



PRESS RELEASE

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Media Day 2021: Michelin sets out the challenges of 100% sustainable tires

The **tires of the future will be 100% sustainable**, throughout their entire life cycle:

- **Design:** tires composed of 100% bio-sourced or recycled materials by 2050 and 40% by 2030.
- **Manufacture:** net zero CO₂ emission production plants by 2050.
- **Logistics:** transporting less and better and developing alternative means of transport.
- **Use:** low rolling resistance, long-term performance, lessening tire wear particles and connected tires.
- **End-of-life and recycling:** making today's waste into the resources of tomorrow for tires and beyond. **Michelin and Bridgestone** call for structure to be given to the segment.

On the occasion of its first Media Day, at the Group's global Research and Development center in Clermont-Ferrand, Michelin set out the challenges associated with 100% sustainable tires.

To counteract the climate emergency, 100% sustainable tires are a challenge that the Group must address in the next few years. In order to achieve this, Michelin is drawing on all of its innovatory ability, its capacity to develop new innovative technologies in ecosystems, and is taking action at each stage of the tire's life cycle.

As early as the design phase, tires incorporate an increasing amount of bio-sourced or recycled materials (natural rubber, bio-sourced resins, recycled plastic, etc.). Michelin engineers are involved with a number of research projects, conducted in partnership with start-ups, laboratories and universities. By 2030, Michelin is committed to achieving on average 40% sustainable materials in its tires. By 2050, this level will reach 100%.

During tire manufacture, Michelin is committed to reducing the environmental footprint of all of its production plants, in terms of the consumption of solvents and energy, generated waste, CO₂ emissions and water abstraction. Since 2005, the Group has already halved its impact. For 2050, Michelin aims to achieve:

- Zero net CO₂ emissions for all Michelin production plants.
- Zero impact on water availability for local communities in which the Group is active
- The total removal of solvents from tire manufacturing.



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As for logistics, the Group undertakes to transport less, transport better and transport differently. Michelin thus seeks to reduce CO₂ emissions resulting from logistics by 15% by 2030 compared with 2018. It is also gradually developing alternative means of transport, such as electric and hydrogen-powered vehicles, as well as sailing cargo. For example, the Group has announced an initial partnership with Neoline, an operator of wind-propelled vessels, for decarbonized transport between Halifax and Saint-Nazaire.

During road use, when between 75% and 90% of the tire's environmental impact occurs, Michelin is acting on a number of performance levers:

- A long-standing player when it comes to attenuating **rolling resistance**, the Group is continuing to invest and innovate to create tires which enable fuel savings and increased autonomy for electric vehicles. Michelin has dramatically improved the rolling resistance of its tires by improving their performance by 1 to 2% each year over the last 30 years.
- **Sustainable performance** is an integral part of the genetic makeup of Michelin tires; providing tires which are safer, whether they are new or used. The Group continuously progresses in this domain. If all tires were used until their wear limit, 128 million fewer tires would be used per year in Europe, that is a saving of 6.6 million tonnes of CO₂ emissions each year.
- Michelin has also been investing for many years in the **reduction of wear particles** in tires. Michelin is committed to continuing the reduction of overall emissions of particles in its new ranges beyond the 5% already reached since 2015. In the context of the implementation of European tire abrasion regulations, the Group is contributing to defining the testing method.
- Finally, digital technologies and **the development of connected tires** optimize tire use for individuals and professionals, and enable a reduction in their environmental impact (speed of use, fuel consumption, pressure and temperature monitoring of tires, RFID chips to track tires throughout their lifetime and so on).

At end-of-life, Michelin aims to transform used tires into raw materials, which will be put back into the production process for making new tires and manufacturing new products. The end-of-life period of tires is a major global issue. Indeed, each year 1.6* billion tires are discarded, that is 26 million tonnes. On this important matter, **Michelin and Bridgestone** jointly launched a call to action on November 22 2021, to enrich the recycling ecosystem for end-of-life tires and



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to promote the circular economy within the rubber industry. The two global tire leaders hope to enable and increase the use of carbon black from recycled tires.

"The climate emergency is upon us and the COP 26 has just reemphasized this! Like all mobility players, Michelin has a duty to take action to address our environmental challenges. Because they are in direct contact with the aspirations of customers and society, companies must be part of the solution. 100% sustainable tires represent an immense challenge for all of the Group's teams. This challenge spurs us on to invent new disruptive technologies and to change our modus operandi in ecosystems. It is a perfect illustration of Michelin's fundamental purpose, which continually innovates to make mobility ever safer, more accessible, more efficient and more respectful of the environment", stated Florent Menegaux, Michelin Group CEO.

Tires, which are Michelin's core business, represent a major source of growth as part of the Group's "All Sustainable" strategy. They will represent more than 70% of Michelin's total business by 2030, with a total turnover which is set to increase significantly.

More information on www.michelin.com

>Sustainable vision page

<Regen'Lab Online

About Michelin

Michelin's ambition is to improve the mobility of its customers over the long term. As a leader in the mobility sector, Michelin designs, manufactures and distributes tires best suited to their customers' needs and uses, as well as the services and solutions to improve vehicle efficiency. Michelin also offers its customers ways to enjoy unique experiences during their journeys and travel. In addition, Michelin is developing high-tech equipment across many sectors. Based in Clermont-Ferrand, Michelin has offices in 170 countries, employs 123,600 people and operates 71 tire factories which together produced around 170 million tires in 2020. (www.michelin.com)

*Michelin data

See the photos here:

<https://contentcenter.michelin.com/portal/shared-board/1a169afa-3b92-4c99-acb3-c38cccca8d11>

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