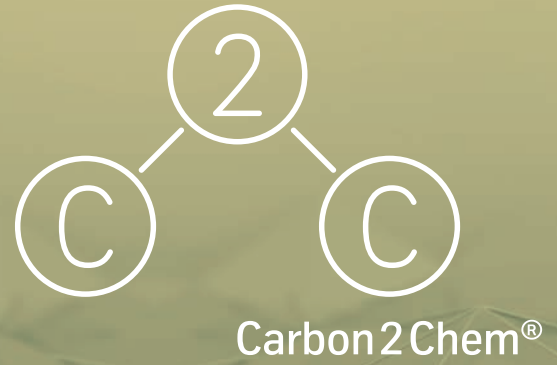


Subproject L-VIII

# eMETHANOL CAR

## Project content for the period 2021 to 2025



### PROJECT AIMS

There are currently around 1.4 billion vehicles in existence across the world, and the number of new vehicles is expected to grow by approximately 100 million annually over the next few years.

To minimize the impact this will have on the environment, a shift in the technology that vehicles use is essential.

Battery-driven vehicles, a range of hybrid systems and fuel cell propulsion have already reached the market, but none of them have asserted a dominant position as yet. One major reason for this is the procurement costs associated with these systems. Not only that, but there is too little potential available for making environmental savings, as hybrid systems are not efficient enough and battery manufacturing causes electric vehicles to produce a negative life cycle assessment.

For this reason, the key aim here is to develop a vehicle that is cost-effective for end consumers and has a highly efficient, carbon-neutral propulsion system.

### PROJECT CONTENT

The project involves developing a serial hybrid propulsion system in ten Tesla Model Y demonstration vehicles and equipping the vehicles with a CO<sub>2</sub>-reduced propulsion system driven by “green” fuels such as eMethanol and a methanol derivative (A21). The aim is to demonstrate the system’s suitability for everyday use through the demonstration vehicles.

The development work is seeking to achieve procurement and operating costs that are lower than or, at the very least, on a par with conventional propulsion systems to make the technology affordable to the average citizen across the world.

To ensure that the propulsion system can be brought to market quickly, it will need to be adapted to the existing fuel infrastructure.

The project also involves development adaptations and optimizations of the system components designed for use with eMethanol and A21, plus optimizations and efficiency improvements in the hybrid system.

Fundamental investigations into the use of eMethanol and A21 as a global energy source for use in all methods of transport are also being undertaken

### MILESTONES

- From 04/2022: First demonstration vehicles put into daily use
- From 04/2023: Additional demonstration vehicles put into daily use with the results achieved so far

### PROJECT PARTNERS

- OBRIST DE GmbH (coordinator)
- RWTH Aachen University
- Technical University of Munich
- Technical University Dresden