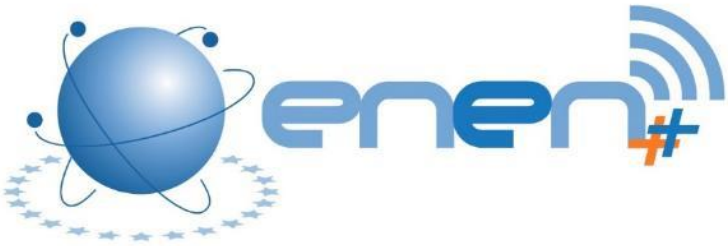
Funded by the European Union



(Project Number: 101061677)

DELIVERABLE D2.3

Report on the organization of nuclear awards

Lead Beneficiary: SCK CEN

Due date: 31/12/2025 Released on: 27/11/2025

Authors:	Luyten Jakob (SCK CEN), Cerba Štefan (STUBA), Pesznyák Csilla (BME), Ferrucci Barbara (ENEA), Pavel Gabriel (ENEN) and Coeck Michèle (SCK CEN)	
Approved by Lead Beneficiary	**Reviewed by Work Package Leader**	**Approved by Coordinator**
Luyten Jakob 28-nov-2025 | 08:19 CET Signed by: Luyten Jakob 1787B1475D534C0...	Coeck Michèle 28-nov-2025 | 08:50 CET Signed by: Coeck Michèle 094E81D9247C4A5...	Pavel Gabriel 01-dec-2025 | 10:21 CET Signed by: Gabriel Pavel 1A000C33F68F428...

Dissemination Level		
PU	Public	**x**
RE	Restricted	
SEN	Sensitive	

Version control table

Version number	Date of issue	Author(s)	Brief description of changes made
0.1	08-04-2024	LJ	First draft
0.2	26-06-2025	LJ	Update with past events
0.3	19-11-2025	CS, PC, FB & LJ	Update after review partners
0.4	19-11-2025	CM & LJ	Update after review WP leader
1.0	26-11-2025	LJ	Final first version
1.1	27-11-2025	PGL	Added input on the final version

Disclaimer
"Funded by the European Union. Views and opinions expressed are however those of the author(s) only and do not necessarily reflect those of the European Union or European Commission. Neither the European Union nor the European Commission can be held responsible for them."

EXECUTIVE SUMMARY

The ENEN2plus project, funded by the European Union, aims to strengthen and sustain nuclear education, training, and knowledge management across Europe. Deliverable D2.3 presents a comprehensive overview of the project's nuclear award initiatives, which are designed to promote interest, excellence, and public engagement in nuclear science and technology among diverse target groups—from secondary school pupils to PhD students.

To attract younger audiences, ENEN2plus organized video competitions in conjunction with nuclear science camps in Hungary (2023) and Italy (2025). These competitions engaged secondary school teams to creatively showcase nuclear applications through short videos. The finalists were invited to attend international science camps, where they presented their work. Across both years, nearly 200 submissions were received from 19 countries, reflecting broad European and international interest.

A STEM Award for secondary school teachers was introduced to recognize innovative efforts in promoting science and nuclear topics in classrooms. Four laureates were honoured based on impact, creativity, and relevance to nuclear education, and were invited to participate in an ENEN2plus-IAEA teachers' workshop.

For university-level students, ENEN2plus hosted BSc and MSc thesis competitions integrated with summer schools in Slovakia (2024) and Hungary (2025). Participants were selected based on their thesis work. The 2024 competition featured 40 finalists from 29 countries and awarded distinctions in categories spanning nuclear physics, radiation protection, medical physics, and waste management. The 2025 competition featured 41 finalists from 40 countries and awarded distinctions in categories spanning nuclear physics and engineering, radiation protection and nuclear energy, medical physics, and waste management and other.

PhD candidates were recognized through the annual ENEN PhD Event and Prize, held in collaboration with major nuclear events such as ENYGF (2023), ECMP (2024), and FISA-EURADWASTE (2025). Finalists presented their research to expert juries and peers, with three to four laureates selected annually to receive funding for conference participation. These events emphasized scientific excellence, communication skills, and the relevance of doctoral research. The 20th edition will be held during the PHYSOR in 2026.

Overall, the ENEN2plus awards have proven to be an effective and inclusive strategy to foster nuclear literacy and public engagement. By linking these awards to educational and scientific events, the project has maximized visibility, impact, and resource efficiency—contributing meaningfully to the sustainability of nuclear education and the development of the future nuclear workforce in Europe.

TABLE OF CONTENT

1. INTRODUCTION

In a rapidly evolving scientific and technological landscape, the future of the nuclear sector in Europe depends on attracting, developing and retaining the next generation in the nuclear sector. Within this context, the ENEN2plus project plays a pivotal role in reinforcing the visibility and appeal of nuclear education, research, and applications across all educational levels. One of the key strategic tools employed to achieve this is the establishment of a diverse portfolio of nuclear awards that recognize excellence, creativity, and engagement in the field.

This report, Deliverable D2.3, provides an overview of these awards under the ENEN2plus framework. It showcases a series of impactful initiatives targeting a wide audience—from enthusiastic secondary school pupils and their inspiring teachers to highly motivated BSc, MSc, and PhD students.

The awards are designed not only to honour outstanding achievements, but also to inspire wider participation in nuclear science. By linking the award ceremonies to existing events and international summer schools, ENEN2plus ensures cost-efficiency while maximizing outreach and visibility. Through dynamic activities such as video competitions, thesis contests, and recognition of exceptional teaching, the project fosters a vibrant and inclusive nuclear community across Europe.

Furthermore, these initiatives contribute to promoting STEM education and encouraging young minds to explore careers in nuclear-related disciplines. They also serve as an important mechanism to highlight and share best practices in nuclear education and public engagement. Supported by a dedicated work package and a consortium-wide dissemination effort, the nuclear awards represent a key milestone in the project's broader mission to enhance knowledge transfer, build capacity, and support the long-term sustainability of the European nuclear sector.

In the sections that follow, this report will detail the various award categories.

2. ENEN2PLUS NUCLEAR AWARDS

2.1 Initiatives for secondary school pupils and their teachers

2.1.1 Video competition for nuclear science camp 2023, Hungary

A first initiative for pupils and their teachers was the video competition linked with the 3rd nuclear science camp. The flyer is available as ANNEX I Flyer 3rd European Nuclear Competition for Secondary Schools.

The task was to create a 3-minute video introducing a self-selected nuclear application with a team consisting of two secondary school pupils and one teacher.

The competition rules ,as cited on the competition website, were as followed (1):

"(a) A video of minimum 3 minutes and maximum 4 minutes introducing a nuclear application.
(b) Preferably in English or when in another language it must have English subtitles.
(c) Free of copyrighted materials such as music, images and video clips that may violate or infringe upon the copyright of any other person or organization. It is the responsibility of the participants and not of the ENEN to ensure that all contents used in the project is free from copyright.
(d) By submitting the competition material, participants agree to assign to the ENEN the copyright to publish the video or digital media presentation on the ENEN website, social media and other platforms and certify that no other rights have been granted which could conflict with the right hereby given to the ENEN."

The finalist teams which were selected by the jury, based on the arithmetic ranking of the scores by the jury members, were invited in person to the nuclear science camp where they had to present their video and the making off process with a short presentation. This event was organised from 3-7 July, 2023.

