

E-Facts

# ARADEX Test Bench Rental

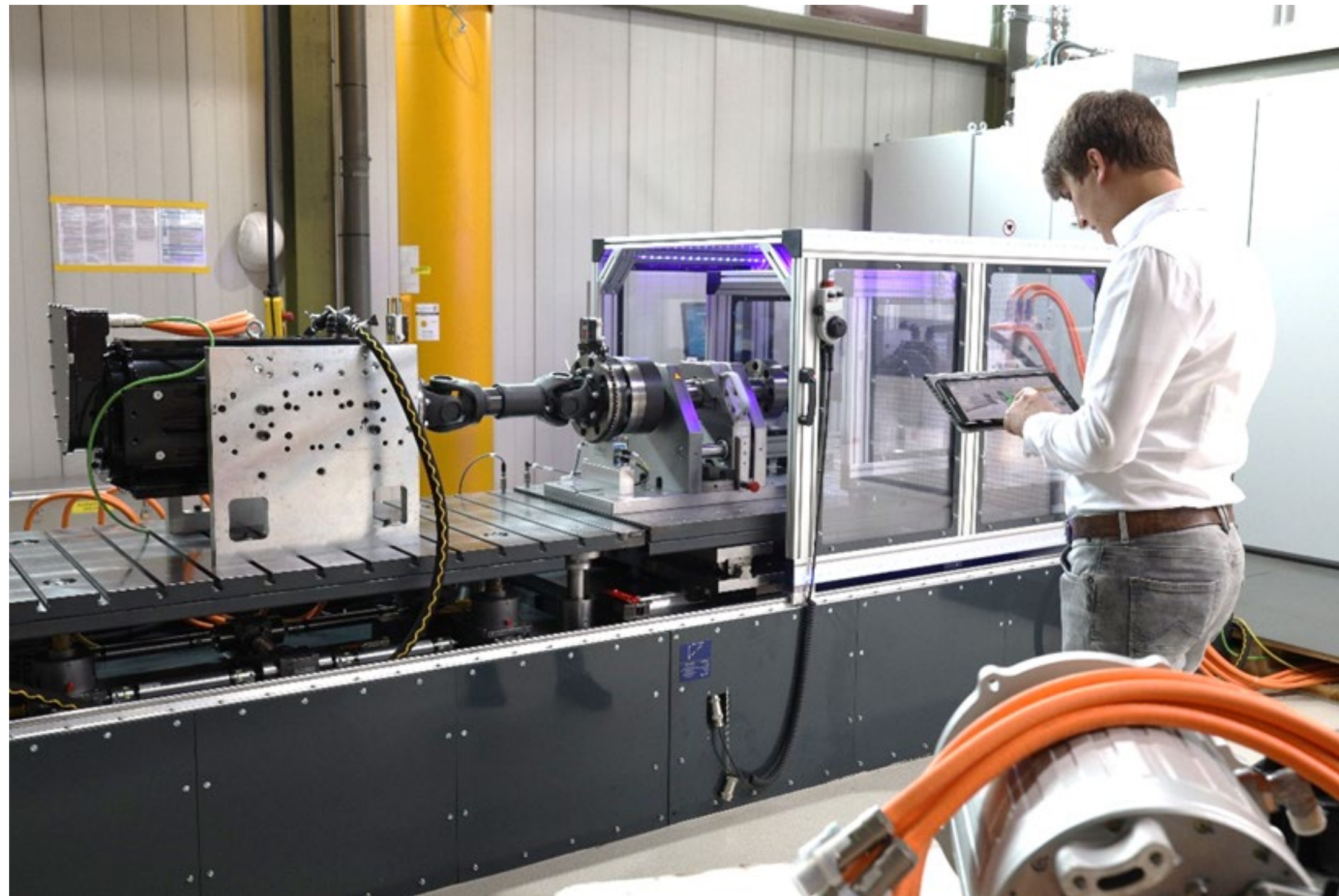
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We drive new energy for a greener future





# / SPEED UP your product validation according to ECE-R85



## Possible combinations:

- Your motor + ARADEX inverter
- Your motor + your inverter
- Your high-speed motor with gearbox + inverter

