Integration of AI into Slovak Education

2025 – 2027

MINISTRY
OF EDUCATION, RESEARCH,
DEVELOPMENT AND YOUTH
OF THE SLOVAK REPUBLIC

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I. Executive Summary

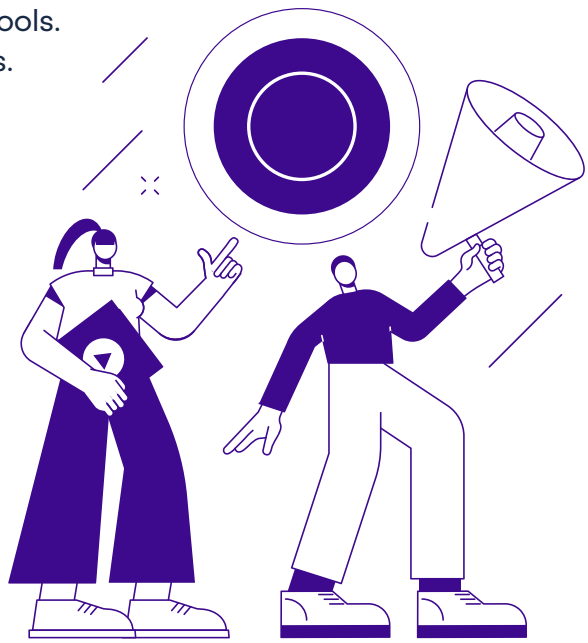
Slovakia has launched a national plan to integrate Artificial Intelligence (AI) into education between 2025 and 2027—the first initiative of its kind in the country. The plan addresses the dual challenge of equipping pupils and students with the skills to live and work with AI, while ensuring equitable, ethical, and secure access to AI tools in schools. It builds on OECD and UNESCO recommendations, the EU Digital Decade 2030 strategy, and Slovakia's broader 2025 educational reform.

The initiative is structured across five complementary pillars: AI in Schools, AI for All, Teacher Support and Personalised Learning, Better Education Management, and AI Innovations. It aims to modernise curricula, reduce inequalities, alleviate teacher workload, strengthen governance, and foster innovation. Early pilots are already underway in cooperation with the OECD and international partners.

By 2027, Slovakia aims to establish an education system where AI is both taught as a subject and responsibly deployed as a learning tool, preparing graduates for a digital, knowledge-based economy while maintaining inclusivity and equity.

Key commitments:

- **2026:** Approval of AI curriculum in primary and secondary schools.
- **2026:** Launch of teacher AI competency framework and modular training system.
- **2026:** Full operation of ai.iedu.sk platform.
- **2026:** Pilot phase of AI vouchers for schools.
- **2029:** Roll-out of AI competence centres.
- **2026:** First results from OECD pilots.



II. Objective and Context

The plan is adaptive and will be updated annually to reflect significant changes in technology, legislation and regulation, funding opportunities for specific initiatives, or new insights into the impact of AI technologies on learning processes and educational outcomes.

The AI Plan in Education is built on four pillars:

- **Accessibility:** Every pupil and student has the right to quality and accessible education about technologies and with technologies that shape their lives.
- **Equity**: AI must not deepen existing gaps in digital skills but help to reduce and overcome them.
- **Quality:** The education system will rely on verified, pedagogically sound, and effective solutions.
- **Safety:** AI tools must be implemented in a secure environment, respect rights, protect the data of pupils, students, and teachers, and support their autonomy.

II.1. Structure of the Plan

The plan is structured into five interrelated initiatives that complement each other and build on existing digitalisation strategies and the ongoing curriculum reform:

- **AI in Schools:** To prepare pupils and students for life with AI through education in primary and secondary schools and by building capacity at universities.
- **AI for All:** To ensure equal access to quality AI tools for all pupils, students, and educators, so that every school can meet this transformational challenge.
- **Teacher Support and Personalised Learning:** To leverage AI to reduce administrative burden, support adaptive learning, enable innovative teaching, and provide intelligent feedback to improve student motivation and learning outcomes.
- **Better Education Governance:** To use AI to modernise the management of the education system, automate processes, and make better use of data to support policymaking, more precise resource allocation, and improved support services.
- **AI Innovation:** To create an enabling environment for the development of AI-related education, research, and tool development, ensuring the education system remains sustainable, innovative, and responsive to technological change.

