety, develops resilience and the ability to cope with the difficulties of growing up, and where stakeholders share common goals and are involved in the educational process.

According to the PISA-2022 results, parental support is important for students' well-being and their learning. Students with higher academic performance were more likely to report that their parents gave them enough attention and time. This category of students compared to other students scored 16-28 points higher in Mathematics. Realising the significance of family in improving the well-being of students and their academic performance, Intellectual Schools have been implementing such programmes as "Strong Family" (in partnership with UNODC) over the years to strengthen child-parent relationships, "Early Warning System for Dropout Prevention" and "Prevention of Self-Destructive Behaviour among Youth" (in partnership with UNICEF); career guidance programmes "Success Psychotechnology: my 5-year plan" in Grade 11, "Future management: how to adapt easily and quickly to changes"; elective course to develop self-awareness and resilience "Personal Development". In 2023, Turku University became a strategic partner of AEO and developed KiVa anti-bullying programme, which will be implemented in all Intellectual Schools.

Students' well-being should not be the concern of individual specialists (psychologists and curators). Therefore, a school-wide approach will be integrated to ensure well-being. This approach aims to meet the needs of students, staff, and the community (e.g. parents) not only within the subject programme and individual psychological programmes, but within the whole school and its environment. It refers to joint action within the school community, including parents, to improve students' well-being.

As part of a school-wide approach, Intellectual schools are planning to implement a **Student Well-being Index**. This index will assess the overall level of well-being within the school through surveys for students, their parents, and teachers. The index measures a variety of indicators of physical and emotional well-being, summarized in the following parameters:

20 OECD (2018), «Good vibrations: Students' well-being», Trends Shaping Education Spotlights, No. 14, OECD Publishing, Paris

21 Based on PISA 2022 Database, Organisation for Economic Co-operation and Development, 2023 (<https://www.oecd.org/pisa/data/2022database/>)

- The learning process: the meaningfulness of learning, independence of learning, assessment, etc.
- School satisfaction
- Interaction, relationships, and communication
- Participation in extracurricular activities
- Safe and comfortable environment
- Psychological support
- Healthy nutrition
- Participation in preventive programmes: anti-bullying, suicide prevention, and health protection
- Autonomy and student voice
- Participation of parents in school life

Ensuring a high quality of teachers' well-being

The professional capital of NIS teachers is considered from three fundamental perspectives:

human (talent and individual abilities of teachers), social (the ability to cooperate in a group and society) and decision-making capital (wisdom, ability to make sound judgement). It is developed by improving teachers' well-being and upgrading the selection and certification system that ensures continuous professional development and career growth.

A balanced coexistence of key life elements (health, professional fulfillment, financial stability, social relations, and a favourable environment) builds well-being and enables to achieve high results and make qualitatively new decisions.

Establishing a system for teachers' well-being demands a high level of organisational maturity, awareness, a critical approach from stakeholders, and a responsive HR strategy. This system creates a business ecosystem where teachers' needs are collectively addressed, and aims to achieve high professional results, foster a well-being environment, and ensure the active involvement and care of everyone.

EXPECTED OUTCOME:

A high level of well-being and satisfaction of the entire school community, substantiated by the findings of monitoring studies.

STRATEGIC DIRECTION II

Kazakhstan: development of intellectual capital in education

AIM: To develop Kazakhstan's intellectual capital by improving the quality of education, fostering research and innovation, creating educational resources, developing professional expertise, and building intellectual culture.

In line with the commitment of Kazakhstan to modernising and improving the quality of education, AEO is prioritising several initiatives. These include the training of pedagogical staff as agents of change, the establishment of a professional community of schools in Kazakhstan, and the creation of an independent agency for the accreditation of educational organisations.

4. TRAINING OF LEADERS OF CHANGE IN EDUCATION

In the modern world, the development and prosperity of society and the economy is impossible without strong leaders. This also holds true for the education system, where pedagogical staff should possess not only professional knowledge and skills but also leadership competencies.

