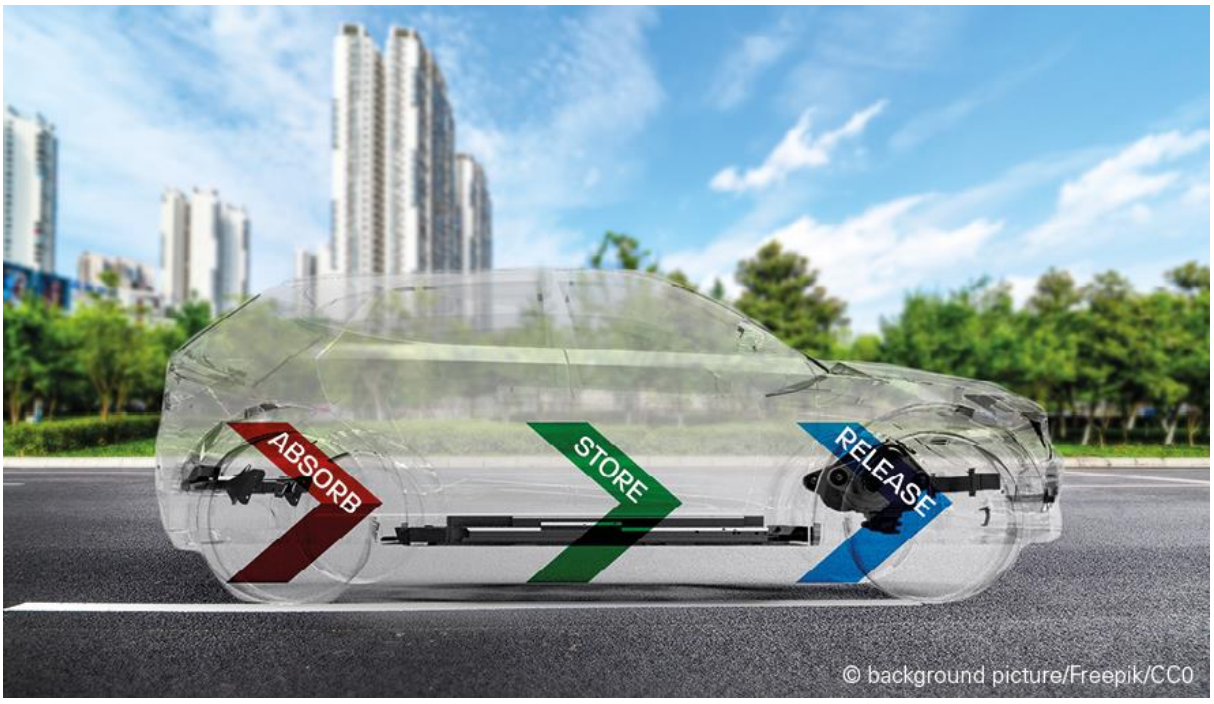
PRESS RELEASE

Towards an innovative thermal optimisation system to improve the autonomy of electric vehicles by more than 10%

- *As part of the Franco-German collaborative project InnoTherMS (Innovative Thermal Management System), SEGULA Technologies, a global engineering group, is providing its expertise in modelling and thermodynamic calculations to improve the energy efficiency of electric vehicles.*
- *Next step: Launch the first virtual demonstrator of InnoTherMs by September 2021.*



The InnoTherMS solution aims to control the heating and cooling of electric vehicles in order to limit their energy consumption and enable them to become more autonomous.

Paris, 8th December 2020 – The Franco-German research project InnoTherMS aims at designing an innovative thermal management system for electric vehicles in order to address the current challenge of limiting the vehicles' energy consumption to what is strictly necessary.

The solution developed in this project is a virtual, centralised, intelligent and predictive thermal management tool. It is based on a simulation and modelling software for the cooling cycle integrating the thermal storage system.

Particularly innovative, the InnoTherMS solution makes it possible to predict and control the heating or cooling of an electric vehicle while consuming as little energy as possible, maximising autonomy and ensuring the thermal comfort of passengers.

The technologies developed within the InnoTherMS project target an increase in driving autonomy of at least 10% for this vehicle.

The next step of the project will be to find a manufacturer to implement the solution, whichever the vehicle.

In France, the partners involved in this project are: CETHIL (INSA Lyon), IFP Energies Nouvelles, LAGEPP (Université Claude Bernard Lyon 1), Saint Jean Industries, SEGULA; and in Germany: Fraunhofer, Green'ing, Hochschule Esslingen (University of Applied Sciences), TheSys. InnoTherMs benefits from public funding from the Auvergne-Rhône-Alpes region (France), and from the German Federal Ministry of Education and Research.

SEGULA Technologies brings its know-how in the automotive industry to the project, as well as its skills in modelling and thermodynamic calculations. Its research and tests relate to the design of the demonstrator, a light commercial delivery vehicle, and focus in particular on the passenger compartment and on the freight compartment used for transporting and maintaining the temperature of goods.

Beyond the InnoTherMS project, SEGULA is able to offer a complete tool for simulating and optimising the thermal management of all types of vehicles and architectures. This tool could be used in the rail, aeronautics, aerospace and building sectors, as well as for the thermal management of solar panels.

PHOTOS

Click on the following high-definition visuals to download them (credit: SEGULA Technologies):

The InnoTherMS solution aims to control the heating and cooling of electric vehicles in order to limit their energy consumption and enable them to become more autonomous.

Thermal image of cars. SEGULA Technologies brings to the project its know-how in the automotive industry and its skills in modelling and thermodynamic calculations.
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About SEGULA Technologies

SEGULA Technologies is a global engineering group that contributes to increasing competitiveness in all major industries: Automotive, aerospace and defence, energy, rail, marine, pharmaceutical and petrochemical industries. The Group operates in more than 30 countries with 140 offices worldwide and maintains close customer relationships thanks to the expertise of its 13,000 employees. As a leading engineering specialist that puts innovation at the heart of its strategy, SEGULA Technologies carries out major projects ranging from technical studies to industrial applications and production.
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