III. AI in Schools

The goal of this initiative is to prepare pupils and students for life in a society where AI will be ubiquitous. This will be achieved not only by using and developing specific tools but, above all, through conceptual and systematic education at the primary and secondary levels and by building human capacity for AI at universities.

Curriculum Integration: The introduction of AI in mathematics, computer sciences, and cross-curricular AI and Digital literacy in primary and secondary education (2026/2027 school year).

Teaching Materials: Creation of a national database of domestic educational resources and ensure the localisation of proven international materials.
Methodological guidelines: Methodological guidelines for schools and teachers will set the rules for the use of AI in education, will be regularly updated, and will reflect ethical, legal, and pedagogical considerations.

Teacher competency framework: Defining digital and AI skills required across education levels. Modular training courses from 2026, supported by digital coordinators.

Future teacher support: Scholarships and supplementary study programs for computer science and AI-related teacher training.

Higher education: AI competence centres will be established at universities to modernise study programs and research. The strategy also includes the STEP initiative to promote innovative study programs in key digital technologies.

The aim of the plan is to introduce education on artificial intelligence in primary and secondary schools in Slovakia. Education should:

- **Provide** basic understanding of how AI works, its capabilities and limitations;
- **Help** students grasp the principles of how AI learns;
- **Develop** critical thinking about AI›s impact on life and society
- **Teach** students to use modern AI tools both in school and in everyday life;
- **Prepare** students for further studies and work in digital technologies, data science, AI.

IV. AI for all

The initiative aims to ensure equal access to quality artificial intelligence tools for all pupils and students in Slovakia, regardless of their social background, school location, or current level of equipment. As AI rapidly becomes part of education, it is essential that every school has the opportunity to meet this transformational challenge with adequate support.

The digital transformation of education risks widening the digital divide between pupils and students from different socio-economic backgrounds. While some have access to digital technologies, parental support, and a stimulating environment at home, others rely solely on school resources. If AI tools become exclusive to more active or better-equipped learners, existing inequalities could worsen.

A well-designed education policy, targeted school support, and removing barriers can improve this situation. AI in education can reduce inequalities. Slovakia's DigiEDU project will provide schools with the technical infrastructure for AI tool adoption by 2026. A new program (DigiEDU PRO) will address schools' needs to strengthen their digital technology capacity.

Table 1: Key Measures of the AI for All Initiative

Measure	Description
Support for localisation and use of existing AI tools	The Ministry actively seeks and builds strategic partnerships with global AI solution providers (Microsoft, NVIDIA). The goal is to ensure access to technologically advanced, safe, and pedagogically appropriate tools for schools in Slovakia.
Use of international cooperation for piloting and testing AI tools	Slovakia will participate in multinational initiatives within the OECD and EU focused on the development, pilot testing, and implementation of AI tools in education.
Systematic support for the development of AI tools suited for the education system	A long-term grant scheme will be created to systematically support the development, validation, and dissemination of AI tools designed to enhance education and support schools and teachers
Creation of an AI platform for education and updates to the database of suitable tools	A database integrated into the platform ai.iedu.sk serves as a verified source of information for school leaders, teachers, and digital coordinators seeking appropriate solutions for teaching, assessment, administration, and more.
AI voucher for schools	A financial support tool for schools to use AI tools. The funding scheme will ensure fair distribution of resources while allowing schools to choose the tools that best fit their specific needs.

In 2025 and 2026, the Ministry will launch pilot testing of several artificial intelligence tools aimed at supporting teaching processes and student learning:

- **The Power of Feedback:** An international OECD-led study aimed at evaluating how students learn using platforms that leverage generative AI to deliver formative feedback.
- **Curio:** An AI tutor in the form of a chatbot, which supports active information searching, deeper exploration of topics, asking questions, developing metacognition, and fostering a healthy attitude toward mistakes.
- **OECD Curriculum Analyser:** Project goal is to integrate an AI assistant supporting teachers in curriculum analysis, lesson planning, and providing instructional feedback.

