Digital Action plan (ANDI)

POLICY DEVELOPMENT | **STRATEGY/ACTION PLAN** | SLOVENIA

Timeline

2024 **Implementation** 2025 **Implementation**

ID number 50588

Background

Slovenia has a long-standing policy commitment to integrating digital technologies into education and training. However, despite sustained progress, developments were often project-based and fragmented, and the rapid pace of technological change exposed new challenges related to coherence, scalability, equity and alignment with labour-market needs, including in VET.

More specifically, Slovenia began introducing digital education in 1994 through systemic measures aimed at integrating ICT into teaching and learning. The Computer literacy programme (1994–2006) laid the foundation for effective use of technology in schools, while the establishment of ICT coordinators in 1998 and the programme Council for informatisation of education in 2006 further advanced progress. Project E-education (2008–2013) helped define key teacher e-competencies and supported thousands of teachers and students through training, workshops, and online learning communities, as well as developing 43 interactive e-textbooks and more than 100 multimedia and interactive education e-material

After 2015, major initiatives continued through projects such as Innovative learning environments – pedagogy 1:1, which developed teacher e-communities and enhanced digital pedagogy, as well as Erasmus+ Action 3, focusing on digital competencies and new learning and teaching methods, such as e-portfolio, peer learning and assessment, the active role of students, and their self-regulation (awareness and management of one’s own learning and development pathways).

At European level, the Digital Education Action Plan 2021–2027 emphasises the development of a strong digital education ecosystem and the strengthening of digital skills to support transformation. In response to this stabile EU-level framework, Slovenia adopted the National Digital Education Action Plan 2021–2027 (ANDI), with the first broader implementation measures launched in April 2022 cofinanced by the National Response and resilience plan.

ANDI 2021-2027 was prepared in 2021 by a working group of the Programme Council for Digital Education and the Service for the Digitalisation of Education within the Ministry of Education.

Objectives

The list of areas and goals addressed by ANDI

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(a) national coordination of digital education: establishment and operation of the Centre for Digital Education, development and networking of relevant thematic hubs at public institutions, universities, research institutes, and other stakeholders, strengthening digitalisation teams within educational institutions.
(b) didactics of digital education: preparation of comprehensive didactics ‘theory and practice’ (through guidelines, theory handbooks, journals, etc.), use and further development of national and European digital competence frameworks, research, testing, piloting, and implementation of new didactic approaches.
(c) renewal of educational and study programmes and jobs: curriculum reform including digital competences and core ICT contents (computer science, informatics, artificial intelligence, cybersecurity), renewal of study programmes and updating regulations for education professionals, upgrading ROID (ICT coordinators) positions and ensuring technical support for teaching processes.
(d) education and training of professionals and lifelong learning: integration of pedagogical digital competences into teacher education programs, establishment of a system for continuing education and professional development, creation of learning communities for sharing and evaluating best practices, providing didactic, professional, and technical support to teachers, researchers, advisors, and parents both in-person and online.
(e) digital education ecosystem: The digital education ecosystem focuses on strengthening infrastructure through modern equipment, broadband connectivity and updated standards, alongside the integration of digital platforms and tools that support personalised learning and effective data management. It promotes the development and use of high-quality digital educational content, including open educational resources, and supports institutional management through e-teams, digital strategies and systematic monitoring of progress. The ecosystem also addresses evaluation, cybersecurity and equal opportunities, with measures to reduce the digital divide and encourage girls’ participation in STEM, while actively involving parents and a wide range of stakeholders across education, culture and research. Legislative changes underpin and support all of these measures. In parallel, labour-market intelligence informs education and VET planning: in Slovenia, the 2024 Occupational Barometer identified shortages in 93 out of 170 assessed professions, highlighting the need to align digital education and VET provision with labour-market demand.
(f) protocols for education in special circumstances: establishment of a unified coordination and information point, preparation of temporary regulations for managing institutions during crises, development of detailed protocols and guidelines for all stakeholders.

