

PTS-PRÜFTECHNIK

ENGINEERING | SIMULATION | TESTING

Solutions. Engineered to validate.

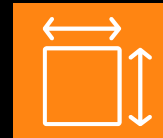
ABOUT US



Founding
2005



Experts
250



m² area
30,000



Locations
5



Test rigs
> 300



TISAX Label
DIN ISO 9001/14001/17025/50001

OVERVIEW COMPETENCES

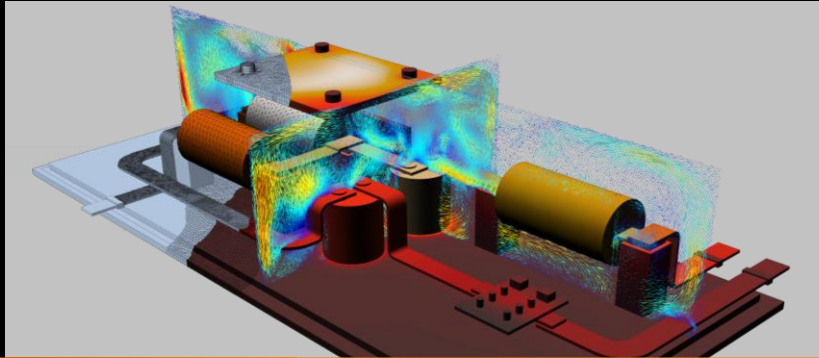
From the initial concept to a qualified system solution, we support our customers throughout the entire development process.



01

ENGINEERING

- DESIGN/ CONSTRUCTION
- THERMAL MANAGEMENT
- DATA ANALYSIS
- APPLICATION



02

SIMULATION

- 1D- & 3D-SIMULATION
- FEM-SIMULATION
- CASTING PROCESS SIMULATION
- MULTI-PHYSICS-MODELLING



03

TESTING

- ENVIRONMENTAL TESTING
- ENDURANCE TESTING & FUNCTIONAL TESTING ON TEST RIGS AND IN REAL OPERATION



ENVIRONMENTAL TESTING

ENVIRONMENTAL TESTING FOR DEFENCE INDUSTRY

**Reliable under extreme conditions - customized, flexible & everything
done by a single source**



TEST BENCH DEVELOPMENT IN-HOUSE

- ✓ Flexible & scalable



ELECTRICAL TESTING

- ✓ Low & High voltage
- ✓ DUT control
- ✓ Signal logging



COMBINED TESTS

- ✓ Realistic combined loads
with the DUT in active
operating mode

OUR SERVICES

In accordance with standards such as MIL-STD-810H and DO-160G / ED-14G



**Humidity/Climate
Testing**



**Shock & Vibration
Tests**



IP Testing (Water & Dust)



Corrosion Tests



Active cooling circuit



Altitude Simulation



BATTERY TESTING

BATTERY TESTING FOR DEFENCE INDUSTRY

Reliable under extreme conditions - customized, flexible & everything done by a single source



