European Commission

JRC Nuclear News

NEWSLETTER

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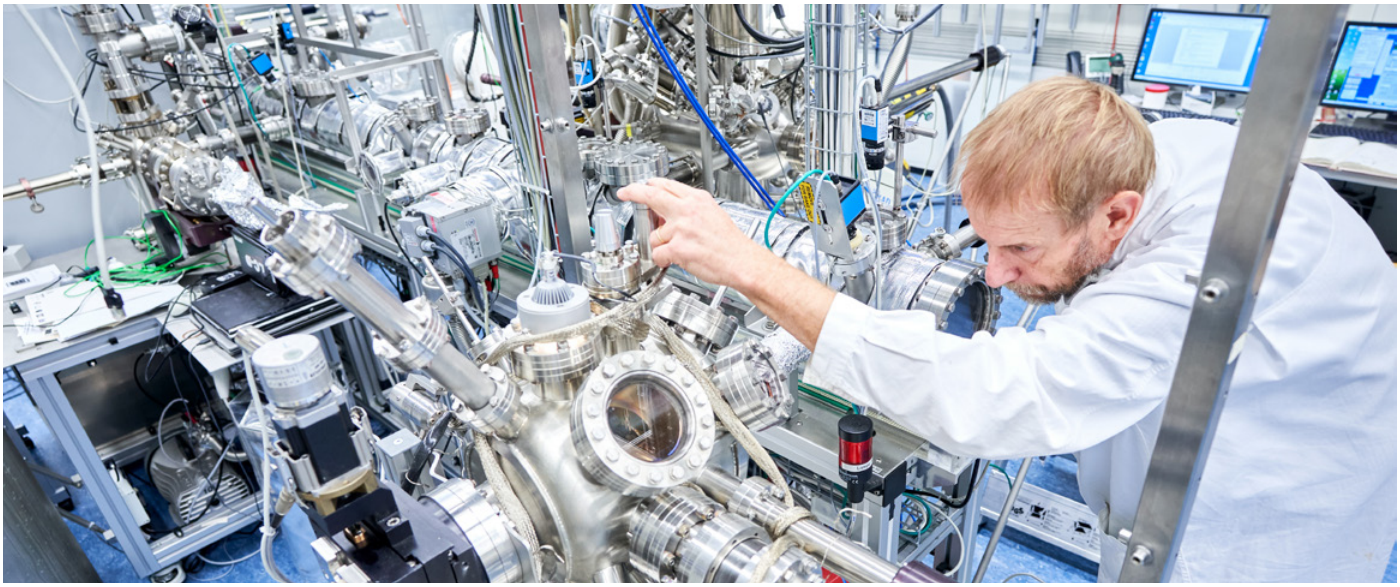

Researcher working in the Properties of Actinice Materials under Extreme Conditions (PAMEC) laboratory at JRC Karlsruhe © EU, 2021

Welcome message

Bernard Magenhann

It is my great pleasure to introduce the first edition of the JRC Nuclear Newsletter, which aims to provide an overview of some of the main activities carried out by the JRC in the nuclear field, mainly in the context of the Euratom Research and Training programme.

The JRC has been created under the Euratom Treaty and is responsible for the direct actions of the Euratom Research and Training programme. As the reference EU service for nuclear-related research and policy support, the JRC manages unique nuclear infrastructures, while implementing a nuclear work programme grounded in excellent expertise and knowledge developed over the past 60 years of activities.

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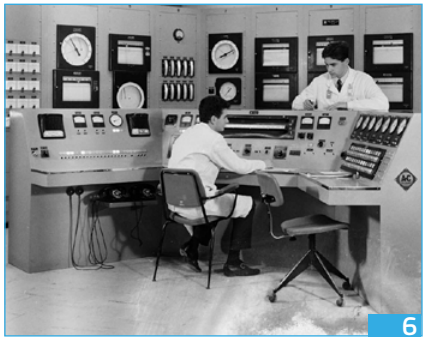
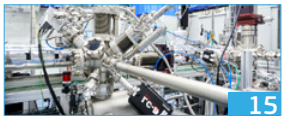
Through this newsletter, we wish to provide you with information on the latest developments on nuclear technology under our Euratom programme direct actions, as well as on current initiatives, topics of interest and upcoming events.

This first edition encloses a specific focus on the 60th anniversary of the JRC Nuclear Safety and Security, with a retrospective on the JRC's nuclear activities over the years and across its research sites. This special occasion was celebrated through a series of events organised throughout 2023, which are summarised here.

Additionally, this newsletter features articles on the European Human Resource Observatory for the nuclear sector, the JRC's collaboration with SCK-CEN, the JRC's initiative on medical applications of nuclear science, ongoing nuclear trends based on foresight activities, as well as recent publications and upcoming events during the first half of 2024.

We hope that you find this newsletter informative and we look forward to your constructive feedback. Thank you for your support and we look forward to bringing you the next edition of the newsletter!





