



YOUR PARTNER IN TECHNOLOGY SOLUTIONS

Finnish Space Industry Days
5.4.2019

20 Years of Technology Development

Founded: 1999

Location: Turku, Finland

Turnover: 320 k€ (est. 500 k€ for 2019)

Space projects: 15

TWO BUSINESS AREAS

Industrial services

Space technology



**Your partner in
technology solutions**

WWW.ASRO.FI

SUPPORT FOR R&D PROJECTS AND PROBLEM SOLVING

SYSTEM ENGINEERING

Integrating system functionalities

Energy efficiency

Algorithm development

Demanding environments

Measurement technologies

Physics

Sensor integration

High quality

Testing

ELECTRONICS

Comprehensive competence related to design, prototype manufacturing and testing

Altium Designer

BLE, IoT, ...

Space electronics

FPGA, VHDL, Verilog, ...

SOFTWARE

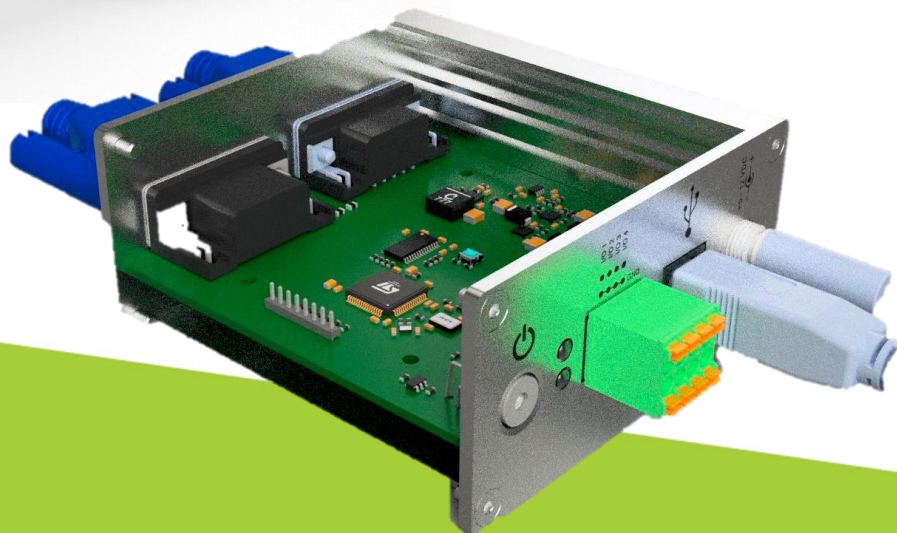
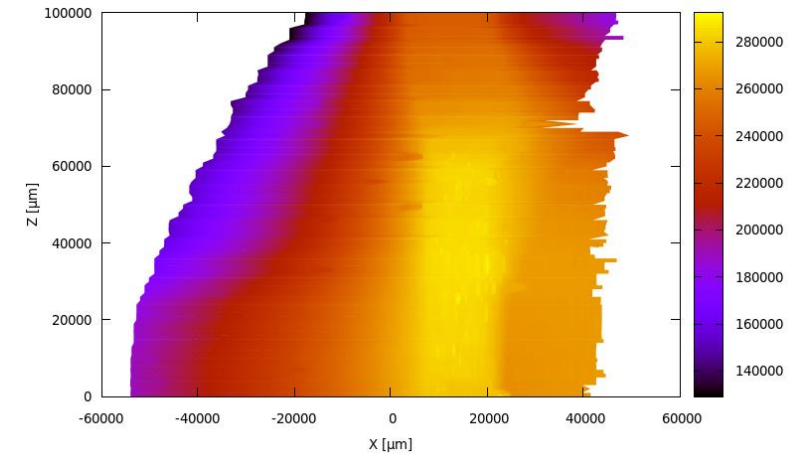
Diverse and extensive software competence

C/C++, LabView, Java, PHP,
SQL, Python, ...

