

The Partners

Contact us:

Project Coordinator



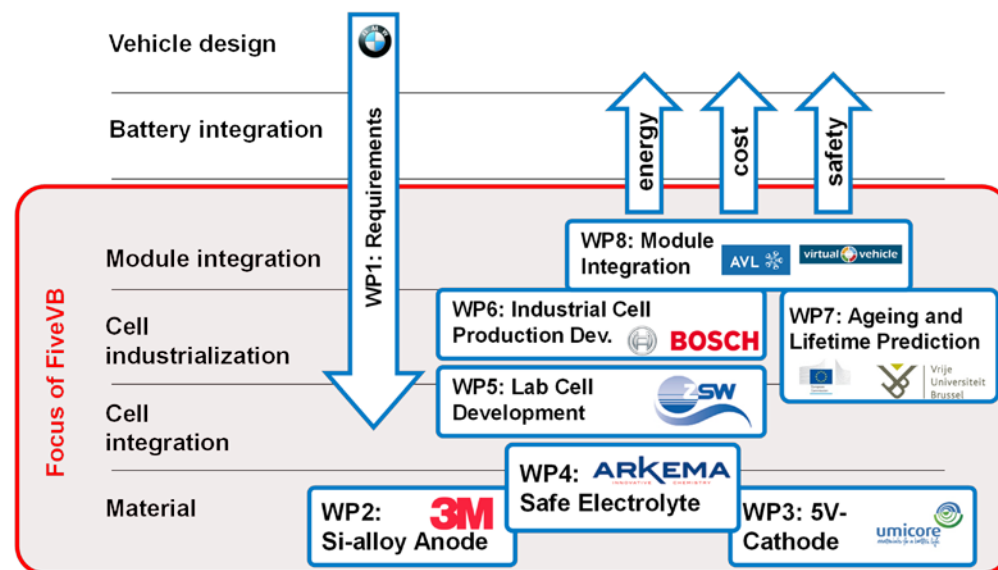
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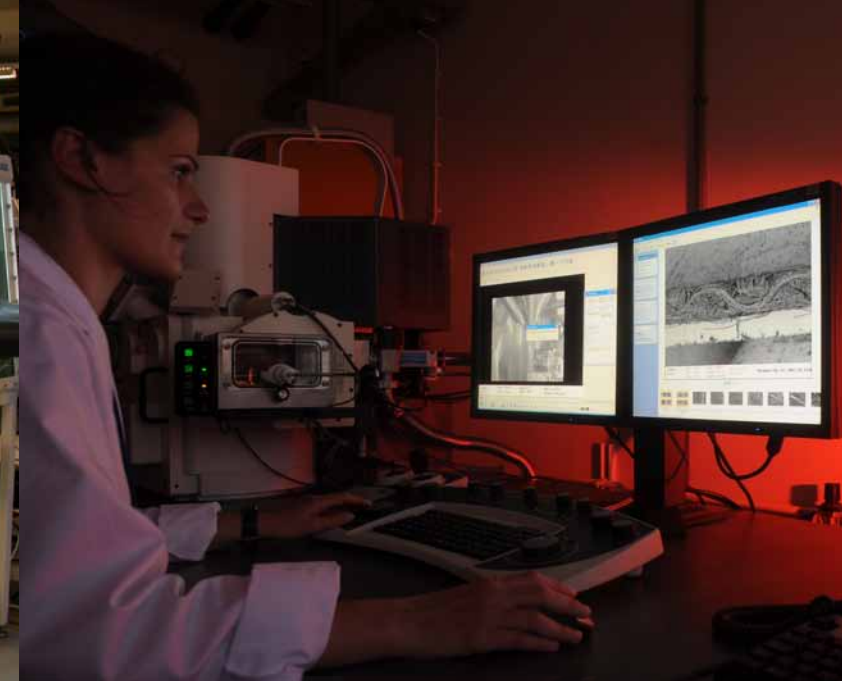
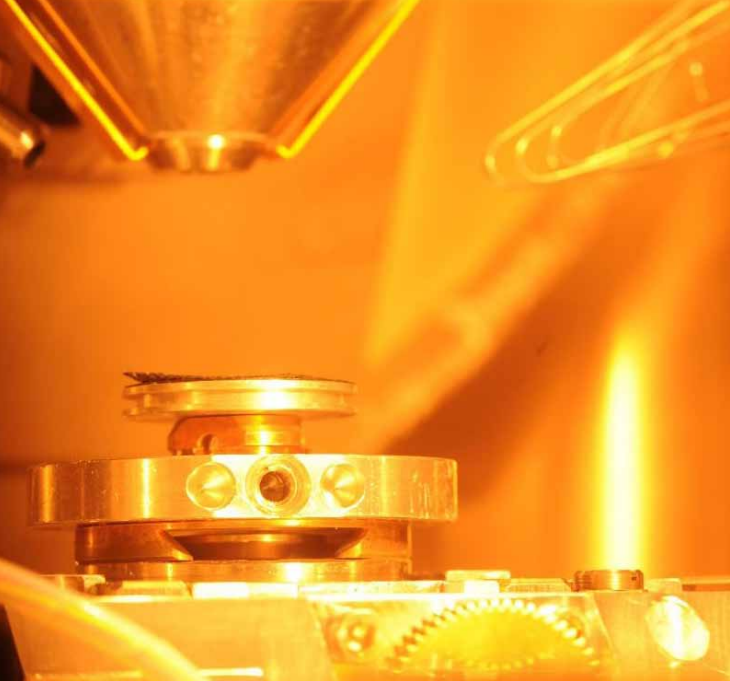