V. Teacher Support & Personalised Learning

Implementing AI-based teacher support tools presents a practical opportunity for Slovakia's education system to tackle current problems and drive educational change, such as curriculum reform.

Automating routine tasks, using adaptive learning systems, and applying tools for assessment and feedback can reduce the administrative burden on teachers, allowing them to focus more on quality teaching and providing personalised support to students.

V.1. Areas of AI tools implementation

Automated Administrative Tasks: AI can alleviate the workload of teachers by automating routine tasks. This enables teachers to allocate more time to students, thereby enhancing the quality of teaching.

Lesson Preparation: AI tools are revolutionising education by automating the creation and management of educational content.

Professional Development: AI platforms for professional development, personalised training modules for teachers. These solutions must prioritise teacher autonomy, transparency, and ethical considerations to maintain trust.

Personalised Learning: Artificial intelligence enables personalised learning by customising educational content and methods to individual students' needs. AI tools analyse performance, provide feedback, and promote creativity and autonomy.

Interactive Learning Support: AI platforms in education use interactive elements like games to enhance student engagement and motivation. These tools promote active participation, provide feedback, and positively influence learning outcomes.

Table 2: AI Tool for Support Measures – Project Proposal

Support Measures	Description
Project Title	AI Tool for Strengthening the Effectiveness of Support Measures
Development Timeline	2025 – 2026
Responsible Institution	MŠVVaM SR
Project Background	The current system of resource allocation has low efficiency, and lacks tools for measuring the effectiveness of interventions, which reduces the availability and quality of support. The integration of AI offers an opportunity to address these challenges effectively through better personalisation and targeted support.
Main Project Goal	To implement AI solutions into the system of providing support measures in order to improve the educational outcomes of students with special needs, optimise resource allocation, and increase equity in access to education.
Specific Project Objectives	• Introduce personalised learning strategies supported by AI. • Implement AI solutions for early identification of needs and provision of targeted support and interventions. • Optimise the use of educational resources through predictive analytics.
Main Project Outputs	• Adaptive AI platform providing personalised information on support measures. • Predictive analytical models for early identification of students at risk of falling behind. • Tools improving the effectiveness of interventions. • Tools for supporting collaboration and knowledge sharing.
Project Benefits	• Improved educational outcomes for students with special needs. • More efficient and equitable resource allocation. • Increased satisfaction of students, parents, and teachers with support measures. • Reduction in the proportion of students who are academically lagging behind.

VI. Better Education Management

AI has the potential to enhance education management and policy governance. However, the effective implementation in education policy necessitates a robust data policy. This policy should ensure the availability, accessibility, and security of data, as well as the establishment of data governance frameworks. To leverage the full potential of AI in education policy, investment in human resources is crucial. This investment should encompass technical implementation, support, training, and coordination.

VI.1. High-Quality Data Policy

Data Policy Improvement: A fundamental improvement in data policy is necessary for the Ministry to effectively harness the potential of AI.

Data Management System: Building a modern and interoperable data management system is crucial for enabling automation, data integration, and strengthening analytical capacities.

Data Management Challenges: Key challenges include governance and management, integration and interoperability, availability and infrastructure, and bias and fairness.

VI.2. Preconditions for Implementation

Multi-model LLM Strategy: Slovakia will adopt a multi-model approach combining commercial, sovereign, and open-source large language models. This prevents over-dependence on a single provider, allows task-specific optimisation, and supports long-term sovereignty in educational technology.

Data Management: Necessitates robust data governance frameworks for quality, consistency, and interoperability, including clear data ownership, standards, and validation procedures.

Data Security: Demands compliance with GDPR, regular security audits, encryption protocols, and access rights management to protect sensitive data.

Training Requirements: Training programs are essential for teachers, specialists, management staff, and ministry employees to effectively utilise AI technologies in education.

Support Systems: Ongoing support, including help desks, informational materials, and online resources, is crucial for successful AI implementation.

