

-More Energy Performance with Less Resources-

[jean.maillard@neext.email](mailto:jean.maillard@neext.email) – +33 6 51 53 45 45

[nicolas.moulin@neext.email](mailto:nicolas.moulin@neext.email) – +33 6 47 39 55 54



**GOUVERNEMENT**

*Liberté  
Égalité  
Fraternité*



# START-UP's ID



**Name:** NEEXT Engineering. Simplified joint-stock company established on November 18, 2022  
**Share capital :** 147 000 €  
**Headcount :** 14  
**Head office address:** 2 rue Emile Zola, 90000 Belfort, France  
**Website:** <https://neext.engineering>

## VALUE PROPOSITION OF THE COMPANY

NEEXT Engineering improves efficiency of energy systems by applying chemical innovations that enhance laws of thermodynamics, focusing on Heat-to-Power & Power-to-Heat to accelerate industrial decarbonization

## KEY FIGURES

	2025	2026	2027	2028	2029
Turnover	500 K€	1 400 K€	1 200 €K	2 170 K€	7 220 K€
Net profit	- 598 K€	- 3 043 K€	- 4 168 K€	- 2 183 K€	+ 260 K€
Equity	2 805 K€	7 403 K€	3 579 K€	1 521 K€	2 240 K€
Headcount (mostly technical)	22	26	31	32	33

## MARKET

Energy production, industrial decarbonization  
+ \$560 billion  
+5/+10% per year

NEEXT Engineering improves efficiency of energy systems by applying chemical innovations that enhance laws of thermodynamics, focusing on Heat-to-Power & Power-to-Heat to accelerate industrial decarbonization





**Chief Executive Officer**  
**Jean MAILLARD**

20y of entrepreneurship



**Nicolas MOULIN**

**Chief Sales Officer**

Ex-President GEAST

20y Alstom/GE



**Philippe PETITCOLIN**

**Chief Operation Officer**

20y GE



**Alexis SESMAT**

**Chief Technical Officer**

20y GE



---

## **ASSOCIATED FUNDERS**

**Silvia LASALA**  
Lab. Research CNRS LRGP  
*Inventor of our Breakthrough*



**Guillaume TREMBLAY**

Former Technical Director of Nuclear Valley  
Senior Manager Technology to Market EMEA  
Westinghouse



