

German scientists unveil 'intelligent' tyre for all weather

24 April 2012



Are you fed up of having to change your summer tyres for winter tyres at the first sign of snow? Or of being caught out on a long car journey by sudden changes in the weather? That may soon be a thing of the past, according to a group of researchers at Leipzig university.

Are you fed up of having to change your summer tyres for winter tyres at the first sign of snow? Or of being caught out on a long car journey by sudden changes in the weather?

That may soon be a thing of the past, according to a group of researchers at Leipzig university, who are developing the world's first-ever "intelligent" tyre which automatically adapts itself to the prevailing [weather conditions](#) even while you are driving.

A team of researchers headed by Detlef Riemer at the University of Applied Sciences in Leipzig unveiled the "adaptive tyre" at this year's Hanover Fair, the world's biggest industrial fair taking place in the north German city this week.

"Today's choice of tyres are always a compromise between the ability to brake and petrol consumption," Riemer said.

"The [car](#) driver has to take into consideration every sort of weather condition and you can't change tyres while you're driving."

But Riemer's "adaptive tyre" is equipped with electronic sensors which recognise different sorts of terrain -- whether [motorway](#) or un-tarmacked roads -- and whether it's dry, raining or snowing.

And accordingly, the tyres' profiles are automatically raised or widened accordingly, even when the car is in motion.

"That means your car is always equipped with the best possible tyre and noise and petrol consumption are automatically optimised, too," Riemer enthused.

"The driver no longer has to think about adapting their tyres. The tyre itself 'thinks' too."

The tyre is still a long way from a finished product and research is still ongoing, notably on the materials that can be used for the moveable parts of the tyre's profiles.

"But we've patented it already, just in case," Riemer said.

(c) 2012 AFP

APA citation: German scientists unveil 'intelligent' tyre for all weather (2012, April 24) retrieved 27 November 2022 from <https://phys.org/news/2012-04-german-scientists-unveil-intelligent-tyre.html>

This document is subject to copyright. Apart from any fair dealing for the purpose of private study or research, no part may be reproduced without the written permission. The content is provided for information purposes only.