

The LIDAX logo is located in the top right corner. It consists of the word "LIDAX" in a blue, sans-serif font, followed by three small black dots arranged in a vertical line.

LIDAX

The background features a complex 3D graphic composed of several overlapping, semi-transparent blue rectangular blocks of varying heights and widths. In the center, four smaller, solid-colored cubes are arranged in a staggered, ascending pattern. From left to right, the colors are green, red, blue, and yellow. The blue cube at the top right has the "LIDAX" logo on its visible faces. The overall aesthetic is clean and modern, with a focus on geometric shapes and a cool color palette.

• LIDAX AT A GLANCE. CORPORATE PRESENTATION

The Company

**“Since its foundation, more than ten years ago, LIDAX has strongly believed that the best service to the scientific community is to provide trustful and effective solutions to its instrumentation needs.**

**LIDAX is able to carry out every stage involved in the development of advanced instrumentation, from conceptual design to turn-key, encouraging transparency to the client and putting into practice the highest quality standards and expertise for a common objective: to improve client expectations.**

**Our engineering team has a broad background experience closely following the state of the art and the new technologies in sectors such as Space, Astronomy and High Energies, which is applied to the development, under specific *customer requirements*, of *Advanced Mechanical Equipments* to operate in *extreme environments and high level of performance*.**

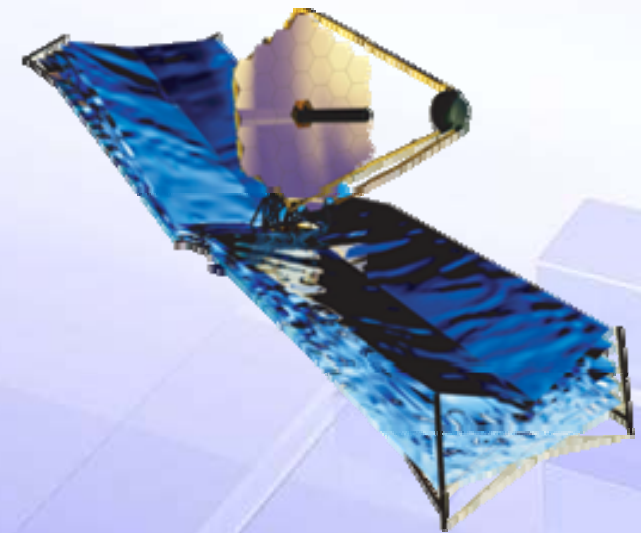
***We believe that each scientific project is unique and strategic for the success of your company, and LIDAX aspires to give you support by offering high levels of commitment, involvement and confidentiality”***

Carlos Laviada  
Co-CEO LIDAX

# INDEX



- ❑ **GENERAL**
- ❑ **HISTORY**
- ❑ **SERVICES Space Engineering**  
**Integration, Test and Validation**
- ❑ **OUTSTANDING PROJECTS**
- ❑ **PRODUCT PORTFOLIO**
- ❑ **LIDAX EXPERTISE ABOUT SPACE MECHANICAL SYSTEMS...**
- ❑ **LIDAX EXPERTISE in CRYOGENICS**
- ❑ **LIDAX OFFERS TO ITS CLIENTS**
- ❑ **CONTACT INFO**



MIRI Telescope Simulator for JWST

The Company

# GENERAL



- ❖ **SME** Space Engineering based on Know-How
- ❖ **Headquarters** at Torrejón Ardoz (Madrid, SPAIN)
- ❖ **Quality Certifications:** EN9100 based on ECSS
- ❖ **Staff:** 22 Engineers and technicians
- ❖ **High Tech Markets:** Space and Science

