

## News

# Saipem and *newcleo* sign the first agreement between European companies to study offshore applications of *newcleo*'s sustainable nuclear technology



*The two companies have signed a collaboration agreement to identify innovative solutions for the offshore application of newcleo's nuclear technology to produce zero-emission electricity. The agreement includes a feasibility study on the development of floating nuclear prototypes.*

**Milan, Italy – 05 September 2024** – Saipem and *newcleo* have signed a collaboration agreement to identify solutions for the offshore application of *newcleo*'s technology to produce nuclear energy.

The objective of this agreement is to study the application of *newcleo*'s "Small Modular Lead-cooled Fast Reactor" (SM-LFR) technology to provide zero-emission electricity and process heat to oil and gas offshore installations, thereby improving their sustainability performance. The agreement also allows for the possibility of extending the use of *newcleo*'s technology to produce zero-emission electricity through floating nuclear units, connected to the electricity grid on land or to other users.

The collaboration between the two companies, which will combine their skills, experience and knowledge, involves the creation of a feasibility analysis on the possible development of prototypes of *newcleo*'s SM-LFR technology for offshore applications. *newcleo*'s solution employs one of the most promising technologies in the field of small nuclear fission reactors. *newcleo*'s technology leverages passive security systems (i.e. exploiting natural forces or phenomena without requiring active mechanisms), unique in the marine environment, enabling much greater efficiency in the use of extracted uranium compared to other types of conventional fission reactors. This is thanks to the reuse of spent nuclear fuel used by other reactors, in line with the principles of the circular economy.

Saipem's interest in nuclear energy is part of its technological development programme, dedicated to energy transition, with the aim of helping to achieve Net Zero objectives by 2050. Nuclear energy is, in fact, an energy source that can efficiently and sustainably support growing energy needs and ensure the diversification and security of energy supply. In this light, Saipem intends to evaluate, the potential application of the new generation of compact reactors (Small Modular Reactors – SMR) for

offshore plants, to generate power and heat with very low climate-changing emissions, equal to those of renewable energies, and therefore with a high sustainability profile.

**Alessandro Puliti**, CEO of Saipem, stated:

*“The production of zero-emission energy through floating offshore plants equipped with new generation compact reactors could represent a new frontier in the energy transition. With this collaboration agreement, we leverage Saipem's distinct skills in the offshore sector as well as our ability to bring innovation to the world of energy infrastructure, to explore new solutions that can accelerate the path towards decarbonisation.”*

**Stefano Buono**, CEO of newcleo, commented:

*“Saipem is a global leader in the engineering and construction of large projects in the energy and infrastructure sectors, both offshore and onshore, and is an ideal partner for newcleo, which aims to collaborate with the main players in the energy world to promote technological innovation for a sustainable future. Our next generation reactor technology will not only reduce the environmental impact of offshore oil and gas operations improving energy efficiency and promoting long-term sustainability, but also design offshore power plants that can provide decarbonised electricity onshore, anywhere in the world. This is the first agreement between two European companies for the offshore application of our sustainable nuclear technology and we are honoured to work with such a recognised partner. We believe that this synergy can revolutionise the industry, contributing in a concrete and meaningful way to the decarbonisation of the sector and to the global energy transition.”*

## Note to Editors

### About *newcleo*

Since launching in 2021 *newcleo* has quickly established itself as innovator in the field of nuclear energy. *newcleo* is working to design, build, and operate Gen-IV Advanced Modular Reactors (AMRs) that are cooled by liquid lead and fuelled by reprocessed nuclear waste.

Through an innovative combination of existing and proven technologies, and by reviving a nuclear industry model based on the manufacture and multi-recycling of Mixed Oxide fuel, *newcleo* aims to close the nuclear fuel cycle while safely producing clean, affordable, and practically inexhaustible energy required for low carbon economies.

With a EUR 50m group turnover in 2024, more than EUR 400m of private funding and over 70 partnerships and collaborations across the nuclear industry, the growth of the *newcleo* group is supported through the targeted acquisition of key companies with strong capabilities in nuclear engineering, manufacturing, and waste management.

Through its workforce of over 800 highly qualified employees across France, the UK, Italy, Switzerland, and Slovakia, *newcleo* is not only developing and delivering the skills and services required for the group's own ambitious project timelines, but also supporting the development of Small Modular Reactor supply chains in Europe and beyond.

### About *Saipem*

Saipem is a global leader in the engineering and construction of large projects in the energy and infrastructure sectors, both offshore and onshore. Saipem is a "One Company" organized into business lines: Asset Based Services, Drilling, Energy Carriers, Offshore Wind, Sustainable Infrastructures, Robotics & Industrialized Solutions.

The company has seven fabrication yards and an offshore fleet of 21 construction vessels (of which 17 owned and four owned by third parties and managed by Saipem) and 15 drilling rigs, of which nine owned. Always oriented towards technological innovation, the vision that inspires the company is "Engineering for a sustainable future". This is why Saipem is committed every day to supporting its customers in the energy transition path towards Net Zero, with increasingly digital means, technologies, and processes oriented towards environmental sustainability.

Listed on the Milan Stock Exchange, it is present in more than 50 countries around the world and employs around 30,000 people of over 120 nationalities.

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