nuclearеurope
Supporting a sustainable future

ANNUAL REPORT 2024

TABLE OF CONTENTS

MESSAGE FROM OUR PRESIDENT

Xavier Ursat
nucleareurope President

This is my first foreword as President of nucleareurope and I would like to thank both the General Assembly and the Executive Board once again for their confidence. It is a great honour to chair the Association during such crucial and challenging times. Now more than ever, nuclear energy is expected to play a key role in responding to Europe's three main challenges ahead: climate change mitigation, energy sovereignty, and industrial competitiveness.

2024 was a year of significant changes, both for the EU as for the Association.

First, from an institutional perspective: 2024 heralded the arrival of a new EU mandate with elections in the European Parliament in June 2024 followed by a new set of Commissioners taking office at the end of the year.

Secondly, on the policy front: the challenges which the EU is currently having to confront have led the EU executive to rethink its priorities. Achieving net-zero by 2050 remains a major priority, but this should not come at the cost of its competitiveness. Access to affordable and low carbon energy will be key, and nuclear has a clear role to play. Indeed, nuclear is currently the only homegrown technology capable of ensuring energy sovereignty, achieving our decarbonisation goals and ensuring industries have access to the energy they need, when they need it. The EU is gradually starting to recognise this and as a result we are seeing a shift in policy and a greater openness towards a technology neutral approach.

For nucleareurope, on the management side, we said farewell to Yves Desbazeille. On behalf of the Association, I would like to thank him for the dedication he has shown during his leadership. We then welcomed a new Director General, Emmanuel Brutin, and I am confident that he will lead the Association, gaining in visibility and impact. He can count on the new governance recently put in place, with four new Premium Corporate Members, representing the utilities.

2025 will be challenging in many aspects and I would like to recall the main priorities that we have set together:

Accelerating decarbonisation: We need to focus on new electricity uses, and advocate for a new decarbonisation dashboard. Our focus should be on transitioning away from oil and gas towards low carbon electricity. For that to happen, we need to ensure true technology neutrality in financial tools and incentives, so that our industries can make the much need transition. In this context, it is vital that we form strong alliances with other associations, particularly those representing industries that rely on reliable, affordable, secure and firm electricity.

Developing a robust European supply chain: Across the Member States, there is renewed enthusiasm for nuclear, and this is translating into concrete plans for new nuclear projects, both large and small, regardless of the technology – as well as extending the life of the existing nuclear fleet. Industry needs to deliver. We have the skills, the expertise, and the capacity. Now, we must work together to strengthen our collective ability to deliver.

The EU is taking steps in the right direction and we, as an industry, need to continue to engage in a positive way and show that we are up to the task at hand.

I am confident that, together, we can overcome the challenges ahead.

MESSAGE FROM OUR DIRECTOR GENERAL

Emmanuel Brutin
nucleareurope Director General

The EU is facing a time of unprecedented challenges: on the geopolitical stage, in its economy, and in determining the best path to achieve its net-zero ambitions.

As highlighted in the Clean Industrial Deal, the EU needs to decarbonise its energy-intensive industries and maintain their competitiveness in Europe as a matter of urgency. In parallel, we need to rapidly electrify our society whilst keeping energy prices down. All of this combined with strengthening Europe's sovereignty – both in terms of security of supply and the ability to maintain value chains for net-zero technologies in Europe – at a time when we are confronted with seismic geopolitical changes.

Nuclear is well-placed to help address these challenges, together with other decarbonised energy sources.

In 2024, nuclear accounted for almost a quarter of all the electricity produced in the EU and was the single largest source of low-carbon electricity. Its unique characteristics – firm, dispatchable and net-zero – render it a strategic source of energy, capable of meeting the 24/7 requirements of citizens, businesses and industry. It will play a key role, together with renewables, in meeting the EU's growing electricity needs as we electrify transport and industry.

Nuclear is also key to limiting energy system costs. Whilst it does come with a high upfront cost (CAPEX), it offers significant savings in terms of low operation and maintenance costs, lower transmission and balancing costs and does not require investments in backup sources due to its high capacity factor (a

recent Compass Lexecon study commissioned by nucleareurope envisages savings of €310 billion under a 2050 150GW nuclear installed capacity scenario). It also has a very long life span of 60+ years.

Furthermore, nuclear is versatile. In some parts of Europe, local communities are already benefiting from the net-zero heat generated by nuclear power plants. Small Modular Reactors (SMR) are expected to develop this opportunity even further by offering a range of different services including electricity, heat and hydrogen, to both traditional and new customers such as data centres.

In this context, it is no wonder that nuclear is making a comeback worldwide. A recent report from the International Energy Agency estimates that 70 gigawatts of new nuclear capacity are under construction globally. In May 2023, 16 EU Member States voiced their ambition to having 150 GW of installed nuclear capacity in the EU by 2050. And a few weeks ago, 14 EU business federations launched the European Business Nuclear Alliance, stressing the key role nuclear plays in supporting industries and businesses' as they decarbonise.

The European nuclear industry is well-placed to support this planned expansion of nuclear. Indeed, nuclear is one of the few net-zero value chains which is fully based in Europe, encompassing everything from engineering and component manufacturing to construction, operation, and recycling, as well as the production of vital radioisotopes for use in medical applications.

It supports a diverse workforce of around 1 million people across the EU, ranging from construction roles to highly specialized jobs, showcasing European excellence. So yes, nuclear will make a decisive contribution – but support from policymakers is key. And, from this perspective, reaching the EU's multiple ambitions requires a change in mindset.

At a time when the world is facing a climate emergency and Europe is confronted with deep challenges on the geopolitical and economic stages, the ideological opposition between nuclear and renewables is more futile than ever. Policies must indeed focus on delivering the best possible outcomes for people, industries and the planet: maintaining a European industrial base, keeping system costs in check, electrifying as much as possible, phasing out fossil fuels and ensuring our energy sovereignty. It is not a question about 'nuclear' or 'renewables' but whether Europe will in future be able to generate enough net-zero energy to meet its needs – the reality is that we need to deploy all of these decarbonised sources as soon as possible.

In this respect, it is positive that the recently adopted Clean Industrial Deal and Affordable Energy Action Plan recognise the key role played by all sources of clean energy. Moving ahead, nucleareurope looks forward to discussing the many files which are critical for the sector. The follow-up of the Clean Industrial Deal, the EU Nuclear Illustrative Programme (PINC), the European Industrial Alliance on SMRs, financing and the taxonomy, skills, and the 2040 climate targets are all essential pieces of the puzzle which will support a strong nuclear value chain.

We look forward to making a strong contribution to these debates.

THE VOICE OF THE EUROPEAN NUCLEAR INDUSTRY

Who we are

nucleareurope is the Brussels-based trade association for the nuclear industry in Europe. It acts as the voice of the European nuclear industry in policy discussions with EU institutions and other key stakeholders.