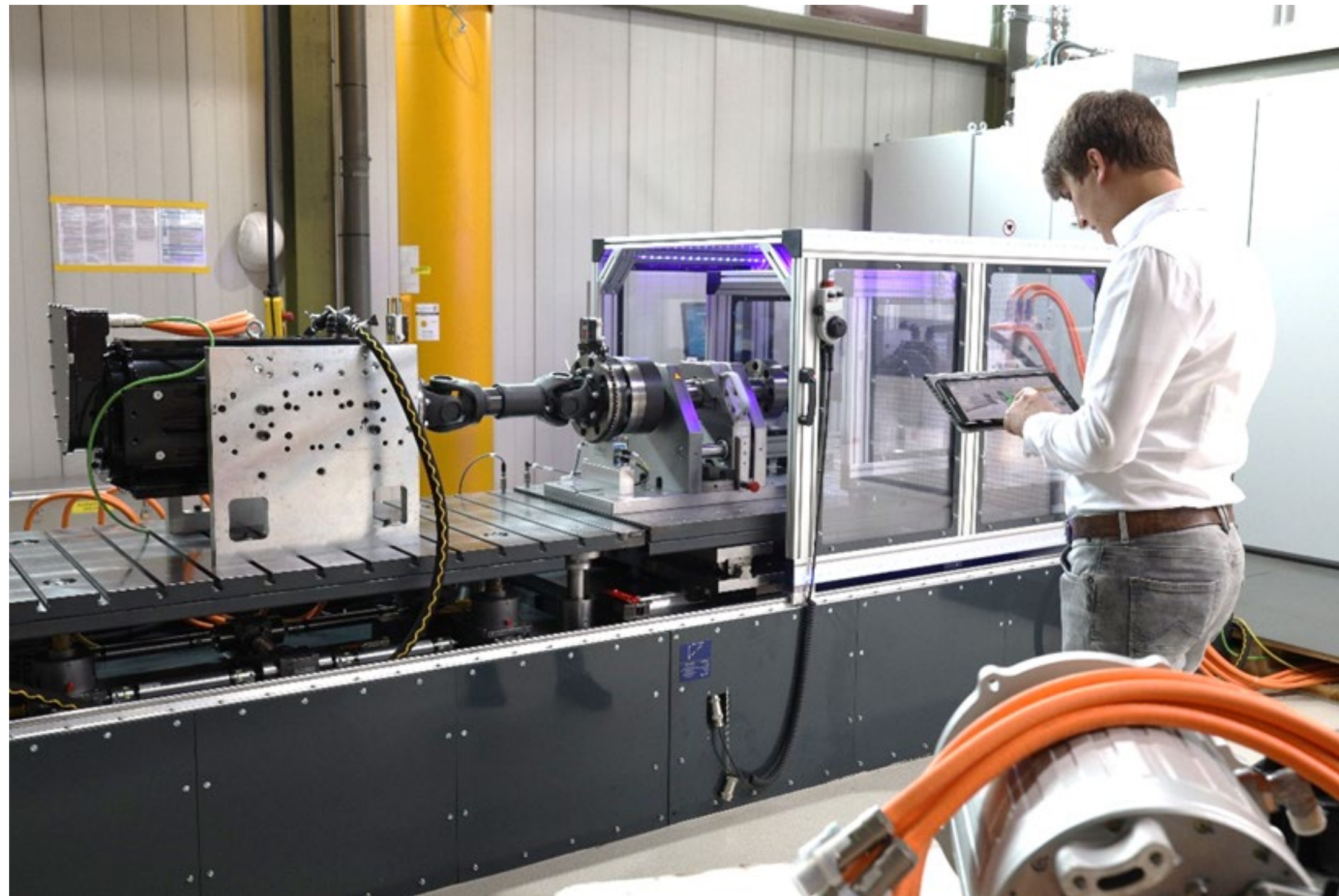
## We can set, according to your requirements:

- Temperature and flow-rate of cooling fluid
- HV-DC-voltage in the range from 100 to 750 VDC

In cooperation with TÜV Germany we can offer validation of nominal power of a motor-inverter combination, according to **ECE-R85**. Based on these measurements you can get a **TÜV certificate**.



# / Test and optimize the dynamic behavior of your drivetrain



Challenge us with your application and demands!

## Features we can offer:

- Apply fast changeable DC voltage. We even can set ramps of curves for example to simulate the voltage dip of a battery in case of high power consumption. Reaction time: about 1ms
- Apply real working conditions with fast changing speed and torque.
- Example: Measure and optimize gear change of motor with shiftable transmission.
- Collect energy consumption or overall-efficiency of a complex field of operation conditions.
- More? Ask our team!

