

Automotive Testing

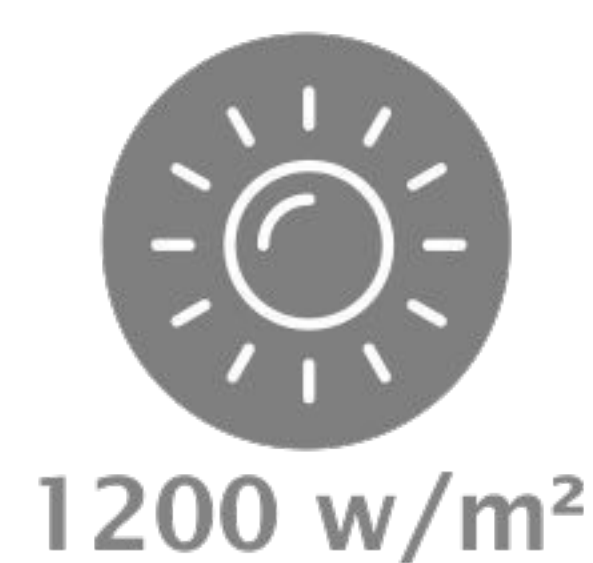
The automotive test cell offers a representative environment to provide OEMs and Tier 1 suppliers flexible and highly repeatable testing conditions. This repeatability is especially guaranteed by the combination of :
hub dyno + climate control + in-situ instrumentation + driving robot.

GET REPEATABLE AND HIGH PRECISION DATA

In order to support [your research activities](#) and your [decision-making process](#), we provide first-class testing environment and methodologies addressing your main challenges in development, validation tests and comparative analysis.

1

REALISTIC CLIMATIC CONDITIONS



2

IN-SITU INSTRUMENTATION



3

AUTOMATED DRIVING Robot Driver



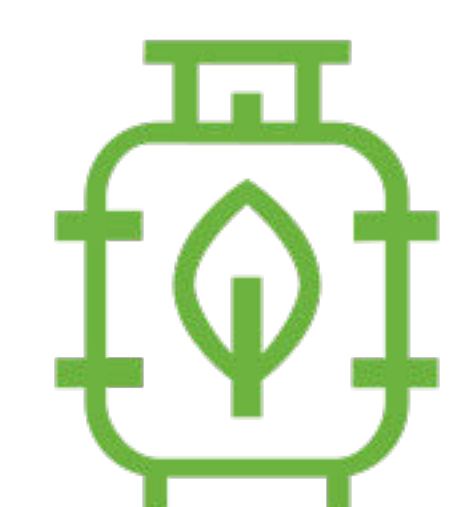
- / Compatible : ICE, hybrid, electric
- / Manual and automatic gearbox
- / Automated learning
- / Human Drive style speed control
- / Web HMI

4

REFUELING SOLUTIONS



- / All energies compliant
- / High power DC charging



CELL TECHNICAL SPECIFICATIONS



Test cell dimensions
Cell Door dimensions

> 8.3 m (Length) x 6.1 m (Width) x 3.1 m (Height)
> 3.5 (W) x 3.5 m (H)

TEST CONFIGURATION

MEDIUM POWER

HIGH POWER

Mechanical power

> 250 kW continuous - 290kW peak
> 600 kW continuous - 1MW peak (<500s)

