

Welcome to the second CEVOLVER project newsletter

Dear reader,

Since beginning of last year, we find ourselves in a very challenging situation due to the COVID-19 pandemic. We faced a lockdown in springtime 2020, which had CEVOLVER partners also suspending much of their project activities, and suppliers were not able to deliver basic parts for prototype vehicle build-up. A second project lockdown by the end of 2020 was prevented by extensively taking advantage of home office possibilities.

Despite the difficult circumstances, we were able to make good progress in key project areas. We finalized the base CEVOLVER software architecture and developed virtual simulation framework by using a base vehicle model. This model enables us to develop advanced energy and thermal management strategies, such as ecorouting, eco-driving, assured charging, predictive thermal management, and smart fast charging. We achieved further significant progress in building a Ford demonstrator vehicle. This vehicle is used for testing, developing, and validating the CEVOLVER commercial vehicle use cases.

With the results obtained, the CEVOLVER project will continue to make a significant contribution to the E-VOLVE Cluster projects.

We hope you enjoy reading this newsletter,

Mark Engelen

Insight into the setup of the simulation framework by VUB

CEVOLVER aims at both minimizing the energy consumption and providing more confidence to the user of an electric vehicle. The latter is achieved by preventing low battery situations via optimal trip planning that includes the schedule of charging processes as well as the energy-optimal trip. To this achieve this purpose, CEVOLVER project has developed a connected virtual simulation framework that allows the development of advanced energy and thermal management strategies (i.e. eco-routing, eco-driving, assured charging, predictive thermal management, and smart fast charging). <u>Read more...</u>

Project Partners



General Assembly and Review meeting

Since we live in a different world now due to COVID-19 we had to get used to online meetings. For the CEVOLVER project this meant that we had to have our Partner meeting

(our 3rd General Assembly Meeting) and our European Commission Review meeting online. Both meetings went very well. In the meantime, we received a very positive review back from the European Commission!





Demonstrator Vehicle by FORD

Ford's main task in the project is the development of a demonstrator vehicle system through a user-centric approach, selection and rightsizing of



components and integration of novel connected control strategies and functionalities. For that purpose, commercial vehicle specific user scenarios and use cases were defined in a first step, considering EU typical boundary conditions as e.g. temperature ranges, velocity profiles, range requirements and charging infrastructure characteristics. Based on this framework, relevant strategies and thermal system components are analyzed and the most promising ones are selected for implementation in the demonstrator base vehicle, which is a Ford Transit Van with battery electric propulsion system. <u>Read more...</u>



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