NUCLEAR SCIENCE AND TECHNOLOGY EDUCATION PROGRAMME IN ROMANIA

IAEA, INEAS Mission – Romania

18-21.11.2025

NUCLEAR SCIENCE AND TECHNOLOGY EDUCATION PROGRAMME IN ROMANIA

- nuclear skills (training, employment, research) are mainly the responsibility of central government/national government

- institutions offering training in the nuclear field are:
  - Universities / higher education institutions
  - Engineering Schools
  - In-company training programmes

NUCLEAR SCIENCE AND TECHNOLOGY EDUCATION PROGRAMME IN ROMANIA

- The main training and research institutions active in the nuclear field are:

  - NATIONAL UNIVERSITY FOR SCIENCE AND TECHNOLOGY POLITEHNICA BUCURESTI (Bucharest University Centre and Pitesti University Centre)
  - OVIDIUS UNIVERSITY FROM CONSTANTA
  - VALAHIA UNIVERSITY FROM TARGOVISTE
  - NUCLEAR RESEARCH INSTITUTE
  - Horia Hulubei National Institute for R&D in Physics and Nuclear Engineering [IFIN-HH]

NUCLEAR SCIENCE AND TECHNOLOGY EDUCATION PROGRAMME IN ROMANIA

- The nuclear-related training courses available in Romania are:

  - Nuclear power generation
  - Medical/radiopharmaceuticals
  - Energy security and safety
  - Decommissioning
  - Waste management

NUCLEAR SCIENCE AND TECHNOLOGY EDUCATION PROGRAMME IN ROMANIA

- Existing partnerships between higher education institutions and companies in the nuclear sector are:
  - **NuScale Power + Universitatea Politehnica din București**: NuScale is partnering with the university to set up an “E2 Center” (Energy Exploration Center) at the university to deploy a simulator of its SMR (Small Modular Reactor) design for workforce training in Romania. (nuscalepower.com)
  - **SNN – Nuclearelectrica SA + Universitatea „Valahia” din Târgoviște**: In June 2025, SNN signed a partnership with the university to collaborate on education, research & innovation in the nuclear industry (including SMRs, digitalisation, energy efficiency) — with internships, scholarships, lab-equipping, joint projects. (nuclearelectrica.ro)

NUCLEAR SCIENCE AND TECHNOLOGY EDUCATION PROGRAMME IN ROMANIA

- Existing partnerships between higher education institutions and companies in the nuclear sector are:
  - **Framatome + SNN (Cernavodă)** / Romanian medical isotopes production: Framatome entered a long-term cooperation agreement with SNN to produce the medical isotope lutetium-177 at Cernavodă. While this is principally industry-industry, this kind of cooperation creates opportunities for universities to engage in training and research in medical/radiopharmaceutical fields. (ans.org)
  - **Alianța Națională Universitară pentru Energie Nucleară (ANUEN)** is one of the key partnership frameworks between Romanian higher-education institutions and the nuclear industry — created specifically to structure academic–industrial cooperation in the sector.

ANUEN – a National University Alliance for Nuclear Energy

- The NATIONAL UNIVERSITY ALLIANCE FOR NUCLEAR ENERGY [**ANUEN**] is a private association of 14 public universities, non-governmental, independent legal entity, which acts at the national and European Union level, being constituted by the free will of its founding members, created and operating, indefinitely

- **ANUEN** headquarters are in Bucharest, Splaiul Independenței, no. 313, sector 6, in the premises of the National University of Science and Technology POLITEHNICA Bucharest, room ENB003

- For more info, please visit: https://anuen.ro/

ANUEN – a National University Alliance for Nuclear Energy

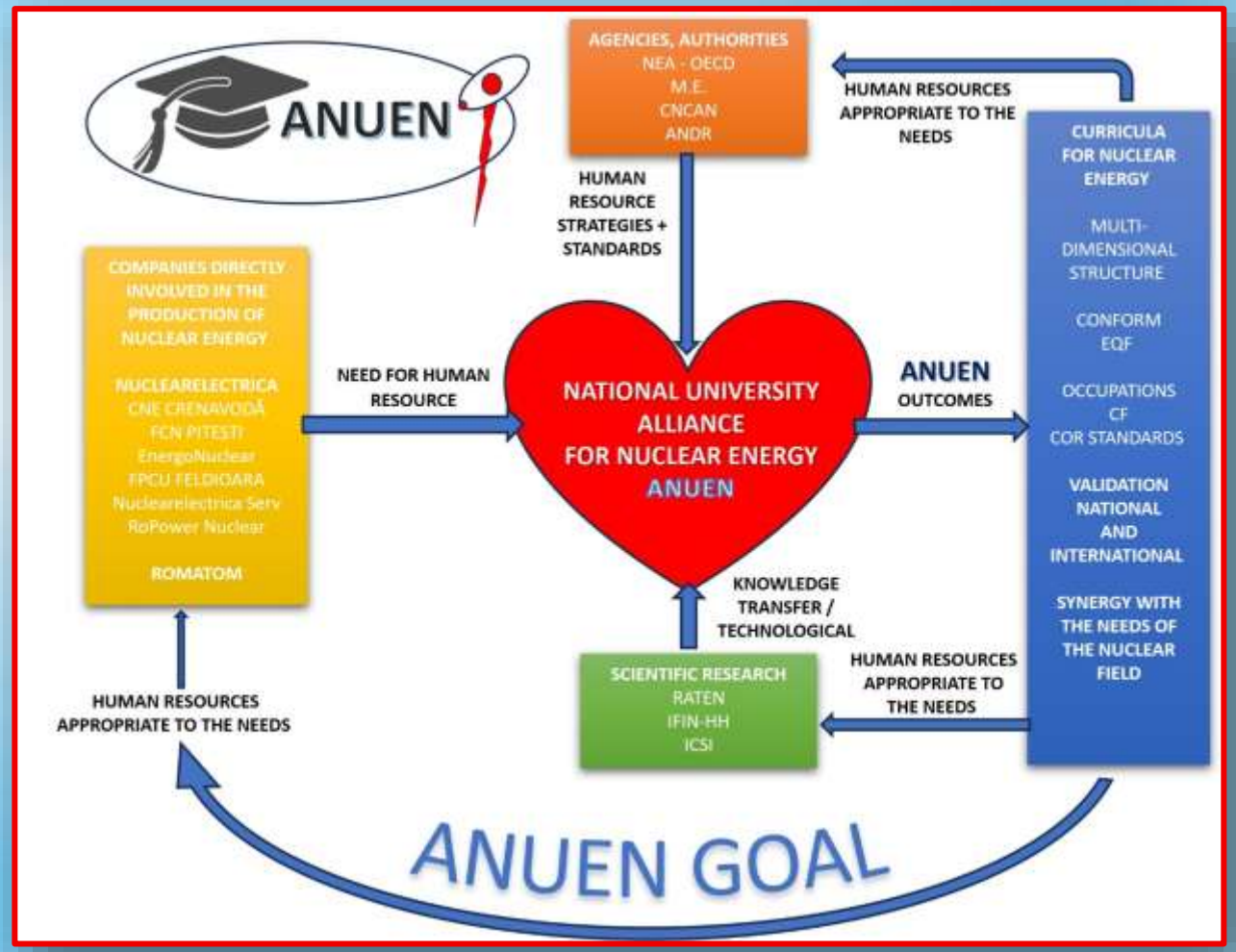
1. National University of Science and Technology POLITEHNICA Bucharest
2. University of Bucharest
3. "Babeș-Bolyai" University, Cluj-Napoca
4. "Alexandru Ioan Cuza" University, Iași
5. West University of Timișoara
6. "Ovidius" University, Constanța
7. "Valahia" University of Târgoviște
8. University of Craiova
9. Technical University of Cluj-Napoca
10. "Carol Davila" University of Medicine and Pharmacy, Bucharest
11. University of Petroșani
12. Police Academy "Alexandru Ioan Cuza„ - Bucharest
13. Constanța Maritime University
14. Politehnica University from Timisoara

