Consortium

Sintef
www.sintef.no

Johnson Matthey Fuel Cells Ltd
www.matthey.com

Chemnitz University of Technology
www.tu-chemnitz.de

Fuel Cell Powertrain
www.fuelcellpowertrain.de

Bayerische Motoren Werke
www.bmwgroup.com

Pretexo
www.pretexo.com

University of Freiburg
IMTEK
www.imtek.de

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camelot

UNDERSTANDING CHARGE, MASS AND HEAT TRANSFER IN FUEL CELLS FOR TRANSPORT APPLICATIONS

About the CAMELOT project ...

The FCH 2 JU funded **CAMELOT** project brings together highly experienced research institutes, universities, fuel cell membrane electrode assembly (MEA) suppliers and transport original equipment manufacturers to **improve understanding of the limitations in fuel cell electrodes**.

This will enable the partners to **improve the power density of fuel cells** and **provide guidance on the next generation of MEAs** required to achieve 2024 performance and costs targets.

www.camelot-fuelcell.eu

Overall objectives

Improve the power density of fuel cells by understanding the limitations on the performance of MEA.

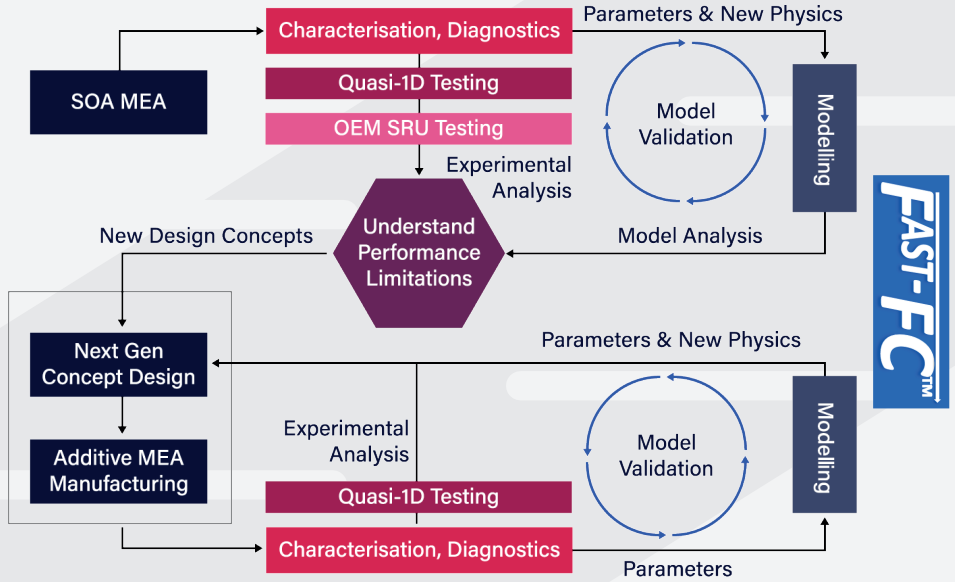
Objective 1: Identify the fundamental transport properties that limit performance in SoA and prototype beyond-SoA MEAs and materials.

Objective 2: Extend a leading open source model to enable the accurate simulation of SoA MEAs using automotive SRU Hardware.

Objective 3: Produce MEAs with features that have the potential to enable disruptive performance increases and to validate the open source model for beyond-SoA MEAs.

Objective 4: Propose new beyond-SoA MEA designs in automotive SRU geometries that address SoA performance limitations and provide simulation tools that guide rational development of new MEA concepts.

CAMELOT will use a combination of numerical modelling and advanced in situ characterisation techniques to build a scientific understanding of the limitations on SoA MEAs. The overall Concept of CAMELOT is illustrated in the scheme below.



***MEA**: Membrane Electrode Assembly*
***SoA**: State of the Art*
***OEM**: Original Equipment Manufacturer*
***SRU**: Single Repeat Unit*