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## Press Release

2 June 2021

### **Free Field Technologies and Autoneum collaborate to help OEMs accelerate the acoustic design of vehicles**

#### **New solution helps automakers mitigate noise and vibration through optimal use of acoustic treatments within Actran acoustic simulation software**

Free Field Technologies (FFT), part of Hexagon's Manufacturing Intelligence division, and automotive supplier [Autoneum](#), the global market and technology leader in acoustic and thermal management, have combined their respective strengths in acoustic simulation and vehicle noise insulation to develop a new computer-aided engineering (CAE) solution that helps automotive manufacturers design quiet and comfortable vehicles without adding unnecessary weight.

As the industry pivots to electric vehicle development, the mitigation of noise and vibration is a complex challenge that's increasingly critical as the number of vehicle models proliferate. In the absence of internal combustion engine noise, the relative silence of the electric car accentuates the sounds emitted by the motor and caused by the vibration of structural components. The application of high-performance acoustic treatments is essential to the comfort of passengers and the perceived quality of the vehicle, but designers require precise information to determine where materials should be applied to achieve optimal results without adding unnecessary weight or cost.

Accurate prediction of acoustic performance significantly reduces the time that engineers invest in design. By applying the combined acoustic and simulation expertise of Autoneum and FFT, the companies will democratize their detailed knowledge of the acoustic behaviour for specific treatments, so that engineers can quickly respond to the needs of a rapidly evolving industry. "From the whine of the electric motor and vibration in the powertrain to noise from heating and air-conditioning units, wind resistance, and tyres, there are multiple variables that make acoustic design a complex challenge to solve. Hexagon offers market-leading solutions that help identify noise sources and mitigate their harshness. Our collaboration with Autoneum will provide new tools to industry engineers helping them in the creation of efficient designs and the best possible driving experiences for their customers," said Diego Copiello, Product Manager, FFT.

The accelerated development of electric vehicles places enormous pressure on automotive OEMs to find optimal acoustic treatments and explore new sustainable materials as early as possible using effective CAE solutions to explore Noise Vibration and Harshness (NVH). Davide



Caprioli, Head of Acoustic and Thermal Management at Autoneum, added: “Autoneum’s simulation tools for vehicle acoustics are already being used successfully by manufacturers and suppliers worldwide. By working with FFT and integrating our know-how into the Actran software, our methodology will now be even more widely and readily available, thus making it the global standard in NVH.”

The new solutions developed by FFT and Autoneum will help automotive manufacturers simulate the performance of acoustic insulation materials to dampen noise, lightweight design, and offer a more comfortable passenger experience. By harnessing Autoneum’s extensive knowledge in designing tailored sound packages based on validated simulation methods, it extends the capabilities of the industry-leading Actran acoustic and vibro-acoustic modelling software to provide more actionable information and compress design cycles.

In recent years, Autoneum and FFT have demonstrated their expertise in the development of innovative and sustainable methods in vehicle acoustics in numerous joint scientific papers. Thanks to their new partnership, going forward the two companies will also exploit these synergies to further optimise and standardise processes and workflows for acoustic design, the improvement of the design and modelling of NVH insulation materials as well as the exchange of data between manufacturers and suppliers.

For more information please visit: <https://www.fft.be>

### **About Hexagon | FFT**

Hexagon is a global leader in sensor, software and autonomous solutions. We are putting data to work to boost efficiency, productivity, and quality across industrial, manufacturing, infrastructure, safety, and mobility applications.

Our technologies are shaping urban and production ecosystems to become increasingly connected and autonomous – ensuring a scalable, sustainable future.

Free Field Technologies (FFT), part of Hexagon’s Manufacturing Intelligence division, enables manufacturers to design and optimise products with powerful acoustic, vibro-acoustic and aero-acoustic modelling software and solutions. Learn more at [fft.be](http://fft.be). Hexagon’s Manufacturing Intelligence division provides solutions that utilise data from design and engineering, production and metrology to make manufacturing smarter.

Hexagon (Nasdaq Stockholm: HEXA B) has approximately 21,000 employees in 50 countries and net sales of approximately 3.8bn EUR. Learn more at [hexagon.com](http://hexagon.com) and follow us [@HexagonAB](https://twitter.com/HexagonAB).

### **About Autoneum**

Autoneum is globally leading in acoustic and thermal management for vehicles. The Company develops and produces multifunctional, lightweight components and systems for interior floor and engine bay as well as the underbody. Customers include almost all automobile manufacturers in Europe, North & South America, Asia and Africa. Autoneum operates 53 production facilities and employs around 12 800 people in 24 countries. The Company with its



headquarters in Winterthur, Switzerland, is listed on the SIX Swiss Exchange (ticker symbol AUTN).

[www.autoneum.com](http://www.autoneum.com)