



European Nuclear Societies in Stakeholder Engagement

Part 1: Interacting with Education System

September 2026

The **European Nuclear Society (ENS)** is a Learned Society consisting of professionals in the nuclear sector. Its main goal is to promote and advance science and engineering related to the peaceful uses of nuclear technologies together with its 22 National Nuclear Societies, supported by Corporate Members and Associate Members. ENS comprises more than 13,000 nuclear professionals from the academic world, research centres, industry and authorities in all levels of seniority, dedicated to advancing nuclear technology through scientific excellence, independent expertise, and collaborative networks.

This report was **written by**: Letizia Ciazani, Italian Nuclear Association; Lou-Anne Fagni; Jovana Knezevic, Serbian Nuclear Society; Khrystyna Lylak, Ukrainian Nuclear Society; Jadwiga Najder, European Nuclear Society.

Graphics: Mattia Baldoni, Letizia Ciazani, Lou-Anne Fagni.

Editorial supervision: Jadwiga Najder.

Advice and contributions: Tania Carreira, Spanish Nuclear Society; Milos Garabandic, Serbian Nuclear Society; Iñigo Gayo de León, Spanish Nuclear Society; Ján Svrček, Slovak Nuclear Society; Tanja Jarkovic, Nuclear Society of Slovenia; Beáta Jarosievitz, Hungarian Nuclear Society; Filip Jedrzejek, Polish Nuclear Society; Jakob Luyten, Belgian Nuclear Society; Fabio Nouchy, Italian Nuclear Association; Eduard Omelchuk, Ukraine Nuclear Society; Vladimir Slugen, Slovak Nuclear Society; Amparo Soler, Spanish Nuclear Society; Koviljka Stankovic, Serbian Nuclear Society; Petra Strmecki, Croatian Nuclear Society; Csaba Sükösd, Hungarian Nuclear Society; Péter Tarján, Hungarian Nuclear Society.

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Table of contents

Executive summary.....	5
Chapter 1. Introduction	
Nuclear workforce landscape in Europe.....	6
Role of Nuclear Societies in workforce development.....	6
Purpose of the report.....	7
ENS Focus Group on School and Public Engagement and Report Methodology.....	8
Chapter 2. Educational Projects of Nuclear Societies in Europe	
Projects realized.....	8
Audience of the educational projects.....	10
Chapter 3. Catalogue of Nuclear Societies' projects interacting with education system.....	12

Executive summary

Europe's technological transformation, driven by the energy transition, research and innovation, digitalisation and advanced healthcare, requires a growing workforce with strong STEM competences. Nuclear sector provides almost 900,000 jobs in the EU today (direct, indirect and induced) and is projected to sustain around 1.5 million jobs by 2050. **Nuclear Societies, as networks of professionals in the nuclear sector, contribute to attracting future generations workforce** by complementing formal education with technically rigorous and creative educational projects.

This report presents the first Europe-wide overview of educational initiatives organised by Nuclear Societies affiliated with the European Nuclear Society (ENS). Based on a survey conducted in 2026, it documents **29 project models** implemented across the ENS network, targeting pupils, teachers and parents. **Summer schools and structured courses** represent the largest share of activities, followed by **competitions** and **teacher-focused initiatives**, while **workshops, career events, educational tools** and **study visits** complement the educational offer.

Together, the **featured projects reached more than 2,400 participants in a single year**. The strongest outreach is observed towards secondary school students aged 13–16, who were reached by 82% of the projects, followed by high-school students (51%), while teachers and primary school pupils each participate in 37% of the initiatives.

Apart from synthetic analysis, the report includes a catalogue of all featured projects (Chapter 3), showcasing a combination of scientific expertise, personal engagement of nuclear professionals and flexible educational formats that can be adapted to different audiences and national contexts.

This overview of numerous successful engagement models demonstrates the important role that Nuclear Societies already play in strengthening STEM education, improving awareness of nuclear technologies and contributing to the long-term development of the European nuclear workforce. With adequate support, this potential may be strengthened in the future, bringing solid complementary support to formal STEM education.

Chapter 1. Introduction

Nuclear workforce landscape in Europe

Europe is undergoing a technological and industrial transformation driven by the energy transition, digitalisation and advances in research and innovation. Sustaining this transition requires a **strong pipeline of skilled professionals in science, technology, engineering, and mathematics (STEM)**, capable of developing, operating, and advancing the technologies that support Europe's economic competitiveness and societal well-being.

Nuclear science and technologies are ingrained in many of these spheres - from energy production, to medicine, agrifood, industrial applications and others.

Nuclear sector has a significant impact on the European economy, supporting in total almost 900,000 jobs in 2023 in the EU-27 [1] including 134,000 direct jobs, out of which 6,600 in construction, 109,500 in operation and 18,700 in decommissioning. In the future (by 2050), the nuclear industry could sustain a totality of almost 1.5 million jobs [2].

Even in the non-nuclear countries in Europe, a positive impact from the nuclear sector is recorded due to the interconnectedness of the national economies and labour markets, as countries without nuclear capacities still provide a qualified workforce and subcontractors with expertise and technologies for the sector [3].

Growing workforce demand requires experts in diverse STEM and non-STEM fields, and **addressing the need of skilled professionals in nuclear requires involvement of multiple stakeholders**—from school system and universities to employers, state-level institutions and dedicated non-governmental initiatives.

Role of Nuclear Societies in workforce development

Nuclear Societies, as Learned Societies focused on disciplines related to nuclear science and technology, recognise that a **coordinated and long-term approach to nuclear education** allows the sector to ensure a sufficient workforce, as well as maintain critical knowledge and competences needed for the safe and responsible use of nuclear technologies. With **Societies present in 22 countries in Europe and beyond**, affiliated nuclear professionals are an ally and active player in this effort.

Experience shows that members of Nuclear Societies are effective contributors in informal education, fostering of passion and raising awareness about nuclear energy in various society groups. This is possible through the combination of:

[1] Including direct, indirect and induced jobs.

[2] nucleareurope, Economic & Job Creation Benefits of Investing in Nuclear Highlighted in New Report, Press Release, 2025 ([access link](#)).

[3] nucleareurope, Economic & Job Creation Benefits of Investing in Nuclear Highlighted in New Report, Press Release, 2025 ([access link](#)).

- Technical rigour stemming from a scientific background;
- Authenticity, thanks to engagement in personal capacity, allowing human-to-human connection. Diversity of Nuclear Societies membership also allows the contribution of members most relevant to given audience;
- Creativity leading to multiplicity of engagement formats.

This results in:

- Credibility in front of an audience and educational establishments, and
- Relevance – through authentic human experience.

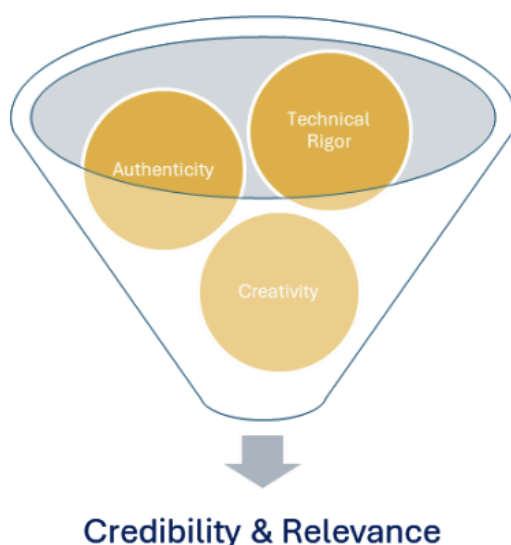


Figure 1: Success factors of Nuclear Societies engagement in educational activities

This combination, while not easy to achieve by other actors, is complementary to their institutional or industrial efforts.

