

COMPETITIVE ADVANTAGES

- **Natural origin** product;
- **Low cost** (lower than 5 €/kg);
- Light, **good heat conductor**.

APPLICATIONS/MARKETS

- Seasonal energy storage reservoirs for building industry.

INTELLECTUAL PROPERTY

- Patent deposited;
- Collaboration sought: license for process industrialization and commercialization;
- Readiness level: synthesis process validated at the laboratory scale.

LABORATORY

- LERMAB Laboratory

CONTACT

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PRESENTATION

Most energy storage technologies use water, which exhibits a rather low energy density. Its usage is also not recommended for long time storage, because thermal losses become significant. An alternative is to use phase changing material, which allows storing and returning energy and display a higher energy density. However, these materials have a low thermal conductivity, which penalize storage/unstorage times.

The LERMAB laboratory of the University of Lorraine **has developed a foam that is light, inert, good heat conductor, and cheap**. It enables **seasonal thermal energy storage reservoirs characterized by slow storage/unstorage of 1 to 14 weeks**.

