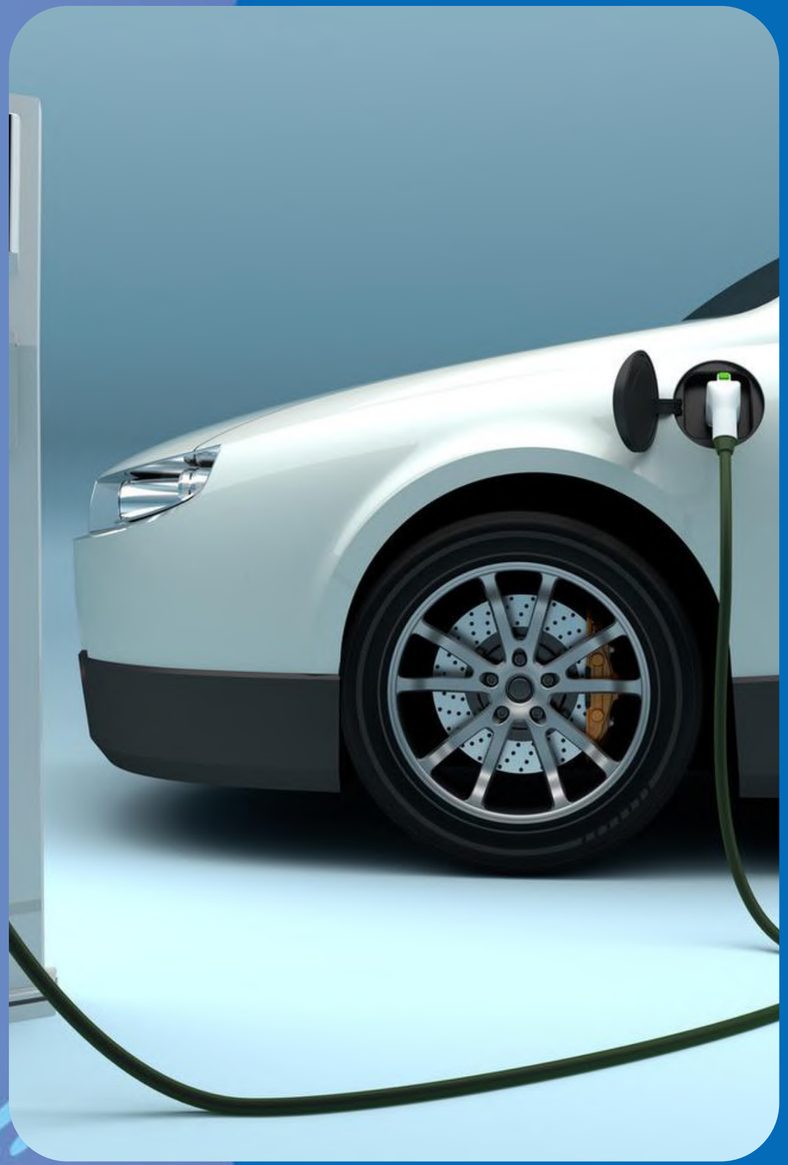
# FASTEST



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# About:

The FASTEST project aims to develop and validate a fast-track testing platform able to deliver a strategy based on Design of Experiments (DoE) and robust testing results, combining multi-scale and multi physics virtual and physical testing. This will enable an accelerated battery system R&D and more reliable, safer and long-lasting battery system designs.

The project's prototype of a fast track hybrid testing platform aims for a new holistic and interconnected approach. From a global test facility perspective, additional services like smart DoE algorithms, virtualised benches, and DT data are incorporated into the daily facility operation to reach a new level of efficiency.

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WP1: Specifications and use case definition

WP2: Design of Experiments & boundary conditions

WP3: Advanced battery ageing and performance modelling

WP4: Battery safety and reliability AI-powered toolchain

WP5: Digital Twins for Hybrid Test in Battery Development

WP6: Development of hybrid testing platform

WP7: Dissemination, Exploitation and Communication

WP8: Project Management

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5 To stocktake and propose efficient DoE strategies.

4 To set up a Digital Twin (DT) information management architecture.

3 To develop and validate physics-based and data-driven models for simulating and substituting critical physical characterisation experiments.

2 To lay down the pathway for results' exploitation and dissemination.

1 To develop and test a fast-track hybrid testing platform.

# IMPACT

**20%**
LESS OPERATING TIME

**40%**
SAFETY, RELIABILITY AND PERFORMANCE VIRTUALIZATION RATIO

**3**
DIGITAL TWIN DEMONSTRATORS

**50MS**
FASTER COMPUTATIONAL TIME

# IMPLEMENTATION

DESIGN OF EXPERIMENTS & BOUNDARY CONDITIONS

SPECIFICATIONS AND USE CASE DEFINITIONS

ADVANCED BATTERY AGEING AND PERFORMANCE MODELING

BATTERY SAFETY AND RELIABILITY AI-POWERED TOOLCHAIN

DIGITAL TWINS FOR HYBRID TEST IN BATTERY DEVELOPMENT

DEVELOPMENT OF HYBRID TESTING PLATFORM


ABEE
AVESTA BATTERY & ENERGY ENGINEERING
fev
BMZ
THE INNOVATION GROUP
COMAU
FLASH ®
BATTERY
FLANDERS
MAKE
ikerlan
MEMBER OF BASQUE RESEARCH
& TECHNOLOGY ALLIANCE
Sustainable
INNOVATIONS®
Univerza v Ljubljani
VTT
Mondragon
Unibertsitatea
UNIVERSITY OF
SURREY
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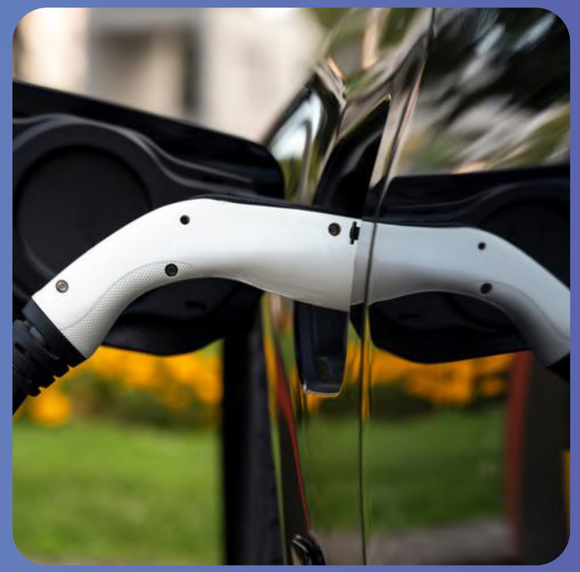
# Get Connected



## WEB

**WWW.FASTESTPROJECT.EU**

## LINKEDIN

**FASTEST-PROJECT**

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# Thank You!

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