

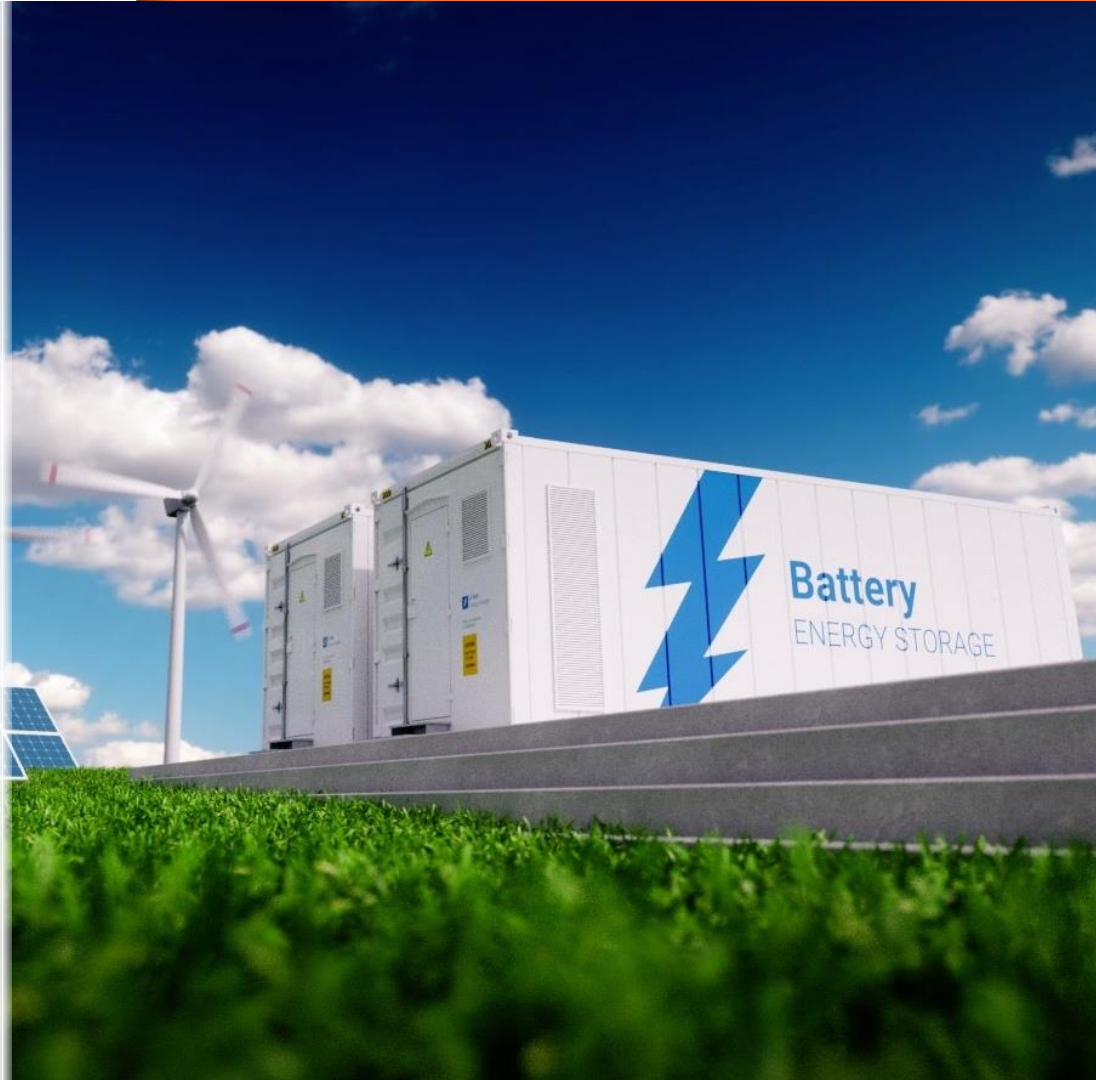


Olenergies

Smart and sustainable Lithium batteries



Energy is our future, let's store it!



1.

Olenergies
Our raison d'être



Everything we do provides **solutions** for **a responsible energy transition**.

Our way of responding to the ecological emergency is to produce **innovative, new generation, high-performance, sustainable and smart** batteries **in France**.



That's why we make **the best batteries**

1.