The nuclear industry can only interact with international institutions and its representatives if the bridge between us and them is kept permanently open and continuously serves as a two-way channel for ideas, opinions and open debate. Continuous representation is crucial to nucleareurope maintaining its status as a constructive and proactive dialogue partner for EU policymakers

What we do

nucleareurope provides information and expertise on the role of nuclear. We engage proactively at EU level on key nuclear matters by producing position papers, statements, newsfeeds, infographics, responses to public consultations and analyses of EU proposals and public opinion. We organise regular networking events such as dinner debates, workshops, one-to-one meetings, press briefings and visits to nuclear facilities.

Some of the key topics we deal with include security of energy supplies, sustainability, competitiveness, economics of nuclear, enabling factors for new nuclear projects, Innovation Research & Development (IR&D), EURATOM Treaty, and public opinion.

Our members

The membership of nucleareurope is made up of 15 national nuclear associations – active across Europe – and the companies that they represent, and 16 Corporate Members. Nearly 3,000 firms are represented, from Europe's (and the world's) largest nuclear utilities and nuclear fuel cycle companies, to other undertakings engaged in the transport of nuclear materials and the management of radioactive waste:

- Nuclear utilities
- Engineering companies
- Plant decommissioning companies
- Lawyers, consulting, insurance and service companies
- Uranium mining, milling and enrichment companies
- Nuclear fuel fabricators
- Spent nuclear fuel reprocessing companies
- Nuclear transporters
- Reactor and component vendors
- Waste management companies

Members

- Belgian Nuclear Forum
- Bulgarian Atomic Forum
- Finnish Energy Industries
- French Atomic Industrial Forum
- Hungarian Nuclear Forum
- Italian Nuclear Association
- Nucleair Nederland
- Nuclear Industry Association UK
- Romanian Atomic Forum
- Slovak Nuclear Forum
- Slovenian Nuclear Forum
- Spanish Nuclear Industry Forum
- Swedish Atomic Forum
- Swiss Nuclear Forum
- Ukrainian Nuclear Forum Association

Premium Corporate members

CEZ (Czech Republic), EDF (France), Fortum (Finland), Vattenfall (Sweden).

Regular Corporate members

Enusa (Spain), Fermi Energia (Estonia), Hexana (France), KGHM (Poland), NAAREA (France), Newcleo (Italy), Nuvia (France), OSGE (Poland), PEJ (Poland), Rolls-Royce SMR (UK), Urenco (Global), Walter Tosto (Italy).

The Executive Board

The Executive Officers are appointed by the General Assembly for a period of two years:

- Ad Louter, Nucleair Nederland, The Netherlands
- Bohdan Zronek, CEZ, Czech Republic
- Corina Truica, Romatom, Romania
- Csaba Kiss, Hungarian Nuclear Forum, Hungary
- Daniel Nordgren, Vattenfall, Sweden
- Hans-Ulrich Bigler, Swiss Nuclear Forum, Switzerland
- Ignacio Araluce, FINE, Spain
- Jaana Isotalo, ET, Finland (Vice President)
- Johan Lundberg, Nuclear Sweden, Sweden
- Petra Lundström, Fortum, Finland
- Xavier Ursat, EDF, France (President)

Meet the team

Emmanuel Brutin
Director General

Guilherme Cardoso
Nuclear Technology Advisor

Ursula Cartula Rodriguez
Legal Advisor

Danielle de Crombrugghe-L.
Support Team Manager

Graziella De Riddere
IT Manager

Mathieu Didry
Communications Officer

Nathalie Foriers
Assistant

Muriel Glibert
ENISS Manager

Andrei Goicea
Policy Director

Jessica Johnson
Communications & Advocacy Director

Berta Picamal
DG Office, Legal & Intl Relations Director

William Ranval
ENISS Director

Aude Van Hille
Reception Assistant

POLICY FOCUS

2024 heralded the arrival of a new EU mandate, with European Parliament elections held just before the summer and a new European Commission taking office at the end of the year. Throughout the process, nucleareurope engaged with stakeholders – particularly the Members of the European Parliament – in order to share its priorities for the next mandate and proposals to help the EU tackle the challenges it is facing in terms of security of supply, access to affordable energy, industrial competitiveness, and reducing emissions.

In terms of defining the key policies for nucleareurope, we worked together with our members at the end of 2024 to identify those areas which we should prioritise going forward. These include

- Ensuring a technology neutral approach to policy.
- Pushing for greater electrification and lower taxes on energy.
- Strengthening the financing conditions for nuclear (including access to EU funds and financing mechanisms).
- Level playing field for hydrogen produced from nuclear.
- Tackling skill shortages.
- Increase in Euratom budget for fission activities.

European Green Deal Industrial Plan

In February 2023, the European Commission published its 'Green Deal Industrial Plan' which aims to support the deployment of European clean technology manufacturing capacity. The Communication covers four pillars, namely a predictable and simplified regulatory framework, faster access to funding, enhanced skills and open trade for resilient supply chains. The primary focus for nucleareurope under this package was the Net-Zero Industry Act (NZIA) and the review of the Electricity Market Design (EMD).

Starting with the EMD reform, the text agreed in Trilogue at the end of 2023 was formally adopted by both the European Parliament and the Council during the first half of 2024. It includes the possibility of using Contracts for Difference (CfDs) as a form of State Aid for certain technologies, including new nuclear projects, as advocated for by nucleareurope.

In terms of the NZIA, the text was also agreed in Trilogue at the start of 2024 and formally adopted in H1 2024. Here again, further to advocacy actions by nucleareurope, the technologies listed under the NZIA include all nuclear technologies, both fission and fusion as well as the fuel cycle.

Sustainability

Over the course of 2024, nucleareurope continued to advocate in favour of the inclusion of the nuclear fuel cycle as an enabling activity under the Sustainable Finance Taxonomy, highlighting that this will help ramp up manufacturing capacity in Europe in order to reduce dependence on countries such as Russia.

Furthermore, the association continued to call on the European Commission to remove – as part of its review process – the automatic exclusion of nuclear from several EU funds. Work also began on preparing for the next Multiannual Financial Framework (MFF) and the issue of nuclear financing more broadly via the creation of a dedicated ad hoc group.

With regards to the Per- and polyfluoroalkyl substances (PFAS) issue, nucleareurope remains a member of the Fluoro Products and PFAS for Europe (FPP4EU) collaboration platform. In 2024, nucleareurope co-signed a statement by Eurelectric calling on the European Commission to:

- Acknowledge that certain PFAS uses in the power sector are essential for society and no viable alternatives are yet available at scale.
- Assess the capacity of the industry to provide alternatives and the associated delays.
- Apply circular economy principles by allowing for the repair and maintenance of the assets already in place.

At the time of writing, ECHA (European Chemicals Agency) continues to review the very high number of requests for derogations and exceptions received and will at some point present its recommendations to the Commission.