In this context, AEO has set itself the task of developing professional development programmes that focus primarily on improving the leadership skills of the **heads** of educational organisations.

The results of the study²² indicate that those who possess leadership skills can improve the quality of education by effectively coordinating team efforts and motivating team members to raise the standards of their work.

The image of the leader:

- is able to manage their team effectively
- is able to communicate and make decisions
- builds trusting relationships with participants in the educational process
- resolves conflicts and participates in various initiatives
- allocates resources to achieve common goals

In addition to developing the leadership competencies of educational leaders, it is essential to enhance the leadership skills of **teachers**, encouraging them to play an active role in managing the educational process. Fostering the development of leadership qualities among teachers can contribute to the creation of more flexible and effective work methods, elevate the professional standards and quality of teaching, and foster the formation of new approaches and innovations in education.

In their work, educational leaders utilize data and other evidence for decision-making, identify opportunities and take initiative, mobilize people around common goals, identify resources, and take action, monitor progress, adjust approaches as conditions change, and support the commitment of others.

The image of the modern teacher:

- they are leaders
- demonstrate a high level of professionalism and commitment to the needs of students
- have strong interpersonal communication skills
- they are experienced and respected role models
- they are innovators and collaborators
- they are able to facilitate learning

Considering the current scientific and methodological potential for integrating innovative training methods, there are plans to establish a **Pedagogical Higher Educational Institution**. The aim is to train the new generation of educators through both conventional academic programmes in higher and postgraduate education and the alternative pathway known as the side entrance²³.

At the Pedagogical Higher Educational Institution, teacher training will be organized at the intersection of theory and practice, drawing upon the best global practices and leveraging the educational and research AEO infrastructure. Educational programmes will include intensive practical modules in schools and research modules in AEO, close interaction with experienced teachers of the Intellectual Schools and the application of modern educational technologies. The training will be aimed at developing critical thinking, adaptability and readiness for continuous learning which will provide graduates with the competencies required to successfully work in a dynamically changing educational space. Special attention will

22 Cardno, C. (2012). *Managing effective relationships in education*. Sage.

23 This format is widely used in international practice, offering qualified specialists from diverse fields who have demonstrated potential in teaching the opportunity to acquire the necessary knowledge and qualifications for effective engagement in education.

be paid to supporting aspiring teachers in the early years of their career. The Graduate Support Programme at the early stage of students' career is aimed at ensuring a painless and adaptively flexible path from a real level of graduates' preparedness for teaching to the quality standards specified in the Professional standard "Teacher" of the Republic of Kazakhstan²⁴.

The distinctive features of the "side entrance" system for teacher career in AEO are most evident in the *selection of candidates and the training format*. Traditionally, the one-stage selection system limited to the formal analysis of higher education diplomas is supplemented by the stages that allow to create a more objective and holistic view of the candidate: checking subject knowledge (written exam), analytical skills and predisposition to the teaching profession (psychometric test) and identifying candidate's abilities to make decisions in different non-standard situations (interview). A key feature of the training is immersion in teaching activities through the weekly "3+2" training format by combining 3 days of offline sessions delivered by certified trainers with 2 days of practice in school under the supervision of experienced teachers-mentors. The system of teaching methods and forms practiced in school (observation of the school environment and teaching practice, consistent collaborative, and independent teaching) will allow to adaptively and flexibly immerse in teaching activities.

International experience (Great Britain, USA, and Japan) in **teacher certification** for admission to school teaching demonstrates its effectiveness as an index of the quality training of education specialists. AEO will study this tool to apply it in Kazakhstan and assess the level of professional knowledge, skills, and competencies of teachers in accordance with professional standards. Certification is advisable for graduates of teacher training higher educational institutions, teachers who have a three-year gap in teaching, and candidates for the position of the head of an educational organisation.

Cultivating the leadership potential of administrators and teachers should be an ongoing process through continuous professional development. This will enable them to serve as mentors, trainers, and facilitators, transforming schools and classrooms into educational laboratories that prioritise the individual needs of each student and strive for their high achievement.

