

Project Summary

Clean Motion Offensive (CMO)

FFG no. 829.100

Synopsis:

The technical beacon project Clean Motion Offensive (CMO) aims to develop cost-efficient components for E-vehicles and provide an easy manageability of the charging infrastructure. Furthermore, CMO focuses on the development of business models, where electro mobility can be deployed in fleet applications today.

Abstract

The motivation behind the project is to produce technological innovations in electro mobility that are cost-efficient and easy applicable. On the one hand, this is done by using material that is abundantly available, which can be offered at a competitive price. Moreover, due to the high initial purchase costs of electric vehicles, intelligent fleet applications are of high demand. Energy providers will respond to the increased demands by developing an intelligent load management to prevent capacity overload, as well as provide easy-to-use applications for the customer to reduce barriers.

In order to achieve the project team's ambitious goals, the following development objectives will be pursued. Regarding CMO's **cost-efficient components**, a multifuel Range Extender on the edge of serial production and a Fly Wheel, recuperating braking energy will be developed, followed by on-road tests after the vehicle integration. A software box ("SEM-Box") will be available to provide data about serial user interfaces. Furthermore, an inductive charging interface will be installed on a test vehicle which is the physical interface to for intelligent **load management**. Each participant (e-vehicle, charging station, power grid) can provide data specified regionally and based on the situation with a high or low level of quality. Both the components as well as the load management and charging infrastructure will be tested in fleet test applications, for which **business models** will be developed.

The next steps will be the vehicle system integration, during which the energy cubes will be installed into a test vehicle, which makes it possible to have them tested in real-life applications. Simultaneously, the infrastructure system integration will be completed. The joint result of the technical beacon project Clean Motion Offensive at the end of the project will be the conclusions drawn from the analyses of the various results, which will be discussed together. With these analyses, a reverse breakdown can be made for these technological innovations, and further steps can be taken to reach the next development stage towards future series production. It is the partnership's aim to develop valuable, sustainable solutions for series production that can be distributed to international customers in the near future. The combined results at the end of the project will be of significant importance for the developments in electromobility. Specifically, this programme aims to strengthen Austria's position as a relevant supplying industry for OEM's in the field of electromobility.

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