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Connected Electric Vehicle Optimized for Life, Value, Efficiency and Range

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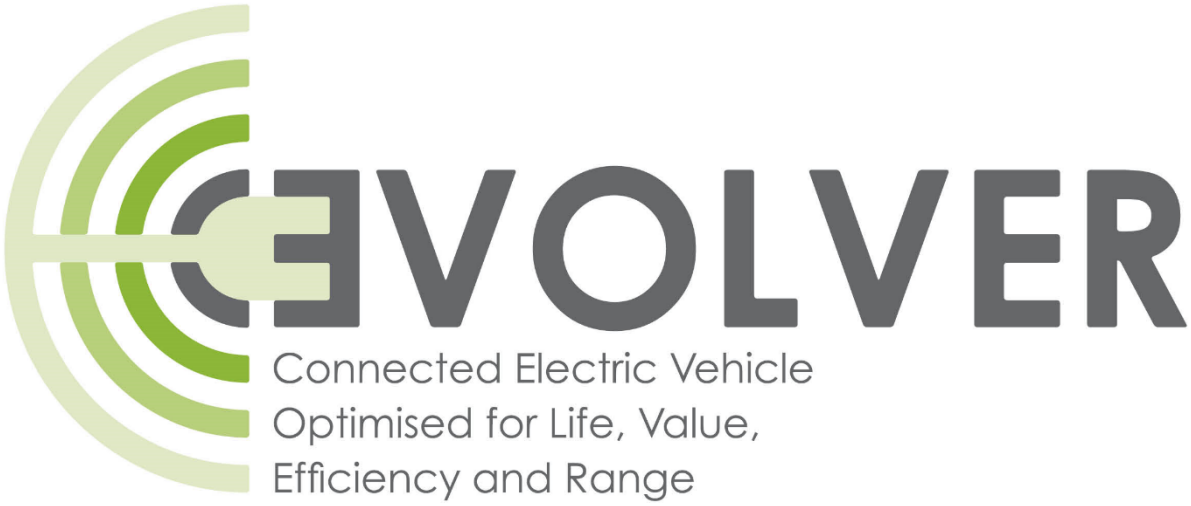

CEVOLVER – Deliverable Report

D2.2. Report on base vehicle model with parametrization for flexible powertrain sizing and design

Deliverable No.	CEVOLVER D2.2	
Related WP	WP2	
Deliverable Title	Report on base vehicle model with parametrization for flexible powertrain sizing and design	
Deliverable Date	2020-05-20	
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Publishable summary

CEVOLVER focuses on a leap forward in user's confidence, functionalities and energy efficiency of future electric vehicle while ensuring their affordability by a user centric development approach.

This work package concerns the development of a virtual simulation framework that allows to develop advanced energy and thermal management strategies using connected information for different functional architectures of the thermal system. The simulation framework will be used in early phases to aid in the sizing of components for the demonstrator vehicles by supporting the engineering decisions. The framework will also use connected information in a later phase to develop the advanced energy and thermal management strategies to be implemented and tested in the demonstrators. Where needed, the simulation framework will also serve to compensate (explain and quantify) performance differences in the demonstrator vehicles caused by noise factors in environmental conditions (between reference and validation tests on the road). Similarly, it can be used to compare and superimpose performance gains of different versions of the demonstrator vehicles when all functionalities are not established in full scale in all the demonstrator vehicles.

This deliverable reports on the setup and parametrization of the base vehicle model. The outcome of this task is a model of an entire base vehicle, that can be used in the other work packages as a powertrain sizing tool for the CEVOLVER demonstrators and for the development of advanced energy and thermal strategies.

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Project partners:

#	Partner	Partner Full Name
1	FEV	FEV Europe GmbH
2	BOSCH	Robert Bosch GmbH
3	FORD	Ford-Werke GmbH
5	IFPEN	IFP Energies Nouvelles
6	RWTH	Rheinish-Westfaelische Technische Hochschule Aachen
7	VUB	Vrije Universiteit Brussel
8	UNR	Uniresearch BV
9	I2M	I2M Unternehmensentwicklung GmbH
10	RBOS	Robert Bosch AG
11	CRF	Centre Richerche Fiat

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