EXPECTED OUTCOME:

Pleiad of educators - agents of change contributing to the improvement of education system in Kazakhstan.

5. DEVELOPMENT OF THE PROFESSIONAL COMMUNITY OF SCHOOLS IN KAZAKHSTAN

The effort invested in summarising and disseminating pedagogical experiences will be considered successful if it is organised systematically and the concepts from the experiences studied and presented are understood and embraced by other teachers and educational organisations. This, in turn, will have an impact on the quality of their professional activity. Access to the inter-school space through network communities will enable teachers to come together for continuous professional development in subject areas and teaching methods, fostering collaboration, and strengthening unity.

This process will be implemented through the establishment of a Community of Schools in Kazakhstan, where teachers will engage in peer-to-peer learning, fostering mutual development within school collectives. Schools, recognising their responsibility for the training and development of colleagues, are transforming themselves into self-learning and self-developing organisations. Each school collaborates with several others, constructing unique models of interaction and offering methodological support and collaboration.

Cooperation between schools in the community will be systematically analysed as an integral part of the methodological support provided by AEO.

24 The order of the Acting Minister of Education of the Republic of Kazakhstan dated 15.12.2022 «On approval of the professional standard «Teacher». <https://adilet.zan.kz/rus/docs/V2200031149>.

The “success factors” of the community build on consistency in operations, an ample foundation of human and methodological resources, and

a diverse array of forms, methods, and strategies employed in working with teachers.

