



AUTOMOTIVE

Testing solutions for vehicle electronics,
batteries, structures, components,
materials and cybersecurity.



VEHICLE ELECTRONICS & BATTERIES



FULL-VEHICLE EMC

- Three 10m semi-anechoic chambers to test complete vehicles, from sports cars to heavy duties and all kinds of EVs.
- Consultancy services for OEMs.

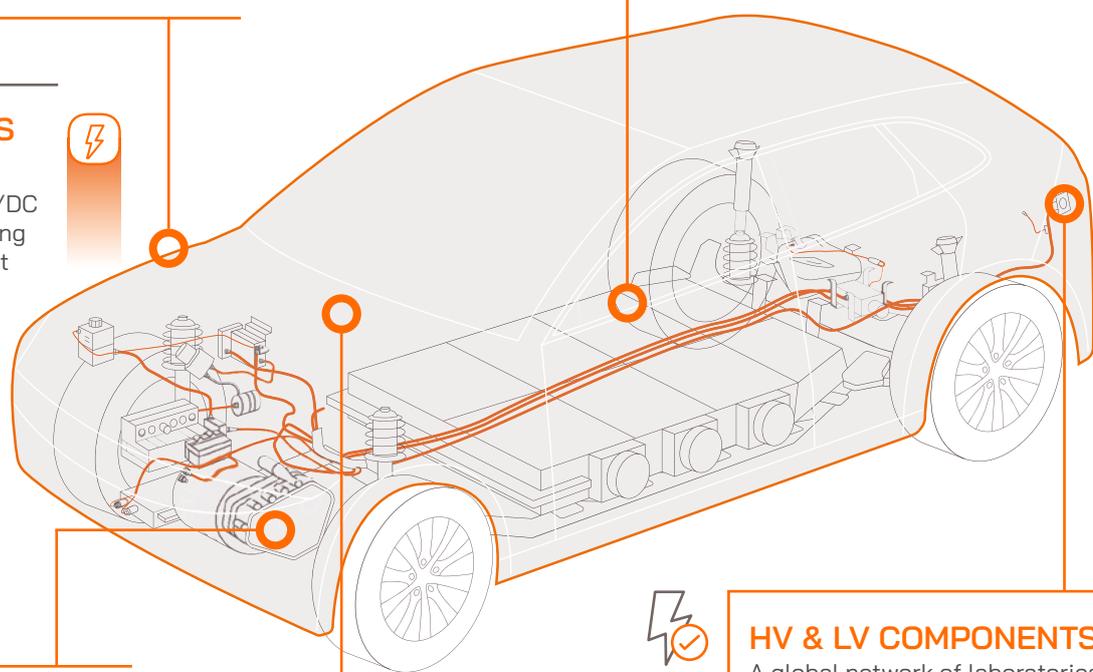


BATTERY TESTING & HOMOLOGATION

- 200 kN shaker with climatic chamber for testing large battery packs.
- Environmental and fire facilities for battery testing and homologation (ECE R100).
- EMC testing and homologation (ECE R10).

EV CHARGERS

Testing and certification of AC/DC chargers. Full testing scope performed at one single site.



E-MOTOR

- Two e-motor facilities for EMC testing with mechanical load
- Vibration testing on shaker up to 80 kN



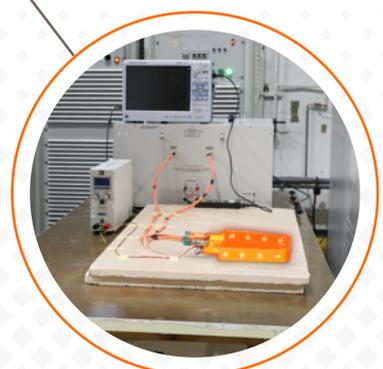
TEST SYSTEM DEVELOPMENT

Custom-built test systems for component testing (electrical, SW and powertrain, amongst others).

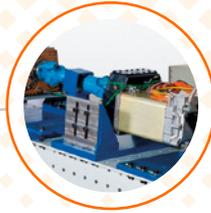


HV & LV COMPONENTS

A global network of laboratories fully-equipped for testing of HV & LV components (EMC, electrical, environmental, NVH). Approved by all international OEMs.