Torque per wheel

> 3000 N.m
> 3.500 N.m - Peak (<60s) 5.000 N.m

Thermal power
Temperature range

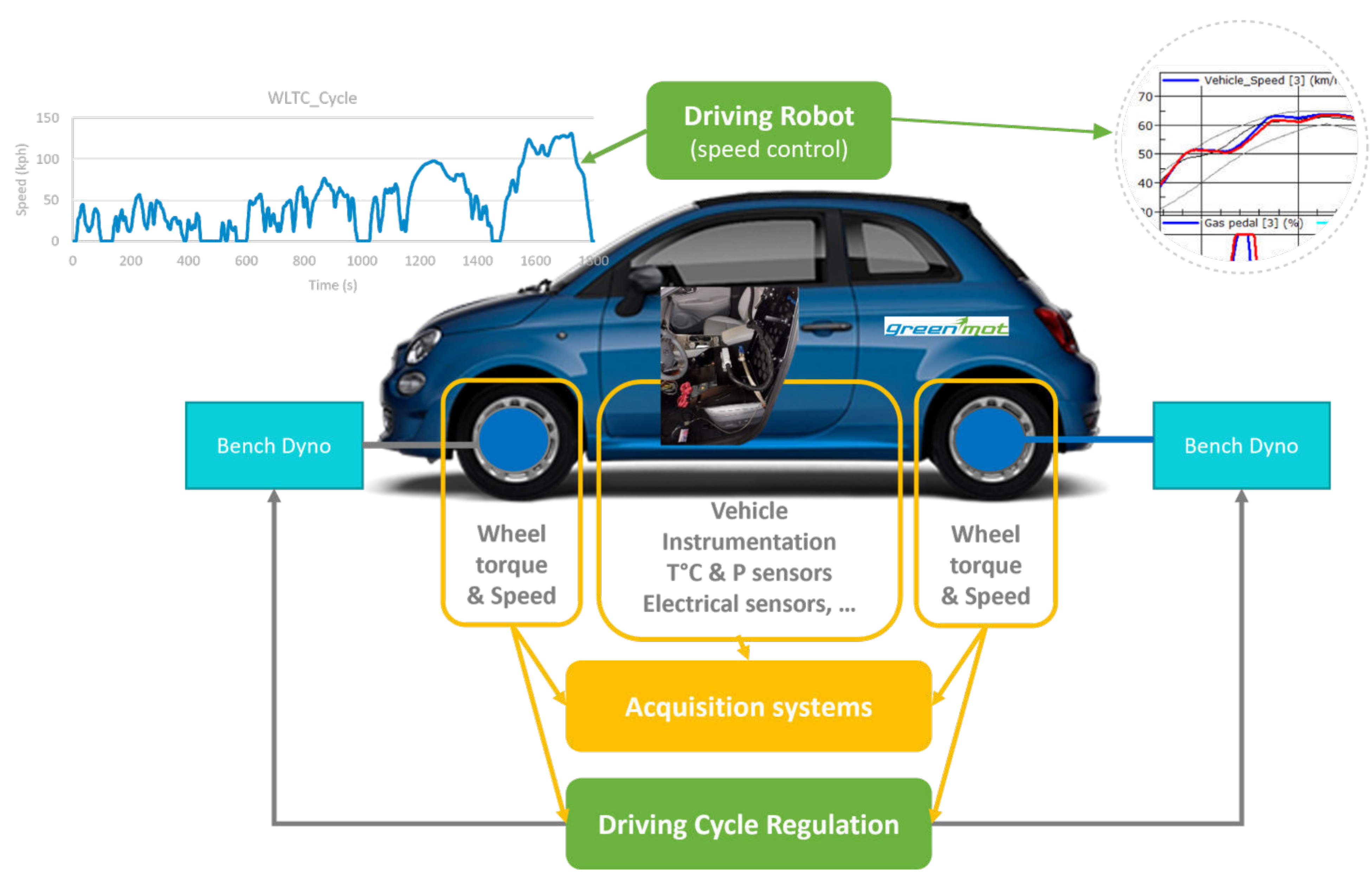
> 280 kW at 20°C
> -30°C to + 50°C
> 800kW (20°C) <=> 300kW (-30°C)
> -46°C to +55°C

Humidity
Solar Simulation

> Controlled up to 88% of humidity
> Up to 90%
> Up to 1.200 W/m²
> Up to 1.200 W/m² (Frontal / Top / Lateral)

Test cell mode
Control mode

> 2 to 4 WD (with Front/Rear and Right/Left synchronous or independent control)
> Road Load, constant torque or speed, manual control



FUEL & GAS ANALYSES

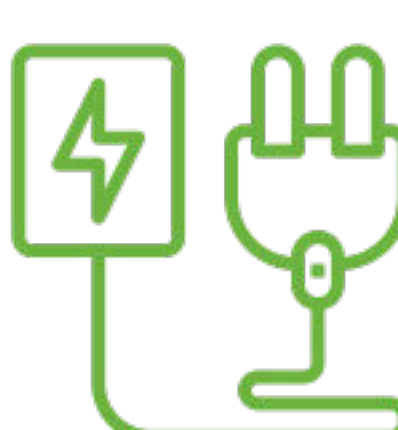


Fuel Measurement Systems
Combustion Analysis
Gas Analysis
EGR
Pre/Post catalyst sampling
PEMS

> AVL KMA Mobile (High accuracy dynamic mass flow meter)
> AVL Indimicro 4 channels
> Raw gas analysis + IntakeAir mass flow meter
> CO2
> AVL AMA i60 / Microsoot sensor AVL 483 / Horiba Mexa One QLNx
> Particle counter AVL 489 - Opacimeter AVL 439
> AVL M.O.V.E GAS - HC + particles counter



HIGH POWER DC CHARGING STATION



Available power
Test situations

> 300kW nominal value - up to 350kW
> Soaking / Charging / OBC Efficiency
Efficiency of each component from the plug
Available from - 40°C to + 50°C environment