**Nicolas DELABY**

Communication manager UTBM  
Former Director communication GE





**Jean MAILLARD**  
CEO



**Philippe PETITCOLIN**  
COO

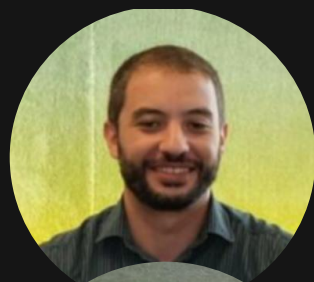


**Alexis SESMAT**  
CTO



**Nicolas MOULIN**  
CSO

## SCIENTIFIC HUB



**Aghilas DEHLOUZ, PhD**  
*Fluid transport properties*



**Aya BARAKAT, PhD**  
*Reactive fluids in thermodynamics*



**Louis MOUGENOT, PhD**  
*Thesis : AI in modeling thermodynamics systems*

## MODELING HUB



**Julien ROUSSILHE**  
*17y in complex systems modeling*



**Rouaa HABANJAR**  
*Student in engineering*

## DESIGN HUB

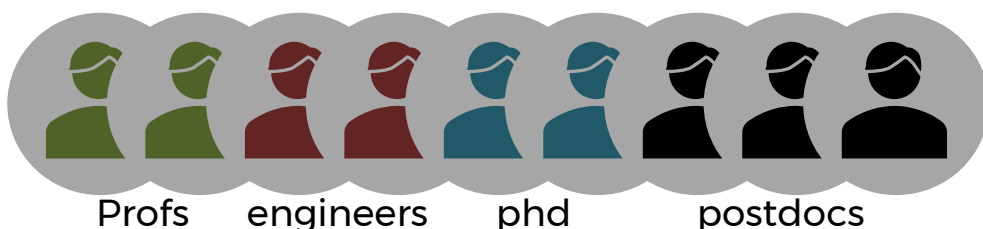


**Julien VAUVY**  
*15y in large energy systems*



**External designers**  
*former C-levels and experts* <sup>5</sup>

## At CNRS LRGP



**Camille PFLIEGER**  
**Office Manager**  
*former tech entrepreneure*



**Christine VINCENT**  
**CFO**  
*Former start-up entrepreneur*



**Maud MULLER**  
**Business Manager**  
*20y in energy/defense projects*



**Cecile CARRY**  
**R&D program Manager**  
*20y in energy sector*



## Anaïs VOY-GILLIS

PhD in Geography and associate researcher at CEREGE (University of Poitiers – IAE of Poitiers). Her work focuses on the challenges of reindustrializing France.



## Caroline GERVAIS

PhD in Waste Science and Technology, expert in strategic sustainable development (#FSSD) for complex industrial sectors.



## Jean-Luc LAUTIER

With nearly 30 years in the nuclear energy sector, Jean-Luc is a true encyclopedia on many topics and enjoys international recognition.



## Nicolas POIVEY

After a career in corporate finance, Nicolas specialized in sustainable finance at Cambridge and earned an Executive MBA from EM Lyon.



## SHARE-HOLDERS

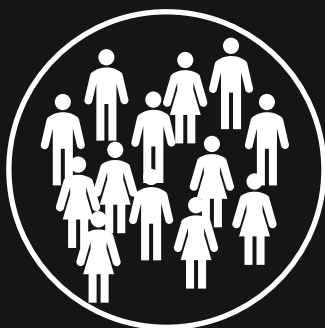
**3 CO-FOUNDERS  
& INVENTOR**

**21,2 %**

**4 FOUNDERS  
& MANAGERS**

**55,1 %**

**23,7 %**



**+120 individuals (mainly engineers) via NEEXT Invest SAS**

Citizen crowdfunding allowed strong start-up, increased local and national political support, as well as regular operational intake.

No governance power for NEEXT Invest SAS inside NEEXT Engineering SAS

## Low Efficiency in Energy Conversion (Heat to Power & Power to Heat)

Examples (net efficiencies):

Nuclear: **30 to 35%**

Geothermal: **12-15%**

Industrial Waste Heat: **20%**

## Fluids with Environmental Impact

The fluids used in heat pumps or power generation systems often have a high GWP\*.

The 2024 European F-GAS regulation bans their future use.

\*GWP: Global Warming Potential, or PRG (in French: Potentiel de Réchauffement Global).  
An international index measuring the impact of a fluid on the greenhouse effect.



# EXAMPLE : BOOST BUSINESS CASE OF NUCLEAR NEWBUILD

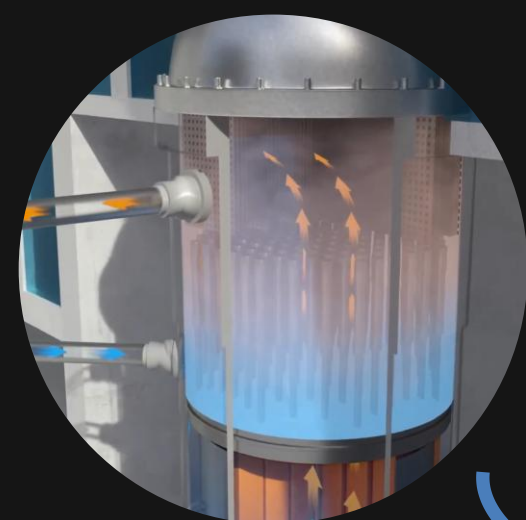
Conversion cycle is the weak spot of electricity overnight performance

