



High-level European Nuclear Industry Roundtable **12 May 2021 from 13.30 to 14.45 (through virtual conference)**

Welcome and tour de table by Mariya Gabriel, European Commissioner in charge of innovation, research and education (5')

Introduction by Manuel Heitor, Portuguese Minister of research, Council Presidency of the EU (3')

Roundtable on future European Research & Innovation priorities and on attracting talents in the nuclear sector (3' per speaker):

1. Bernard Salha, President of SNETP and CTO of EDF
2. Yves Desbazeille, Director General of FORATOM
3. Satu Helynen, Senior Manager at VTT
4. Philippe Stohr, Energy Division Director at CEA
5. Bohdan Zronek, Head of Nuclear Division from CEZ
6. Jozef Sobolewski Director of Nuclear Energy Department - NCBJ
7. Roberto Adinolfi, Chairman of the Ansaldo Nucleare Board
8. Hamid Aït Abderrahim, Deputy Director General from SCK-CEN
9. Inge Paulini, President of BfS - Federal office for Radioprotection
10. Boris Brkljacic, President-Elect of EURAMED (EU alliance for medical radiation protection) and Professor of Radiology
11. Elvira Romera Gutiérrez, Commissioner of the Spanish Nuclear Safety Council (CSN) and Professor at the University of Granada
12. Sonya Sergieva, Head of Department of Nuclear Medicine, Sofia Cancer Center

Open discussion, Q&A (20-25')

Wrap-up session by MEP Cristian-Silviu Busoi, President of the ITRE Committee of the European Parliament (3')

Conclusions and next steps by Mariya Gabriel, Member of the European Commission (4')

Background

On 29 January 2021, Commissioner Gabriel met with representatives of SNETP and FORATOM in order to exchange about various topics of interest for the EU nuclear sector. Among others, Research and Innovation (R&I) in the nuclear field, the next Euratom Programme and its potential synergies with Horizon Europe.

As a follow-up to that meeting, Commissioner Gabriel called for the organisation of a roundtable with high-level representatives of nuclear industry and research organisations. The event will be organised in collaboration with the Portuguese Presidency of the EU and the European Parliament. It should aim at exploring promising technologies, at increasing synergies between R&I and nuclear industry in Europe and especially at attracting young talents in the nuclear sector.

Challenges and opportunities for the EU nuclear R&I

The Euratom focus on safety of nuclear power plants operation is a key element for the nuclear sector and its cross-sectorial expansion through development of innovative applications. Nuclear safety is even more critical for a European fleet of reactors characterised by its longevity, which pushes the development of safer long-term operation protocols. While many countries in Europe have chosen to continue using nuclear energy as part of their energy mix and some are planning new builds in the next years, some others Member States foresee a phase-out on the use of nuclear energy, heading the sector towards the search of more efficient and harmonised decommissioning and dismantling strategies.

Nuclear technologies beyond energy production

Nuclear power generation currently represents half of the low-carbon electricity in the EU and enables security of supply by ensuring independence from third countries. The application of nuclear science and technologies however goes beyond its traditional role as power supplier. They are strongly embedded in the health sector, e.g. in the diagnosis and treatment of cancer, thus supporting Europe's Beating Cancer Plan. Nuclear-derived diagnostic techniques have been recently used in the battle against COVID and have the potential to prevent future outbreaks.

Nuclear science and technology is also a place of innovation for new digital applications such as artificial intelligence and robotics as well as for smart operation and security of the European electrical grid, together with variable renewables and storage solutions. Nuclear technologies are nowadays widely used in space missions, maritime transport, for the detection of environmental pollutants or in agriculture applications.

Lastly, the development and deployment of Small Modular Reactors (SMR) with flexible applications (e.g. cogeneration of heat and electricity, district heating or desalination) could bring benefits to the European energy system and the ability to decarbonise industrial end-users. Innovative designs could even be able to run on the spent fuel already generated.

Education, skills and infrastructures for nuclear research and innovation

An ageing workforce, declining student enrolment and the resultant risk of losing the accumulated nuclear knowledge and expertise represent one of the most important challenges that nuclear field in the EU is facing today. This also leads to weakening EU's position in the global environment.

Investment in appropriate education, training and infrastructures is necessary as well as new ways to attract and maintain young talents in the nuclear sector. Industry should work closely with academia to build up education and training schemes framed by appealing career perspectives while using all available tools.

Next steps

This high-level roundtable between the European Commission and the nuclear R&I stakeholders represents an opportunity to co-create the future Euratom R&I work programmes. This roundtable should aim at optimizing the collaboration among the Commission, Member States, industrial and research actors. It should also stimulate the cross-sectorial synergies thus promoting innovation, boosting the EU economy and creating high-qualified jobs. The interactions between nuclear and non-nuclear fields and programmes should be boosted. Nuclear medicine, research infrastructures, artificial intelligence and robotics, research are typical examples to be further explored.

Organisers from the nuclear community (FORATOM and SNETP)

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