Description

From 2023 onwards, most development projects implemented under the ANDI 2021–2027 framework have been co-financed by the Ministry of Education and funded through the National Recovery and Resilience Plan. These projects have primarily focused on strengthening digital competences and basic computer science knowledge, as well as promoting digital citizenship and computational thinking.

Several new Erasmus+ projects have been initiated between 2021 and 2025, including:

(a) Digital well-being (2021-2023) promotes wellbeing in schools through innovative modules for teachers and students.
(b) Digital First (2023-2026): promotes a shift towards computational thinking in schools across Europe, empowering students to become active creators rather than passive consumers of digital technologies.
(c) Challenger (2023-2026): The Challenger project aims to build a sustainable structure that fosters innovation in VET through applied research, innovative teaching methods, and collaboration among key stakeholders.
(d) VR4Empathy (2023-2026): VR4Empathy supports the cooperation between schools and EdTech companies to jointly develop and provide virtual reality resources to be used in education

(e) DALI4US (2024-2026): The project DALI4US aims to equip primary school teachers with the necessary confidence, knowledge, skills, and attitudes to teach data literacy effectively.
(f) AI-DL (2025-2028): The project strengthens data literacy in school communities by promoting a critical, values-based understanding of data use by GenAI and humans. It achieves this through a collaborative training and experimentation pathway with schools across Europe.

In 2023, four national projects have been established to develop basic knowledge of computer sciences and digital competences and are set to run until 2026:

(a) B-RIN:The project connects kindergartens and primary schools through coordinated teaching of basic computer science concepts. It develops a catalog of essential knowledge, teaching scenarios, and strengthens the learning community to share best practices.
(b) I-school (I-šola): The project promotes the comprehensive development of digital competences in schools by testing innovative didactic approaches. Collaboration with external partners, the development of learning communities, and an emphasis on digital strategies strengthen the digitally competent learning environment.
(c) Innovative pedagogy 5.0 (Inovativna Pedagogika 5.0): The project centers on students and enhances digital competencies and basic computer science knowledge. Using innovative, AI-supported approaches, it drives a pedagogical shift that connects digital skills with essential 21st-century competencies.
(d) KATARINA: The project aims to improve students' basic computer science knowledge through innovative methods and creative digital tools, while fostering critical thinking and problem solving. It supports teachers and creates a network for sharing best practices, preparing students for the digital future.

2024 Implementation

2024 - Implementation phase

In 2024, two national research and development projects have been launched: GEN-UI (Generative AI in education) (2024-2026) and TeachXR (virtual realities in education) (2024-2026).

The Gen-UI project promotes learner-centred education by developing meaningful ways to use generative AI to support learning goals. It combines research, pedagogy, and AI-based tools to enhance teaching and learning. The TeachXR project explores and introduces virtual, augmented, and extended reality technologies in primary and secondary education to modernize learning environments. It empowers teachers through training, tools, and learning labs to create interactive, engaging, and sustainable XR-supported learning experiences.

In 2024, seven additional projects were also developed to strengthen basic computer science knowledge and digital competences.

(a) Digital is winning (Digitalno je zmagovalno): The project fosters learners' digital competences and supports new teaching approaches. It emphasizes the important role of teachers and raises public awareness about the value of digital literacy, inspiring all generations to embrace the digital future of education.
(b) Marinka: The project develops a systematic approach to teaching basic computer science knowledge in upper primary schools. By creating a catalog of essential concepts and teaching scenarios, it aims to support the meaningful integration of content and strengthen a community of learning among teachers.
(c) DIGFIT: The project promotes the digital competences of teachers and students through collaborative learning and innovative use of digital tools. Partners are developing learning environments and training courses to help teachers effectively plan contemporary lessons.
(d) Digital competences for the field of special needs (Digitalne competence za področje posebnih potreb – DigComp PP): The project develops tailored teaching and learning approaches for students with lower educational standards and special needs. Supported by teachers and sustainable structures, it enables the

inclusive development of digital competences in real learning situations.

(e) Digital transformation of education for a sustainable future - pupils, sustainability, computing and Informatics as a challenge (UTRINKI) - The project supports the early and purposeful integration of computing into preschool and primary education. Using innovative approaches and digital tools, it fosters children's development and provides models that can continue to be used even after the project concludes.