Purpose of the report

This report highlights **examples of successful engagement with the education systems of Nuclear Societies affiliated with ENS**. Its purpose is to exhibit existing projects in the field of education and draw best practices, encouraging a collective effort to address the workforce needs long-term.

The report aims to **focus on activities dedicated to a school-age audience, as well as teachers and parents**. Nuclear Societies' members organised or significantly contributed to all activities. The report does not feature activities targeted at university students of nuclear disciplines, but activities for non-nuclear students were included.

The second report will follow, focusing on general public engagements of Nuclear Societies.

Examples of good practices featured in this report show that **combining formal education with non-formal activities and initiatives** can significantly enhance nuclear and general STEM literacy, and spark students' interest in the related fields.

ENS Focus Group on School and Public Engagement and Report Methodology

The **ENS Focus Group on School and Public Engagement**, created to strengthen public engagement efforts across Europe, consists of Members from a number of European Nuclear Societies that actively contributed to the activities. At the moment of writing, the list includes Nuclear Societies from Belgium, Croatia, Hungary, Italy, Poland, Serbia, Slovakia, Slovenia, Spain and Ukraine. Members represent a broad range of expertise - including engineers, teachers, and scientists - as well as varying levels of seniority, from young professionals to senior experts.

The Focus Group developed a **survey** that was then distributed through the Nuclear Societies to their members between January and March 2026. It concerned events and projects organized by, or with significant involvement of a Nuclear Society, aimed at pupils, non-nuclear students, teachers, parents, or projects that interact more broadly with the education system. It collected information on details including event duration, number of participants, target age groups, and logistical aspects (such as required personnel, costs, and budget), as well as lessons learned and related insights.

Following data collection, the responses were analyzed and structured into the final report format.

Chapter 2. Educational Projects of Nuclear Societies in Europe

Projects realized

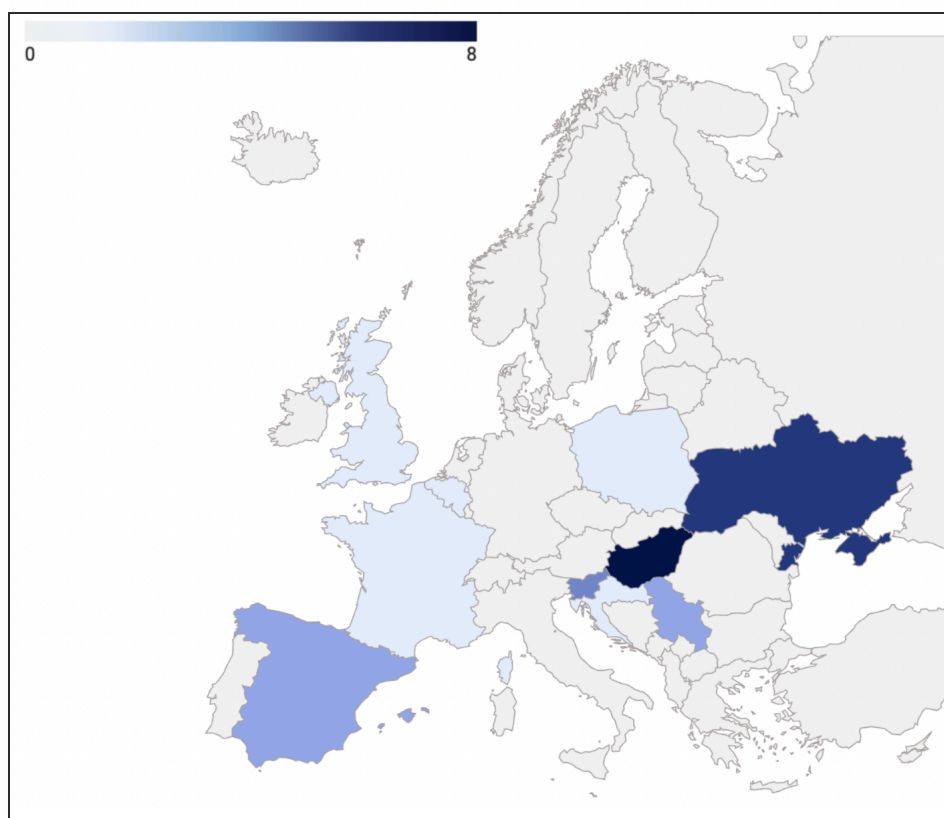


Figure 2: Geographical distribution of submitted nuclear education projects in Nuclear Societies

The collection of data related to education activities of Nuclear Societies resulted in **29 projects submitted across the network**. The map (Figure 2) illustrates the geographical distribution of nuclear education projects identified through the survey, conducted within the framework of this study. The colour intensity reflects the number of active projects reported in each participating country.

The results reveal a significant concentration of initiatives in Central and South-Eastern Europe. Hungary, Slovenia, Serbia, and Croatia together represent the majority of the total mapped projects, indicating the presence of particularly active regional networks in the field of nuclear education and outreach.

At the same time, several European countries, appear with no reported projects in the dataset. Since these countries may well host active projects but simply did not participate in the study, this outcome should be interpreted with caution and considered in light of the survey's methodological limitations.

The analysis of the educational formats represented in the surveyed projects reveals a **relatively diversified landscape in terms of teaching methodologies and engagement approaches**.

As shown in the chart (Figure 3), 'summer school'-based activities and structured courses constitute the dominant category, accounting for approximately 32% of the total reported initiatives.

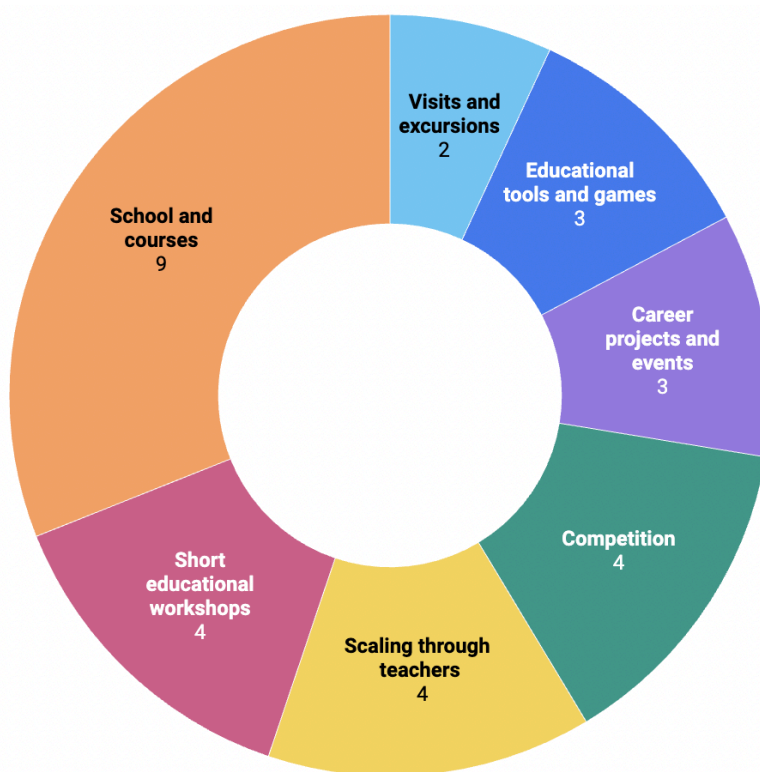


Figure 3: Educational formats distribution from ENS survey [number of reported projects]

The remaining initiatives are distributed across formats:

- Competitions and teacher-led scaling activities each represent around 14% of the mapped projects.
- Short educational workshops, career-oriented projects/events, and educational tools/games each account for approximately 10% of the total initiatives.
- Visits and excursions make up roughly 7% of the activities identified through the survey.