Olenergies

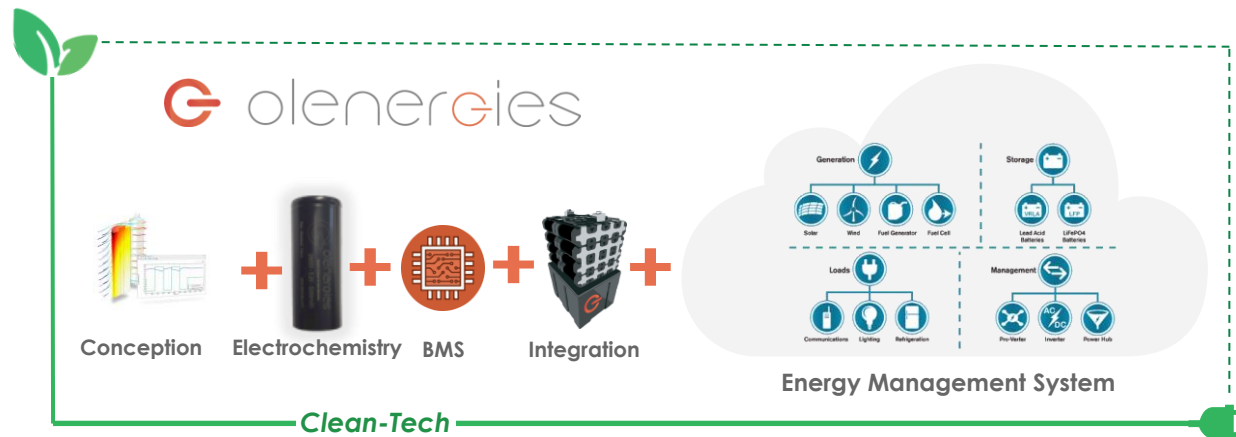
What do we do?

Ethical & Eco-responsible approach



Olenergies is an integrator bringing innovation and agility to every element of the energy storage chain:

- **Olenergies Super LiFePo4/Gr cell** designed and manufactured **specifically** for Olenergies to guarantee **exceptional quality and purity** → +20% lifetime
- Batteries equipped with an **inhouse designed Battery Management System** & a **Smart controller unit**



- Batteries are integrated in our workshops **in France** in order to **guarantee the best quality** for each step of the **integration process** and to meet **the specificities of each use** (casing, power output, etc.)
- **A network supervision and optimization software "OlenPEPS"** developed by our teams to significantly **extend batterie's life, performance** and guarantee **financial optimization**

1.

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Who are we?

