## VAUD

# TYRE RECYCLING SOLUTIONS

A canton of Vaud's success story

## AN ECO-FRIENDLY SOLUTION FOR RECYCLING TYRES

Tyre Recycling Solutions transforms used tyres into a powder for multiple industrial applications. The Vaud-based company now exports its expertise to the Middle East, China and Eastern Europe.



TyreXol, the substance produced by TRS could replace 15% to 20% of the natural rubber or polyurethane currently used to make new tyres and moulded car parts.

Billions of used tyres are piling up in landfill sites around the world. When burnt, they release substances that are extremely toxic for both humans and the environment. To solve the problem, Tyre Recycling Solutions (TRS) has developed a unique tyre recycling process that transforms the rubber into a powder for a range of industrial uses. Founded in 2013, the company currently employs 15 highly skilled people at its headquarters in Préverenges, where its R&D laboratory is also located.

TRS integrates three patented innovations into its recycling process. First, a machine cuts the tyre into three flat parts. These parts are then pulverised using a high-pressure water jet until the metal, synthetic fibre and rubber separate. The first two materials go straight to sale on the market. The third is sold in powder form. The company is also developing an original R&D biotechnological project that uses bacteria to "devulcanize" the rubber powder. In other words, the sulphur bonds between the chains of rubber molecules are broken to make the powder easier to blend with other materials. 2013 year the company was founded

CHF 800-1,000

resale price per ton of TyreXol powder

### **CHF 18 million**

funds raised since 2013

3,150 sq. m surface area of the Yvonand plant



9A, Z.I. Le Trési CH-1028 Préverenges www.trs-ch.com TyreXol, the substance produced by TRS could replace 15% to 20% of the natural rubber or polyurethane currently used to make new tyres and moulded car parts. The product can also be applied to manufacture industrial cables or waterproof seals and gaskets, and can even be used in making soles in footwear. TyreXol is sold at 800 to 1,000 Swiss francs per ton, a relatively high price on the rubber market.

However, the product by TRS is expected to benefit from the increasing environmental awareness of new generations of consumers. "The market for sustainable and recyclable products is growing fast because entrepreneurs are starting to realise how profitable cleantech can be," says Staffan Ahlgren, CEO and co-founder of TRS.

#### Expansion in Switzerland and abroad

With the support of the Foundation for Technological Innovation (FIT), TRS currently has significant growth potential. Since 2013, the company has raised nearly 18 million Swiss francs. It will soon open a test facility in Yvonand. "The 3,150 sq. m plant will show investors and buyers the possibilities offered by our technology."

The startup is also working on exporting its industrial process outside Switzerland, with plans to open a plant in the Middle East next year. In parallel, TRS has launched a strategic partnership with a Chinese group active in the environment and recycling in Asia, featuring a project to build 50 plants in China by 2028.

#### "Our company was created in the canton and we plan to stay here. The quality of life in the region is a considerable advantage for our employees."

Staffan Ahlgren, CEO and co-founder of TRS



The company's headquarters in Préverenges.

#### INVALUABLE SUPPORT FROM ECONOMIC PROMOTION

Tyre Recycling Solutions (TRS) readily speaks of its attachment to the canton of Vaud: "Our company was created in the canton and we plan to stay here," says Staffan Ahlgren, CEO and co-founder of TRS. "The quality of life in the region is a considerable advantage for our employees." The Swedish-born entrepreneur came to the canton of Vaud in the 1970s. He first worked in finance before setting up his tyre recycling company. He feels that the ecosystem in the region, which thrives on a climate of innovation, promotes economic activity: "Entrepreneurs must work in networks and help each other out. The canton encourages and supports these discussions. Some companies sponsor startups within their infrastructure, and we benefited from that backing when we started out. As a result, many innovative startups are launched in the region every year." Staffan Ahlgren also highlights the "strength and quality of the region's schools, in particular École Polytechnique Fédérale de Lausanne (EPFL), which is a real asset for entrepreneurship. In fact, most of our employees are engineers who were educated at this top school."



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