Challenges and Opportunities in the Development of Nuclear Fuel Cycle Infrastructure in Newcomer Countries

Mikołaj Oettingen

Europe Nuclear Energy & SMR Conference (ENES2025)
Prague, Czech Republic, 14-15.10.2025

Akademia Górniczo-Hutnicza im. Stanisława Staszica w Krakowie
AGH University of Krakow, Department of Nuclear Energy and Radiochemistry, Poland

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Objectives

Polish Nuclear Power Programme - 2020

a) Development of human resources – the backbone of the nuclear sector.

b) Infrastructure development – facilities for NPP construction.

c) Local content – local supply chain for the construction of the first Polish NPP.

d) Social Communication and Information – media outreach.

e) Strengthening Nuclear Regulatory Control - international cooperation.

Nuclear Fuel Cycle

,,The nuclear fuel cycle is the series of industrial processes which involve the production of electricity from uranium in nuclear power reactors.” (WNA)

„The nuclear fuel cycle represents the progression of nuclear fuel from creation to disposal.” (NRC)

a) The front-end nuclear fuel cycle: mining, milling, conversion, enrichment, fuel fabrication

b) The back-end nuclear fuel cycle: storage, transportation, reprocessing/disposal

c) In-core fuel management.

Talking Points

a) Economics: e.g. fuel demand, SMR development

b) Geopolitics: e.g. security, diversification

c) Competences: e.g. national know-how, regulations

d) Technical capacity: e.g. access to technology and IP rights

e) Resources: e.g. access to uranium deposits

Thank you for your attention.