SMART BERTONE
DRIVEN BY PASSION FOR TECHNOLOGIES

The Smart Bertone show car has been developed by a team of young, international and multidisciplinary AKKA engineers. It has been stylized by Bertone and designed and built by AKKA. This exciting project brings together the best of our automotive know-how from Germany, France and Italy.

Our Smart Bertone is a 60kW/80hp Smart ForTwo Electric Drive to which our engineers added a 150kW/200hp KERS (Kynetic Energy Recovery System) that allows the car to boost and recover energy during braking. We have assembled an unique 4-wheel drive powertrain and developed a high-performance battery, which is 100% made by AKKA. In combination with the hub-mounted motor technology developed by our Slovenian partners „Elaphe“ and the suspension systems of our German partners „KW Suspensions“ these innovations guarantee the Smart Bertone’s on-road behaviour worthy of a sports car.

This project enabled us to acquire key knowledge for the benefit of our customers. The Smart Bertone embodies our entrepreneurial and can-do spirit that has allowed us to bring a number of innovations to life throughout AKKA’s history.

SMART BERTONE HIGHLIGHTS:
- High performance battery
- In-wheel electric motor
- 280HP motor power
- 0-100 km/h - 5,2s
- 2300 Nm torque in the wheels

SMART BERTONE VIDEO:

OUR ADDED VALUE

- New powertrain technology integration
- Mechanical integration
- Electrical design & construction – HV & LV
- Battery development & construction
- Mechanical design & construction
- Electrical design – HV & LV
- High voltage safety
- Global vehicle management
  - Control unit & vehicle communication
  - Ground connection
  - Cooling system
- Styling, Design & Prototyping
  - Ideation
  - Sketches
  - Conception
  - Clay Modelling
  - Tool Development
  - Prototype/Show-car construction
- Hololens application development
  - Development of an Augmented Reality application that allows to look at the internal components of the Smart Bertone.
Although in this project the objective was to integrate a boost system (KERS) into an existing vehicle, its completion and performance in terms of both power and handling on the road demonstrate that the integrated technologies and know-how of our engineers are applicable to many more applications such as the following:

1. A hybridization response that can be integrated into existing combustion vehicle platforms to bring them into line with new anti-pollution standards

2. A strengthening of the positioning of zero-emission portfolio to attract segments of customers who need support in their electrification challenge:
   - By reconciling the emotion and the carbon footprint
   - By further improving the vehicle’s stability and range

3. An expertise in the design and development of systems such as energy storage.

4. The possibility of designing more compact urban vehicle platforms offering more transport capacity, flexibility of layout whether in pilot mode or autonomous driving thanks to the in-wheel motor technology freeing space within the passenger compartment

5. A significant expertise in Styling & Design through our brand Bertone.

WHAT VALUE DOES THIS PROJECT BRING TO OUR AUTOMOTIVE CUSTOMERS?

QUICK DEVELOPMENT
Almost plug & play technology with high degree of integrability

COMPACT DESIGN
In-wheel motors free up volume inside the car

HIGH EFFICIENCY (>90%)
No transmission, no other or additional powertrain components - just torque

ADVANTAGES

QUICK HYBRIDATION
To meet the new emission standards with existing platforms

E-CARS WITH ENHANCED VEHICLE ARCHITECTURE
To build vehicles with more storage thanks to an enhanced vehicle architecture

HIGHER RANGE & ENHANCED STABILITY
By using motors with higher efficiency & independent torque control - very low position of the center of gravity

POTENTIAL APPLICATIONS

SMART BERTONE – WHAT’S IN?

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