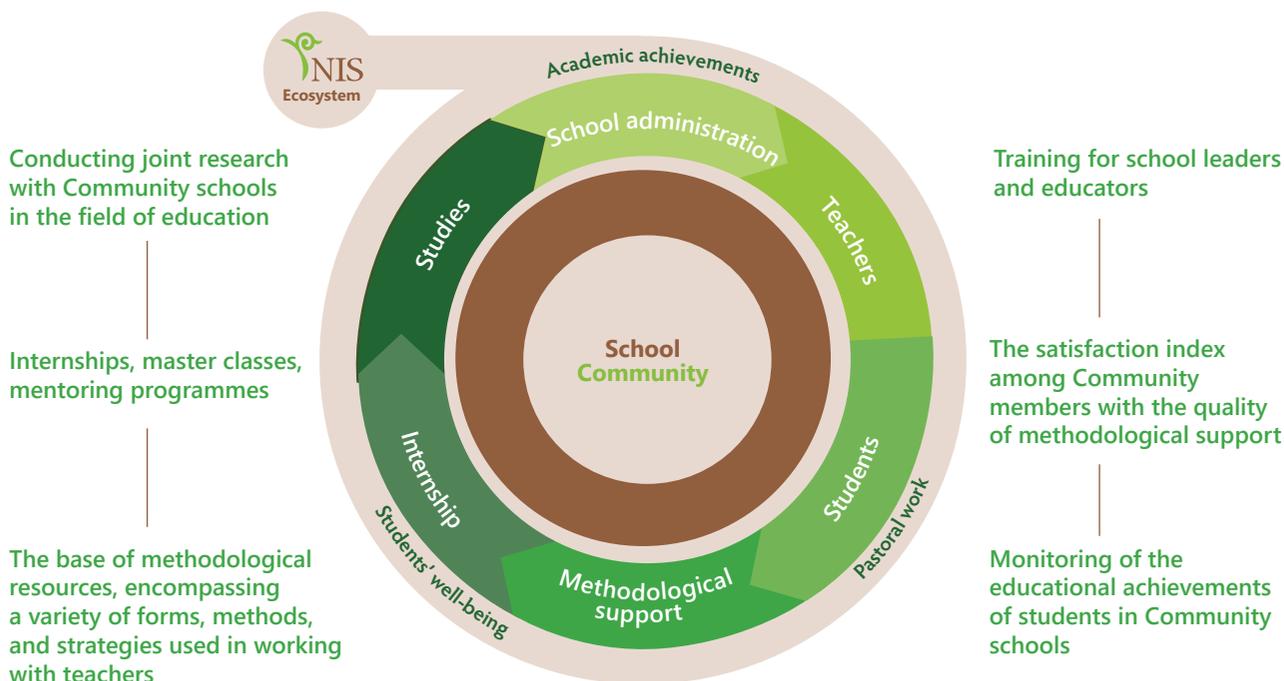


Figure 3. Comprehensive collaboration within the Community

As of now, the State’s efforts are focused on creating equal opportunities and an inclusive environment for all participants in the educational process, regardless of the organisational form or location of the school. In this context, the primary objective of the Community will be to ensure equal opportunities for all Kazakhstani students to access quality education and for teachers to enhance their professional competence. AEO will provide schools with a wide range of its educational resources, products, and services to encourage the activity of the Community members. This approach will stimulate the interest and participation of schools in the exchange of best school practices improving the quality of national education.

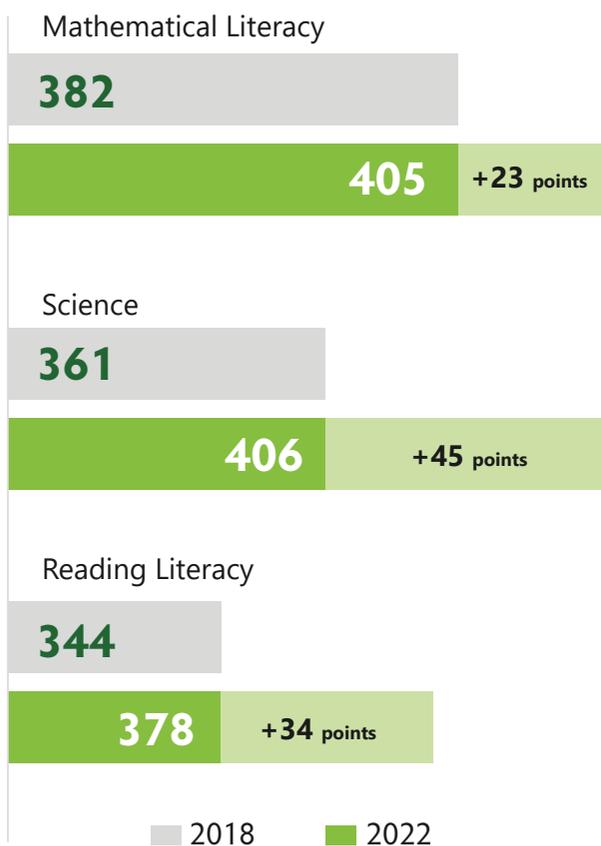
The Community’s initiatives will be directed towards the comprehensive development of students from all regions of the country. AEO will support the implementation and execution of approaches to the holistic development of students by training administrators and teachers of state secondary schools through programmes

such as internships, professional development courses, mentoring programmes, and by providing methodological support.

The emphasis in the implementation of holistic development will be on promoting the cognitive, socio-emotional, moral, aesthetic, and physical well-being of students.

An example of effective inter-school collaboration is a project “Support in the development of the secondary education system in Atyrau region” implemented in 2020-2021 jointly with the regional administration. As part of this project, stakeholders analysed the current state of schools in Atyrau region, monitored academic performance of students; provided methodological support for teachers and school management staff; professional development of teachers; development of curricula for extended education; development of regulatory legal acts on ensuring the well-being of students and etc. An indicator of the project’s success is the results of Atyrau students obtained in the international study PISA-2022²⁵:

25 <https://www.oecd.org/publication/pisa-2022-results/country-notes/kazakhstan-8c403c04/>



EXPECTED OUTCOME:

Creation of a collaborative Community of schools, based on the principles of equality and peer learning, committed to ensuring equal access to quality education for all citizens of the country.

