



PRESS RELEASE

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FRANCE 2030 – NAAREA STEPS UP PROGRESS IN SUSTAINABLE NUCLEAR ENERGY AND PURSUES ITS AMBITIOUS DEVELOPMENT

NAAREA, a pioneering French company developing an innovative fourth-generation nuclear microreactor, the XAMR® (eXtrasmall Advanced Modular Reactor), is a winner of the “Innovative Nuclear Reactors” call for proposals under the France 2030 investment plan. This government funding of €10 million reflects the increasingly strong support on the part of public authorities for the development of Generation IV molten salt fast neutron reactors. This important step must now allow NAAREA to accelerate its development and contribute as soon as possible to the objectives of decarbonization and achieving full and complete energy sovereignty.

NAAREA’s solution will produce electricity and heat from nuclear spent fuel from the current fleet of conventional reactors. Using molten salt with a fast neutron spectrum, NAAREA’s solution thus enables a fully closed fuel cycle. Thanks to its small size, the XAMR® does not require any water, can be mass-produced and can be quickly deployed anywhere, to produce 40 megawatts electric to support industrial sites and communities in even the most remote areas. This solution will lower the energy bills of consumers and industrial companies. NAAREA will retain ownership of its microreactors and will operate and maintain them for its customers.

To achieve this, NAAREA has set in place an ambitious timetable marked by three main phases:

- Mid-2023: finalization of the first digital twin
- 2027: commissioning of a prototype
- By 2030: construction of a manufacturing facility and launch of series production

NAAREA is aiming for €2 billion in investments in France by 2030 and expects to create 1000 jobs in the country.

This announcement follows an independent evaluation and selection process that attests to the trust placed by public authorities in NAAREA's solution to help meet France's objectives for energy sovereignty, decarbonization and improving the energy mix by 2050. The sum awarded for this initial call for proposals phase, added to the private capital NAAREA has already raised, will allow the company to accelerate its execution of the design phase and related testing, and to continue increasing its personnel, from 140 employees in May 2023 to 200 by the end of the year.

Introducing innovative nuclear reactors in France by 2030

“Sustainable and innovative nuclear power must produce energy that is safe, decentralized, abundant and dispatchable. That’s the whole purpose of our work at NAAREA: to meet the growing need for electricity as a complement to traditional nuclear energy and renewable energies in a way that strengthens France’s energy sovereignty and independence”, explains Jean-Luc Alexandre, Founder and CEO of NAAREA. “I am very honoured that NAAREA has been awarded the France 2030 label and wish to thank Prime Minister Elisabeth Borne and the team of the General Secretariat for Investment for this active support of NAAREA’s XAMR® project.”

Promoting training and the transmission of knowledge and expertise in fourth-generation nuclear energy

In line with the recent presentation of a “Marshall Plan” for nuclear skills by the Université des Métiers du Nucléaire, NAAREA is reaffirming its commitment to research, knowledge transfer, skills development and training to support the emergence of fourth-generation nuclear energy as a French centre of excellence. This commitment is reflected in numerous academic partnerships, for example with the Laboratory of Subatomic Physics and Cosmology in Grenoble and Paris-Saclay University’s Irène Joliot-Curie Laboratory.

“Since its inception, I have set out to make NAAREA a French company committed to transferring French nuclear expertise. With this aim, I wanted to bring together the professionals and experts who worked on the Phénix and Super Phénix reactors and the ASTRID project alongside young engineers and graduates. Currently, 140 people ranging in age from 20 to 75 are working daily to design our microreactor while ensuring that knowledge and skills are shared. This is what makes our project so exciting: we’re designing an innovative, sustainable microreactor while training passionate young people who are eager to contribute to the sustainability of our planet”, explains Jean-Luc Alexandre.

About NAAREA

NAAREA (Nuclear Abundant Affordable Resourceful Energy for All) was founded in 2020 by Jean-Luc Alexandre and Ivan Gavriloff to help meet the objectives of energy sovereignty, decarbonization and improving the energy mix. NAAREA is developing a groundbreaking energy solution: the XAMR® (eXtrasmall Advanced Modular Reactor), a molten salt fast neutron microreactor capable of producing electricity and heat from spent fuel containing long-lived radioactive waste. With a capacity of several dozen MW, the XAMR® is designed to be industrially mass-produced and installed in close proximity to consumers, namely in the mobility sector, electro-intensive industries and remote areas. NAAREA benefits from the support of the French Alternative Energies and Atomic Energy Commission (CEA) and French National Centre for Scientific Research (CNRS), as well as industry players such as Assystem, Dassault Systèmes, Orano and Framatome. A carbon-free and non-intermittent energy source planned to be on the market by 2030, the NAAREA XAMR® is opening the way for greater sovereignty, increased resilience and a local, circular economy.

Learn more at: www.naarea.fr

About France 2030

Presented on 12 October 2021 by French President Emmanuel Macron, **France 2030:**

- ✓ **Sets out a twofold ambition: sustainably transforming key sectors** of our economy (energy, automotive, aeronautics and space) through technological and industrial innovation, **positioning France as not only a player but as a leader in tomorrow’s world**. From basic research to the development of an idea and the production of a new product or service, France 2030 supports the full life cycle of innovation, through to industrialization.

- ✓ **Is unprecedented in its scale:** €54 billion will be invested to help French businesses, universities and research organizations fully succeed in achieving their transitions in these strategic areas. The challenge: enabling them to **respond competitively to the ecological and attractiveness issues** of the world ahead, and fostering the emergence of future champions in our sectors of excellence to **strengthen French sovereignty and independence** in key fields. 50% of spending will be dedicated to decarbonizing the economy, and 50% will be earmarked for emerging drivers of innovation without an adverse impact on the environment (according to the “Do No Significant Harm” principle).
- ✓ **Will be implemented collectively:** the plan is designed and deployed **in consultation with economic, academic, local and European stakeholders** who contributed to determining its strategic focuses and key actions. **Project leaders** are invited to submit their applications via open, rigorous and selective procedures to benefit from government support.
- ✓ **Is led by the General Secretariat for Investment** on behalf of the Prime Minister and implemented by the French Environment and Energy Management Agency (**ADEME**), the French National Research Agency (**ANR**), **Bpifrance** and the Caisse des Dépôts et Consignations (**CDC**).

Learn more at: france2030.gouv.fr