



# INSTRUMENTATION FOR SPACE



## Design & supply of high-tech equipment

- State-of-the-art innovative solutions
- Agile teams with high-tech skills
- Wide range of services from Design, Assembly, Integration and Testing to Validation



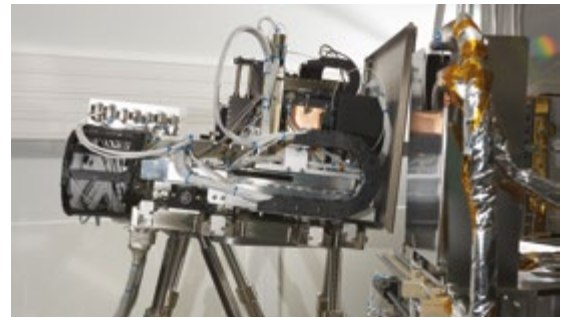
# HIGH-TECH EQUIPMENT DEDICATED TO THE SPACE INDUSTRY

## DESIGN & DEVELOPMENT OF OPTICAL & MECHANICAL TEST BENCHES

Bertin fully designs & develops **ground test equipment (OGSE/MGSE) for satellite applications**, throughout the Assembly, Integration, Testing and Validation (AITV) stages. They are dedicated to qualifying, testing and validating instruments such as very high resolution imagers, radar sonars or advanced telescopes.

The **optical test systems (OGSE)** allow the validation of the instruments' performances. Once tested, they are loaded onto the satellite. These test benches must be of extreme precision in terms of optical performance, mechanical stability and remote control, often in an ultrahigh vacuum environment.

Bertin also develops several types of **mechanical ground equipment (MGSE)**. They ensure the integration of critical components with very high stability and/or precision, and reproduce zero gravity conditions during ground test campaigns to make tests as realistic as possible.



## DESIGN OF EMBEDDED SYSTEMS ON SATELLITE PAYLOADS



These systems, or parts of optical, opto-mechanical and electronic instruments, are **entirely developed throughout the AITV phases**. Earth observation or defense missions via satellite depend on their proper functioning.

They use **state-of-the-art technology** in order to achieve the expected performances. Our teams ensure the **highest stability, reliability, cleanliness** and follow quality assurance requirements.



## Expertise

- High Stability Optomechanical Pointing Instrumentation
- Calibration Instruments: Spectro-Radiometric & Optical and Mechanical
- High-Accuracy Mechanical Instrumentation
- Instrumentation for Optical Quality testing
- I&C – System control & Supervision
- Electronics & Optoelectronics Instruments
- Optical Fiber technology for specific environments
- High Spectral Rejection Filtering Optical

## CLIENTS