Figure 1 Group picture of all teams taken on one of the days after the competition

The jury consisted out of several experts from several institutions namely Csilla Pesznyák (BME), Roberta Cirillo (ENEN), Lois Tovey (UnivLeeds), Emilia Janisz (ENS), Chantho Creze (Westinghouse), Leon Cizelj (JSI), Walter Ambrosini (CIRTEN, UniPi), Gianfranco Caruso (CIRTEN, UniRo), Mario Mariani (CIRTEN, UniMi), Gabriel Pavel (ENEN), Dimitris Visvikis (EFOMP), Jakob Luyten (SCK CEN), Dario Cruz (Fusenet) & Jenő Dicse (SkillDict).

In total, 50 submissions were received from 12 European countries. Entries were done by Belgian (4), Bulgarian (3), Czechian (1), Spanish (5), Croatian (7) Hungarian (2), Italian (11), Polish (4), Portuguese (1) Romanian (8), Swedish (2) and Ukrainian (2) teams.

16 finalist teams from Belgium (1), Bulgaria (3), Czech Republic (1), Spain (1) Croatia (3), Hungary (1), Italy (2) Portugal (1), Romania (2) and Ukraine (1) attended the nuclear science camp.

The three best videos, according to the jury, were awarded €1500 per team (€500 per team member).

The laureates of best video award were team 'FusePower' from Spain, team 'Astromars' from Romania and team 'Alpha-ntastic Duo' from Italy. The most popular video (€1200 for team) voted by all participants was from team 'Lighting panda' from Czech Republic. Team 'Energizer' from Ukraine was awarded with the most artistic video (€1200 for team). Two special awards were given by SkillDict and the Hungarian Society for Medical Physics. These awards were respectively handed by Jenő Dicse and Csilla Pesznyák to team 'Green friends' from Romania and team 'Geminus' from Croatia.

More information on the competition and the organization of the nuclear science camps are available on https://nuclearcompetition2023.enen.bme.hu/ and in D2.5 'Report on the organization of the nuclear competitions'. The finalist videos and a summary of the event are available on YouTube: https://www.youtube.com/watch?v=hKHZlpy4EAE.

2.1.2 Video competition for nuclear science camp 2025, Italy

A second nuclear competition with science camp was organised in the framework of the ENEN2plus project (2). The flyer used to disseminate the event is presented in ANNEX II Flyer 4th European Nuclear Competition for Secondary Schools.

The task for the student-teacher teams is the same as in the 2023 edition namely to create a 3-minute video introducing a self-selected nuclear application and to provide a cover letter explaining their work process.

In total, 136 applications were submitted and evaluated by the jury. This jury consisted out of Mattia Baldoni (ENS), Walter Ambrosini (CIRTEN-UniPi), Lois Tovey (UnivLeeds), Chiara Telloli (ENEA), Minodora Apostol (RATEN), Gianfranco Caruso (CIRTEN-UniRo), Mirela Nitoi (RATEN), Elena Macerata (CIRTEN-PoliMi), Jakob Luyten (SCK CEN, and Gabriel Pavel (ENEN).

The 132 applications originated from 17 different countries as presented in the graph on the next page. The non-European county is Pakistan (1 application), the non-EU countries are United Kingdom (1), Ukraine (3), Turkey (54), Serbia (1), Norway (1), Albania (1) and Montenegro (2), and the other EU countries, other than Romania (29), Italy (13), Bulgaria (10) and Croatia (6), are Belgium (2), Hungary (1), Poland (2), Portugal (2), Spain (2) and Sweden (1).

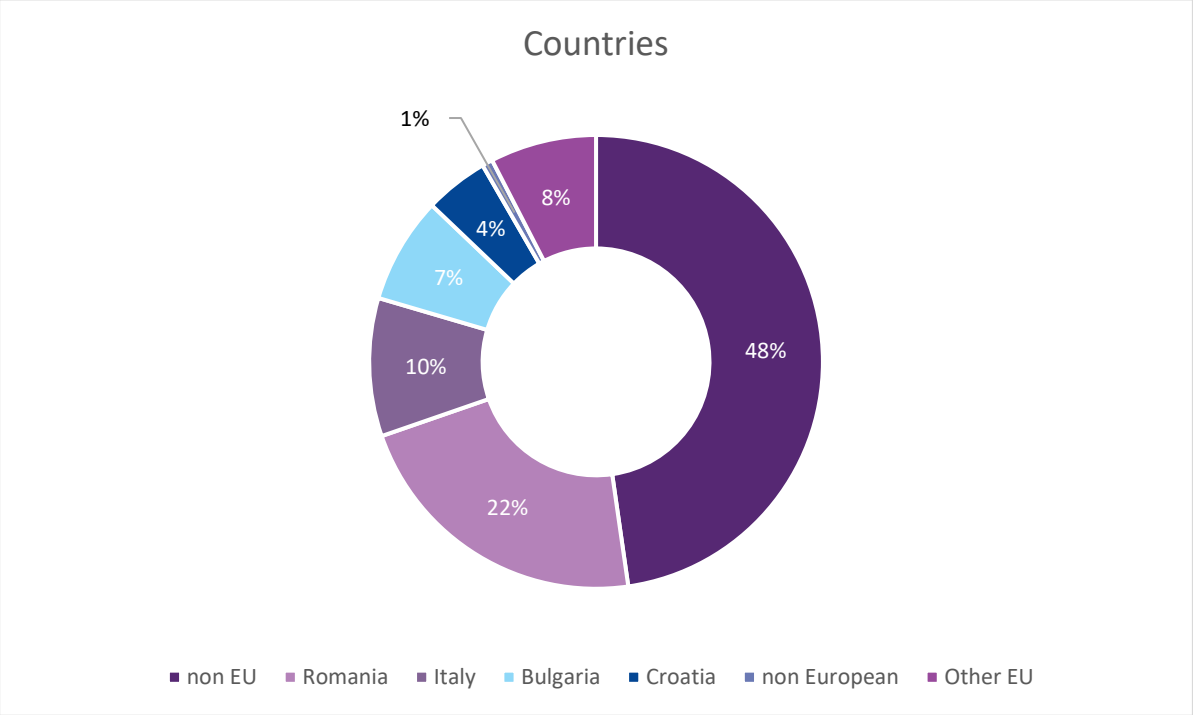


Figure 2 Distribution of the applications by country

All applications were equally distributed between the jury members and were evaluated according to the evaluation sheet presented in ANNEX VIII Evaluation sheet video competition 2025. This resulted in a shortlist of 42 video's which were again equally distributed to jury but assuring a different distribution. Based on this second review round the 15 finalist teams were selected.

The 15 teams are from Turkey (2), Bulgaria (3), Hungary (1), Portugal (1), Montenegro (1), Ukraine (1), United Kingdom (1), Romania (3), Sweden (1) and Norway (1). These 15 teams were invited to participate in person in the nuclear science camp where they showed their video to the jury and their peers. The jury evaluated the presentations with the evaluation sheet presented in ANNEX IX Evaluation sheet video competition 2025 – part 2. The nuclear science camp was organised from July 14 – 18, 2025 in Bologna, Italy by ENEA. A group photo with the finalist teams and part of the jury is presented in Figure 3 on the next page.

Figure 3 group pictures of the finalist teams

The three best videos, according to the jury, were awarded €1500 per team (€500 per team member).

The laureates of best video award were team 'Nuclear Detectives' from Bulgaria, team 'Quantum Crop' from Bulgaria and team 'Nuclear PETs' from Romania. The three winning teams are presented in Figure 4 below.

Figure 4 Overview of the winning teams with Quantum Crop (left), Nuclear Detectives (middle) and Nuclear PETs (right)

More information on the competition and the organization of the nuclear science camps are available on https://secondaryschoolcomp2025.enen.bme.hu and in D2.5 'Report on the organization of the nuclear competitions'.