TEST BENCH DEVELOPMENT IN-HOUSE

✓ Flexible & scalable



ELECTRICAL TESTING

✓ Functional and safety tests for cells, modules & battery systems



VALIDATION TESTING

✓ Customized & reliable

OUR SERVICES

In accordance with standards such as MIL-STD-810H, MIL-PRF and MIL-STD-1275



**Humidity/Climate
Testing**



**Functional, Safety &
Service Life Tests**



**Analysis & disassembly
of battery systems**



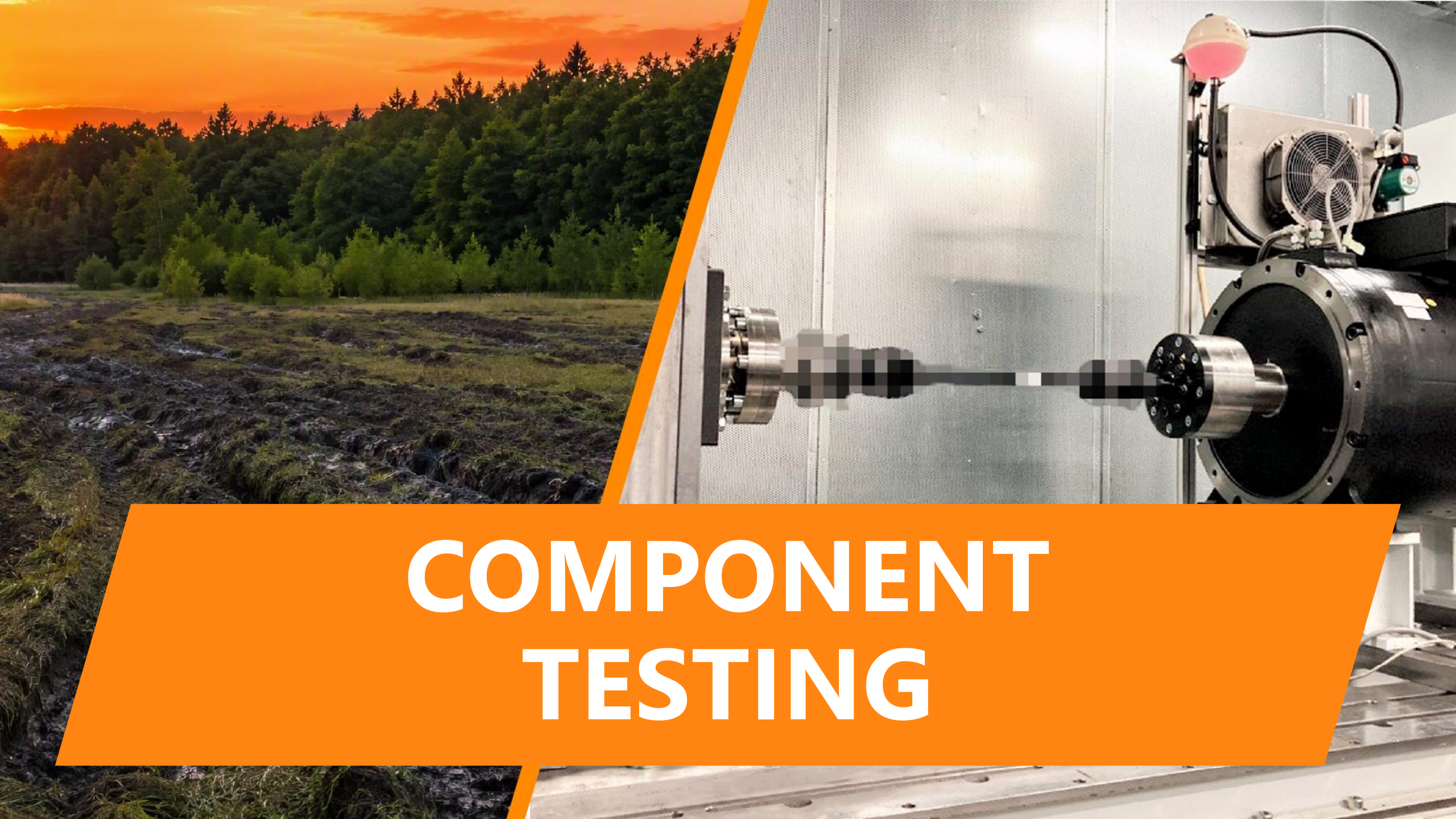
**Development
validation tests**



**Tab welding on battery
cells & modules**



**Module
Prototyping**



COMPONENT TESTING

COMPONENT TESTING FOR DEFENCE INDUSTRY

Reach your destination with reliability, flexibility and speed.