(f) RINOvacija: The project promotes learning through play and inquiry, where students are not just users but co-creators of technology. Through innovative approaches, it nurtures students' curiosity, independence, and joy of learning, while also supporting teachers' autonomy.

(g) RINKO: The project introduces basic computer science knowledge into preschool education without using screens, employing play, inquiry, and hands-on activities. Children develop logical thinking and recognize patterns, while teachers systematically support these developmental processes.

In the first year of implementation, at least two innovative classrooms were established in each of the 147 participating schools, with a further two classrooms planned for each school in each subsequent year. An innovative classroom is a class of students designated by the school to implement forward-thinking teaching approaches, aimed at systematically strengthening digital competences and introducing new learning methods.

2025 Implementation

The comprehensive activities have been developed and implemented at the project level (development activities in digital pedagogy and the frameworks of competences: DigComp, DigCompEdu and SeflieForTeachers, DigCompOrg na SELFIE, AI-skills frameworks, DataLiteracy Frameworks, DigitalCitizenship and also others Well-Being, Entrepreneurship etc.) and at the school level by the school development groups. School development groups are appointed at the school level and are tasked with guiding and monitoring school activities as well as encouraging teachers.

For each innovative classroom, learning scenarios have been developed, that are peer-assessed and promoted. At each school, a whole-school approach has been further developed. The schools also cooperate with the relevant external stakeholders.

On the annual project conference in April 2025, a brochure presenting 11 relevant projects was prepared. It provides a comprehensive overview of the activities, results, and partnerships within projects implemented between 2023 and 2026 and funded by the European Union – NextGenerationEU. More specifically, the brochure promotes the 11 projects: I-šola, Digital is winning, Innovative pedagogy 5.0 ,KATARINA ,MARinKA, B-RIN, RINKO, RINOvacija, UTRINKI, DigComp and DIGFIT, involving 147 educational institutions, more than 20 000 children, pupils and students, and 2 140 teachers. It highlights over 1 200 learning scenarios and 140 innovative approaches aimed at developing digital competences and basic RIN skills. Emphasising a holistic pedagogical shift, the brochure promotes critical thinking, creativity and the effective use of modern digital tools. It is intended for kindergartens, primary and secondary schools seeking to strengthen digital literacy and basic RIN skills.

Bodies responsible

- Ministry of Education

Target group

Learners

Learners in upper secondary, including apprentices

Education professionals

Teachers
School leaders

Thematic categories

Modernising VET infrastructure

Improving digital infrastructure of VET provision

Modernising VET offer and delivery

Diversifying modes of learning: face-to-face, digital and/or blended learning; adaptable/flexible training formats

Acquiring key competences

Teachers, trainers and school leaders competences

Supporting teachers and trainers for and through digital

European priorities in VET

VET Recommendation

VET as a driver for innovation and growth preparing for digital and green transitions and occupations in high demand

VET as an attractive choice based on modern and digitalised provision of training and skills

Osnabrück Declaration

Resilience and excellence through quality, inclusive and flexible VET

Establishing a new lifelong learning culture - relevance of continuing VET and digitalisation

Subsystem

IVET

Further reading

Akcijski nacrt digitalnega izobrazevanja

Development projects enhancing student's digital competences and computer science

Recently implemented action plan ANDI to transform digital education

ReferNet & Cedefop 2023 national news on VET: Recently implemented action plan ANDI to transform digital education

Related policy developments

2025 **Implementation**

TeachXR: The use of augmented reality in education

The TeachXR 2024-2026 project supports the research, piloting and deployment of XR technologies—covering virtual, augmented and mixed reality—in primary and upper secondary schools.

SLOVENIA

Type of development

Practical measure/Initiative

Subsystem

CVET

2025 **Implementation**

Generative artificial intelligence in education

In the 'Generative AI in Education project 2024–2026', the purpose is to study, plan, and apply guidelines for the meaningful use of GenAI in learning and teaching to support achieving the learning objectives.

SLOVENIA

Type of development

Practical measure/Initiative

Subsystem

IVET CVET

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