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NEWS

PUBLICATIONS

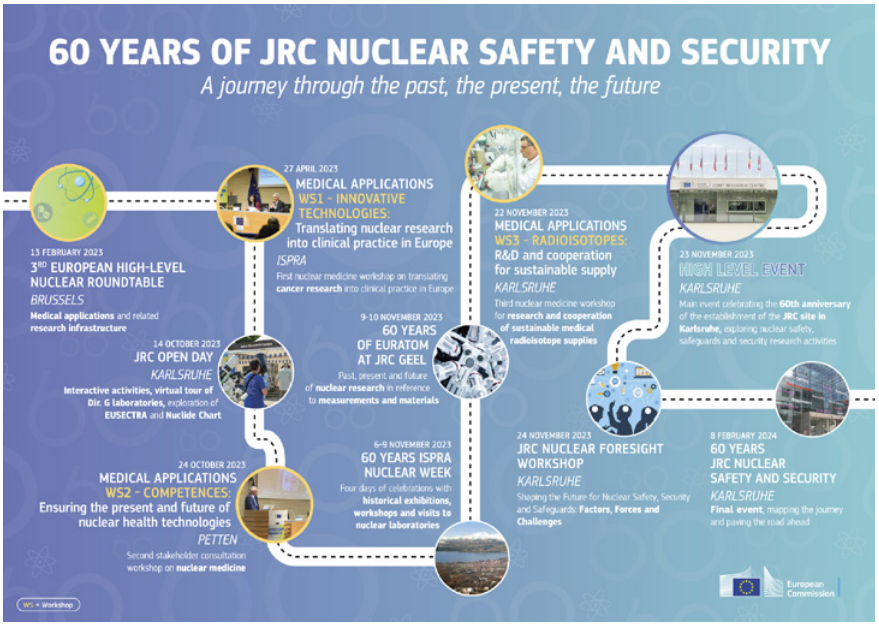
EVENTS

Celebrating the 60th Anniversary on JRC sites

A journey through the past, the present, the future

Ulla Engelmann

In 2023, the JRC celebrated the 60th anniversary of its site in Karlsruhe, aiming at nuclear safety and security research activities. This milestone was marked by a series of events engaging different audiences: from the general public to high school and university students, from nuclear experts and stakeholders to politicians at local, regional, national, European, and international level. The anniversary celebration was organised in a journey throughout the year that traced JRC Nuclear Safety and Security's evolution over the past 60 years, through its past, present and future, while maintaining its role as key contributor to an effective safety, security and safeguards system for the entire nuclear fuel cycle in the European Union.



Celebrating 60th Anniversary on JRC sites. A journey through the past, the present, the future © EU, 2023

60th Anniversary events at the different JRC nuclear sites

The 60th anniversary of JRC Nuclear Safety and Security was celebrated also during the second half of 2023 with a series of events and activities on the different JRC nuclear sites. The main event was on the 23 November, with high level participants discussing the importance and impact of JRC's nuclear programme, and a visit to the unique facilities of JRC Karlsruhe.

It was a journey through its evolution over the 60 years, from the very first European Community of Nuclear Energy specialised nuclear research centre in Karlsruhe to a broader institution researching and delivering policy advice on Growth and Innovation, Energy, Transport, Climate, Sustainable Resources, Space, Security, Migration and Health.

On **14 October**, the **JRC Karlsruhe Open Day** welcomed over 450 citizens, who had the opportunity to interact with JRC scientists and to discover the JRC's broad research programme though live demonstrations from the nuclear laboratories, presentations and interactive activities that involved working with globeboxes, telemanipulators, telescopes and walking on the Karlsruhe nuclide chart carpet. There was the involvement of the German Europe Direct office, the European Commission Representation, local and regional policy makers.

From **November 6 to 9**, the **Ispra Nuclear Week** at **JRC Ispra** was opened by a High level Conference, streamed also online, with the participation of the Italian Ministry of Environment and Energy Security and the JRC Board of Governors representatives, IAEA and DG ENER colleagues. A round table discussion followed to delve deeper into the Future of nuclear research with Europe.

JRC Karlsruhe Open Day © EU, 2023

Throughout the week, four workshops explored further collaboration with other JRC Directorates, covering topics such as: innovation, patents and technology transfer; the value of by-design approaches in a sustainable future; emerging, strategic and critical technologies; secure data and infrastructure. The Ispra Nuclear week included also outreach activities targeting local secondary schools and universities.

From November 9 to 10, the **60 years of EURATOM** at **JRC Geel** was celebrated with key EU, national, regional and international stakeholders reflecting on past achievements and future expectations. The importance of the measurements performed at GELINA accelerator facility and the support in the evaluation of nuclear data were underlined. The access to JRC laboratories through the open access research program was also highly valued.

On **23 November**, the high level event **60 Years of JRC Nuclear Safety and Security** took place at **JRC Karlsruhe**. In the morning, **Thierry Breton, Commissioner for Internal Market**, visited the nuclear laboratories. Meetings with key Research Partners and representatives of the EU Member States took place in the laboratories and in seminar rooms, aiming at disseminating JRC's activities of interest to them, such as nuclear safety, safeguards and security, nuclear medical applications, innovation and safety, and the provision of information and technical support. In the afternoon, a high-level ceremony took place, featuring Commissioner Thierry Breton, together with EU Member States Representatives, National and Regional German Authorities, International Partners and Industry Representatives, who highlighted the importance and impact of JRC's nuclear programme, which contributes significantly to shaping policies.

On **24 November**, the **JRC Nuclear Foresight Workshop** at JRC Karlsruhe focused on the future of Nuclear Safety, Security and Safeguards, Factors, Forces and Challenges, with breakout sessions on safety and security, green, digital, dual use and fairness. The participants agreed that the role of the JRC is to provide independent research, translating science to the policy makers, collecting and analysing feedback from Member States and supporting Euratom to produce recommendations for safety and security.