Primary Heat  
source, High  
temperature, High  
density

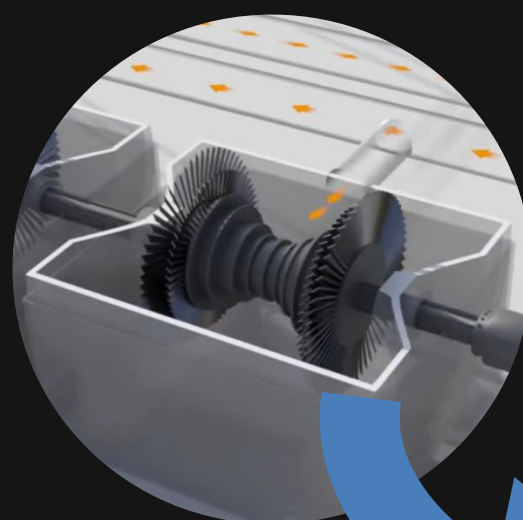
Turbine Heat-to-work  
conversion

Alternator

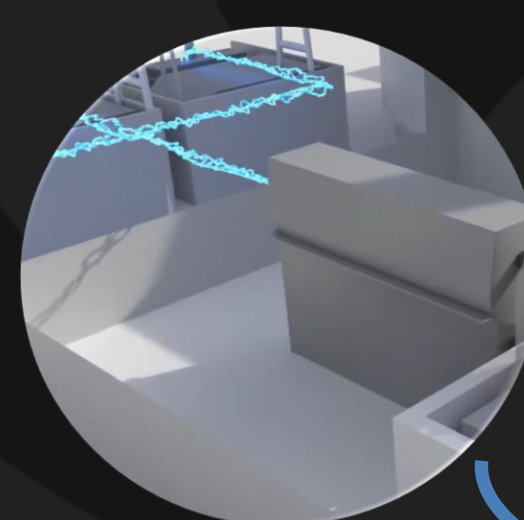
Grid



Steam or  
Reactive Fluid ?



