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Michelin joins the International Windship Association

- **The WISAMO project, an innovative solution contributing to the decarbonization of maritime shipping**
- **A further illustration of the Group's "all-sustainable" strategy**

From last June 2021, Michelin has transformed ambition into action by presenting one innovation that addresses some of the major challenges impacting the future of mobility. Designed to make transportation more efficient while conserving resources and getting a positive environmental impact, Michelin's latest wind propulsion solution aims to contribute to maritime transport decarbonization.

In that context Michelin announces that it has joined the International Windship Association (IWSA), the not-for-profit organisation bringing together wind propulsion projects, research organisations and other projects and promoting the wind as a credible, viable and increasingly economic option for commercial vessels.

Michelin fits well with the association's longer term development approach. And by joining IWSA it is a great opportunity to benefit from its experience of wind propulsion projects, ship builders, engineering and design companies along with maritime associations and regional government.

"We are delighted to welcome Michelin and the WISAMO team to the association, they bring innovative approaches and a great deal of knowledge and passion to IWSA and we look forward to working together to make a future wind-powered fleet a reality." states Gavin Allwright, IWSA Secretary General.

The WISAMO project, an innovative solution to help decarbonize maritime shipping.



The Wing Sail Mobility (WISAMO) project is an automated, telescopic, inflatable wing sail system that can be fitted on both merchant ships and pleasure craft. The system is the product of a collaboration between Michelin Research & Development and two Swiss inventors who share the Group's "all-sustainable" vision.



The inflatable wing sail harnesses the wind, a free, universal and inexhaustible source of propulsion. Its revolutionary design enables a ship to reduce its fuel consumption and thereby have a positive impact on the environment by lowering CO₂ emissions.

Designed and developed by the WISAMO project team, the system is installable on most merchant ships and pleasure craft. Especially suitable for ro-ro ships, bulk carriers and oil and gas tankers, it can be fitted as original equipment on newbuilds or retrofitted on in-service vessels.

The wing's range of use is one of the market's broadest, with proven effectiveness on many points of sail, and especially when close-hauled (windward). It can be used on every maritime shipping route. The telescopic mast is retractable, making it easy for a ship to enter harbors and pass under bridges. In all, the system can improve a ship's fuel efficiency by up to 20%*.

A collaboration with Michel Desjoyeaux, a world-renowned skipper and ambassador of the project, enables Michelin's research teams to perfect its development. His input and technical knowledge of this seasoned sailor will enable it to be tested in actual maritime shipping conditions. As Desjoyeaux points out, *"the advantage of wind propulsion is that wind energy is clean, free, universal and totally non-controversial. It offers a very promising avenue to improving the environmental impact of merchant ships."*

The WISAMO system will first be fitted on a merchant ship in 2022, when Michelin expects it to go into production following completion of the trial phase.

A further illustration of the Group's "all-sustainable" strategy

Michelin's vision of the future relies on a belief: tomorrow, everything will be sustainable at Michelin. All decisions should be made with the best balance between human, economical and environmental stakes that should be activated thanks to transformations.

Our target is to remain relevant for our customers while enlarging our actions to innovations, relying on existing ecosystems. Michelin Group intends to act for a positive impact on humanity and planet.

The WISAMO project is Michelin's contribution to enabling greener, softer maritime mobility in advance of future regulations. Michelin is also taking action to reduce the environmental impact of its supply chain. In addition to this commitment, and in line with its strategic plan, the Group is basing a portion of its growth on the development of new businesses.

Benoit Baisle-Dailliez, WISAMO Initiative Leader, points out that *"WISAMO aims to contribute to maritime transport decarbonization acting for the development of wind propulsion for the shipping sector. Supporting and committing to the involvement of IWSA and its active work was only natural for us. It's also a great opportunity for the WISAMO team to rely on the IWSA organization and ecosystem for our development objectives."*

* This gain may vary depending on the type of vessel, its route or prevailing weather conditions

About Michelin

Michelin, the leading mobility company, is dedicated to enhancing its clients' mobility, sustainably; designing and distributing the most suitable tires, services and solutions for its clients' needs; providing digital services, maps and guides to help enrich trips and travels and make them unique experiences; and developing high-technology materials that serve a variety of industries. Headquartered in Clermont-Ferrand, France, Michelin is present in 170 countries, has 123,600 employees and operates 71 tire production facilities which together produced around 170 million tires in 2020. www.michelin.com/en

About International Windship Association (IWSA)

The International Windship Association (IWSA) is a not-for-profit organisation with over 150 members worldwide dedicated to the promotion and facilitation of wind propulsion solutions for commercial shipping. Its aim is to bring together all stakeholders in the development of a wind ship sector to shape industry and government attitudes and policies and deliver on the unique potential of direct wind energy to help decarbonise the shipping sector. www.wind-ship.org

'Decade of Wind Propulsion' Campaign www.decadeofwindpropulsion.org

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