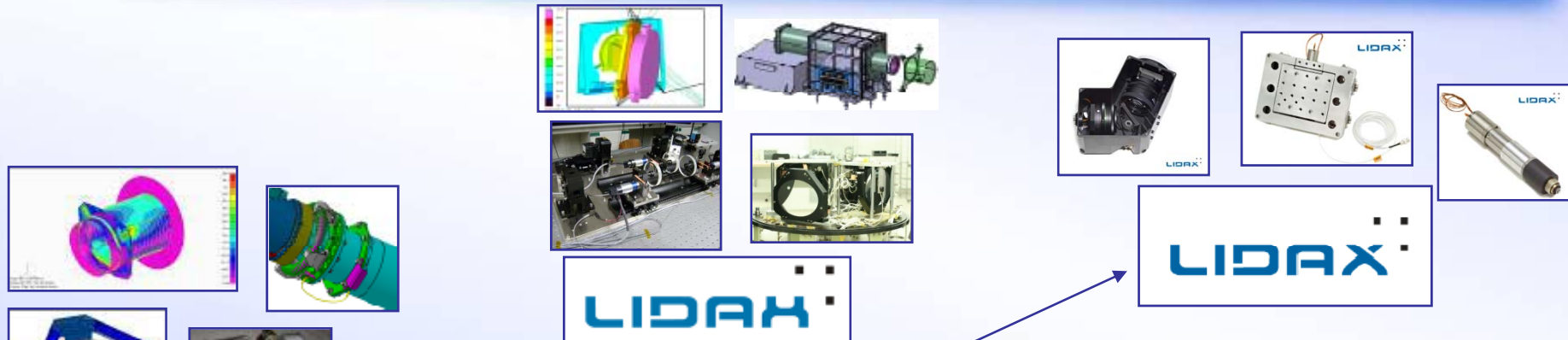


LIDAX Headquarters

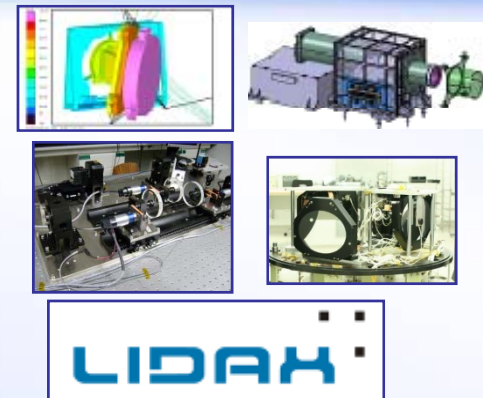


## The Company

# HISTORY



**2000-2005** LIDAX founded by a group of Aerospace engineers with vast experience in both research centers (Spanish National Institute of Aerospace Techniques-INTA) and private activity.

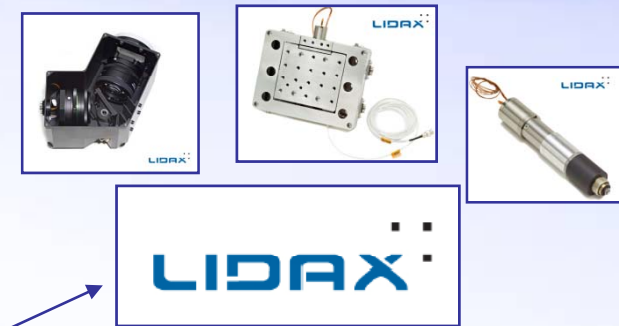


**2005-2008** LIDAX begins to operate its Laboratory SMARTLAB with Integration & Test Facilities.

LIDAX invest in a Cryostat for Mechanisms Testing being the first private company in Spain with this type of equipment.

First Flight HW contract: FPA for MIXS instrument (Bepi Colombo)

