UAInEUratom

EURATOM NATIONAL CONTACT POINT in UKRAINE

NEWSLETTER

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EURATOM NATIONAL CONTACT POINT IN UKRAINE

(NCP - UAinEuratom)

@ info@uaineuratom.com.ua
www.uaineuratom.com.ua

Euratom NCP in Ukraine is a support and consultation point that works for the Ukrainian and European research, innovation and education community to consolidate them for joint participation in the Euratom research and training programme.

NCPs are focused on different areas of EU funding programmes and act as a bridge between the EC and stakeholders of programmes (academia, research centers and institutes, companies, public bodies and citizen associations).

UAinEuratom is located in Kharkiv and hosted by National Science Center Kharkov Institute of Physics and Technology (KIPT). KIPT is the largest research center for nuclear science in Ukraine that is affiliated to the National Academy of Sciences of Ukraine.

OBJECTIVES OF EURATOM NCP IN UKRAINE

- Support for Ukrainian participation in EURATOM research and training programmes;
- Strengthening of UA scientists participation in EURATOM;
- Strengthening of UA industrial companies and SMEs participation in EURATOM;
- Enhancing of Ukrainian – EU networking activities in Euratom research and innovation area;
- Raising of Euratom programme awareness among representatives of Ukrainian research centers and;
- Universities, industrial companies and SMEs, authorities and strengthening the link between;
- Cooperation with the European Commission in the field of EURATOM research and training programme;
- Cooperation with Ukrainian ministries, agencies, National Academy of Sciences of Ukraine,research institutes, Universities, industrial companies and SMEs that are relevant to EURATOM research and training programme in Ukraine;
- Cooperation with other NCPs.

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EURATOM PROGRAMME 2021 -2025

ALL PROJECTS UNDER EURATOM WORK PROGRAMME 2021-2022

1. **FisEurad22**
   Organising Fisa and Euradwaste 2022 conference under the French Presidency of the EU Council,
   https://cordis.europa.eu/project/id/101059359

2. **OFFER**
   EurOpean platForm For accEssing nucleaR R&d facilities
   https://cordis.europa.eu/project/id/101060008

3. **NetEuratom**
   Establishment of a Network providing improved professionalised services and support to Euratom National Contact Points and programme applicants.
   https://cordis.europa.eu/project/id/101060090

4. **UAinEuratom21**
   UA EURATOM NCP SUPPORT OF UKRAINIAN RESEARCH ENTITIES INTEGRATION INTO NUCLEAR RESEARCH FUNDED BY THE EURATOM RESEARCH AND TRAINING PROGRAMME 2021-2025
   https://cordis.europa.eu/project/id/101072693

5. **RADOV**
   RADiation harvesting of bioactive peptides from egg prOteins and their integration in adVanced functional products
   https://cordis.europa.eu/project/id/101061694

6. **ANSELMUS**
   Advanced Nuclear Safety Evaluation of Liquid Metal Using Systems
   https://cordis.europa.eu/project/id/101061185

7. **TITANS**
   Tritium Impact and Transfer in Advanced Nuclear reactorS
   https://cordis.europa.eu/project/id/101059408

8. **iWeld**
   intelligent Weld inspection
   https://cordis.europa.eu/project/id/101061359

9. **NPHyCo**
   Nuclear Powered Hydrogen Cogeneration
   https://cordis.europa.eu/project/id/101061007

10. **PULSAR**
    PU-238-coupLed dynamic power system for SpAce exploRation and beyond
    https://cordis.europa.eu/project/id/101061251

11. **MIMOSA**
    MultI-recycling strategies of LWR SNF focusing on MOlten SAlt technology
    https://cordis.europa.eu/project/id/101061142

12. **artEmis**
    Awareness and resilience through European multi sensor system
    https://cordis.europa.eu/project/id/101061712

13. **INNUMAT**
    Innovative Structural Materials for Fission and Fusion
    https://cordis.europa.eu/project/id/101061241

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EURATOM PROGRAMME 2021 -2025

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SEVERE ACCIDENT RESEARCH AND KNOWLEDGE MANAGEMENT FOR LWRS
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GEMINI For Zero Emission
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Building European Nuclear Competence through continuous Advanced and Structured Education and Training Actions
https://cordis.europa.eu/project/id/101061677

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Safety Analysis of SMR with PAssive Mitigation strategies - Severe Accident
https://cordis.europa.eu/project/id/101059853

18 **ESFR-SIMPLE**
European Sodium Fast Reactor - Safety by Innovative Monitoring, Power Level flexibility and Experimental research
https://cordis.europa.eu/project/id/101059543

19 **SECURE**
Strengthening the European Chain of sUpply for next generation medical RadionuclidEs
https://cordis.europa.eu/project/id/101061230

20 **EUROfusion**
Implementation of activities described in the Roadmap to Fusion during Horizon Europe through a joint programme of the members of the EUROfusion consortium
https://cordis.europa.eu/project/id/101052200

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Partnership for european research in radiation protection and detection of ionising radiation : towards a safer use and improved protection of the environment and human health
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EURATOM PROGRAMME 2021 -2025

ALL PROJECTS UNDER EURATOM WORK PROGRAMME 2021-2022

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https://cordis.europa.eu/project/id/101060028

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Accelerated programme for implementation of secure VVER fuel supply

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EURATOM PROGRAMME 2021 -2025 PROJECTS EURATOM WORK PROGRAM 2021-2022. THE PARTICIPATION OF UKRAINIAN ORGANIZATIONS

SASPAM-SA

SAFETY ANALYSIS OF SMR WITH PASSIVE MITIGATION STRATEGIES – SEVERE ACCIDENT

https://www.etson.eu/node/290
https://cordis.europa.eu/project/id/101059853

The key objective of SASPAM-SA is to investigate the applicability and transfer of the operating large-LWR reactor knowledge and know-how to the near-term deployment of integral PWR (iPWR), in the view of Severe Accident (SA) and Emergency Planning Zone (EPZ) European licensing analyses needs. This includes also dedicated actions on Accident Tolerant Fuels (ATF) as well as on In-Vessel Melt Retention (IVMR). The proposed project outcomes should be supportive for the iPWR licensing process by bringing up key elements of the safety demonstration needed. This will speed up the licensing and siting process of iPWRs in Europe. To do that, four main elements, not addressed in other on-going SMR oriented initiatives, will be investigated:

1. identification of plausible SA scenarios for iPWR designs;
2. identification of the conditions in the vessel and in the containment that characterize iPWR designs, in hypothetical postulated SA scenarios, and differ significantly from those in large-LWRs;
3. study the applicability of the existing experimental database to iPWR and identify new experimental needs.