Audience of the educational projects

The analysis of participant reach provides an insight into the scale and audience impact of the surveyed nuclear education initiatives. It needs to be noted, however, that a full comparison of audiences is not possible due to the heterogeneity of the projects: some activities are based on single occurrences engaging with the audience, while others interact continuously, so the intensity of reach varies project-to-project.

The results presented in Figure 4 reveal a **relatively balanced distribution between targeted and large-scale educational initiatives**. The strong presence of activities involving fewer than 50 participants underscores the continued importance of focused, interactive learning environments, which are often better suited for direct engagement. On the other hand, the significant proportion of projects reaching more than 200 participants demonstrates the capacity of several initiatives to operate on a broader dissemination level, engaging wider audiences through conferences, public events, or extensive educational campaigns.

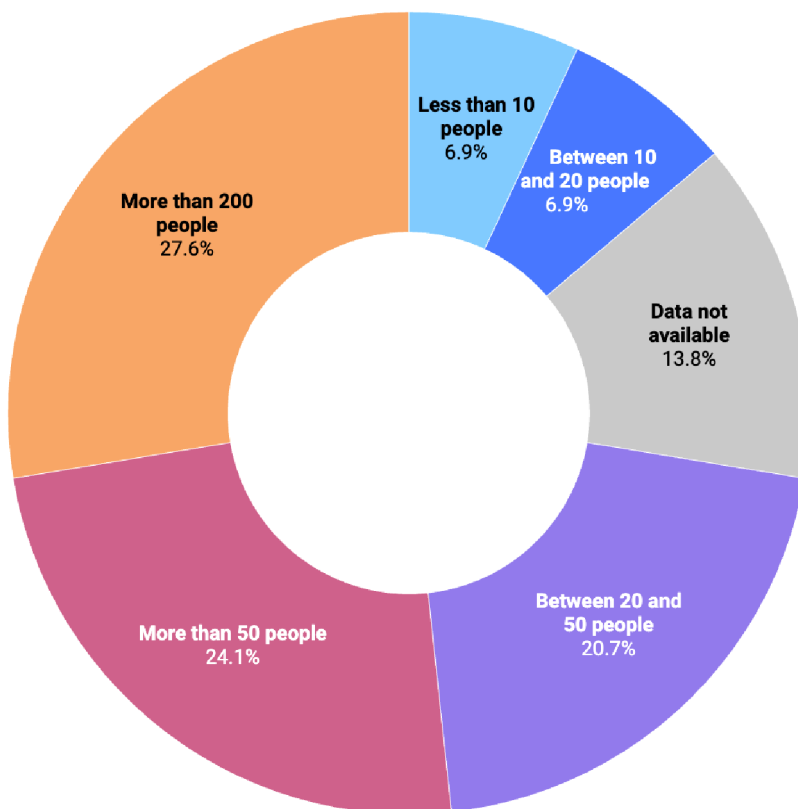


Figure 4: Distribution of surveyed nuclear education projects by audience size [% of reported projects]

Crucially, although projects involving more than 200 participants represent less than one-third of the initiatives mapped, they account for approximately 70% of the **total participant reach reported in the survey, which exceeded 2,400 participants in a single year**. This indicates that a relatively limited number of large-scale initiatives drive the majority of audience engagement within the surveyed ecosystem.

The total participant reach reported in the surveyed projects exceeded 2,400 participants per year

The analysis of audience segmentation provides key insights into the primary target groups of the surveyed nuclear education initiatives, highlighting where educational efforts are concentrated and where potential gaps remain.

When considering the proportion of individual projects engaging each target group (Figure 5), the data confirms a **strong outreach density across formal education levels**:

- Secondary Schools (Middle School) are involved in 82% of all surveyed projects.
- High Schools are reached by 51% of the initiatives.
- Primary Schools and Teachers are each engaged in 37% of the cases.
- Parents are included in 20% of the projects. Notably, parents are exclusively engaged in initiatives where teachers are also involved, indicating a coordinated school-family framework.
- Pre-schools are featured in 10%.

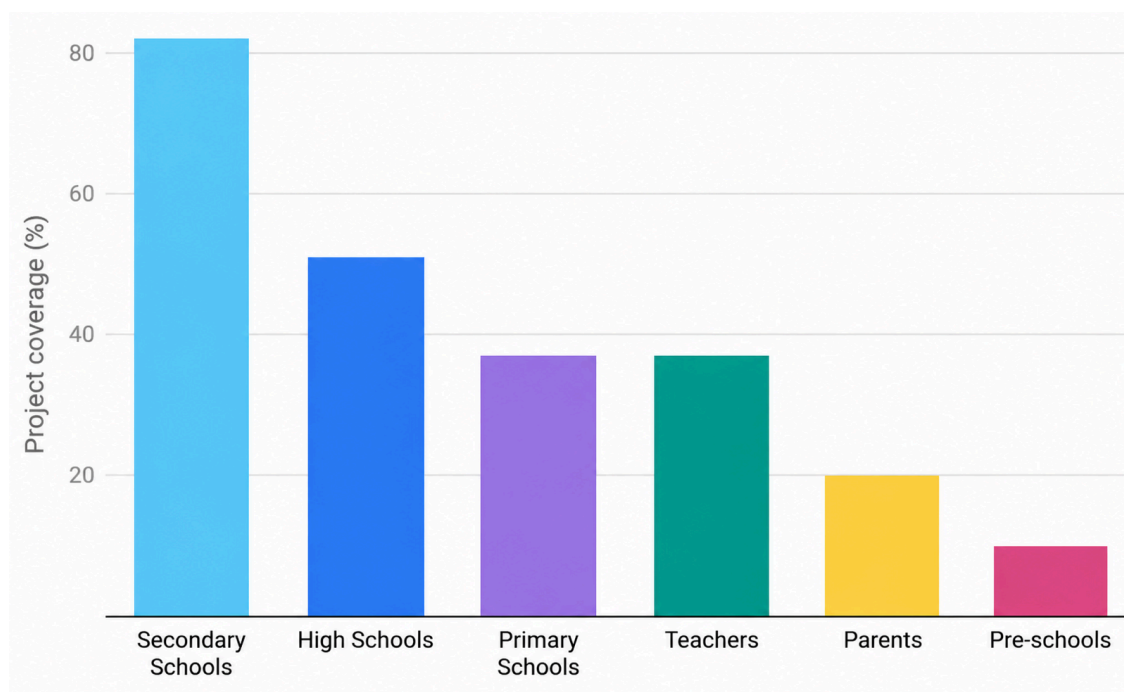


Figure 5. Target Groups reached by projects [% of reported projects]

Indicative age ranges of school levels: under 7 y.o. (or pre-school); 7-12 y.o. (or primary school); 13-16 y.o. (or secondary school); 17+ y.o. (or high school)

Chapter 3. Catalogue of Nuclear Societies' projects interacting with education system

This third chapter presents a **catalogue of the 29 projects organised by Nuclear Societies** and identified through the survey conducted within the framework of this report. Its primary purpose is to provide a practical synthesis of existing initiatives, **offering inspiration and concrete reference points** for Societies wishing to launch or develop their own activities in connection with the education system.

