

International Atomic Energy Agency (IAEA)

Our Social Impact Partnership with the International Atomic Energy Agency (IAEA) is multi-faceted and we are currently working together across four distinct areas, as a long-standing education sponsor and more recently as a 'Nuclear Saves' partner:

- 2021 Marie Sklodowska-Curie Fellowship Programme
- 2021 Environment, Food & Agriculture Programme
- 2022 Radioisotopes for Health
- 2024 Wastewater remediation research

There is synergy between our two organisations and our partnership is maturing. Together we are advocating for the positive and peaceful benefits of nuclear energy and seeking to advance research and development particularly in relation to health and environmental challenges.

This developing partnership links Urenco to internationally respected programmes which underpins our nuclear advocacy work.

Workstreams: education & skills; environment & net zero transition



The IAEA is the world's centre for cooperation in the nuclear field and seeks to promote the safe, secure and peaceful use of nuclear technologies worldwide.

www.iaea.org



Nuclear science and technology is the foundation for all the IAEA's activities. The Agency assists member states with scientific advice, education, training and technical documents in many nuclear science areas, provides key nuclear data and helps them improve awareness about the wide range of applications of nuclear technology. Urenco is a key IAEA 'Nuclear Saves' partner. Launched in June 2021, this umbrella group of projects enable the IAEA to accelerate the peaceful uses of nuclear energy for cancer diagnosis and treatment, the prevention and control of zoonotic diseases, as well as climate change adaptation, mitigation and transition to clean energy.





International Atomic Energy Agency (IAEA) Marie Sklodowska-Curie Fellowship Programme

This respected programme aims to help increase the number of women in the nuclear field, supporting an inclusive workforce of both men and women who contribute to and drive global scientific and technological innovation.

It provides scholarships to young women studying for a Master's degree in a nuclear-related subject supporting around one hundred students per year. Urenco's commitment to fund the scholarships was announced in June 2021.



I am grateful for the support of Urenco and I encourage others to join the initiative. By encouraging young women to study nuclear subjects today, we are creating a pool of qualified professional women in this field for the future. They will contribute to the development and achievements in nuclear science and technology all over the world, and will go on to become leaders and role models."

Rafael Mariano Grossi Director General of the IAEA

Sustainability Spotlight

This project aligns with the Urenco sustainability strategy, our corporate values and selected UN sustainable development goals.

Social:

- promote equality of opportunityadvocate for contribution of women to
- profession.
- Inclusion and diversity:
- improve gender balance within nuclear industry.







International Atomic Energy Agency (IAEA) Environment, Food & Agriculture

Through our 'Nuclear Saves' partnership Urenco is supporting the IAEA in transferring nuclear science and technology to countries to improve the health and prosperity of millions of people around the world.

The IAEA Environment, Food and Agriculture programme is looking at climate change adaption in crops. Nuclear technologies provide competitive and often unique solutions to help fight hunger and malnutrition, improve environmental sustainability and ensure that food is safe. This is a coordinated research project (CRP) on developing sustainable agricultural practices for mitigation of greenhouse gases (GHGs). Further, it aligns with Urenco's commitment to net zero.



We are delighted to be supported by Urenco, a new 'Nuclear Saves' partner. We will work together to deliver sustainable, environment-friendly methods enabling countries to improve the health and prosperity of millions of people around the world. The new project Urenco supports is using nuclear science and technology to develop climate-smart agricultural practices to reduce emissions of greenhouse gases."

Najat Mokhtar

IAEA Deputy Director General and Head of the Department of Nuclear Sciences and Applications

Sustainability Spotlight

This project aligns with the Urenco sustainability strategy, our corporate values and selected UN sustainable development goals.

Social:

- increase crop yield to tackle food insecurity
- · lessen climate change impacts
- sharing new knowledge.

Innovation:

 pioneering coordinated research using nuclear stable isotope technologies.

Environment:

- aims to reduce GHG emissions
- protect and improve food & agriculture resources.