The following customers place their trust in LIDAX



**2009-2011...** LIDAX consolidates its position to develop ESA's Mission instrumentation with some space partners.

- Bepi Colombo
- Solar Orbiter
- Coarse Lateral Sensor (Proba-3)
- ExoMars

More customers began to trust in LIDAX Capabilities to achieve common goals



## The Company

# CORE Activites and Competences

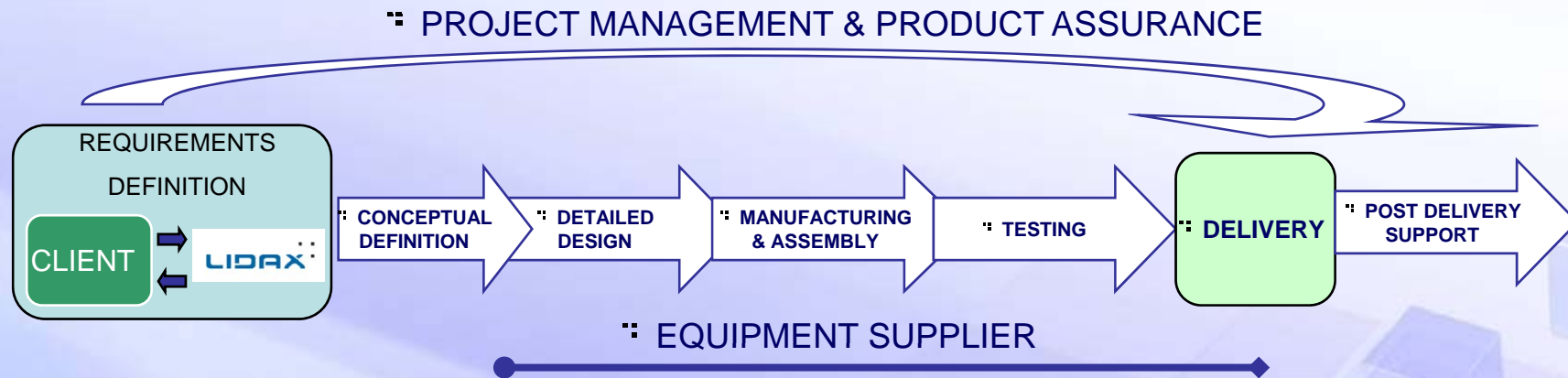


L I D A X develops **Advanced Mechanical Equipments** for operating in *extreme environments (cryogenics & space)* with *high level of performances*.

*Flight Hardware*

*On ground Science & Astronomical instrumentation*

*Mechanical or/and Optical Ground Support Equipment*



Complete Product Life Cycle is controlled by Quality Standard **EN 9100** (Aerospace) ESA standards are strictly followed during all stages