For clarity, the catalogue is organised into **seven categories**, corresponding to the format typology introduced in Chapter 2:

- Schools and courses
- Competitions
- Scaling through teachers
- Educational tools and games
- Career projects and events
- Short educational workshops
- Visits and excursions

Each project is presented on a single page, structured around **six elements**: a short description, the target audience, the realisation time, the location, the organising team, and a highlight of the best advice shared by organisers.

Readers interested in learning more about a specific project are invited to consult the contact details provided, where available, or the website of the relevant Nuclear Society.

NUCLEAR SOCIETIES PROJECTS

SHORT EDUCATIONAL WORKSHOPS

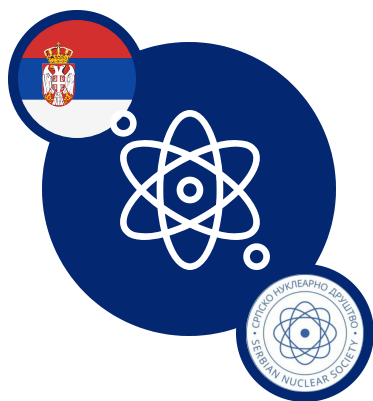
European Researchers' Night – pre event

Serbian Nuclear Society

Website: <https://www.nuclear.org.rs/>

DESCRIPTION

As part of the European Researchers' Night, the Vinča Institute of Nuclear Sciences opened its doors to students and visitors, turning science into an engaging festival of knowledge and creativity. Students participated in interactive experiments, workshops, and discussions with researchers.



Visitors explored water purification using sunlight, applications of nanomaterials and graphene oxide, and innovative coffee-based cosmetics. Workshops in powder metallurgy, ceramics, health, and nutrition highlighted the link between science and everyday life.

The HBRN (Chemical, Biological, Radiological, and Nuclear) platform presented safety and protection measures in crisis situations, while lectures and first responder demonstrations enriched the program.

AUDIENCE

- Over 200
- Ages 7-12, 13-16, 17+, Teachers, educators

REALISATION TIME

- 22.09.2025
- Cyclic, Growth of engagement expected

LOCATION

Vinca Institute of Nuclear Sciences

ORGANISATION TEAMS

- 1-2 people
- Skills in project management, event organization, communication, outreach, teamwork, leadership and adaptability

HIGHLIGHT

Event went perfectly well: kids and their teachers were full of very **positive impressions.**

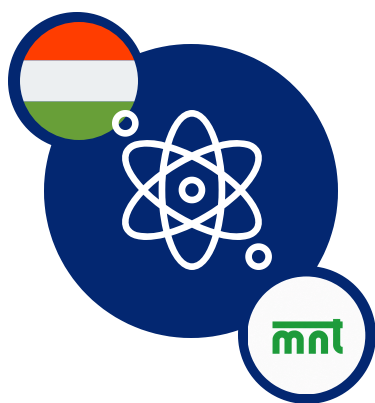
HighSchool RoadShow

Hungarian Nuclear Society (Young Generation Network)

Website: www.nuklearis.hu

DESCRIPTION

Members of the Hungarian Nuclear Society Young Generation Network visit high schools to introduce students to the basics of nuclear energy in a simple and engaging way.



Through interactive presentations, 3D models, radiation detectors and real-life examples, young professionals explain how nuclear power plants work, how safety systems are designed and why nuclear energy contributes to low-carbon electricity production. The format also gives students space to ask questions, discuss common myths and concerns, and see engineering and energy careers as possible future pathways.

AUDIENCE

- Age 13–16 and 17+
- 20–50 participants per visit

REALISATION TIME

- Cyclic
- Launched in the autumn semester of the 2025/26 academic year and plans to continue

LOCATION

School classrooms in Hungary

ORGANISATION TEAMS

- 1–2 organizers
- No special skills are required beyond enthusiasm and the ability to connect with students

HIGHLIGHT

The event was smoothly organized and the **selected topics genuinely engaged students.**

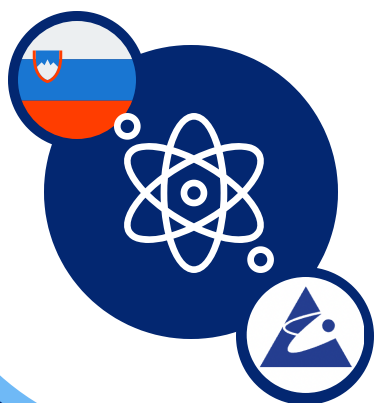
How to Create the Sun on Earth workshop

Nuclear Society of Slovenia

Website: www.djs.si

DESCRIPTION

The workshop “How to Create the Sun on Earth” was part of the Natural Science Day “Planetarium and Energy” at Benedikt Primary School. It introduced students aged 12+ to the basic principles of nuclear fusion – the process that powers the Sun and other stars.



Students explored how fusion differs from fission, why it is considered a potential future energy source, and what scientific and technological challenges must be overcome to achieve controlled fusion on Earth. The presentation also covered plasma, extreme temperatures, magnetic confinement, advanced materials and the importance of international scientific collaboration.

AUDIENCE

- Age 7–12, 13–16
- Teachers/educators
- 50+ participants

REALISATION TIME

- One-time event
- Realized on 7 October 2022

LOCATION

Benedikt Primary School, Slovenia

ORGANISATION TEAMS

- At least 2 people at the primary school and 1 representative from NSS
- Expertise in fusion science and public engagement

HIGHLIGHT

Support from school staff and teachers was essential for organizing the workshop in a school environment.

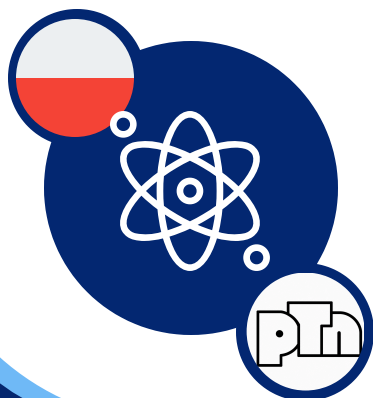
Lessons in primary and secondary schools

Polish Nuclear Society

Website: <https://ptnukleoniczne.pl/>

DESCRIPTION

Interactive lessons explaining radioactivity, nuclear reactions and the role of nuclear energy. The first part of each lesson focuses on the phenomenon of radioactivity, including basic types of ionising radiation, natural sources of radiation and radiation detection, supported by simple demonstrations and experiments, making the topic easier and more engaging for pupils.