Small Modular Reactors

On 6 February 2024, the European Industrial Alliance on SMRs was formally announced as part of the Communication on "Europe's 2040 climate target and path to climate neutrality by 2050 building a sustainable, just and prosperous society". In this respect the alliance is led by three entities: the European Commission, nucleareurope and SNTEP. Shortly after its launch, a first call for membership was issued. The Alliance also organised a series of events in 2024, including webinars and a dissemination event with nearly 500 participants (in person and online). Furthermore, 8 Technical Working Groups were established, tackling:

- Industrial Applications
- Technology, Research, Development and Innovation
- Supply Chain
- Skills
- Public Engagement
- Nuclear Safety and Safeguards
- Fuel Cycle and Waste Management
- Financing

In June, the Alliance launched a call for SMR projects wishing to be considered by the Alliance's Project Working Groups (PWGs), with a first group of nine SMR projects selected in October. By the end of 2024, the Alliance had nearly 350 members.

Hydrogen

In May 2024 nucleareurope released a position paper entitled "EU-based hydrogen production: the key to energy sovereignty and industrial competitiveness". The paper outlines the benefits which EU-based hydrogen production can bring in terms of energy sovereignty and industrial competitiveness. In addition, the paper puts forward a series of recommendations for policymakers highlighting what needs to be done to support the production of clean hydrogen in the EU. Furthermore, a webinar relating to the production of hydrogen via nuclear power was also organised, focusing on current projects and the importance of EU domestic hydrogen.

From a policy perspective, nucleareurope focused on the Low-Carbon Fuels Delegated Act, a draft of which was leaked in H2 2024 according to which only hydrogen produced from renewables would be eligible for Power Purchase Agreements (PPAs). In this respect, nucleareurope advocated in favour of extending the use of such PPAs to hydrogen produced from nuclear as well, in line with the principle of technology neutrality. The draft Delegated Act is expected to be published in 2025.

nucleareurope also participated in several external groups dedicated to hydrogen as follows:

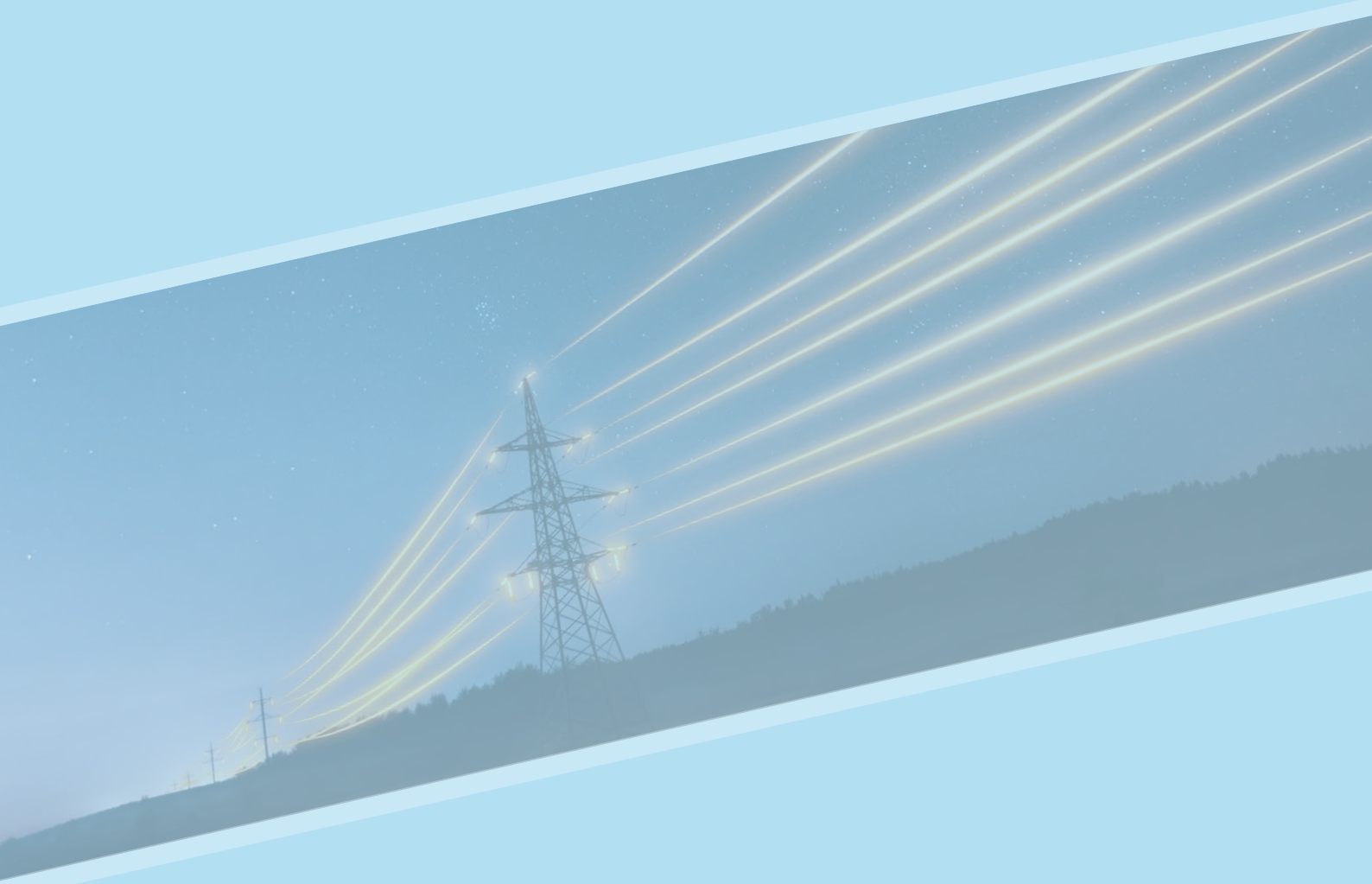
- European Clean Hydrogen Alliance (ECH2A): nucleareurope is member of ECH2A and participates in one of the 6 roundtables dedicated to hydrogen production.
- IEA Hydrogen from Nuclear Energy Task (HyNE): nucleareurope is a member of the International Energy Agency's task studying the production of hydrogen from nuclear power.

Investors Dialogue on Energy

The Investors Dialogue on Energy (ID-E) is an initiative launched by the European Commission in the context of the European Green Deal and Fit for 55 Package. It brings together experts from the energy industry and financial sector and is composed of five Working Groups (WG) as follows:

- WG 1: Energy production
- WG 2: Transmission and distribution
- WG 3: Energy storage
- WG 4: Heating and cooling
- WG 5: Services and prosumers

nucleareurope is a member of WG 1. Over the course of 2024 a series of cross-WG meetings were held to discuss, for example, LIFE clean energy, InvestEU and CEF energy. Furthermore, nucleareurope participated in a WG1 meeting dedicated to hydrogen production.



EU FUNDED PROJECTS

nucleareurope is involved in a series of projects and partnerships, some of which are funded by the EU. Regarding EU funds, is the EU's key funding programme for research and innovation. It tackles climate change, helps to achieve the UN's Sustainable Development Goals and boosts the EU's competitiveness and growth. The total budget of Horizon Europe is €95.5 billion. Around €1.38 billion of this is dedicated to EU-funded research on nuclear issues, under the Euratom Treaty (Euratom Research and Training Programme). The share of this allocated to nuclear fission and radioprotection indirect actions, i.e. open to nuclear industry participation, is €288 million. The Euratom programme runs from 1 January 2021 – 31 December 2025.