Assess the capability of internationally recognized European and Non-European computational tools (largely used in Europe) to describe the behaviour of the most promising iPWR designs during postulated SA scenarios and to predict the resulting radiological impact on- and off-site.

Project beneficiaries from Ukraine

STATE ENTERPRISE STATE SCIENTIFIC AND TECHNICAL CENTER FOR NUCLEAR AND RADIATION SAFETY

NPHyCo
Nuclear Powered Hydrogen Cogeneration

NUCLEAR POWERED HYDROGEN COGENERATION

https://www.nphyco.org/
https://cordis.europa.eu/project/id/101061007

NPHyCo is an EU research project dedicated to the production of hydrogen from nuclear power. The project is funded by the EU's Euratom Research & Training programme (2021-2025) dedicated to nuclear research and innovation.

The EU hopes to fully decarbonise its economy by 2050. One of the solutions being put forward is hydrogen. NPHyCo will focus 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.

Project beneficiaries from Ukraine

ENERGY SAFETY GROUP LLC

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HARMONISE

TOWARDS HARMONISATION IN LICENSING OF FUTURE NUCLEAR POWER TECHNOLOGIES IN EUROPE

https://www.lei.lt/en/projektas/harmonise/
https://cordis.europa.eu/project/id/101061643

In the framework of the Euratom Research and Training Programme, HARMONISE will study relevant research and cooperation activities in standardization and nuclear safety considering also the lessons learnt from the stress tests performed in the EU.

HARMONISE has set five Objectives:

Objective 1 To analyse preliminary safety assessments of innovative fission and fusion installations

Objective 2 To peruse the licensing needs for innovative nuclear installations

Objective 3 Objective 3: To examine risk-informed, performance-based (RIPB) approaches in licensing reviews and regulatory decision-making

Objective 4 Objective 4: To delimit harmonisation and standardisation on component assessments, methodologies, codes and standards

Objective 5 Objective 5: To learn from earlier experience in harmonisation efforts

Project beneficiaries from Ukraine

STATE ENTERPRISE STATE SCIENTIFIC AND TECHNICAL CENTER FOR NUCLEAR AND RADIATION SAFETY

GO-VIKING

GATHERING EXPERTISE ON VIBRATION IMPAKT IN NUCLEAR POWER GENERATION

https://enen.eu/index.php/portfolio/go-viking-project/
https://cordis.europa.eu/project/id/101060826

The GO-VIKING project takes over from the VIKING (Vibration ImpaKt In Nuclear power Generation) initiative started in 2020 as an in-kind collaboration of European organizations to enhance the understanding and prediction of flow-induced vibration (FIV) phenomena relevant to nuclear power reactors. The overall objective of GO-VIKING is to increase the expertise and improve the tools and skills of the European nuclear stakeholders for the analysis of complex FIV phenomena. This will be accomplished by:

- Generation of new experimental and high-resolution numerical data, relevant for nuclear fuel assemblies and steam generators
- Expanded knowledge on efficiency, accuracy and reliability of fluid-structure interaction (FSI) methods
- Provision of validated fast-running FSI tools with uncertainty quantification methods
- Highly increased expertise of and awareness on FIV phenomena in nuclear power plants
- Training of stakeholders and graduates in numerical FIV analysis
- Synthesis of best practices for FIV analyses

Project beneficiaries from Ukraine

IPP CENTRE LLC

LTO ESCRIPTION OF THE EXTENDED LIFETIME AND ITS INFLUENCE ON THE SAFETY OPERATION ANDCONSTRUCTION MATERIALS PERFORMANCE – LONG TERM OPERATION WITH NO COMPROMISES IN THE SAFETY

https://delisa-lto.eu/
https://cordis.europa.eu/project/id/101061201

The main scope of the DELISA-LTO project is the implementation of the non-destructive monitoring and/or testing, validation of this approach on the materials from the real plant operation with well-described operation history and supported by simulation and modeling with straight influence on the design phase of the component. One of the main contributions of the project is to ensure a safe, predictable and reliable long-term operation. The outputs of the project will lead to the increase of operational safety over the lifetime due to the in-time prediction and avoiding the potential failure.

Project beneficiaries from Ukraine

IPP CENTRE LLC
STATE ENTERPRISE STATE SCIENTIFIC AND TECHNICAL CENTER FOR NUCLEAR AND RADIATION SAFETY

ARTIFICIAL INTELLIGENCE FOR THE SIMULATION OF SEVERE ACCIDENTS

https://snetp.eu/portfolio-items/assas/

The main objective of ASSAS is to develop a proof-of-concept for a basic-principles severe accident simulator, that will feature a generic western-type PWR. To do so, the reference European severe accident simulation code ASTEC will be interfaced with Tecnatom's commercial simulation environment, TEAM_SUITE®. R&D actions will be necessary for the simulator to reach expected performances (especially real time execution), and to explore how it could be adapted to other reactor designs and simulation codes in the future. The consortium will explore how machine-learning may be used to develop fast and robust surrogate models that could replace severe accident codes partly or globally in the simulator. Different strategies and techniques will be tested in parallel to maximise chances of success, considering the challenges related to severe accident modelling. State-of-the-art regression techniques coupled with sparse dimension reduction, as well as an interpolation engine between pre-calculated sequences will be developed and evaluated.

Project beneficiaries from Ukraine

LIMITED LIABILITY COMPANY ENERGORISK

ACCELERATED PROGRAMME FOR IMPLEMENTATION OF SECURE VVER FUEL SUPPLY

https://www.euro-fusion.org/
https://cordis.europa.eu/project/id/101052200

The objective of the APIS-programme is to create security of supply of nuclear fuel for Russian designed pressurized water reactors (VVER) operating in the EU and Ukraine.
The APIS project is structured into eleven work-packages with different focuses, including:

- completion of the VVER-440 fuel design for short term delivery;
- development of improved and advanced VVER-440 and VVER-1000 fuel designs;
- standardization of the fuel licensing;
- complete the re-instatement of fuel manufacturing capabilities;
- improved modelling and methods;
- analysis of fuel related plant lifetime extension;
- communication and project management.

Project beneficiaries from Ukraine

STATE ENTERPRISE STATE SCIENTIFIC AND TECHNICAL CENTER FOR NUCLEAR AND RADIATION SAFETY

SMALL MODULAR REACTOR FOR A EUROPEAN SAFE AND DECARBONISED ENERGY MIX

https://tandemproject.eu/
https://cordis.europa.eu/project/id/101059479

The overall aim of the TANDEM project is to highlight the potential role of SMRs in the development of the future European decarbonised energy mix and build an open and long-term community that will ensure expertise in the domain, supporting the wide acceptance of SMRs at different levels. To achieve this, TANDEM includes actions to analyse the feasibility of SMR integration into hybrid systems taking into account safety, operationality, economics, citizen engagement. The project will also provide recommendations for their future development and deployment.

