

## **Michelin is innovating to contribute to the energy efficiency of Citroën's Hybrid Air demonstrator**

PSA Peugeot Citroën's Hybrid Air powertrain is innovative and highly fuel efficient, and Michelin's tires have been specifically designed to deliver the same levels of innovation and superior performance.

### **4.3 grams per kilometer and 0.18 liter per 100 kilometers, such are the benefits brought by the tires to the energy efficiency of the car.**

The French carmaker has announced that the Hybrid Air demonstrator consumes 2.9 liters of fuel per 100 kilometers, with carbon dioxide emissions capped at 68 grams per kilometer. By comparison, the Citroën C3, at the same power, uses 4.5 liters of fuel for 100 kilometers and emits 104 grams of carbon dioxide per kilometer. Fuel consumption is reduced by 1.6 liters per 100 kilometers, and carbon dioxide emissions are cut by 35 grams. **On the Hybrid Air prototype, Michelin's new tires reduce carbon dioxide emissions by 4.3 grams per kilometer and fuel consumption by 0.18 liters per 100 kilometers.**

Michelin tires deliver superior performance in areas that are hard to reconcile. First and foremost, they vastly improve safety and mileage while also reducing fuel consumption.

### **"Tall & Narrow", two words which describe this innovating and very effective architecture of the tires.**

To deliver this performance, Michelin research teams developed a tire with new dimensions (165/50 R18). The choice of a narrow tire with a large diameter makes it possible to improve performance simultaneously in different areas. The vehicle's energy efficiency is enhanced thanks to the tire's lower rolling resistance and better aerodynamics; at the same time, aquaplaning resistance is also improved due to the more pronounced "ship bow" effect for narrow tires with a wide diameter. The bigger diameter also enhances comfort by more effectively absorbing irregularities in the road surface. In addition, the tire's narrower, longer contact patch reduces noise.

### **1,7kg of weight saving brought by each pneumatic tire**

Michelin has also put a lot of work into reducing tire mass, achieving a reduction of 1.7 kilograms per tire, or 6.8 kilograms for the whole vehicle. This last optimization allows the new Hybrid Air technology to fulfill its fuel saving potential.

The new Michelin tire contributes to the vehicle's modern, enhance design. Michelin research and development teams innovated in several areas. Tire sizes and structure, the materials used and the tread design were all reworked so that the Michelin prototype tire provides Citroën's Hybrid Air demonstrator with outstanding energy efficiency as well as safety and comfort.

**These new technologies could progressively be integrated into series-produced Michelin tires in the coming years.**

**Media Contact: + 33 1 45 66 22 22**