Human Resources Management: Establishing expert teams within the Ministry is vital for the coordination, implementation, and continuous management of the AI in Education Plan.

VI.3. Measurable Objectives and Monitoring Framework

Monitoring Framework Establishment: The Ministry will develop a monitoring and evaluation framework by the end of 2025.

Data Collection and Baseline Setting: The first data collection and survey on AI tool usage in schools will be conducted by the end of 2025, with baseline values and target outcomes set for the end of 2027.

KPI Definition and Monitoring: The framework will include quantitative and qualitative KPIs, including equitable access to education, with annual evaluations and publications of progress.

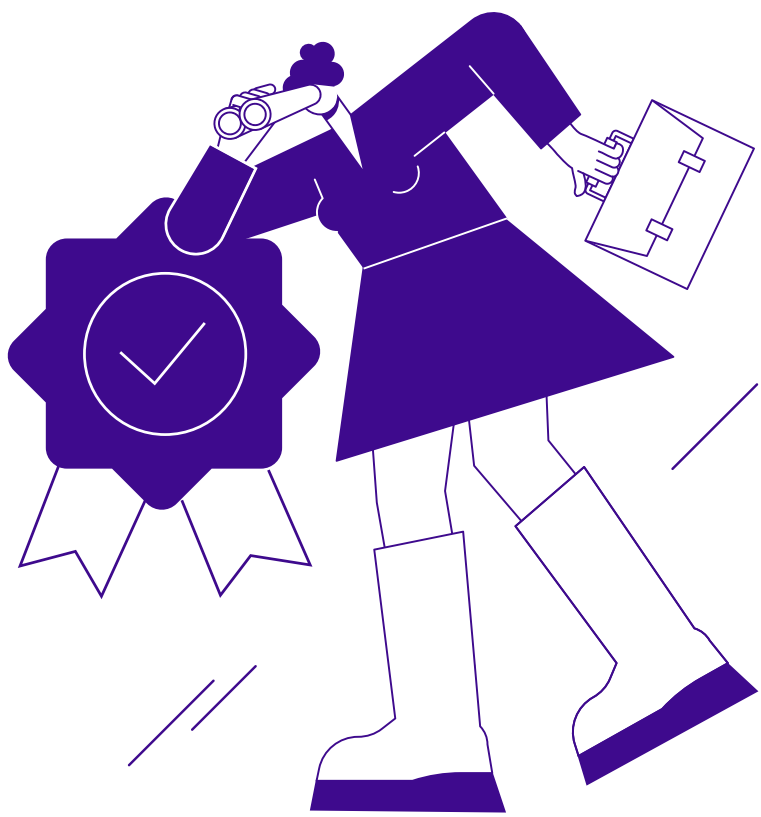


Table 3: Chatbot Amos AI – Pilot Deployment

	Description
Project Title	Amos AI
Pilot Deployment Date	12|25
Responsible Institution	NIVAM
Deployment Location	www.ucime.vzdelavanie21.sk
Contribution to Education Policy	Supporting curriculum reform implementation
Benefits for Users	The pilot deployment of the AI chatbot will enhance teachers' orientation and improve access to information. The chatbot will provide immediate access to a wide range of teaching materials, methodological resources, and practical examples of best practices, significantly speeding up and simplifying the search for necessary resources.

VII. AI Innovations

The Ministry plans to create a supportive environment for AI development in education, focusing on research, development, and deployment of AI tools for teachers, pupils, and students. This initiative aims to prepare the education system for technological changes and harness the potential of AI, requiring a well-designed framework for faster adoption of new technologies.

VII.1. National Project: AI Competence Centres (€15 million)

AI Competence Center Establishment: The Ministry will support the establishment of AI competence centres at selected public universities between 2026 and 2029.

Centre's Aim: To ensure the systematic development of AI in education, research, and institutional management, and to foster stronger connections between academia, practice, and society.

Centre's Activities: Support the modernisation of higher education study programs, including teacher training programs, the development of open educational resources, and research in the field of AI.

