



Framatome and Nuclearelectrica partner to advance the production of cancer-fighting radioisotope Lutetium-177 in Romania

November 30, 2023 - Framatome and SN Nuclearelectrica SA announced a cooperation agreement to explore the possibility of producing the medical isotope Lutetium-177 at the Cernavoda nuclear power plant in Romania, during the World Nuclear Exhibition 2023. Lutetium-177 is used for a variety of lifesaving cancer treatments.

The initial scope of the agreement includes a technical feasibility study, based on Framatome's isotopes production technology successfully implemented in Canada in 2022. Framatome and Nuclearelectrica will work together to look at how to maximize the existing infrastructure at Cernavoda to convert targets into medical isotopes in addition to current generation of reliable, low-carbon electricity.

Depending on the study outcomes, the collaboration may develop into further project steps.

"We are excited about this project with Nuclearelectrica. Mass access to nuclear medicine is closely linked to the development of large scale, reliable and diversified supply chains and we want to play our part in the fight against cancer by helping build these supply chains," said François Gauché, Director of Framatome Healthcare. "To better serve the patients in the future, we will need regional nuclear medicine production hubs and this project is a great opportunity to strengthen the supply chain in Europe."

"This partnership is a significant step to help improve the health of millions of people and demonstrate the multiple benefits of nuclear power plants, which generate clean energy, contribute to energy stability, decarbonization and economic growth. In light of recent developments in the medical isotope market, the need for a secure supply of medical isotopes is increasing, and therefore we believe that this is the perfect time to pursue this opportunity for a medical isotope production project in CNE Cernavoda," declared Cosmin Ghita, CEO Nuclearelectrica.

"We're thrilled to collaborate with Framatome on the production of life-saving medical isotopes and prove the benefits of nuclear energy besides clean energy production," said Teodor Chirica, President of the Board, Nuclearelectrica SA.

Lutetium-177 is a beta-emitting radioisotope used in targeted radionuclide therapy for the treatment of prostate cancer and in multiple promising radiopharmaceutical developments for other cancer indications. The isotope destroys cancer cells while leaving healthy cells unaffected. Framatome's proprietary isotope production technology enabled the [first large-scale commercial production of Lutetium-177](#) in a power reactor in June 2022.

Nuclearelectrica has 27 years of operating experience, being considered one of the most performant companies at the global level. Through its 3 strategic investment projects, (Cernavoda NPP Unit 1 Refurbishment, Cernavoda NPP Units 3 & 4 Development and SMR Deployment), the company is looking to provide clean energy, support Romania’s energy stability and decarbonation targets, support the Paris Agreement and, based on its ESG strategy, to also support human health impact initiatives, such as this agreement.

Framatome Healthcare is committed to developing products and services for the healthcare industry. Its team supports the value chain for the radioisotopes used in radiopharmaceuticals for diagnostic imaging and therapeutic purposes, supplies special alloys for the development of surgical implants and prostheses and provides advanced solutions for complex sterilization facilities essential for the use of medical materials. Framatome Healthcare’s experts advance the fight against cancer and develop and support medical applications of nuclear technology.



Bernard Fontana, CEO of Framatome, and Teodor Chirica, President of the Board, Nuclearelectrica SA, shake hands following the signing of the agreement at the WNE.

About Framatome

Framatome is an international leader in nuclear energy recognized for its innovative, digital and value-added solutions for the global nuclear fleet. With worldwide expertise and a proven track record for reliability and performance, the company designs, services and installs components, fuel, and instrumentation and control systems for nuclear power plants. Its more than 18,000 employees work every day to help Framatome's customers supply ever cleaner, safer and more economical low-carbon energy.

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