Below is an overview of some of the EU funded projects in which nucleareurope is involved.

ENEN2plus (Building European Nuclear Competence through continuous Advanced and Structured Education and Training Actions): Launched in June 2022, this four-year project focuses on nuclear Education and Training. It aims to attract more people to nuclear through E&T, cross-cultural and cross-disciplinary. For example, it will organise career-related events and competitions and enable a strong mobility programme. nucleareurope is involved in this project in several areas:

- Task lead in the Work Package dedicated to identifying future human resource needs and potential skill gaps (WP1 Task 1.1).
- Supporting and promoting relevant events and competitions.
- Identify a sustainable way of financing the continuation of the mobility programme.

NPHyCo (Nuclear Powered Hydrogen Cogeneration): Launched in October 2022, this two- and half-year project focuses on the potential for developing large scale, low-carbon, hydrogen production facilities linked to nuclear power plants. It will start by assessing the feasibility of producing hydrogen near an existing nuclear power plant as well as the added value of such project. Furthermore, it will look at potential locations where a pilot project could be implemented. nucleareurope is involved in this project in several areas:

- Leader of the Work Package dedicated to communication and dissemination activities. We are working with the project partners (and the nucleareurope Communications & Advocacy Committee) on this. So far, several communication tools have been produced, including a logo and a dedicated website.
- Contributor to the task on "Establishing a frame of reference for the project", defining the EU hydrogen market.

Over the course of 2024, nucleareurope was actively involved in promoting the results of the project through regular news articles and the organisation of a series of webinars. In addition, nucleareurope also worked on identifying what the public thinks about the potential of coupling an existing nuclear power plant with a hydrogen production facility through an online public acceptance survey Furthermore, the final project conference, took place in February 2025.

SNETPForward (Sustainable Nuclear Energy Technology Platform): The aim of SNETPFORWARD project is to help the association in consolidating its structure, strengthening its position in the Set-plan and among the European ETIPs, enhancing its ability to interact with the European and international associations and organisation and last, but not least ,to be engaged in the innovation world by boosting the innovation capacities of its members. nucleareurope is involved in the work packages dealing with "Strengthening interactions with European & international stakeholders" and the one on specific studies that will support the nuclear research developments at EU level.

TANDEM (Small Modular ReacTor for a European sAfe aNd Decarbonized Energy Mix): Launched in September 2022, this three-year project focuses on the integration of Small Modular Reactors within hybrid energy systems to provide not only electricity but also heat and hydrogen. nucleareurope is involved in this project in several areas:

- Leader of the Work Package dedicated to communication and dissemination activities. We will be working with the project partners (and the nucleareurope Communications & Advocacy Committee) on this. So far, several communication tools have been produced, including a logo and a dedicated website.
- Leader of the task on "Analysis of the future European energy scenarios" and the deliverable on "Analysis of the key features of the future EU energy market and associated regional/national landscapes". The outcomes of this task will include proposed scenarios for energy markets, highlighting SMR developments.
- Leader of the task on "Context and targets of hybrid system techno-economic optimization" that will refine the context and targets for hybrid system techno-analysis
- Involvement in the Work Package dedicated to skills and education of relevance to SMRs.

Nucleareurope continued to actively promote the work of this project via the website and linkedIn channels. Furthermore, the association was engaged in developing recommendations for engagement with the public – in particular in local communities where an SMR could potentially be envisaged. nucleareurope also started to prepare for the final project conference to be held on 2 July 2025 in Brussels.

Upcoming Skills4Nuclear project: In 2024, nucleareurope was instrumental in setting up a consortium and preparing a project proposal in order to respond to a Euratom call for the development of a European nuclear skills strategy. In November, the European Commission confirmed that the consortium had been selected. In this respect, nucleareurope will be responsible for all communications and dissemination activities as well as for developing a strategy for attracting more people into the sector. Furthermore, we will support work relating to financing and the development of the full strategy. The project was kicked-off in Q1 2025.

More information about the EU projects in which nucleareurope is involved can be found here.

EUROPEAN NUCLEAR INSTALLATIONS SAFETY STANDARDS (ENISS)

ENISS represents the nuclear utilities and operating companies from 14 European countries with nuclear plants. ENISS provides the nuclear installations and license holders with the platform that they need to exchange information on new national and European regulatory activities, to express their views and provide expert input on all aspects related to the harmonization of safety standards. ENISS is the common channel through which the European nuclear installation licensees interact with the Western European Nuclear Regulators' Association (WENRA), the European Institutions and the International Atomic Energy Agency (IAEA).

Although ENISS is hosted by nuclearеurope, it enjoys full autonomy as regards its strategy and priorities, which are discussed, approved and reviewed by its own supervisory bodies.

Western European Nuclear Regulators Association (WENRA)

WENRA intends to publish by the end of 2025 a revision of a limited number of the Safety Reference Levels (SRLs). The WENRA Reactor Harmonisation Working Group (RHWG) has completed its review of the existing SRLs, aimed at identifying gaps and areas requiring revision.

ENISS had been invited to provide comments, suggestions for improvement and feedback based on the experience gained in implementing the WENRA SRLs. Comments and suggestions for change were put forward and discussed with WENRA / RHWG.

WENRA issued in January 2024 revised versions of its reports on SRLs for waste storage and decommissioning. The new versions include updates on the benchmarking of national regulatory frameworks, building on assessments conducted in previous reports. ENISS supplied WENRA Working Group on Waste & Decommissioning (WGWD) with some suggestions which WENRA may wish to consider in its future revision of the SRLs.

At the WENRA November plenary meeting, a proposal for the revision of the Safety Objectives for new Nuclear Power Plants to include SMRs was discussed. However, further work is required before reaching an agreement. A report outlining principles for members to consider when reviewing submissions requesting Long-Term Operation (LTO) or Long-Term Extension (LTE) is expected to be finalized in the coming months. Additionally, a report on the use of Industrial Grade Items (HQIG dedication) including good practices, is scheduled for release in 2025.

European Nuclear Safety Regulators Group (ENSREG)

At its last meeting which took place on 20 November 2023, ENSREG appointed Juan Carlos Lentijo, president of the Spanish Nuclear Safety Council, to chair the group from January 2024. He succeeds Marta Žiaková, the head of the Slovak regulatory body, who has been serving as Chairperson since March 2019.

The first phase of the second Topical Peer Review (TPR 2) covering fire protection at nuclear installations (which involves national self-assessments) has now been completed. Participating countries from 18 EU Member States and 4 outside the EU prepared National Assessment Reports (NAR) according to the structure defined in the Technical Specification (TS). The next stage of TPR 2 will involve ENSREG's public consultation and expert peer reviews of the national reports.

