

# Instrument development

RAL Space carries out world-class space research and technology development, working with space and ground-based groups around the globe. We have significant involvement in over 210 space missions and are at the forefront of UK space research.

RAL Space leads programmes, supports academic and industrial projects and provides consultancy and facilities to the aerospace community.

#### Science

Our expertise covers a range of disciplines including; astronomy, solar physics, planetary physics, fundamental physics, Earth observation, atmospheric chemistry and radio propagation.

## **Operations**

RAL Space has a proven track record in satellite mission planning and payload science operations and provides ground-station services and software support.

## **Environmental Testing**

RAL Space is certified to ISO9001 2008 and offers clean rooms, thermal vacuum testing and a vibration test facility.

#### Engineering

Our disciplines include space electronics, detector systems, thermal and mechanical engineering, optics design, software engineering and autonomous systems.

#### **Facilities**

- The Concurrent Design Facility (CDF) enables novel space concepts to be quickly and efficiently assessed from technical, financial and programmatic points-of-view.
- Our Multi-layer insulation (MLI) facility is based within a dedicated ISO class 7 temperature and humidity controlled cleanroom, allowing us to produce MLI to the highest cleanliness standards.
- The ESA-RAL Advanced Manufacturing Laboratory is located within RAL's premises. RAL Space provides the laboratory with specialist advice and monitoring on product and quality assurance.
- The Precision Development Facility provides expertise in precision machining and novel component prototyping associated with the manufacture of miniature detectors.