2.1.3 STEM award for teachers

The STEM Excellence award for teachers is granted to active secondary school teachers who promoted STEM in general and nuclear topics specifically at secondary school level. This STEM initiative could range from an in-house designed school trip or project, over custom made teaching materials to a serious (board) game (3).

Teachers who made initiatives to promote STEM could be nominated by their fellow teachers and other school staff, their pupils and parents or national agencies such as national nuclear agencies, teacher associations, …

All applications, 11 eligible applications from 3 countries (Turkey, Hungary and Croatia), were judged by the jury members based on the following criteria:

- Teaching excellence (subject mastery, use of innovative, effective, and engaging didactic methods, proven improved student outcomes, …);
- Innovation and creativity;
- Impact on students (inspiration, inclusivity, …);
- Sustainability and Scalability of initiative;
- Evidence and documentation;
- Community engagement and collaboration with partners;
- Relevance to nuclear science and technology.

The jury consisted out of the following people: Csilla Pesznyák (BME), Walter Ambrosini (CIRTEN-UniPi), Gabriel Pavel (ENEN), Barbara Ferrucci (ENEA), Lois Tovey (UnivLeeds), Jakob Luyten (SCK CEN) and António Paulo (IST).

The laureates were invited to participate with ENEN2plus mobility support to the second ENEN2plus teacher's workshop which was co-organised with IAEA. During this workshop the award ceremony was organised. The three laureates of the STEM award and one additional laureate based on the efforts during the workshop were awarded.

In Figure 5 below, the laureates (Kristóf Tóth from Hungary, Marlena Cukteras from Croatia, Emine Kurt from Turkey and Silvia Faggioli from Italy) are presented their award.

Figure 5 Laureates of the STEM Excellence award with ENEN and IAEA representatives

2.2 Initiatives for BSc and MSc students

2.2.1 BSc/MSc competition and summer school 2024, Slovakia

The thesis work of BSc and MSc students was the basis for the competition organized in the framework of the summer school in Bratislava, Slovakia (4).

In total 84 applications (17 BSc and 67 MSc students) from 29 countries (11 EU member states, 4 non-EU European countries, 5 Asian countries, 8 African countries and 1 South American country) applied with their thesis work. 11 BSc and 29 MSc were selected by the jury based on the quality of the abstract, motivation letter, and recommendation letter to participate in person as finalist. In this final, each contestant presented his work with a 10-minute presentation followed by 5 minutes of Q&A.

The selection criteria, described on the event's website, are the following:

"The criteria for the selection of the participants are:

- *Quality of the paper (abstract)*
- *Clarity of the presentation: ability to communicate the message*
- *Quality of the answers to the questions following the presentation*
- *Ability to communicate enthusiasm,*
- *Formal compliance with the rules, respect of the allocated time,*
- *Active participation in the event."*

Candidates from all nuclear topics were welcome to participate. Based on the applications, four groups were formed based on the available topics. The competition consisted of the presentations and of the quizzes from the lectures and hands-on exercises. The presentations were held in two parallel and three consecutive sessions. The presentations were in a hybrid mode, while two participants attended the competition online and the rest in-person.

The jury was composed out of the following people:

Table 1 Jury composition of the BSc/MSc competition and summer school 2024

Broad topic 1 Nuclear physics and engineering	Broad topic 2 Radiation Protection and nuclear fusion
Walter Ambrosini (UniPi)	Csilla Pesznyák (BME)
Barbara Ferrucci (ENEA)	Jan Kamenik (CVR)
José Cesar Queral Salazar (UPM)	Justyna Jaczewska-Özcan (NCBJ)
Lois Tovey (UnivLeeds)	Branislav Vrban (STUBA)
Gabriel Pavel (ENEN)	
Broad topic 3 Nuclear Waste Management and safety	Broad topic 4 Medical physics
David Harbottle (Univleeds)	Gillegan Power (EFOMP)
Stellan Holgersson (CHALMERS)	Gábor Stelzer (BME)
Gareth Law (UHEL)	Veronica Rosetti (EFOMP)

Francisco Javier Elorza (UPM)	Tom Clarijs (SCK CEN)

For the MSc competition the students were divided as follows over the different topics:

- Nuclear physics and engineering: 8
- Radiation protection and nuclear fusion: 6
- Medical physics: 8
- Nuclear waste management and safety: 7

Due to the more limited number of BSc students, two topics were combined:

- Nuclear physics and engineering, and Nuclear waste management and safety: 6
- Radiation protection and nuclear fusion, and medical physics: 5

The final ranking of the laureates was based on the presentation of the student in front of the jury (80% of the score) and on active participation in the lectures and hands-on exercises in the adjoining summer school through quizzes (20% of the score). In case of the online participants, the score from quizzes consisted only the 4 lectures, which were broadcasted online. In case of the in-person participants, the quizzes included also the topics from the 4 hands-on exercises.

The list of laureates is presented below in Table 2.

Table 2 Overview of BSc and MSc competition laureates, 2023

Name	Country	Award
Serdar Yildiz	Belgium	1st place BSc Competition
Sven Jaspers	Belgium	2nd place BSc Competition
Caterina Frau	Italy	3rd place BSc Competition
Nikola Petreski	Serbia	1st place BSc Quizzes Award
Sophie Deanesi	Italy	1st place MSc Competition - Nuclear physics and engineering
Juan Jose Gomez-Rodrigues	Colombia	2nd MSc Competition - Nuclear physics and engineering
Jasmin Joshi-Thompson	United Kingdom	1st place MSc Competition - Radiation Protection and nuclear fusion
Luca Eugeni	Italy	2nd place MSc Competition - Radiation Protection and nuclear fusion
Patricia Valdes Portas	Spain	1st place MSc Competition - Nuclear Waste Management and Safety
Flavia Guidubaldi	Italy	2nd place MSc Competition - Nuclear Waste Management and Safety
Alberto Gil	Spain	1st place MSc Competition - Medical Physics
Anna Magdalini Psyrillou	Greece	2nd place MSc Competition - Medical Physics

Nicola Zancopè	Italy	1st place MSc Quizzes Award
Valentin Roch	France	2nd place MSc Quizzes Award

More information on the competition and the organization of the summer school are available on https://nuclearcompetition2024.enen.bme.hu/ and in D3.3 'Report on the organization of BSc, MSc and PhD competitions and summer schools'.

Figure 6 Group picture of the finalist and jury members during the summer school 2024 in Bratislava, Slovakia

2.2.2 BSc/MSc competition and summer school 2025, Hungary

Similar to last edition, the thesis work of both BSc and MSc students gets the students a spot in the finale during the summer school in Budapest, Hungary (5).

For selecting the finalists the same criteria as in 2023 were used.

41 finalists were selected from 99 applications originating from 40 different countries. 15 BSc and 26 MSc students were selected by the jury based on the quality of the abstract, motivation letter, and recommendation letter to participate in person as finalist. In this final, each contestant presented his work with a 10-minute presentation followed by 5 minutes of Q&A.

Figure 7 Group picture of the finalist and jury members during the summer school 2025 in Budapest, Hungary

The final was held in several topical sessions as presented below.

- Medical Physics (GA1) for MSc students (6)
- Medical Physics (GC1) for BSc students (4)

These sessions were judged by Richard Elek (BME), Tom Clarijs (SCK CEN), Štefan ČERBA (STUBA), Péter Zagyvai (BME), Csilla Pesznyák (BME), Gábor Stelczer (BME), András Herein (NIO) and Antonio Jreije (EFOMP).

- Radiation protection and nuclear energy (GB1) for MSc students (7)
- Radiation protection (GD1) for BSc students (3)

These sessions were judged by Maté Szieberth (BME), Walter Ambrosini (UniPi), Štefan Čerba (STUBA), Tom Clarijs (SCK CEN), Gabriel Pavel (ENEN), Mareck Kirejczyk (NCBJ), Branislav Vrban (STUBA) and Richard Elek (BME).