Memorandum of Understanding with NVIDIA (July 2025)

- **Memorandum Signatories:** Ministry of Education, Research, Development, and Youth of the Slovak Republic, Slovak University of Technology in Bratislava (STU), and Technical University of Košice (TUKE).
- **Memorandum Focus:** Developing AI infrastructure, AI education and training, and strengthening connections between academia and industry.
- **NVIDIA's Role:** Providing expert guidance, support in securing financial resources, and access to educational activities and resources.

VII.2. National Project: AI in Education (€5.8 million)

Project Goal: Enhance digital competencies, improve education quality, and better prepare the Slovak education system for technological advancements.

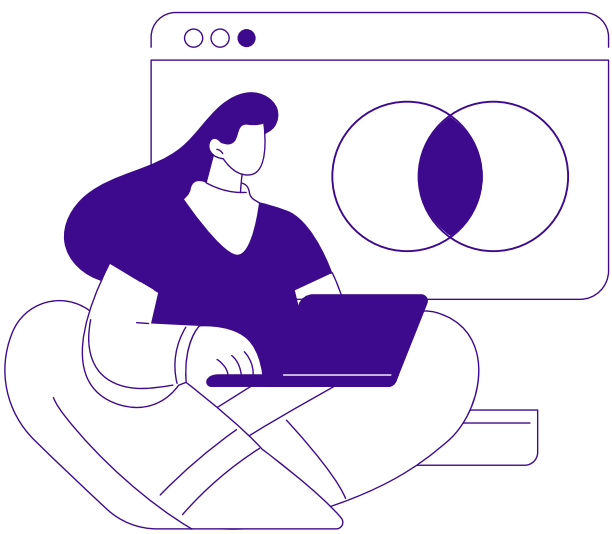
Slovak LLM Development: Support the development of a Slovak LLM to reduce dependency on foreign technology and ensure compliance with national legislation and European ethical standards.

AI in Education: Research and evaluate the active use of AI in primary and secondary schools, including pilot testing of AI tools and an AI voucher system.

VIII. Expected Outcomes

By 2027, Slovakia expects:

- **AI literacy for all pupils:** integrated across curricula.
- **Equitable access:** every school equipped with localised AI tools.
- **Reduced teacher workload:** through AI assistants and administrative automation.
- **Improved learning outcomes:** via adaptive and personalised instruction.
- **Modernised governance:** interoperable data systems in place.
- **Innovation ecosystem:** competence centres and AI tools supporting education.
- **International recognition:** Slovakia as an active contributor to OECD's agenda.



IX. Delivery to Date & Next Steps

Progress achieved (as of Sept 2025):

- **Launch** of national AI plan.
- **Guidelines** for primary and secondary schools about AI deployment.
- **Curriculum development** underway; public consultations scheduled.
- **MoU with Microsoft** (July 2025) signed for AI tool localisation and training.
- **MoU with NVIDIA** (July 2025) signed for AI labs and courses at STU and TUKE.
- **Participation in OECD pilots:** Power of Feedback and Curriculum Analyser.
- **Establishment** of digital coordinators in 900 schools; funding model under development.
- **Flexible study programs** for teachers launched (2025), budget €2.5m.

Next steps (2026–2027):

- **Approval and rollout** of AI curriculum in primary and secondary schools (2026).
- **Launch** of teacher competency framework and modular training (2026).
- **Full operation** of ai.iedu.sk platform (2025–2026).
- **Pilot implementation** of AI vouchers (2026).
- **Establishment** of AI competence centres at universities (2026–2029).
- **Development** of Slovak LLM and pilot evaluation of AI use in schools (2026–2028)

Slovakia's AI Integration Plan 2025–2027 represents a strategic leap forward in aligning education with digital transformation. It combines systemic curriculum reform with equity-focused access, teacher empowerment, governance modernisation, and innovation support.

By embedding AI into both what students learn and how schools operate, the plan strengthens Slovakia's human capital and competitiveness, while positioning the country as a proactive OECD partner in shaping the future of AI in education.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Spolufinancovaný Európskou úniou

PROGRAM SLOVENSKO

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