The second part introduces the concept of nuclear fission and explains, how nuclear power plants operate. Particular attention is given to the role of nuclear energy in the energy mix, its importance for stable, low-emission electricity production. The lessons are usually delivered as 45 or 90 minute class.

AUDIENCE

- 1 class/workshop (≈20 students), Ages: 7–12, 13–16, 17+
- Increasing teacher demand

REALISATION TIME

- Run on a regular basis from 2017 to 2024
- Averaging 250 lessons per year

LOCATION

School class

ORGANISATION TEAMS

- 5+ people
- Skills in science communication, educational outreach, public speaking

HIGHLIGHT

We received this opportunity as a **direct commission** from the Nuclear Energy Department within the Polish Ministry. We took part in the annual tender for the contract every year.

Nuclear Energy Workshop

Croatian Nuclear Society

Website: <https://nuklearno-drustvo.hr/?lang=en> / Email: petra.strmecki@fer.unizg.hr

DESCRIPTION

This workshop is delivered at science fairs and university or faculty days. Depending on the audience, it begins with a short lecture on the operation of nuclear power plants: what electricity is, how it is produced, what a nuclear power plant looks like, how it works, how nuclear power contributes to grid stability, and how it compares with solar and wind energy.



The lecture is followed by a Q&A session, after which participants try operating a nuclear power plant start-up simulator. The format gives many students their first direct introduction to nuclear power and to education and career opportunities in the nuclear sector.

AUDIENCE

- Parents; age 7–12, 13–16 and 17+; non-nuclear students
- 50+ participants per occurrence

REALISATION TIME

- Cyclic
- Held every year and ongoing

LOCATION

Science fairs with high attendance in Croatia

ORGANISATION TEAMS

- 3–5 organizers
- Technical knowledge, strong communication skills and the ability to engage participants and encourage questions

HIGHLIGHT

For many students, the workshop is the first time they learn more about nuclear power plants and the opportunities for study and work in the nuclear industry; the **Q&A session is consistently very valuable.**

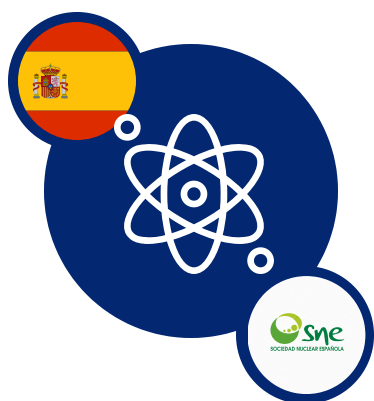
STEM workshops

Spanish Nuclear Society

Website: www.sne.es

DESCRIPTION

In primary and early secondary education, a series of STEM workshops has been developed to accompany a brief introductory talk.



Two main workshops have been implemented so far: one on environmental radiation and its effects on living organisms, and another on building a model nuclear power plant using Play-Doh.

AUDIENCE

- 20–40 students/workshop
- Ages: 7–12, 13–16

REALISATION TIME

- On-going project for the last 2 years

LOCATION

School class

ORGANISATION TEAMS

- 1–2 people
- Skills in educational outreach, workshop coordination, science communication, adaptability

HIGHLIGHT

It's all about how kids engage with things. If you **let them touch, play, and turn it into a game**, they'll love it.

STEM workshop – Coding without computers

Spanish Nuclear Society

Website: www.sne.es / Email: j.pelegrina@jovenesnucleares.org

DESCRIPTION

This is a workshop aimed at students 12–15 years old. Participants learn about coding, its use and its importance, and then are split into "programmers" and "robots".



The former write instructions emulating code for the latter to perform exactly as written. The end goal is for participants to reflect on how we communicate with computers and the use of literal instructions.

AUDIENCE

- 50+ participants
- Ages 13–16 (or secondary school)

REALISATION TIME

- Realized once per year during the Spanish Nuclear Society annual meeting

LOCATION

University classroom or similar

ORGANISATION TEAMS

- 1–2 people
- Ability to keep participants engaged is important: communication, non-verbal, engagement, etc.

HIGHLIGHT

Fun and interesting atmosphere, **switching hands-on activity time with moments for explanations and descriptions** (more listening).

NUCLEAR SOCIETIES PROJECTS

VISITS AND EXCURSIONS

NATURALE (Nature and Radioactivity – Walk, Talk and Learn)

Serbian Nuclear Society

Website: <https://www.nuclear.org.rs> / Email: jovana.knezevic@df.uns.ac.rs

DESCRIPTION

NATURALE introduces students to natural radioactivity and sources of radioactivity present in nature through workshops and sample collection in national parks, nature reserves and nature parks in Serbia. During walks in nature, students also learn about ecosystems and species, with an emphasis on fungi, including physiology, biochemistry and fungal ecology.



Primary school students are introduced to the phenomenon, while high school pupils deepen their knowledge of biology and nuclear physics. These activities develop thinking, communication, self-management and research skills, while encouraging interest in natural sciences and nature preservation.

AUDIENCE

- Age 7–12 (primary school) and 13–16 (secondary school)
- 20–50 participants

REALISATION TIME

- Ongoing project planned for 2025–2026
- One-time project framework with multiple activities

LOCATION

Workshops in school classes; educational walks in Fruška Gora National Park and Zasavica Nature Park

ORGANISATION TEAMS

- 3–5 organizers
- Skills include budget administration, time management, planning and organization

HIGHLIGHT

Workshops before the field work helped students understand key terms and what was expected from them. The **combination of theory and field work** was highlighted by many participants as the best part of the project.

Visit to the Paks Nuclear Power Plant and Bataapáti Radioactive Waste Repository

Hungarian Nuclear Society

Website: www.nuklearis.hu / Email: jarosievitz@gmail.com

DESCRIPTION

The study trip brings students to the Paks Nuclear Power Plant and to the Bataapáti National Radioactive Waste Repository. At Paks, students visit the Visitor Center, see the unit control room, turbine hall and reactor hall from the visitor corridor, and learn about major plant systems including the secondary circuit and spent fuel cooling pool.



After lunch at the power plant, the group travels to Bataapáti, where students learn about the final disposal of radioactive waste generated at Paks, the repository's deep underground granite-rock setting, storage chambers, waste packaging technologies and the continuous improvement of storage processes.

AUDIENCE

- Restricted to ages 16+ (students, teachers and educators)
- 20–50 participants

REALISATION TIME

- One-time visit; held on 23 May 2025
- Strong interest from students each year

LOCATION

Paks Nuclear Power Plant and Bataapáti National Radioactive Waste Repository, Hungary

ORGANISATION TEAMS

- 1–2 organizers
- Students are selected based on interest, motivation and responsible behavior

HIGHLIGHT

The program is highly successful: students apply at the start of the school year and await the May visit. A **pre-visit presentation by the NPP communications director** helps build interest.

NUCLEAR SOCIETIES PROJECTS

CAREER PROJECTS AND EVENTS

Career Orientation Day

Hungarian Nuclear Society

Website: www.nuklearis.hu

DESCRIPTION

This is a one-day career orientation event focused on the nuclear field and introduced students to practical and experimental work in nuclear-related research environments. The program included visits to the Budapest Research Reactor, a radiation safety laboratory and an environmental physics laboratory.



Students were introduced not only to experimental work but also to various computational tasks, helping them better understand the range of professional roles and study directions connected with nuclear science and technology.