European Industrial Alliance for SMRs

ENISS is a member of the European Industrial Alliance for SMRs and in 2024 participated in the work of the TWG6 on safety and safeguards, in particular with respect to the TWG6 work plan.

European Commission

The European Commission awarded a contract to NINE (Nuclear and INdustrial Engineering S.R.L.) and Platom Oy, to analyse the EU Member State implementation approaches in the following three areas of the Nuclear Safety Directive (NSD): independence of the regulatory body, application of the nuclear safety objective and safety culture. This study follows the publication of the 2nd Commission Progress Report on the progress made by the EU Member States with the implementation of the amended Nuclear Safety Directive.

ENISS, as a stakeholder, provided comments on the consultant draft reports which are expected to be finalised in 2025. ENSREG will also be asked to contribute to the review. The use of these reports by the European Commission is still to be defined.

International Atomic Energy Agency (IAEA)

ENISS provided comments throughout the year to the IAEA Draft Safety Requirements and Safety Guides, addressing the most important issues, namely nuclear power plant design and operation, management systems, safety assessment, waste management, decommissioning and radiation protection. ENISS furthermore provided the IAEA with assistance in the technical/consultancy groups and participated, as an observer, in the Agency's Safety Standards Committees (SSCs). In this latter frame ENISS contributed to the discussions on the mid- and long-term plans.

International Commission on Radiological Protection (ICRP)

The ICRP is currently reviewing its system of radiation protection. The intended aim is to approve, by ca. 2030, a new set of fundamental recommendations on radiological protection. Liaison organisations, including ENISS, have the opportunity to express their views on several occasions.

Some senior representatives of organisations in formal relations with ICRP (SLOs) launched an initiative of developing a position paper in support of the ICRP (Vancouver) call for action to strengthen expertise in radiological protection worldwide, announced at the 2022 ICRP Symposium. ENISS agreed to join the SLO initiative and signed the position paper. Around 30 organisations have joined the SLO initiative, including the IAEA, IRPA, HERCA and WNA.

ENISS participated in the meeting of Senior Representatives of Organisations in Formal Relations with ICRP (SLO) which took place in Munich, Germany, on 10 September 2024. ENISS presented a report outlining the key issues that should be addressed and considered as part of the ICRP's review of the system of radiological protection and provided a summary of the ENISS members' initiatives in response to the Vancouver Call for action.

In early March, the ICRP announced its strategic priorities for 2024–2028, focusing on maintaining an effective radiological protection system, enhancing engagement with key stakeholders, and ensuring strong governance and forward-looking organizational practices.

ENISS prepared a response to share its insights, expertise, and best practices, aimed at supporting the ICRP in achieving its strategic priorities.

Position Papers/Benchmarks

ENISS produced a position paper on de-licensing and site release published on the ENISS website in February 2024. This position paper promotes, among other things, the use of a graded approach to regulation and flexibility and adaptability with respect to anticipated end states. This paper was presented at several conferences with stakeholder participation.

In addition to position papers, ENISS also prepares internal studies and conducts benchmark studies on technical issues of common interest to its members. For instance, ENISS has produced an internal report presenting examples of Integrated Risk Informed Decision Making (IRIDM) applications and developed a guidance to support the evaluation and development of IRIDM approaches within ENISS members' organisations.

ENISS has also actively addressed climate change impact issues by benchmarking key topics. These include comparing climate change considerations in the siting and design processes, applied reference scenarios and climate models, practices for qualifying instrumentation and control (I&C) systems for high air temperatures and methodologies used in measuring in-room and in-cabinet temperatures.

COMMUNICATIONS & ADVOCACY

nucleareurope continued to use a broad range of communication tools, including one-to-one meetings, webinars, press releases, position papers, and social media, reiterating the point that nuclear is a low-carbon, dispatchable source of electricity which ensures security of energy supplies and provides a significant number of jobs and strong economic contribution. At the same time, the energy crisis, which has been gradually escalating over recent years, combined with the situation in Ukraine, has led to a change in conversation about nuclear in Europe. Given this, nuclear communications experts have been assessing key priorities for Europe's citizens to ensure that our messaging is in line with the ongoing conversations.

Below is a summary of some of the key communications actions undertaken over the past year.

Events

On 16 &17 January 2024 nucleareurope organised a Nuclear Communicators Workshop for its members. This workshop focused on several key topics including how the political landscape is changing and the importance of advocacy & communications. It enabled a discussion on how to change the way in which we communicate, with NucNet providing insights into the needs of the media. Furthermore, participants took part in a Crisis Communications Training Session, run by the Dalton Nuclear Institute. Breakout sessions were also included to brainstorm around key communication topics: SMRs, Hydrogen and attractiveness.

On 27 April 2024, nucleareurope – together with our Italian member AIN (Italian Nuclear Association) -organised an event entitled 'Stakeholders' cooperation for accelerated sustainable nuclear deployment'. This event was held in Turin (Italy) under the umbrella of Planet Week ahead of the G7 meeting. The event kicked off with keynote interventions by Italian Minister Gilberto Pichetto Fratin, Ministry of Environment and Security of Energy Supply and Dario Liguti, Director, Sustainable Energy at the United Nations Economic Commission for Europe. In addition, three panel sessions delved into topics including the policies needed to facilitate the deployment of nuclear technologies, the role of nuclear in meeting energy demand and finally the nuclear workforce.

On 2 May 2024, nucleareurope jointly organised a webinar with SFEN dedicated to nuclear and the upcoming EU elections. Yves Desbazeille provided participants with an overview of the challenges Europe is facing and what the EU's policy focus has been up until now. In addition, he shared insights into how opinions towards nuclear are changing across the region and how this has influenced policy. He then focused on the upcoming European Parliament elections and the arrival of a new Commission later this year, and what could be the potential priorities during the next mandate.

- On 30 May 2024, nucleareurope organised a webinar entitled Hydrogen from Nuclear Power: Spotlight on EU-Based Hydrogen Production. This webinar provided nucleareurope with the opportunity to share its thoughts on EU-based hydrogen production following on from the publication of a position paper dedicated to this topic earlier in the month. In addition, speakers shared insights into industrial use cases, and the production of hydrogen using nuclear electricity and heat and solid oxide electrolyser cell (SOEC) technologies.
- On 13 June 2024, nucleareurope organised a high-level dinner for members in Prague (Czech Republic) which was kindly sponsored and hosted by CEZ. This event brought together senior representatives from the European nuclear industry in order to discuss latest developments and identify priorities for the next EU mandate.
- On 8 November 2024 nucleareurope organised a webinar on the recent Compass Lexecon "Pathways to 2050: the role of nuclear in a low-carbon Europe" report, commissioned by nucleareurope. Speakers from nucleareurope, Compass Lexecon and industry stakeholders discussed the key takeaways from the report, and its potential impact on European energy policy.
- From 10-12 December 2024 the18th Edition of the nucleareurope–IAEA Joint Event on Management was held at the IAEA premises in Vienna, Austria.
- On 17 December 2024 nucleareurope organised its annual end of year workshop in Brussels, which was kindly sponsored by MVM. The event gathered industry leaders, policy makers and investors to discuss nuclear financing and the business case for nuclear.

nucleareurope continued to work with its sister organisations in order to increase visibility of the nuclear sector at COP29, which was held at the end of the year in Baku, Azerbaijan by promoting the activities undertaken and participating online to relevant events.