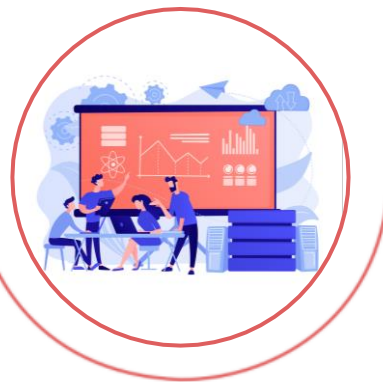


Olenergies : expert-manufacturer

of smart, sustainable, high-performance & safe French batteries



EXPERT
MANUFACTURER
OF HIGH QUALITY
BATTERIES



CONNECTED
TO A SMART DIGITAL
PLATFORM

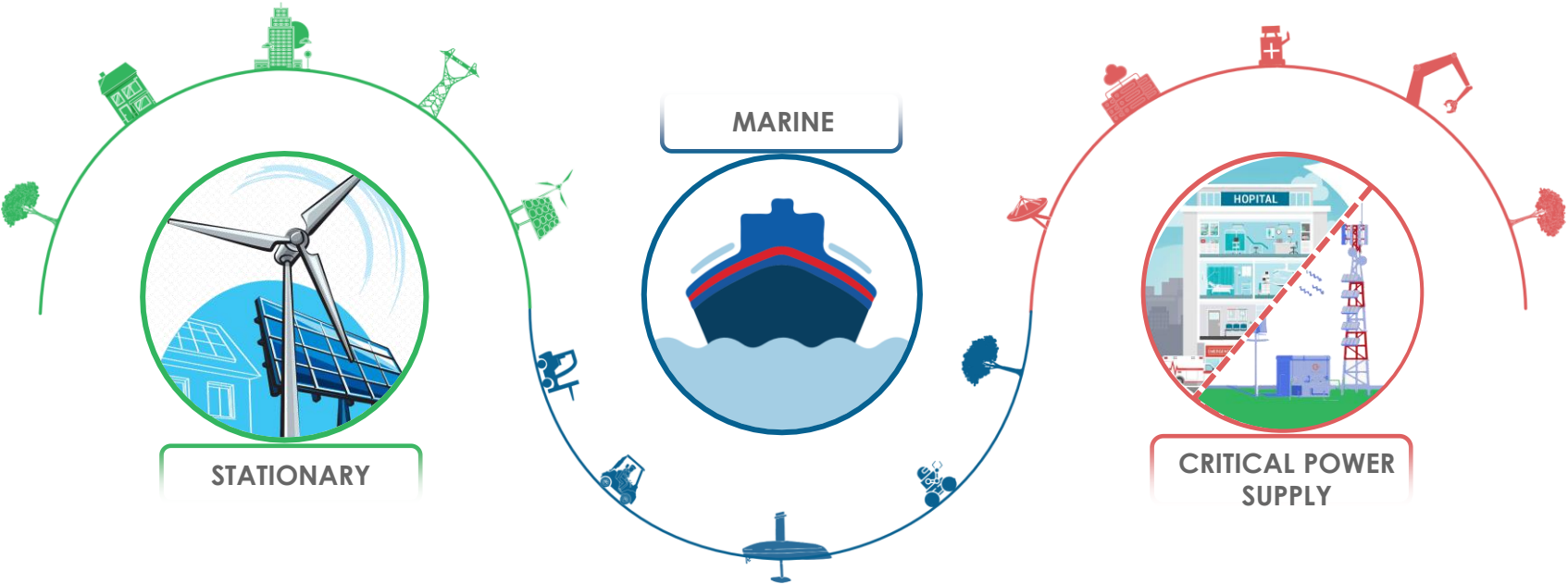


ETHICAL
AND
ECO-RESPONSIBLE

2.

Olenergies : Markets and dedicated uses of our energy systems

Olenergies deploys its design efforts, both for its batteries and its digital services, to serve the three uses:



Objective: Maximize economic and ecological gains by accelerating RE insertion

Objective: Maximizing energy and its management on board a marine drone or a river barge

Objective: Ensure the energy continuity of a hospital or a datacenter by replacing the diesel groups

3.

Olenergies

OUR PRODUCTS

OLENBOX



Complete plug-&-play modular systems for most needs

- From 12 to 96V
- From 7,5 to 1000Ah
- 3 500 cycles ⁽¹⁾

- Lead replacement
- Integrated BMS
- Modular & connectable

Instrumentation, backup, light mobility, forklifts, direct replacement of lead batteries

OLENPEPS



Management of battery systems

- SaS Deployment
- Intuitive
- 1 local unit
- 1 cloud unit



- Power & Energy Management
- Dynamic Guarantees
- Energy-as-service
- Remote control and supervision
- Digital twin optimization

Control of an OlenBox to the smart grid of a territory

OLENPACK



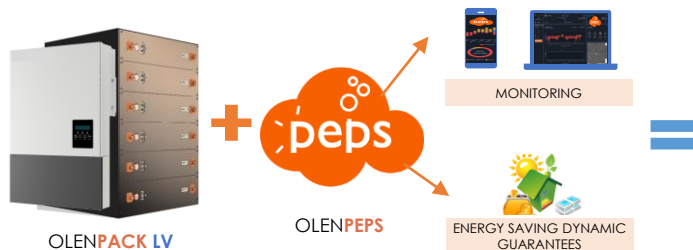
- Modular and flexible
- Communicating system
- Ecodesign
- Very compact (2U)

Smart grid & home, telecom, naval, machine tools, robotics, agriculture, UPS...

3.

Olenergies

OUR PLUG-&-PLAY SYSTEMS



OLENMOVE

Effortless: transport 30kWh by hand, bike or car!

Events, concerts, festivals, fairs and markets, food-truck, construction sites, port areas,...

Mobile energy access system to replace fuel oil generators



OLENPOWER

- PMS & EMS on board
- Dynamic control of hazards

Self-consumption, Smart grid : Smoothing & reserve, injection modulation, frequency control, peak management...

Containerized storage systems dedicated to power and RE networks

4.

Olenergies : Our assets



LIFETIME

Our systems are designed for a minimum of 3.000 cycles or many years of use !



ECO FRIENDLY

No toxic or dangerous elements, for man or the planet, so no cobalt and never lead-acid



100% SECURED

The cell is inherently safe; no risk of fire or explosion



ON-BOARD INTELLIGENCE

Right to error: our BMS is a « safeguard » that will intervene in the event of an anomaly



FAST CHARGING

Is is not necessary to respect a load curve and this is done without losses (efficiency close to 100%)



FROM -20°C TO +65°C

Olenergies systems are still the technological choice for difficult environment

5.