The project will focus on light-water SMR technologies which can potentially be deployed in Europe by the 2030s. At the same time, within the Generation-IV Framework, the project also aims to give perspectives for the integration of Advanced Modular Reactors (AMRs) into hybrid energy systems by 2050.

Project beneficiaries from Ukraine

LIMITED LIABILITY COMPANY ENERGORISK

INNOVATIVE STRUCTURAL MATERIALS FOR FISSION AND FUSION

https://www.innumat.eu/
https://cordis.europa.eu/project/id/101061241

The main objectives of INNUMAT are to develop innovative structural materials for nuclear applications and put them on track towards qualification for fission lead-cooled and molten salt fast reactors as well as fusion DEMO. For fission applications high entropy alloys, as well as alumina forming austenitic steels, already identified as prospective structural materials for Gen IV and Small Modular Reactors. Advanced material solutions for fission and fusion applications are considered as well, in particular weld overlay and coated 15-15Ti for lead-cooled fast reactors, among others MYRRHA and ALFRED, and coated Eurofer and advanced oxide dispersion strengthened steel for fusion DEMO. Some of these structural materials are of potential applicability also outside the nuclear field. The project is thus cross-cutting in nature because of the target applications, as well as because of the accelerated methodologies for materials discovery, screening and qualification that it pursues, applied at different technology readiness levels.

Project beneficiaries from Ukraine

NATIONAL SCIENCE CENTER KHARKOV INSTITUTE OF PHYSICS AND TECHNOLOGY

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IMPLEMENTATION OF ACTIVITIES DESCRIBED IN THE ROADMAP TO FUSION DURING HORIZON EUROPE THROUGH A JOINTPROGRAMME OF THE MEMBERS OF THE EURO FUSION CONSORTIUM

https://www.euro-fusion.org/
https://cordis.europa.eu/project/id/101052200

EUROfusion's updated Fusion Research Roadmap aims to acquire the necessary knowledge to start constructing a demonstration fusionpower plant (DEMO) five years after ITER is in full-power operation. DEMO will deliver fusion electricity to the grid early in the secondhalf of the century. The Roadmap has been articulated in eight different Missions. The present proposal has the goal of implementing theactivities described in the Roadmap during Horizon Europe through a joint programme of the members of the EUROfusion Consortium,with the following high-level objectives:

1. Construct and commission ITER;
2. Secure the success of future ITER operation via preparation and experiments on present devices;
3. Develop the conceptual design of a DEMO fusion power plant;
4. Finalise the designand construct a fusion spectrum neutron source (IFMIF-DONES);
5. Advance the stellarator as an alternative approach to fusion powerplants;
6. Prepare the ITER and DEMO generations of scientists, engineers and operators;
7. Promote innovation and European industrycompetitiveness in fusion technology and eyond. The ITER success remains an important overarching objective of the programme andmuch attention is devoted to ensure that ITER operation is properly prepared, and that a new eneration of scientists and engineers isthoroughly educated and trained for its exploitation. DEMO is the only step between ITER and a commercial fusion power plant. Toachieve the goal of fusion electricity demonstration in the early 2050-ies, the DEMO Conceptual Design has to be completed by 2030 atthe latest, to allow the start of the Engineering Design Activities. DEMO cannot be defined and designed by research laboratories alone,but requires the full involvement of industry in all technological and systems aspects of the design. Therefore, specific provisions forthe involvement of industry in the Consortium activities are envisaged.

Project beneficiaries from Ukraine

NATIONAL SCIENCE CENTER KHARKOV INSTITUTE OF PHYSICS AND TECHNOLOGY

UAinEuratom21

https://uaineuratom.com.ua/en/ukraine-euratom
https://uaineuratom.com.ua/ukrayina-yevratom
https://cordis.europa.eu/project/id/101072693

The project is to support of 'Euratom NCP in Ukraine' activities and aims to strengthen the integration of Ukrainian researchers and research organizations into European initiatives on nuclear and fusion research under the Euratom Research and Training Program.

Project beneficiaries from Ukraine

NATIONAL SCIENCE CENTER KHARKOV INSTITUTE OF PHYSICS AND TECHNOLOGY

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EURATOM NCP WEB SITE

http://www.uaineuratom.com.ua

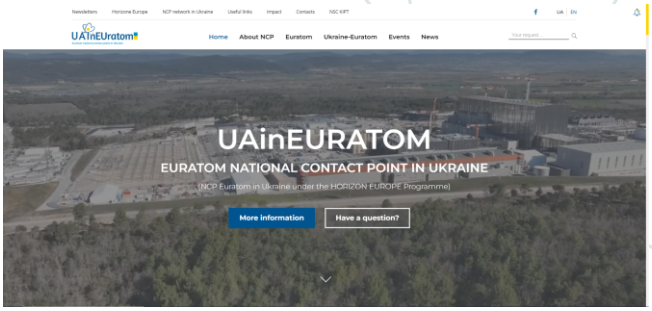
Since 2017 KIPT has been the home to the Euratom National Contact Point in Ukraine implementing consulting and information activities among stakeholders in developing cooperation between Ukraine and the European Union under the Euratom Research and Training Programme.

At the end of 2022, the Euratom NCP in Ukraine presented an updated information website:

The website is the main tool of the Euratom NCP in Ukraine to inform the Ukrainian audience about the news concerning the Euratom Programme and various aspects of its implementation. The website is adapted for viewing both on a computer screen and on a smartphone screen.

