

Press release

Four Motors – 20 years of sustainable rebellion Combining performance and sustainable technologies for a cleaner future

Mannheim, 23 May 2023 –Four Motors, the pioneering German motorsport team, is celebrating 20 years of pushing the boundaries of sustainability and innovation in GT racing. Since its founding in 2003, Four Motors has remained at the forefront of eco-friendly advancements, championing the use of renewable and recycled resources in motorsports.

Driven by a passion for both motorsports and the environment, Four Motors has consistently sought to inspire positive change, both on and off the track. By working closely with leading partners, the team has made significant strides in advancing sustainable mobility, setting itself apart from other teams in the motorsport industry. With its specially configured 'Bioconcept-Cars, Four Motors has competed in endurance races around the world, demonstrating efficient and effective use of state-of-the-art renewable technologies and advanced recycling processes.

Four Motors's 20th anniversary coincides with its 21st participation in the prestigious and legendary Nürburgring 24 Hours. Known as the 'Green Hell', this gruelling racetrack has consistently provided the perfect testing ground for the team's innovative and sustainable technologies, playing an important role in Four Motors solidifying its reputation as an international sustainable motorsport leader.

Sustainability in motorsports

In the ongoing global efforts to combat climate change, motorsport has emerged as a crucial platform for the development and testing of sustainable technologies. As a high-performance environment, it provides an unparalleled opportunity to experiment with innovative solutions that can be swiftly brought to market. This unique advantage enables motorsport – and motorsport companies – to significantly impact industries with longer development cycles, like the automotive, aerospace, and marine sectors.

Thomas von Löwis of Menar, CEO of Four Motors, said: *"In showcasing the latest advancements in sustainable technologies through racing, we are not only inspiring change within motorsport but also facilitating progress in other vital mobility sectors, further demonstrating our commitment to – and ambition for – a greener future."*

Four Motors project

Four Motors is dedicated to working closely with its partners in the pursuit of developing and testing innovative technologies to enable and realise more sustainable mobility. To ensure optimal performance, the team has integrated state-of-the-art technologies into its race cars; combining high performance with environmental responsibility.

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The Four Motors project includes testing and implementing ground-breaking technologies such as re-refined engine oil, E20 Plus fuel, lightweight natural fibre bodywork, CO₂-reduced motorsport wheels and other advanced materials. By incorporating these sustainable technologies into its Porsche 911 GT3 Cup (#320), Porsche 718 Cayman GT4 Clubsport (#420), and Porsche Cayman GT4 Clubsport 981 (#633) race cars, the team has been able to compete at the highest level while minimising its environmental impact.

“Tested in the unforgiving and severe conditions of endurance racing, the Four Motors project has proved to be a resounding success,” continued Thomas von Löwis. *“Our participation in the highly demanding Nürburgring 24 Hours has garnered international attention and demonstrated our commitment to promoting sustainable technologies and mobility at a global scale.”*

Sustainable solutions and technologies

- **FUEL**
 - **CropEnergies AG** – innovative E20 fuel with a total of 60 % renewable content from waste and residues, approx. 40 % CO₂ savings and over 100 octane. The special racing fuel was developed in cooperation between CropEnergies and Shell.
- **EXTERIOR and INTERIOR / BODYWORK**
 - **Bcomp** – Four Motors works with Swiss lightweighting specialist Bcomp to integrate innovative natural fibre technologies, ampliTex™ and powerRibs™, into its racecars' bodywork. Bcomp's high-performance composites rival traditional carbon fibre while reducing CO₂ emissions by up to 85%, and offering 250% better vibration damping and improved crash behaviour for enhanced safety in motorsport applications.
- **LUBRICANTS**
 - **Wolf Oil and Tecoil** – the Four Motors bio-trio is driving with re-refined engine and gearbox oil from sponsor duo Wolf Oil Corporation and Tecoil. Using patented high-tech processes, the Finnish refinery Tecoil processes used oils up to a high-quality, which are even purer than freshly produced base oils originating from crude oil. The Belgian lubricants company Wolf Oil Corporation formulates the base oils into high performance oils so that they can be used in the engine and transmission sector. The use of these sustainable oils significantly reduces the CO₂ footprint and thus helps to slow down climate change.
- **WHEELS**

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- **RONAL GROUP** – equips Four Motors with its first CO₂-reduced RONAL motorsport wheel which consists of 70% secondary aluminum and only 30% primary aluminum – this means that around 50% CO₂ can be saved compared to an average European wheel. The wheel is particularly light: With the RONAL Motorsport RM1, the RONAL GROUP can offer a saving of over 6 kg on the vehicle, which means less abrasion on the tires and lower fuel consumption.
- **MECHANIC BREAK PADS**
 - **PAGID Racing** – brakes pads are used in Four Motors race cars and offer a competitive advantage thanks to their optimal balance between braking performance and wear. They are made from environmentally friendly materials with fewer harmful substances, while meeting performance and safety standards.
- **ELECTRIC DRIVE SYSTEM**
 - **MAHLE (details)** - collaborates with independent team Four Motors to set new benchmarks in motorsports and the independent workshop business, aiming for a technological partnership through initiatives such as testing 3D-printed parts in Four Motors Porsche vehicles and providing support with MAHLE service devices.