Services

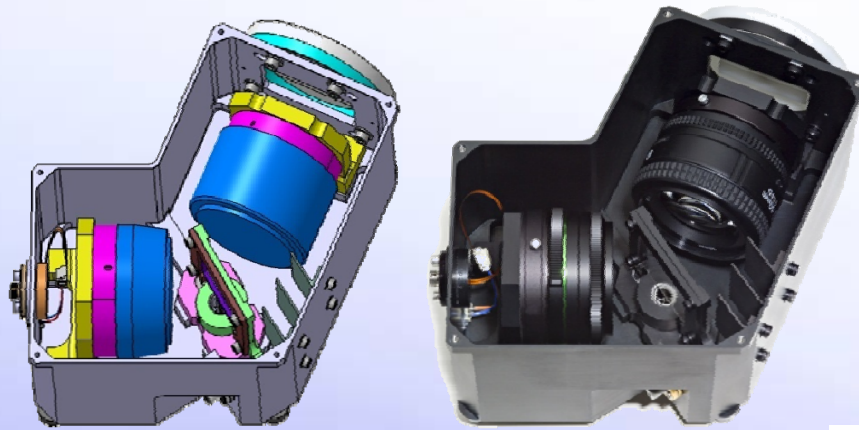
# SERVICES

## Space Equipments Engineering



▣ **DESIGN** *Mechanical & Thermal Control S/S Design*

**CATIA v5**

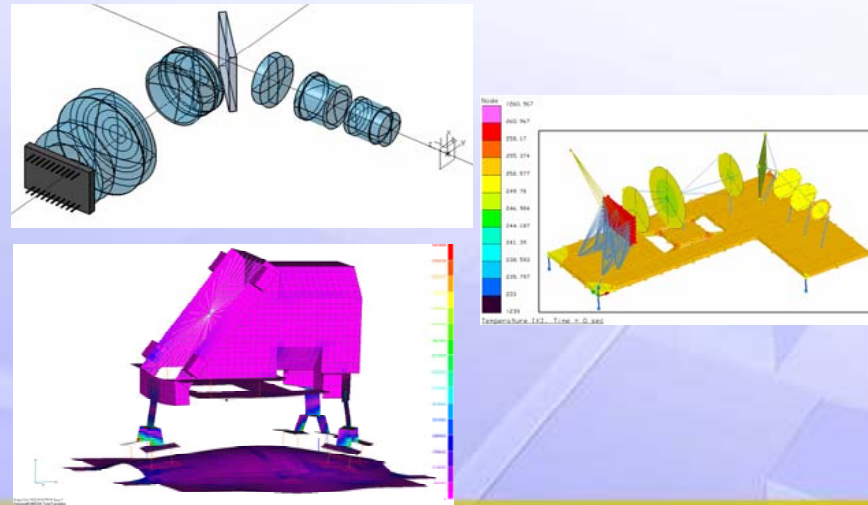


Mechanisms and functional analysis  
Passive and Active Control (Radiation and conductivity; heaters and sensors)

▣ **ANALYSIS** *Structural & Thermal*

**NASTRAN**

**THERMISOL + THERMICA**  
(Astrium standard)



Services

# SERVICES

## Assembly Integration & Test



### SMARTLAB Space Mechanisms and Cryogenic Testing LABORatory

- Functional Test and Measurement of Mechanisms under Vacuum and Cryogenic Conditions
- Components Qualification at Cryo conditions

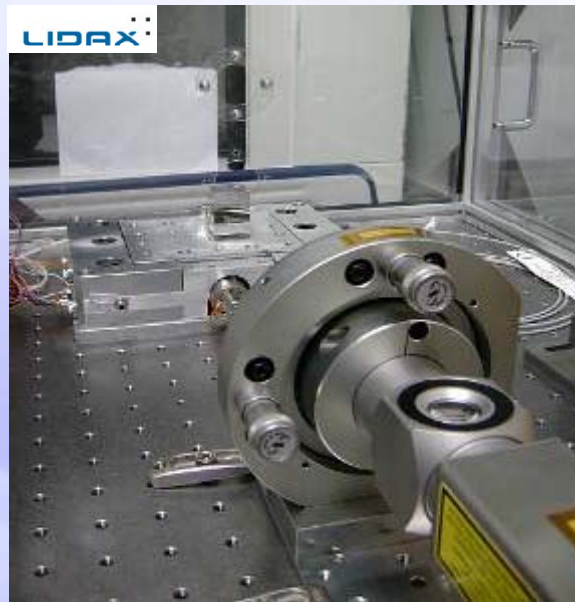
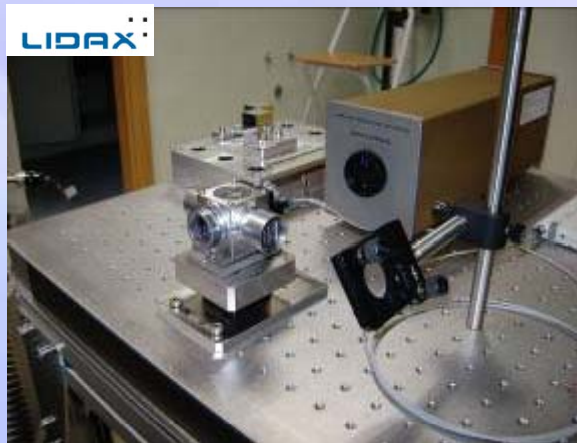
#### Autocollimator



#### Test Cryostat



#### Interferometer



Services

# OUTSTANDING PROJECTS (1/2)



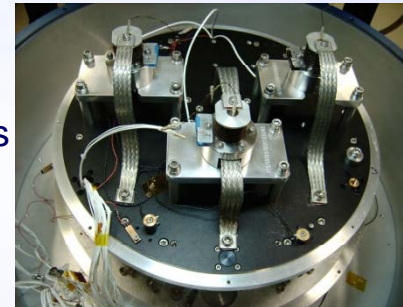
## ❖ Flight equipment

RAMAN-LIBS Spectrometer for ESA's **ExoMars Mission** Optomechanical design and feasibility studies

Mercury X-Ray Spectrograph for ESA's **BepiColombo Mission** Instrument Focal Plane Assembly. Thermo-Mechanical Design