The website contains information about:

- Euratom NCP
- Euratom calls
- Projects involving Ukrainian organizations
- Euratom technological platforms
- Ukrainian organizations related to the Euratom Programme
- Announcements of conferences and other events
- News and statistics of the Programme in Ukraine
- A lot of other information



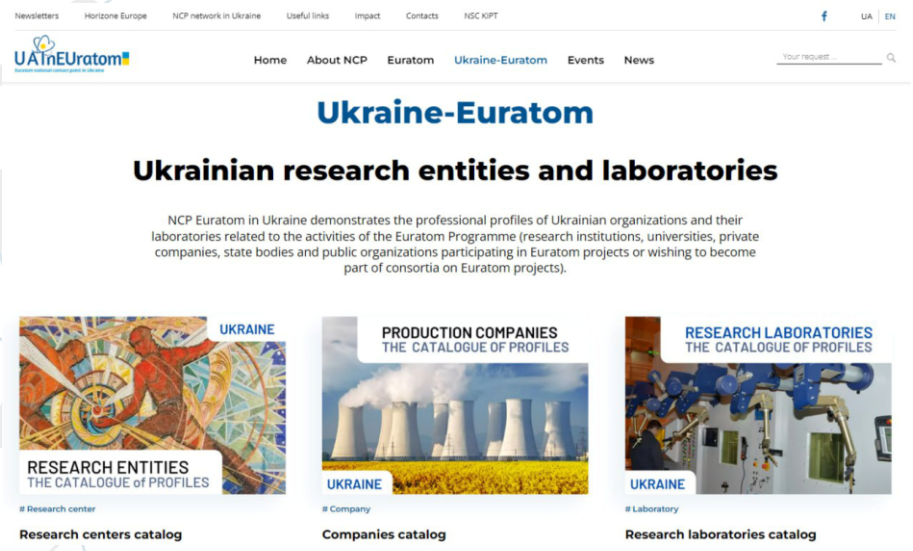
An important element of the website is the presentation of Ukrainian organizations and their laboratories participating in the Euratom Programme or intending to participate in the future. This is an available tool for the Ukrainian community of the Euratom Programme to demonstrate the description of Ukrainian labs, which is focused specifically on:

- development of cooperation in the areas of the Programme,
- obtaining your own information space on the website pages, which can be part of the communication strategy regarding participation in the Euratom Programme.

Another element is information about active Euratom networks and platforms, which allow focusing the efforts of the Euratom community on various areas of its activity. Using this information, you can get a guideline for searching potential partners for your own idea.

It is always interesting to have examples of participation to understand what Euratom projects are. The website provides a complete list and brief description of Euratom projects involving Ukrainian organizations under the framework programs Horizon 2020 and Horizon Europe.

Visit the website of the Euratom NCP in Ukraine!
Subscribe to the Euratom NCP newsletter!
Join the projects of Euratom work programmes!



This work programme implements indirect actions under the Euratom Research and Training Programme 2021–2025 ('the Euratom Programme' or 'the Programme'), in accordance with Article 11(1) of Council Regulation (Euratom) 2021/765. It constitutes a financing decision for 2023-2025, defines the scope of actions and provides information on the implementation arrangements.

There are three chapters of the WP2023-2025 and general annexes that set out the general conditions applicable to calls and topics for grants and other forms of funding and also describe the evaluation and award procedures and other conditions for Euratom funding.

The first chapter explains the multiannual approach and strategic orientations for the duration of the Euratom Programme. The second chapter is divided into 11 topics. They describe specific research and training actions that the Commission intends to fund in 2023-2025 through calls for proposals. The third chapter describes actions funded through other means than calls for proposals, such as grants to identified beneficiaries, procurement and prizes.

Indirect actions under WP2023 - 2025: 11 topics of calls for proposals
Opening date 04 April 2023
Deadline date 08 November 2023 17:00:00 Brussels time

Title	Number of projects	Expected EU contribution per project (EUR million)
Nuclear safety		
HORIZON-EURATOM-2023-NRT-01-01: Safety of operating nuclear power plants and research reactors.	4	5
HORIZON-EURATOM-2023-NRT-01-02: Safety of light water small modular reactors (LW-SMRs).	1	15
HORIZON-EURATOM-2023-NRT-01-03: Safety of advanced and innovative nuclear designs.	3	4
HORIZON-EURATOM-2023-NRT-01-04: Co-funded European partnership for research in nuclear materials.	1	20
HORIZON-EURATOM-2023-NRT-01-05: Partitioning and transmutation of minor actinides towards industrial applications.	1	5
HORIZON-EURATOM-2023-NRT-01-06: Improved nuclear data for the safety of energy and non-energy applications of ionising radiation.	1	4
Safe spent fuel and radioactive waste management, decommissioning		
HORIZON-EURATOM-2023-NRT-01-07: Innovative technologies for safety and excellence in decommissioning, including robotics and artificial intelligence.	2	7
Nuclear science and ionising radiation applications, radiation protection, and emergency preparedness		
HORIZON-EURATOM-2023-NRT-01-08: Safety of low enriched fuel for research reactors - securing the supply of medical radioisotopes.	1	1
HORIZON-EURATOM-2023-NRT-01-09: Nuclear and radiation techniques for EU strategic autonomy, circular economy and climate change policies.	3	2,3
HORIZON-EURATOM-2023-NRT-01-10: Harnessing innovation in nuclear science, technology and radiation protection.	2	3,5
HORIZON-EURATOM-2023-NRT-01-11: Preparatory phase for a European production capability to secure a supply of high-assay low-enriched uranium (HALEU) fuel.	1	1

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EURATOM WORK PROGRAMME 2023-2025

Other actions short description

Actions funded through other means than calls for proposals, such as grants to identified beneficiaries, procurement and prizes.

Title	Expected EU contribution per project (EUR million)
Grants to identified beneficiaries	
Support for the consolidation phase of the International Fusion Materials Irradiation Facility – DEMO Oriented Early Neutron Source (IFMIF-DONES). 1 project.	1.25 from the 2023 budget
FISA 2025 – EURADWASTE'25 conferences on Euratom fission research and training (Presidency event).	0.30 from the 2024 budget
Education, training, capacity building and networking actions to strengthen Ukrainian and EU nuclear research.	0.75 from the 2023 budget
Co-funded European partnership on radioactive waste management. Co-funded European partnership for radioactive waste management research EURAD-2.	20 (2023-25)
Prizes	
SOFT Innovation Prize 2024	0.10 from the 2024 budget
SOFT Innovation Prize 2026	0.10 from the 2025 budget
Nuclear Innovation Prize 2025	0.30 from the 2025 budget
Public procurement	
Provision of expert industrial competences for the conceptual design activities of the European fusion demonstration reactor (specific contracts under the framework contract (RTD/2019/OP/D4/FWC/010).	3.00 from the 2023 budget
Communication actions - Euratom Research and Training Programme.	0.10 from the 2023 budget, 0.10 from the 2024 budget, 0.10 from the 2025 budget
Subscription actions	
Contribution to the Organisation for Economic Co-operation and Development (Nuclear Energy Agency) / Secretariat for the Generation-IV International Forum (GIF).	0.15 from the 2023 budget, 0.15 from the 2024 budget, 0.15 million from the 2025 budget
Expert contract actions	
External expertise.	0.35 from the 2023 budget, 0.20 from the 2024 budget, 0.20 from the 2025 budget
Support for Marie Skłodowska-Curie Actions (MSCA) in nuclear research and training	
MSCA postdoctoral fellowships in research fields covered by the Euratom Research and Training Programme 2021-2025	1.00 from the 2023 budget, 1.00 from the 2024 budget, 1.00 from the 2025 budget

