

Bosch Engineering and Ligier Automotive establish strategic development partnership for high-performance vehicles with a hydrogen engine

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- ▶ Bosch Engineering and Ligier Automotive develop demonstration vehicle together
- ▶ Driver of innovation with a hydrogen engine and carbon monocoque
- ▶ Ligier JS2 RH2 to be presented at the 24 Hours of Le Mans race in June 2023
- ▶ Development activities underline Bosch Engineering's open-minded approach to technology

Abstatt, Germany; Magny-Cours, France – Bosch Engineering and Ligier Automotive have established a strategic partnership for developing high-performance hydrogen engine vehicles. The first step of the joint activities is to construct a demonstration vehicle based on the Ligier JS2 R. Compared to the production vehicle, the hydrogen-powered Ligier JS2 RH2 will be equipped with a new type of carbon monocoque featuring three integrated hydrogen tanks. A converted standard V6 gasoline engine is used as the drive. In the coming months, the two companies will work closely together to adapt the technology of the innovative vehicle so that it can already be driven on test tracks this summer.

Drawing on more than 20 years of experience as a specialized development partner for, among others, super sports cars, special projects, and motorsports, Bosch Engineering handles the overall vehicle concept. In particular, this involves the engine, the hydrogen storage tank, and a holistic safety concept for the hydrogen.

As a racing specialist, Ligier Automotive brings many years of expertise in vehicle technology, engine design, and testing into the project. In the joint project, Ligier Automotive is responsible for the vehicle architecture and for integrating the H₂ system and cooling system into the vehicle.

The goal of the project is to build a high-performance vehicle with a hydrogen engine that delivers drive dynamics equivalent to those of conventional gasoline-powered sports cars and thereby demonstrate the potential that lies in specific vehicle developments in the areas of engine management and hydrogen storage. Furthermore, the project is a testimony to the shared expertise of Bosch Engineering and Ligier Automotive in transferring the complex hydrogen technology into vehicles. The Ligier JS2 RH2 will be officially unveiled as part of the 100th anniversary of the 24 Hours of Le Mans race in June 2023.

"As an engineering service provider, we are open to technology and see it as our task to explore the various technical options on the path to climate-neutral mobility in parallel and to devise the best solution in each case for all the requirements of our worldwide customers. In this context, hydrogen propulsion has great potential, especially in motorsports and high-performance sports cars," says Dr. Johannes-Jörg Rüger, president of Bosch Engineering GmbH.

Ligier Automotive's president, Jacques Nicolet, remarks, "As a manufacturer of racing cars and special vehicles, we must provide the innovations to meet tomorrow's challenges in order to offer motorsports and high-performance vehicles a new path for development. This project is part of Ligier Automotive's strategy to become a preferred partner of automotive manufacturers for integrating new energies and new technologies."

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About Bosch Engineering GmbH

Bosch Engineering GmbH is a wholly owned subsidiary of Robert Bosch GmbH and is headquartered in Abstatt, Germany. As a systems development partner to the automotive industry since 1999, the company with its more than 3,300 associates offers development services for powertrains, safety and convenience systems, and electrical and electronic systems – from the original concept to series production. Specialized in electronics and software, it draws on Bosch's proven large-scale series production technology to develop tailored solutions for a wide variety of applications in passenger cars, commercial vehicles, off-highway and recreational vehicles, and in rail applications, ships, and industry. Bosch Engineering GmbH also coordinates all the Bosch Group's motorsports activities. Additional information can be accessed at www.bosch-engineering.com.

Mobility is the largest Bosch Group business sector. It generated sales of 52.6 billion euros in 2022, and thus contributed almost 60 percent of total sales. This makes the Bosch Group one of the leading automotive suppliers. The Mobility business sector pursues a vision of mobility that is safe, sustainable, and exciting, and combines the group's expertise in the domains of personalization, automation, electrification, and connectivity. For its customers, the outcome is integrated mobility solutions. The business sector's main areas of activity are injection technology and powertrain peripherals for internal-combustion engines, diverse solutions for powertrain electrification, vehicle safety systems, driver-assistance and automated functions, technology for user-friendly infotainment as well as vehicle-to-vehicle and vehicle-to-infrastructure communication, repair-shop concepts, and technology and services for the automotive aftermarket. Bosch is synonymous with important automotive innovations, such as electronic engine management, the ESP anti-skid system, and common-rail diesel technology.

The Bosch Group is a leading global supplier of technology and services. It employs roughly 421,000 associates worldwide (as of December 31, 2022). The company generated sales of 88.2 billion euros in 2022. Its operations are divided into four business sectors: Mobility, Industrial Technology, Consumer Goods, and Energy and Building Technology. As a leading IoT provider, Bosch offers innovative solutions for smart homes, Industry 4.0, and connected mobility. Bosch is pursuing a vision of mobility that is sustainable, safe, and exciting. It uses its expertise in sensor technology, software, and services, as well as its own IoT cloud, to offer its customers connected, cross-domain solutions from a single source. The Bosch Group's strategic objective is to facilitate connected living with products and solutions that either contain artificial intelligence (AI) or have been developed or manufactured with its help. Bosch improves quality of life worldwide with products and services that are innovative and spark enthusiasm. In short, Bosch creates technology that is "Invented for life." The Bosch Group comprises Robert Bosch GmbH and its roughly 470 subsidiary and regional companies in over 60 countries. Including sales and service partners, Bosch's global manufacturing, engineering, and sales network covers nearly every country in the world. With its more than 400 locations worldwide, the Bosch Group has been carbon neutral since the first quarter of 2020. The basis for the company's future growth is its innovative strength. At 136 locations across the globe, Bosch employs some 85,500 associates in research and development, of which nearly 44,000 are software engineers.

Additional information is available online at www.bosch.com, www.iot.bosch.com, www.bosch-press.com, [www.twitter.com/BoschPress](https://twitter.com/BoschPress)

Ligier Automotive

Ligier Automotive is a manufacturer based in France (Magny-Cours, Amilly) and in the US with Ligier Automotive North America (Denver, North Carolina) with around 100 associates. It offers one of the largest range of cars marketed under the same brand: from sports prototypes (Ligier JS P4, Ligier JS P3, Ligier JS P320, Ligier JS P2, Ligier JS P217, Ligier Nissan DPi), to single-seaters (Ligier JS F3, Ligier JS F4 and Ligier JS F422) and GT with the Ligier JS2 R. Since 2014, it built around 580 racing cars. Ligier Automotive is the first and unique car constructor since Ferrari in 1998 to have won the 24 Hours of Daytona, the 12 Hours of Sebring and Petit Le Mans the same year and the only French car constructor to have won the 24 Hours of Daytona. Ligier Automotive is also the preferred partner of major OEM vehicles manufacturers to design and produce their concept cars and special vehicles.

Additional information may be accessed on www.ligierautomotive.com/en/