ANUEN – a National University Alliance for Nuclear Energy

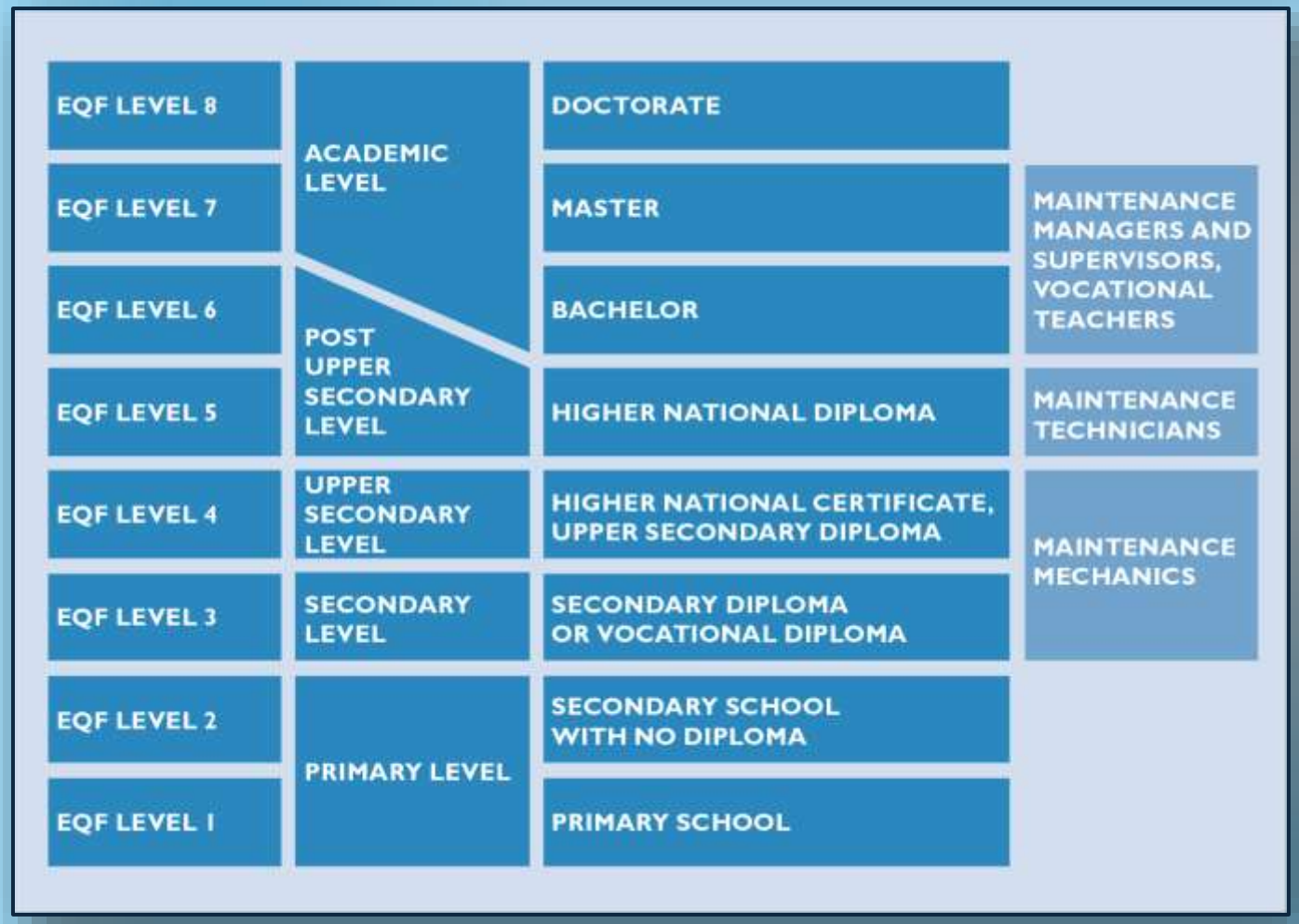
- **GOAL:** The NATIONAL UNIVERSITY ALLIANCE FOR NUCLEAR ENERGY [ANUEN] aims to provide training, promotion and support for teaching, specific to the fields of activity involving nuclear energy and/or its related applications, to increase the participation and integration rates in the European labor market of these specialists.
- The NATIONAL UNIVERSITY ALLIANCE FOR NUCLEAR ENERGY[ANUEN] will carry out its activities both inside and outside Romania, aiming to achieve 23 objectives, agreed in the Statute.

ANUEN – a National University Alliance for Nuclear Energy

- **ANUEN** function as an integrating platform of all socio-economic actors directly or indirectly active in the field of nuclear energy, its production, its distribution, its marketing, its use in various social and economic fields as well as its nuclear applications.



ANUEN – a National University Alliance for Nuclear Energy



- **ANUEN** will implement its objectives within the following working groups:

1. ANALYSES, FORECASTS
2. CURRICULUM DESIGN
3. STRATEGY AND RELATIONSHIP WITH THE “SOCIO-ECONOMIC ENVIRONMENT”
4. SCIENTIFIC RESEARCH AND TECHNOLOGY TRANSFER
5. INTERNAL AND INTERNATIONAL COOPERATION

ANUEN – a National University Alliance for Nuclear Energy

- **ANUEN,** in cooperation with SNN, will develop a HR Tool dedicated to Nuclear, named "Qualification Aggregator"

1. Collecting, sorting all the existing job descriptions in the Romanian Nuclear
2. Decomposing jobs in **EQF** units
3. Developing **MyAQ**, an **EQF-based** portal
4. Uploading all identified **EQF** units in **MyAQ**
5. Providing tools on portal, helping the beneficiaries to compose/generate any qualification requested for a certain job
6. Giving access to beneficiaries and individuals

ANUEN – a National University Alliance for Nuclear Energy

- ANUEN assumed the elaboration of a NATIONAL STRATEGIC PLAN ***"Securing and Developing Human Resources in the Field of Nuclear Energy - (2025–2040)"***

- **VISION:** Romania will become a regional pole of competence in nuclear energy, capable of technologically, scientifically and operationally supporting the expansion and modernization of nuclear capacities, including through the development of new generation reactors (CANDU, SMR, IV gen), through a qualified, adaptable and internationally competitive human resource.

ANUEN – a National University Alliance for Nuclear Energy

- **STRATEGIC OBJECTIVES** of the NATIONAL STRATEGIC PLAN:

1. Training and attracting enough specialists for the operation and development of the Romanian nuclear program.
2. Modernizing and expanding educational and training capacities.
3. Increasing the attractiveness of the nuclear field for young people.
4. Development of research and applied innovation capacities.
5. Ensuring the financial and institutional sustainability of this ecosystem.

ANUEN – a National University Alliance for Nuclear Energy

- **DOMAINS** of intervention of the NATIONAL STRATEGIC PLAN:

1. EDUCATION AND TRAINING
2. PROMOTION AND ATTRACTIVENESS OF THE FIELD
3. PROFESSIONAL RETRAINING AND RETENTION
4. RESEARCH AND INNOVATION INFRASTRUCTURE
5. GOVERNANCE AND FUNDING

INTEGRATED NUCLEAR EDUCATION ADVISORY SERVICES

PRELIMINARY SURVEY
- Results and Comments -

IAEA, INEAS Mission – Romania

18-21.11.2025

PRELIMINARY SURVEY - Results and Comments

General information			
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PRELIMINARY SURVEY - Results and Comments

Q1: THE GOVERNMENT'S PRIORITIES FOR NUCLEAR AND RADIOLOGICAL SCIENCE AND TECHNOLOGY

The Romanian Government's priorities are oriented towards:

- nuclear safety
- the development of technological capabilities
- research and innovation
- the integration of Romania into the international framework of nuclear research and development.