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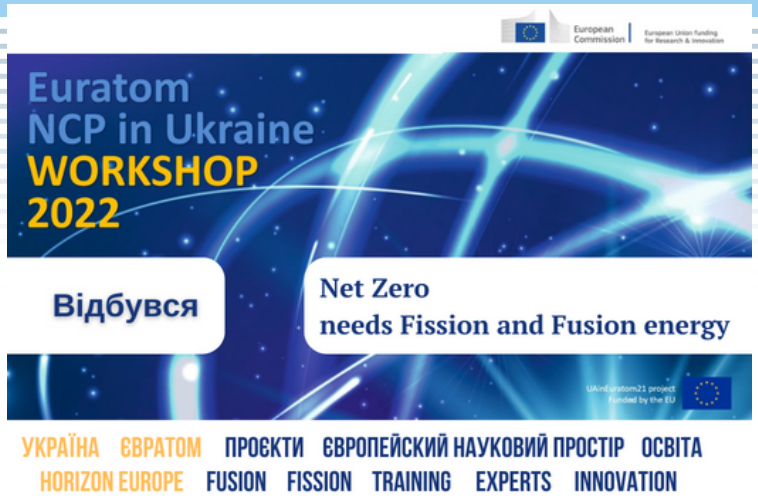


EURATOM NCP in UKRAINE WORKSHOP 2022

The “Euratom NCP in Ukraine Workshop 2022” dedicated to Ukraine's participation in the Euratom Research and Training Programme was held on October 20, 2022.
The organizers of the event were the National Science Center “Kharkov Institute of Physics and Technology” and Euratom National Contact Point in Ukraine.

The event was attended by 50 Ukrainian specialists whose activities relate to the areas of work of the Euratom Program, i.e. nuclear and thermonuclear research, innovation and training. The representatives of the Ministry of Education and Science of Ukraine, the Scientist Support Office at the Ministry of Education and Science of Ukraine, Euratom NCP in Ukraine, research institutes, universities, private and state-owned manufacturing enterprises and the representatives of the project to support European NCPs Euratom “NetEuratom” were among the participants.

The NSC KIPT scientists Oleksandr Volobuyev and Sergii Pugach as the representatives of the Euratom NCP in Ukraine made presentations at the “Euratom NCP in Ukraine Workshop 2022”.The issues of the results of participation in the previous Euratom Programme (Horizon 2020), the real-time performance under the Euratom Work Programme 2021-2022 (Horizon Europe), work plans of the Euratom NCP and the directions of assistance to the Ukrainian community regarding integration into research and innovation activities and education and training under the Euratom Programme were discussed in their speeches.

Vasiliki Kalodimou, a representative of the Horizon Europe NCPs Greek network (PRAXI Net) and a member of the CSA consortium of the NetEuratom project, shared an example of support for the activities of European Euratom NCPs and the work of the Euratom European community in her report.

Hryhoriy Mozolevych, the head of the expert group on integration into the European research space of the Ministry of Education and Science of Ukraine, presented the results of Ukraine's participation in all areas of the Horizon 2020 Programme and provided the information on financial opportunities of the Horizon Europe Programme. It was also useful to learn about the initiative to create the National portal of international scientific and technical cooperation and to hear the news about the continuation of work on the competitive support of projects at the expense of the EU's external assistance tool.

Euratom projects, that are already being implemented and those in which Ukrainian research teams are currently involved or may be involved, have been reviewed by the participants during the “Euratom NCP in Ukraine Workshop 2022”. Igor Garkusha, the head of the EUROfusion Ukrainian research unit, Academician of the National Academy of Sciences of Ukraine, told in detail about the direction of research in thermonuclear fusion and the opportunities of expanding participation in fusion research. The head of the NSC KIPT research team working in the EURAD and PREDIS projects told about the work on the disposal of radioactive waste and the opportunities of expanding the participation of Ukrainian organizations in future project in RWM research area of Euratom Programme.

The issues of the war impact on on-going projects activities, examples of support from the EU to Ukrainian scientists in Euratom projects were considered at the end of the event in the presentations of Sergii Pugach and in further discussions.

Despite the circumstances, Ukraine maintains the pace and works to expand participation in the Euratom Programme, a Programme focused on global energy technologies of the future.

Link to the video “Euratom NCP in Ukraine Workshop 2022”: PART 1, PART 2
“Euratom NCP in Ukraine Workshop 2022” was held under the implementation plan of UAinEuratom21 project funded by the European Union under Euratom research and training programme (Horizon Europe), CSA GA#101072693.

3rd EUROPEAN FUSION TEACHER DAY

fusenet.eu
https://fusenet.eu/taxonomy/fusenet-educational-material
info@uaineuratom.com.ua

On October 14, 2022, the 3rd FUSION European Teacher's Day took place!

The event aimed to introduce secondary school teachers across Europe to the exciting world of plasma physics and controlled fusion. Teaching plasma physics to high school students and generating enthusiasm for physics and fusion at the high school level was discussed.

The event had two parts: a national session and a European session.

The national session was a talk by representatives of the Ukrainian scientific community about current research in the field of plasma physics and controlled thermonuclear fusion in Ukraine.

The European session offered stories from European colleagues and virtual tours to large physical research facilities where scientists from different countries of the world work. The event offered a live broadcast during which new (free) educational materials were given away.

You can watch the video of the Ukrainian part of the 3rd European Fusion Teacher Day event at the following link:https://youtu.be/hiyUU4wL8Cc

FuseNet has developed educational materials for secondary schools. The goal of these materials is to provide secondary school teachers with all the tools required to teach nuclear fusion in fun and engaging lessons.

The module consists of:

- A student reader;
- Lecture slides;
- Teacher's manual;
- Additional exercises.

The student reader explains the basics behind nuclear fusion and contains short classroom exercises and high-quality images and graphics. The lecture slides and teacher's manual provide secondary school teachers with a ready-to-useless onto teach the basics of nuclear fusion to their students. In the additional exercises, teachers can find extra exercises at varying levels of difficulty.

All the materials are created by FuseNet and are free to use for educational purposes. The lecture slides are available in pdf-format and in ppt-format, so that you can edit the slides to your preferences or include extra slides. The student reader, teacher's manual and additional exercises are available as pdf-documents.

