Slovakia: VET action plan supports nuclear skills for green transition

Slovakia is strengthening its nuclear skills base to support the green transition. A new national action plan focuses on education, research and training of human resources in the nuclear sector and includes measures to adapt initial VET and invest in modern simulation based learning.

Recent EU-level developments have reinforced the role of nuclear energy in the low-carbon transition. The President of the European Commission has publicly underlined that turning away from nuclear was a strategic mistake for Europe, and on 10 March 2026 the Commission adopted a Strategy for the development and deployment of Small Modular Reactors (SMRs) in Europe. For Slovakia, these initiatives are fully in line with national plans to expand its nuclear sector and ensure a steady supply of skilled workers for nuclear power plants.

Nuclear energy and growing demand for skills

Slovakia is one of the EU countries with a high share of nuclear energy in electricity generation and a high proportion of low-carbon electricity, as confirmed by recent international energy reviews. Recent commissioning of new nuclear capacity and plans for an additional large reactor, together with ongoing work on small modular reactors (SMRs), are expected to further increase low-carbon electricity output and maintain nuclear as a key part of the national energy mix, point to a growing demand for specialised skills over the next decade.

In connection with the planned expansion and generational change in the workforce, the demand for qualified experts in the nuclear sector is projected to peak around 2032–39. National authorities therefore see a need to align education and training provision with long-term labour market needs.

Action plan for education, research and training

On 26 January 2026, the Slovak government adopted the Action plan for education, research and training of human resources in the nuclear sector (2026-32). The plan builds on analyses carried out by the State Institute of Vocational Education (SIOV) and aims to strengthen the training of specialists.

The plan foresees that specialists will be trained directly in initial VET at selected VET schools through specialised curricula. SIOV is carrying out field visits to identify schools best suited to introduce the newly designed curricula from the 2027/28 school year. Two main approaches are envisaged:

- including additional modules in existing curricula in mechanical engineering, electronics, mechatronics, chemistry and IT to prepare graduates at ISCED 354/EQF 4 for work in the nuclear energy sector
- introducing new study programmes at selected secondary VET schools located near operating nuclear power plants, namely Shift engineer for nuclear energy (EQF 5), Nuclear operation technician (EQF 4) and Nuclear waste disposal technician (EQF 4).

Investing in modern simulation-based learning

To support high-quality training, funding has been approved for a three-tier simulation learning ecosystem. It will range from basic PC-based simulators in VET schools to more advanced virtual and augmented reality (VR/AR) training and full-scope technology simulators in two Nuclear Energy Education Centres. These centres will be equipped to offer week-long learning blocks for students and to provide certified training.

Read more

- Slovak Republic 2024: Energy policy review - press release
- Information on small modular reactors on the European Commission website
- Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions: Strategy for the development and deployment of Small Modular Reactors (SMRs) in Europe