## / Test methods and procedures: based on your demands



- All test procedures and outcomes are defined according to your requirements.
- We can import your EXCEL based load profiles.
- Based on the results, we can adapt all procedures during the measurements.
- You rent the test bench including expert staff. You can be part of the team partially or whole time.
- You get all measured data and log files.

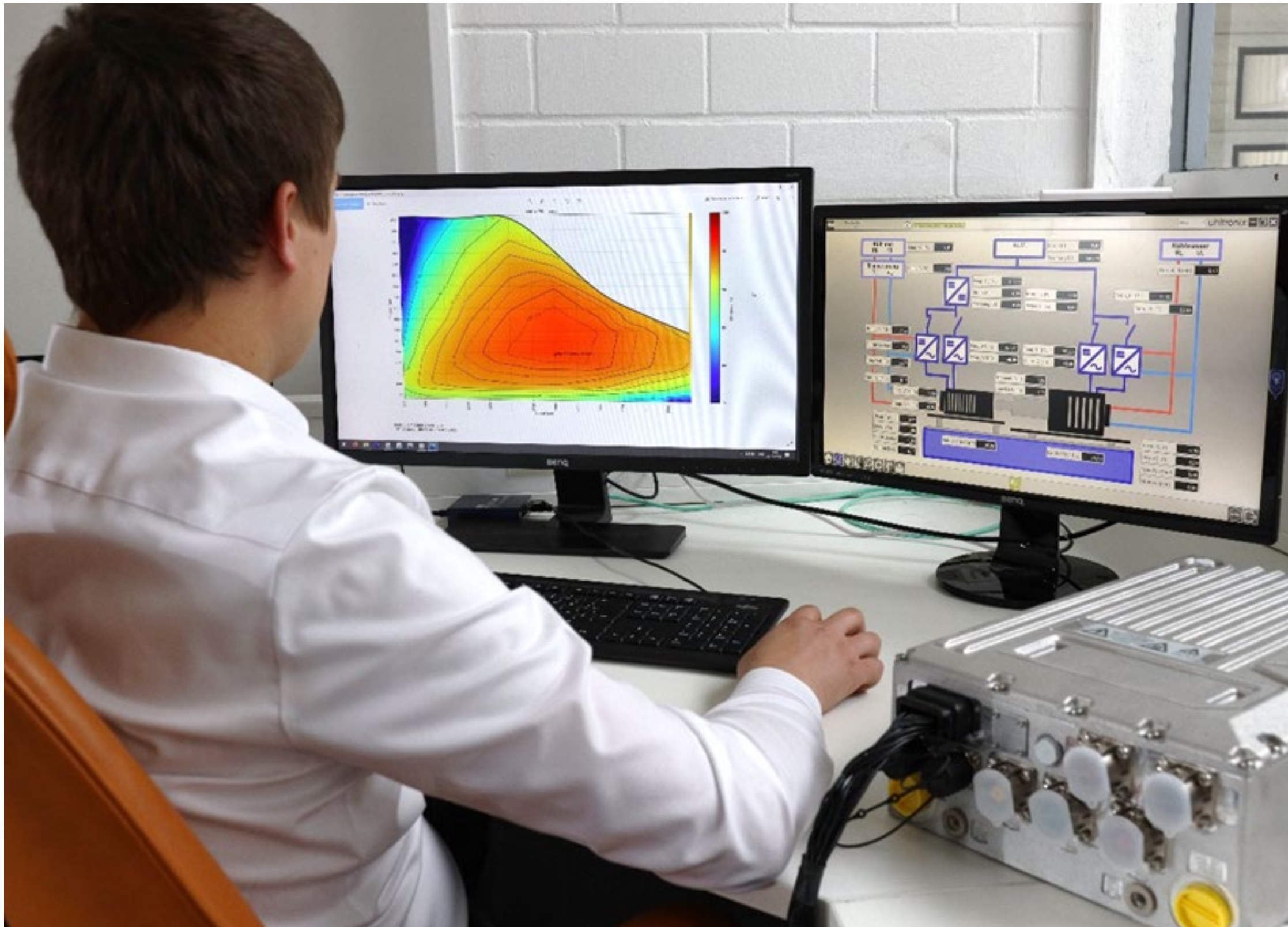


## / Optimization of measurement process by “DeepTools”



- By using our “DeepTools”, we can have a very deep look inside all relevant sensor information of motor and inverter – in realtime.
- Based on this we can adapt the measurement procedures to get perfectly matched results.
- By the possibility to adapt the procedure while doing, we save time and get maximum outcomes.

