

living planet symposium | BONN 23–27 May 2022

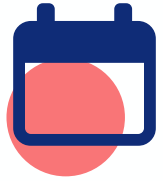
TAKING THE PULSE
OF OUR PLANET FROM SPACE



One step closer to daily Sentinel-2 data products: MSCM IOD

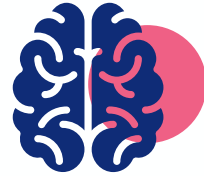
Jean-Emmanuel Roty

27/05/2022



2018

Kick-Off



~140

Employees



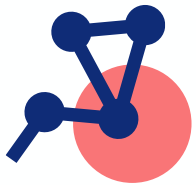
1 + 8

Satellite in orbit +
to be launched by
end of 2023



€60m

Raised



4

Constellations
in works



€8m

Contracts signed
in 2021 alone



3

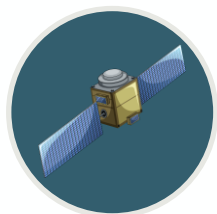
Countries



50x

Demonstrated
satellite cost
reduction

3 key Segments



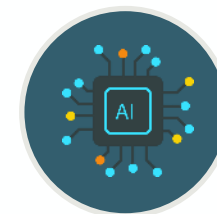
SATELLITES

Aerospacelab **designs & manufactures satellites** in its Belgium factory for its own use and third party sales.



DATA

Commercialization of **Earth Observation data**, acquired through own satellite constellations.



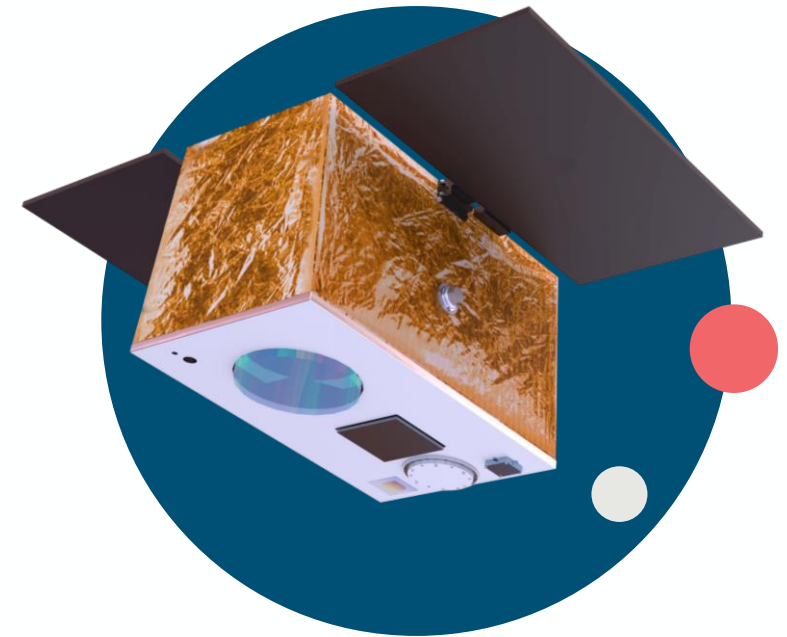
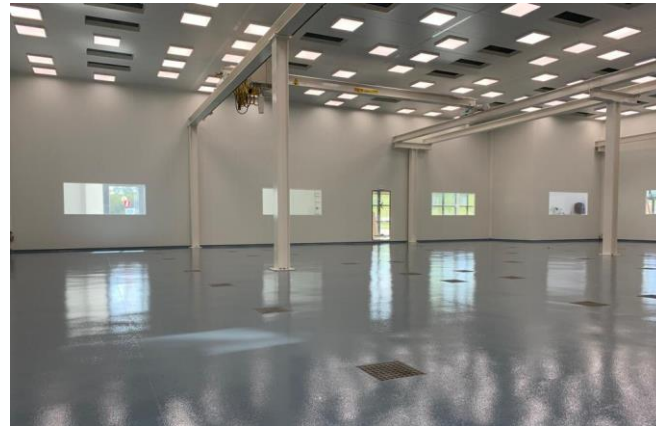
INSIGHTS

Commercialization of **actionable insights** using Artificial Intelligence and Machine learning on proprietary and third-party datasets.

Versatile Satellite Platform

VSP (Versatile Satellite Platform) is a smallsat platform with unparalleled versatile-by-design capabilities. Aerospacelab offers cost efficient but high-performance satellite solutions thanks to its payload-agnostic approach, short lead time and the use of components validated through previous missions.