EURATOM NCP IN UKRAINE WEBINAR 15.02.2023

http://surl.li/ewvgp

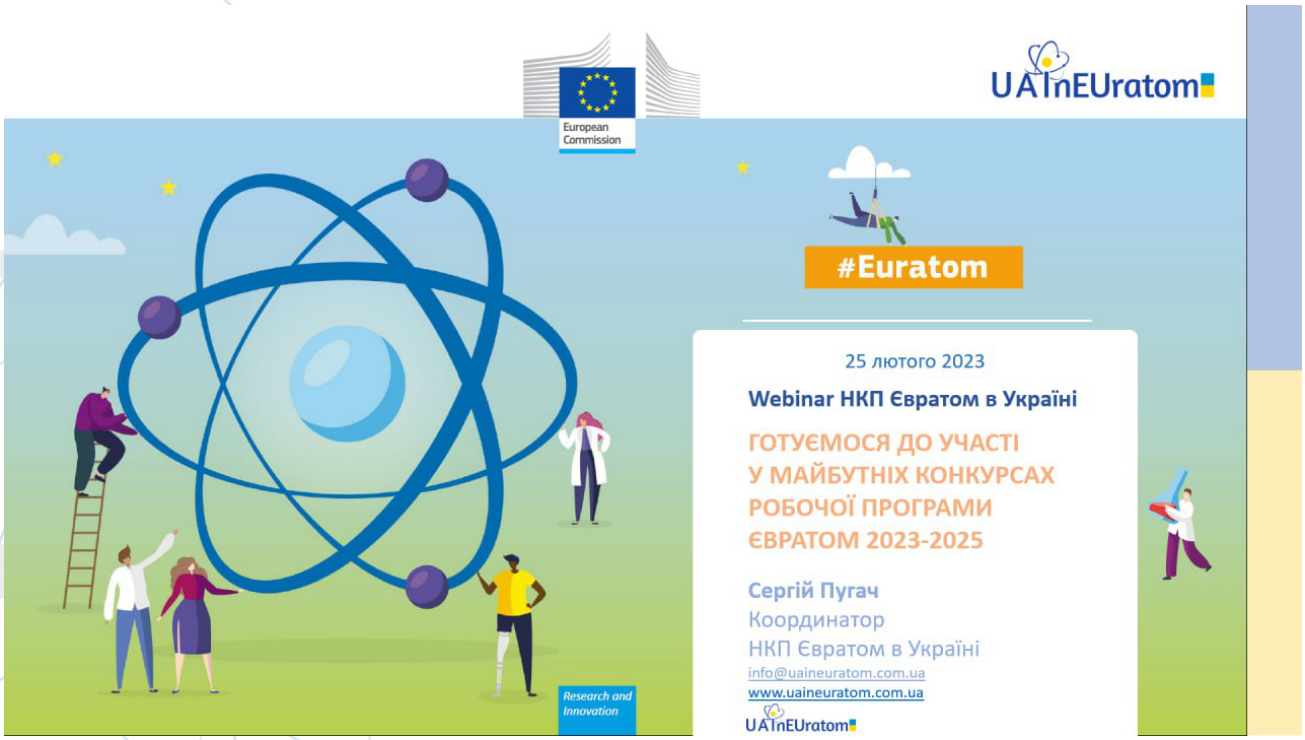
On February 15, 2023, the webinar "Preparation works for participation in the future Calls of the Euratom Work Programme 2023-2025" was held, which was organized by the Euratom NCP in Ukraine and National Scientific Center "Kharkov Physical and Technical Institute".

The webinar was devoted to the Euratom Programme and the issue of partners search for participation in the Euratom and Horizon Europe competitions. The webinar was attended by 26 participants of research institutions of the National Academy of Sciences of Ukraine, Universities, the Ministry of Education and Science of Ukraine and other organizations.

Among the topics of the webinar were the following questions

- Briefly about the Euratom Program
- Euratom Work Program 2021-2022 and 2023-2025
- How to identify contests that interest me
- Description of the idea for a partner search
- Tools for a partner search

The materials presented during the webinar were prepared within the scope of the project UAinEuratom21, GA#101072963 funded by the European Union under the Euratom Programme (Horizon Europe).



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EURATOM INFO DAY in UKRAINE 2023 EURATOM PROGRAMME IS IN THE SPOTLIGHT

The presentation of Igor Girka, professor of V. N. Karazin Kharkiv National University, was dedicated to educational European networks in the areas of fission and fusion, respectively ENEN and FuseNet. The presentation provided information about projects and events initiated by educational networks. Current projects aimed at scientific research and involvement of young researchers, a programme of events planned in 2023 were provided. One of the issues raised during the speech - the expected large demand for scientific and technical specialists (scientists and engineers), which is observed now and will grow in the future, taking into account the ambitious European plans for nuclear and thermonuclear energy, the achievement of the strategic goal - climate-neutral European economy by 2050. Instead, we see a reverse movement in Ukraine: reduction of funding and the number of entrants in these fields, decrease in attention to technical subjects in secondary education, but someone will have to implement Ukraine's plans for the development of nuclear energy, engage in operation of nuclear reactors, provide scientific and technological support for nuclear sector.

Euratom projects implemented according to the partnership with co-financing scheme became the topic of the following presentation by Sergii Pugach. Most of the research in the fields of controlled thermonuclear fusion, radioactive waste management, radiation protection and nuclear materials will take place under the scheme of CEP (Cofund European Partnership) projects. The speaker talked about the characteristic features of CEP projects, namely, 3 active CEP projects and one more project planned under the Euratom Work Programme 2023-2025.

Serhiy Pugach and Mykola Dzubinsky submitted calls of the new Euratom Work Programme in the following two presentations. 11 fission calls were described in the presentation by Serhiy Pugach. The information was provided about each call separately: its name, expected areas of research, the amount of the grant and the expected number of projects under the call. Mykola Dzubinsky told about other types of calls announced for already identified beneficiaries in his presentation.

The final presentation about NCP tools and events created and held over the past year was made by the Euratom NCP. The Information on the nearest plans for Euratom NCP trainings, support for scientists in realization of visits to partners and work on preparation proposals for the new Euratom Work Programme 2023-2025 was also provided.