Mechanical  
work



Electricity



Energy Loss

Energy Loss

Energy Loss



TOP YIELD



LOW YIELD



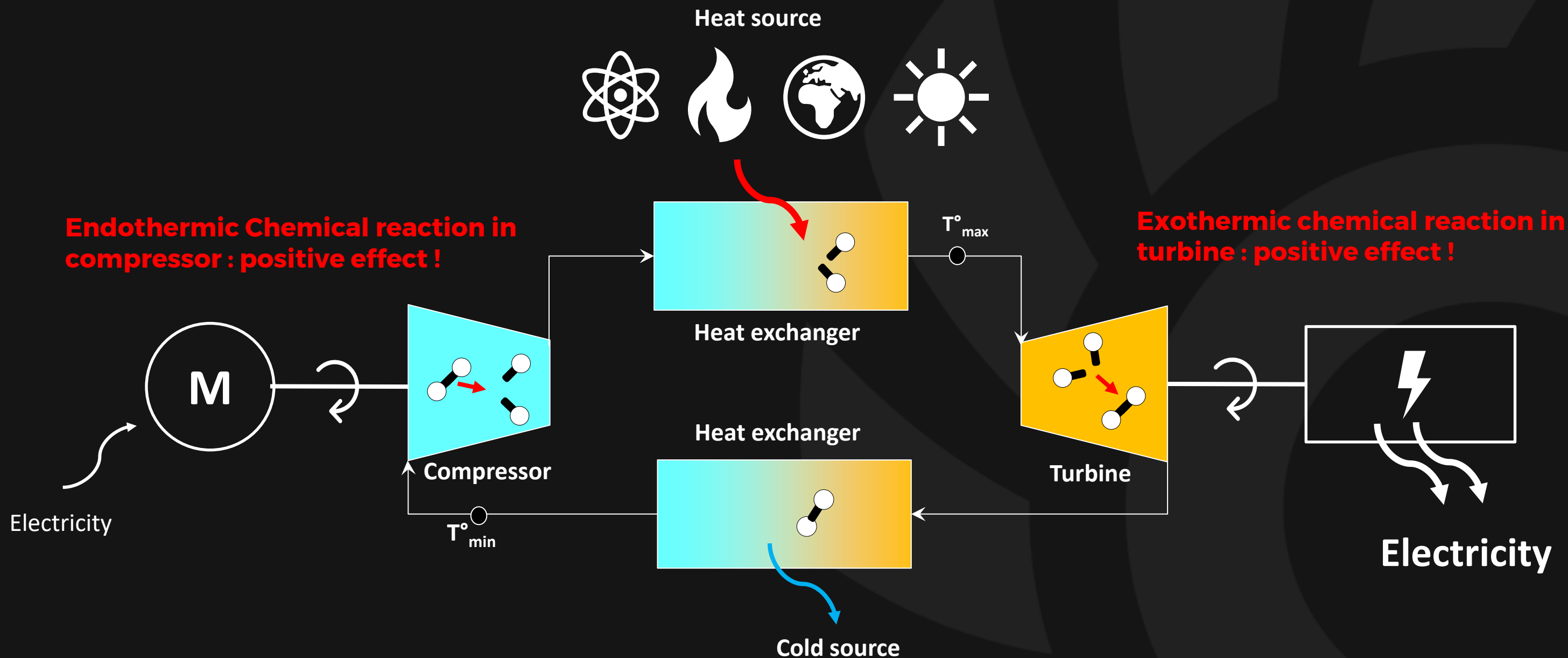
TOP YIELD

**Case: 2x200MWe SMR / AMR N<sup>th</sup>OAK:**  
CAPEX lower bound: €1.6B for 4000€/kWe installed  
35% net conversion ratio (steam turbine)  
50 €/MWh x 0.8 capacity factor

No impact on NSSS design & safety case  
CAPEX of Turbines = 12% to 15% (as per today)  
**instant uprate to 520MWe with 45% net yield**  
**Turbine ROI = 4,5 for a 60 to 100years life time**

**+€42M/yr**

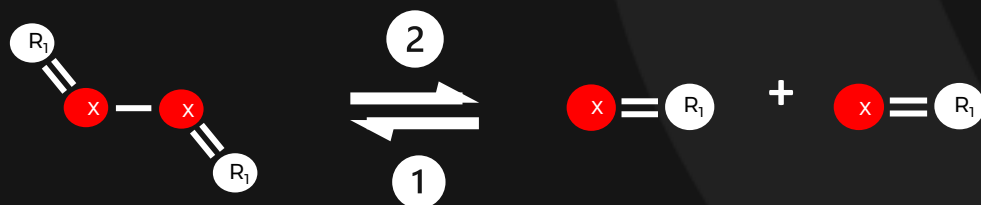
# NEEXT'S INNOVATION - HEAT TO POWER EXAMPLE



**Thermodynamic cycles convert heat into electricity.  
By replacing the traditionally used steam with reactive fluids, chemical energy combines with thermodynamic energy, improving efficiency by 30%.**

Reversible Chemical Reactions, only driven by Gradient of Pressure or Temperature boost thermodynamics cycles.

Validated by 25 years of research



## Revolutionary performances

- Heat to Power : **+30%**
- Power to Heat (i.e. heat pumps): **+ 30 to 40%**

## Fluids with low environmental impact

- Global Warming Potential, **GWP < 150**,
- OZONE Depletion Potential, **ODP < 0,01**



F-GAS III  
EU regulation  
No. 1005/2009  
No. 2024/573





We make plans for €15M in 5yrs hard-tech efforts  
 Consortium being **awarded €9.5M**  
 €7.3M for **NEXT**  
 €2.2M for Partners