TEST BENCH DEVELOPMENT IN-HOUSE

✓ Flexible & scalable



ELECTRICAL TESTING

✓ Functional and safety tests
for cells, modules &
battery systems



ACTIVE COOLING CIRCUIT

✓ Customized & reliable

OUR SERVICES



**High-Speed-
Testing**



**High-Torque-
Testing**



**Endurance, fatigue, &
functional tests under
realistic load conditions**



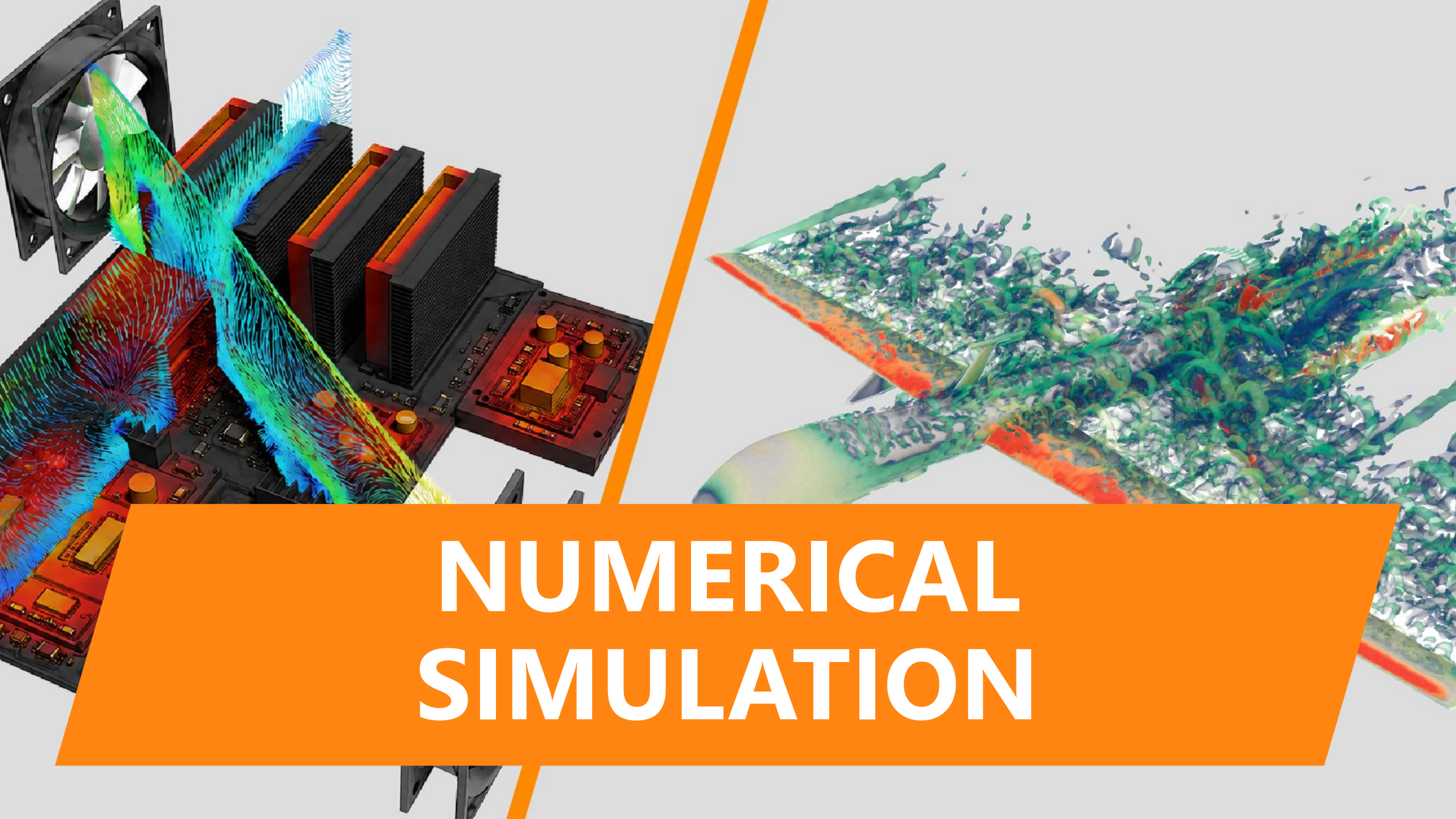
**Structural mechanics
tests**



Combined Tests



**Mechanical and electro-
mechanical components**
e.g. highly stressed structural & bearing



NUMERICAL SIMULATION

NUMERICAL SIMULATION FOR DEFENCE INDUSTRY

**Simulation meets reality – for better products and faster development
from a single source**



**FAST & RELIABLE
RESULTS**



**FROM INDIVIDUAL
COMPONENTS TO
COMPLETE SYSTEMS**



**SEAMLESS
CONNECTION BETWEEN
SIMULATION AND
TESTING**

OUR SERVICES

In accordance with standards such as VDI 2230 and FKM



**Structural Mechanics &
Strength Analysis (FEM)**



**Fluid Dynamics & Thermal
Management (CFD)**



**Combined simulation &
testing for high-precision &
reliable model development**



**System Simulation &
Functional Modeling (1D)**



**Coupled multiphysics
simulations for realistic
operating conditions**

The image is a composite. The left side shows a close-up of a black plastic reservoir being poured with bright green liquid into a circular opening on a dark, metallic surface, likely a car's engine bay. The right side shows a large, dark-colored military truck with multiple axles driving on a road, kicking up a cloud of dust or steam. The background consists of bare trees under a cloudy sky. A large orange banner with white text is overlaid across the bottom of the image.

THERMAL MANAGEMENT

THERMAL MANAGEMENT FOR DEFENCE INDUSTRY

Reliable under extreme conditions - customized, flexible & everything done by a single source



TEST BENCH DEVELOPMENT IN-HOUSE

- ✓ Flexible & scalable



ELECTRICAL TESTING

- ✓ Low & High voltage
- ✓ DUT control
- ✓ Signal logging



CUSTOMIZED TEST ENVIRONMENTS

- ✓ Pressure, humidity, temperatures, etc.

