



Two-Session-Clustering Workshop

17.02.2021 | SESSION 1: Short introduction of QUIET

Presenter:

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AUSTRIAN INSTITUTE
OF TECHNOLOGY

HONDA



Fraunhofer
IFAM



SeatTec
Sitztechnik GmbH



QUIET - QUalifying and Implementing a user-centric designed and Efficient electric vehicle

GENERAL INFORMATION

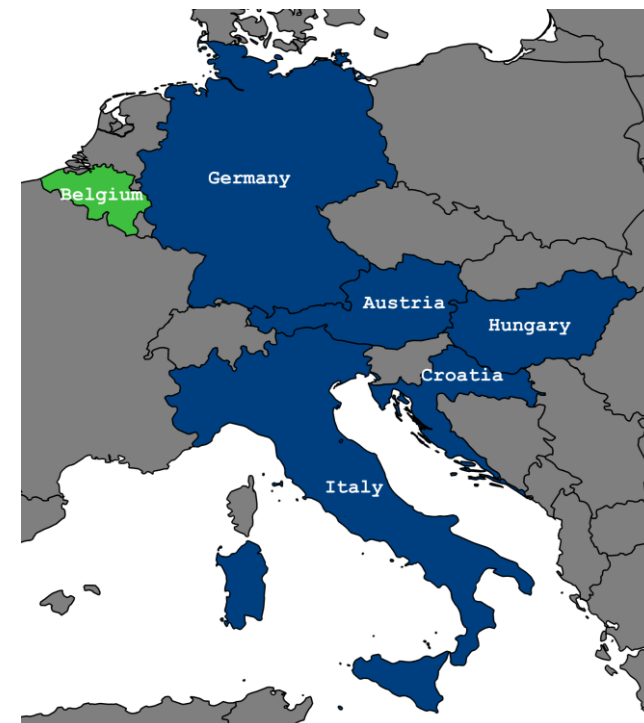
- Topic:
Electric vehicle user-centric design for optimised energy efficiency
- Topic identifier:
GV-05-2017
- Type of action:
RIA Research and Innovation Action
- Project Coordination:
Dragan SIMIC (AIT Austrian Institute of Technology GmbH)
- Grant agreement number:
769826
- Project acronym:
QUIET
- Project total cost and total EU contribution
6,998,955.00 EUR

QUIET - QUalifying and IMplementing a user-centric designed and EFFicienT electric vehicle

CONSORTIUM PARTNERS

List of Participants

Participant No*	Participant short name	Participant organisation name	Country
1 Coordinator	AIT	AIT Austrian Institute of Technology GmbH	Austria
1a	AIT/LKR	LKR Leichtmetallkompetenzzentrum Ranshofen GmbH	Austria
2	HRE-G	Honda R&D Europe (Deutschland) GmbH	Germany
3	AVL	AVL List GmbH	Austria
4	QPD	AVL Thermal & HVAC	Germany
5	VEN	VENTREX Automotive GmbH	Austria
6	UOZ	University of Zagreb	Croatia
7	IFAM	Fraunhofer Institute for Manufacturing Technologies and Advanced Materials IFAM	Germany
8	ATT	ATT advanced thermal technologies GmbH	Austria
9	ECON	eCon Engineering Kft.	Hungary
10	RUB	Rubitherm Technologies GmbH	Germany
11	STS	SeatTec Sitztechnik GmbH	Germany
12	OBR	Obrist Engineering GmbH	Austria
13	JRC	Joint Research Centre - European Commission	Italy



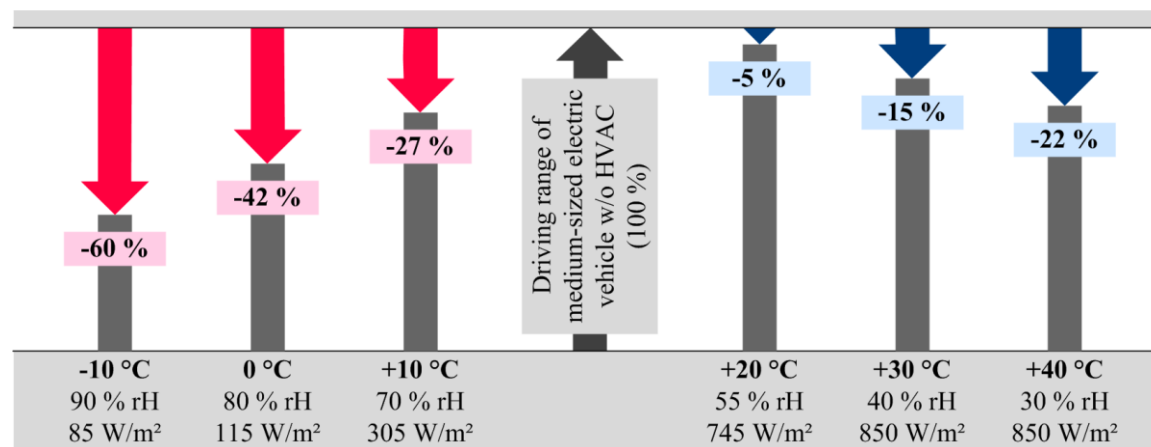
* The same participant numbering as used in the administrative proposal forms.

