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**Situationally Aware Innovative Battery Management
System for Next Generation Vehicles**



InnoBMS - Deliverable report
D7.2 - Initial Data Management Plan



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Document History

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V1.0	2024/05/15	Ashleigh Hruz (VUB)	Initial draft
V1.1	2024/06/06	All partners	Inclusion of input from all partners; draft for review
V1.2	2024/06/25	BOSCH-RO, VUB	Version including adjustments after review
V1.3	2024/06/27	UNR, VUB	Version including adjustments after review
FINAL	2024/06/27	VUB	Submitted

Project summary

The core objective of InnoBMS is to develop and demonstrate (TRL6) a future-ready best-in-class BMS hard- and software solution that maximizes battery utilization and performance for the user without negatively affecting battery life, even in extreme conditions, whilst continuously maintaining safety. Concretely, the InnoBMS proposal will deliver a 12% higher effective battery pack volumetric density, a 33% longer battery lifetime and a demonstrated lifetime of 15 years. The results will be demonstrated using novel testing methods that give a 36% reduction in the testing time of a BMS. The results will be demonstrated in two use cases, one light commercial vehicle (Fiat Doblo Electric) and one medium-duty van (IVECO eDaily). The key outcomes will enable a cost reduction of 12% and 9.7% for passenger cars and light-duty vehicles, respectively. The core objective will be achieved through five technical objectives. 1) advanced hybrid physical and data-driven models and algorithms to enable a flexible and modular BMS suitable for a wide range of batteries. 2) Software for a fully connected and fully wireless BMS that acts as a communication server inside the vehicle E/E-architecture, the center of connection, on-board diagnostics, and decision-taking for all battery-related information. 3) A scalable, fully wireless, and self-tested BMS hardware that enables using different battery sizes at different operating voltage levels, and smart sensor integration. 4) Better battery utilization and exploitation using cloud-informed strategies and procedure. 5) A heterogeneous simulation toolchain and automated test methods.

Publishable summary

The Initial Data Management Plan (DMP) outlines a description of the data that will be generated, the standards and methods used, as well how data will be exploited or shared. This document will serve as a reference to all consortium members; it is a living document that will be updated throughout the lifetime of the project as significant changes in the management of data come about.

7 Acknowledgement

7.1 The consortium

The author(s) would like to thank the partners in the project for their valuable comments on previous drafts and for performing the review.

Project partners:

#	Partner short name	Partner Full Name
1	VUB	Vrije Universiteit Brussel
2	TOFAS	TOFAS Turk Otomobil Fabrikasi Anonim Sirketi
4	AVL	AVL List GmbH
5	AVL-SFR	AVL Software and Functions GmbH
6	IDIADA	Idiada Automotive Technology SA
7	CID	Fundacion Cidetec
8	UL	Univerza v Ljubljani
9	THIL	Tajfun Hil Društvo sa Ograničenom Odgovornošću za Istraživanje, Proizvodnju, Rgovinu i Usluge Novi Sad
10	UNR	Uniresearch BV
11	FMF	FPT Motorenforschung AG
12	PTE	Potenza Technology Limited
13	BOSCH-RO	Robert Bosch SRL

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