As a conclusion, we see a good level of participation from Ukraine and a repetition of achievements in the last two programs WP2019-2020 and WP2021-2022 over the past 4 years. Improving the level of integration into the Programme will require further activity of experienced Euratom participants and involvement of new institutions not yet participated in the Euratom Program. Of course, this movement should be supported by state policy and funding, including the development of work on partnership projects - SER. Among the potential growth points are representatives of the university community. Only three universities are involved in Euratom projects, more precisely, all three universities are recognized as participants in one project – EUROfusion. The National Academy of Sciences of Ukraine has also the potential for participation development, both among the organizations that are already integrated into the Program, and at the expense of new participants. The industrial part of the Ukrainian community of the nuclear sector actively participates in the Euratom Programme and, of course, there are opportunities for development including greater involvement of state-owned production enterprises of the nuclear sector.

The new Euratom Programme has been announced! It's time to act and find partners to prepare joint proposals, to join Euratom projects, develop the already achieved success of the Ukrainian community in participating in the Euratom Programme!

Presentation materials of the event are available at the link:

http://surl.li/gqypf

Video record of the event:

Part 1 https://youtu.be/K-QmDjA_cBc

Part 2 https://youtu.be/IGurC6DNanQ

New calls of the Euratom Programme:

http://surl.li/fueah

EURATOM INFO DAY in UKRAINE 2023 was supported by the UAinEuratom21 project (GA#101072693) funded by the European Commission under the Euratom Research and Training Programme (Horizon Europe).

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EURATOM INFO DAY in UKRAINE 2023 EURATOM PROGRAMME IS IN THE SPOTLIGHT

EURATOM INFO DAY in UKRAINE 2023 was held on April 27.2023!

The Euratom National Contact Point in Ukraine (Euratom NCP) together with the National Science Center "Kharkov Institute of Physics and Technology" (NSC KIPT) held an Information Day of the Euratom Programme. The event brought together various institutions from Ukraine related to scientific research in the fields of fission and fusion, development of innovations, implementation and operation of nuclear technologies and installations. The total number of participants was 70. The largest part of the audience were representatives of education, the second most representative part of the audience were scientific research institutes, the representatives of the nuclear industry from state and private companies and the European Educational Network ENEN were also present at the event. Among the speakers of the event were representatives of the European Commission, the Ministry of Education and Science of Ukraine, the National Academy of Sciences of Ukraine, and the Joint Research Center of the European Commission.

The event was opened by Oleksandr Volobuyev, the head of the Euratom NCP in Ukraine, who provided general information about the Euratom Programme, its goals and structure, budget and funding directions, as well as introduced the Programme and the audience of the event welcoming all participants from the Euratom NCP and NSC KIPT.

The second speech made by Grygorii Mozolevych, the head of the expert group on integration into the European research area, was about the impact of military aggression in Ukraine on research and education infrastructure, plans for recovery and the goals of renewing the science and education sector, the information on Ukraine's participation in the Horizon Europe Framework Programme was presented. It was also about assistance to Ukrainian scientists under various initiatives by the European Commission. One of such initiatives is support for creation of the Horizon Europe Program Office, which will function on the basis of the National Research Fund of Ukraine.

The next speech was devoted to the official launch of the New Work Programme 2023-2025, which took place on April 4, 2023 in Brussels. Sergii Pugach, the coordinator of the Euratom NCP in Ukraine, made a presentation about this event, in which the main issues under consideration were briefly presented: modern and future challenges of nuclear energy, fuel safety and diversification, development of the direction of small modular reactors, matters of education, involvement of youth and qualified personnel in line with the growth of nuclear energy and the related non-energy sector and other issues.

The floor was taken then by the representative of the European Commission (EC) from Euratom, Mykola Dzubinsky, who spoke about the achievements of Ukraine during the last Horizon 2020 Programme. Ukraine started in 2016 and gradually enhanced the volume of cooperation. According to statistics, Ukrainian institutions have projects with a contribution from the EC of about 2 million euros in the Euratom Work Programme WP 2019-2020 Horizon 2020. According to the next Euratom Work Programme WP 2021-2022 Horizon Europe, Ukraine again has similar achievements - close to 2 million euros. Further, the "fusion" direction, involvement Ukraine in controlled fusion research and in the latest European fusion infrastructure initiatives were revealed in the presentation.

The logical continuation was the presentation of Vadym Makhlai, the head of the plasma dynamics department of the NSC IPT IFP. The presentation was about the largest project of Euratom and the Horizon Europe Programme dedicated to thermonuclear fusion - the EUROfusion project. The speaker provided information on participation of the Ukrainian research unit in the project, gave examples of experimental and theoretical works including high results obtained in 2022.

The next presentation from the European side, from the Joint Research Center of the European Commission (The Nuclear Safety and Security Directorate of the Joint Research Centre) was made by Anna Skrypnyk, a junior researcher at NSC KIPT. In 2021 Anna received a grant to conduct research in one of the JRC laboratories at the Karlsruhe Institute of Technology (KIT). In 2022, earlier than planned, she began its cooperation with JRC as a consequence of forced relocation after the Russian military invasion of Ukraine. The presentation was about the research conducted by the laboratory at the JRC and its analytical capabilities for research on spent nuclear fuel, radioactive waste, non-energy nuclear research for space and medicine and other areas.

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SCHOOL OF MENTORS: EURATOM PROGRAMME PRESENTATION - 24.02.2023

http://surl.li/fbegz

A series of webinars within the "School of Mentors" project initiated by the Scholar Support Office of the Ministry of Education and Science of Ukraine was held from February 20 to 24.

The main goal of the project is to increase the level of awareness of Ukrainian scientists regarding the conditions, features of participation, preparation of project applications for participation in European Union programmes.

Thematically, 5 days of the school were devoted to the following areas:

- Practical tips for filling out an application form, 20-02-2023
- Presentation of the Digital Europe programme, 21-02-2023
- Presentation of the Life programme, 22-02-2023
- Presentation of the COST programme, 23-02-2023
- Presentation of the Euratom programme, 24-02-2023

Euratom Programme webinar was held on February 24, 2023 in the day of anniversary of Ukraine's invincibility, fortitude and stamina, unity and fight of the Ukrainian people to russia's full-scale war against Ukraine. 49 participants took part in the webinar.