- Nuclear physics and engineering (GA2) for MSc students (6)
- Nuclear physics and engineering (GC2) for BSc (2) and MSc students (3)

These sessions were judged by Maté Szieberth (BME), Walter Ambrosini (Unipi), Lois Tovey (UNIVLEEDS), Gareth Law (UHel), Gabriel Pavel (ENEN), Mareck Kirejczyk (NCBJ), Branislav Vrban (STUBA) and Francisco Javier Elorza (UPM).

- Nuclear waste management and Other (GB2) for MSc students (7)
- Nuclear waste management and other (GD2) for BSc (2) and MSc students (1)

These sessions were judged by Francisco Javier Elorza (UPM), Gareth Law (UHel), Lois Tovey (UNIVLEEDS), Péter Zagyvai (BME), Csilla Pesznyák (BME), Gábor Stelczer (BME), András Herein (NIO) and Antonio Jreije (EFOMP).

In total 12 laureates were selected over the different groups. The laureates are listed in Table 3 below and a group picture of the laureates is presented in Figure 8 on the next page.

Table 3 Overview of BSc and MSc competition laureates, 2025

Name	Country	Award
Anna Skouloudaki	Greece	Nuclear physics and engineering -1st place MSc
Pierluigi Faustini	Italy	Nuclear physics and engineering -2nd place MSc
Silvia Picchi	Italy	Nuclear physics and engineering -3rd place MSc
Matteo Monti	Italy	Nuclear physics and engineering -1st place MSc
Anna Anchini	Italy	Radiation protection -1st place MSc
Cara McKeever	Ireland	Radiation protection -1st place BSc
Mara McCleary	Canada	Nuclear Waste Management and other – 1st place MSc
Giuseppe Marinelli	Italy	Nuclear Waste Management and other – 2nd place MSc
Karolína Nejedlá	Czech Republic	Nuclear Waste Management and other – 1st place BSc
Giovanni Gasperini	Italy	Medical physics – 1st place MSc
Evon Smyth	Ireland	Medical physics – 2nd place MSc
Jacob Andriessen	Ireland	Medical physics – 1st place BSc
Eliška, Vesela	Czech Republic	Quiz award
Francesco, Barattini	Italy	Quiz award

More information on the competition and the organization of the summer school are available on ENEN Nuclear Competition 2025 and in D3.3 'Report on the organization of BSc, MSc and PhD competitions and summer schools'.

Figure 8 Group picture of the laureates of the BSc and MSc competition 2025 in Budapest, Hungary

2.3 Initiatives for PhD students

On a yearly basis, a PhD event and prize is organized by ENEN to promote the research in the broad nuclear field of scientists who are in the end phase of their PhD studies. The event is co-sponsored by the European Commission Joint Research Centre (JRC). More information on all organised PhD events is available in D3.3 'Report on the organization of BSC, MSC and PhD competitions and summer schools' and on the ENEN website (6).

2.3.1 17th ENEN PhD event and prize at ENYGF, Kraków

In 2023, 12 finalists were selected by the jury out of all applicants based on their application form. These 12 finalists had the opportunity to present their work with a 25-minutes presentation followed by 5 minutes of Q&A by the other candidates and the jury. The event was held as a sidetrack at the ENYGF in Kraków, Poland on Wednesday May 10, 2023. The flyer of this event is available as ANNEX VI Flyer ENEN PhD Event and prize 2023.

The candidates were evaluated by the jury on the following criteria:

1) Quality of the work
2) Clarity of the presentation: ability to communicate the message
3) Quality of the answers to the questions following the presentation
4) Ability to communicate the enthusiasm
5) Quality of the iconographic materials
6) Formal compliance with the rules (respect of the allotted time)
7) Active participation in the ENEN PhD event

Each member of the jury marked each of the previous item from 0 to 4 (null to very good). An arithmetic ranking was established, and the results were discussed until a consensus was reached.

The jury members present on the day of the event were Francisco Javier Elorza (chair of the jury, UPM), Csilla Pesznyák (BME), Piero Ravetto (CIRTEN), Gabriel Pavel (ENEN), Jakob Luyten (proxied by Michèle Coeck, SCK CEN) and Manuel Martín Ramos (JRC).

The laureates and the group of candidates with the jury are presented in Figure 9. The laureates were Emilie Baudat, Lisa Lampunio and Riccardo Cocci. Each laureate receives a prize of €1000 to attend a conference of its own choice.

Figure 9 Laureates of the ENEN PhD and Prize 2023 with ENEN and JRC representatives (left) and all finalists and jury members of the 2023 event

More information on the laureates and their work can be found on the following website: https://enen.eu/index.php/phd-events/phd-ep-year-2023/.

In Figure 10, on the next page, the distribution on country of origin, nuclear topic, institutes and gender balance are presented.