€1,5M Exceptional Award For  
 REACHER program  
 -CNRS Research -



French Competitiveness hub  
 for French Nuclear Industry  
 Label

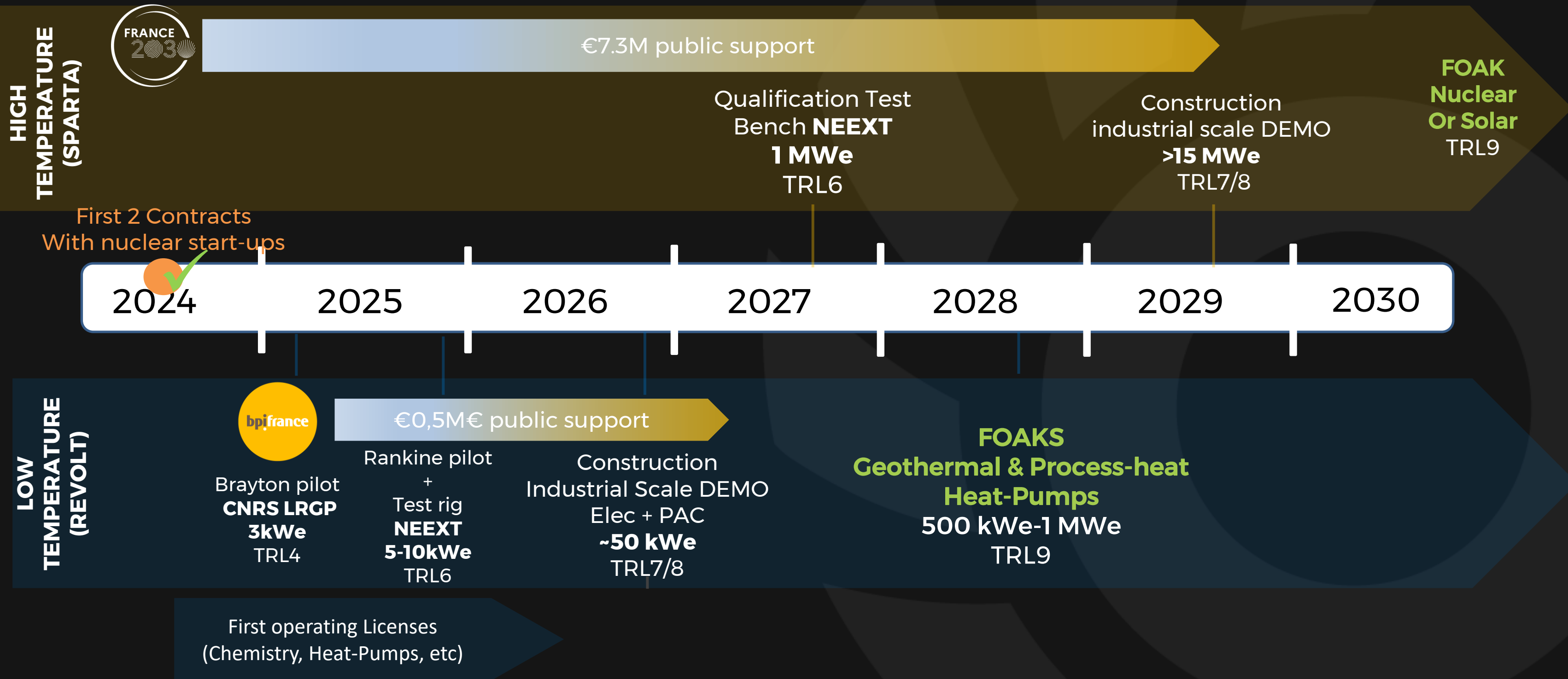
**1. Reactive fluids – Patented ingredients of recipes (that will be kept secret)**

- ✓ 2 patents filed by CNRS : ca. 170 Low & High Temperature Reactive Fluids
- ✓ Exclusive worldwide license agreement signed : all applications, 20yrs, open for sub-licensing

**2. Reactive fluids – Co-owned patents on critical equipment & components**

- ✓ Ambition to co-own patents with partners and suppliers by overcoming technological barriers (e.g. turbomachinery and heat exchangers)