6. INDEPENDENT AGENCY FOR EVALUATION AND ACCREDITATION OF EDUCATIONAL ORGANISATIONS

"Accreditation offers objective insights into the quality of education and verifies the presence of effective mechanisms for its continuous improvement"

*The Law of the Republic of Kazakhstan
"On Education"*

The establishment of an **Independent Agency for the Evaluation and Accredita-**

tion of Educational Organisations will ensure schools adhere to high international standards of education, enhancing the competitiveness of educational institutions through the comprehensive system for assessing the quality of education. The primary aim of accreditation is to facilitate continuous improvement in the work of the institution, while promoting the maintenance of educational integrity and reducing the need for external oversight²⁶.

The development of the accreditation system methodology draws upon the academic image and experience gained from accrediting and inspecting Intellectual schools. Additionally, established mechanisms for researching and analysing the activities of educational organisations (such as within the project to support rural schools) are considered. The methodology is further informed by an overview of international accreditation approaches observed in countries with notable educational quality indicators, including Canada, the USA, England, South Korea, and the Netherlands.

AEO has formulated accreditation standards encompassing crucial facets of educational activities, including the school development concept, educational resources, the educational process, pedagogical community, and the educational environment. This comprehensive approach ensures informative assessments.

The accreditation process is a three-year, multi-stage, and cyclical endeavor that involves *preparing the organisation for accreditation, the evaluation procedure itself (accreditation), and the post-accreditation period.*

Overall, accreditation serves as a crucial link in ensuring the quality of education, fostering its improvement, and enhancing competitiveness within the global community.

EXPECTED OUTCOME:

Enhancement of the confidence of students, their parents, and the public in the quality of education through the successful completion of accreditation.

²⁶ Basso, M. (2003). AMS/NAEYC: New joint accreditation process. *Montessori Life*, 15(1), 15-16; Middle States Commission on Higher Education (MSC). (2006). *Characteristics of excellence in higher education (12th ed.)*. Philadelphia, P. A.: Middle States Commission on Higher Education Publications.

STRATEGIC DIRECTION III

World: Global Education Brand

AIM: To expand the presence of the Kazakh educational brand beyond the borders of Kazakhstan.

The ongoing processes of globalisation are extending into the field of education, as evidenced by the expansion of the global education market, shifts in its content, geography, and key players. In the midst of the scientific and technological revolution, the economic importance of education is escalating, necessitating the attainment of the highest possible levels of knowledge and skills by future professionals, and fostering an upsurge in export-import relations.

Kazakhstan, with its vast territory and multicultural and multilingual population, presents a unique and challenging context for ensuring the quality of education. The country's rich culture encompassing different ethnic groups, languages and traditions add complexity to the educational landscape. In such a dynamic environment, ensuring high standards of education becomes a top priority requiring innovative approaches and strong commitment.

The Intellectual Schools founded in 2008 became an experimental platform for the development, monitoring, research, analysis, piloting, introduction, and implementation of modern educational programmes. They played an important role in shaping an educational discourse, setting new benchmarks, and developing a culture of high academic standards and innovations by applying the best practices in education and creating a unique educational ecosystem.

One of the key strengths of the NIS-Programme is its adaptability to the diverse linguistic and cultural landscape of Kazakhstan. Recognizing the importance of preserving cultural heritage and promoting linguistic diversity, the Intellectual Schools offer trilingual education (Kazakh, Russian and English) which not only promotes language acquisition, but also develops intercultural understanding and global citizenship among students.

In addition, AEO strives for continuous improvement and quality assurance by regularly evaluating its programmes, course plans and teaching methods to ensure compliance with international

standards and best practice. It allows to be a competitive player in the global educational arena.

Taking into account the growing international recognition of the **NIS** brand, AEO has set objectives to develop an international educational programme that aligns with high global standards; export educational products and services; and broaden the global recognition of the NIS-Programme.

7. INTERNATIONAL CURRICULUM

Development of a competitive educational programme for promotion in the global market

NIS-Programme stands as a successful educational product, and the knowledge and expertise gained in its development will be channeled towards creating and promoting an international educational programme – an equivalent of the NIS-Programme (hereinafter referred to as the international programme). The successful implementation of projects in this direction will enable Kazakhstan to integrate into the global educational community, fostering the exchange of scientific research, cultural values, and innovative ideas.