Agenda of Mentor School, day 5

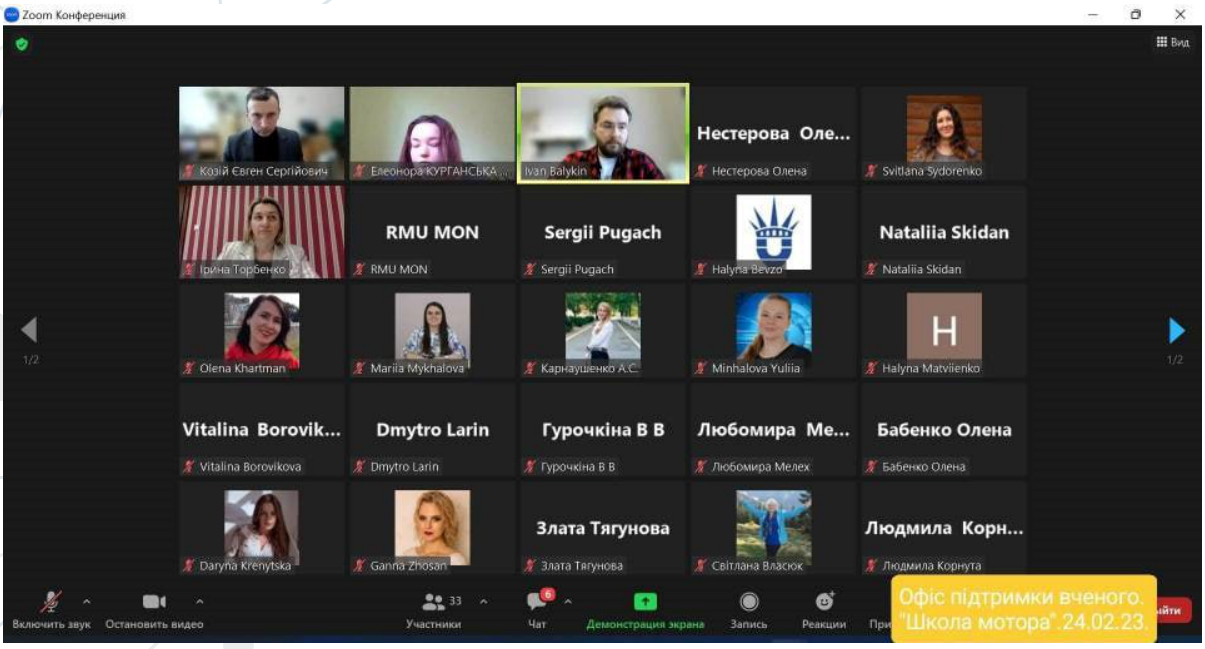
- Opening of the Mentor School;
- Introduction to the programme of the day;
- Presentation of the Euratom programme;
- Practical tips for partner search and filling out an application;
- Closing Session & Feedback

Mentors:

- Sergii PUGACH – Coordinator of the Euratom NCP in Ukraine;
- Ivan BALYKIN – Coordinator of the Scientist Support Office

The Euratom NCP was invited by the organizers of the project "MENTOR SCHOOL" – the Scholar Support Office of the Ministry of Education and Science of Ukraine.

The materials presented during the webinar were prepared within the UAinEuratom21 project, GA#101072963, funded by the European Union under the Euratom Programme (Horizon Europe).



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EVENTS

PhD Event 2023

23-08-2023 - 25-08-2023, Lausanne, Switzerland
On 23-25 August 2023, École polytechnique fédérale de Lausanne welcomes European fusion PhD students to Lausanne, Switzerland. During the event, there is time to meet fusion researchers and fellow PhD students. It is the best opportunity to strengthen and expand your fusion research network. You can register here.
Keep in mind that you need a FuseNet account to be able to register for the event.
Creating a new FuseNet account can be done the using this link.

https://fusenet.eu/event/phd-event-2023

15th International Symposium on Fusion Nuclear Technology

10-09-2023 - 15-09-2023, Las Palmas de Gran Canaria, Spain
The International Symposium on Fusion Nuclear Technology (ISFNT) is one of the main international events for the nuclear fusion field and offers an outstanding opportunity for the fusion community to meet, discuss new ways to address complex problems, and find advanced solutions in nuclear fusion technologies.

https://fusenet.eu/event/15th-international-symposium-fusion-nuclear-technology

FuseNet Master Event 2023

23-11-2023, Virtual
The annual FuseNet Master Event will take place again on 23 November 2023! The event will be fully online, without cost of registration.
More information will follow at a later time.

https://fusenet.eu/event/fusenet-master-event-2023

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THE EUROPEAN FISSION AND FUSION EDUCATION NETWORKS

FuseNet

The FuseNet Association was founded to be a platform for the coordination of European fusion education in 2010. And that is what we have been doing ever since. Rooted in academia, we are driven by the notion that the students of now will be the researchers, engineers and pioneers of the future. By connecting and facilitating educators and students across Europe, we build on this understanding. We want to make fusion the place to be for bright and motivated people. By connecting academia with industry and supporting student mobility we stimulate fusion students to get in touch with the work field.

Vision everyone in Europe should have access to fusion education, appropriate for their role in society.
Mission building a network of people to make fusion a reality.
Principles community, mobility, diversity, accessibility, excellence

Why would you join us…

…as a university

Joining our network is of great practical importance for your students, allowing them to

- apply for mobility funding, for internships and educational events;
- get unlimited access to all our educational materials.

It is also of great relevance to your organisation, amongst others allowing it to

- join our ever-growing network of fusion institutes across Europe;
- access to our funding schemes aimed specifically at organisations (see the funding tab);
- take a seat in the General Assembly and co-decide on the future of European fusion education.

…as a research institute or company

The FuseNet Association has unparalleled access to students in the fusion field. During their studies these students will be looking for experiences outside of their textbooks like internships and workshops. After their studies, these students will be looking for PhD positions or industry jobs.

Joining our association, allows your company or research institute to

- become more attractive to students for internships since they can apply for FuseNet funding for a project at your organization;
- enjoy greater visibility towards your prospective employees;
- take a seat in the General Assembly;
- join our ever-growing network of fusion institutes across Europe;
- stay up-to-date with and exchange fusion education and training resources

More information: https://fusenet.eu

ENEN

The European Nuclear Education Network, (ENEN) is an international nonprofit organization (aisbl) established under the Belgian law. The main purpose of the ENEN Association is the preservation and the further development of expertise in the nuclear fields by higher education and training in Europe.

The mission of ENEN is the preservation and the further development of expertise in the nuclear fields by higher Education and Training. This objective should be realized through the co-operation between universities, research organisations, regulatory bodies, the industry and any other organisations involved in the application of nuclear science and ionising radiation.

Among projects with ENEN participation are ENEN2Plus, OFFER, TANDEM, FREDMANS, INSC T&T, ELSE, GO-VIKING, GREAT PIONEER, SATE, ARIEL, TRASNUSAFE, PELGRIMM, ELINDER, PETRUS III, ANNETTE, SARENA, SARENA, MEET-CINCH, CORONA II, NUSHARE, ECNET, NEPTUNO and other.

More information: https://enen.eu