PRELIMINARY SURVEY - Results and Comments

Q1: THE GOVERNMENT'S PRIORITIES FOR NUCLEAR AND RADIOLOGICAL SCIENCE AND TECHNOLOGY

1. Ensuring nuclear safety

- One of the main objectives of the Romanian government is to strengthen and maintain a high level of nuclear safety, both in terms of nuclear energy production and radioactive waste management.
- In this regard, the Romanian authorities collaborate closely with international agencies such as the International Atomic Energy Agency (IAEA) to comply with international standards and implement rigorous national regulations in the field of nuclear safety.

PRELIMINARY SURVEY - Results and Comments

Q1: THE GOVERNMENT'S PRIORITIES FOR NUCLEAR AND RADIOLOGICAL SCIENCE AND TECHNOLOGY

2. Diversification and development of nuclear infrastructure

- **Completion of Unit 3 and 4 from Cernavodă**: Within this project, the Romanian government aims to continue investments in expanding the capacity of the Cernavodă nuclear power plant.
- **Refurbishing of Unit 1 from Cernavoda**: extending the lifetime of this unit to another 20 years
- **New nuclear reactor projects**: The government has expressed interest in building new nuclear reactors, within a public-private partnership, to support the transition to a cleaner and more sustainable energy mix.

PRELIMINARY SURVEY - Results and Comments

Q1: THE GOVERNMENT'S PRIORITIES FOR NUCLEAR AND RADIOLOGICAL SCIENCE AND TECHNOLOGY

3. Development of nuclear research and innovation

- The Romanian government encourages the development of research in the field of nuclear and radiological technologies, in order to support scientific and applied progress.
- Romania promotes both fundamental research in nuclear physics and the development of advanced technologies, which can contribute to increasing efficiency and safety in the nuclear industry and the use of radiation in other fields (medicine, industry).

PRELIMINARY SURVEY - Results and Comments

Q1: THE GOVERNMENT'S PRIORITIES FOR NUCLEAR AND RADIOLOGICAL SCIENCE AND TECHNOLOGY

3. Development of nuclear research and innovation

Key projects:

- Supporting research at the Center for Nuclear Research and Development (CERN) and other academic and research institutions in the nuclear field.
- Supporting innovation in areas such as nuclear medicine, radiotherapy and radiology, to improve medical treatments.
- Research developed in the national institutes for scientific research

PRELIMINARY SURVEY - Results and Comments

Q1: THE GOVERNMENT'S PRIORITIES FOR NUCLEAR AND RADIOLOGICAL SCIENCE AND TECHNOLOGY

4. Training and education of personnel in the nuclear and radiological field

- The Romanian government attaches great importance to training and education in the nuclear and radiological fields.
- This is reflected in the implementation of educational and continuing training programs, which are essential for maintaining a specialized and well-trained staff.

PRELIMINARY SURVEY - Results and Comments

Q1: THE GOVERNMENT'S PRIORITIES FOR NUCLEAR AND RADIOLOGICAL SCIENCE AND TECHNOLOGY

4. Training and education of personnel in the nuclear and radiological field

- **Key actions**:
  - Unifying the efforts of 14 Romanian universities in a national network, the **National University Alliance for Nuclear Energy**, (www.anuen.ro) in order to build-up and apply at the national level, different training and education programs, necessary to the nuclear energy domain.
  - Developing educational programs in collaboration with universities and research centers in the field of nuclear and radiological science (Bucharest Politehnica University, University of Cluj-Napoca).
  - Creating centers of excellence in the field of nuclear technologies to train specialists in fields such as nuclear engineering and nuclear medicine.

PRELIMINARY SURVEY - Results and Comments

Q1: THE GOVERNMENT'S PRIORITIES FOR NUCLEAR AND RADIOLOGICAL SCIENCE AND TECHNOLOGY

5. Management and storage of radioactive waste

- Another priority objective for the Romanian government is the implementation of solutions for the safe and sustainable management of radioactive waste. Romania needs long-term storage solutions for waste and spent nuclear fuel.
- **Specific measures**:
  - Continuing the implementation of the project to build a National Repository for Radioactive Waste (DNDR).
  - Developing solutions for recycling and reducing the volume of radioactive waste, through research and international collaborations.

PRELIMINARY SURVEY - Results and Comments

Q1: THE GOVERNMENT'S PRIORITIES FOR NUCLEAR AND RADIOLOGICAL SCIENCE AND TECHNOLOGY

6. International collaboration and alignment with international regulations

- Romania continues to work closely with international agencies, such as the IAEA, NEA OECD and with the Member States of the European Union, to align itself with international best practices in the nuclear field. This includes compliance with nuclear safety standards, environmental protection, and monitoring of radiological impacts on public health.
- **Main objectives**:
  - Active participation in international nuclear research programs.
  - Implementation of European Union regulations on nuclear energy, especially those relating to energy security and waste management.

PRELIMINARY SURVEY - Results and Comments

Q1: THE GOVERNMENT'S PRIORITIES FOR NUCLEAR AND RADIOLOGICAL SCIENCE AND TECHNOLOGY

7. Promoting the use of nuclear energy for medical and industrial purposes

- The Romanian government supports the expansion of the use of radiation and nuclear technologies for non-energy purposes, especially in the medical and industrial fields.
- **Key projects**:
  - Developing capabilities for the use of nuclear technologies in nuclear medicine for the diagnosis and treatment of various diseases, especially in the treatment of cancer.
  - Increasing the use of radiation to improve industrial processes, such as in the materials and food sectors.

PRELIMINARY SURVEY - Results and Comments

Q2: THE EXISTING POLICIES AND STRATEGIES GOVERNING NUCLEAR AND RADIOLOGICAL EDUCATION, SCIENCE AND TECHNOLOGY

- **Romania's National Nuclear Program (NNP)** - is the instrument through which the Government carries out the general long-term policy in the nuclear field, with the aim of sustainable development of society.
- The NNP includes the objectives and policies relating to the promotion, development and monitoring of activities in the nuclear field.

PRELIMINARY SURVEY - Results and Comments

Q2: THE EXISTING POLICIES AND STRATEGIES GOVERNING NUCLEAR AND RADIOLOGICAL EDUCATION, SCIENCE AND TECHNOLOGY

- **Romania's Energy Strategy 2025-2035**, with a view to 2050 - is a programmatic document that defines the vision and establishes the fundamental objectives of the energy sector development process.
- The document also indicates the national, European and global benchmarks that influence and determine policies and decisions in the energy field.
- The vision of the Energy Strategy of Romania is to grow the energy sector in conditions of security, sustainability, economic growth and accessibility.
- The development of the energy sector is part of the development process of Romania.
- The energy sector must ensure the uninterrupted physical availability of energy products and services, at an affordable price for consumers.

PRELIMINARY SURVEY - Results and Comments

Q2: THE EXISTING POLICIES AND STRATEGIES GOVERNING NUCLEAR AND RADIOLOGICAL EDUCATION, SCIENCE AND TECHNOLOGY

Medium and long-term national strategy for the safe management of spent nuclear fuel and radioactive waste

- This strategy includes regulations on the safe management of radioactive waste, environmental protection and public health.
- Education and training in the radiological field are essential for risk prevention and efficient management of radioactive waste.
- The strategy also focuses on research and development of innovative solutions in this field.

PRELIMINARY SURVEY - Results and Comments

Q2: THE EXISTING POLICIES AND STRATEGIES GOVERNING NUCLEAR AND RADIOLOGICAL EDUCATION, SCIENCE AND TECHNOLOGY

National Strategy for Research, Innovation and Smart Specialization 2022-2027

- This strategy includes objectives to support research and innovation in the field of nuclear and radiological technologies.
- Romania aims to develop centers of excellence and support the education and continuous training of researchers and engineers in fields such as nuclear physics, nuclear engineering and nuclear medicine.