Outreach to the European Parliament

nucleareurope continued to reach out to Members of the European Parliament on key files of importance to the sector. Contacts were primarily maintained with the Committee on Industry, Research and Energy (ITRE) and the Committee on the Environment, Public Health and Food Safety (ENVI). nucleareurope also participated in several European Energy Forum debates in order to intervene during the discussions regarding the contribution of nuclear to, for example, achieving the 2050 decarbonisation targets and ensuring security of energy supplies.

More specifically, the first half of 2024 was dedicated to preparing for the European Parliament elections scheduled for early June 2024. After the elections, nucleareurope then reached out to MEPs – particularly those new to the Parliament – with the goal of presenting the association and highlighting our key priorities.

nucleareurope in the news

Below is an overview of some of the traditional tools which nucleareurope continued to make use of in order to support the association's advocacy goals.

Energy Intelligence

EU: More Nuclear Concessions From New Commission?

Fri, Aug 30, 2024

Author: Grace Symes, London

Editor: Phil Chaffee

The nuclear industry and pro-nuclear countries won significant victories during the tenure of the last EU government, but are still pushing for more as the EU forms its next government. Nuclear energy advocates are hoping a potentially more pro-nuclear government can help push through further advances for nuclear, in particular on the financing front.

THE EPOCH TIMES

WORLD NEWS

EU Signals Rekindled Interest in Nuclear Power

Amid energy security concerns, a pro-nuclear coalition in the European Union is pushing for nuclear energy's revival.

By Owen Evans
10/29/2024

EURACTIV

Vox pop: What Brussels energy players think about the Energy Union

Yves Desbazeille, Director General at nucleareurope who said that the EU "should focus on priorities rather than technologies" in a nod to the resurgence of the 'technology neutrality' principle in political debate.

L'EXPRESS.fr

Climat et transitions

28/10/2024
Sébastien Julian

Nucléaire : l'Allemagne a tourné le dos à l'atome... mais jusqu'à quand ?

Les débats sur le coût lié à l'abandon de cette filière restent vifs outre-Rhin. Pourtant, une relance de l'atome semble exclue à court terme.

"Avec le nucléaire, l'Allemagne aurait bénéficié de prix de l'électricité bien moins élevés, assure Yves Desbazeille, directeur général de Nucleareurope

10 años | periódico energía

Los beneficios de aumentar la nuclear a 150 GW en Europa: reduce las emisiones, asegura el suministro y baja el precio

Un reciente informe de Compass Lexecon concluye que la energía nuclear demuestra cómo puede ayudar a garantizar una combinación energética descarbonizada, creíble, segura y rentable

Ramón Roca

22/10/2024

nucleareurope views

Nuclear Industry Manifesto 2024

Prague, 13 June 2024

In light of climate change and current geopolitical risks, the European Union is committed to providing secure and affordable energy for its competitive industry and all citizens. Nuclear energy, accounting for almost one quarter of the electricity produced in the EU and representing 50% of the low-carbon electricity, plays a crucial role in responding to these urgent needs.

In recent months, numerous initiatives have emerged to underscore the pivotal role of nuclear energy in the EU's decarbonisation efforts. The Net Zero Industry Act (NZIA) serves as a prime example. The NZIA acknowledges the potential of nuclear power to drive the EU towards a carbon-neutral future and establishes a comprehensive legislative framework designed to promote the development and deployment of net-zero technologies.

The Nuclear Alliance of the EU Member States who have committed to expanding their use of nuclear energy has recognised that nuclear could provide up to 150 GW of electricity capacity by 2050 in the EU compared to the approximately 100 GW of today. This commitment aligns with the Net Zero Nuclear initiative, launched in November 2023 during COP28, that aims to triple the world's nuclear energy capacity by 2050.

More recently, this support for the sector has also been echoed by the European Commission during the Nuclear Energy Summit in March 2024, and with the launch of the European Industrial Alliance for Small Modular Reactors (SMRs) as well as by the European Parliament's adoption of an Own Initiative Report on SMRs.

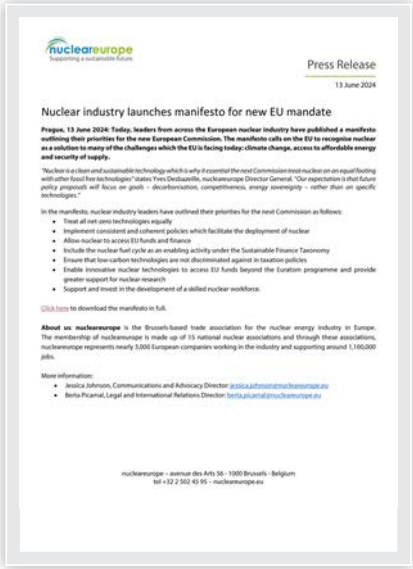
We have to build on this acknowledgement.

We, the nuclear industry representatives, recall the urgent need for action. For the EU to achieve a net-zero future for our society, it is imperative to fully support the pivotal role of nuclear energy alongside renewable energy sources.

We encourage European Institutions to develop an ambitious strategy to accelerate the decarbonisation and electrification of Europe's industry. This strategy should acknowledge the significant role that nuclear energy plays in enhancing the EU's strategic autonomy.

To this end, we call on policymakers to:

- Ensure consistent and coherent long-term policies to facilitate the lifetime extension of the existing fleet and the deployment of new nuclear capacities, including large scale reactors, SMR and innovative technologies such as the Advanced Modular Reactors (AMR) and the development of the nuclear fuel supply chain. SMR projects identified in the European Industrial Alliance on SMRs should be supported to accelerate their deployment and to significantly contribute towards achieving the 2040 climate objective.



nucleareurope
Supporting a sustainable future

Press Release

13 June 2024

Nuclear industry launches manifesto for new EU mandate

Prague, 13 June 2024: Today, leaders from across the European nuclear industry have published a manifesto outlining their priorities for the new European Commission. The manifesto calls on the EU to recognise nuclear as a solution to many of the challenges which the EU is facing today: climate change, access to affordable energy and security of supply.

"Nuclear is a clean and sustainable technology which is why it is essential the next Commission treat nuclear on an equal footing with other fossil free technologies" states Yves Desbazeille, nucleareurope Director General. *"Our expectation is that future policy proposals will focus on goals – decarbonisation, competitiveness, energy sovereignty – rather than on specific technologies."*

In the manifesto, nuclear industry leaders have outlined their priorities for the next Commission as follows:

- Treat all net-zero technologies equally
- Implement consistent and coherent policies which facilitate the deployment of nuclear
- Allow nuclear to access EU funds and finance
- Include the nuclear fuel cycle as an enabling activity under the Sustainable Finance Taxonomy
- Ensure that low-carbon technologies are not discriminated against in taxation policies
- Enable innovative nuclear technologies to access EU funds beyond the Euratom programme and provide greater support for nuclear research
- Support and invest in the development of a skilled nuclear workforce.

