

## MOTHERSON X REVOLTECH

# Driving Sustainability: Biodegradable Materials for Car Interiors

revoltech, Motherson and Volkswagen are pioneering circular, plastic-free materials for next-generation sustainable car interiors.

## The Challenge

The project aimed to assess the feasibility of integrating LOVR™ a 100% bio-based, recyclable, and biodegradable material, into automotive interiors using established industry processes. The objective was to meet aesthetic, durability, and processability standards while maintaining a premium finish. The collaboration between the material supplier revoltech, system supplier Motherson, and OEM VW enabled early identification of challenges to support a smooth transition to series production. As a first step, standard laminating processes for interior components such as door and instrument panels were evaluated.

## The Solution

To integrate LOVR™ into automotive interiors, its compatibility with state-of-the-art manufacturing processes was assessed. Key properties such as surface feel, visual quality, adhesion, and ageing resistance were tested. Based on the results, Volkswagen, revoltech, and Motherson, coordinated by the innovations team, jointly defined priorities and next validation steps. revoltech refined the material

for greater flexibility and durability, while developing solutions to prevent cracks, brittleness, and haptic degradation. Combining material science and industrial expertise, the first steps towards production integration were achieved.

## The Outcome

Promising applications for LOVR™ were successfully identified in Volkswagen's interior components, demonstrating its potential as a high-quality, sustainable alternative to conventional materials. The next step is to test an optimised batch of LOVR™ on a series production line to validate industrial manufacturing feasibility. Through this collaboration, Motherson, Volkswagen, and revoltech are advancing long-term sustainability goals, with Volkswagen aiming for series production implementation by 2028. The project reinforces Volkswagen's commitment to circular materials and showcases revoltech's scalable, bio-based innovations.

## Project Highlight

Higher recycling rate and lower CO<sub>2</sub> footprint (vs traditional leather).

# Revoltech

revoltech replaces plastic and synthetic materials with biodegradable circular high-performance alternatives

revoltech's product enables sustainable product innovation with low-carbon, circular materials by providing scalable, high-performance bio-based materials that reduce carbon footprint and eliminate plastic waste.



**Headquarters**  
Darmstadt, Germany

**Founded**  
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**No. Employees**  
1 – 10

**Website**  
[www.revoltech.com](http://www.revoltech.com)

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## About STARTUP AUTOBAHN powered by Plug and Play

STARTUP AUTOBAHN powered by Plug and Play is an open innovation platform that provides an interface between innovative tech companies and industry-leading corporations.

The basis of the program is the partnership that develops between startups and the corporate business units. The two entities hold an equal footing from the get-go: together they evaluate the potential for a joint venture, move forward to pilot the technology, and work to achieve the ultimate goal – a successful production-ready implementation.

Designed with the intention to exceed startup acceleration, STARTUP AUTOBAHN powered by Plug and Play moderates a community for collaboration with a focus on implementable results.

Over the years, the platform has successfully cultivated over 500 projects with more than 350 startups since its founding in 2016. ■

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