Thierry Breton visiting the nuclear laboratories at JRC Karlsruhe © EU, 2023

JRC Nuclear Foresight workshop, JRC Karlsruhe © EU, 2023

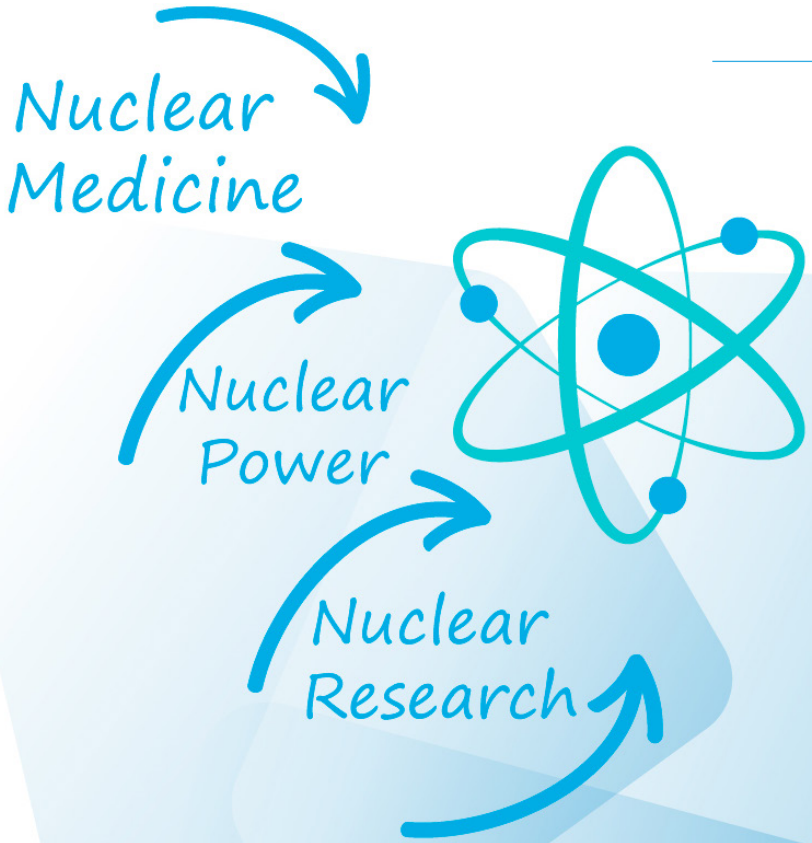
Additionally, in line with the JRC nuclear strategy and its implementation plan, communication of the JRC nuclear activities during 2023 has been focused on the work of the nuclear medical applications. Therefore, the 60 years journey also integrated the three workshops forming part of the initiative on nuclear medical applications and organised at the JRC Ispra on 27th April, at JRC Petten on 24th October and at JRC Karlsruhe on 22nd November. (Detailed article below)

The **60 Years journey** will be concluded on **20 March 2024 with a closing event during the nuclear week in Brussels**. The event will present major JRC nuclear achievements over the last 60 years and its role in fostering the safe and secure development of both nuclear power and non-power applications in Europe.

Nuclear Foresight

Exploring the future of nuclear!

In the next **JRC Nuclear News**, we will delve into the exciting world of nuclear foresight



60 years of European nuclear research

A forward-looking review

The story of joint European nuclear research is almost as long as that of European integration itself. Let's take a dive back in time to find out how it all began and take stock of where we stand today.

It began with the Euratom Treaty in 1957, which called for the establishment of a 'Joint Nuclear Research Centre'. Research activities started soon after in different sites across Europe. Over time, they expanded in scope and achieved important results in non-power applications, such as nuclear forensics and healthcare.

But why was nuclear energy so important to deserve its own treaty? The six founding Euratom Member States knew that their economies were becoming more and more energy hungry. At the same time, they realised that they could no longer rely only on fossil fuels. Coal reserves were dwindling, and oil mostly came from other world regions, which made its supply precarious - the Suez crisis of 1956, which paralysed the delivery of oil from the Middle East, was fresh in everyone's memory and showed the risks of relying entirely on third countries.

Member States saw nuclear energy as a more reliable and efficient way to power their economies, so they decided to join forces and create the European Atomic Energy Community – in short, Euratom.

60 years at the forefront of energy research

With the Euratom Treaty in place, the six countries started to set up the Joint Nuclear Research Centre, the institution that would eventually become today's JRC. Research sites were built or adapted in Ispra (Italy), Petten (Netherlands), Geel (Belgium), and finally in Karlsruhe (Germany) in 1963. Euratom research areas ranged from the testing of new nuclear fuels to the study of safety measures and safeguards. Over time, the JRC established itself as a point of reference for nuclear energy research at the global level.

For example, during the 1980s the JRC developed the TRANSURANUS code, a tool that models many properties of fuel elements used in nuclear reactors. It can simulate the behaviour of various fuel elements in normal, abnormal and accident conditions, contributing to the safety of nuclear reactors. The TRANSURANUS code became even more valuable when later EU enlargements brought Soviet-designed reactors into the Union.

Today, the JRC continues to be at the forefront of nuclear energy research, for example by supporting EU initiatives on the so-called 'small modular reactors' (SMR), performing research on the safety and licensing of a technology that can contribute to the supply of power and heat, potentially playing an important role in decarbonising heavy industry and other hard-to-abate sectors.

The control room of the ISPRA-1 reactor in Ispra, Italy, 1961 © EU

ISPRA-1, the first reactor built at the JRC Ispra site, was the first nuclear reactor ever built in Italy

Nuclear beyond energy

Nuclear research at the JRC soon branched out to non-energy related areas.

For example, in 1988, in the aftermath of the Chernobyl accident, the JRC established a Radioactivity Environmental Monitoring (REM) database, which brought together data from across the continent to monitor radioactivity in air, soil, water, milk, meat, vegetables, and more. The database was – and still is – openly accessible helping European countries to detect radioactivity anomalies regardless of their participation in Euratom.

