

Aéroport de Charleroi | Rue Santos Dumont 3  
6041 Gosselies | BELGIUM  
T. +32 (0)71 89 03 52 | M. +32 (0)478 88 73 71  
christian.delrez@cegelec.com | [www.cegelec.be](http://www.cegelec.be)

Cegelec Infra Technics is one of the leaders in the sector of technological service for private and public companies.

The Business Unit Industrial Measure & Control Systems (IMCS) has developed expertise in the domains of:

- Automation and Process Control
- Communication and Hard Real Time Software
- Measurement and Control
- Functional Safety
- Global Support Package
- Cyber Security Assessment of Industrial Control Systems

IMCS is used to provide services in the aeronautic and space domains since more than 40 years.

## Measurement and Control Systems

The **MCS2000** is a decentralized measurement and control system:

- open system, always evolving to meet the customer needs and to integrate technological evolutions
- operating on multiple hardware and software platforms
- broad range of interfaces (standard and customized, high speed acquisition, industrial and specialized interfaces...)
- hardware-in-the-loop (HIL) simulation
- easy to use and intuitive configuration and programming software

- upgrade of a Vega test bench for use in acceptance/qualification tests on the IXV FpCS subsystem
- DLR in Lampoldshausen (Germany)
- Installation of a high performance test bed (2000 logical and analog inputs/outputs, high speed analog acquisition and storage of up to 5,000,000 samples per second, multi-user programming software) to test the evolutions of the Vulcain engine
- Snecma (Safran group) in Vernon (France)
- Installation (in progress) of a test bench, similar to the one provided to DLR, used for the qualification of the Vulcain engine

Amongst the numerous deployment of **MCS2000**, these are the most significant and recent ones:

- SABCA in Brussels (Belgium)
- several generic test benches provided in the frame of the Aircraft System Validation Rig (ASVR) project, to develop and qualify the Electro Hydrostatic Module (EHM) within the framework of the Power Optimised Aircraft (POA) programme
- several test benches (100 logical and analog inputs/outputs, 1553 specialized interface) provided for the development and qualification of the various actuators of Vega launcher