## / Your benefits



### Some outcomes we can offer:

- Efficiency maps for motor, inverter and whole system.
- Find best fitting operating parameters of given motor.
- Creating Id / Iq tables.
- Integration, validation and optimization of given Id / Iq tables.
- Measurement of magnetic key data.
- Measurement of short-circuit torque, related to the motor speed.
- Measurement of step response of torque / speed.
- Operation and measurement along given profiles.
- .... More?.... Challenge us!



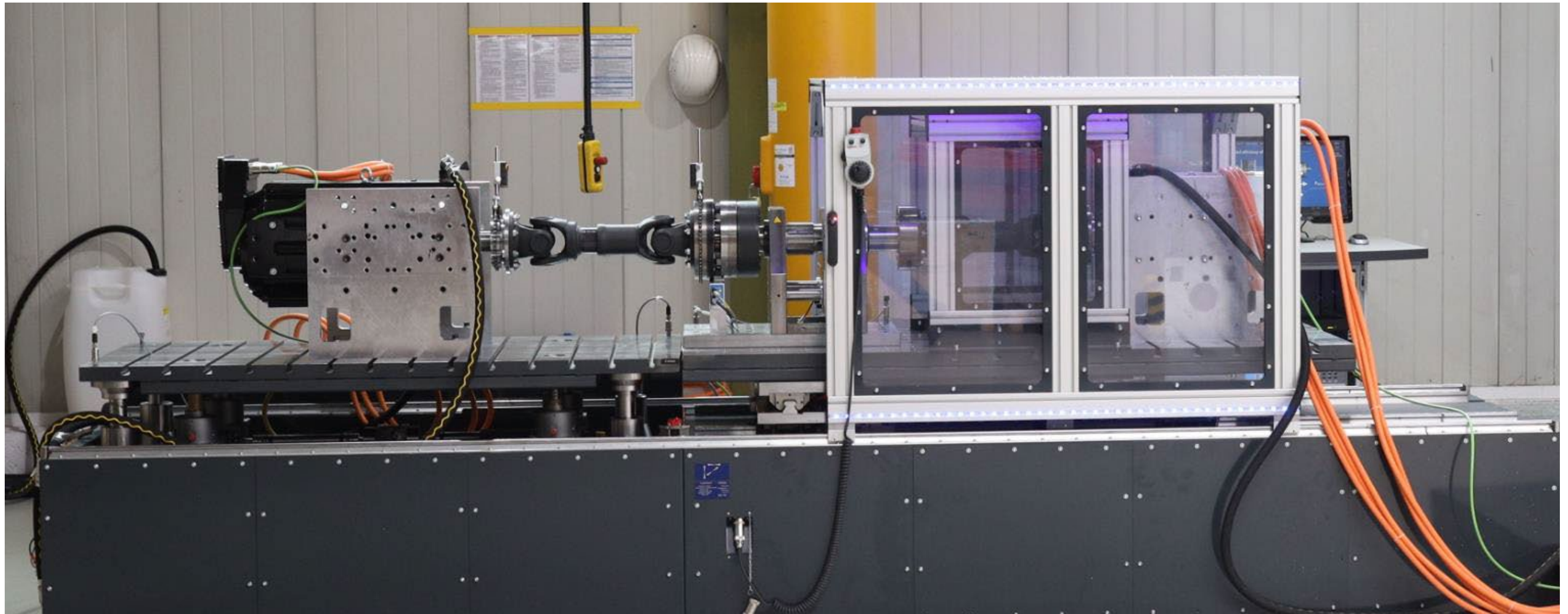
## / Key data of test bench



- Max. torque: 4000 Nm
- Max. speed: 3500 rpm / 8000 rpm
- Higher speed with gearbox
- Cooling: adjustable 10...90 C
- DC-Voltage: adjustable 100...750 VDC
- Power-capability: up to 500 kW
- Device under test: modes motor and generator
- Inverter: ARADEX or given by customer



## / Key data of test bench



- Max. motor weight: 1000 kg
- Max. length: 1500 mm
- Height of the shaft: max. 400 mm
- We can offer mechanical adaption
- All motor topologies



Thanks for your attention!

**Optimized usability  
and performance  
for the best e-mobility**



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