Agile scrum

Linux, FreeRTOS, mbed, ...

INDUSTRIAL SERVICES: Reference cases





SPACE TECHNOLOGY

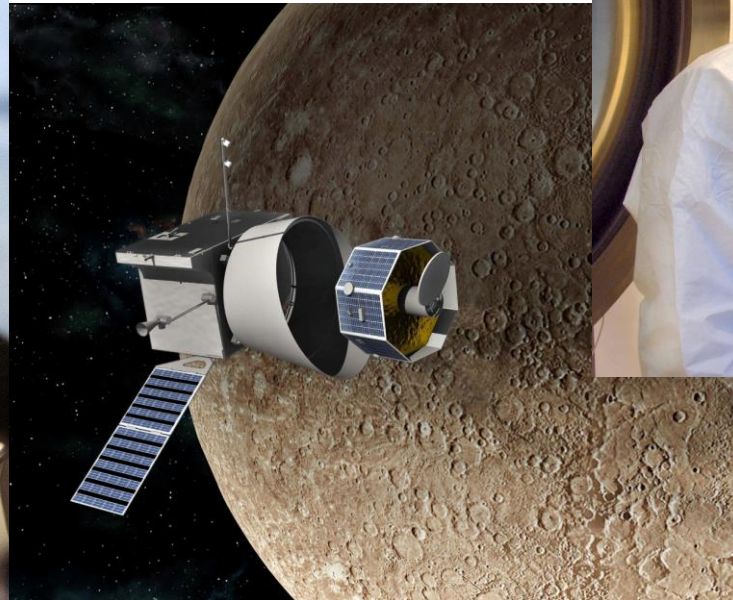
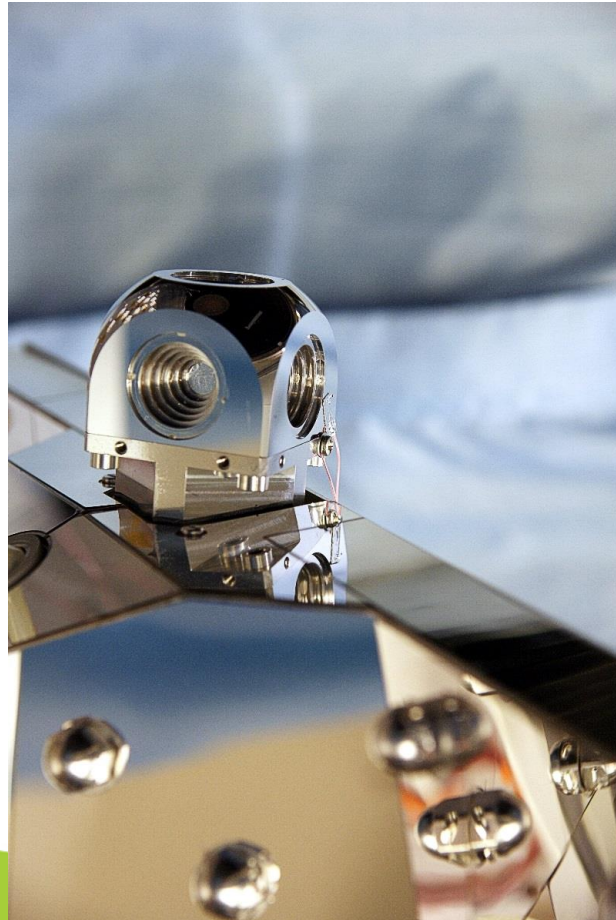
Overview