PRELIMINARY SURVEY - Results and Comments

Q2: THE EXISTING POLICIES AND STRATEGIES GOVERNING NUCLEAR AND RADIOLOGICAL EDUCATION, SCIENCE AND TECHNOLOGY

Regulations regarding the training and certification of personnel in the nuclear field

- Romanian authorities, such as the National Commission for the Control of Nuclear Activities (CNCAN), regulate the training and certification of personnel working in the nuclear and radiological fields.
- These regulations are essential for ensuring the safety and security of nuclear facilities, the management of radioactive waste, and the application of radiological technologies in the medical and industrial fields.

PRELIMINARY SURVEY - Results and Comments

Q2: THE EXISTING POLICIES AND STRATEGIES GOVERNING NUCLEAR AND RADIOLOGICAL EDUCATION, SCIENCE AND TECHNOLOGY

National Legislation and Nuclear Safety Standards

- Romania has a series of regulations and legal standards governing the nuclear and radiological field.
- These are regulated by national authorities and are aligned with international standards of the IAEA and the European Union.
- These include regulations on the safety of nuclear facilities, radiation protection and radioactive waste management.

PRELIMINARY SURVEY - Results and Comments

Q2: THE EXISTING POLICIES AND STRATEGIES GOVERNING NUCLEAR AND RADIOLOGICAL EDUCATION, SCIENCE AND TECHNOLOGY

Educational and public awareness policies

- In Romania, public education in the field of nuclear and radiological safety is a priority, given the potential impact of radiation on health and the environment.
- Organizations such as CNCAN, ANDR, ANUEN carry out education and information campaigns to increase public awareness regarding the safe use of nuclear and radiological technologies.

PRELIMINARY SURVEY - Results and Comments

Q3: THE NATIONAL DEMAND FOR NUCLEAR AND RADIOLOGICAL SPECIALISTS

Preamble

- The demand for nuclear and radiological specialists in Romania is influenced by several factors, including the development of the nuclear energy sector, the increasing use of radiological technologies in medicine and industry, and the need to maintain nuclear safety standards.
- The requirements in this field are also supported by national policies for continuous training and the integration of nuclear technologies in various fields.

PRELIMINARY SURVEY - Results and Comments

Q3: THE NATIONAL DEMAND FOR NUCLEAR AND RADIOLOGICAL SPECIALISTS

1. Demand in the nuclear energy sector

- In the energy sector, the demand for nuclear and radiological specialists is closely linked to the need to ensure the operation, maintenance and development of the nuclear infrastructure in Romania.
- **Cernavodă Nuclear Power Plant**: This nuclear power plant, which is one of the most important sources of energy in Romania, requires specialized personnel in the fields of nuclear engineering, reactor operation, and nuclear safety. As the plant modernizes and expands the requirements for nuclear engineers, technicians, and radiological specialists will increase.
- **Nuclear capacity expansion projects**: Romania aims to develop new nuclear capacities, which will create additional demand for specialists. Projects to expand the Cernavodă power plant or develop new nuclear units and new types of reactors will require specialized personnel for their planning and implementation.

PRELIMINARY SURVEY - Results and Comments

Q3: THE NATIONAL DEMAND FOR NUCLEAR AND RADIOLOGICAL SPECIALISTS

2. Medical applications

- The use of nuclear technologies in the medical field, especially in nuclear medicine and radiotherapy, is constantly growing. Strong request for:
  - **Radiology specialists**: There is a constant demand for radiologists and technicians to perform and interpret radiological images (CT, MRI, ultrasound) or to apply radiotherapy treatments.
  - **Doctors specializing in nuclear medicine**: The increasing use of nuclear technologies for medical imaging and radiotherapy treatments brings a constant need for specialized doctors, as well as technicians for the manipulation and administration of radioactive isotopes.
  - **Radiotherapy technicians**: Technicians who can operate radiotherapy equipment and assist with radiation treatments are in high demand, especially in hospitals and specialty clinics.

PRELIMINARY SURVEY - Results and Comments

Q3: THE NATIONAL DEMAND FOR NUCLEAR AND RADIOLOGICAL SPECIALISTS

3. Nuclear industry and other industrial sectors

- In addition to nuclear energy and nuclear medicine, the demand for nuclear and radiological specialists is also present in other industrial sectors, such as:
  - **Energy industry**: Many companies that use nuclear technologies for energy production or for research and development (for example, in the field of nuclear materials) require specialists in the field.
  - **Inspection and quality control industry**: Radiological technologies, such as industrial radiography, are used for the inspection and verification of industrial materials and structures, such as pipelines and equipment at nuclear power plants and in other industries (automotive, aerospace, etc.).

PRELIMINARY SURVEY - Results and Comments

Q3: THE NATIONAL DEMAND FOR NUCLEAR AND RADIOLOGICAL SPECIALISTS

4. Research and development

- Research in the field of nuclear and radiological technologies is another important factor generating demand for specialists.
- Romania collaborates with international research agencies and has research projects in the field of nuclear energy, radiotherapy, and radiation protection.
  - **Nuclear researchers and engineers**: Researchers are needed for projects developing new nuclear technologies, including technologies for radioactive waste management, nuclear safety and other related fields.
  - **International nuclear research projects**: Collaborations with international organizations, such as the International Atomic Energy Agency (IAEA), bring requirements for qualified research personnel, both in Romania and within international partnerships.

PRELIMINARY SURVEY - Results and Comments

Q3: THE NATIONAL DEMAND FOR NUCLEAR AND RADIOLOGICAL SPECIALISTS

5. Continuing training measures and investments in education

- To meet the demands in these fields, there is a growing emphasis on the education and continuing training of nuclear and radiological specialists.
- Romanian universities, in collaboration with research centers and the nuclear industry, have implemented educational programs to train engineers and technicians in the nuclear and radiological fields.
- **Undergraduate and postgraduate programs** offer bachelor's, master's, and doctoral degrees in fields such as nuclear engineering, nuclear physics, and nuclear medicine.
- **Continuing professional training**: There are also continuing education programs for professionals working in areas such as nuclear safety, radioactive waste management, and the use of radiation for industrial and medical purposes.

PRELIMINARY SURVEY - Results and Comments

Q3: THE NATIONAL DEMAND FOR NUCLEAR AND RADIOLOGICAL SPECIALISTS

Q3.1: WHAT KINDS OF SPECIALISTS ARE NEEDED?

- In Romania, the demand for specialists in the nuclear and radiological fields is diversified, given the multiple applications of nuclear technologies, from energy production and nuclear medicine to the use of radiation in industry and research.
- Thus, a diverse range of specialized professionals is needed to meet the needs of these sectors.

PRELIMINARY SURVEY - Results and Comments

Q3: THE NATIONAL DEMAND FOR NUCLEAR AND RADIOLOGICAL SPECIALISTS

Q3.1: WHAT KINDS OF SPECIALISTS ARE NEEDED?

- Here are some of the most important specialists needed in the nuclear and radiological fields in Romania:
  - 1. Nuclear engineers
  - 2. Nuclear technicians
  - 3. Nuclear safety specialists
  - 4. Radiologists
  - 5. Radiological technicians
  - 6. Nuclear medicine specialists
  - 7. Radioactive waste management specialists
  - 8. Nuclear researchers and engineers
  - 9. Radiation protection specialists

PRELIMINARY SURVEY - Results and Comments

Q3: THE NATIONAL DEMAND FOR NUCLEAR AND RADIOLOGICAL SPECIALISTS

Q3.2: IN WHICH AREAS OF NUCLEAR AND RADIOLOGICAL SCIENCE OR INDUSTRY ARE THESE SPECIALISTS NEEDED?