Olennergies

Our software solutions

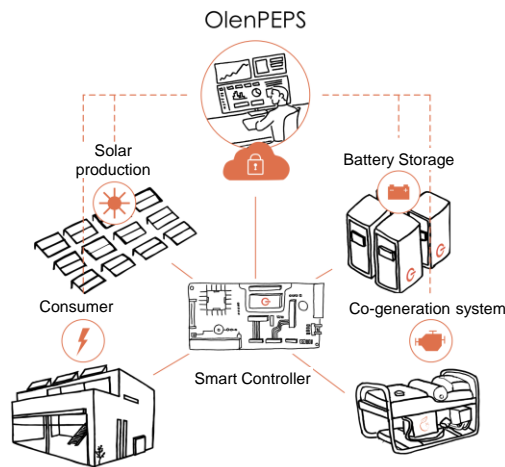
OlenPEPS

Piloting
Energy
Power
Systems



The OlenPEPS digital platform

Data processing by mathematical optimization in an uncertain environment



Remote support
/maintenance:

Lower costs



Optimization of battery
charge/discharge :

Lifetime



Energy As a Service



Control of consumer
equipment:

Maximized self-consumption

5.

Olenergies

Our software solutions

OlenPEPS

Piloting
Energy
Power
Systems



Microsoft

The digital platform OlenPEPS

Vertical increase in performances



EMS

global

Global system optimization
« Machine learning »
technology

EMS

local

In-depth knowledge
of the underlying
technologies

BMS

battery

Chemistry, mechanics,
electronics and
digital

Boost EMS global

Global EMS with increased performance by integrating OlenPEPS offer:

- **Better use** of LFP batteries;
- **Quick and easy integration** via our APIs;
- **Advanced integration** through joint work with Olenergies team.



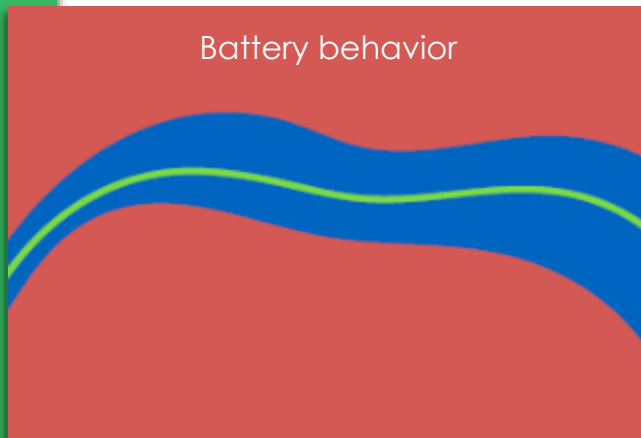
EMS

local

An in-depth knowledge of the underlying technologies
(chemistry, electronics, mechanics, computer science)
allowing a control of the battery for optimal performances

- **Extended life span**
- **Better use of energy**
- **Controlled kWh cost**

Battery behavior



Ideal behavior controlled by the local EMS of OlenPEPS

- Extended lifetime
- Optimized performance

Nominal range behavior

- Less optimized performance

Critical zone

- Battery protection by the BMS

6.

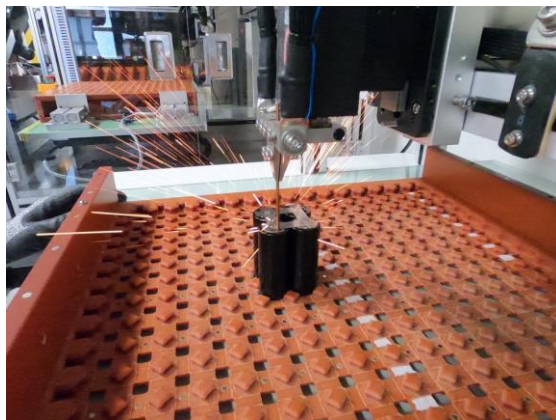
Olenergies French Industrial 4.0



A new factory 4.0 from 2021

- **1,000 m² of additional space** in the Ile de France region
- Automated plant **4.0**
- Production capacity: **1 MWh/d***

*Before 2025



- Smart Factory
- Production from renewable energy sources
- Plant designed to be self-sufficient in energy by 2024

Olenergies

Our partners and references

Active member of the
European Battery Alliance



Winner of the 2020 « **Made in France** » award at the Élysée + Bercy