JRC experts even found ways to help combat illicit trafficking in nuclear materials. Since the first cases of nuclear smuggling in the EU, back in 1992, they developed and perfected methods to identify the origin, age and intended use of a nuclear material.

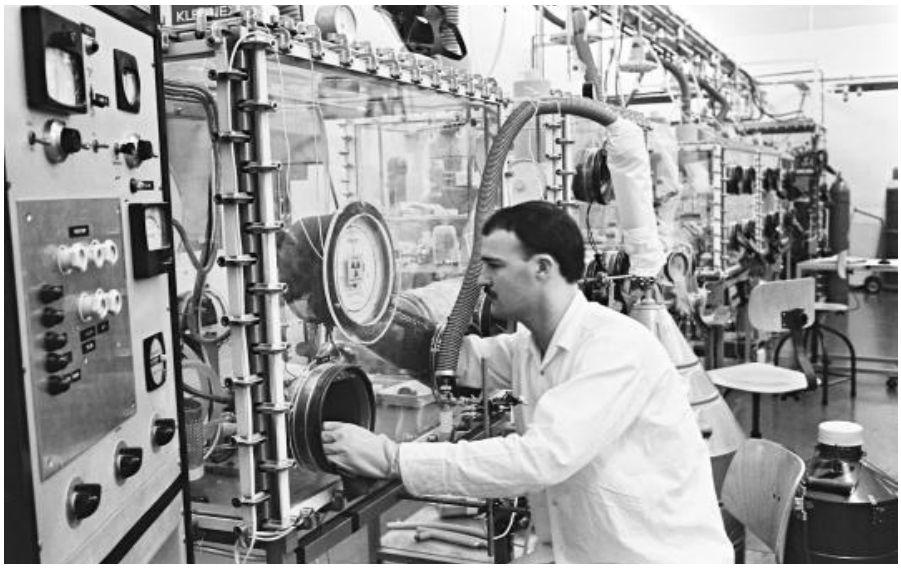
With these nuclear forensics techniques, they could analyse samples of materials seized by law enforcement authorities, helping to support non-proliferation, deter nuclear terrorism and prosecute the perpetrators. For instance, in 2007, law enforcement authorities of an EU Member State found 14 uranium pellets in a garden. JRC scientists were able to determine the origin and the time of theft of that material, providing key information for the investigation.

Since the late 1990s, cancer therapy has also become a key area of research. Together with clinical research partners, the JRC developed a new treatment method of 'Targeted Alpha Therapy' using Actinium-225. This therapy has proven to be effective in fighting various types of cancer, such as bladder cancer, prostate cancer, brain tumours, and neuroendocrine tumours.

Several clinical institutes around the world have since recognised the potential of this new treatment method and started collaborating with the JRC: more than 1,000 patients have already received treatment through these collaborations.

When the Euratom journey began, achievements like these were hard to imagine. Studying the building blocks of matter, it turns out, can yield extraordinary results. 60 years on, the JRC continues to explore the frontiers of nuclear science applications, for the benefit of all Europeans.

To be continued...



A researcher at the JRC site in Karlsruhe, Germany, 1968 © EU

Facts & Figures

Over 60 years, more than 82,000 researchers collaborated on JRC nuclear research activities

JRC scientists authored or contributed to over 12,000 scientific publications on nuclear research

Since 1992, JRC nuclear forensics experts supported Member States in more than 60 incidents involving nuclear material

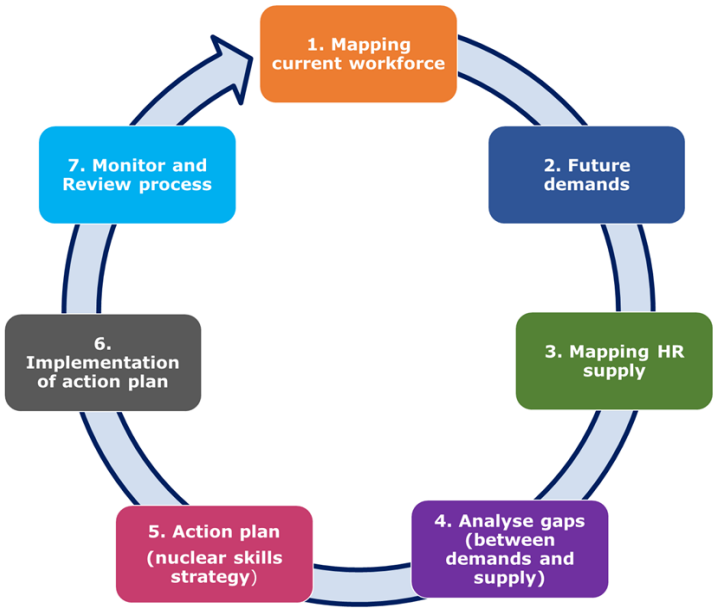
Targeted Alpha Therapy with Actinium and Bismuth, the cancer treatments developed by the JRC, won Marie Curie Excellence Awards in 2008, 2016 and 2017

Following Russia's invasion of Ukraine, the JRC monitors Ukrainian nuclear power plants located near the war zones to assess radiological threats

The European Human Resources Observatory for the Nuclear Sector – EHRO-N

Contributing to sustainable EU nuclear skills

It is of strategic importance to develop adequate and sufficient nuclear competences within the European community ensuring the safe and secure use of nuclear energy, including emerging technologies such as SMR's and advancements in nuclear medicine and other non-power applications.



A Nuclear Workforce Assessment (NWA) is a systematic process that maps out the present and future human resources needs and competencies in relation to the available supply of human resources. It involves conducting a comprehensive gap analysis and formulating a strategic action plan to address any potential deficiencies.