The stages of creating the international programme:

- development of a framework document that articulates aims and values
- development of course plans and standards
- development of an assessment system
- design of elective courses and extracurricular programmes
- teacher training and certification
- establishment of international relations
- involvement of students and parents
- testing and adaptation
- monitoring and quality control

To successfully export the international programme, attention must be devoted to crucial aspects, including the quality of education, international recognition, and effective marketing strategies. The programme will consider both the national and global context, aligning with students' expectations for the development of key competencies. It will provide relevant curricula based on global education standards, fostering global integration, cultural enrichment, and the cultivation of critical thinking.

A key component of the project will involve establishing partnerships with universities, educational organisations and regulatory authorities in the target countries. This approach will facilitate the establishment of enduring partnerships and secure the recognition and accreditation of the programme in the long term.

EXPECTED OUTCOME:

Accredited international educational programme with a wide geographical presence.

8. EXPORT OF EDUCATIONAL PRODUCTS AND SERVICES ABROAD

The export of educational products and services presents a potential opportunity for the development of international relations, the broadening of knowledge horizons, and the interweaving of cultures. The National Address of the President Kassym-Jomart Tokayev on 1 September 2023 highlighted the increase in the export of IT services as a priority task for the Government of Kazakhstan. In line with this objective, AEO is focusing its efforts on global markets, leveraging its valuable experience in teacher professional development and the creation of digital resources and solutions.

International credibility to AEO has been strengthened by academic achievements and valuable expertise in the professional development of teachers. In cooperation with the European Union, nine professional development programmes for teachers in Turkmenistan have been developed and successfully implemented. These initiatives have been highly appreciated and recognised by the international community. In addition, other successful joint teacher training projects have been carried out with participants from Russia, Kyrgyzstan, Azerbaijan, and Uzbekistan.

Considering the attained results and experience, the dissemination of educational products and services will persist in enhancing the quality of education and training on a global scale. Innovative methods and ideas cultivated in one country can be applied to enhance education in other nations, offering solutions to existing challenges. The future of education around the world depends on global collaboration, cross-country exchange of ideas and methods. The AEO will persist in conducting extensive educational programmes to train teachers from various countries, contributing to the global enhancement of education quality.

The next promising venture in export activity is the creation and promotion of an international digital platform that integrates educational products, services, and technologies not only from AEO, but also from Kazakhstani and foreign EdTech companies. AEO has set an ambitious goal to consolidate digital solutions in education into a unified global marketplace as part of the Intellectual Schools digital ecosystem.

EXPECTED OUTCOME:

Expansion of Kazakhstan's presence in the global education market, fostering the creation of new economic opportunities and attracting investment in human capital development.

9. RECOGNITION OF NIS-PROGRAMME AND THE CERTIFICATE OF INTELLECTUAL SCHOOL GRADUATE – NIS GRADE 12 CERTIFICATE

The international recognition of a school certificate enables graduates to pursue further education in foreign educational institutions, providing them access to a broader array of educational opportunities and programmes. Furthermore, a recognised education enhances the competitiveness of graduates in the job market, both domestically and internationally. It also increases the credibility of the educational institution with parents and students. International recognition thus serves as an indicator of the quality of education provided by the school.

AEO has achieved significant success in obtaining recognition for NIS-Programme and the Certificate of Intellectual School Graduate (NIS Grade 12 Certificate) from both Kazakh

and foreign higher educational institutions. Notably, eight international educational organisations, including UK ENIC and UCAS in the UK, Kultusministerkonferenz and Uni-assist in Germany, NUFFIC in the Netherlands, Swiss Education Group in Switzerland, CUCAS in China, and VTAC in Australia, have acknowledged the high quality of education provided by Intellectual Schools. Universities in the UK, USA, Canada, Australia, Germany, Switzerland, the Netherlands, Italy, Singapore, Japan, China, South Korea, and others accept graduates for undergraduate programmes without foundation. In addition, 19 universities in Kazakhstan

accept graduates for abbreviated bachelor's programmes and offer transfer credits in general education disciplines. AEO will persist in its efforts to expand opportunities for graduates of Intellectual Schools by facilitating their admission to the most prestigious higher education institutions in the country and the world.

EXPECTED OUTCOME:

Growth in the number of international organisations, Kazakh and foreign universities that recognise NIS-Programme and NIS Grade 12 Certificate. Strengthening the reputation of AEO as an organisation providing world-class education.

KEY SUPPORTING FACTORS

1. RESEARCH-BASED DEVELOPMENT

Over the years, AEO has undertaken extensive work in the area of systematic and applied research in secondary education. This includes reforming secondary education, updating educational content, analysing the current educational landscape, testing, and implementing innovative approaches and programmes, improving the educational process and monitoring results.

Drawing from a series of studies, a book titled **"Education Reform and Internationalisation: The Case of School Reform in Kazakhstan"** was published in 2019, edited by Professor David Bridges of the University of Cambridge. Subsequently, in 2023, another book was published, edited by British scientists Colleen McLaughlin (University of Cambridge), Liz Winter (University of Exeter), and Natallia Yakavets (University of Cambridge), titled **"Mapping Educational Change in Kazakhstan"**. Methodological and resource support for conducting research is provided by international organisations and strategic partners of AEO, including the OECD, UNDP, UNICEF, the British Council, the European Council, Pearson, CITO, Nazarbayev University, University of Cambridge, the University of Pennsylvania, Johns Hopkins University, Arizona State University, University College London (UCL), etc.

AEO has significant scientific and research potential, with **155** PhD and candidates of sciences,

1386 employees with master's degrees, and **70** graduates of the Bolashak programme actively contributing to the network. Since its establishment, AEO has achieved numerous scientific and technical milestones.

AEO intellectual property objects include:

- **5** international patents
- **2** security documents
- **185** copyrights/patents
- **394** scientific publications, including contributions to international peer-reviewed scientific journals

The achievement of strategic goals and management decision-making will be guided by evidence-based data from:

- fundamental and applied research in priority areas of scientific development
- research aimed at enhancing educational products and services to develop leadership competencies among the teachers
- practical network studies and monitoring for the purpose of comparative data analysis, including aspects such as student well-being, parental satisfaction, school climate, professional development needs, etc.

- practical research, including Action Research and Lesson Study, to enhance pedagogical practices and improve the quality of education
- research results published in national and international scientific journals.

Creating a conducive research environment will contribute to achieving educational goals and fostering the scientific potential of teachers and staff.



In 2023, AEO attained the status of a scientific and/or scientific-technical activity entity

2. CREATING A DIGITAL ECOSYSTEM

“The use of digital solutions in education is now a common practice. Today, artificial intelligence technologies require special attention. Fully leveraging artificial intelligence capabilities can propel us into the knowledge economy.”

Kassym-Jomart Tokayev

AEO digital ecosystem represents the future of education, integrating various aspects of educational dynamics into a unified network. With various interconnected platforms, it aims to use technology to transform educational methodologies, empower students and teachers, and enhance school management capabilities through optimised tools. Each product in the ecosystem not only offers unique features, but is also seamlessly integrated for data sharing, collection, and synergistic operations.

The digital ecosystem encompasses various stages and areas of AEO’s educational activities, including:

- Trial tests to prepare candidates for admission to Intellectual schools
- Competitive selection of candidates
- Personalised educational paths for the personal and professional development of students
- Exams for students
- Well-being and social development of students through psychological assessment
- Effective school management
- Career guidance and extended education
- Development of the intellectual potential of teachers in Kazakhstan
- Multifunctional school management system
- International platform of educational products, services, and technologies

Particular attention should be paid to the development of a personalised learning path for students using AI, along with the creation of

micro-content on different subjects. This unique methodology has been developed in collaboration with Arizona State University (USA) and is based on three years of research in 20 Intellectual schools. Unique content is created for each student based on their individual learning goals, characteristics, skills, and knowledge levels within the context of topics and schedules. At the same time, teachers can monitor real-time educational analytics, identify knowledge gaps in specific topics and address specific issues.