VSPs are standardized and manufactured in series at the unique Monet factory, capable of producing 24 satellites per year.



Very High Resolution



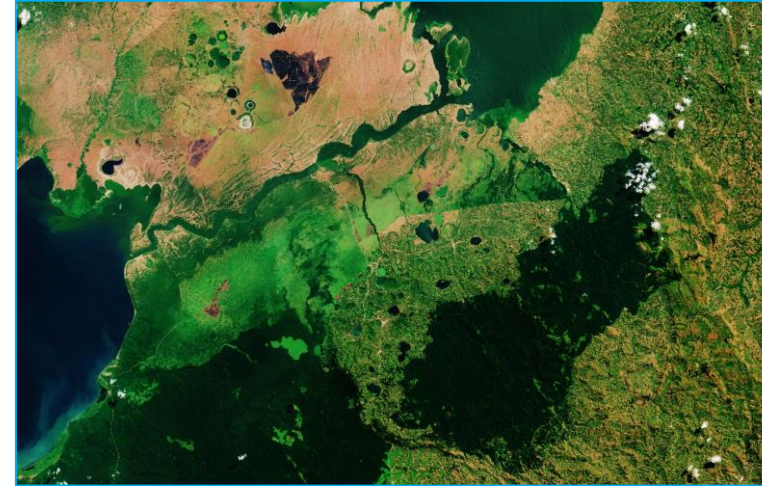
Targeted intelligence

High resolution
High revisit frequency
Tasking-driven

Main applications:

- Strategic intelligence
- Economic intelligence

Multispectral



Persistent monitoring

Medium spatial resolution
High radiometric performance

Main applications:

- Environmental intelligence
- Agriculture & food security
- Natural disaster management

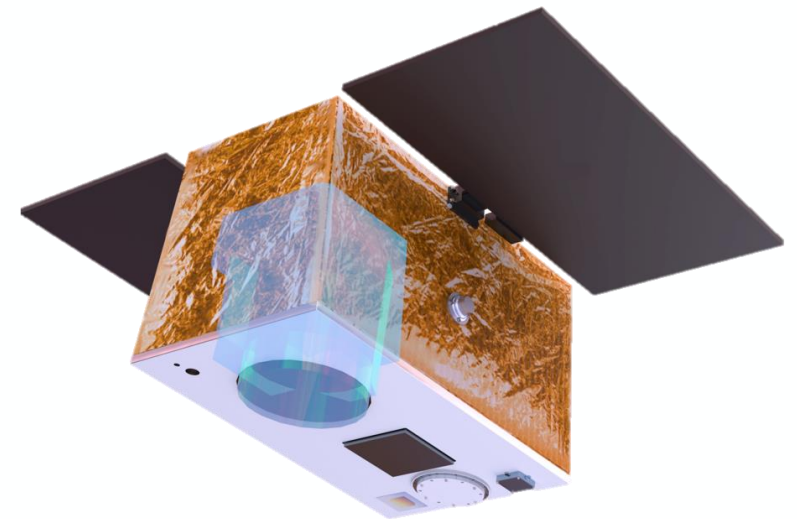
Co-funded project with ESA as part of the InCubed programme to launch an **In-Orbit Demonstrator** for the MSCM constellation, leveraging upon Aerospacelab's **Versatile Satellite Platform**.

Demonstration of:

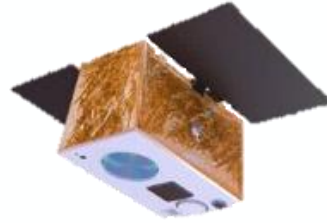
- Performances of key technological blocks
- Cross-calibration capabilities
- On-ground data processing (L0-2A)
- Data archiving & Dissemination
- Generated data market worthiness

Payload characteristics:

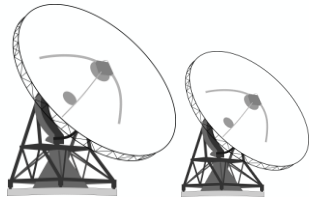
- SNR and MTF derived from Sentinel2 requirements
- 11 bands from Sentinel2 + additional bands in both VNIR and SWIR



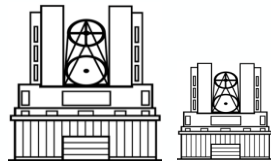
SPACE SEGMENT



GROUND SEGMENT



RF Ground Station



Optical Ground Station



Tasking Center



Mission Control Center

USER SEGMENT



Image Processing Center



Data Storage Facility



User Segment Portal



Users

Thank you for your attention, Have a great weekend!

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