The European Human Resources Observatory for the Nuclear Sector (EHRO-N) recognizes the importance of NWA and recommends their implementation at the national level. It is essential to address aspects such as common terminologies, job classification, and modelling tools for management of human resources. By developing methodologies and best practices for assessing national nuclear workforces, countries can ensure that they have the necessary skilled personnel to meet the demands of the nuclear industry, maintain safety and security, and support emerging technologies.

The Joint Research Centre (JRC) in collaboration with the EHRO-N, Nucleareurope and the European Nuclear Society (ENS) hosted a workshop on National Nuclear Workforce Assessments on January 25, 2024, in Brussels. The workshop aimed to share experiences, knowledge, and national approaches related to building and maintaining sufficient human resources and competences in the nuclear field.

The workshop brought together 45 experts and stakeholders from 12 European countries. A topic that emerged during the discussions was the necessity to enhance communication of accurate, science-based information about nuclear energy and applications to potential students and the general public.

A summary report of the findings will be published soon. For more information, please contact the organisers: JRC-PTT-EHRON@ ec.europa.eu

JRC collaboration with SCK-CEN

A successful partnership

The Joint Research Centre has a long-standing relationship with a multitude of European and international stakeholders including universities, other research organisations, industrial companies, services within the EU institutions, and international organisations.

In line with its strategy for nuclear activities adopted in 2022, the JRC is in the process of adapting its stakeholder management to the changing political priorities, in order to ensure a sustainable and impactful cooperation with all partners involved.

As Belgium is taking over the Presidency of the EU Council, we would like to take this opportunity to highlight the JRC cooperation with the Belgium research organisation Studiecentrum voor Kernenergie/Centre d'Etude de l'Energie Nucléaire (SCK-CEN).

Within its strategy for Euratom activities, the JRC is engaged in collaboration with relevant nuclear research organisations in the Member States. This helps to ensure that its research and training activities are aligned with and complement the national ones. A very successful example of this is the JRC's Collaboration Agreement with the SCK-CEN.

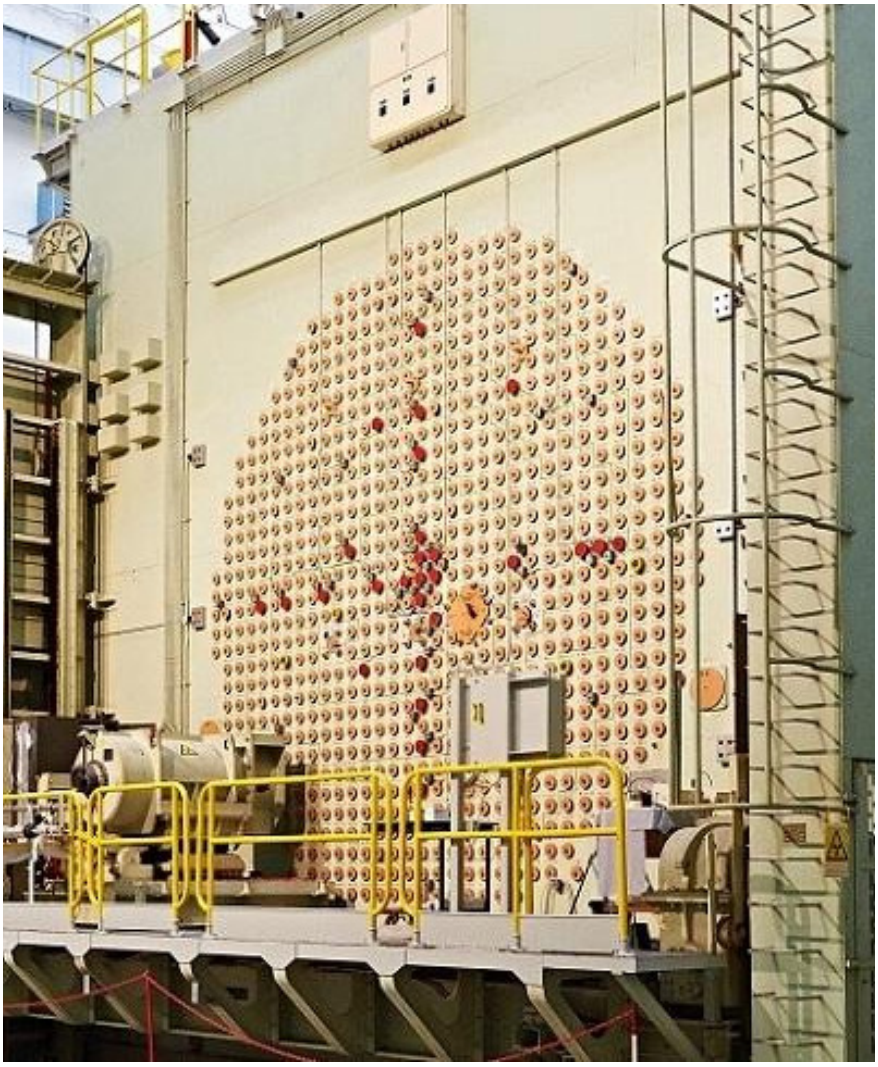
The SCK-CEN is one of the largest research institutions in Belgium, with which JRC Geel has a long-standing history of cooperation in the field of nuclear research and training for more than 60 years.

This cooperation was first formalised through a Collaboration Agreement between the JRC and SCK-CEN signed in 2016. The scope of the cooperation covers a wide range of joint activities in scientific research, education and training, among others.

The first collaboration agreement was a success, as evidenced by the amount of joint projects and scientific publications.