Instrument development

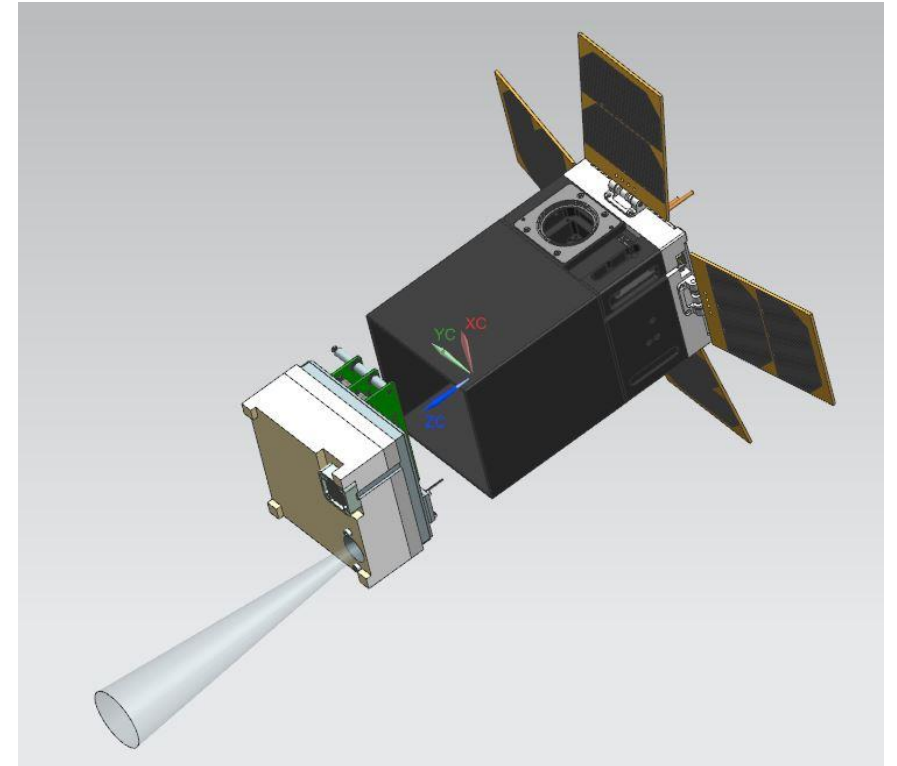
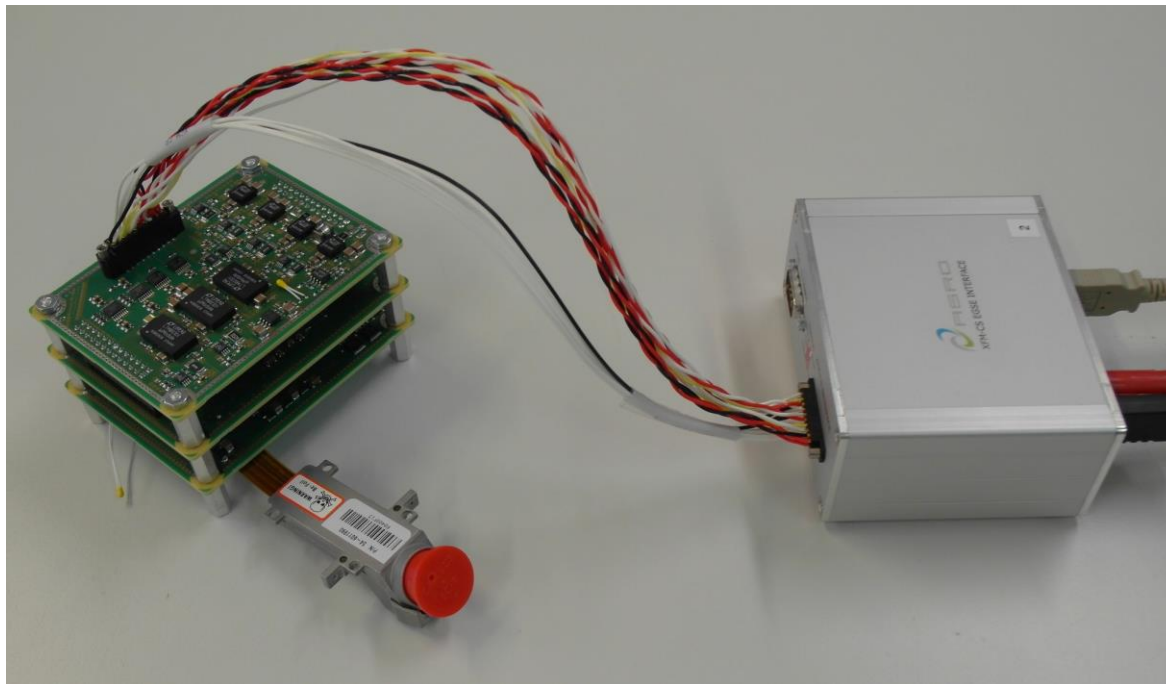
Space debris observations

Radiation measurements

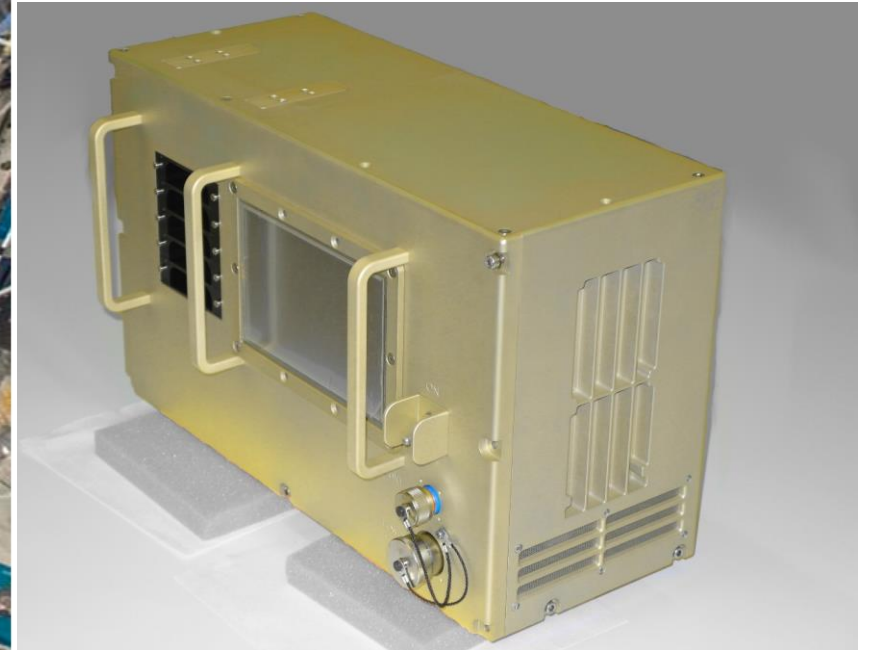
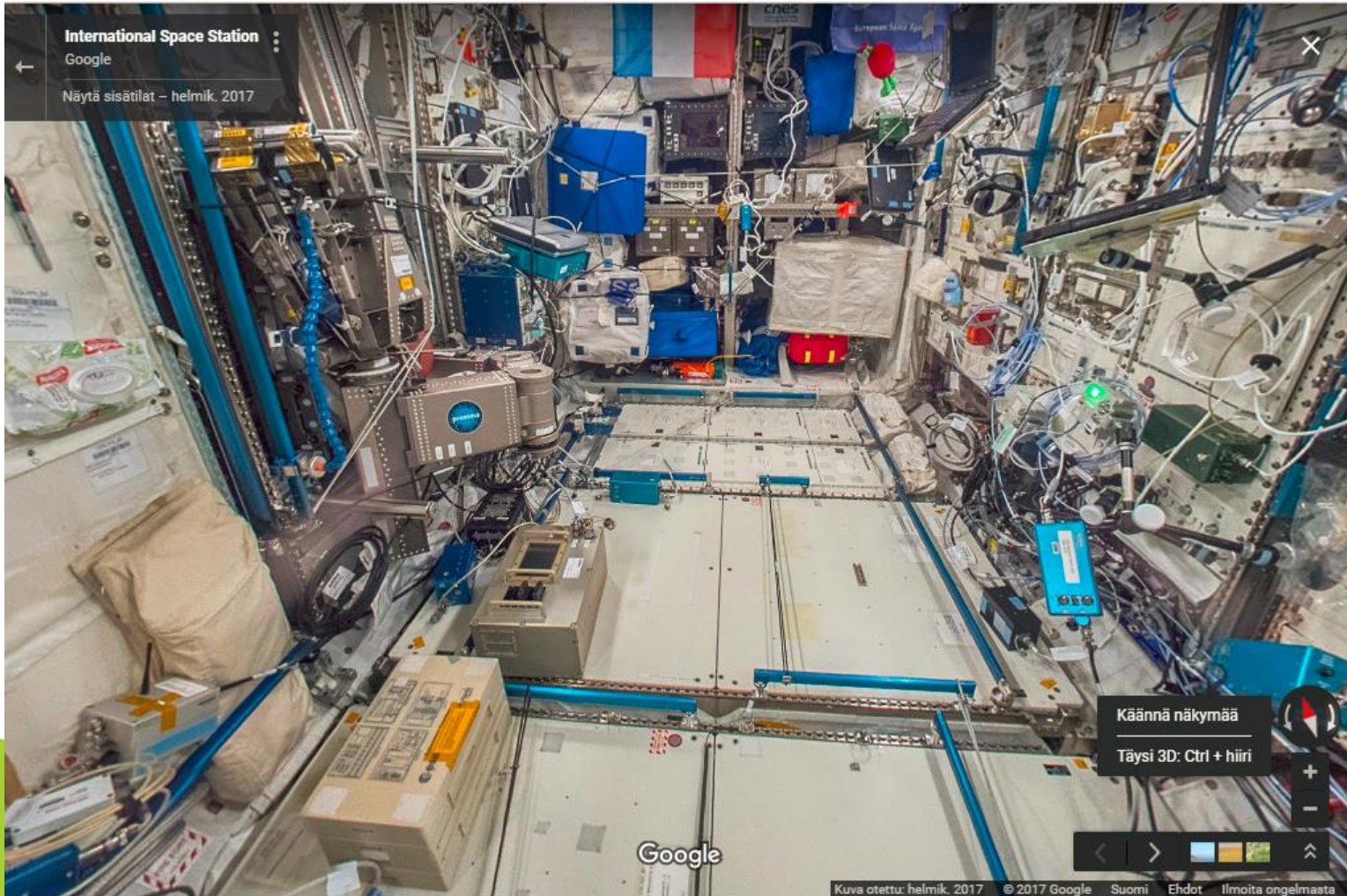
SIXS particle detector for BepiColombo



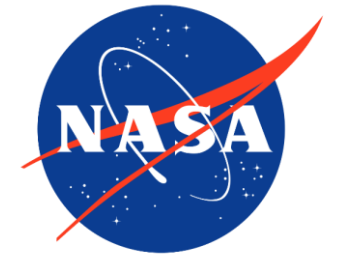
X-ray flux monitor for In-Orbit Demonstration mission



Active dosimeters for European astronauts



Dosimeters for ORION spacecraft



Space based optical telescope for in-situ space debris observations

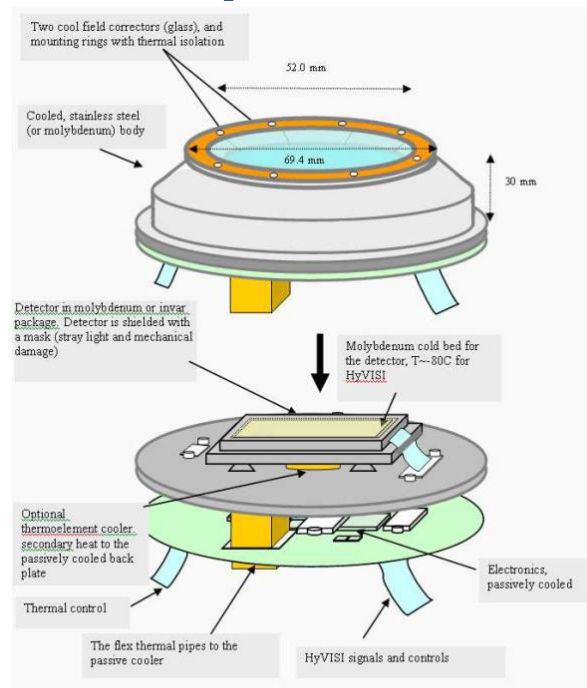


Figure 4. The SBOOSD camera Unit for the HyViSI detector. The backplane of the camera (molybdenum, diameter 10 cm) will be cooled by a passive cooling system.

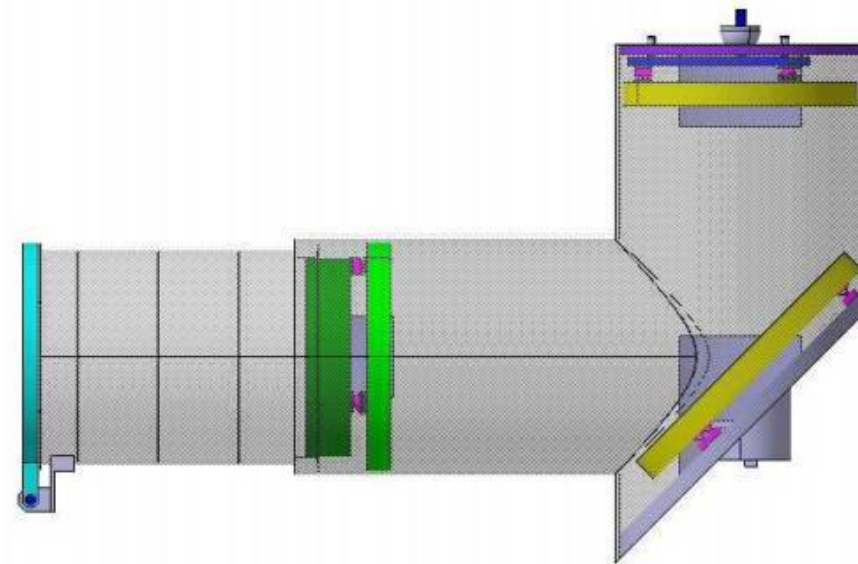
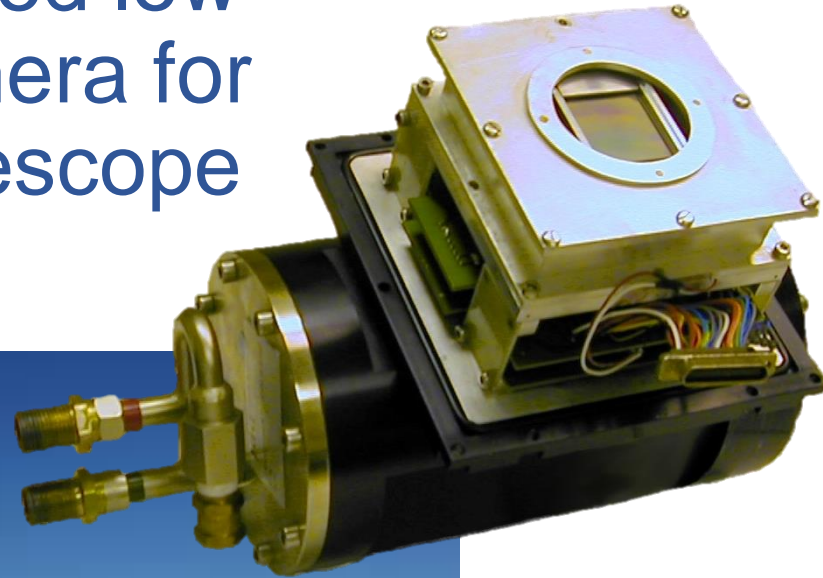
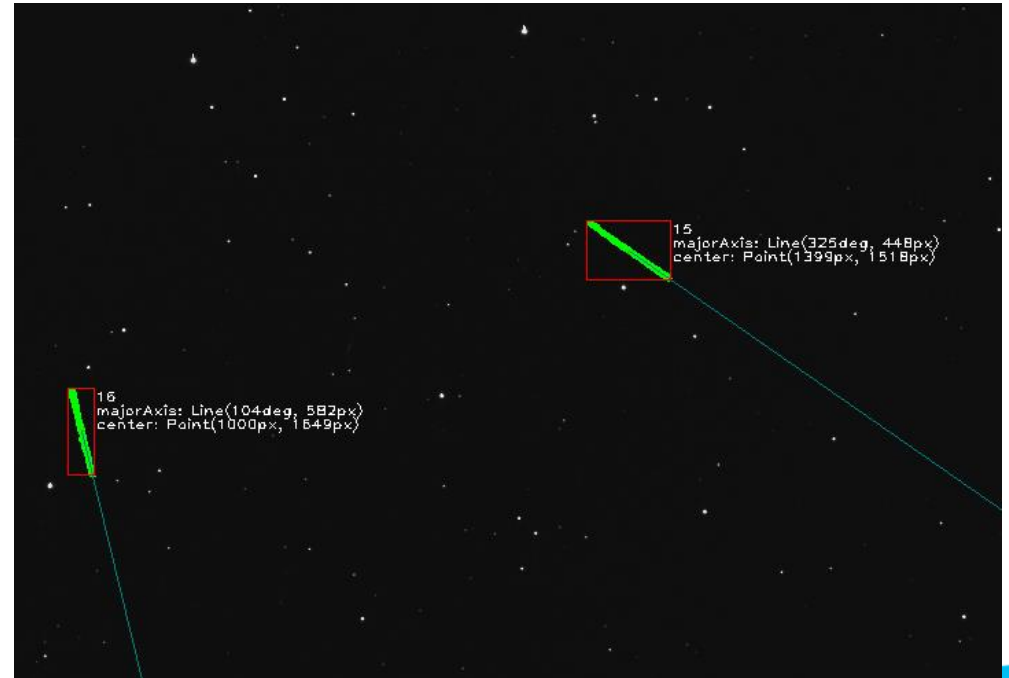


Figure 8. Top view of the telescope structural design.

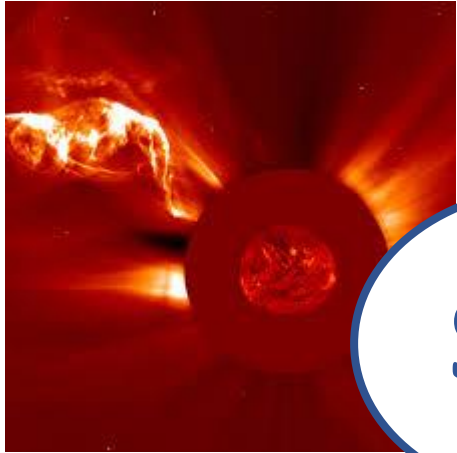
Cryo-cooled low noise camera for ESA's telescope



“StreakDet” Space debris detection software



The Future of Space technology



SSA

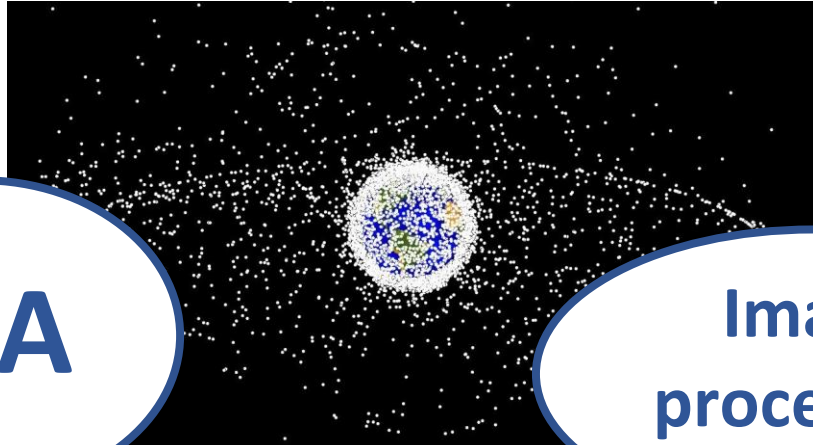
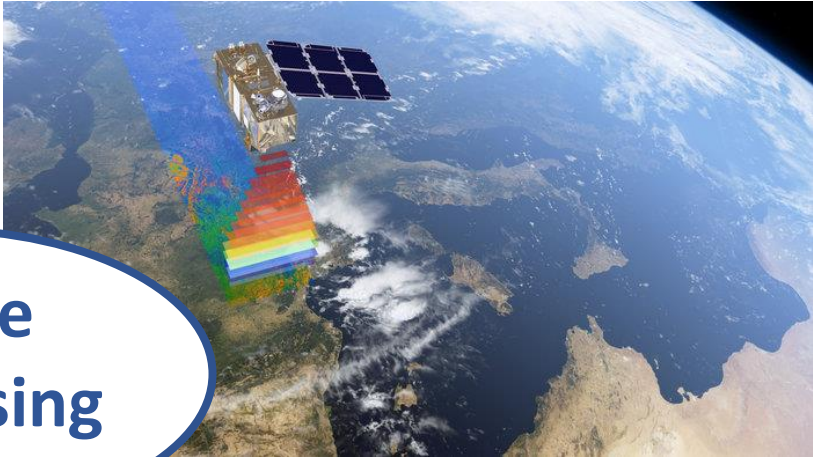
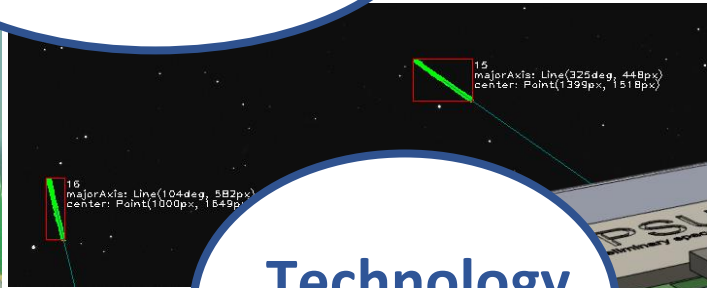


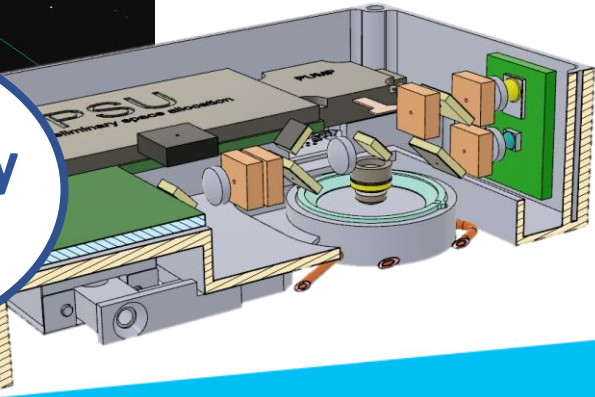
Image processing



Radiation protection



Technology Spin-In



Thank you!

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technology solutions**

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