

## Press Release

### **NAAREA commissions its I-Lab, a testing facility designed for non-nuclear tests and experimentation**

**4 February 2024 – Nanterre – NAAREA, a French deep tech company developing a fourth-generation molten salt fast microreactor, announces the opening of its industrial test facility and laboratory, the I-Lab. This 2,400 m<sup>2</sup> site will be used to conduct non-nuclear tests and experiments to support the development of its XAMR® microreactor.**

NAAREA takes a new step forward with the commissioning of its I-Lab, its industrial test facility and laboratory. Located in Cormeilles-en-Parisis, this 2,400 m<sup>2</sup> site, designed to accelerate innovation, will host a team of around 20 NAAREA engineers as well as experimentation facilities to validate the non-nuclear environment of the technologies that will be used in NAAREA's microreactors (pumps, gas systems, materials, valves, chemical processes, sensors, actuators, etc.) and their modes of operation.

The I-Lab will have three main areas:

1. An industrial area dedicated to the production of coolant salts, prototyping, assembly and automated tests, and the validation of the future digital architecture of NAAREA's production facilities.

2. A testing area dedicated to the operation of experimentation facilities designed to validate the thermohydraulic components for the XAMR® microreactor. These facilities will primarily include test loops and testbeds on various scales.

This space will play a key role in the testing and validation of the ALIS project instrumentation. Granted support from France 2030 and the Île-de-France Region for its first phase, ALIS is a joint project undertaken by NAAREA, CNRS-IJCLab and iUMTEK. Its aim is to develop analytical tools that will notably help ensure maximum safety and optimized control of the future XAMR® microreactor.

3. Lastly, an area composed of three specialized laboratories:

- A materials and chemistry laboratory dedicated to studying corrosion and mechanical behaviour.
- An analysis laboratory for the development of methods, processes and analysis of materials and their level of purity.
- A gas laboratory for the development of the XAMR® microreactor's gas systems (filtration of noble gases, drying of inerting gases, enrichment and treatment of chlorine gases, etc.).

The tests that will be conducted using the full-size test loops at the I-Lab will allow NAAREA to make concrete progress in the development of its microreactor. They will be used to validate the studies and calculations performed by the engineering teams, test innovative processes and materials and develop the technical documentation being prepared for the French Authority for Nuclear Safety and Radiation Protection (ASNR).

*"I am proud of this new step forward achieved with our teams, which reinforces our progress and shows further evidence of our development. This test facility is the right size to meet our needs, and will accommodate large-scale test loops as well as materials and large structures. These tests and research are essential to our industrial goals, and mark a turning point in our road to achieve them. Complementing the joint laboratory created with the CNRS and Paris-Saclay University, I-Lab brings us into a new physical demonstration phase that was particularly important to us",* commented Jean-Luc Alexandre, Founder and CEO of NAAREA.

#### **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 the XAMR®, a nuclear microreactor capable of producing electricity (40 megawatts electric) and high-temperature heat (80 megawatts thermal) by burning long-lived radioactive material recovered from spent fuel from traditional nuclear power plants. The XAMR® microreactor 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 VNS. A source of carbon-free and non-intermittent energy, planned to be brought to the market by 2030, NAAREA's XAMR® microreactor is paving the way for sustainable and innovative nuclear energy that supports energy independence, increased resilience and the circular economy. NAAREA is a winner of the "Innovative Nuclear Reactors" call for proposals under the France 2030 investment plan and a beneficiary of the French Tech 2030 support programme.

Learn more at: [www.naarea.fr](http://www.naarea.fr)

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