



Slovakia

IAEA Member State since September 1993



Technical
Cooperation
Programme

Key achievements in Slovakia

- 2019: Comenius University's new tandem nuclear accelerator begins taking measurements to monitor environmental radioactivity.
- 2016: Standardized 3D conformal radiotherapy planning is established for six major types of cancer, with specialist training.
- 2015: The Centre of Nuclear and Accelerator Technologies at the Comenius University in Bratislava becomes fully operational.

Atoms for peace and development

Widely known as the world's 'Atoms for Peace and Development' organization within the United Nations family, the IAEA is the international centre for cooperation in the nuclear field. The Agency works with its Member States and multiple partners worldwide to promote the safe, secure and peaceful use of nuclear technologies.

The IAEA's technical cooperation (TC) programme helps countries to use nuclear science and technology to address key development priorities in areas including health, agriculture, water, the environment and industry. The programme also helps countries to identify and meet future energy needs. It supports greater radiation safety and nuclear security, and provides legislative assistance.



The Centre for Nuclear and Accelerator Technologies was opened in December 2015 at Comenius University's Faculty of Mathematics, Physics and Informatics in Bratislava. The IAEA supported the training of staff through scientific visits and fellowships, and also procured necessary equipment. (Photo: IAEA)

Recent project successes

Decommissioning and radioactive waste management

The IAEA is supporting Slovakia's efforts to decommission its Bohunice A1 and V1 nuclear power plants and manage radioactive waste related activities. Expert missions, fellowship training, scientific visits and workshops were provided to improve the overall management and treatment of the radioactive waste, and to support the incorporation of international best practices and the redesign of treatment facilities. In addition, the IAEA supported two Integrated Regulatory Review Service (IRRS) missions to further strengthen regulatory oversight and waste management and help guide the country's decommissioning projects.

Human health

The IAEA has helped Slovakia to improve its cancer services, particularly in radiotherapy. This included supporting a Quality Assurance Team for Radiation Oncology (QUATRO) peer review mission and quality evaluation of radiation therapy practices in the National Cancer Institute's Department of Radiotherapy. The findings from these activities helped the Institute to increase its radiotherapy services, and to reduce waiting times for patients. In addition, the IAEA supported the introduction of new radiotherapy techniques, such as intensity modulated radiation therapy (IMRT), by providing relevant training for the medical staff. The IAEA further supported skills development and experience sharing across the country's radiotherapy departments on the standardization of advanced conformal radiation therapy (CRT), which shapes radiation beams to match the shape of tumours.

Environmental radioactivity monitoring

Slovakia has been working to improve environmental radioactivity monitoring, with IAEA assistance. Procurement support was provided to help establish the Centre of Nuclear and Accelerator Technologies at Comenius University in Bratislava. This included the delivery of IAEA-procured PIXE (Particle Induced X ray Emission) and PIGE (Particle Induced Gamma rays Emission) beam line systems and a multi-analytical spectrometric system used for non-destructive testing, to investigate archaeological

and culturally historical materials and to support nuclear, material, environmental and biomedical research. Scientific visits and fellowship training facilitated the transfer of new Accelerator Mass Spectrometry and Ion Beam Analysis technologies and improved analytical capabilities.

Active national projects

- Implementing Special Radiation Techniques (SLR6006)
- Enhancing Regulatory Activities and Strengthening Human Resources (SLR9016)
- Decommissioning of Highly Contaminated or Activated Components, Structures and Nuclear Power Plant Site Final Cleanup and Free Release (SLR9017)

Slovakia also participates in 35 regional and 3 interregional projects, mostly in the areas of radiation protection and nuclear safety.

Previous IAEA support to Slovakia

Previous IAEA assistance focused on enhancing regulatory and radiation protection infrastructure and improving radioactive waste management for decommissioning activities. Additional support was provided to strengthen radiotherapy services and enhance human resource development for the application of nuclear techniques.



President of Slovakia Andrej Kiska (centre) opens Comenius University's Centre for Nuclear and Accelerator Technologies with then IAEA Deputy Director General and Head of the Department of Nuclear Sciences and Applications Aldo Malavasi (left) and Rector of the University in December 2015. (Photo: IAEA).

IAEA support to Slovakia, 2009–2019



390	93	350
trained (including 125 women)	international experts provided	attended specialist meetings (including 75 women)

Priority areas of support

- Enhancing sustainable energy development
- Strengthening regulatory frameworks
- Supporting decommissioning and radioactive waste management
- Improving human health

Slovakia's contribution to South-South and triangular cooperation, 2009–2019

337	4	188
expert and lecturer assignments provided by Slovakia	training courses hosted	fellows or scientific visitors hosted

Based on data available as of April 2020

Strategic documents supported

- Country Programme Framework 2022–2027, to be signed in 2021

www.iaea.org/technicalcooperation

The IAEA collaborates with National Liaison Officers and Permanent Missions to deliver its TC programme.