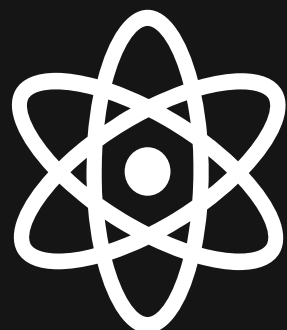
# REACTIVE FLUIDS DEVELOPMENT PLAN



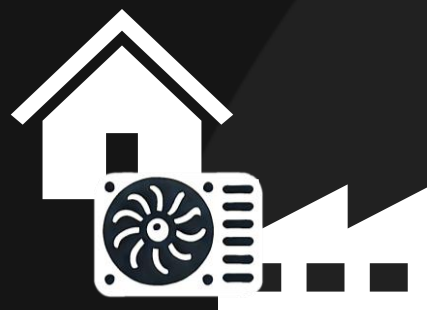




**Deep Geothermal**  
**5%/y growth market**  
**Potential +6% net yield**



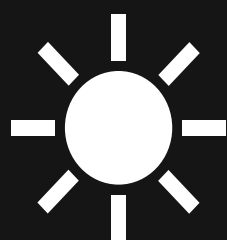
**Nuclear**  
**FOAK in 2032**  
**Demonstrating**  
**+10% net yield**  
**-8% on LCOE**



**Heat-Pump**  
**10%/y growth market**  
**0.5% market shares**  
**In licensed royalties**  
**Before 2028**



**Waste Heat Recovery**  
**10%/y growth market**  
**Potential +5% net yield**



**Concentrated Solar**  
**10%/y growth market**  
**Potential +10% net yield**



Market	Spec.	Sensibility	Business model keyword
Geothermal	High global CAPEX Lithium production opportunity	Efficiency driven	CAPEX+
Waste Heat Recovery	High Integration constraints	LCOE driven	Energy provider
Concentrated solar	Questionnable profitability	CAPEX driven	« As is » (Enabling technology)
Nuclear	Long-term High global CAPEX	Efficiency driven	CAPEX+
Biomass	Retrofit market	OPEX Driven	Performance
Industrial Heat pumps	High Integration constraints	LCOH driven	Energy provider
Mass market Heat pumps	High competition Highly constraint environmental regulation	Reliability driven	« Solving problem »



## Deep Geothermal





Signed M.O.U. with plant operator  
4 power plants by 2030  
Opens international market with an  
energy-intensive world-level industrial  
company



## Waste Heat Recovery

Signed M.O.U. with solution  
provider  
  
+10 installations from 2028  
Significant growth afterwards



COMPETITORS	CHARACTERISTICS	POSITIONING	NEEXT's ADVANTAGES
<b>SUPERCritical CO2</b> 	Advocating +10% yield increase.	Applications > 500°C	+30% yield increase Application also < 500°C like actual nuclear power.
<b>LAVA POWER</b> 	Isothermal Heat-to-Power and Power-to-Heat 70-80% Carnot efficiency (more or less same as NEEXT)	Applications < 200°C	Applications also > 200°C
<b>Q-PINCH</b> 	Power-to-Heat with 70% Carnot efficiency (more or less same as NEEXT)	Only Power-to-Heat, better synergies in chemical processes	Simpler cycles : no catalyst, no membrane. Many other applications
<b>KALINA POWER</b> (or other licenced companies) 	Ammonia-water cycle +10 to +20% yield increase	Applications < 300°C	+30% yield increase Application also > 300°C



## Control & EMS (Energy Management System)

10/15% of Projects incomes



## Sublicences

3% of incomes

**to solution providers**

**Once commercial maturity is reached, revenue should come from generated energy savings and performance gains, aligning success directly with value creation**

- 2 clients (frame agreements) in nuclear SMR
- Consortium agreement with Arabelle Solutions
- M.O.U. with Enogia
- M.O.U. with geothermal plant operator
- Discussions with 3 large energy companies
- Several NDA with equipment and solution providers
- Discussions with large engineering companies



