

Matinée d'information et de réseautage sur les prochains appels à projets européens Matériaux, Industrie du futur, Energy efficient buildings

*Pitching session
for project ideas and proposition of competencies*

04/07/2019 - Villeurbanne



French SME

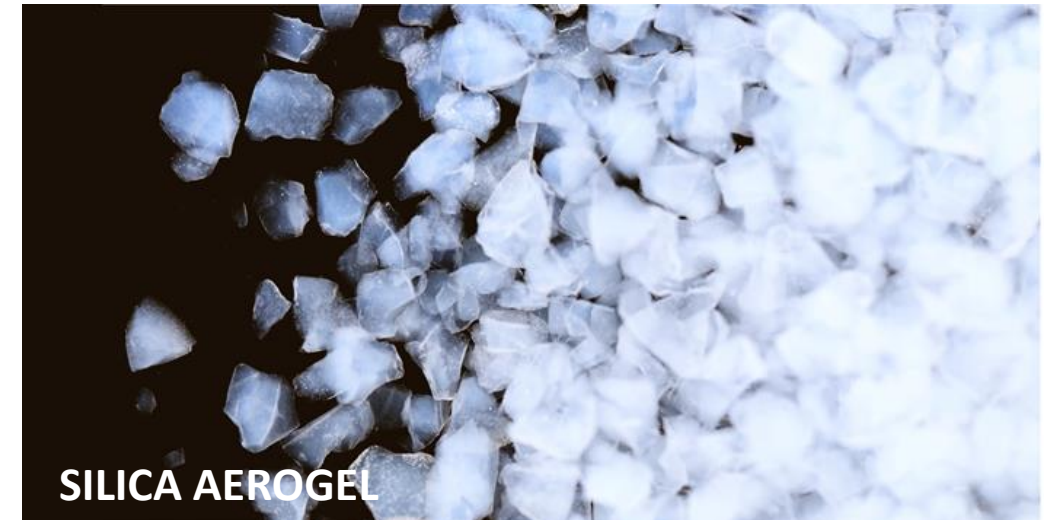
Industrial silica aerogel producer (granules and powders)

Independent Start Up since mid-2018 (Spin-off from PCAS group)

Patented products and processes

Strong internal R&D and partnerships (H2020, FP7, FUI, etc)

Location near Lyon and Geneva



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Our innovation



skoga^R

Ultra thin super-insulating sheets

Thermal conductivity : 0.012 - 0.015 W/(m.K)

Thickness: 0.5 to 5 mm

Added values

- High thermal performance
- 3 times more efficient than conventional insulation**
- Ultra-thin insulation
- Major space saving**
- Excellent mechanical properties
- Utilisable for many applications**
- Excellent fire behaviour
- Non-flammable mineral material**

Key properties

- Density = 95 to 180 kg/m³
- T° = -160°C to 300°C
- Fire class: Up to A2,s1,d0
- No VOC emission
- Almost inorganic
- 95% mesoporous

Ultra Thin Super-insulating blankets



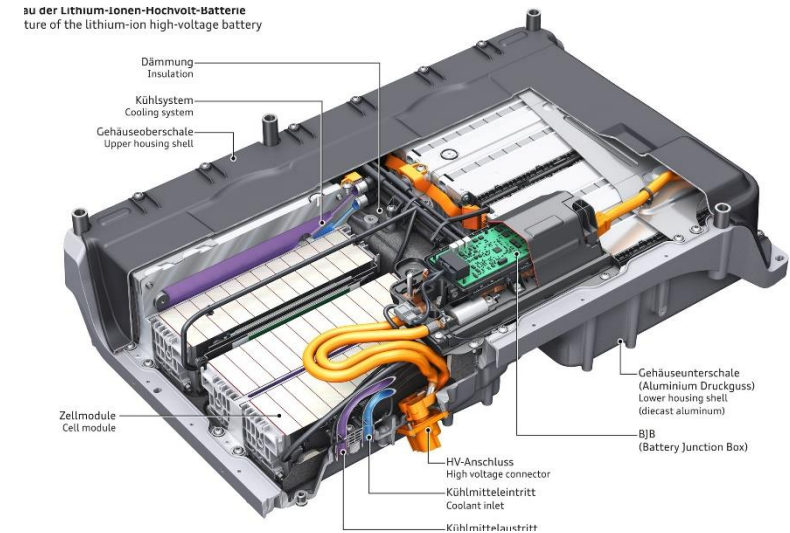
The EV battery market is very fastly growing due to the current worldwide switch to Electric Vehicles:

- 2 millions electric vehicles in 2017.
- Forecast of 150 millions in 2040 (8% of the global vehicles market).

The safety of the battery technology can require an insulation of individual cells within the battery pack, through the use of a high-performance insulating system providing both very low thickness and very low thermal conductivity.

Insulating materials based on silica aerogel have been identified as very promising due to their extreme performance. However no actor so far has been able to provide a material matching the expectations.

ENERSENS has been able to produce such material at lab scale. This material has been validated for its performance by a major prospect.



Ultra Fine Blankets Performance

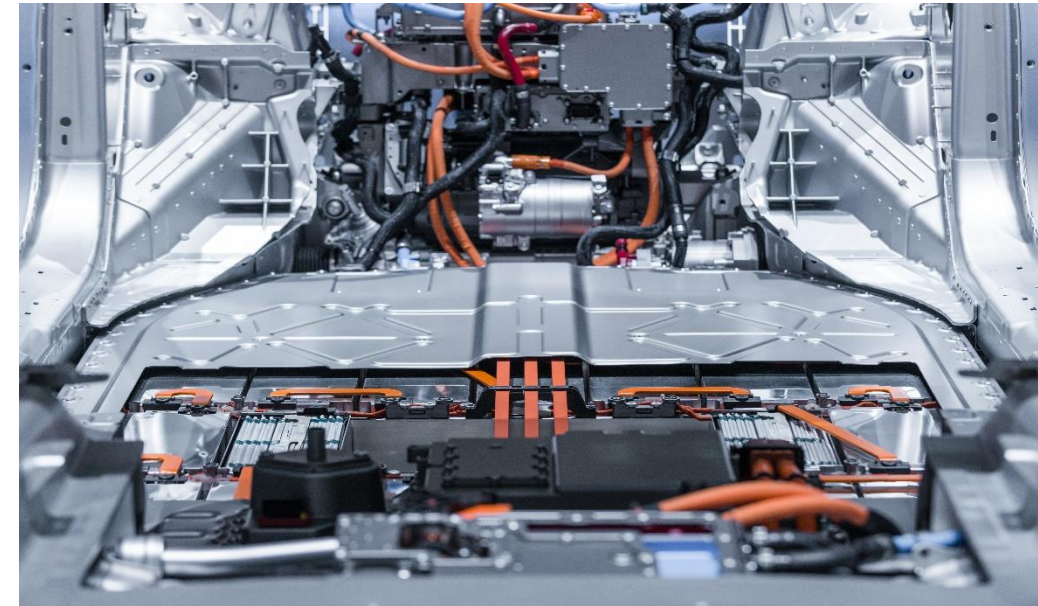
- Thermal conductivity <math>< 14 \text{ mW} / \text{m.K}</math>
- Very thin material: 0.5 or 1mm
- Textile support in PET or fiber glass
- Cutting can be adjusted to customer needs

Project Idea



Goal of the project :

- Increase the TRL and the MRL of the Ultra Thin Super-insulating blankets : need of pilot production line to develop this innovation
- Collaborate with a potential industrial customer interested in our technology to bring it to the market
- Develop the final EV battery packs upgraded with the Ultra Thin Super-insulating blankets
- Accelerate the go to market of this new technology
- Develop with key partners an entire industrial supply chain integrating this new technology



ULTRA-THIN INSULATING BLANKETS FOR BATTERIES & ELECTRONICS