

SAMIRA

(Strategic Agenda for Medical Ionising Radiation Applications)

Commission Action Plan to support Europe's fight against cancer



Radiological and nuclear technologies play a crucial role in modern healthcare. They are indispensable in the fight against cancer and contribute to all stages of cancer patients' care, including early detection, diagnosis, treatment and palliative care. They are also widely used in other medical fields, from regular x-rays to diagnosing cardiac conditions and other diseases.

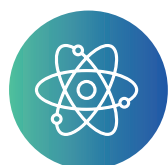
The **SAMIRA Action Plan** ensures that **EU citizens have access to high-quality radiological and nuclear technologies in medicine** with the highest safety standards. It is an important part of the **Europe's Beating Cancer Plan**.

WHAT ARE THE MEDICAL PROCEDURES USING IONIZING RADIATION?



Radiological Imaging uses x-rays for diagnosis, planning and guiding treatments

- About **500 million procedures annually** in the EU
- Breast cancer screening **relies 100%** on mammography
- Computed tomography is **indispensable in cancer diagnosis** and follow-up
- Constantly expanding use, associated with increase in patient radiation exposure
- Recent developments for better quality at lower radiation dose



Nuclear Medicine uses radioactive substances for diagnosis and therapy

- About **10 million procedures** annually in the EU, mostly diagnostic
- Widely used for cancer diagnosis and follow-up of **up to 65% of procedures**
- The **EU is the leading supplier** of medical radioisotopes to the world market
- The EU is in the frontline of recent pharmaceutical and clinical developments in nuclear medicine cancer treatment
- Important developments and increasing availability of radionuclide cancer therapy



Radiotherapy uses high-energy x-rays, charged particles or radioactive sources for therapy

- About **1.5 million treatments** annually in the EU
- Among the most effective and efficient cancer treatments
- About **50% of cancer patients benefit** from radiotherapy
- Constantly improving precision and new cancer interventions, e.g. hadron therapy

WHAT ARE THE MAIN ACTIONS OF SAMIRA ACTION PLAN?



Security of supply of medical radioisotopes

- Launch of the European Radioisotope Valley Initiative (ERVI)
- Secure supply of source materials for production of radioisotopes
- Support to long-term sustainability of radioisotope production in Europe



Quality and safety of medical ionising radiation applications

- Launch of the European Initiative on Quality and Safety of medical applications
- Improvements to workforce availability, education and training
- Support for equal access to modern technology and interventions



Innovation and technological development

- Research roadmap for medical applications on ionising radiation technology
- Joint Health Technology Assessment of technologies and interventions involving ionising radiation
- Different EU instruments and programmes in the areas of Energy, Health and Research and Innovation will be used



© European Union, 2021

Reuse of this document is allowed, provided appropriate credit is given and any changes are indicated (Creative Commons Attribution 4.0 International license). For any use or reproduction of elements that are not owned by the EU, permission may need to be sought directly from the respective right holders.

All images © European Union, unless otherwise stated.