AUDIENCE

- 17+ high school students
- 10–20 participants

REALISATION TIME

- One-time completed, held on 28 November 2025
- One-day program

LOCATION

HUN-REN Centre for Energy Research,
Budapest Research Reactor, Hungary

ORGANISATION TEAMS

- 1–2 organizers
- Good organizational skills, communication and prompt responses are important

HIGHLIGHT

Timely organization, clear information for participants and organizers, and **good time management** are key success factors.

Guide for Applicants

"The Path to a Career in the Nuclear Industry"

Ukrainian Nuclear Society (UkrNS)

Website: <https://ukrns.org/en/>

DESCRIPTION

This guide is a PDF document and printed brochure for young people entering the world of specialties and professions needed in the nuclear energy industry.



It helps future students choose a major and field of study, learn about higher education institutions, understand employment opportunities after graduation and receive practical recommendations for building a professional career in Ukraine's nuclear industry. In May 2025, an electronic version of the directory was launched, gathering useful information on where to study, how to apply to higher education institutions, how to access guaranteed employment opportunities and other career-related guidance.



AUDIENCE

- Ages 13–16 and 17+
- Students, teachers, educators, parents and the general public



REALISATION TIME

- Cyclic
- Updated every year



LOCATION

Available to a wide audience online and in printed form



ORGANISATION TEAMS

- 1–2 people
- The project requires information gathering and updating, editing skills, and brochure/booklet design



HIGHLIGHT

Good communication with universities is important for data collection and updating information.

“My Career in the Nuclear Industry” Project

Ukrainian Nuclear Society (UkrNS)

Website: <https://ukrns.org/en/>

DESCRIPTION

The project helps young people see career prospects in the nuclear energy sector and provides a reliable reference point for those seeking quality education, an interesting profession and stable employment in Ukraine’s leading energy sector.



It combines information about educational institutions, specialties, internships and job opportunities on one resource to help young people consciously plan their professional pathway. The website includes information on specialized university programs, career opportunities in the nuclear industry, popular nuclear and related professions, competitions, scholarships, internship programs, educational events and stories of young professionals already working successfully in the sector.

AUDIENCE

- Ages 13+
- A focus on senior pupils and university applicants

REALISATION TIME

- Ongoing since spring 2025
- Available all the time

LOCATION

Online platform available to a wide audience

ORGANISATION TEAMS

- 3–5 people
- Work includes collecting and updating information, compiling text and designing material

HIGHLIGHT

The **initial creation and content filling process** was quick and efficient.

NUCLEAR SOCIETIES PROJECTS

SCALING THROUGH TEACHERS

Hungarian Nuclear Society – Teachers' Division

Hungarian Nuclear Society

Website: www.nuklearis.hu

DESCRIPTION

Within the Hungarian Nuclear Society there is a Teachers' Division (secondary and tertiary education) dedicated to broadening their own and students' knowledge in the nuclear field. There is no requirement for memberships, only the approval of the governing committee of the Nuclear Society is needed.



Members are actively involved in a number of projects:

- Leó Szilárd Physics Competition as organizers or student mentors
- András Mester Nuclear Summer Schools
- site visits
- talks by renowned scientists.

The Nuclear Society recognizes the essential role that teachers play in generating interest in nuclear and provides support to teachers for attending conferences.

AUDIENCE

- Age 13–16 (or secondary school)
- 200 people/year & growing interest

REALISATION TIME

- Cyclic
- One school year

LOCATION

Schools in satellite towns of an NPP

ORGANISATION TEAMS

- 3–5 organizers
- 1–2 people handling equipment and 2 moderators

HIGHLIGHT

By completing tasks that **simulate real stages of NPP operation**, participants gain interest in further learning about this topic!

Nuclear Physics Educational Package on the Internet

Hungarian Nuclear Society

Website: www.nuklearis.hu / Email: kis.tamas0829@gmail.com

DESCRIPTION

The Hungarian Nuclear Society created a complex educational package based on an online CURRICULUM. They developed an interactive 3-D energy valley, and its physical (printable) version, called the "stability object". To understand the nuclear transformations, members created 3D animations. We collected the main characteristics of the observed nuclei in the Table of isotopes.



Radioactivity can cause fear even today, but this phenomenon is part of nature, since the beginning of time. It can be found both in the environment and in us. Teachers can alleviate the strong rejection of its application with articulate, trustworthy and scientifically accurate information, and most importantly, with high-quality education.

AUDIENCE

- Primarily for high school students and teachers
- Also used by university students

REALISATION TIME

- Started: 2019
- English version: completed 2023 / Hungarian version: ongoing since 2023

LOCATION

Several grammar schools, two universities, Hungarian Nuclear Society

ORGANISATION TEAMS

- 10 people
- Project concept, management, curriculum development, IT solutions and graphic design

HIGHLIGHT

The **team's enthusiasm** and selflessness is worth highlighting! We learned a great deal from one another—especially when it came to integrating IT solutions with the underlying physics.

Webinar for Teachers: “Opportunities for Youth in the Nuclear Industry”

Ukrainian Nuclear Society

Website: <https://ukrns.org/en/>

DESCRIPTION

The purpose is education and information on the aspects of the nuclear industry. The target audience includes teachers, as well as high school students, applicants, and their parents. The speakers are specialists leading in Ukraine's nuclear industry and members of the UkrNS.



Experts focus on the current state of nuclear energy, industry and science, prospects for Ukraine and globally, professional training, employment opportunities and working conditions for nuclear specialists. By training over 60 teachers, the project created a "multiplier effect," where educators are equipped with data and tools to guide high school students toward STEM and nuclear-related careers.

AUDIENCE

- 130+ participants (Feb 2026)
- 17+ / high school students, teachers, educators, parents

REALISATION TIME

- Held several times a year

LOCATION

Online for a wide audience

ORGANISATION TEAMS

- 3–5 people
- Engaging expert speakers

HIGHLIGHT

It is best to **hold webinars more frequently**, but breaking them down into shorter sessions on specific topics.

NUCLEAR SOCIETIES PROJECTS

SCHOOLS AND COURSES

András Mester Nuclear Summer School

Hungarian Nuclear Society

Website: www.nuklearis.hu / Email: tarjan.peter@gmail.com

DESCRIPTION

The András Mester Nuclear Summer School is a 6-day camp for around 30 high school student. It is an opportunity for extracurricular learning, self-development and networking. It takes place in picturesque Keszthely, at Lake Balaton.



Program features talks by nuclear experts, experiments and measurements, solving problems, discussions, experimental shows and a nuclear quiz. There is also a full-day trip to a nuclear facility. The best participant (based on a number of criteria and student votes) is awarded the András Mester Award.

AUDIENCE

- About 30 participants every year
- High-school students

REALISATION TIME

- Annual activity

LOCATION

School dormitory and classrooms in Keszthely, Hungary

ORGANISATION TEAMS

- 5+ people: local knowledge is important to organize venue, food, entertainment
- Connections to nuclear experts are useful too

HIGHLIGHT

Members of YGN contribute to workshops, quizzes, and social games **to make the experience educational and fun.**

Atomic academy of South Ukraine NPP

Ukrainian Nuclear Society

Website: <https://ukrns.org/en/> / Email: hubllnew@gmail.com

DESCRIPTION

Activities for students in grades 7–11:

- 7th: competition "How does a nuclear power plant work?" – 5 exercises with the interpretation of real production processes at nuclear power plants
- 8th: competition "Nuclear Power Plant: What? How? Why?" – 5 exercises in similar topic



- 9th: Game "Nuclear Energy puzzles, questions"
- 10th: Essay competition: Nuclear energy and the world, and excursion to a nuclear power plant
- 11th: Competition "I am an engineer"
- Participants collect stickers in a special brochure. Whoever has the most stickers has the best chance of concluding a three-party agreement to study at a university and then work at a nuclear power plant after graduation.