VEHICLE STRUCTURES & COMPONENTS



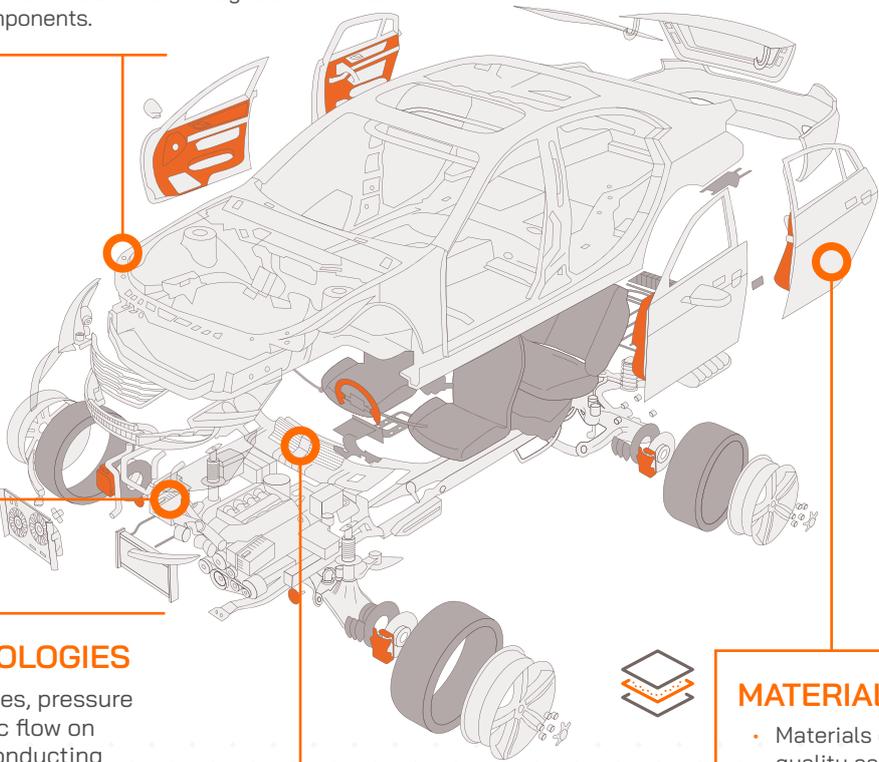
MECHANICAL STRENGTH & OPERATIONAL STABILITY

- End-to-end testing service, from test conceptualization to product development and approval.
- Operating load simulation and fatigue tests on all vehicle components.



ENVIRONMENTAL DURABILITY

- Uni- and Multi-Axial vibrations, climatic & mechanical loads on structures, components and exhaust systems.
- Weathering, salt spray, IP-protection, solar simulation and fire tests.



FLUID TECHNOLOGIES

Temperature changes, pressure changes, volumetric flow on tanks and media-conducting systems combined with mechanical loads.



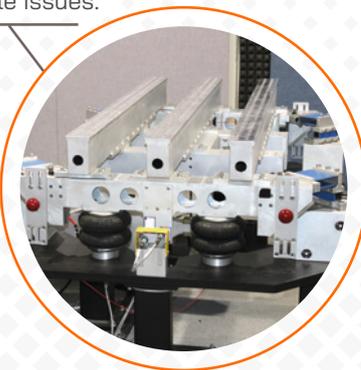
ACOUSTICS & BSR

Anechoic chambers equipped with shakers to detect Buzz, Squeak & Rattle issues.



MATERIALS

- Materials characterization and quality assurance for metals, composites, polymers and coatings.
- Materials testing and material parameter determination to create CAE material cards.



SYSTEM & COMPONENT CYBERSECURITY & FUNCTIONAL SAFETY

ISO/SAE 21434 & ISO 26262

Comply with the two main security and cybersecurity standards for the automotive industry. We can provide the following services:

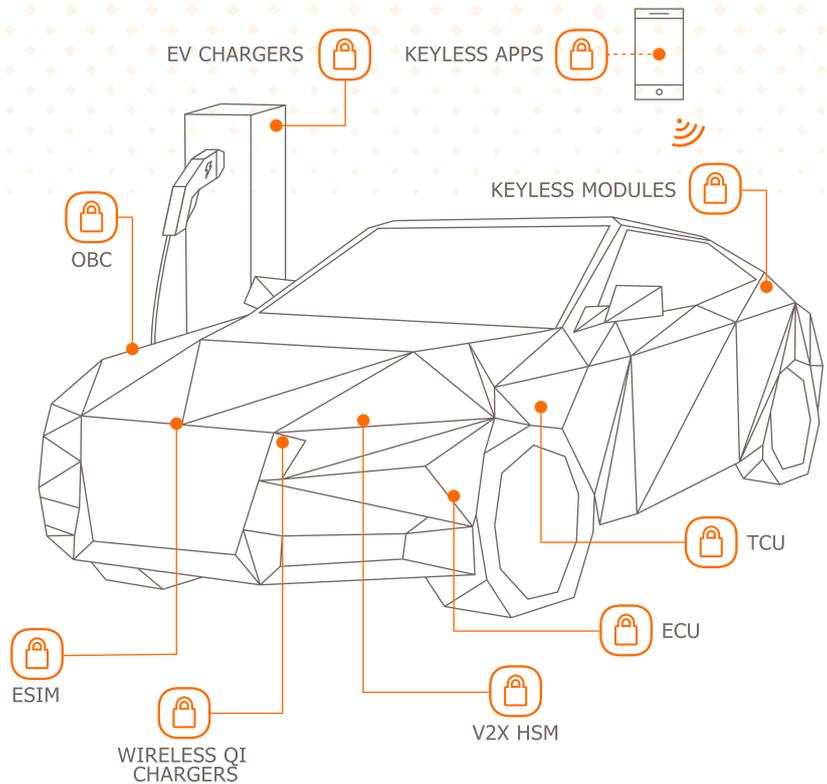
- Gap analysis
- Threat / Hazard analysis & risk assessment
- Vulnerability analysis
- Technical advise & documentation review
- Site audit
- Certification of conformity