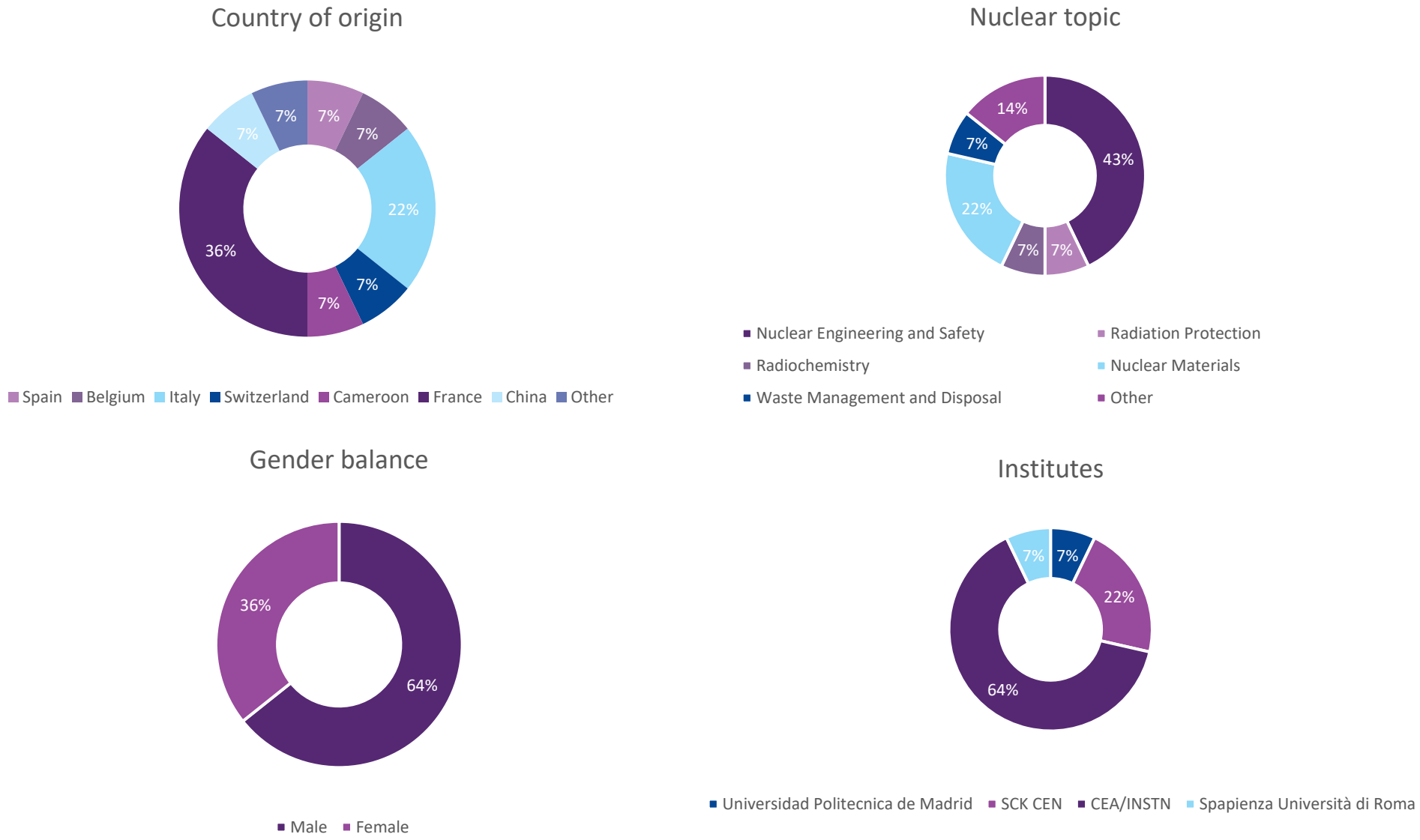


Figure 10 Distribution of country of origin (top left), nuclear topics (top right), institutes (bottom right), and gender balance (bottom left) between the applicants.

2.3.2 18th ENEN PhD event and prize at ECMP, Munchen

The 18th edition of the ENEN PhD event and prize was held on September 11, 2024 at the European Congress of Medical Physics (ECMP) in Munich, Germany as part of the scientific program of this conference. The flyer of the event is presented in ANNEX VII Flyer ENEN PhD Event and prize 2024.

For this edition, 18 finalists were selected from 28 applications, based on the application form and abstract of their work. 16 selected finalists presented their work at the conference in front of the jury and other conference participants. The finalist originated from 9 different countries (Croatia, Belgium, France, Italy, Lebanon, Mauritania, Mexican, Portugal and Spain) and represented 10 institutes. The detailed data on the country of origin, the institutes, the nuclear topic and gender balance are presented in Figure 12 on the next page.

The jury consisted out of Francisco Javier Elorza (chair of the jury, UPM), Csilla Pesznyák (BME), Piero Ravetto (CIRTEN), Gabriel Pavel (secretary of the jury, ENEN), Jakob Luyten (proxied by Michèle Coeck, SCK CEN) and Manuel Martín Ramos (JRC).

Based on the same criteria as used in 2023 (see 2.3.1) four laureates were selected. The four laureates are presented in Figure 11 on the next page as follows: Aurore Caquas (bottom left), Noélia Fuentes Solis (top right), Catarina Isabel Guilherme Pinto (middle left) & Carlos Vázquez-Rodríguez (bottom right). Each laureate receives a prize of €1000 to attend a conference of its own choice.

Figure 11 Group picture and pictures of the laureates of the ENEN PhD and Prize 2024 (left) and a group picture including the jury (right)

More information on the laureates and their work can be found on the following website: PhD E&P Year 2024 – European Nuclear Education Network.

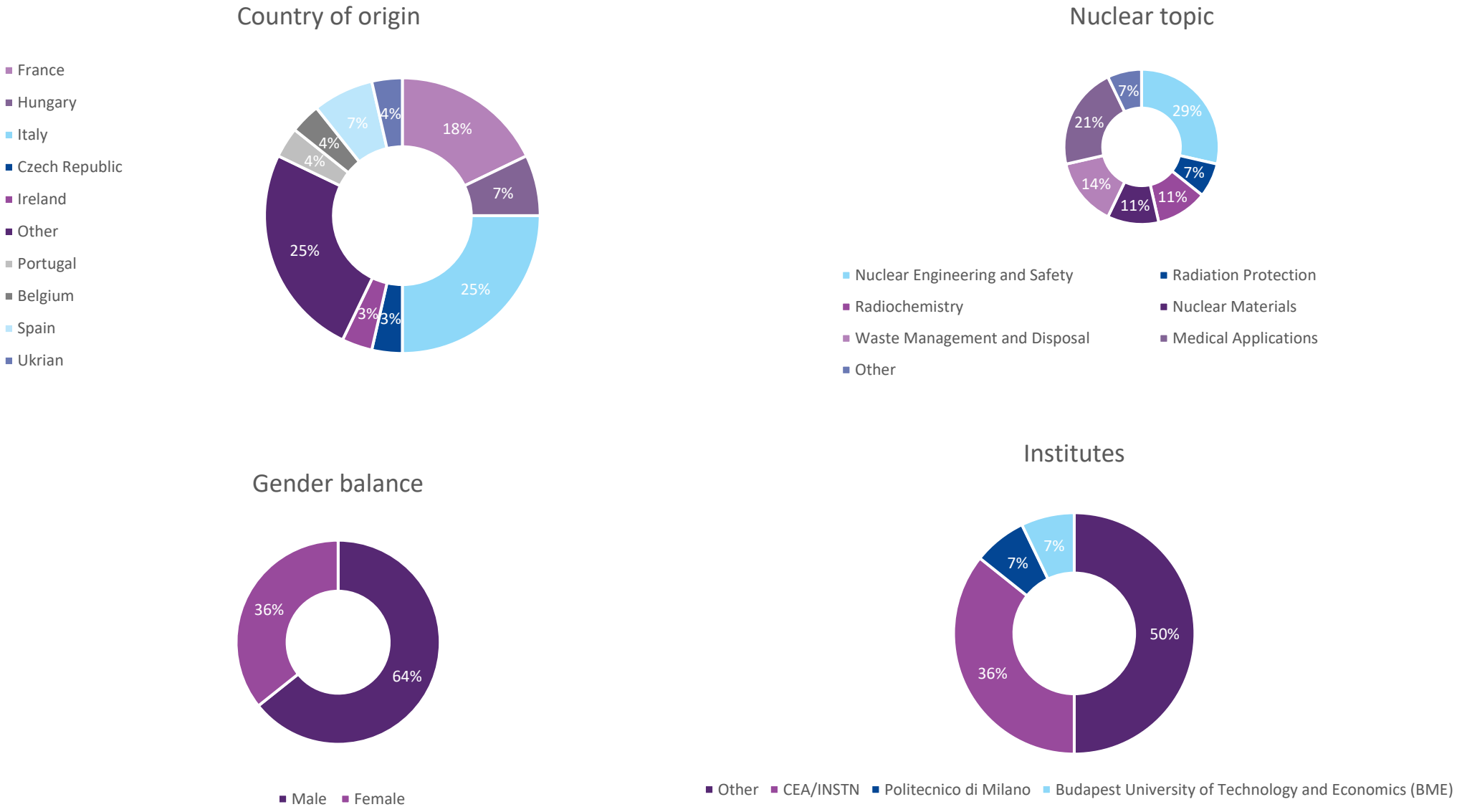


Figure 12 Distribution of country of origin (top left), nuclear topics (top right), institutes (bottom right), and gender balance (bottom left) between the applicants.

2.3.3 19th ENEN PhD event and prize at FISA-EURADWASTE, Warsaw

The 19th ENEN PhD event and prize was organised on May 12, 2025 during the FISA-EURADWASTE conference in Warsaw, Poland. The award ceremony was scheduled on May 15, 2025. For the 2025, no specific flyer was created.

All 17 submitted applications were selected as finalist because the jury determined that the level of candidates' work did not allow for a clear distinction between the candidates. 16 finalists presented their work with a 15-minute presentation followed by 5-minute Q&A by the audience and jury. The detailed data on the country of origin, nuclear topic, institute and gender balance is presented in Figure 14 on the next page.