Developing the next generation of batteries



The FiveVB Workflow:





Welcome to FiveVB

Breakthrough of Electro-Mobility

The acceptance of electro-mobility by the consumer is steadily increasing. Recently, some OEMs have achieved a major market breakthrough with fully electric vehicles.

BMW as a representative of the strong European automotive industry is one of the active partners in FiveVB.

However, in order to achieve a significant market share of electric vehicles, battery technology is still the most important and critical issue.

FiveVB is addressing the shortcomings of electric cars. The project focus lies on the following key parameters, critical to automotive requirements and finally consumer's acceptance.

Key Parameters

Pushing European Battery Industry and Academia

The vision of the FiveVB project is to push the European lithium-ion battery industry and academia to take over a leading role in the development and manufacturing of materials and cells. With the aim of providing competitive lithium-ion cells and batteries for the automotive industry, following parameters shall be addressed within FiveVB:

- Energy density – increase by using a new combination of materials
- Costs – reduction through material choice
- Durability – increase by optimizing the materials
- Safety aspects – new cells should fulfill the standards
- Recyclability – investigate the environmental impact
- Scale-up for manufacturing – PHEV1 cell

The Benefits

FiveVB will:

- Help to integrate the industrial partners in the value chain both vertically and horizontally
- Give the industrial partners the opportunity to refine innovative advanced materials for high-energy, high-voltage lithium-ion cells
- Design a common reference cell to improve evaluation of further developments
- Develop a working methodology that should serve as a reference for future cell developers, to enhance the knowledge and experience of materials suppliers
- Establish the initial requirements on manufacturing technology to ensure potential scale-up according to technological success and market pull

The Objectives

FiveVB aims at:

- Improved cell technology of a PHEV1 format cell, which is defined as the state-of-the-art and reference for the FiveVB project
- Assessment of industrialization requirements of the advanced cell technology in Europe using a research prototype line with the capability of fast scale-up to automotive series demands (TRL 5)
- Proven durability until 80% capacity retention from initial capacity for a new combination of chemistries in an early development phase
- Standardized test procedure focusing on life cycle, safety, and calendar life testing for this FiveVB high energy battery type