OUR SERVICES



**Thermal Management
System Design**



Component Testing



**High /Low Temperature &
Temperature Cycle**



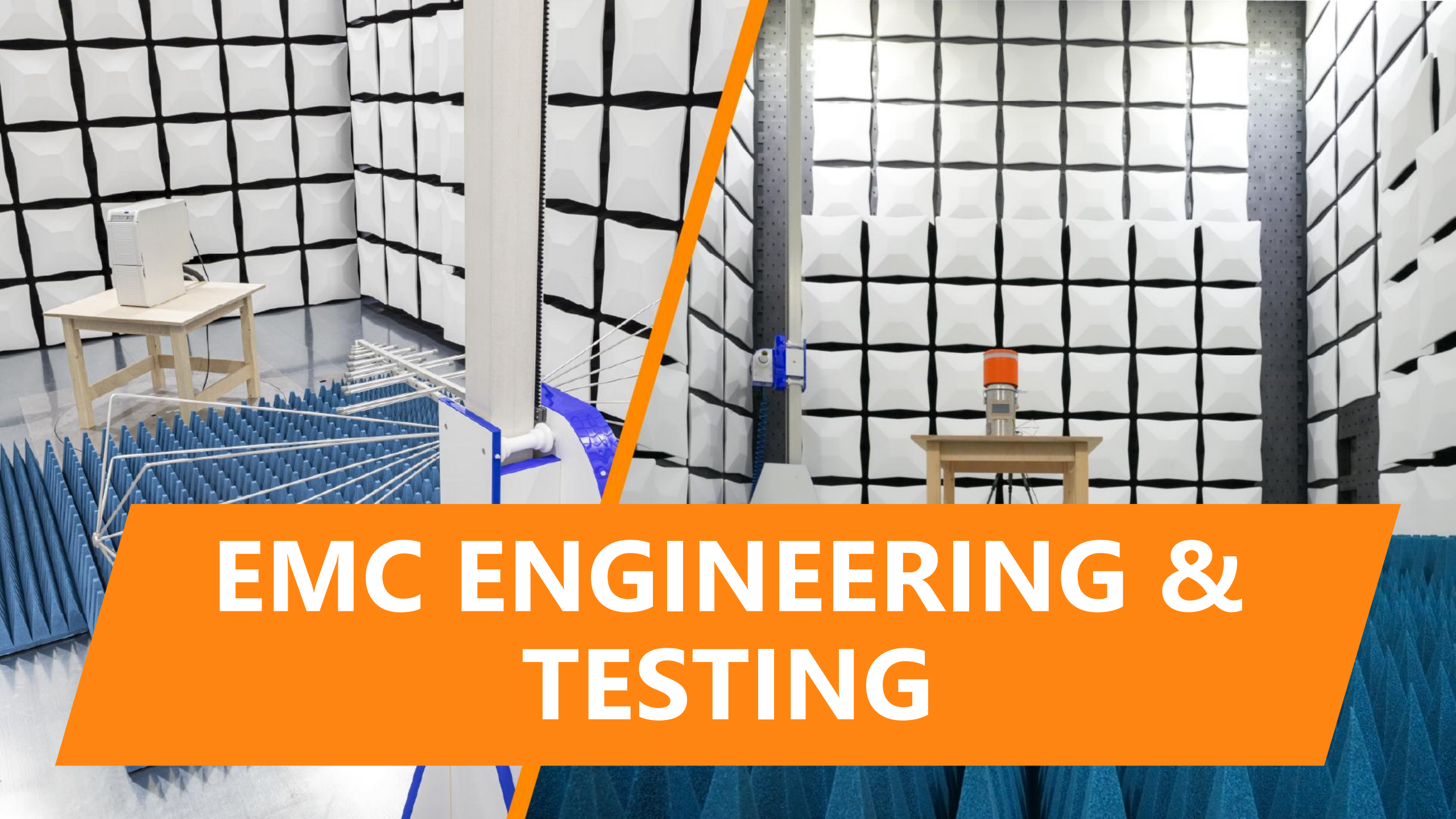
**Thermal Management
Applications**



**Test Design and
Validation**



Altitude Simulation



EMC ENGINEERING & TESTING

EMC ENGINEERING & TESTING FOR DEFENCE INDUSTRY

Reach your destination with reliability, flexibility and speed.



TEST BENCH DEVELOPMENT IN-HOUSE

- ✓ Flexible & scalable



ACTIVE TESTING