Click here to download the manifesto in full.

About us: nucleareurope is the Brussels-based trade association for the nuclear energy industry in Europe. The membership of nucleareurope is made up of 15 national nuclear associations and through these associations, nucleareurope represents nearly 3,000 European companies working in the industry and supporting around 1,100,000 jobs.

More information:

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nucleareurope
Supporting a sustainable future

Press Release

9 September 2024

Nuclear key to Europe's competitiveness

Brussels, 9 September 2024: Published today, Mario Draghi's report on The Future of Europe's competitiveness makes clear that nuclear is an essential component of the energy mix. According to the report, technology-neutrality and leveraging all available solutions such as nuclear will accelerate decarbonisation in a cost-efficient way.

"The report highlights the key role of nuclear in helping decarbonise the economy and achieve security of supply in a cost-efficient way" states Yves Desbazeille, nucleareurope Director General.

According to the report, the use of long-term solutions such as Power Purchase Agreements (PPAs) and Contracts for Difference (CfDs) can decouple the remuneration of nuclear and renewables from fossil fuel generation and protect end users from more volatile fossil fuel prices. It also underlines the importance of technology neutrality and the need to massively mobilise both public and private finance.

The in-depth analysis which accompanies this report also underlines the importance of 'new nuclear' in terms of ensuring reliable supply and promoting "the EU's leadership in the nuclear industry". This is reflected in the recommendations for the electricity sector (Figure 15), which state: "Maintain nuclear supply and accelerate the development of 'new nuclear' (including the domestic supply chain)."

"We fully support the conclusions of the report which are in-line with our manifesto issued in June. We therefore encourage the next European Commission to take these proposals on board with the goal of strengthening Europe's competitiveness".

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nucleareurope
Supporting a sustainable future

Press Release

27 November 2024

Nucleareurope welcomes new Commission, insists on technology neutrality in upcoming mandate

Brussels, 27 November 2024: Nucleareurope welcomes the approval of the new College of Commissioners by the European Parliament, thus enabling the next EU mandate to commence. Europe is facing a series of significant challenges – energy security, affordability and climate change – which require urgent attention. The approval of the EC paves the way for the EU to move ahead with a strong - and technology neutral - policy framework capable of overcoming these challenges.

"Over recent years we have witnessed a shift in how policymakers view nuclear. Many now recognise the indispensable role which this European technology can play in ensuring energy sovereignty – and therefore security of supply – as well as in terms of decarbonising Europe's economy" highlights Yves Desbazeille, nucleareurope Director General. *"Already during the previous mandate positive steps were taken in support of nuclear, such as its inclusion in the EU's Sustainable Finance Taxonomy, Net-Zero Industry Act and the creation of the European Industrial Alliance for Small Modular Reactors (SMRs) and we look forward to further progress during the next mandate."*

In this respect, there is still work to be done at EU level to ensure technology neutral policies which focus on goals. Indeed, with the push to electrify and decarbonise Europe's entire economy by 2050 – whilst still maintaining a strong European industry – Europe will need ALL decarbonised sources of energy. And, where possible, the EU needs to maximise output of energy in Europe in order to reduce dependence on third country imports.

Against this backdrop, nucleareurope calls on the next Commission to:

- Ensure a level playing field between net zero energy technologies (such as nuclear and renewables)
- Provide equal support for nuclear under all EU funds, EIB financing, and the upcoming Clean Energy Investment Strategy and allocate more funding for fission activities under the Euratom budget
- Support the creation of an IPCEI for nuclear (including relevant State Aid)
- Encourage further development of the European nuclear supply chain (eg fuel cycle) to reduce dependence and strengthen Europe's autonomy
- Produce an updated Nuclear Illustrative Programme (PINC) which includes the most up-to-date forecasts and concrete recommendations to support European nuclear projects
- Enable coordinated actions with other sectors to tackle both basic skill needs and STEM

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MEPs of the ITRE Committee

Executive Vice President Stéphane Séjourné

Executive Vice President Teresa Ribera

Commissioner for Energy Dan Jørgensen

Commissioner for Trade and Economic Security Maroš Šefčovič

Commissioner for Climate action Wopke Hoekstra

Brussels, 2nd October 2024

Subject: Open letter calling for the financing of electrolytic low-carbon hydrogen by the Hydrogen Bank

We, signatories of this letter, welcome the work done within the EU to create the conditions conducive to the development of a European non-fossil hydrogen production sector, keystones of the decarbonisation of our basic industry and the reduction of our dependence on fossil energy sources. The EU needs ambitious hydrogen targets to be on track to achieve its climate and industrial goals. Temporality and steady regulatory framework are key, and we urgently need to show pragmatism by capitalizing on all of EU's non-fossil technological assets.

The orientation of the adopted texts within the Fit for 55 Package on hydrogen (NZIA, RED2), the conclusions of the Commission's impact assessment, which aims for a net reduction of 90% in greenhouse gas emissions by 2040 and Mario Draghi's report on the future of European competitiveness are unequivocal: **achieving our industrial and climate targets necessitate a complementary approach between renewable and nuclear energy.**

Indeed, the rapid deployment of renewable energy capacities and the dispatchability of nuclear power create the ideal conditions for large-scale hydrogen production using electrolysers with a high load factor, ensuring notably steadiness of the supply for downstream industry users. By capitalizing on these complementary assets, the European sector can accelerate the deployment of electrolysers, reduce costs, and consequently increase orders for EU-manufactured electrolysers. **We are involved in a global race on hydrogen: to keep the EU in the lead, it will be crucial to provide fair support for all companies that are contributing to the defossilization of the EU**, just as the USA are doing by subsidizing projects powered by renewable and/or nuclear electricity without distinction.

This recognition of the role of non-fossil hydrogen in the legislative framework must now be translated into European non-legislative pieces and funding schemes, notably by an equitable treatment between RFNBOs and electrolytic low-carbon hydrogen.

The launch and success of the first auction of the Hydrogen Bank, alongside the adoption of a definition for renewable fuels of non-biological origin (RFNBO), were significant initial steps for the ramp-up of the electrolytic sector. **While we deeply regret that the second Hydrogen Bank auction does not include funding for electrolytic low-carbon hydrogen alongside renewable hydrogen, we strongly urge its inclusion in future auctions!**

Nuclear industry statement to the G7 Ministerial Meeting on Climate, Energy and Environment in Turin, Italy (28-30 April 2024)

We, the industry associations representing the nuclear industry in G7 countries, and worldwide, welcome the opportunity to provide input to G7 Climate, Energy and Environment Ministers at their meeting in Turin. We are committed to ensuring safe and secure operation of nuclear facilities to provide always-on, affordable, clean low-carbon electricity and heat; to complement renewables in the pursuit of achieving net zero in electricity generation; to decarbonize hard-to-abate sectors, such as heavy industry, and to provide high-quality long-term jobs that drive economic growth.