QUIET - QUalifying and Implementing a user-centric designed and Efficient electric vehicle

MOTIVATION

- **Limited driving range** of the e-vehicles compared to conventional fuel vehicles
- **High energy consumption** of **auxiliary** components and modules
 - **Heating** and **Air Conditioning** systems
 - 60% reduction of driving range in cold weather conditions

- Reduction of global CO₂ emission
- Increase of passenger comfort



Sources: U.S. Department of Energy, "Vehicle Systems 2015 Annual Report", DOE/EE-1304, January 2016, www.vehicles.energy.gov.

QUIET - QUalifying and Implementing a user-centric designed and Efficient electric vehicle

PROJECT AREAS & OBJECTIVES

AREA I

expected **energy** reduction through
thermal and energy management
10 %



AREA II

expected **weight** reduction of
lightweight vehicle components
20 %



AREA II

expected **weight** reduction of
lightweight seats
10 %



Al / Mg

vehicle validation platform

(B-segment Honda Fit EV)



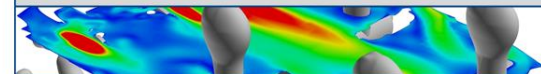
AREA III

expected **energy** reduction through
optimized cabin heating
10 %



AREA III

expected **energy** reduction through
novel AC with PCM storage
15 %



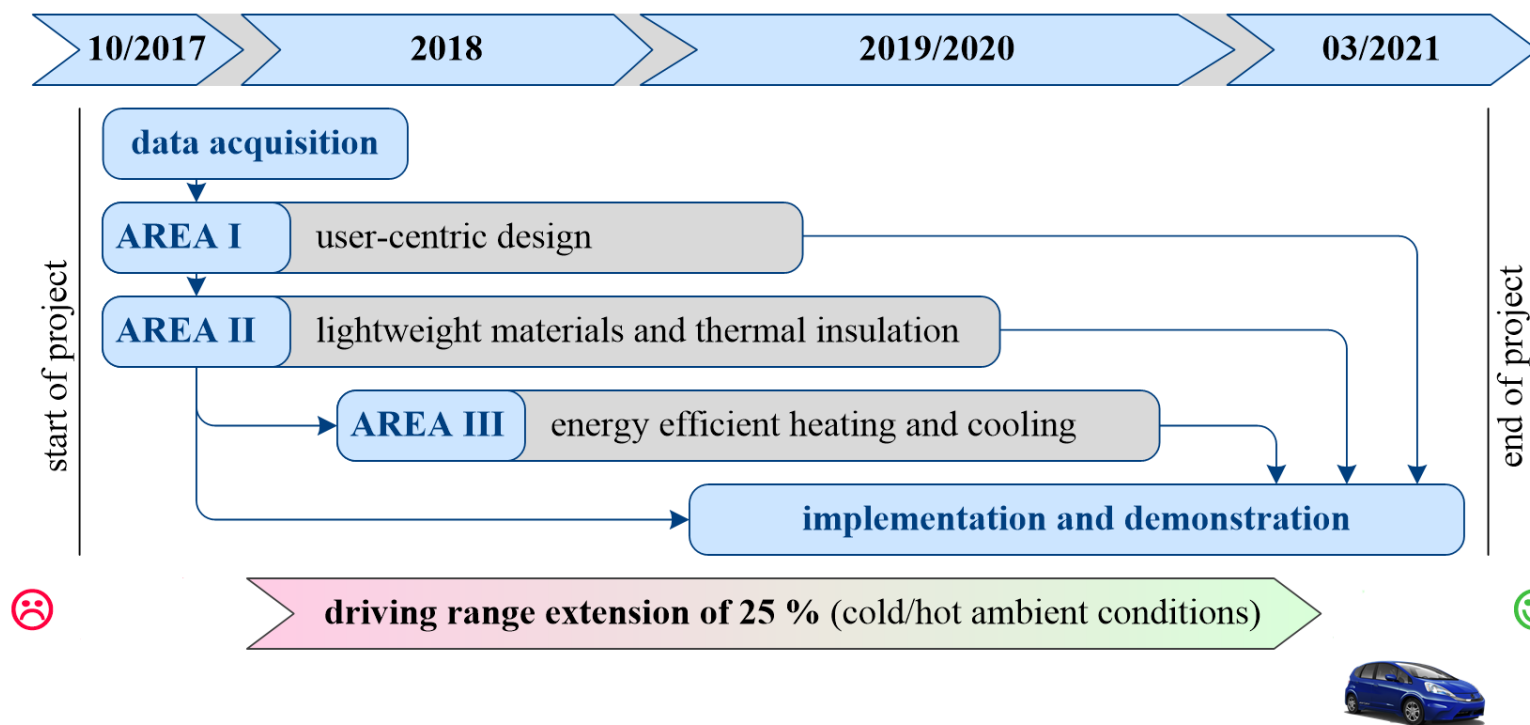
AREA II

expected **weight** reduction of
lightweight windows
30 %



QUIET - QUalifying and Implementing a user-centric designed and Efficient electric vehicle

PROJECT TIMELINE



Get in touch with the QUIET consortium!

www.quiet-project.eu

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