



AKKA

PASSION FOR TECHNOLOGIES



HYBRID AND ELECTRIC DRIVE SYSTEMS

FROM CONCEPT DEVELOPMENT TO VEHICLE VALIDATION AND APPLICATION

Climate change, CO₂ debates, resource scarcity, emission-free driving and multimedia integration are topical issues and tasks in the field of engineering services. New drivetrain concepts and memory technologies are moving the market. Together with our customers we are looking ahead and developing electromobility in all relevant mobility segments.

YOUR INNOVATION DRIVES US ON

Efficiency and sustainability are our leading criteria in developing alternative drive systems. The savings potential of a drive system consisting of electro and combustion engine or a purely electrical vehicle and the additional costs of this depends considerably on the decision to choose one of the target concepts. This is why we offer you comprehensive support for the design and development of an electric future – ranging from integration and validation of concepts, systems, and components to charging infrastructure.

OUR ADDED VALUE

- We focus on the development of hybrid and electric-drive core elements and management systems in our system and component development.
- In developing electric and alternative drivetrains, we involve ourselves in all V-model activities of your projects. We are responsible for the components and we take over the coordination of development interfaces and the whole technical development package for you. This includes dealing with concept determination/specification/design, simulation/calculation, functional development, integration/validation or structural design.
- The AKKA engineering portfolio is complete by our own drive system test bench and the possibility to perform component tests.



Automotive



Aerospace



Railway



Energy



Life Sciences



Telecoms



Space



Services and Informations Systems



Defence



Oil and Gas



Consulting



OUR EXPERTISE

CONCEPT DEVELOPMENT

- Design, specification and development of hybrid and electrical overall systems
- Calculation and simulation
- Adjusting package and thermal management
- Defining HV safety and on-board electrical systems requirements
- Taking into account functional safety requirements
- Functional development of operational strategy and energy management

HV SYSTEM AND HV COMPONENT VALIDATION

- Validation, verification, and application in vehicle
- Validation and application for overall systems and components in test benches
- Road-to-Rig and component test benches with temperature and network simulation
- Electromagnetic compatibility (EMC) validation in proprietary test centers

HV SYSTEM, HV COMPONENT DEVELOPMENT, AND INTEGRATION

- Specification design on the functional, system, and component levels
- Responsibility for components, supplier supervision
- Calculation, simulation, emulation/layout
- Software and functional development
- Hardware development
- Networking
- Mechanical, electrical, and functional integration

