

## Key achievements in Poland

- 2019: To improve Poland's nuclear safety regulatory framework, a licensing simulation exercise for nuclear power plants is conducted under the national Advanced Licensing Exercise Project.
- 2017: An IAEA Integrated Review Service for Radioactive Waste and Spent Fuel Management, Decommissioning and Remediation (ARTEMIS) is conducted for reactors at Swierk.
- 2017: The IAEA conducts a follow-up to 2013's Integrated Regulatory Review Service mission to review the implementation of recommendations by the National Atomic Energy Agency (PAA).

# 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.

### Recent project successes

#### **Nuclear applications**

With IAEA support, Poland's national nuclear institutions increased their proficiency in the safe and secure use of nuclear technology and its application in radiation processing. The IAEA supported specialist on-site training for scientists and staff in radiation chemistry for natural polymers and food irradiation. Fellowships on gamma scanning systems were also provided, while scientific visits were conducted for staff to learn about radiation processing techniques.

#### **Nuclear** power

The National Atomic Energy Agency (PAA) developed its capacities for nuclear power plant licensing, with IAEA support. This included two Integrated Regulatory Review Service (IRRS) missions to strengthen and enhance the effectiveness of the regulatory infrastructure for nuclear, radiation, radioactive waste and transport safety. Additional IAEA support included on-site training to strengthen the PAA's alignment with safety standards and on the siting of nuclear power plants, their construction and operation.





# Radiation technology and industrial applications

With IAEA assistance, Poland built a full-scale electron beam accelerator facility to treat the flue gases produced by coal-fired power stations in Pomorzany. This led to a significant reduction in the emissions of toxins (sulphur fell by 95 per cent and nitrogen oxide by 70 per cent) which can threaten human health, damage the environment and lead to economic losses.

Poland's achievements in this field have helped inspire other countries to adopt similar ways of treating harmful gases produced by their power plants.

### Active national projects

- Implementing Technical Modifications to Enhance the Nuclear Safety of the Research Reactor MARIA (POL1014)
- Strengthening Competences for the Long-Term Safe Operation of the Maria Research Reactor (POL1015)
- Promoting a Safety Culture and Enhancing the Quality Assurance and Quality Control Capability of Nuclear Medicine Departments (POL9025)
- Strengthening National Infrastructure for Nuclear Power, Nuclear Safety and Radiation Protection (POL9026)

Poland also participates in 34 regional and 3 interregional projects, mostly in the areas of nuclear medicine, nuclear power infrastructure, radiation protection and nuclear safety.



IAEA support to Poland, 2009–2019



453 119

trained (including 172 women)

international experts provided attended specialist meetings (including 85 women)

#### **Priority areas of support**

- Introduction of nuclear power
- Strengthening nuclear safety infrastructure
- Improving environment monitoring
- Supporting the upgrade of research reactor
- Enhancing human health

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



11

training courses hosted

175

fellows or scientific visitors hosted

Based on data available as of April 2020

#### Strategic documents supported

• Country Programme Framework 2016–2021, signed in June 2016

# Previous IAEA support to Poland

In previous years, IAEA assistance focused on the development of nuclear power infrastructure and related human resources, and on strengthening nuclear safety regulatory systems.

The National Atomic Energy Agency (PAA) organized a national workshop in Warsaw on Communication with the Public in a Nuclear or Radiological Emergency, in cooperation with the IAEA, to discuss capabilities, needs and means to increase public engagement. (Photo: PAA)

#### www.iaea.org/technicalcooperation

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