Nuclear energy's role to support climate change mitigation was unanimously agreed in COP28's Global Stocktake, and 25 countries demonstrated greater ambition, setting a goal to triple nuclear capacity globally by 2050 in a Declaration during COP. Last month, at the Nuclear Energy Summit in Brussels, more than 30 countries, including six of the G7, reemphasized that nuclear energy has a key role to play to reduce greenhouse gas emissions, and ensure energy security and industrial competitiveness.

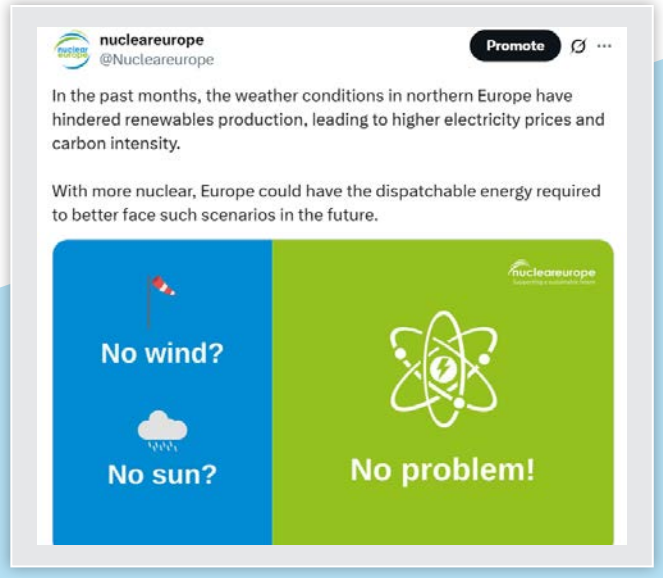
We applaud the recognition and support expressed for nuclear energy as a strategic global asset at the G7 meeting in Sapporo in 2023, and the actions that have been taken since. We welcome the commitment made by Canada, France, Japan, the United Kingdom, and the United States in pledging $4.2 billion to expand enrichment and conversion for secure fuel supplies, and their achievement in surpassing this goal.

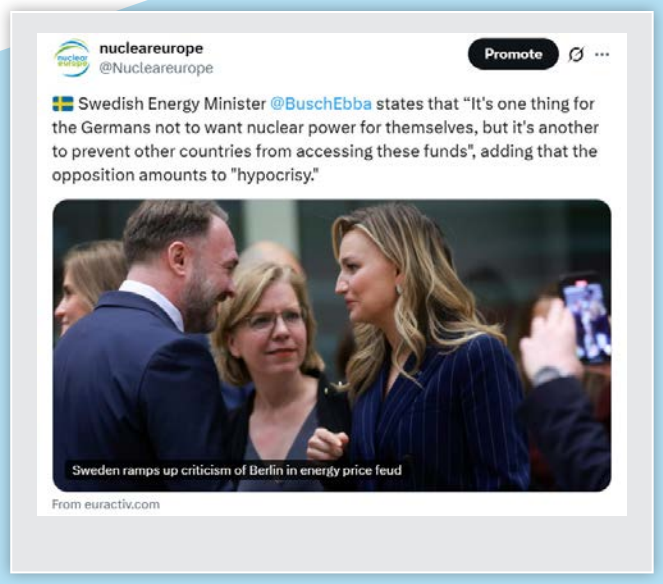
We congratulate the Italian government on its hosting of the G7 meetings this year. Italian supply chain companies play an important role in contributing to nuclear development and deployment globally, as do companies in all G7 nations.

Today, G7 countries host more than half of the world's existing nuclear capacity as well as the most promising advanced nuclear technologies. G7 countries have operational experience, fuel cycle capabilities, regulatory capacity, and financing ability that can support countries who are deploying nuclear power for the first time do so safely, securely and in a responsible manner to meet their climate and energy security goals.

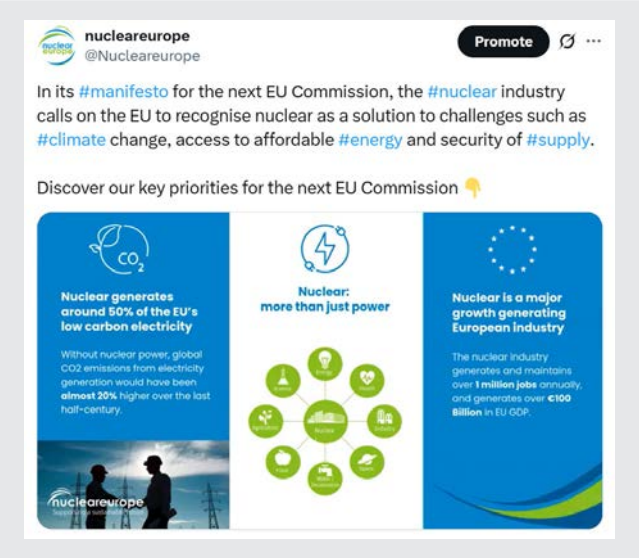
We urge G7 governments to set out clear plans for nuclear energy deployment that would fulfil the targets they set at COP28 and to demonstrate their commitment to nuclear energy, giving clear signals to markets and investors.

Social media





Social animation



INTERNATIONAL PRESENCE & ALLIANCES

nucleareurope is represented at meetings of a number of key nuclear-related organisations and alliances, including the European Nuclear Safety Regulators' Group (ENSREG), Sustainable Nuclear Energy Technology Platform (SNETP), European Nuclear Society (ENS), European Human Resources Observatory for Nuclear (EHRO-N), International Atomic Energy Agency (IAEA) and the OECD's Nuclear Energy Agency (NEA). Nucleareurope is also active in coordinating initiatives and collaborating with the global industry represented by our sister organisations (WNA, NEI, CNA, JAIF and the NIA).

Below is a snapshot of just some of the activities nucleareurope was involved in in 2024.

Sustainable Nuclear Energy Technology Platform (SNETP)

The Sustainable Nuclear Energy Technology Platform was established in 2007 to coordinate nuclear fission research actions and to advise the European Commission on priorities for EU funding. It underlines the importance of the research dimension of the nuclear sector, the need to maintain high levels of safety, the importance of retaining competences and know-how and the increasingly competitive nature of this global industry.

nucleareurope provides continued secretariat support to SNETP, including dissemination activities and support to the European Affairs and Industry committees. Furthermore, we collaborate with SNETP on the Strategic Energy Technology (SET) Plan, and actively participate in the Implementation Working Group (IWG) 10 on nuclear safety. In this respect, on 24 April 2024 a workshop on "Cooperation across SET Plan Implementation Working Groups (IWGs) on the integration of electrical and thermal, renewable and low carbon, energy sources in industry" was held, with nucleareurope moderating the second panel session dedicated to nuclear and renewable heat for industry.

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