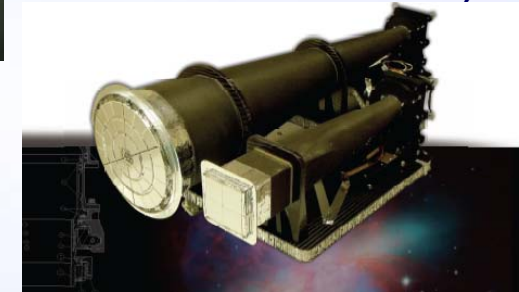
Focal Plane Assembly for ESA's **PLATO Mission** Feasibility instrument study

Hold Down & Release Mechanisms for **HISPASAT 1E** Qualification Tests Campaign

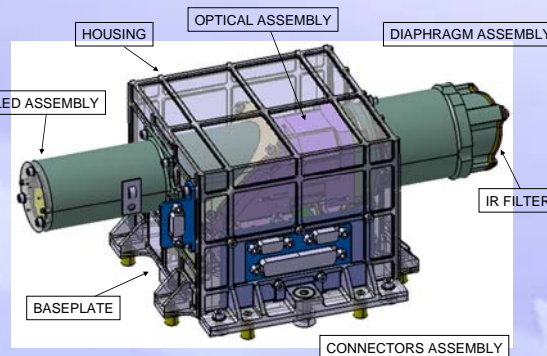


**Cryogenic Launch Lock Device (Spica)**

**X-Ray Focal Plane Assembly (Bepi Colombo)**



**Optical Coarse Lateral Sensor – Flight Formation**



## ❖ Elegant breadboard

Development of an Optical Coarse Lateral Sensor for **ESA** Satellites Flight Formation Complete equipment

Photonic Transceiver. Structural and thermal analyses

Services

More info: [jesus.aivar@lidax.com](mailto:jesus.aivar@lidax.com)

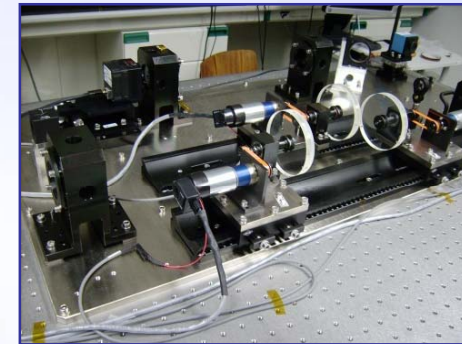
# OUTSTANDING PROJECTS (2/2)



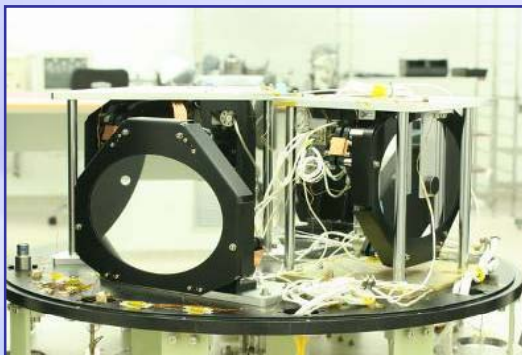
## Optical Ground Support Equipment

Atmospheric Turbulence Simulator for **GTC, WHT & OGS** IAC Telescopes Equipment supplier

**Herschel Telescope** Mounting Structure high resolution alignment tool. Equipment supplier



**Atmosphere and Telescope Simulator**



**JWST Simulator. Active Cryogenic Mirrors**

## Cryo OGSE

**JWST Cryo Telescope Simulator.**  
Phase A System Engineering

**JWST Cryo Telescope Simulator.** Active Cryogenic Mirrors. Complete equipment supplier

**JSWT-MIRI Pick-off Mirror Simulator.**  
Complete Equipment supply

Services

More info: [jesus.aivar@lidax.com](mailto:jesus.aivar@lidax.com)