AUDIENCE

- 230 participants/year
- Ages: 7–12 and 13–16

REALISATION TIME

- Implementation began in 2023
- Still currently ongoing

LOCATION

Public Relations Department of South Ukraine NPP

ORGANISATION TEAMS

- 2 to 10 people depending on the event
- Educational content development, coordination with partners

HIGHLIGHT

To conduct events, we use models that are an interpretation of real equipment and processes at a nuclear power plant: **construction of a nuclear power plant.**

First nuclear camp in Serbia

Serbian Nuclear Society

Website: <https://www.nuclear.org.rs/> / Email: garabandic.milos@gmail.com

DESCRIPTION

The nuclear science camp in Serbia is for fourth-year high school students, introducing them to nuclear physics and its real-world applications. Students visited the Institute of Oncology of Vojvodina, where they learned about the role of medical physicists in radiotherapy and diagnostic imaging, nuclear physics principles applied in cancer treatment, radiation planning, and patient safety.



The participants also visited the Vinča Institute of Nuclear Sciences, where they attended lectures, observed laboratory equipment, and discussed ongoing scientific projects. The camp inspired young students to pursue careers in science, promote scientific literacy, and demonstrate the importance of nuclear technologies in medicine, research, and modern society.

AUDIENCE

- 10-20 participants
- Ages 17+ (or high school)

REALISATION TIME

- One-time activity in June 2025

LOCATION

Institute for Oncology of Vojvodina, Grammar School Isidora Sekulic, Vinca Nuclear Institute

ORGANISATION TEAMS

- 1-2 people
- Budget administration, time management, planning and organisation

HIGHLIGHT

Students are selected based on strong interest in natural sciences, their enthusiasm, curiosity & achievements in the subject. This helped **reach highly motivated participants**.

Interactive Game “How a Nuclear Power Plant Works”

Ukrainian Nuclear Society

Website: <https://ukrns.org/en/>

DESCRIPTION

The goal of the project is to inform young people about the main production processes that take place at nuclear power plants.



Teams receive brief information and perform practical tasks. Games can be held at educational institutions and partner enterprises of UkrNS. The projects also support career guidance and encourage higher education in nuclear-related fields.

The project is implemented in the format of dynamic mini-games, which interpret real production processes at nuclear power plants, such as “Construction of a nuclear power plant”, “Installation of pipelines”, “Loading nuclear fuel”, “Turning the turbine”, and “Connecting to the power system”.

AUDIENCE

- 500 participants in 3 years, 200/year currently
- Ages 13–16

REALISATION TIME

- Cyclic activity throughout the school year

LOCATION

Initially launched in the satellite town of South Ukraine NPP, with plans to expand to all nuclear plant regions

ORGANISATION TEAMS

- 3–5 organizers
- 1–2 people handling equipment, 2 moderators

HIGHLIGHT

By completing tasks that **simulate real stages of NPP operation**, participants gain interest in further learning about this topic!

Nuclear School

Ukrainian Nuclear Society

Website: <https://ukrns.org/en/>

DESCRIPTION

Joint project of the Rivne and Khmelnytskyi NPPs and the UkrNS is being implemented with the aim of forming a potential personnel reserve for NPPs, disseminating knowledge about the industry, and establishing strong partnerships with educational institutions in satellite towns of the NPP and neighbouring settlements.



Throughout the academic year, participants in the nuclear school can expect a packed programme: excursions to industrial sites, information and training centres; master classes in various sports; lectures by specialists and instructors from the Rivne NPP; business games; career guidance testing; internships at the workplaces of managers and employees of the station; and more.

AUDIENCE

- 200+ participants annually in each region
- Ages 13–16

REALISATION TIME

- Annual projects implemented during the academic year
- First one, at the Rivne NPP started 9 years ago.

LOCATION

Multiple sites

ORGANISATION TEAMS

- Organisers, volunteer station experts, psychologists, and trainers support the project
- Team size depends on participant numbers

HIGHLIGHT

Information about the school's progress is constantly **covered in the local media** of the regions where it is held.

Summer Energy Camp – Practical Education for Young People

Nuclear Society of Slovenia

Website: www.djs.si / Email: garsia.kosinac@gen-energija.si

DESCRIPTION

Summer Energy Camp for secondary school students with an interest in technical and energy-related topics has been organised by the Faculty of Energy Engineering of the University of Maribor and GEN energija.



The camp lasts one week and includes: 3D modelling and 3D printing; exploration of nuclear technologies and renewable energy; hands-on projects, such as building a model of a reactor core and demonstrating the fuel replacement process; lectures and assignments in energy engineering and technology.

Students work in teams, learn problem-solving skills, and present their projects at the end of the camp.



AUDIENCE

- Up to 10 participants
- Ages 13-16 (or secondary school)



REALISATION TIME

- An annual event running for the past seven years



LOCATION

Institute of Energy in Krško



ORGANISATION TEAMS

- 3-5 people
- Experts, skilled organisers, and designers



HIGHLIGHT

Organizers need **good communication skills** to attract participants' interest and stimulate their curiosity, but also to keep their spirits and motivation high

NUCLEAR SOCIETIES PROJECTS

COMPETITIONS

Mladi Genialcy

Nuclear Society of Slovenia

Website: www.djs.si / Email: garsia.kosinac@gen-energija.si

DESCRIPTION

A 6-day camp for high school students interested in nuclear physics.



The participants attend talks given by nuclear experts, perform hands-on experiments and measurements, solve problems, participate in discussions, and are entertained by experimental shows, a nuclear quiz, and a full-day trip to a nuclear facility. At the end of the school, the best participant is awarded with the András Mester Award

AUDIENCE

- More than 50 people/year
- Age 7-12, 13-16

REALISATION TIME

- Cyclic
- Every year

LOCATION

GEN energije company and NEK, primary and secondary schools

ORGANISATION TEAMS

- More than 5 organizers
- Board of experts, Organizer, Designers, communicator

HIGHLIGHT

There is the need of people with **good communication skills** to attract participants' interest and stimulate their curiosity, but also to keep their spirits and motivation high

National Country wide Leo Szilárd Physics Competition

Hungarian Nuclear Society

Website: www.nuklearis.hu

DESCRIPTION

The first competition was held in 1998, on the occasion of the centenary celebration of Leo Szilárd. High school students compete in two categories: Juniors and Seniors. The topics cover almost the entirety of modern physics, with a particular focus on nuclear and radiation physics.



From a selected theme, students are required to solve problems and to design, carry out, and analyze hands-on experiments. In addition, they work on more complex “experiments” using computer simulation tools. Winners receive valuable prizes, and recognition is also given to the most effective teacher and school.