- ✓ Low & High voltage
- ✓ DUT control
- ✓ Signal logging



ACTIVE COOLING CIRCUIT

- ✓ Customized & reliable

OUR SERVICES



High-Torque-Testing



Combined Tests



**EMC Pre-Compliance Tests
& Debugging**



EMC Concept



**Design Consulting & EMC
Mitigation Measures**



**EMC measurement
chamber**

YOUR PARTNER AT 5 LOCATIONS

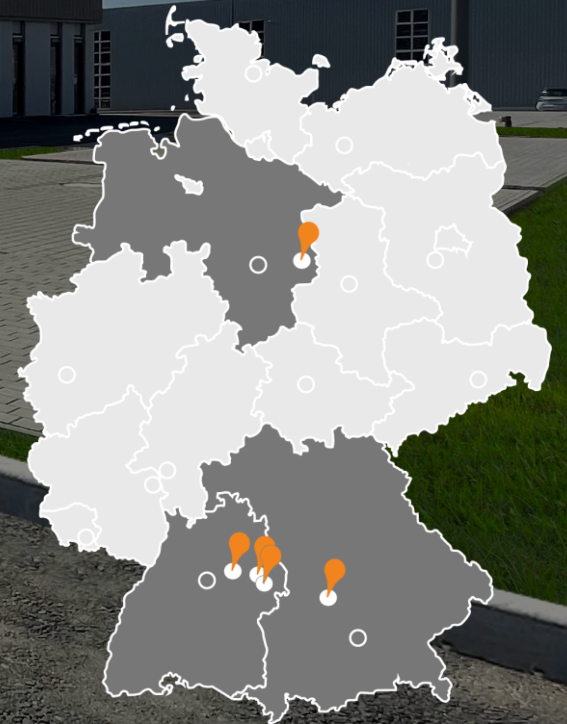
Waldstetten

Schwäbisch Gmünd

Remshalden

Ingolstadt

Wolfsburg



**TAKE THE PRESENTATION WITH YOU –
SCAN HERE:**

