



A TAILORED AND FLEXIBLE SOLUTION FOR ENERGY-INTENSIVE INDUSTRIES AND GRIDS

HEXANA: An innovative energy platform built on proven & mature technologies

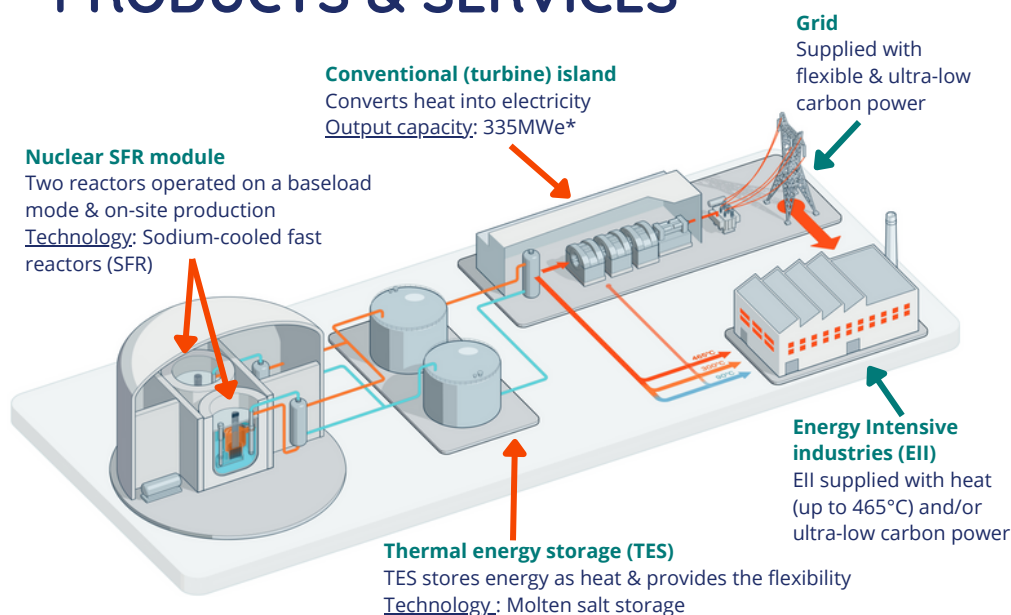
COMPANY OVERVIEW

HEXANA is a spin-off from the French Atomic Energy & Alternative Energies Commission (CEA). The company develops an **energy platform featuring two paired sodium-cooled fast neutron reactors (SFR)** of 400 MWth each (2*400 MWth, equivalent to 335 MWe) integrated with a **high temperature storage device**.



HEXANA is laureate of the Innovative Nuclear Reactors initiative under **the France 2030 program**.

PRODUCTS & SERVICES



Flexible nuclear CHP system featuring thermal storage

* Output capacity of 2 reactors only (excluding the additional capacity provided by thermal storage)

END CUSTOMERS

HEXANA addresses specific industrial markets, such as: **chemical, petrochemical, steel, cement, hydrogen, e-fuel** but also industries in need of reliable and flexible power such as **datacenters and grids** to facilitate integration of renewable energies.



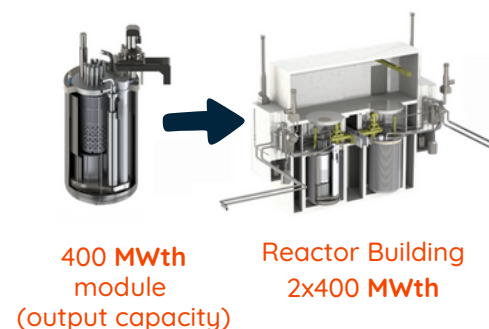
Key figures

- Founded in **2023**
- **€27 M secured** in funding
- **65 employees**
- **800 MWth** (combined output capacity of 2 reactors), equivalent to **335 MWe**
- Heat up to **465°C**
- **Ultra low-carbon: 2g CO₂eq/kWh**
- **SFR technology** : Over **440 years** of cumulative global experience worldwide
- **2035: Industrial production** (operational launch)
- Operational lifespan of up to **80 years**

Cogeneration system

- **High temperature heat** (up to 465°C)
- **Ultra low-carbon power** generation

Reliable & highly-flexible energy system





VALUE PROPOSITION



HEXANA takes a unique position on the SMR market:

- **High production capacity:** 800 MWth, equivalent to 335 MWe (output)
- **Cogeneration:** combined high-temperature heat & electricity generation: heat up to 465°C.
- **Optimized & cost-free flexibility:** The reactor runs in baseload mode, while built-in energy storage provides flexible supply to customers or grids without impacting the cost-efficiency.
- **Proven maturity & credibility:**
 - **Industrial production from 2035** (start of operation) - no demonstrator required (HEXANA inherits directly of 70 years of research and experience).
 - Sodium-cooled fast reactors are **the most mature Gen IV technology**, with 440 years of cumulative operations worldwide of which 120 years in Europe.
 - **Pre-qualified fuel & materials**
- **Sovereign & sustainable fuel:** HEXANA uses abundant, locally-sourced EU resources, ensuring **thousands years** of energy supply. Its solution offers relatively stable OPEX, independent of natural uranium price fluctuations and geopolitical factors.
- **Safety:** Optimized distance between the industrial site and the energy production facility

KEY TAKEAWAYS

Favorable technical specifications to match industrial needs

Heat up to 465°C

Cogeneration (CHP)

Reprocessed spent nuclear fuel

42% electrical efficiency

The most mature technology from Gen IV reactors

Industrial maturity

Passive safety features

Qualified fuel & materials

Flexible energy system

