

GMV IN **SCIENCE**

**INSTRUMENTS & DATA PROCESSING,
THE TWO ESSENTIAL ELEMENTS OF ANY SCIENCE SYSTEM**

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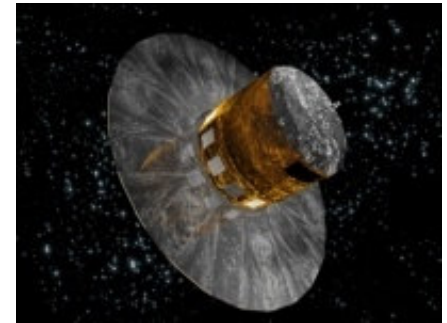


WHAT IS GMV

- Multinational group est. in 1984
 - Spanish private capital
 - Subsidiaries: Spain, Portugal & US
 - Over 1054 employees worldwide
 - 2007 Turnover: 87 M€
 - Origins linked to Space market
 - Currently operating in Aeronautics, Space, Defense, Security, Transportation, Healthcare, Telecommunications and ITC
 - Outstanding team: 80% of the staff are engineers, physicists, mathematicians,...
- Activities in Space
 - Satellite Control Centers
 - Flight Dynamics Systems
 - Mission Planning Systems
 - Global Satellite Navigation Systems
 - Earth Observation Satellite Data Processing Systems
 - Scientific Operation Centers
 - Engineering, guidance, navigation and control
 - Mission analysis
 - On-board software
 - Simulation
 - Space applications

WHAT WE DO IN SCIENCE

- Studies and consulting on Space and Ground Segments, mission analysis studies and tools
- Operational systems for the Flight Operations Segment, including satellite monitoring and control, flight dynamics and mission planning
- Operational systems for Science Operations and Exploitation, including:
 - Mission programming
 - Instrument data pre-processing
 - Science Operations Centers
 - Science data processing, archive and distribution
 - Quality assessment of scientific data
- Space weather and Space surveillance
- On-board software
- Simulation tools
- Training, Maintenance, Operations support
- AIV activities and support services



COLLABORATION EXAMPLES

■ Academic

- Astrophysics Master programs: UCM/UAM, UL/IAC
- IScAI

■ Programmatic

- Member of ASTRID
- Member of ASTROCAM

■ Projects

- All ESA science missions since 1985 MA, SCC, SOC (ESA)
- WSO-UV Ground Segment: MOC, SOC, SDPC & SA (UCM)
- INTEGRAL OMC On-board software (INTA)
- COROT Mission Center (IAA – CNES)
- OSIRIS-GTC Data Factory Pipeline, Mask Designer (IAC)
- LRO Mission Planning Scheduling System (NASA)
- Proposals for CAHA new instruments (ASTRID)



SOME FINAL IDEAS...

- We are open for collaboration
 - Feasibility studies
 - Science proposal & observation planification systems
 - Telescope/instrument/sensor control
 - Scientific data processing, archiving & distribution
 - from conceptual studies and consultancy, through system development, to operational support
- We do software systems...
 - customizable products
 - developments under customer specifications
- ...but we are also integrators of complete solutions
- **Software is an important part of every science endeavor**
 - sw increasing importance and complexity
 - sw should be developed in parallel with the instrumentation
 - Industry can be useful
 - We need to find a new paradigm of collaboration

