



Stellantis Invests €33 Million in Global Testing Hubs for Cutting-Edge Engineering

- **Stellantis' global network of tech centers and testing facilities plays a critical role in meeting Dare Forward 2030 strategic plan goals**
- **Latest investments in safety and aerodynamic centers, among other R&D Capex, support Stellantis' growth in electrification and digital revolution and accelerate move to a sustainable mobility tech company**
- **Safety center in Turin, Italy, adds test tracks with computer-driven camera positioning system for electric and autonomous vehicle development and certification**
- **Wind tunnel in Auburn Hills, Michigan, adds moving ground plane technology for refined aerodynamic measurements**

AMSTERDAM, June 20, 2022 – [Stellantis](#) engineering teams around the world are focused on creating cutting-edge vehicles that deliver clean, safe, and affordable mobility. Stellantis recently invested a total of €33 million in two of its global testing facilities to support the Company's long-term strategy to achieve best-in-class electric vehicle (EV) performance and master the highest level of autonomous driving technology while ensuring safe and reliable technology for its customers.

These investments, among other R&D Capex, expand Stellantis' global capability to engineer the future of mobility, accelerate its transformation into a sustainable mobility tech company and propel the Company toward the goals of the Dare Forward 2030 strategic plan, notably a 50% reduction in carbon emissions from 2021 levels by 2030 and carbon net zero emissions by 2038.

The recent enhancements include:

- **Orbassano Safety Center**, near Turin, Italy, is fully integrated with digital engineering processes and significantly upgraded to host four test tracks with four impact points and capabilities for full testing of battery-electric vehicles (BEVs) and automated driving technology for passenger cars, trucks, and light commercial vehicles.
- **Wind Tunnel** in Auburn Hills, Michigan, U.S., being scaled up with the addition of moving ground plane technology, simulating on-road travel and providing more accurate aerodynamics measurement of vehicles. Reducing wind drag benefits the driving range of BEVs.

“Our world-class tech hubs across the globe are doing the work today that will make tomorrow’s Stellantis vehicles industry leaders in capability, performance and safety,” said Harald Wester, Stellantis Chief Engineering Officer. “Our engineering community is fueled by talent, diversity and global reach, and we are intensely working with the other global functions, as our Monozokuri peers, to energize the core of our technological transformation. It gives us a comprehensive view of the challenges and enables us to consider and refine a full menu of mobility solutions that will put us in the front row of the race to innovate and improve.”

Putting Electric Vehicles and Autonomous Driving to the Test

Key goals of the Stellantis Dare Forward 2030 strategic plan include reaching 100% of passenger car BEV sales mix in Europe and 50% passenger car and light-duty truck BEV sales mix in the United States by 2030.

The €5 million in upgrades for the Orbassano Safety Center give it the capability to test all types of electrified vehicles - mild hybrid, plug-in hybrid and battery electric vehicles. The facility currently runs at least two crash tests a day and is on track to test more than 275 electrified vehicles this year. Vehicles tested at Orbassano can be certified to meet more than 175 international safety and technological standards.

The impact zone of the test tracks is fitted with a Messring movable block for front and side-impact tests, and Orbassano runs some of the industry’s most-challenging tests including the passenger-side small overlap test being used by the Insurance Institute for Highway Safety.

Orbassano’s test tracks include a computer-driven camera positioning system with 13 moveable outboard camera locations over the impact

point. In addition, the tracks include the capability for underbody high-speed video, while up to five cameras can be mounted on board the test vehicle.

All these views, plus the instrumented data, provide Stellantis engineers with invaluable data for evaluating current and future vehicle designs. Additionally, the data is shared with Stellantis facilities around the world, including the additional safety testing centers in Belchamp, France; Chelsea, Michigan, U.S.; and Betim, Brazil, to refine digital vehicle development models.

This state-of-the-art facility is fully integrated with Stellantis' safety digital engineering process, allowing the most efficient vehicle development and virtually covering all possible field crash scenarios.

The new tracks are ready to accommodate future test modes related to the introduction of automated driving functions on all types of vehicles.

Orbassano's arsenal includes static and dynamic test fixtures for factors such as pedestrian impact, roof crush and rollover, and test sleds to evaluate seating and vehicle interiors. Seat and interior testing become more critical as the adoption of future automated driving technologies hold the potential for new cabin seating configurations.

A Better Breeze

Aerodynamic efficiency is a crucial difference-maker in the drive to optimize the distances electrified vehicles can travel on a single charge. That requires simulating the real driving world as accurately as possible.

At the Stellantis wind tunnel complex in Auburn Hills, Michigan, construction is in progress to install moving ground plane technology (rolling road), which simulates on-road travel while allowing test vehicles to remain static. Stellantis is investing \$29.5 million in the project.

Belts enable wheel movement at all four corners of the vehicle while a fifth belt runs beneath the vehicle as if it were rolling over a roadway. Moving ground plane technology also enables measurement of ventilation drag, which is the resistance associated exclusively with wheels and tires in motion. It accounts for up to 10 percent of total, real-world aerodynamic drag.

The existing aerodynamic test facility in Auburn Hills generates wind speeds up to 140 mph. The moving ground plane installation, part of an

estimated \$85 million commitment included in the Company's 2019 contract with the United Auto Workers, is scheduled to become operational in 2024.

The added capability will complement the world-class aero-acoustic wind tunnel in Auburn Hills as part of a global network of leading-edge centers also equipped with moving ground plane technology, including two facilities in Europe.

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About Stellantis

Stellantis N.V. (NYSE / MTA / Euronext Paris: STLA) is one of the world's leading automakers and a mobility provider. Its storied and iconic brands embody the passion of their visionary founders and today's customers in their innovative products and services, including Abarth, Alfa Romeo, Chrysler, Citroën, Dodge, DS Automobiles, Fiat, Jeep®, Lancia, Maserati, Opel, Peugeot, Ram, Vauxhall, Free2move and Leasys. Powered by our diversity, we lead the way the world moves – aspiring to become the greatest sustainable mobility tech company, not the biggest, while creating added value for all stakeholders as well as the communities in which it operates. For more information, visit www.stellantis.com.



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