The jury consisted out of Francisco Javier Elorza (chair of the jury, UPM), Gabriel Pavel (secretary of the jury, ENEN), Michèle Coeck (SCK CEN), Heikki Suikkanen (Lappeenranta-Lahti University of Technology, LUT, Finland), Iztok Tiselj (Jožef Stefan Institute, JSI, Slovenia), Piero Ravetto (Consorzio Interuniversitario per la Ricerca Tecnologica Nucleare, CIRTEN, Italy), Danny Lathouwers (Delft University of Technology, DUT, The Netherlands), Teodora Retegan Vollmer (Chalmers University of Technology, CUT, Sweden), Csilla Pesznyak, (Budapest University of Technology and Economics, BME, Hungary), and Manuel Martin Ramos (EC-JRC).

Three laureates were selected by the jury based on the same criteria presented in paragraph 2.3.1 namely Thibault Sauzedde, Stefano Riva and Pau Aragon Grabiel. The group of finalist and jury members and the laureates are presented in Figure 13 below. Each laureate receives a prize of €1000 to attend a conference of its own choice.

Figure 13 Group picture of candidates, jury and ENEN representatives (left), and laureates with jury members (right)

More information on the laureates and their work can be found on the following website: https://enen.eu/index.php/phd-events/phd-ep-year-2025/.

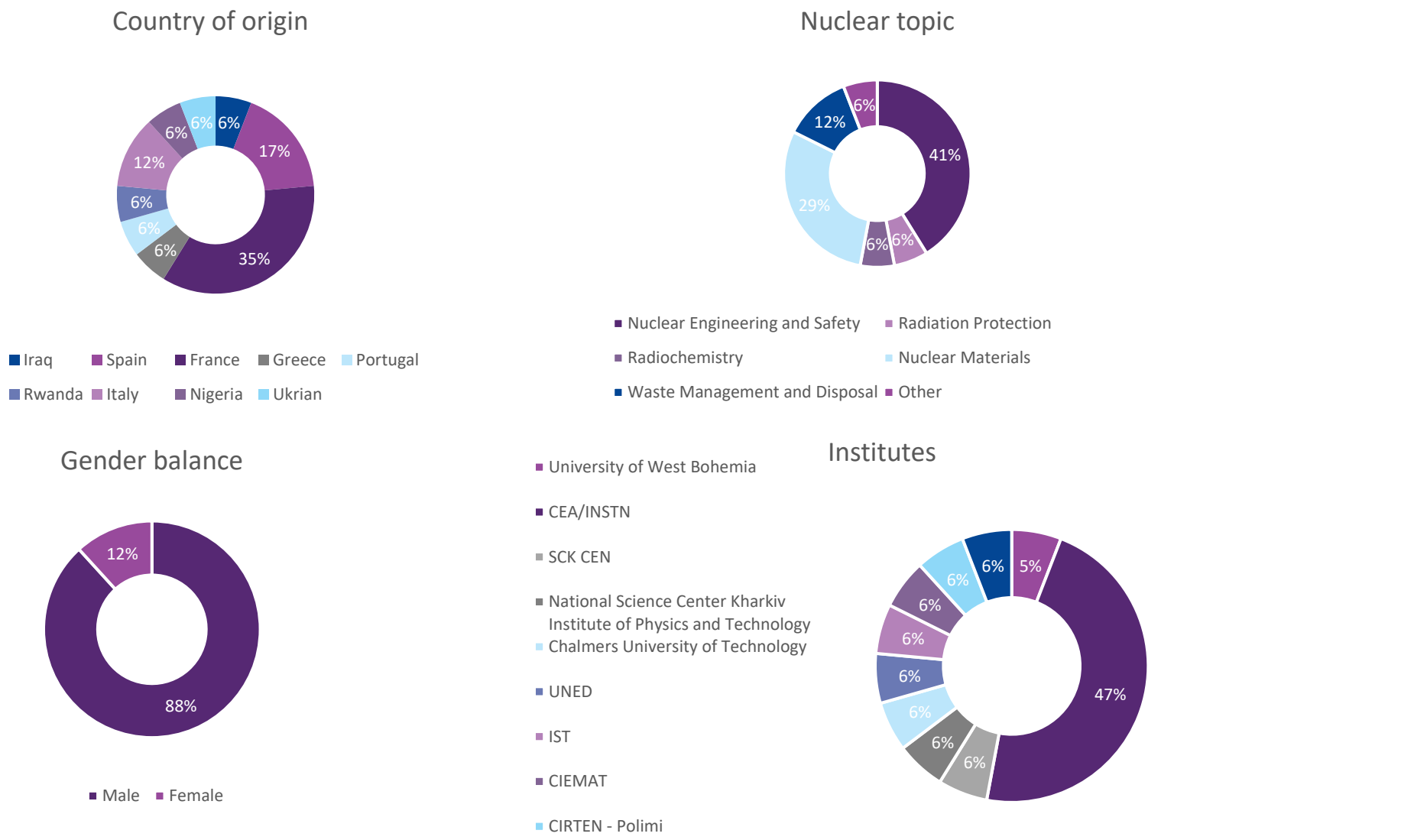


Figure 14 Distribution of country of origin (top left), nuclear topics (top right), institutes (bottom right), and gender balance (bottom left) between the applicants.

2.3.4 20th ENEN PhD event and prize

The 20th ENEN PhD event and prize is announced to be hosted during the PHYSOR 2026 conference – International Conference on the Physics of Reactors. This conference will take place between April 19-23, 2026 in Turin, Italy.

More information is available on the dedicated ENEN website: https://enen.eu/index.php/phd-events/phd-ep-year-2026/.

2.4 Nuclear Science Communication Award

Based on a discussion between SCK CEN and nucleareurope, an initial proposal was drafted containing selection criteria, possible jury members, possible events, timeline and application procedure. At the time of finalising this document, no further action was taken in the organisation of the event.

3. CONCLUSIONS

The ENEN2plus nuclear awards initiative has demonstrated significant success in promoting nuclear education, fostering scientific excellence, and enhancing public engagement across Europe and beyond. Through a diverse portfolio of competitions and awards—ranging from video contests for secondary school pupils to thesis and research presentations for university and PhD students—the project has effectively reached a wide spectrum of stakeholders in the nuclear field.

The video competitions in 2023 and 2025 attracted nearly 200 submissions from 19 countries, including non-EU and non-European nations. The inclusion of countries such as Turkey, Ukraine, and Pakistan underscores the project's capacity to engage diverse educational communities.

The STEM Award for teachers successfully acknowledged and incentivized creative pedagogical approaches to nuclear topics, fostering a culture of innovation in science education at the secondary school level.

The BSc and MSc thesis competitions and summer schools in Slovakia (2024) and Hungary (2025) brought together students from over 40 countries, covering a wide range of nuclear disciplines. The structured evaluation process and thematic categorization ensured a fair and comprehensive assessment of student work.

The ENEN PhD Event and Prize series, held in conjunction with major conferences (ENYGF, ECMP, FISA-EURADWASTE), provided a prestigious platform for doctoral candidates to present their research, receive expert feedback, and gain visibility. The events also contributed to gender and geographic diversity, with participants from Europe, Africa, Asia, and Latin America.

Strategic integration with existing events has proven to be a cost-effective and visibility-enhancing approach. By aligning award ceremonies with international conferences and summer schools, ENEN2plus maximized impact.

Thematic breadth and inclusivity have been central to the projects success. By covering topics from nuclear engineering and safety to medical physics, the awards reflect the interdisciplinary nature of the nuclear field and appeal to a wide range of interests and career paths.

Data from participant demographics reveal a healthy balance of gender and geographic representation, though some events (e.g., the PhD events) still show a male-dominated applicant pool. Future editions could benefit from targeted outreach to underrepresented groups to further enhance inclusivity.

