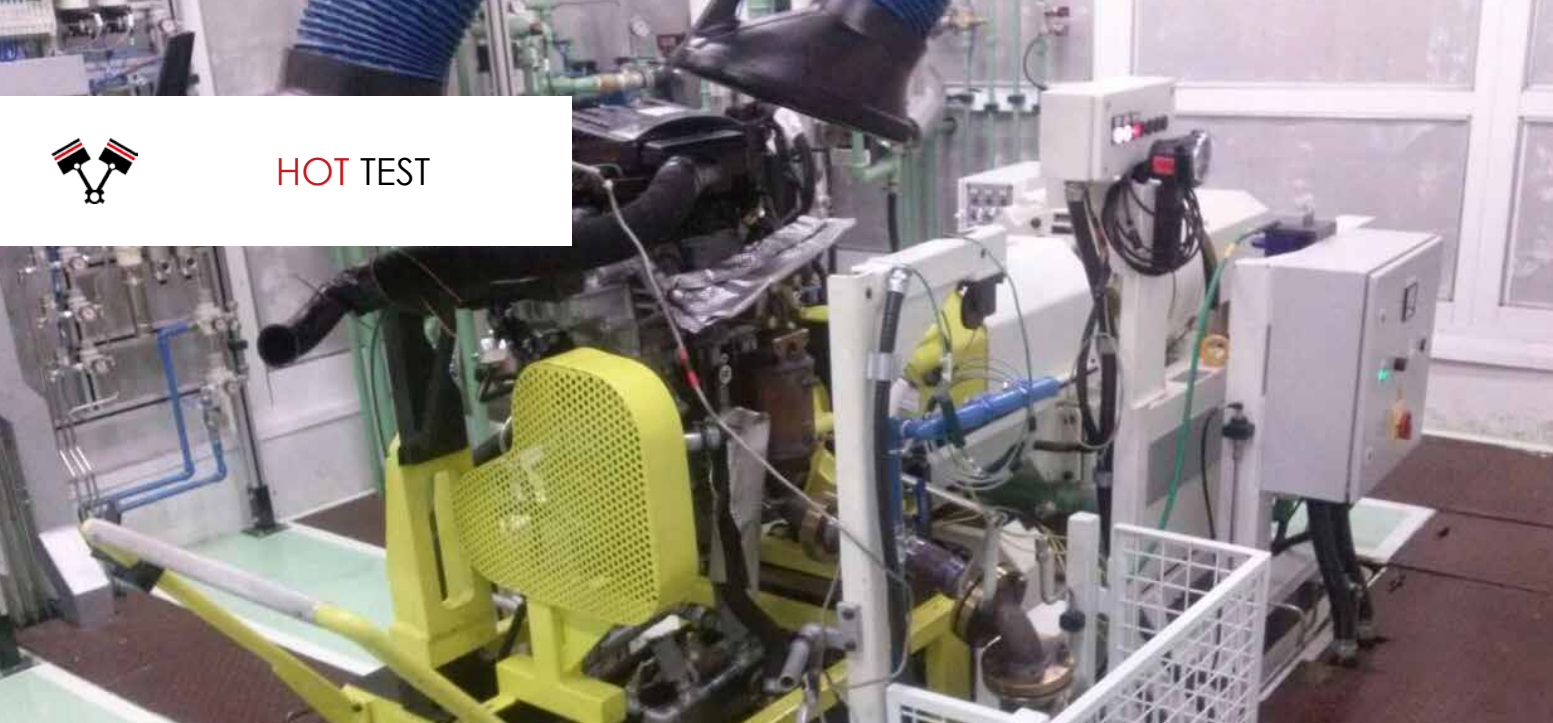




HOT TEST



# ENGINE HOT TEST BENCHES

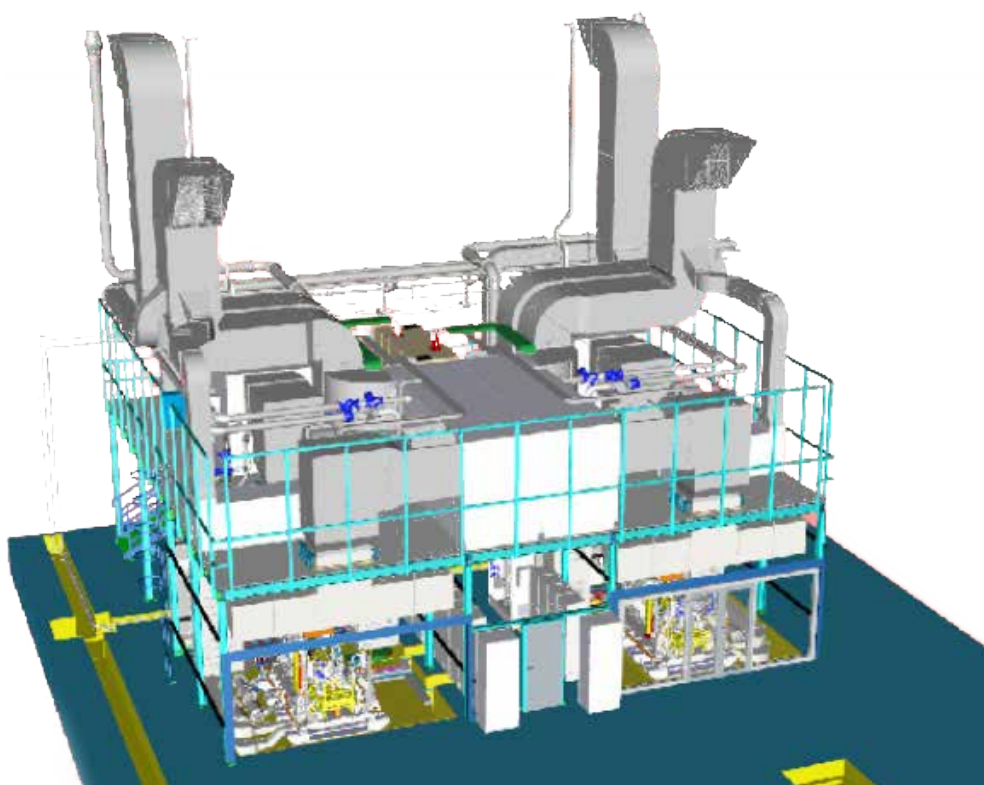
## AUTOMOTIVE POWERTRAIN

Hot testing is the best way to obtain all the information needed for checking the **engines performances** with a view to achieving type approvals and certifications. Compared to the cold test, this type of test takes a longer time, as engine should reach the required thermal conditions before being tested.

The test duration as well as the type of measurement and stress applied to the engines will change according to the nature of the test itself (global performance, simulation of "vehicle conditions", long-run test, durability, C.O.P.).

An hot test bench is a long-lived system, whose components can be easily replaced. So, the whole system can be upgraded for responding to any change of production requirements. This ensures a long effectiveness of the bench as well as the customer's investment.

Simpro pays a special attention to the **energy saving** of its plants. Every test cell could be supplied with systems for recovering the energy produced by engine combustion (kinetic energy conversion by using an electric brake, exhaust gas recovery for thermal purposes, high-efficiency ventilation systems for cooling and heating).



## Measurements available:

- Engine oil pressure;
- Engine oil temperature within the sump;
- Engine coolant inlet/outlet temperature;
- Engine speed;
- Useful power;
- Torque/Load;
- Blow-by values (reading instrument with scale according to the values to be measured);
- Fuel consumption;
- Smoke level;
- Relative humidity;
- Combustion air temperature;
- Exhaust gas temperature;
- Turbo air temperature;
- Turbo air pressure;
- Fuel supply pressure;
- Fuel temperature at the engine inlet;
- ECU supply voltage;
- Exhaust gas back pressure;
- 2 + 4 standby pressure / temperature channels, already wired.



## HOT TEST



## FEATURES

- Automatic and semi-automatic benches with testing **pallets** and **trolleys** equipped with matchplate for fluids and electrical connections;
- **No-load** benches for running tests;
- Full and partial load benches;
- Short-run and long-run testing;
- **Performance** and **quality** test benches;
- **Conveyor** systems for automatic pallet circulation;
- Engines within the cell can be identified by means of a **barcode**.