

AKKA

PASSION FOR
TECHNOLOGIES



ELECTROMOBILITY COMPETENCE CENTER

DESIGN YOUR CHANGE

AKKA's automotive activities in Germany are built on the solid know-how and profound competences in vehicle development of this market. Besides conventional combustion technology their so called Automotive Competence Centre also pools its expertise in developing future propulsion technologies and their integration within vehicles. In order to develop electrical and hybrid drive trains, our engineers draw on their expertise in the fields of high-voltage technology, power electronics, on-board electrical systems, battery management, and operating strategies, as well as on a broad spectrum of experience in full vehicle development.

In addition to developing and integrating electromobility components, our strengths also include implementing turnkey projects. Our services range from constructing and applying drive trains to developing components, from optimizing drive component interaction to series validation and series process support.

The electromobility competence center's strong network links within AKKA have expanded its range of services to fields outside the core disciplines of electromobility. For example, if a design study is required as part of the development process for an electric vehicle, this can also be performed within AKKA with minimal interfacing requirements.

OUR SYSTEM EXPERTISE

- Complete development of hybrid powertrains
- Electric drive development
- Integration of electric and hybrid components into vehicles

OUR ADDED VALUE

We are your development partner for state-of-the-art electromobility and new technology developments for the propulsion systems of the future.

Our experts can draw on the innovative capability and resources of the AKKA Group's global network.

- Many years of experience in developing series-production-ready turnkey projects
- Overall view of electromobility, above and beyond propulsion
- Beyond the key areas of electromobility, our services extend to other fields of automotive development (e.g. full vehicle development)
- In addition to development itself, we also focus on the product's and processes' suitability for series production



Automotive



Aerospace



Railway



Energy



Life Sciences



Telecoms



Space



Services and
Informations Systems



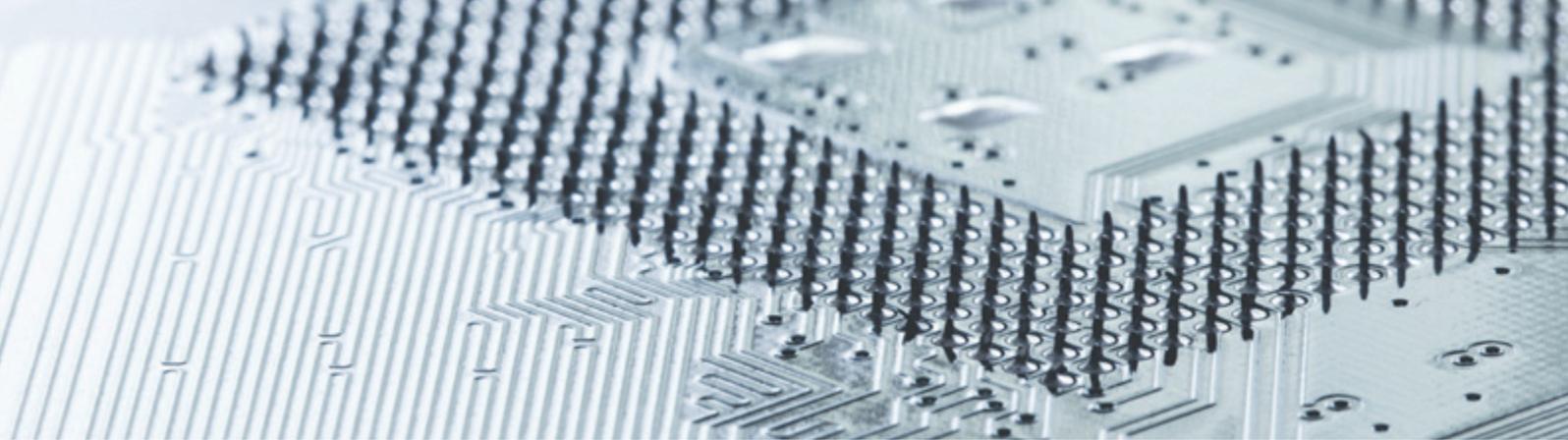
Defence



Oil and Gas



Consulting



OUR EXPERTISE

- High-voltage system design
- Designing electric and hybrid systems
- High-voltage wiring harness
- Operational strategy and energy management
- Battery management
- Function development and software development for control units
- Developing hybrid transmissions
- Function development and software development for hybrid transmissions
- Developing and optimizing internal combustion engines for hybrid applications
- Thermal management
- Charging systems, charging components and charging strategy
- Operating and display concepts
- Integrating powertrains into vehicles
- Full vehicle development—concept development and constructional design
- Validating hardware-in-the-loop and software-in-the-loop
- Test bench and EMC validation
- Developing on-board diagnostics (OBD)
- Monitoring concept, functional safety
- Full vehicle validation
- Crash testing
- Prototypes and vehicle body
- Approval and certification testing
- Developing and validation of high-voltage components e.g. power electronics, electrical machinery, etc.

TURNKEY PROJECTS

- Handling turnkey projects
- Multi-project management taking synergies into account
- AKKA as system supplier
- Flexible integration of AKKA's internal development process into customer processes
- Supplier management, including for full vehicle development
- Series process support