In conclusion, the ENEN2plus nuclear awards have not only celebrated individual excellence but also contributed to building a vibrant, interconnected, and future-ready nuclear community in Europe. These initiatives serve as a model for how targeted recognition and engagement strategies can drive systemic improvements in STEM education and workforce development.

4. ANNEXES

4.1 ANNEX I Flyer 3rd European Nuclear Competition for Secondary Schools

4.2 ANNEX II Flyer 4th European Nuclear Competition for Secondary Schools

4th EUROPEAN NUCLEAR COMPETITION FOR SECONDARY SCHOOLS

Bologna, Italy – 14-18 July 2025

Participants

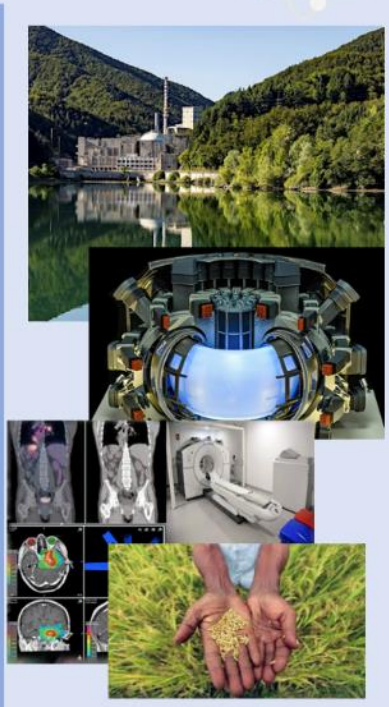
Pupils enrolled in secondary schools in European States. Each Team consists of **two pupils and one teacher.**

How to participate

Form a team of with a classmate and a teacher. Create a 3 minutes video (maximum 4 minutes) introducing a specific nuclear application (e.g. energy, radiation protection, medicine, radioactive waste, etc.). Register for the competition and upload the video and clear motivation and description of the video through the website by March 31, 2025.

Awards

Significant cash prizes will be granted at the competition.
In-person participation in the nuclear science camp for 15 finalist teams of the video competition.



Video submission deadline: 31 March 2025
Nomination of 15 finalist teams: 15 April 2025

Contact
nuclear.competition@enea.it

Funded by the European Union

4.3 ANNEX III Flyer STEM Award

4.4 ANNEX IV Flyer BSc and MSc competition and Summer School 2024, Bratislava

4.5 ANNEX V Flyer BSc and MSc competition and Summer School 2025, Budapest

4.6 ANNEX VI Flyer ENEN PhD Event and prize 2023

ENEN PhD Event & Prize 2023

European Commission

Scope

The ENEN PhD Event & Prize is an action of the European Nuclear Education Network (ENEN) to **support the Research and Science in the Nuclear fields** promoting the works of the young scientists and researchers in:

- **Nuclear engineering and safety**
- **Nuclear materials sciences**
- **Radiochemistry**
- **Waste & disposal and decommissioning**
- **Medical applications**
- **Radiation protection**
- **and other nuclear applications**

It is co-sponsored by ENEN, the European Commission Joint Research Centre (JRC), and the organizer of the international conference.

YOU

- Are a **PhD student** working on a topic in one of the domains listed **or you obtained your PhD in 2022**.
- Are eager to **share your research** results with peers and professionals in a **multidisciplinary** environment.
- Want to have a **unique opportunity to network** and meet fellow students and nuclear professionals
- Want to take a chance to win **1000 euro**

Application form and **more information:**
https://enen.eu/index.php/phd-events/

Finalists will receive financial support to attend ENYGF 2023 (to cover travel, accommodation, registration fee)

Important steps

- Application with abstract and motivation letter
- Preselection in each nuclear domain
- Selection of finalists by jury of experts
- Presentation of selected work at

ENYGF KRAKÓW 2023

Important dates

13 February 2023	Deadline for application
06 March 2023	Notification finalists
10 May 2023	ENEN PhD Event & Prize Award ceremony @ENYGF conference, Kraków, Poland

Funded by the European Union

This Event is organized in the frame of the ENEN2Plus project. ENEN2Plus is Funded by the European Commission. Views and opinions expressed are those of the authors only and do not necessarily reflect those of the European Union or the European Commission. Neither the European Union nor the European Commission can be held responsible for them.

4.7 ANNEX VII Flyer ENEN PhD Event and prize 2024

ENEN PhD Event & Prize 2024

European Commission

Scope

The ENEN PhD Event & Prize is an action of the European Nuclear Education Network (ENEN) to **support the Research and Science in the Nuclear fields** promoting the works of the young scientists and researchers.

It is co-sponsored by ENEN, the European Commission Joint Research Centre (JRC), and the organizer of the international conference.

- **Nuclear engineering and safety**
- **Nuclear materials sciences**
- **Radiochemistry**
- **Waste & disposal and decommissioning**
- **Medical applications**
- **Radiation protection**
- **and other nuclear applications**

YOU

Are a **PhD student** working on a topic in one of the domains listed **or you obtained your PhD** after February 13st, 2023.

Are eager to **share your research** results with peers and professionals in a **multidisciplinary** environment.

Want to have a **unique opportunity to network** and meet fellow students and nuclear professionals

Want to take a chance to win **1000 euro** to attend a conference of your choice?

Application form and **more information:**

Finalists will receive financial support to attend ECMP 2024 (to cover travel, accommodation & registration fee)

Important steps

- Application with abstract and motivation letter
- Preselection in each nuclear domain
- Selection of finalists by jury of experts
- Presentation of selected work at

ECMP EUROPEAN CONGRESS OF MEDICAL PHYSICS

Important dates

26 March 2024	Deadline for application
22 April 2024	Notification finalists
11 September 2024	ENEN PhD Event & Prize Award ceremony @ECMP, Munich, Germany

Funded by the European Union

This Event is organized in the frame of the ENEN2Plus project. ENEN2Plus is funded by the European Commission. Views and opinions expressed are those of the authors only and do not necessarily reflect those of the European Union or the European Commission. Neither the European Union nor the European Commission can be held responsible for them.

4.8 ANNEX VIII Evaluation sheet video competition 2025

Quality of the video	Max 10 points (20%)		**Maximum score 50**
Scientific contents	Max 15 points (30%)		
Creativity	Max 10 points (20%)		
Cover letter	Max 5 Points (10%)		
Evaluator opinion	Max 10 Points (20%)		**Team Name**
			insert team name
			Topic of the video
			insert the topic
Cover letter [Score range: from 1 to 5]			**Your vote**
Quality of the cover letter			0,00
Technical Quality of the video			**Your vote**
Audio quality: clear voice, balanced sound, no distracting noise [score range of each Criteria: from 1 to 3]			0,00
Video quality: sharp images, good framing and lighting [score range of each Criteria: from 1 to 3]			0,00
[Team Name] - [School name] - [authors names] -[Competition name] - [end credits and/or sources] The video includes all or at least 4 of the above information **(score 4)**			0,00
Scientific contents			**Your vote**
Scientific accuracy	**[Score range: low=1; acceptable=2; good=3]**		0,00
Clarity in Explaining Scientific Concepts	**[Score range: low=1; acceptable=2; good=3]**		0,00
Examples, explanations, and visuals, editing, and visual layout to support clear communication	**[Score range: low=1; acceptable=2; good=3]**		0,00
Relevance to the chosen Topic	**[Score range: not aligned=1; slightly aligned=2; highly aligned=3]**		0,00
Logical Structure	**[Score range: low=1; acceptable=2; good=3]**		0,00
Creativity and team collaboration			**Your vote**
The video simply presents the topic in a general way, using only external sources. Characteristics: No or few original contribution Standard language and style Structure similar to a summary or school presentation		**Score range 1-3**	0,00
The video presents an original approach and engaging structure based on a personal project and/or a creative script; or the video integrates external sources with some personal reflections and/or connections to a project developed by the authors. Characteristics: Some original or personal input/authors' point of view; and/or Links to specific experiences or activities; and/or well-structured storytelling and personal style; and/or Creative use of images, music, animations, or acting		**Score range 4-7**	
Teamwork and Collaboration: how clearly the video shows collaboration within the team, with equal involvement and shared tasks **[Score range: limited collaboration = 1; moderate collaboration = 2; strong collaboration = 3]**			0,00
Personal Evaluator Opinion (score range: 6-10)			**Your vote**
Thinking about how the video made you feel, on a scale from 6 to 10, where 6 means you felt no enthusiasm and 10 means you felt highly engaged, what score would you give it?			0,00
		Total Score	**0,00**

