



05 February 2021

# **SAMIRA** (Strategic Agenda for Medical Ionising Radiation Applications) Commission Action Plan to support Europe's fight against cancer



*“**Safe medical use of radiological and nuclear technology is a highly useful tool ... This action plan will ensure that the EU continues to be the global leader in supplying medical radioisotopes and developing radiological diagnostics and treatments, while applying the highest quality and safety standards.**”*



*“**The SAMIRA Action Plan is our first deliverable under Europe's Beating Cancer Plan, and it is an excellent example of collaboration between the energy, health and research communities.**”*

# SAMIRA

(Strategic Agenda for Medical Ionising Radiation Applications)



## 👉 Preparatory phase

- Study on non-power applications, 2017-2019
- High level conference, March 2018
- Radioisotopes workshop, Feb 2019
- Waste workshop, Nov 2019
- SAMIRA follow-up studies (ongoing)



Energy4Europe @Energy4Europe · 16s

The #EUSamira workshop "Medical Radioisotopes in the Future" took place in Brussels on 7 February 2019 and brought together key stakeholders in the #radioisotopes supply chain. The workshop presentations are available here → [europa.eu/!Dj46vp](https://europa.eu/!Dj46vp)



## 👉 Council Conclusions of 6 June 2019

- Welcome SAMIRA preparatory work
- Invites the Commission to develop an Action Plan

## 👉 Inter-service cooperation

- SANTE, RTD, JRC, EAC, ESA

## 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



### **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



### **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

## WHAT ARE THE MAIN ACTIONS OF SAMIRA ACTION PLAN?

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#EUCancerPlan



### 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

# WHAT ARE THE MAIN ACTIONS OF SAMIRA ACTION PLAN?

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## Security of supply of medical radioisotopes

➤ Launch of the European Radioisotope Valley Initiative (ERVI)

- **Maintain Europe's global leadership** in the supply of medical radioisotopes
- **Accelerate the development** of new radioisotopes and production methods

- ❖ **Set the priorities** for the future
- ❖ **Secure long-term commitments** and resources for investment
- ❖ **Bring together** key stakeholders



Action	Deliverables	Indicative time-table	Funding and lead DG
European Radioisotope Valley Initiative (ERVI)	Engagement with stakeholders and potential partners	2021	EU general budget DG ENER, ESA, SANTE
	Develop scenarios and feasibility studies	2022	EU general budget DG ENER, JRC, RTD
	Preparation of legal framework (if needed)	2023	EU general budget DG ENER
	Official launch	2024	EU general budget ENER, SANTE, RTD, JRC, ESA



# WHAT ARE THE MAIN ACTIONS OF SAMIRA ACTION PLAN?

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## Quality and safety of medical ionising radiation applications

➤ Launch of the European Initiative on Quality and Safety



- ☛ Provide **common European platform**
- ☛ Support the **implementation of quality and safety standards**

- ❖ develop high-quality **evidence**, clinical **guidelines**, **standards** and **practical tools**
- ❖ support their **implementation in clinical practice** across Europe
- ❖ carry out **clinical audits** and share **good practices**

### Complementary use of EU instruments:

- ✓ **Energy:** Euratom legal basis, **monitor and enforce** implementation, **implementation support**, **engage with** Member States **authorities**, professional and industry **stakeholders** and **international organisations**
- ✓ **Health:** link to **health authorities**, support under **the EU4Health** programme – clinical audit, education and training, coordination with EU medical devices and pharmaceuticals, sharing of best practices
- ✓ **Research and Innovation:** **Horizon Europe**, **Euratom** Research and Training Programme, **JRC Knowledge Centre on Cancer** – high-quality evidence, guidance, education and training, attestation and certification.

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## Quality and safety of medical ionising radiation applications

➤ Launch of the European Initiative on Quality and Safety



Action	Deliverables	Indicative time-table	Funding and lead DG
European Initiative on quality and safety of medical applications	Build up EU governance for quality and safety	2021	EU general budget DG ENER, DG SANTE
	EU support action on quality and safety	2022	EU4Health ENER, SANTE, RTD, JRC
	Co-ordinated implementation of EU legislation and policies	2023	EU general budget DG ENER, SANTE
	Share good practices	2024	EU general budget DG SANTE, ENER, JRC

- **Member State Group on Quality and Safety (2021)**
  - representatives from **health AND radiation protection authorities**
  - advise on the **direction and content** of the Initiative
  - **draw conclusions** from relevant activities and projects
  - support the **implementation of project results** in Member States
  - liaise with patients, professional, researcher and industry

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## Innovation and technological development

- Research roadmap for medical applications on ionising radiation technology
- Joint Health Technology Assessment of technologies and interventions involving ionising radiation

Action	Deliverables	Indicative time-table	Funding and lead DG
EU research and innovation support	Research roadmap for medical applications of ionising radiation technologies	2023	Horizon Europe DG RTD (Euratom)
	Roadmap implementation through specific actions funded under HE Health and Euratom Work Programmes	2024	Horizon Europe DG RTD (Euratom + Health)
	Results from research on the health effects of medical ionising radiation	2022-2026	Euratom programme DG RTD



# WHAT DO WE NEED FROM THE SGPP (cancer sub-group)?

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## Quality and safety of medical ionising radiation applications



➤ Launch of the European Initiative on Quality and Safety

- **Member State Steering Group on Group on Quality and Safety**
  - **Nominate representatives from Health authorities, June-July 2021**
  - Regular updates and discussion, cancer sub-group

## Security of supply of medical radioisotopes



➤ Launch of the European Radioisotope Valley Initiative (ERVI)

- **ERVI Stakeholder Group**
  - **Nominate representatives**
  - Regular updates and discussion, cancer sub-group

# THANK YOU FOR YOUR ATTENTION

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[https://ec.europa.eu/energy/topics/nuclear-energy/medical-uses-of-radiation\\_en](https://ec.europa.eu/energy/topics/nuclear-energy/medical-uses-of-radiation_en)

