

Bulgaria

IAEA Member State since August 1957

Selected achievements

2023: The regulatory capabilities of the Bulgarian Nuclear Regulatory Agency are further enhanced through the establishment of a modern knowledge management system.

2019: A fully operational radiochemical laboratory is established for the clinical application of gallium-68 radiopharmaceuticals at the University Hospital Aleksandrovska.

2016: The Laboratory of Molecular Biology is created at the Maritsa Vegetable Crops Research Institute in Plovdiv.



Staff at the radiochemical laboratory of University Hospital Aleksandrovska. (Photo: University Hospital Aleksandrovska)

National priorities

- Nuclear and radiation safety
- Food and agriculture
- Human health
- Nuclear energy
- Water and the environment
- Nuclear knowledge management

Main areas of IAEA support

- Nuclear power and radiation safety infrastructure
- Remediation of uranium mining legacy sites
- Human health
- Radiation therapy
- Food and agriculture

Project successes

Human health

With IAEA support, the University Hospital Aleksandrovska established a functional radiochemical laboratory enabling the clinical application of gallium-68 radiopharmaceuticals. This breakthrough has enhanced diagnostic precision for patients with neuroendocrine tumours and prostate cancer.

Furthermore, the IAEA supported the nuclear medicine centre of the University Hospital Aleksandrovska to further develop the existing PET/CT and cyclotron facilities by introducing new radiopharmaceuticals for clinical applications, including diagnostics and therapy.

Nuclear knowledge management

The IAEA supported the development of a knowledge management system for the Bulgarian Nuclear Regulatory Agency. Knowledge management plays a pivotal role in ensuring sustainable development within the nuclear industry. The comprehensive knowledge management system, with tailored applications allows the Bulgarian Nuclear Regulatory Agency to streamline knowledge management processes into one easily accessible portal, enhancing accessibility and facilitating information exchange.

Furthermore, through human resource development activities, Bulgarian experts have gained valuable insights into state-of-the-art developments in the field of nuclear knowledge management and preservation.

Food and agriculture

The IAEA helped Bulgaria's Maritsa Vegetable Crops Research Institute and other institutions acquire the skills and equipment needed for crop mutation and characterization. This initiative has empowered Bulgaria to develop diverse crop varieties, enhancing both quality and yield.

The IAEA also supported the production of faster-maturing peppers with improved flavonoid colours and drought-tolerant potatoes with heightened health benefits. The ongoing development of new tomato, bean, pea, onion, and watermelon varieties is expected to bolster Bulgaria's competitiveness in international markets.



The radiochemical laboratory at University Hospital Aleksandrovska. (Photo: University Hospital Aleksandrovska)

Participation in the major initiatives

- ZODIAC

IAEA support received in the 21st century



Contributions to South-South and triangular cooperation