Based on this, the management of JRC and SCK-CEN decided to renew this collaboration in 2021 and eight new projects are covering topics such as nuclear data for Geel accelerators and for MYRRHA, measurements methods for spent nuclear fuel and radioactive waste and reference materials. The next Steering Committee meeting of the Collaboration Agreement will be held in April 2024.

Building on the cooperation between neighbours, the JRC and SCK-CEN both pursue broadening their cooperation to also involve activities at the JRC sites of Karlsruhe and Petten. This collaboration is a good example of how the JRC can, together with Member States' stakeholders, ensure a coordinated and efficient approach to nuclear research at EU level.



BR1 - Belgian Reactor 1 © SCK CEN

Unlocking the Power of Alpha Particles: JRC's Breakthroughs in Targeted Cancer Treatment

JRC initiative on medical applications of nuclear science

Stakeholders consultation workshops

Throughout 2023, the JRC has held a series of workshops on nuclear medical applications with the intent to gather stakeholders and bridge the gap between technological advances in the medical applications of radionuclides and the clinical options accessible to European patients.

This initiative first materialized on 13 February 2023 when former Commissioner Mariya Gabriel convened a European High-Level Nuclear Roundtable on Medical Applications and Research Infrastructures with stakeholders from EU Member States, the industry, the research community and associations involved with medical applications of nuclear science. The objective of this roundtable was to explore the main challenges faced by medical applications of nuclear technology, particularly focusing on two critical areas, research infrastructures and nuclear competences, and to identify the roadblocks preventing technological advances in radionuclide procedures from reaching European patients.

Following the roundtable, three stakeholders' consultation workshops were organised at different JRC research centre sites, each focusing on a specific issue of importance for the medical applications of nuclear science.

On **27 April**, the **first workshop "Translating radiotheranostic cancer research into clinical practice in Europe"** took place at **JRC Ispra**. The participants identified the obstacles blocking patients' access to radiopharmaceutical cancer treatments and discussed the needs and challenges slowing down research. The need for trained medical workforce, equipped hospitals and a continuous supply of radionuclides have been found to be essential to maintain patient access to radiotheranostic technologies.

Translating radiotheranostic cancer research into clinical practice in Europe Worshop - JRC ISPRA © EU, 2023

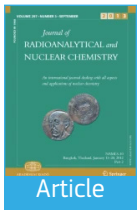
On **24 October**, the **second workshop "Competencies for Medical Applications of Nuclear Science"** took place at the **JRC Petten**, focusing on nuclear competences and skills required to sustain medical applications of nuclear science throughout their life cycle. The promotion of dialogue and collaboration among stakeholders, as well as synergies between initiatives for at EU level and across Member States were discussed. The need to perform National nuclear workforce assessment for human resources supply and to promote interdisciplinary Education & Training schemes building skills in the nuclear medical area have been identified.

Competences for Medical Applications of Nuclear Science Workshop - JRC Petten © EU, 2023

On **22 November**, the **third workshop "Research and Innovation of Sustainable Medical Radioisotope Supply in the EU"** was organised at **JRC Karlsruhe** and aimed to highlight the role of infrastructures and innovation in enabling breakthroughs in nuclear science for health applications. The workshop explored challenges in R&D for nuclear medicine and its translation into the market, with a focus on the sustainable development and supply of radiopharmaceuticals, to maintain the EU's long-term leadership in medical radionuclide supply.

Environmental Radioactivity in the European Community 2012-2014

Read | Since the 1960s, the Commission has compiled and published information on environmental radioactivity levels in EU Member States to improve the clarity of information on levels of radioactivity in the European environment by making use of standardised reporting levels. As part of its DG Energy support programme, the JRC has introduced all environmental radioactivity results received from the Member States into the Radioactivity Environmental Monitoring (REM) database.

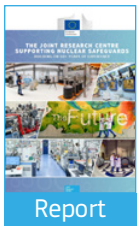


Radionuclide Metrology – Confidence in radioactivity measurements

Read | Dr. Stefaan Pommé (JRC.G.II.5 - Geel) received the 2020 Hevesy Medal Award (HMA-2020) in recognition of his worldwide leadership in radioactivity measurements at the highest level of accuracy providing absolute standards, accurate decay data, and innovative methods. Through meticulous methodology, rigorous data analysis, performance of reference measurements, technological innovation, education and training, and organisation of proficiency tests, radionuclide metrologists help the user community to achieve confidence in measurements for policy support, science, and trade.

Technical Report "Job Classification and Taxonomy in the Nuclear Sector"

Read | The European Human Resources Observatory for the Nuclear Sector (EHRO-N) has developed an EU framework for performing nuclear workforce assessments at national levels. A job classification/taxonomy is the basis for an assessment of the workforce in relation to identifying current and future needs. The work proposed here looks to cover the full nuclear sector. The objective of this report is to present a proposal to establish a harmonised and workable jobs classification, based on findings of a literature review and on ensuing discussions within the network EHRO-N.



The Joint Research Centre Supporting Nuclear Safeguards

Read | This brochure is a comprehensive detailed compilation of the JRC's technical, scientific and policy support in nuclear safeguards worldwide. Its aim is to serve as a reliable source of information for policy makers, scientists, young professionals, students and the broad public while creating awareness on the JRC longstanding support to one of its core mandates in the Euratom Treaty.

1963 - 2023 Joint Research Centre (JRC) - Nuclear Safety and Security

Read | Leaflet with fact and figures for the 60th Anniversary of JRC.G. - A key contributor to effective safety, security and safeguards for the entire nuclear fuel cycle in the EU and abroad.

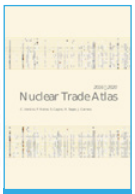
JRC MONNET - the intense fast-neutron source for fundamental and application-driven research

Read | MONNET is a fast-neutron source based on a 3.5 MV tandem accelerator, located at the Geel (Belgium) site of the JRC. It became operational in 2020. MONNET may deliver intense neutron beams in the energy range from 30 keV to 10.1 MeV and from 12.8 MeV to 24 MeV. The research program ranges from cross section measurements, nuclear fission research, material studies (e.g. radiation-induced damage), to the investigation of advanced methods in nuclear technologies, safety and security. The MONNET neutron source offers beamtime to external user within the JRC EUFRAT Open Access program.

Leaflet

JRC Nuclear Research: What for?

Read | This new JRC brochure intends to provide solutions with a positive impact on the society from a nuclear research institution, a training centre with active partnerships with national and international stakeholders in the nuclear and related fields.



Report

Nuclear Trade Atlas 2016-2020

Read | Building on prior work developing a Strategic Trade Atlas promoting understanding of global trade flows of strategic goods, a Nuclear Trade Atlas was developed based on publicly available trade data. The Atlas includes both commodity and country-based views of nuclear trade. Besides trade data, the interactive Atlas also includes data about countries' non-proliferation commitments, allowing users to take this information into consideration while analysing specific trade flows.


Report

Export Control Handbook for Chemicals (2023 edition)

Read | The Export Control Handbook for Chemicals (2023 edition) contains a list of chemicals, around 2000, subject to export controls (restrictions, or prohibitions under sanctions) because of their inclusion in various EU regulations or the Chemical Weapons Convention treaty. This 2023 edition gives a comprehensive update of the CN codes according to the last version of the Common Customs Tariff, plus new chemicals subject to controls, e.g. due to Russia Sanctions Regulation.


Report

European Commission JRC G.I.4 Task Force on Molten Salt Reactors (MSRTF)

Read | The JRC G.I.4 Unit has launched a dedicated MSR Task Force (MSRTF) on MSR safety with the goal of contributing to the implementation of the safety-by-design concept, namely the integration of safety-related activities in such a way that not only design informs safety but also safety informs design. In other words, safety is embedded from the early stages of R&D and design, i.e. safety is intrinsic to design.


Brief

Science for Policy Brief "JRC Strategy for its Nuclear Activities"

Read | This document consists of a summary for the JRC Strategy for its Nuclear Activities. The development of the Nuclear Strategy stems from the need to tailor the JRC's nuclear programme to European and global challenges as well as to accommodate the considerable reduction of the Euratom Research and Training Programme budget.

Brochure

Nuclear science and medical applications in Europe

Read | The Joint Research Centre is a pioneer in research and development of alpha emitters in oncology, supporting the development of therapies, which target specific tumour cells and address micro-metastases of various cancer types.


Brochure

Translating radiotheranostic cancer research into clinical practice in Europe

Read | The JRC of the European Commission launched in 2023 a series of stakeholder consultation workshops on the difficulties in bringing medical radionuclide innovations to routine use. A first workshop was held on 27 April 2023 at JRC Ispra site on "Translating radiotheranostic cancer research into clinical practice in Europe" in order to look into obstacles blocking patients' access to the best state-of-the-art radiopharmaceutical cancer treatments.

MARCH 20-22 2024

Brussels nuclear week

On 20-22 March, leaders from around the world will gather in Brussels at the Nuclear Energy Summit, hosted jointly by the IAEA and the Belgian Presidency of the EU Council. The aim of the Summit is to highlight the role of nuclear energy in addressing the global challenges to reduce the use of fossil fuels, enhance energy security and boost economic development. The Summit will consist of a high-level segment with heads of state and government, as well as a scientific debate with leading experts about issues ranging from new reactor technologies to hybrid energy systems integrating both nuclear power and renewable energy, and innovation throughout the entire fuel cycle and the life cycle of nuclear facilities. It will also be a venue for building closer ties between political and industry executives, which are of paramount importance for the future of nuclear power.

The JRC will contribute next to the Summit with the high level side event ***"JRC activities for a safe and secure nuclear in Europe",*** which will take place on 20 March in Brussels at the Charlemagne. The aim of the side event is to present JRC nuclear activities, as reference in nuclear energy research and development around the globe, with a focus on nuclear safety, Small Modular Reactors and with a panel on strengthening nuclear science and technology in Europe with the JRC. Participants from the EU institutions, international organisations, industry representatives and policy makers are expected to take part in the event.

On 18-19 March, a technical workshop ***"Putting science into standards - Molten Salt Reactors"*** will be also organised by the JRC in Brussels. Molten Salt Reactors (MSR) belong to a family of new and different nuclear reactors – Small Modular Reactors (SMRs), which is under development in different parts of Europe and the world. Presently, there is growing interest in potential solutions offered by SMRs at European Union and Member State level, and within EU industry and investors. Like all nuclear installations, SMRs need to apply for a license before deployment. This licensing may benefit from early integration of Safety, Security and Safeguards principles in the design.

MAY 13-17 2024

Generation IV International Forum meeting

The Generation IV International Forum (GIF) is a research and development international programme launched in 2001. It was created as a cooperative international endeavour seeking to develop the research necessary to test the feasibility and the performance of the so-called generation IV nuclear systems. These are advanced nuclear systems concepts developed to aim at eight technological goals of sustainability, economics, safety, and proliferation resistance.

On January 2006, Euratom acceded to this Framework Agreement, nominating the Joint Research Centre (JRC) as its "Implementing Agent" to carry out research in safety, and safeguards of generation IV systems. As Euratom implementing agent, the JRC will be responsible for hosting the 57th Policy Group and 51st Experts Group Meeting in Brussels, from 13 to 17 May 2024. The main objectives of this meeting will be to advance in the deployment and research of innovative nuclear systems and discuss the extension of the GIF agreement, which will be key to define the future of the GIF collaboration.

In addition, the global challenges that we are facing today have brought nuclear energy to the stage. Acknowledging that the energy mix is a national responsibility, several Member States have opted for the use of nuclear technologies for both current and advanced systems, such as the ones covered by GIF. Finally, hosting the GIF meetings in Brussels will be a very good opportunity to bring together all European countries and entities with interest in these advanced systems.

MAY 20-24 2024

International Conference on Nuclear Security: Shaping the Future, ICONS

Overview of ICONS 2024: The International Conference on Nuclear Security: Shaping the Future (ICONS 2024) is a significant global event organized by the International Atomic Energy Agency (IAEA). ICONS serves as a platform for ministers, policymakers, senior officials, and nuclear security experts to discuss the future of nuclear security worldwide. The conference aims to raise awareness about various nuclear security topics, strengthen national nuclear security regimes, and foster

international cooperation. ICONS 2024 will be held at the IAEA's headquarters in Vienna, Austria, from 20 to 24 May 2024. It comprises a ministerial segment and a scientific and technical program, addressing specialized issues related to nuclear security.

JRC's Role in Nuclear Security: The Joint Research Centre (JRC), an integral part of the European Commission, actively contributes to nuclear security efforts. JRC's expertise lies in research, analysis, and policy development related to nuclear safety and security. At ICONS 2024, the JRC will participate in high-level policy discussions, sharing insights on nuclear security advancements. JRC experts will engage in parallel technical sessions, addressing scientific, technical, legal, and regulatory aspects of nuclear security. Their contributions will contribute to inform the preparation of the IAEA's next Nuclear Security Plan for the period 2026–2029.

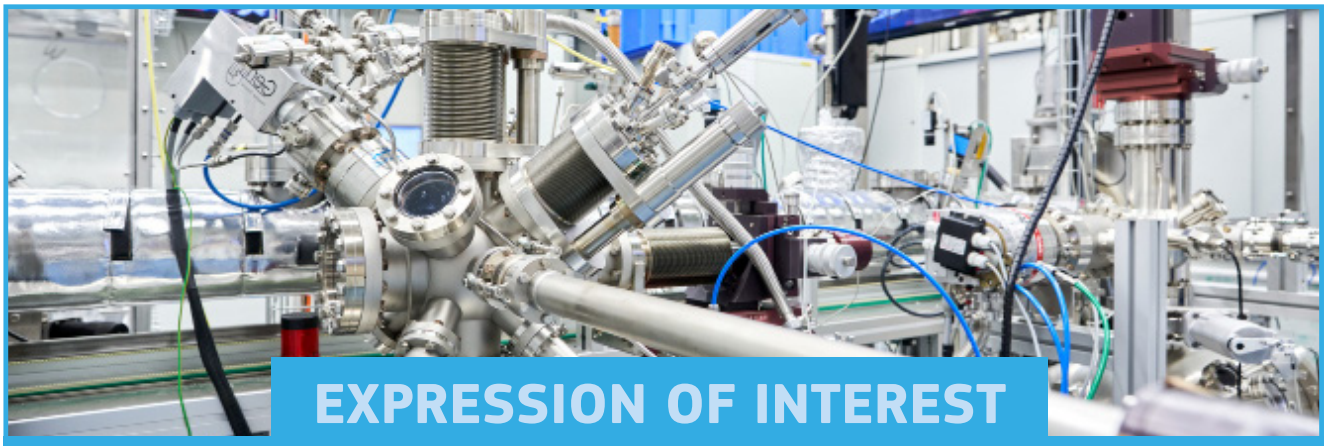
JUNE
19-20
2024

Workshop on Open Access to JRC Nuclear Research Infrastructure

A workshop on "Open Access to JRC Nuclear Research Infrastructure" will take place in Brussels on 19 and 20 June 2024. It is co-organised by the Joint Research Centre and the Directorate-General for Research and Innovation who worked together as part of a pilot project designed to streamline access to JRC's nuclear research infrastructures for the broader European Union research community.

The workshop will assess the Pilot-Project's milestones, showcasing its successful outcomes, and reflecting on the insights gained throughout its journey and the position of the JRC Open Access programme relatively to other programmes.

The objective will be to evaluate how beneficial the JRC Open Access programme has been for the Euratom research community, explore its current scope and reflect upon lessons learnt to date. The discussion will aim to highlight the synergy between direct and indirect actions of the Euratom Research and Training programme in support to training and mobility opportunities through the access to the nuclear research infrastructures. Stakeholders gathered will also exchange on the future of the programme, setting the stage for expanded collaboration, enhanced mobility, and a fortified training framework that will secure the future of nuclear competencies within the European Union.



EXPRESSION OF INTEREST

SURFACE SCIENCE LABORATORY STATION ACQUISITION

WHAT? JRC Karlsruhe has launched a call for expression of interest to acquire its cutting-edge, modular Surface Science Laboratory system (SSLS) free of charge. The **SSLS** is in use in multiple state of the art research fields such as hydrogen production, corrosion, catalysis, nuclear fuel safety, and in general solid state actinide chemistry and physics.

FOR WHO? Interested parties (university, research institute, or similar) are invited to consult the **EU eTendering platform** for specific requirements and procedure.

WHEN? Participants have until **30th April** to apply. For further details, please scan the QR code.

APPLY NOW

European Commission

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