AUDIENCE

- Around 400 people/year
- Age 15–19 years (high school)

REALISATION TIME

- Cyclic
- Every year

LOCATION

First step in schools, final is held at the vocationals school of Paks NPP

ORGANISATION TEAMS

- More than 10 organizers
- Board of experts (professors and teachers)

HIGHLIGHT

It has been almost **30 years** the competition has been organised.

"Nuclear Energy and the World" Competition

Ukrainian Nuclear Society (UkrNS)

Website: <https://ukrns.org/en/> / Email: info@ukrns.org

DESCRIPTION

The purpose of the competition is to promote nuclear physics and energy among schoolchildren and young people, while also supporting talented participants and providing career guidance in the energy sector. The support of universities, nuclear power plants, and industry is essential.



Participation is individual, in the form of an abstract or a research project. Winners who achieve 1st, 2nd, and 3rd place, as well as those receiving special recognition, are awarded valuable prizes and gifts.



AUDIENCE

- More than 50 people/year
- Age 13-16 (or secondary school)



REALISATION TIME

- Cyclic
- Every year



LOCATION

Multiple sites



ORGANISATION TEAMS

- Organizers depend on the number of host cities
- Selection organizers, moderators, and jury members are required



HIGHLIGHT

Over the past five year, the competition has become **popular in cities where people are less familiar with the topic of nuclear energy**, and every year it attracts participants from new territories

"Youth in the world of Energy" Competition

Nuclear Society of Slovenia

Website: www.djs.si / Email: garsia.kosinac@gen-energija.si

DESCRIPTION

A competition that aims to promote energy and environmental literacy. It has been organised by GEN energija in cooperation with the Eco-School programme for 13 years and is intended for kindergartens, primary schools, and secondary schools.



The competition encourages the development of knowledge on topics such as electricity generation, sustainable energy sources (including nuclear energy), energy efficiency, and the environmental impacts of energy production. Pupils and students create a wide range of outputs—models, posters, drawings, videos, and other presentations—that demonstrate their understanding of energy and sustainable solutions.

AUDIENCE

- 200+ participants/year
- Ages <7, 7–12 and 13–16

REALISATION TIME

- Cyclic
- Every year

LOCATION

Multiple venues

ORGANISATION TEAMS

- Board of experts
- Designers

HIGHLIGHT

Create a network with various institutions, teachers and professors, allowing for **long-term relationships** and facilitating new projects

NUCLEAR SOCIETIES PROJECTS

EDUCATIONAL TOOLS AND GAMES

"Going to schools" with Radiomon

Belgian Nuclear Society

Website: <http://www.bnsorg.be/> / Email: etiennehoarau18@gmail.com

DESCRIPTION

Thanks to the collaboration with the company Radiomon, which is developing a video game about nuclear energy, the main idea is to use entertainment as a learning tool.



Video games can keep children engaged and stimulate their curiosity, allowing us to introduce and discuss topics related to nuclear energy in an interactive and accessible way.



AUDIENCE

- 20–50 participants expected
- Secondary/high school students, teachers



REALISATION TIME

- Starting now (2026)



LOCATION

Brussels region



ORGANISATION TEAMS

- 3–5 organizers
- Expertise in gaming, education, and nuclear communication



HIGHLIGHT

Good synergy between public and private funding for innovation in Brussels

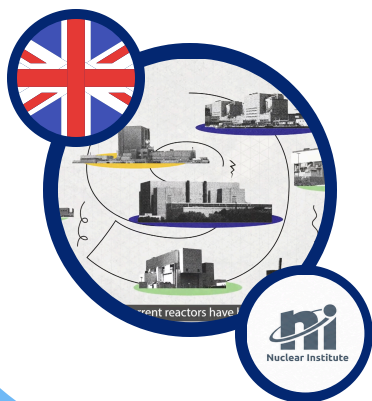
KS2 Animated video series with lesson plan

Nuclear Institute

Website: <https://www.nuclearinst.com/Homepage>

DESCRIPTION

A series of five animated videos designed for students aged 13–16. The videos cover introductory topics related to nuclear activities and are accompanied by 30-minute lesson plans, providing teachers with ready-to-use materials to deliver alongside the videos.



All resources can be find on the NI website

AUDIENCE

- Over 400 schools downloaded the resource
- Ages 13–16

REALISATION TIME

- Starting now (2026)

LOCATION

Online

ORGANISATION TEAMS

- 3–5 organizers
- Script writers and an animations agency

HIGHLIGHT

To avoid misconceptions around nuclear, the **use of the right imagery is essential**. Thus, working with an agency for the animation and teachers for the lesson plans worked well.

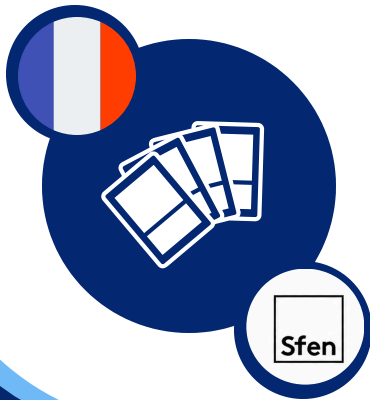
Megawatt

French Nuclear Society (SFEN)

Website: www.sfen.org

DESCRIPTION

Megawatt is an educational card game that helps participants understand the challenges of the energy transition through play. Developed by CurieUs Games and deployed in France by the Sfen, it invites players to build an electricity system while balancing production, costs, emissions, reliability and unexpected political, economic or climate events.



In France, workshops are led by Sfen members, who guide participants through the game and help them connect each decision to real-world energy issues. Based on data from sources such as the IPCC, the International Energy Agency, the World Bank and Our World in Data, Megawatt makes complex energy concepts tangible and accessible. During the first half of 2026, the project has already reached more than 200 participants.

AUDIENCE

- 10–20 participants /workshop; 200+ participants reached in H1 2026
- Ages 13–16 and 17+

REALISATION TIME

- Cyclic
- Started in 2025 with the preparation and is ongoing

LOCATION

Schools, educational settings and during career discovery internships in France

ORGANISATION TEAMS

- 1–2 per workshop
- Strong communication, facilitation, and educational outreach skills

HIGHLIGHT

Beyond technical expertise, the project requires strong communication and facilitation skills, plus coordination with schools or host institutions, educational materials, facilitator training and **clear messaging**

N·U·K·I·S (Nuclides United for Knowledge, Innovation and Safety)

Jóvenes Nucleares (SNE)

Website: www.sne.es / Email: l.serra@jovenesnucleares.org

DESCRIPTION

NUKIS is a trading Card Game of nuclear creatures, associated with each element of the periodic table.



The cards contain the name of the creature, description, attacks, and abilities, all related to nuclear science & technology facts and definitions, in an engaging way with cool designs and logos.

At the back of the cards, interesting facts are given and a QR leading to the SNE/JJNN website.

AUDIENCE

- More than 50 people/year
- Age 13-16 years (secondary school)

REALISATION TIME

- Cyclic, every year
- Started in 2015

LOCATION

University classroom or similar. It takes place at different locations every year

ORGANISATION TEAMS

- 3-5 organizers
- Designer or Creator, Formatting and printing, Project leader

HIGHLIGHT

Teenagers loved the designs and the **playability**



EUROPEAN NUCLEAR SOCIETY

European Nuclear Societies in Stakeholder Engagement

Part 1: Interacting with Education System

September 2026