



Smart tire

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## SMART TIRE REDUCES AIR POLLUTION

  TELECOMMUNICATIONS

### **A new concept tire uses moss and onboard electronics to reduce urban air pollution.**

Tire company [Goodyear](#) has developed a concept tire that literally brings driving to life. The tire, which was introduced at the 2018 [Geneva International Motor Show](#), is named Oxygene. It features an open structure and living moss growing within the sidewall. The design and structure of the tire allows the tread to absorb and circulate moisture. Furthermore, the moss uses this moisture to grow, absorbing carbon dioxide and releasing oxygen via photosynthesis. Goodyear estimates that if every car in a city the size of Paris carried the sidewalls, more than 4,000 tons of carbon dioxide would be absorbed by the tires every year.

According to the World Health Organization (WHO), more than 80 percent of people who live in urban areas whose air quality is measured by WHO are exposed to high levels of air pollution. This includes pollutants such as carbon monoxide and lead. The new tire was developed in response to this. According to Chris Delaney, President of Goodyear Europe, Middle East and Africa, “Smarter, greener infrastructure and transport will be crucial in addressing the most pressing challenges of urban mobility and development”. The Oxygene tire is designed to encourage people to think more about how to solve these challenges.

The Oxygene tires are 3D-printed with rubber powder made from recycled tires. They use the energy generated by the moss during photosynthesis to power electronics. This includes onboard sensors, an AI processing unit and lights that change colours to warn of upcoming lane changes. Oxygene uses a visible light communications system to allow for high-capacity mobile connectivity.

This could enable the tire to connect with smart mobility management systems. We have seen several other products designed to help drive the debate around smart and sustainable future mobility, including a **futuristic** way to combine travel and hotel stays and an **electric plane**. Do products like the Oxygene tire also represent practical solutions to urban air pollution?

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