CYBERSECURITY CERTIFICATIONS

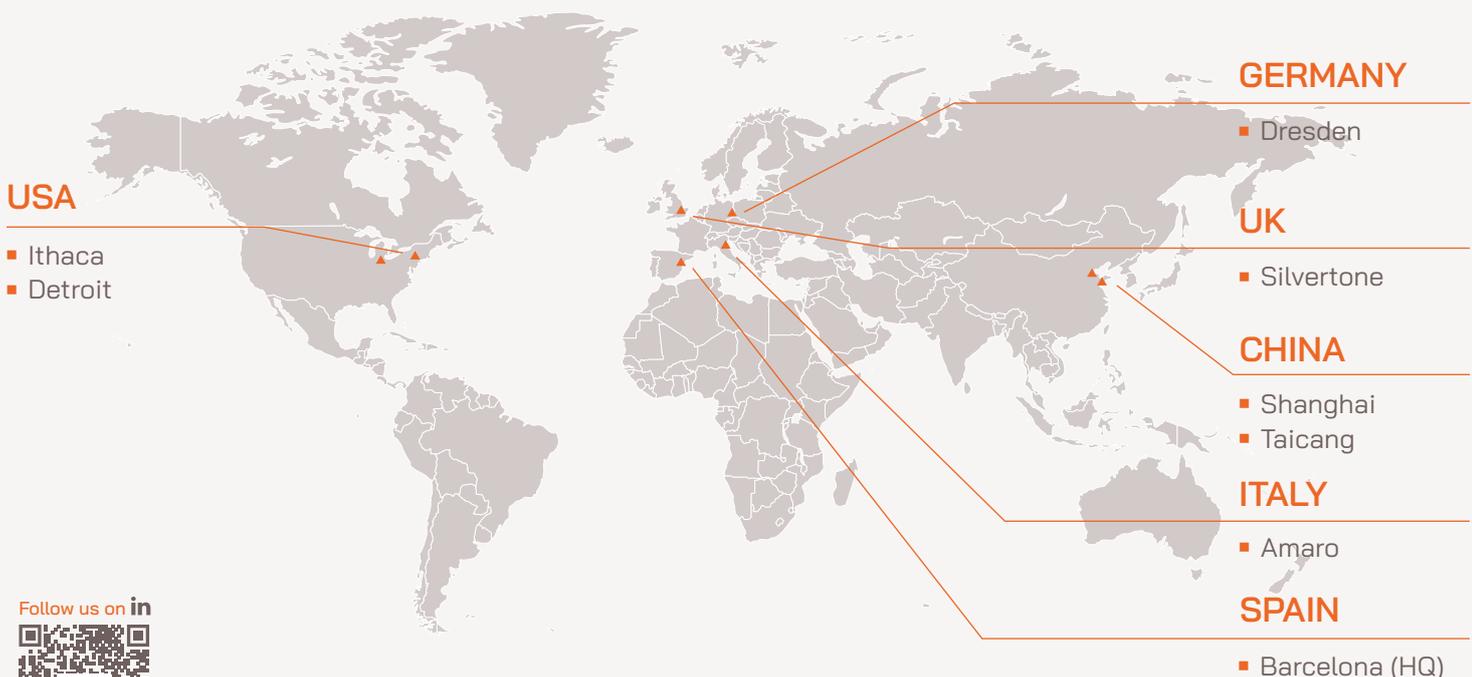
Certain components must be evaluated by accredited labs, like Applus+ Laboratories, to obtain cybersecurity certifications, such as SESIP, PSA Certified, Common Criteria or GSMA.

HACKING CAPABILITIES

- Hardware security
- Software security
- Communications security
- Cryptographic expertise



OUR GLOBAL NETWORK OF LABORATORIES



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CONTACT YOUR GLOBAL TESTING PARTNER

info@appluslaboratories.com | www.appluslaboratories.com