- In Romania, nuclear and radiological specialists are needed in a variety of sectors of science and industry, due to the extensive applications of nuclear and radiological technologies in various fields. The main areas in which these professionals are highly sought are:
    1. Nuclear energy production
    2. Nuclear medicine and medical radiology
    3. Nuclear safety and radiological protection
    4. Nuclear research and development
    5. Radioactive waste management industry
    6. Inspection and quality control industry
    7. Nuclear research industry and radiological applications in agriculture
    8. Nuclear applications in environmental protection
    9. Education and professional training in the nuclear and radiological domains

PRELIMINARY SURVEY - Results and Comments

Q3: THE NATIONAL DEMAND FOR NUCLEAR AND RADIOLOGICAL SPECIALISTS

Q3.3: HOW MANY NUCLEAR AND RADIOLOGICAL SPECIALISTS ARE NEEDED AND WHEN ARE THEY NEEDED?

Category	Estimated Need (new or replacement)
Technicians & skilled trades	~1,200–1,500
Engineers (nuclearized)	~1,000–1,200
Safety & QA staff	~400
Digital / cyber / AI specialists	~300–400
Project & construction managers	~250
Waste & decommissioning experts	~150
Research & regulatory scientists	~200
Nuclear-aware / support roles	~300
Total (2025–2040)	≈ 3,800–4,000 professionals

PRELIMINARY SURVEY - Results and Comments

Q3: THE NATIONAL DEMAND FOR NUCLEAR AND RADIOLOGICAL SPECIALISTS

Q3.3: HOW MANY NUCLEAR AND RADIOLOGICAL SPECIALISTS ARE NEEDED AND WHEN ARE THEY NEEDED?

Rank	Skill Domain	Strategic Priority Level
1	Electrical / I&C technicians and engineers	Critical
2	Mechanical & maintenance technicians	Critical
3	Digital, AI & cybersecurity specialists	Critical emerging
4	Safety, QA/QC, radiation protection	High
5	Project management & systems integration	High
6	Waste management / decommissioning	Medium
7	Research & regulatory science	Strategic but narrow
8	Nuclear-aware (policy, communication)	Supportive

PRELIMINARY SURVEY - Results and Comments

Q4: INSTITUTIONS CURRENTLY OFFER PROGRAMS WITH A NUCLEAR OR RADIOLOGICAL CONTENT

A. HIGHER EDUCATION INSTITUTIONS (GENERAL STUDIES)

National University of Science and Technology POLITEHNICA Bucharest

- Faculty of Energy (University Centre of Bucharest)
- Faculty of Sciences, Physical Education and Informatics (University Centre of Pitești)

University of Bucharest

- Faculty of Physics

Babeș-Bolyai University, Cluj-Napoca

- Faculty of Physics

PRELIMINARY SURVEY - Results and Comments

Q4: INSTITUTIONS CURRENTLY OFFER PROGRAMS WITH A NUCLEAR OR RADIOLOGICAL CONTENT

A. HIGHER EDUCATION INSTITUTIONS (GENERAL STUDIES)

Technical University of Cluj-Napoca

- Faculty of Electrical Engineering

Alexandru Ioan Cuza University of Iași

- Faculty of Physics

Valahia University of Târgoviște

- Faculty of Electrical Engineering, Electronics and Information Technology
- Faculty of Sciences and Arts
- Faculty of Materials Engineering and Mechanics

PRELIMINARY SURVEY - Results and Comments

Q4: INSTITUTIONS CURRENTLY OFFER PROGRAMS WITH A NUCLEAR OR RADIOLOGICAL CONTENT

A. HIGHER EDUCATION INSTITUTIONS (GENERAL STUDIES)

“Ovidius" University of Constanta

- Faculty of Applied Sciences and Engineering

University of Craiova

- Faculty of Automation, Computers and Electronics

"Ștefan cel Mare" University of Suceava

- Faculty of Electrical Engineering and Computer Science

"Lower Danube" University of Galați

- Faculty of Engineering

PRELIMINARY SURVEY - Results and Comments

Q4: INSTITUTIONS CURRENTLY OFFER PROGRAMS WITH A NUCLEAR OR RADIOLOGICAL CONTENT

B. MEDICAL HIGHER EDUCATION INSTITUTIONS

1. "Carol Davila" University of Medicine and Pharmacy in Bucharest
2. "Grigore T. Popa" University of Medicine and Pharmacy of Iași
3. "Iuliu Hațieganu" University of Medicine and Pharmacy in Cluj-Napoca
4. University of Medicine and Pharmacy of Timisoara
5. Ovidius" University of Constanta

PRELIMINARY SURVEY - Results and Comments

Q4: INSTITUTIONS CURRENTLY OFFER PROGRAMS WITH A NUCLEAR OR RADIOLOGICAL CONTENT

C. TECHNICAL AND VOCATIONAL TRAINING INSTITUTIONS

1. Cernavodă Nuclear Power Plant Vocational Training Center
2. National Research-Development Institute for Physics and Nuclear Energy "Horia Hulubei"
3. National Research and Development Institute for Cryogenic and Isotopic Technologies
4. "Carol I" National Defense University of Bucharest
5. Nuclear Research Institute [RATEN-ICN]

PRELIMINARY SURVEY - Results and Comments

Q4: INSTITUTIONS CURRENTLY OFFER PROGRAMS WITH A NUCLEAR OR RADIOLOGICAL CONTENT

D. INTERNATIONAL PARTNERSHIPS AND TRAINING OPPORTUNITIES

1. IAEA (International Atomic Energy Agency)
2. NEA OECD
3. Erasmus+ programs
4. Bilateral cooperation agreements
5. Cooperation agreements between nuclear industry and training institutions

PRELIMINARY SURVEY - Results and Comments

Q4: INSTITUTIONS CURRENTLY OFFER PROGRAMS WITH A NUCLEAR OR RADIOLOGICAL CONTENT

CONCLUSION

- In Romania, educational and training programs in the nuclear and radiological fields are offered by a combination of technical and medical universities, as well as by professional training centers in the nuclear and radiological fields.
- Higher education institutions such as the POLITEHNICA University of Bucharest, the University of Bucharest, the Technical University of Cluj-Napoca, and the "Carol Davila" University of Medicine and Pharmacy play an essential role in training future specialists in these fields.
- At the same time, continuing education programs and international partnerships ensure a complete and adaptable training to the requirements of the nuclear and radiological industry in Romania.

PRELIMINARY SURVEY - Results and Comments

Q5: DO ANY OF THE TECHNICAL AND VOCATIONAL EDUCATION AND TRAINING PROVIDERS AND HIGHER EDUCATION PROVIDERS COLLABORATE IN A FORMALIZED COMMITTEE OR NETWORK?

1. **International educational networks and partnerships**
   - **European Nuclear Education Network (ENEN):** is an international non-profit organization established under Belgian law. The main purpose of the ENEN Association is to preserve and further develop expertise in nuclear fields through higher education and training in Europe. Its members include: National University of Science and Technology POLITEHNICA Bucharest; National Institute for Research and Development in Physics and Nuclear Energy "Horia Hulubei"; Institute for Nuclear Research.

PRELIMINARY SURVEY - Results and Comments

Q5: DO ANY OF THE TECHNICAL AND VOCATIONAL EDUCATION AND TRAINING PROVIDERS AND HIGHER EDUCATION PROVIDERS COLLABORATE IN A FORMALIZED COMMITTEE OR NETWORK?

1. **International educational networks and partnerships**
   - **University Network of Excellence in Nuclear Engineering (UNENE)** - is a network of Canadian and partner international universities offering nuclear engineering, science and technology research and education programming. Its members also include Canadian industry participants and the federal government and Canada's national nuclear science and technology institution. With its partners and funding organizations, UNENE works to advance nuclear knowledge, build capacity and heighten visibility of Canada's strength as a global partner, and to elevate the role of nuclear in advancing global sustainability, prosperity and a clean energy future. The National University of Science and Technology POLITEHNICA Bucharest is part of this network.

PRELIMINARY SURVEY - Results and Comments

Q5: DO ANY OF THE TECHNICAL AND VOCATIONAL EDUCATION AND TRAINING PROVIDERS AND HIGHER EDUCATION PROVIDERS COLLABORATE IN A FORMALIZED COMMITTEE OR NETWORK?

