

New Nuclear Competence Challenges for the Nuclear Energy Development Today



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Challenges

- Energy transition, nuclear energy in Bulgaria – low carbon and innovation potential
- The long-term operation of Units 5 and 6 of Kozloduy NPP 2050
- Construction of new Nuclear Unit 7 (8 Unit) Kozloduy
- Nuclear knowledge management, the need for highly qualified personnel and a shortage of young professionals
- Decommissioning, RAW and SNF management
- High requirements for nuclear safety and security
- Innovations for a competitive nuclear sector in the global supply chain
- Sustainable nuclear cooperation at European and international level

CNC Kozloduy

founders/members of the centre- NPP Kozloduy, State Enterprise RAW, NPP Kozloduy-New Builds;

Academy partners and assoc. members– Technical University Sofia, Sofia University;

Centre is supported by the Ministry of Energy and Bulgarian Nuclear Regulator;

Establishing an innovative environment and network to support and improve the education system for training and education of human capital in the field of nuclear energy;

Maintaining, developing and preserving "nuclear knowledge";

Developing the innovation environment and research infrastructure for nuclear energy purposes;

CNC Kozloduy framework

Human capital and Knowledge Management

Net Zero transition and Nuclear power – LTO and New Builds

Research and Innovations

SMR technology

Digital transition and Cyber Resilience

Nuclear Safety

Decommissioning and Sustain RAW and SNF management

LTO & New Builds - Sustainable Energy Future



Energy security

Climate

Net zero Energy

Sustainable Jobs

Innovations

Supply chain



CNC Kozloduy Competence challenges

Competence Challenges is for entire nuclear ecosystem

Nuclear Retirement

Preserving Critical Nuclear Knowledge

Technology Transition
(IV gen SMR AMR)

Nuc&RES Net Zero

Youth STEM and fast growing attractive industries(AI, Space, EV, Hydrogen etc.)

EU "too late" support policy

Operating organizations

Regulatory bodies

Government agencies

Technical support organizations;

Educational and training institutions;

Research and development (R&D)

organizations;

Fuel and waste transport organizations;

Professional organizations;

Suppliers

CNC Kozloduy Competencies

High schools

Nuclear vocational model and mentors programme with nuclear sector

Sharing university Nuclear Knowledge

Nuclear STEM teachers training

Net Zero Nuc&RES Knowledge



Universities/Science Institutes

LTO Gen IV SMR AMR

Digital Transition

Regulations

Research & Innovation

Net Zero Nuc&RES + Hydrogen

Climate Resilience

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Energy & Environment | New Nuclear | Regulation & Safety | **Nuclear Policies** | Corporate | Uranium & Fuel | W

European Parliament seeks subsidies for nuclear energy within industry decarbonization package



Photo: Alain Rolland / European Union 2023 - Source: EP



European Commission to create SMR Industrial Alliance

07 November 2023



In response to calls from the nuclear industry, research community and nuclear safety regulators, the European Commission will establish an Industrial Alliance dedicated to small modular reactors (SMRs) in early 2024, European Commissioner for Energy Kadri Simson has announced.

NUCLEARELECTRICA ANNOUNCES THAT IT HAS OBTAINED FINANCING FROM THE EIB FOR THE TRITIUM REMOVAL FACILITY PROJECT (CTRF)



In: Media Press release

Nuclearelectrica announces that it has obtained financing from the EIB for the Tritium Removal Facility Project (CTRF)

Press release

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MEDIA

- > Events
- > Press release

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*In an economy where the only certainty is uncertainty,
the one sure source of lasting competitive advantage
is knowledge!*

Ikujiro Nonaka