4.9 ANNEX IX Evaluation sheet video competition 2025 – part 2

4th European Nuclear Competition
Evaluation Sheet

Team Name:		
Name		Surname
Pupil 1		
Pupil 2		
Teacher		
Jury member		

Topic of the video:		
Presentation		
	Score (/10)	**Notes**
Clarity and Structure (20%)		Helping in case of Tie
Audience Engagement (20%)		
Team Introduction and Roles (10%)		
Explanation of Process (20%)		
Creativity of Presentation (20%)		
Video		
Overall, how much did you enjoy the video? (10%)		

4th European Nuclear Competition
Evaluation Criteria

Presentation	
Criteria Description	
Clarity and Structure (20%)	**How clearly the content is presented, including logical flow, appropriate vocabulary, and speech fluency.**
Audience Engagement (20%)	**Use of voice, eye contact, body language, and enthusiasm to keep the audience interested.**
Team Introduction and Roles (10%)	**How well the team presents themselves and explains each member's role in the project.**
Explanation of Process (20%)	**How the team explains their workflow: idea development, research, production steps, and challenges.**
Creativity of Presentation (20%)	**How active did the team use creative element in their presentation. Did the presentation contain original or memorable elements?**

	1-3	**4-6**	**7-10**
Clarity and Structure (20%)	**Unclear or confusing; poor organization; hesitant or rushed delivery.**	**Mostly clear and organized; minor hesitations; generally understandable.**	**Very clear, well-structured, fluent, and easy to follow throughout.**
Audience Engagement (20%)	**Little to no engagement; monotone or reading from notes.**	**Moderate engagement; some eye contact and variation in tone.**	**Highly engaging; confident delivery with strong connection to audience.**
Team Introduction and Roles (10%)	**Roles are unclear or unevenly presented; weak sense of collaboration.**	**Team roles are mentioned; some collaboration is visible.**	**Roles are clearly explained; team shows strong cooperation and shared ownership.**
Explanation of Process (20%)	**Vague or incomplete explanation; lacks detail or reflection.**	**Reasonably detailed process with some insight into team work.**	**Well-explained and insightful; shows reflection, creativity, and problem-solving.**
Creativity of Presentation (20%)	**The presentation consisted out of text overloaded slides. No original or memorable elements were added.**	**The presentation consisted out of slides with text and pictures. Limited original or memorable elements were added.**	**The presentation contains pictures and other features supporting the talk of the students. Several original or memorable elements were added.**

Video	
Criteria Description	
Overall, how much did you enjoy the video? (10%)	**This criterion evaluates the general impression and emotional impact of the video on the viewer. It takes into account how enjoyable, engaging, and memorable the video was as a whole, beyond its technical or scientific aspects. It reflects how well the video holds your attention, creates your interest, and leaves you a positive overall impression.**

1-3	**4-6**	**7-10**
😐	🙂	😍

BIBLIOGRAPHY

1. **Budapest University of Technology and Economics.** *3rd ENEN European Nuclear Competition for Secondary School Pupils.* [Online] https://nuclearcompetition2023.enen.bme.hu/.
2. **ENEA.** *4th ENEN European Nuclear Competition for Secondary School Pupils.* [Online] https://secondaryschoolcomp2025.enen.bme.hu/.
3. **Budapest University of Technology and Economics.** *The STEM Excellence award.* [Online] https://stemteachersaward.enen.bme.hu/.
4. **Slovak University of Technology in Bratislava.** *1st BSc and MSc Nuclear Competition and Summer School 2024.* [Online] https://nuclearcompetition2024.enen.bme.hu/.
5. **Budapest University of Technology and Economics.** *2nd BSc and MSc Nuclear Competition and Summer School 2025.* [Online] https://nuclearcompetition2025.enen.bme.hu/.
6. **ENEN.** *ENEN PhD Events.* [Online] https://enen.eu/index.php/phd-events/.

Certificate Of Completion

Envelope Id: B0F98460-A991-49F7-A331-DA9297475F6C
Status: Completed
Subject: For approval via DocuSign | ENEN2plus Deliverable 2.3
Source Envelope:
Document Pages: 35
Signatures: 3
Certificate Pages: 2
Initials: 0
AutoNav: Enabled
EnvelopeId Stamping: Enabled
Time Zone: (UTC+01:00) Brussels, Copenhagen, Madrid, Paris

Envelope Originator:
Griet Vanderperren
Avenue Herrmann-Debrouxlaan 40
Brussels, 1160
griet.vanderperren@sckcen.be
IP Address: 193.190.185.205

Record Tracking

Status: Original
11/28/2025 7:51:48 AM
Holder: Griet Vanderperren
griet.vanderperren@sckcen.be
Location: DocuSign

Signer Events	Signature	Timestamp
Coeck Michèle mcoeck@sckcen.be Security Level: Email, Account Authentication (Optional)	Signed by:  094E81D9247C4A5... Signature Adoption: Pre-selected Style Using IP Address: 193.190.185.205	Sent: 11/28/2025 7:57:15 AM Viewed: 11/28/2025 8:50:35 AM Signed: 11/28/2025 8:50:38 AM
Electronic Record and Signature Disclosure: Not Offered via Docusign		
Gabriel Pavel gabriel.pavel@enen.eu Security Level: Email, Account Authentication (Optional)	Signed by:  1A000C33F68F428... Signature Adoption: Pre-selected Style Using IP Address: 84.197.241.220	Sent: 11/28/2025 7:57:15 AM Viewed: 12/1/2025 10:20:58 AM Signed: 12/1/2025 10:21:08 AM
Electronic Record and Signature Disclosure: Not Offered via Docusign		
Luyten Jakob jakob.luyten@sckcen.be Security Level: Email, Account Authentication (Optional)	Signed by:  1787B1475D534C0... Signature Adoption: Pre-selected Style Using IP Address: 193.190.185.205	Sent: 11/28/2025 7:57:15 AM Viewed: 11/28/2025 8:17:55 AM Signed: 11/28/2025 8:19:02 AM
Electronic Record and Signature Disclosure: Not Offered via Docusign		

In Person Signer Events	Signature	Timestamp

Editor Delivery Events	Status	Timestamp

Agent Delivery Events	Status	Timestamp

Intermediary Delivery Events	Status	Timestamp

Certified Delivery Events	Status	Timestamp

Carbon Copy Events	Status	Timestamp

Witness Events	Signature	Timestamp

Notary Events	Signature	Timestamp

Envelope Summary Events	Status	Timestamps
Envelope Sent	Hashed/Encrypted	11/28/2025 7:57:16 AM
Certified Delivered	Security Checked	11/28/2025 8:17:55 AM
Signing Complete	Security Checked	11/28/2025 8:19:02 AM
Completed	Security Checked	12/1/2025 10:21:08 AM

Payment Events	Status	Timestamps