AEO's digital ecosystem aims to improve the quality of education by enabling fast and accurate data processing, ensuring transparent assessment procedures for candidates and students, reducing financial and human resource costs, and ensuring student comfort, safety, and privacy. It also facilitates the monitoring of students' emotional well-being and optimises workload and resource management in schools. This platform will provide AEO's educational services and those of other Kazakhstani companies with opportunities to access global markets and increase awareness of the Kazakh educational brand abroad.

3. FINANCIAL SUSTAINABILITY

Sound financial condition is crucial for the continued and effective operation of any organisation. To achieve this, it is essential to maintain continuous solvency, profitability, and financial independence.

AEO aims to provide high-quality educational services in every region of Kazakhstan with equal opportunities for students from all walks of life to access innovative teaching methods, while ensuring the continuous professional development of each teacher. AEO's commitment to excellence, equity and innovation underscores its importance for the development of the intellectual capital of Kazakhstan's future generations. By maintaining government support to achieve financial stability, AEO can guarantee the fulfillment of its mission to empower students and shape the future of education in the country.

Taking into account the accumulated experience and potential, AEO needs to diversify its sources of financing for further sustainable development. They include initiatives such as opening new schools, developing, and promoting innova-



tive EdTech products, professional development courses for teachers, establishing an independent school accreditation agency, introducing teacher certification programmes, and exploring opportunities for exporting educational services.

AEO's sustainable financial model is established through a plan that generates and manages financial resources over the long term, ensuring both stability and growth. This involves balancing revenues and expenditures to meet financial objectives and ensure the continued effective operation of the NIS network. Creating a sustainable financial model involves:

- Diverse sources of income (including the expansion of the network through the construction of tuition-based schools)
- Short- and long-term financial planning, including revenue and expenditure forecasting
- Cost management and control, ensuring optimisation without compromising the quality of products or services
- Seeking external funding to support the mission (e.g. grants)

- Conducting analysis to ensure long-term sustainability
- Adaptability to changing economic, market and organisational conditions
- Investments (technology, staff development, market expansion, etc.)
- Involvement of stakeholders in the financial decision-making process
- Risk management
- Transparency to build confidence in AEO
- Development of Key Performance Indicators (KPI)
- Utilizing financial technologies and automation to optimize processes and enhance accuracy
- Incorporating environmental and social responsibility into the financial model.

Based on current experience and the growing demand for educational services, AEO aims to further diversify and strengthen its position in the educational services market. Our aim is to become a leading provider of high quality and innovative educational solutions.

STRATEGY IMPLEMENTATION

The choice of a long-term strategy period is driven by a desire to provide a deep and comprehensive understanding of the dynamics of holistic student development and its long-term impact on student achievement and well-being. This approach allows for continuous analysis, monitoring, and evaluation of the educational programme, learning and teaching approaches, assessment system and educational environment, and evidence-based management decisions. A study of multiple educational cycles (cohorts from Grade 7 to Grade 12) will assess the impact of implemented changes over time and ensure that each student studies in an environment that is continually adapting and improving in accordance with the best educational practices and scientific achievements.

The implementation of the Strategy–2035 will be reflected in the Action Plan as the idea of “a thousand small but important steps”.

Strategic directions will be divided into three key periods which differ in duration, depth and breadth of their impact. The first period up to 2025 aims to complete the large-scale projects outlined in previous strategic documents and launch more rapid initiatives to ensure a smooth transition and effective continuity to the next decade of further development. The second period up to 2030 aims to implement major initiatives that will contribute to the achievement of most of the strategic objectives outlined in this document. The third period up to 2035 aims to implement long-term initiatives that will help shape the overall NIS ecosystem to become more inclusive, resilient and sustainable in the long term perspective.

Being confident in the AEO development course and dedicated to our goals, we have no doubt that every step taken under this strategy will result in providing quality education to every student and preparing them for a successful future in a global society.