# PRODUCT PORTFOLIO

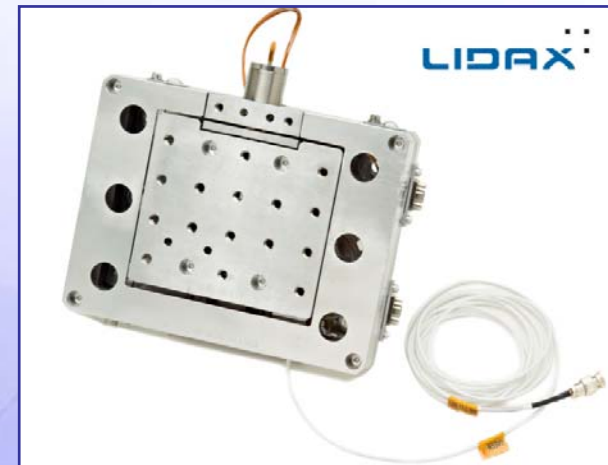


❖ **RAMAN Spectrometer**



❖ **Cryogenic Sub-micron Linear Actuator**

❖ **Cryogenic Translation Unit**



Services

# MAIN CUSTOMERS



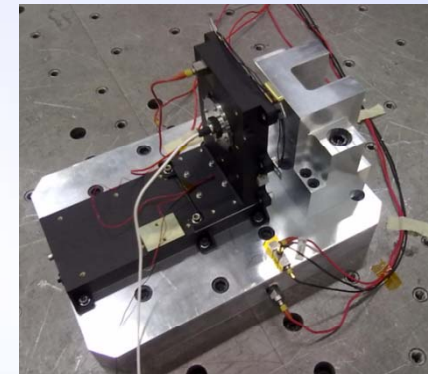
Services

# WHAT LIDAX OFFERS ABOUT SPACE MECHANICAL SYSTEMS...



## EXPERTISE ON ...

- Complete S/S Development. Program Quality Standards
- Program Management as per Space Standards
- Thermo-Mechanical Design & Analysis
- Thermal Control S/S Design
- Functional and Environmental tests
- Tooling and Rigs design



Ensayo de Vibración STM FPA (MIXS)



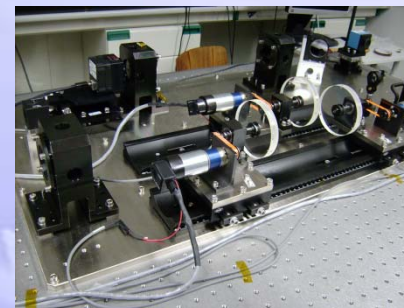
Ensayo Combinado Interferómetro - Criostato

Services

# LIDAX EXPERTISE in CRYOGENICS...



- ▣ Techniques for optimum Design and Analyses of **Cryogenics instruments** (CAD-FEM-Optical Design)
  
- ▣ **Submicron measurements** at cryogenics (12K) environment  
Cryogenic **testing** verification of components and equipment (mainly mechanisms)

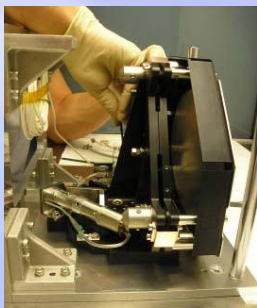
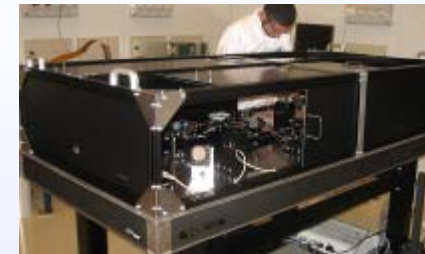


Projects

# LIDAX OFFERS TO ITS CLIENTS...



- High level of **Competence** to be responsible of **complete subsystems development** and **new product** development
- Design, Analysis and Test specific **Services**
- High Qualified Engineering staff at a **Moderate** labour cost (SME)
- **Partnership** for high level **multidisciplinary** subsystems



## The Company

## Contact info ...



### • Contacts

**Business Development Manager Mech. Eng.: *Jesús Aivar***  
**([jesus.aivar@lidax.com](mailto:jesus.aivar@lidax.com))**

### • Address

**Cristóbal Colón 16, 28850 Torrejón de Ardoz (Madrid), SPAIN**  
**Ph:+34 91 6780805; Fax: 34 91 6563901**

• **Web: [www.lidax.com](http://www.lidax.com)**

**The Company**