1. **International educational networks and partnerships**

Erasmus+ projects: Through the European Union's Erasmus+ program, Romanian universities can collaborate with educational institutions from other member states to offer courses and educational exchanges in the nuclear, radiological and renewable energy fields. These collaborations allow Romanian institutions to participate in the development of joint master's programs or to participate in continuing education courses.

PRELIMINARY SURVEY - Results and Comments

Q5: DO ANY OF THE TECHNICAL AND VOCATIONAL EDUCATION AND TRAINING PROVIDERS AND HIGHER EDUCATION PROVIDERS COLLABORATE IN A FORMALIZED COMMITTEE OR NETWORK?

2. National University Alliance for Nuclear Energy (ANUEN)

It is a private association, non-governmental, independent legal entity, which acts at the national and European Union level, being constituted by the free will of its founding members, created and operating, indefinitely. It aims to provide training, promotion and support for teaching, specific to the fields of activity involving nuclear energy and/or its related applications, in order to increase the participation and integration rates in the European labor market of these specialists. ANUEN will implement its objectives within the following working groups: analyses, forecasts; curriculum design; strategy and relationship with the "socio-economic environment"; scientific research and technology transfer; internal and international cooperation.

PRELIMINARY SURVEY - Results and Comments

Q5: DO ANY OF THE TECHNICAL AND VOCATIONAL EDUCATION AND TRAINING PROVIDERS AND HIGHER EDUCATION PROVIDERS COLLABORATE IN A FORMALIZED COMMITTEE OR NETWORK?

3. National Environmental Protection Agency (ANPM) and training in the field of radiological safety

- Another example is the National Environmental Protection Agency (ANPM), which collaborates with universities and vocational training centers to provide professional training in the field of radiological protection and nuclear safety.
- This includes both courses for professionals (e.g. engineers and technicians) and training for healthcare personnel working with radiation.

PRELIMINARY SURVEY - Results and Comments

Q5: DO ANY OF THE TECHNICAL AND VOCATIONAL EDUCATION AND TRAINING PROVIDERS AND HIGHER EDUCATION PROVIDERS COLLABORATE IN A FORMALIZED COMMITTEE OR NETWORK?

4. Consortia for the development of the nuclear industry in Romania

- Also, NPP in Romania, Cernavodă Nuclear Power Plant, collaborate with universities in Romania to offer continuing education programs and attract future nuclear specialists, through various forms of collaboration, such as:
  - Internship programs for students.
  - Joint research projects between universities and the nuclear industry.
  - Continuing education courses for technical personnel in the field of nuclear power plant operation.

PRELIMINARY SURVEY - Results and Comments

Q5: DO ANY OF THE TECHNICAL AND VOCATIONAL EDUCATION AND TRAINING PROVIDERS AND HIGHER EDUCATION PROVIDERS COLLABORATE IN A FORMALIZED COMMITTEE OR NETWORK?

5. Partnerships between the Research Institute and Technical Universities

- There are also partnerships between nuclear research institutes and technical universities in Romania to support the training of a cadre of nuclear researchers.
- Examples are:
  - the National Institute for Research and Development for Cryogenic and Isotopic Technologies (ICIT), which collaborates with universities such as the Politehnica University of Bucharest or the Technical University of Cluj-Napoca to offer joint research and training programs in the field of nuclear technologies and environmental protection;
  - The Nuclear Research Institute [RATEN-ICN] and Pitesti University Centre [UNSTPB]

PRELIMINARY SURVEY - Results and Comments

Q5: DO ANY OF THE TECHNICAL AND VOCATIONAL EDUCATION AND TRAINING PROVIDERS AND HIGHER EDUCATION PROVIDERS COLLABORATE IN A FORMALIZED COMMITTEE OR NETWORK?

6. Collaboration with Regulatory Authorities

Higher education institutions also collaborate with nuclear regulatory authorities, such as the National Authority for the Regulation of Nuclear Activities (CNCAN), to ensure that educational programs comply with international standards and legal regulations in force, especially regarding nuclear safety and radiological protection.

7.Collaboration with other national associations as: Romanian Physical Society and Romanian Society of Medical Physics

The Romanian Society of Physics (SRF) is a representative association that brings together physicists, professors and specialists (researchers) involved in physics research. SRF is an apolitical, non-profit, independent, democratic organization with high standards of professional competence.

PRELIMINARY SURVEY - Results and Comments

Q5: DO ANY OF THE TECHNICAL AND VOCATIONAL EDUCATION AND TRAINING PROVIDERS AND HIGHER EDUCATION PROVIDERS COLLABORATE IN A FORMALIZED COMMITTEE OR NETWORK?

Conclusion

- In Romania, collaborations between vocational education and training providers and higher education providers in the nuclear and radiological field are well structured and are achieved through national committees, international networks, educational partnerships and joint research and training projects.
- These collaborations ensure both the training of a sufficient number of specialists and compliance with the highest safety and regulatory standards in the nuclear and radiological field.

PRELIMINARY SURVEY - Results and Comments

Q6: ARE THERE ANY INTERNATIONAL PARTNERSHIPS IN THE TEACHING OR RESEARCH OF NUCLEAR AND RADIOLOGICAL TOPICS?

- Yes, in Romania there are significant international partnerships in the field of teaching and research on nuclear and radiological topics, which contribute to the development of this sector in the country.
- International collaborations are essential for aligning with global standards, exchanging knowledge and advanced technologies, as well as for developing new educational programs and research projects.

PRELIMINARY SURVEY - Results and Comments

Q6: ARE THERE ANY INTERNATIONAL PARTNERSHIPS IN THE TEACHING OR RESEARCH OF NUCLEAR AND RADIOLOGICAL TOPICS?

1. International Atomic Energy Agency (IAEA)

- IAEA plays a crucial role in supporting nuclear education and research globally, and Romania benefits from active collaborations with this agency. Through the IAEA, Romania participates in various educational and research projects in the nuclear field, including in continuing education and exchange of best practices programs.
- IAEA Training Program: The IAEA organizes courses, workshops and training sessions for nuclear specialists in Romania, especially in the field of nuclear safety, radiation protection and nuclear waste management.
- Joint research projects: Romania collaborates with the IAEA in international research projects, where Romanian universities and research institutes can actively participate.

PRELIMINARY SURVEY - Results and Comments

Q6: ARE THERE ANY INTERNATIONAL PARTNERSHIPS IN THE TEACHING OR RESEARCH OF NUCLEAR AND RADIOLOGICAL TOPICS?

2. Nuclear Energy Agency (NEA)

- Romania is part of the Organization for Economic Co-operation and Development (OECD) through the Nuclear Energy Agency (NEA), an international network that includes academic and research institutions in the nuclear field from around the world.
- The NEA network promotes knowledge exchange, joint research projects and educational programs for the training of future specialists in the nuclear field. Universities in Romania actively participate in these collaborations.

PRELIMINARY SURVEY - Results and Comments

Q6: ARE THERE ANY INTERNATIONAL PARTNERSHIPS IN THE TEACHING OR RESEARCH OF NUCLEAR AND RADIOLOGICAL TOPICS?

3. Partnerships between Romanian Universities and European Universities

- There are bilateral collaborations between universities in Romania and those in other member states of the European Union or in the European nuclear business, especially within the framework of Erasmus+ programs or other academic mobility schemes.
- **Example:** The National University of Science and Technology POLITEHNICA Bucharest collaborates with universities in France (e.g. Université Grenoble Alpes) and Germany (e.g. Technical University of Munich) to develop joint master's programs or research projects in the nuclear field.

PRELIMINARY SURVEY - Results and Comments

Q6: ARE THERE ANY INTERNATIONAL PARTNERSHIPS IN THE TEACHING OR RESEARCH OF NUCLEAR AND RADIOLOGICAL TOPICS?

4. National Research and Development Institute for Cryogenic and Isotopic Technologies (ICIT)

- **ICIT** from Romania collaborates with international institutions to develop advanced nuclear technologies and isotope applications. These partnerships include joint research projects and continuing education for nuclear specialists.
- **Examples of collaborations:**
  - Collaborations with nuclear research laboratories in France and Germany, within the framework of international financial projects.
  - Participation in European research projects, such as those carried out under the aegis of Horizon 2020 or Horizon Europe, targeting areas such as clean nuclear energy and nuclear reactor safety.

PRELIMINARY SURVEY - Results and Comments

Q6: ARE THERE ANY INTERNATIONAL PARTNERSHIPS IN THE TEACHING OR RESEARCH OF NUCLEAR AND RADIOLOGICAL TOPICS?

5. Partnerships with Universities in the United States

- Romanian universities, such as the Bucharest POLITEHNICA University and the University of Bucharest, have long-standing partnerships with academic institutions in the United States, especially in the fields of nuclear physics and nuclear energy.
- Collaborations include both student exchanges and bilateral research projects.
- Examples include collaborations with the University of California, MIT (Massachusetts Institute of Technology), TAMU and other prestigious universities in the nuclear field.

PRELIMINARY SURVEY - Results and Comments

Q6: ARE THERE ANY INTERNATIONAL PARTNERSHIPS IN THE TEACHING OR RESEARCH OF NUCLEAR AND RADIOLOGICAL TOPICS?

6. Clean Nuclear Energy Initiative (CNEEC) Partnerships

- Romania actively participates in the Clean Nuclear Energy Initiative (CNEEC), a global program that brings together countries, industries and research institutions to promote the use of nuclear energy in a safe and sustainable manner.
- Through this initiative, Romania collaborates with the United States, Canada, France, the United Kingdom and other advanced nuclear countries to develop new nuclear reactor technologies, nuclear waste management technologies and innovative solutions for clean nuclear energy.

PRELIMINARY SURVEY - Results and Comments

Q6: ARE THERE ANY INTERNATIONAL PARTNERSHIPS IN THE TEACHING OR RESEARCH OF NUCLEAR AND RADIOLOGICAL TOPICS?

7. Collaboration with CERN and JINR

- **CERN (European Organization for Nuclear Research)** performs world-class research in fundamental physics; provides a unique range of particle accelerator facilities that enable research at the forefront of human knowledge, in an environmentally responsible and sustainable way; unites people from all over the world to push the frontiers of science and technology, for the benefit of all; trains new generations of physicists, engineers and technicians, and engage all citizens in research and in the values of science.
- **JINR (Joint Institute for Nuclear Research)** is a world-famous scientific centre that is a unique example of integration of fundamental theoretical and experimental research with development and application of the cutting-edge technology and university education.

PRELIMINARY SURVEY - Results and Comments

Q6: ARE THERE ANY INTERNATIONAL PARTNERSHIPS IN THE TEACHING OR RESEARCH OF NUCLEAR AND RADIOLOGICAL TOPICS?

8. Research and Education Projects Under the Horizon Europe Program

- Romanian universities and research institutes benefit from the opportunities offered by Horizon Europe, a European Union program that funds research and innovation.
- Romania is involved in research projects in the field of nuclear energy, especially in SMR (Small Modular Reactors) and nuclear decontamination technologies. These projects involve collaborations with partners from Germany, France, Sweden, Finland and other European countries.
- **Example** of HORIZON Europe Project: **ADVANCED NUCLEAR SAFETY EVALUATION OF LIQUID METAL USING SYSTEMS [ANSELMUS],** Call: [HORIZON-EURATOM-2021-NRT-01-02] — [Safety of advanced and innovative nuclear design and fuels]; Grant Agreement Number:101061185; Duration: 48 months, from 1/09/2022 to 31/08/2026.
- **ANSELSMUS** is set up with a single central objective in mind: support deployment of HLM cooled advanced reactors in Europe.

PRELIMINARY SURVEY - Results and Comments

Q6: ARE THERE ANY INTERNATIONAL PARTNERSHIPS IN THE TEACHING OR RESEARCH OF NUCLEAR AND RADIOLOGICAL TOPICS?

9. Regional Projects in the Field of Generation IV Nuclear Power Plants

- Romania also participates in regional projects in the field of advanced nuclear technologies, especially those related to generation IV nuclear reactors and sustainable nuclear energy. These collaborations involve research institutions from Central and Eastern Europe and are supported by the European Commission.

Conclusion

- Romania has significant international collaborations in the field of nuclear and radiological education and research, through partnerships with international agencies, prestigious universities, international financial projects and research programs. These partnerships allow the exchange of knowledge and technologies, ensuring the training of a sufficient number of specialists in the field and promoting innovations in nuclear energy and nuclear safety

PRELIMINARY SURVEY - Results and Comments

Q7: HOW IS FUNDING OBTAINED? INCLUDES DETAILS OF THE GOVERNMENT OR STATE'S CONTRIBUTIONS, INDUSTRY CONTRIBUTIONS AND STUDENT FEES, AND THE PROVISION OF BURSARIES

1. Government Funding

a) National Research Funds

- Ministry of Education and Research is responsible for allocating funds for research and development in the nuclear field. Among the most important funding instruments are the National Research-Development-Innovation Programs (PNCDI), which support various applied research projects, including in the nuclear and radiological fields.
- Ministry of Energy: The Ministry of Energy also plays a significant role in supporting research and training in the energy field, including nuclear. Nuclear energy-related projects, such as the development of SMR reactors or improving nuclear safety, can benefit from government funding.

PRELIMINARY SURVEY - Results and Comments

Q7: HOW IS FUNDING OBTAINED? INCLUDES DETAILS OF THE GOVERNMENT OR STATE'S CONTRIBUTIONS, INDUSTRY CONTRIBUTIONS AND STUDENT FEES, AND THE PROVISION OF BURSARIES

1. Government Funding

b) European funding

- Romania has access to various sources of European funding for research and education. Horizon Europe, the European Union's framework programme for research and innovation, is an important source of funding for nuclear research projects, and the European Social Fund (ESF) supports the education and training of young talents in this field. Added to these is the National Recovery and Resilience Plan.

PRELIMINARY SURVEY - Results and Comments

Q7: HOW IS FUNDING OBTAINED? INCLUDES DETAILS OF THE GOVERNMENT OR STATE'S CONTRIBUTIONS, INDUSTRY CONTRIBUTIONS AND STUDENT FEES, AND THE PROVISION OF BURSARIES

1. Government Funding

c) Government scholarships for studies in the nuclear field

- The Romanian government offers scholarships for postgraduate and doctoral studies in the nuclear field, especially within state-supported research programs.
- Scholarships can be awarded based on specific criteria, including academic performance and contributions to the development of the energy sector.

PRELIMINARY SURVEY - Results and Comments

Q7: HOW IS FUNDING OBTAINED? INCLUDES DETAILS OF THE GOVERNMENT OR STATE'S CONTRIBUTIONS, INDUSTRY CONTRIBUTIONS AND STUDENT FEES, AND THE PROVISION OF BURSARIES

2. Contributions of the Nuclear Industry

a) Internship and Continuing Education Programs

- Cernavodă Nuclear Power Plant and Nuclearelectrica are actively involved in supporting education through internship programs for students and continuing education for employees.
- These programs may also include funding for studies in the nuclear field, in exchange for a commitment to work in the industry after completing their studies.

PRELIMINARY SURVEY - Results and Comments

Q7: HOW IS FUNDING OBTAINED? INCLUDES DETAILS OF THE GOVERNMENT OR STATE'S CONTRIBUTIONS, INDUSTRY CONTRIBUTIONS AND STUDENT FEES, AND THE PROVISION OF BURSARIES

2. Contributions of the Nuclear Industry

b) Support for Research Projects

- Nuclear industry can provide direct funding for university research projects and the development of nuclear technologies.
- Companies such as Nuclearelectrica, Romag or ANSALDO can finance applied research in the field of nuclear safety, generation IV reactors, or radioactive waste storage technologies.

c) Industrial Scholarships and Sponsorships

- Some nuclear companies offer industry scholarships or sponsorships for students, particularly those pursuing technical studies or applied research in the nuclear field. These scholarships may include financial support for tuition fees or to cover research expenses.

PRELIMINARY SURVEY - Results and Comments

Q7: HOW IS FUNDING OBTAINED? INCLUDES DETAILS OF THE GOVERNMENT OR STATE'S CONTRIBUTIONS, INDUSTRY CONTRIBUTIONS AND STUDENT FEES, AND THE PROVISION OF BURSARIES

3. Scholarships and Financial Aid for Students

a) Government scholarships

The Romanian state offers scholarships for students in the nuclear field through the Ministry of Education and Research, for bachelor's, master's and doctoral studies. These scholarships are awarded based on academic performance and can cover both tuition fees and living costs.

b) Performance and industry scholarships

Companies in the nuclear sector or international organizations, such as the IAEA, may offer research scholarships for students or young researchers who wish to participate in international projects or conduct research in the field of advanced nuclear technologies.

PRELIMINARY SURVEY - Results and Comments

Q7: HOW IS FUNDING OBTAINED? INCLUDES DETAILS OF THE GOVERNMENT OR STATE'S CONTRIBUTIONS, INDUSTRY CONTRIBUTIONS AND STUDENT FEES, AND THE PROVISION OF BURSARIES

4. Funding through International Projects and Collaborations

- Romania can also access European funds or international funding, including through participation in collaborative research projects or international educational networks (e.g. Horizon Europe).
- Nuclear research projects, including those within the IAEA or NEA, are an important source of funding for studies and research carried out in Romanian institutions.

PRELIMINARY SURVEY - Results and Comments

Q7: HOW IS FUNDING OBTAINED? INCLUDES DETAILS OF THE GOVERNMENT OR STATE'S CONTRIBUTIONS, INDUSTRY CONTRIBUTIONS AND STUDENT FEES, AND THE PROVISION OF BURSARIES

4. Funding through International Projects and Collaborations

Conclusion

- Funding for nuclear and radiological education and research in Romania comes from a combination of sources: government contributions through ministries and national programs, support from the nuclear industry, student fees for certain programs, and scholarships granted by both the state and industry or international organizations.
- These sources ensure the training and continuous development of specialists in the field, promoting both advanced research and their integration into the nuclear industry.

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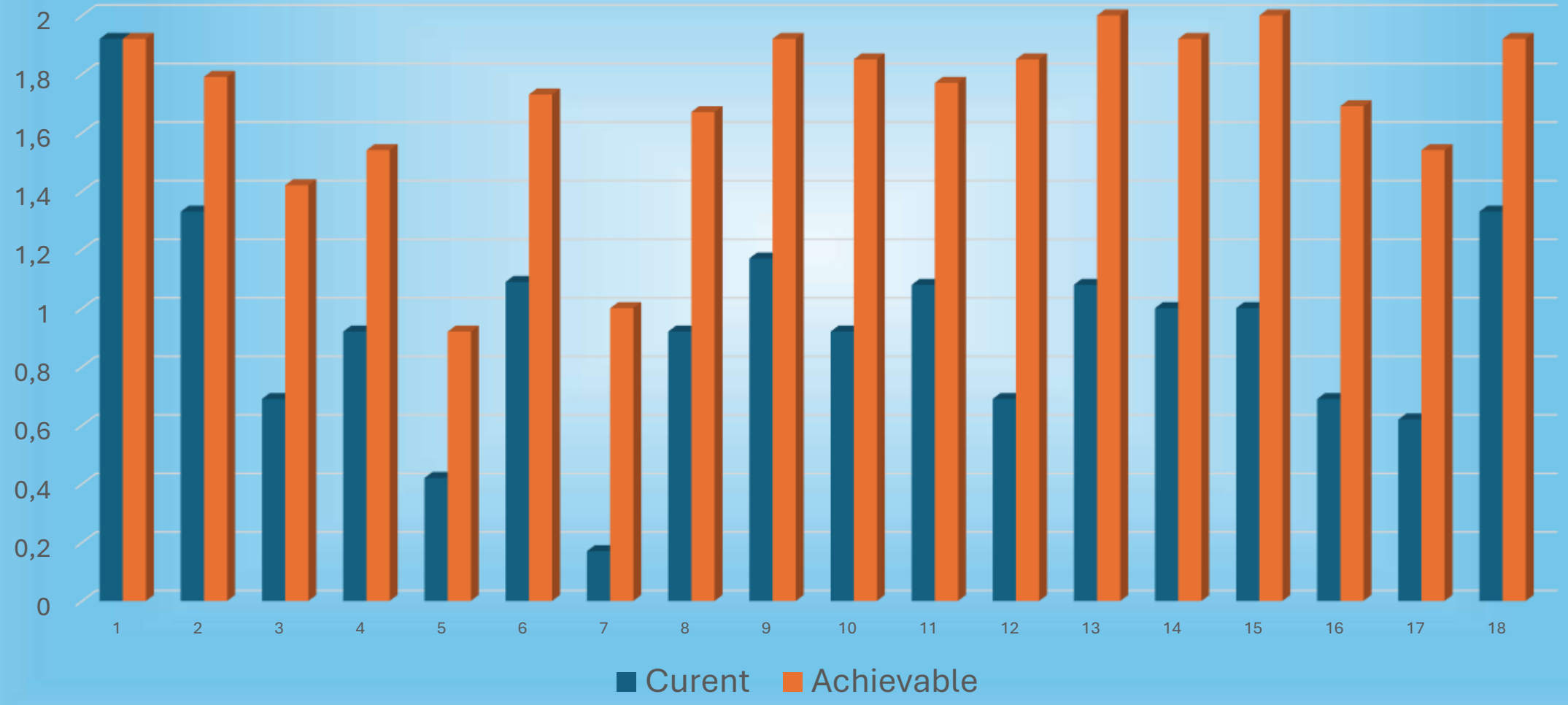
THANK YOU FOR YOUR ATTENTION!

QUESTIONNAIRE - Results and Comments

	Question	Current Status	Achievable Status
N1	Development level of nuclear educational programmes to address the national priorities	1,92	1,92
N2	Students completion rate in nuclear related subjects	1,33	1,79
N3	Number of nuclear students graduating each year at bachelor's level	0,69	1,42
N4	Number of nuclear students graduating each year at master's level	0,92	1,54
N5	Number of students completing a nuclear PhD each year	0,42	0,92
N6	Number of nuclear research papers published each year	1,09	1,73
N7	Number of nuclear courses available by distance learning	0,17	1
N8	Number of nuclear experienced university lecturers	0,92	1,67
N9	Status of universities and other educational organizations nuclear outreach programmes to potential students and the general public	1,17	1,92
N10	Number of entry level nuclear related vacancies and internships in industry, including in academia	0,92	1,85
N11	Number of professional level nuclear related vacancies in industry, including academia	1,08	1,77
N12	Level of support for nuclear education programmes (funding, internships, etc.) from industry	0,69	1,85
N13	Status of employer development or support of outreach programmes to potential students, employees and the general public	1,08	2
N14	Society's awareness of the benefits of nuclear science and technology	1	1,92
N15	Support for nuclear technologies from the general public	1	2
N16	Status of government support for nuclear outreach programmes to potential students and the general public	0,69	1,69
N17	Level of government funding for nuclear education and training programmes	0,62	1,54
N18	Level of government funding for nuclear industrial projects	1,33	1,92

QUESTIONNAIRE - Results and Comments



QUESTIONNAIRE - Results and Comments

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N15	Support for nuclear technologies from the general public
N16	Status of government support for nuclear outreach programmes to potential students and the general public
N17	Level of government funding for nuclear education and training programmes
N18	Level of government funding for nuclear industrial projects