Inclusion and diversity:

• reduce inequality through sustainable food security.

UN Sustainable Development Goals:







International Atomic Energy Agency (IAEA) Radioisotopes for Health

This research project is also part of the IAEA's 'Nuclear Saves' campaign to advance treatments involving nuclear medicine through international collaboration.

The IAEA has initiated coordinated research on the production and quality control of Actinium 225 (Ac 225) radiopharmaceuticals. This will enable radiopharmacy laboratories in clinics worldwide to prepare efficient, state of the-art radiopharmaceuticals for cancer therapy. Ultimately this will translate into clinical practice in nuclear medicine for prostate, gastrointestinal, ovarian and other human cancers.

Our support will facilitate provision and distribution of appropriate starting materials and protocols for production and quality control of Ac-225 radiopharmaceuticals; develop and improve preclinical studies for approval of the Ac-225 radiopharmaceuticals for final clinical applications; organise technical review meetings and exchanges, participation in Ac-225 radiopharmaceuticals production and application network activities; produce and publish protocols and guidelines.



Expanding the benefit of nuclear science, especially to less advantaged communities, is not only the right thing to do, but it also helps build trust in the nuclear sector. We are delighted Urenco has joined us in advancing the beneficial uses of nuclear science and technology across the world."

Rafael Mariano Grossi Director General of the IAEA

Sustainability Spotlight

This project aligns with the Urenco sustainability strategy, our corporate values and selected UN sustainable development goals.

- Social:
- outcomes will benefit communities worldwide.
- Innovation:
- coordinated global research for highest standards.

Safety:

global agreement on quality control standards.

UN Sustainable Development Goals:







International Atomic Energy Agency (IAEA) Mining Wastewater remediation research project

This project sits within our wider partnership with the IAEA and focuses on using nuclear techniques for environmental benefit. Urenco funding will kick start an international coordinated research project guaranteeing the first year of activity to investigate how radioactive tracers could enable more effective treatment of mining wastewater.

Earlier IAEA research has proven that reedbeds are effective in retaining up to 95% of pollutants in wastewaters. Now, specifically constructed wetlands have been identified as systems for treating waste waters from metalliferous mines, including uranium mining and ore processing, in order to improve removal of hazardous components and to enable water recovery for safe recycling purposes.

This research uses a radioactive tracer technique to evaluate the flow hydrodynamics by measuring the responses of gamma radiation detectors at strategic locations around the constructed wetlands.

Through coordinated research across Member States, the IAEA hopes to advance methods and techniques by applying radioactive tracers in hydrodynamic studies, monitoring of naturally occurring radioactivity and physicochemical characterisation to improve the performance and efficiency of constructed wetlands and their integration into mining wastewater treatment processes.



We are really pleased that Urenco has facilitated the start of this coordinated research project as a result of our social impact partnership. Constructed wetlands are a cost effective, environmentally beneficial and efficient way to filter out pollutants, for example, from uranium mine waste water leachate, harnessing natural biological and geochemical processes. This project's focus will be on developing radioactive tracer methodologies or hydrodynamics studies of engineered (constructed) wetland systems that treat contaminants in mine water and we anticipate providing important data enabling more efficient operation and optimisation as a result."

Melissa Denecke,

Director of the Division of Physical and Chemical Sciences, IAEA

Sustainability Spotlight

This project aligns with the Urenco sustainability strategy, our corporate values and UN sustainable development goals.

Environment & transition to net zero:

- Constructed wetlands help reduce water pollution, increase water supply and protect the environment.
- Urenco recognises the intrinsic link between uranium mines and the nuclear fuel cycle.
- Supporting this project underlines our commitment to sustainable nuclear stewardship by reducing the historic legacy of uranium mining.
- This research will build on known techniques to improve the removal of pollutants and enable safe recycling of mining wastewater.

Education & skills:

 This research promotes the concept of nuclear for good, underpins our advocacy work and recognises the importance of building stronger relationships across the industry supply chain.

UN Sustainable Development Goals:



