





EUROPEAN NUCLEAR SOCIETY

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Annual Report 2024

Advancing nuclear technology through scientific excellence, independent expertise, and collaborative networks

Avenue des Arts 56 – 1000 Brussels, Belgium +32 2 505 30 50 <u>info@euronuclear.org</u> <u>www.euronuclear.org</u>

Word from the President



Dear colleagues,

As we look back on 2024, I am pleased to present the **ENS Annual Report**, which highlights how ENS has constantly reaffirmed its commitment to advancing nuclear science and technology for the benefit of society throughout the year.

In Europe, as in the rest of the world, the pivotal role of nuclear energy has been widely recognised as essential for addressing energy challenges, particularly in the context of climate change, energy security, sovereignty, and sustainable economic development. **Nuclear energy** – working in synergy with other clean energy sources – **is a key part of the solution**, and ENS has intensified its efforts to provide robust scientific evidence in all public forums.

Throughout 2024, ENS has worked tirelessly to advance scientific exchange and promote nuclear science and technology. **A series of high-profile international events**, including the RRFM, TopFuel, and PIME conferences, **have attracted remarkable levels of participation and interest** on a global scale.

Representing the European nuclear community at more than 30 highprofile events has enabled ENS to bring the voice of our **22 Member Societies** and **29 Corporate Members** to the forefront of new international initiatives, such as the inaugural IAEA Nuclear Energy Summit, the OECD-NEA Roadmaps to New Nuclear, and the European Industrial Alliance on Small Modular Reactors.

Word from the President

The **ENS High Scientific Council (HSC)** played a central role in fostering expert discussions and publishing **insightful position papers**, with two new ones on the way. Additionally, the HSC oversaw the **PhD Award**, which once again underscored academic excellence, making this year's edition a remarkable success.

Nevertheless, our efforts would be useless without a strong focus on developing and supporting a new, well-motivated nuclear workforce. The **ENS Young Generation Network (ENS-YGN)** plays a crucial role in engaging with young professionals and fostering new initiatives, including Innovation for Nuclear (I4N) and organising specialised workshops and schools for pupils, students, and early-career professionals in the nuclear sector.

The year ahead promises to be particularly exciting and eventful for ENS. It will not only mark **our 50th anniversary** but also see the first implementation of our **updated Strategy**, which has been carefully developed and finalised over the past few months, with the valued input of our Member Societies and Corporate Members.

Within this report, you will find a preview of the ambitious and dynamic programme we have planned for 2025.

We warmly invite you not only to explore it in detail but also to actively contribute to its successful realisation.

Thank you all for your support.

Warm regards,

Stephin lights

Dr. Eng. Stefano Monti ENS President



State of Society

In 2024, the European Nuclear Society (ENS), a Learned Society representing professionals in the nuclear sector, comprised **22 Member Societies** and **29 Corporate Members.**

The network continued to grow, **welcoming 2 new companies** over the year.



Activities in 2024

Advancing Scientific Exchange and Promoting Nuclear Science

ENS celebrated the success of its flagship scientific conferences: **RRFM** (21–25 April 2024, Warsaw) and **TopFuel** (29 September–3 October 2024, Grenoble). TopFuel 2024 notably exceeded attendance expectations, reflecting the strong engagement of the nuclear fuel community.

These conferences remain essential platforms for professionals, researchers, and industry leaders to exchange insights and share expertise in the fields of research reactors and nuclear fuel.



ENS also continued to highlight academic excellence through its prestigious **PhD Award**, realised under the auspices of the ENS High Scientific Council.



In **its largest edition since 2019**, the competition included candidates from 12 Member Societies. The 2024 winner, **Dr. Chiara Favaretto**, was recognised for her innovative contributions to nuclear science and medicine, with her work on terbium isotopes for clinical theragnostics.

Strengthening the Voice of the European Nuclear Community

ENS played an active role in key industry discussions, representing the European nuclear community at **over 30 high-profile events**.

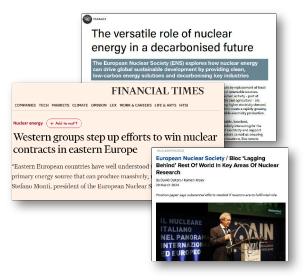
The **High Scientific Council** (HSC), ENS's scientific advisory body, published <u>two</u> <u>Position Papers</u>, providing expert insights into ongoing debates on nuclear science and technology.



ENS also contributed to policy and industry initiatives, notably joining the **European Industrial Alliance on Small Modular Reactors** (SMR IA), where it took a leadership role within one of the subgroups.

Strengthening its communication efforts, ENS expanded its reach across **social media**, its website, and its newsletter, growing its online community by nearly 20%.

Media engagement also played a significant role, with ENS members contributing to TV and press publications, ensuring a strong public presence for nuclear topics.



ENS further supported communication within the sector through training and professional exchanges. The <u>PIME</u> <u>Conference</u>, ENS's dedicated event for nuclear communicators, was successfully revived in 2024, fostering best practices and strengthening the sector's public engagement strategies.



Additionally, ENS established a **Communication Working Group**, providing members with a platform to exchange expertise and enhance their outreach skills.

<u>Supporting the Development of a Strong and Sustainable Nuclear</u> <u>Workforce</u>

ENS remained committed to contributing to the future of the nuclear sector through education and strategic initiatives, with a strong focus on youth engagement.



OECD NEA Innovation Workshop in Sofia, opening I4N Europe 2024

The ENS Young Generation Network - ENS-YGN, played a key role in fostering knowledge exchange among young professionals across Europe and promoting the peaceful uses of nuclear technology. A highlight of 2024 was the Innovation **4 Nuclear** (I4N) European annual competition, which encouraged innovation and project-based thinking among students and young professionals. Local contests were held in **eight countries**, with the selected teams presenting their creative and impactful projects at the finale in Sofia on 27 June 2024.

As an active contributor to EU youth-related projects, ENS helped organise **workshops and schools** designed for **pupils**, **students**, and **young professionals** in the nuclear field.

Cross-YGN Workshops at the 1st BSc and MSc Nuclear Competition and Summer School,

Bratislava, 1 July 2024





Cross-YGN Workshops at the ENEN PhD Award & ECMP2024,

Munich, 11 September 2024



ENS also strengthened the involvement of young professionals in the Society's scientific activities. Initiatives such as **YGN Reporter** and the **RRFM Student Competition** provided valuable opportunities for early-career researchers to connect with leading experts and present their work.

We remain dedicated to expanding opportunities for **young professionals** through meaningful partnerships with international institutions (IAEA, OECD-NEA, EU...), **access to decision-making processes**, and **support for accelerated career development**.

Raising Awareness of Nuclear Energy in Climate Discussions



For the past decade, ENS has been a strong supporter of the <u>Nuclear for Climate</u> (N4C), initiative, a grassroots movement dedicated to raising awareness among policymakers and the public about nuclear energy's role in addressing climate change. Led by youth volunteers and backed by a global network of partners, N4C continues to be a key voice in climate discussions.

In 2024, N4C actively participated in major climate events, including COP29, where it highlighted the contributions of nuclear science and technology to climate solutions and engaged in meaningful dialogue with stakeholders from around the world.

Working with our members and best practices exchange



In 2024, ENS strengthened international collaboration and the exchange of best practices in the network through its dedicated platforms.

The <u>High Scientific Council</u> (HSC) led expert discussions, published position papers, and judged the PhD Award.

The **Communication Working Group** facilitated knowledge sharing among communicators, while the **SMR Working Group** connected members focused on small modular reactors.

As an international Learned Society, ENS **takes stage at topical conferences of its Members** and **supports them by disseminating activities and opportunities.**

Partnerships

Thanks to meaningful collaborations with partner organisations, ENS can achieve its goals and support the development of the nuclear sector more effectively.

Our partners are international organisations and institutions:

In 2024, ENS continued the extension of its partnerships:

- The Memorandum of Understanding with **SNETP** aims to enhance collaboration in nuclear energy research and development.
- Joining the **European Industrial Alliance on Small Modular Reactors**, a European Commission initiative designed to support the development and deployment of small modular reactors in Europe.





<u>New ENS Strategy</u>

The end of 2024 was a time for re-evaluating the Society's Strategy, considering the needs of its Members, the latest trends in the evolving nuclear sector, and other key factors.

Set for implementation in 2025, the updated Strategy will mark a new chapter in the Society's activities.

Thank you for this year full of progress for the nuclear professional community!

2025

50th year of excellence of European nuclear network



In 2025, ENS will implement the updated Strategy of the Society, in line with its core values:

- **Scientific** membership among nuclear sector professionals, including academics, researchers, and experts.
- **Independent** being composed of volunteers who provide their independent expertise, beyond corporate influence.
- **Network** acting as an umbrella association for national networks of nuclear professionals, encouraging the networking of scientists and engineers between countries and disciplines.

To reach its goals, ENS will realize various activities – sneak peak below!

Scientific exchange and science promotion

- **<u>RRFM 2025</u>** The annual European Research Reactor Conference.
- HSC PhD Award the annual finale of PhD Awards of Member Societies, under the auspices of ENS High Scientific Council.
- **High Scientific Council Position Papers in 2025** will feature Radiopharmaceuticals, Long Term Operation, Financing Nuclear, Licensing SMR/AMR reactors and others.
- A pool of European experts in the nuclear sector ENS will create in its network a pool of experts, to support international collaboration and speaking opportunities
- European Commission's FISA-EURADWASTE 2025 ENS is a co-organiser of the European Commission's conference, as a member of the Programme Committee and taking care of the Youth programme and inclusion in the event







Youth activities

- ENYGF biennial European Nuclear Youth conference – <u>See sponsorship</u> <u>opportunities</u>
- I4N Europe European finale of youth nuclear innovation contest – <u>Contact</u> <u>us</u> for sponsorship opportunities
- Podcast '<u>Powered by Passion</u>' A new podcast series featuring a range of professions in nuclear, presenting the diversity of opportunities awaiting passionate professionals entering the sector
- Workshops, Summer Schools for students and young professionals – ENS will continue its efforts in activisation and inclusion of youth in the nuclear sector



<u>Climate activities</u>

• Nuclear for Climate and UNFCCC COP30 – ENS will support Nuclear for Climate volunteers in the awareness-raising campaign about nuclear energy and climate, as well as in participation in COP30 in Brazil

What?

Where?

Zagreb

When?

ENS

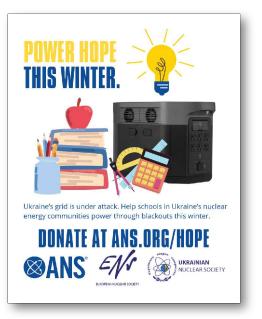
<u>Contribution to key discussions at European</u> <u>and international level</u>

- Capacity building event in the context of the Polish Presidency of the EU
 Council in Q2 2025 ENS will organize an open event in Brussels, discussing the HR development and capacity building in a newcomer country
- **Online Al event** in Q1 2025 ENS, in partnership with OECD-NEA, will discuss the challenges and opportunities brought by AI to the nuclear sector



Beyond that

- ENS 50th anniversary ENS will celebrate its 50th year of professional network in late 2025. Contact Us if you have an anniversary-related idea!
- ANS-ENS Ukrainian Nuclear Workers
 Humanitarian Fund We continue collecting
 donations to support Ukrainian nuclear
 workers and their families to stay warm this
 winter, while Ukraine's grid is constantly under
 attack.
- Best practices collection we will continue with our mission of members' exchange and collaboration. Among the topics for 2025 best practices collection is stakeholder engagement in Member Societies



And many more!

Collaboration opportunities

Contact ENS to learn more about the international opportunities for ENS Members:

- Participation in Working Groups, High Scientific Council
- PhD Award
- Promotion of Members' events and activities
- ENS participation at your conference/Annual Meeting
- Co-organisation of technical events and webinars
- Sponsorship opportunities for ENS conferences and projects
- Any other ideas?



Contact us! ENS Secretariat



Kirsten Epskamp Secretary General <u>kirsten.epskamp@euronuclear.org</u>



Jadwiga Najder Science and Outreach Manager jadwiga.najder@euronuclear.org



Mattia Baldoni Communications Officer <u>mattia.baldoni@euronuclear.org</u>

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