	2025	2026	2027	2028	2029
<b>Revenue</b>	<b>500 K€</b>	<b>1 400 K€</b>	<b>1 200 K€</b>	<b>2 170 K€</b>	<b>7 220 K€</b>
Engineering (contribution margin ~70%)	300 K€	650 K€	1 200 K€	1 650 K€	2 450 K€
Licences (up-front + royalties)	200 K€			120 K€	1 870 K€
Demonstrator (cont. margin ~30%)		750 K€			
Sales (cont. margin ~70%)				400 K€	2 900 K€
<b>Personnel costs</b>	<b>-1 302 K€</b>	<b>-2 080 K€</b>	<b>-2 736 K€</b>	<b>-3 196 K€</b>	<b>-3 366 K€</b>
<b>External expenses</b>					
External R&D expenses	0 K€	0 K€	-700 K€	-470 K€	0 K€
External expenses and General expenses	-688 K€	-1 480 K€	-1 856 K€	-1 087 K€	-1 214 K€
<b>GOS (Gross Operating Surplus)</b>	<b>-1 650 K€</b>	<b>-2 895 K€</b>	<b>-4 452 K€</b>	<b>-3 240 K€</b>	<b>380 K€</b>

	2025	2026	2027	2028	2029
<b>GOS (Gross Operating Surplus)</b>	-1 650 K€	-2 895 K€	-4 452 K€	-3 240 K€	380 K€
<b>Investments</b>					
Investments R&D	-575 K€	-390 K€	-80 K€	-70 K€	-95 K€
Investments IP	-32 K€	-70 K€	-32 K€	-50 K€	-50 K€
Investments IT	-50 K€	-125 K€	-400 K€	-400 K€	-400 K€
<b>Repayment of loans and advances</b>					
France 2030 subsidies & recoverable advances	1 837 K€	0 K€	1 344 K€	3 066 K€	1 102 K€
Other subsidies & recoverable advances	1 852 K€	300 K€	400 K€	0 K€	0 K€
Loans	250 K€	1 500 K€	0 K€	0 K€	0 K€
<b>CIR (Research Tax Credit)</b>		0 K€	567 K€	344 K€	0 K€

# CONCLUSION

- Donnez la vision de votre entreprise à moyen/long terme
- Pourquoi souhaitez-vous intégrer Industrya ?

**Q3 2025**

**Roundtable  
#1**

**1,5 to  
3M€**

**KEY TARGETS  
in between**

Real size prototype for Low Temperature  
(TRL6)

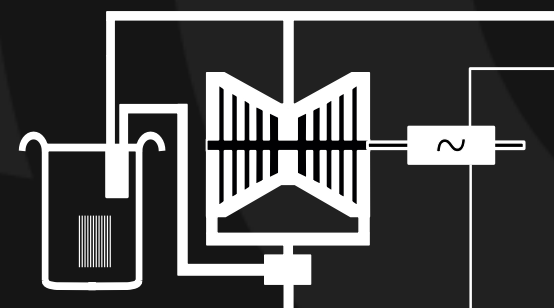
First contract of LT demonstrator

**END 2026 /  
BEGINNING 2027**

**Roundtable  
#2**

**Up to  
7M€**

**Industrialization**



**Test Benches  
& DEMOs**

**1st Sales**



**Grow the team from 14 to 25  
and deliver on Plan**



**Secure, maintain and grow IP**



**Business Development &  
IP rights-of-use negos**



**High temperature reactive fluids**

**Breakthrough contributor for new nuclear and large-scale power generation**

**Low temperature reactive fluids**

**Recurring royalties**

### ✓ **Access to Strong Industrial Ecosystem**

John Cockerill (integration engineering, industrial IoT, Digital twins), SRIW, and other industrial partners for validation or co-development  
Potential clients in energy, industry, environment  
Synergies with other portfolio startups (e.g. Storabelle)

### ✓ **Patient and Strategic Funding**

Understands long cycles (R&D, prototyping, industrialization)  
Possibility of co-financing demonstrators or pilots  
Structuring the growth  
International expansion

### ✓ **Alignment with Industrial Transitions**

Perfect fit with our innovative thermodynamic thermal efficiency approach



2 rue Emile Zola, 90000 BELFORT

Jean Maillard – [jean.maillard@neext.email](mailto:jean.maillard@neext.email) – 06 51 53 45 45

Nicolas Moulin – [nicolas.moulin@neext.email](mailto:nicolas.moulin@neext.email) – 06 47 39 55 54