Conclusion

Four Motors' 20-year journey has been marked by a relentless pursuit of innovation and sustainability in motorsports, setting a benchmark for the industry. The team's success in integrating cutting-edge technologies into its race cars is a testament to the power of collaboration and a shared vision. As Four Motors continues to forge strong partnerships with leading technology providers, its unwavering commitment to sustainable motorsport will undoubtedly enable further advancements. The team's pioneering spirit and dedication continue to serve as an inspiration to all who believe in a sustainable future for the racing industry and beyond.

APPENDIX

About Bcomp (CH)

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Bcomp™ is a Swiss cleantech company and ESG-enabler that develops and sells sustainable lightweighting solutions. Its proprietary natural fibre-based reinforcement technologies ampliTex™ and powerRibs™ reduce environmental impact in a wide range of high-performance applications, from automotive interiors to the highest levels of motorsports, from luxury yachting to sports, infrastructure, aerospace and even space. The Bcomp team offers its customers cutting-edge engineering support from idea to final part, out of its Fribourg headquarter. More information: www.bcomp.ch.



About CropEnergies AG (DE)

Sustainable, renewable products from biomass - that's what CropEnergies stands for. Our products contribute to a climate-friendly world and ensure that fossil carbon remains in the ground permanently and do not continue to drive climate change. As a leading European manufacturer of renewable ethanol, we have been supporting the Four Motors team since 2016. We firmly believe that a higher ethanol content can immediately contribute to climate protection in road transport and, because of its high octane value, is also a perfect and affordable complement for other renewable fuels.



About Kempa (DE)

Kempa was founded in 2002 as a private label of uhlsport GmbH, with a focus on handball. It is named after former player Bernhard Kempa, the inventor of the eponymous goal trick. Since its inception, Kempa has established itself as one of the leading handball brands. In addition to supplying numerous national and

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international clubs, the Balinger sports equipment manufacturer also outfits several national teams. However, the portfolio is constantly growing, and Kempa is a sought-after partner in hockey, fencing, wrestling, and (beach) volleyball as well. Kempa examine every detail fiber by fiber and improve the sustainability of their range. In the “For the Planet” collection, Kempa consciously utilizes natural resources to leave the smallest possible ecological footprint.



About Mahle (DE)

MAHLE is a leading international development partner and supplier to the automotive industry with customers in the passenger car and commercial vehicle sectors. The technology group, founded in 1920, is working on the climate-neutral mobility of tomorrow with a focus on the strategic fields of electromobility and thermal management as well as other technology fields to reduce CO2 emissions, for example fuel cells or highly efficient combustion engines that can also run on e-fuels or hydrogen. In 2022, MAHLE generated sales of more than EUR 12 billion, is represented in 30 countries with around 72,000 employees in 152 production locations and 12 major research and development centers.



About Pagid Racing (DE)

Since more than 30 years, PAGID Racing develops and produces brake products for motorsport and high performance applications as well as for the OE sector. The world's most successful teams rely on the quality and innovations of PAGID Racing as the wide product range allows to choose from brake pads for karting, UTV, sprint and historic racing up to long endurance materials, all providing maximum performance. Brake products from PAGID Racing are made of materials that are environmentally friendly as they contain fewer harmful substances and still meet the highest standards of performance and safety that characterize PAGID Racing products.

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About Ronal Group (CH)

With its headquarters in Switzerland, the RONAL GROUP is one of the world's leading manufacturers of light alloy wheels for cars and commercial vehicles. The company covers the entire process chain – all production steps, from design and toolmaking to the end product. Each year, 13 production sites on three continents can produce over 20 million wheels. The RONAL GROUP has been supplying all well-known OEM for many years and also offers wheels for the aftermarket under the brands RONAL and SPEEDLINE CORSE. Thanks to its attention to customer focus, innovation and quality, the company has grown continuously and has 6,800 employees worldwide.



About Tecoil (FI)

Tecoil, as a Finnish high environmental technology company, produces top-quality API-group II class base oils by re-regenerating used lubricating oils. The company processes used lubricating oils collected all over Europe with its patented process based on hydrogen treatment. The Finnish refinery Tecoil processes used oils up to a high-quality, which are even purer than freshly produced base oils originating from crude oil.



About Wolf Oil (BE)

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The Belgian lubricants company Wolf Oil Corporation formulates the base oils into high performance oils so that they can be used in the engine and transmission sector. The base oil produced by Tecoil supports sustainable development, and in cooperation with our partner Wolf Oil that manufactures lubricating oil, we contribute to Fourmotors' goal of lower emission racing sports. The use of these sustainable oils significantly reduces the CO2 footprint and thus helps to slow down climate change.

