

Press Release



Stuttgart, September 2025

10,000 km across Southern Europe with an almost climate-neutral diesel

The engineers of eFuelsNow completed a trip running exclusively on synthetic HVO/XTL diesel fuel. An Alfa Romeo 159 covered 10,131 km across Europe. eFuelsNow is an association of engineers who dedicate their free time to the topic and have successfully created an HVO filling station map. In September 2025, the map had already reached more than 5.5 million views and listed over 17,000 filling stations. With the help of the map, the journey was completed with a CO₂ reduction of up to 90% ($\approx 21\text{g CO}_2/\text{km}$).

The trip started near Stuttgart and continued through Switzerland, Italy, France, Spain, Gibraltar, and on to Portugal. In total, 11 countries were crossed. By the end of the tour, the Alfa Romeo had even surpassed the 400,000 km mark. The total distance of exactly 10,131 km is comparable to the average annual mileage of a passenger car – or the flight distance from Vienna to Los Angeles. This long journey demonstrates the reliability and the availability of the fuel.



Tour vehicle with an impressive Lifecycle Record – Without official HVO approval

The Alfa Romeo 159 2.0 JTDM (2011) has covered almost half of its now well over 400,000 km with HVO100. In August 2025, around 230,000 km were driven only with HVO100 – a distance nearly six times around the equator. Although the manufacturer has published no official HVO/XTL approval for the engine, there have never been any problems. Fuel producers such as Neste confirm that their product is suitable for all diesel engines. In addition, the engine runs more smoothly, responds more dynamically, and burns much cleaner. During the trip, 10,131 kilometres were covered using HVO, which is equivalent to the flight distance from Vienna to Los Angeles, but with a significantly lower carbon footprint.

Energy for over 1100 km range – refueled in less than two minutes

Many drivers are not aware that gasoline and diesel fuels have an unrivaled energy density. This allows an extremely high pump performance on petrol stations and extremely short refueling stops. A standard passenger car is filled at 35 liters per minute at regular pumps. This corresponds to an output equivalent to 18,000 kW and a filling time of under 2 minutes for a 65-liter tank. After that, the car is ready again for another 1,100 climate-friendly kilometers. For the entire 10,131 km journey, the car spent just under 60 minutes at filling stations. With full use of its range, refueling could even have been completed in about 35 minutes (including payment and walking time). In terms of price, HVO diesel fuel in Italy was on par with conventional diesel, and in some cases even 5 to 10 cents cheaper. In Spain, it was only about 5 to 10 cents more expensive. Over the entire trip, the average price was €1.67 per liter – still 15 cents less than during the previous tour.

What exactly is HVO?

The fuel is produced from a wide variety of biogenic waste materials. These do not necessarily have to be used cooking oils or fats of plant origin. Various feedstocks are suitable, such as forestry residues, by-products from the fish and paper industries, and more. The list of usable materials is long. The key is that the waste contains no fossil carbon. The CO₂ reduction results from the principle of the natural CO₂ cycle. Dr. Olaf Toedter, project manager for reFuels at Karlsruhe KIT, emphasizes that HVO is not an e-fuel. However, both HVO and e-fuels are **refuels**. As diesel they comply with the standard for synthetic diesel fuels (DIN EN 15940). In terms of quality, HVO surpasses its fossil predecessor in almost all respects. It is only about 6% lighter. Dr. Toedter also stresses that HVO must not be confused with biodiesel: it is odorless, usually clear like water and burns significantly cleaner.



High power efficiency

Prof. Dr. Thomas Willner from HAW Hamburg is also working in fuel research. He underlines the extremely high efficiency. In fact, driving with HVO is more power-efficient than with an electric vehicle, since waste already contains a large amount of energy. That's why only very little electricity is required during the refinery process. Diesel fuel is automatically produced as a co-product during the refinery of jet kerosene.

Huge network with HVO100 stations along the entire route to Lisbon

The European HVO network is steadily expanding. At the time of the trip in June 2024, an HVO100 station was registered about every 30 km within a 5 km corridor on both sides of the route. A new count in September 2025 showed that a station could already be found every 18 km. The number of stations in Europe had almost doubled during the same period. It is also evident that large amounts of HVO are already covered through blending. In Norway, up to 40% HVO is already mixed into standard diesel. In California, by the end of 2024, about 65% of the entire diesel market was already covered by HVO. The conventional diesel standard (DIN EN 590) only permits a maximum of around 26% HVO. But there have never been any problems with not approved engines. The impressive ramp-up of the filling station network and the high blending quotas clearly contradict prevailing narratives that claim HVO is problematic for older engines or not scalable.

HVO is an important step for a climate-friendly future

Prof. Willner and Dr. Toedter repeatedly emphasize that there is a large amount of unused waste. They point out that there is a global waste problem. The high nationwide shares of HVO and the rapidly growing supplier network demonstrate the possibilities for further scaling. According to an estimate by Neste, if all residual materials were utilized at full capacity, around 1,000 megatons of these climate-friendly fuels could be produced annually. This corresponds to around 40% of global transport demand (road, shipping, and aviation). These figures are also consistent with Prof. Willner's findings. In addition, according to a study available to Willner, there is further HVO potential of around 200 megatons per year from Jatropha. Jatropha grows in desert-edge regions on marginal soils where nothing else thrives. This amount of HVO from Jatropha oil could cover the entire fuel demand of the EU.

Technical information and education are essential

Dr. Toedter and Prof. Willner underline the importance of technical education. They are aware that not everyone welcomes defossilized fuels at filling stations. Perhaps for this reason, some incorrect arguments are repeatedly communicated. And this is leading to delays and missed climate targets. The scientists are therefore working together with the engineers of eFuelsNow.

Who is eFuelsNow?

The members of the association are committed to market-based climate protection. Climate targets can only be achieved with people – since ultimately, they are the ones who must implement climate protection measures into their life. Therefore, it is essential to listen to the customer. It is not about being for or against a particular technology. The goal is to be allowed to use ALL solutions so that EVERY driver has a practical way forward. Climate protection also requires funding from a functioning industry with flexible and efficient passenger and freight transport. Only in this way can modern GreenTec innovations be financed. What matters is the energy, not the drivetrain. The engineers therefore call for a higher blending quota. Otherwise, cars will simply continue running on fossil fuels.

Travel report and media sources

The detailed tour analysis can be found at this link:

https://efuelsnow.de/hvo-tours/italy_and_southern_europe

Film of the Journey

<https://www.youtube.com/watch?v=nafFtmQMxr4>

The current HVO Station map can be found here:

<https://efuelsnow.de/tankstellen-karte>



(End of the text)

Contact and Note:

Important: Please make sure to include the links provided in the publication! Further press images are available on the website. For questions: info@efuelsnow.de

If you have any questions: info@efuelsnow.de
