

2025 제 10 회 초소형위성 워크숍

Presentation [1-6]

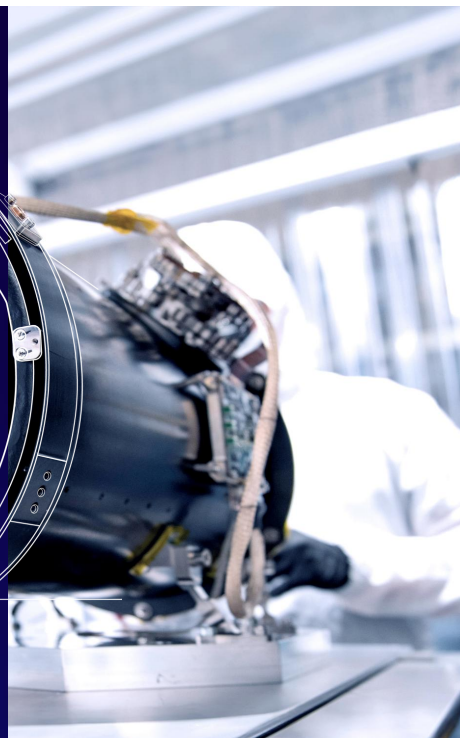
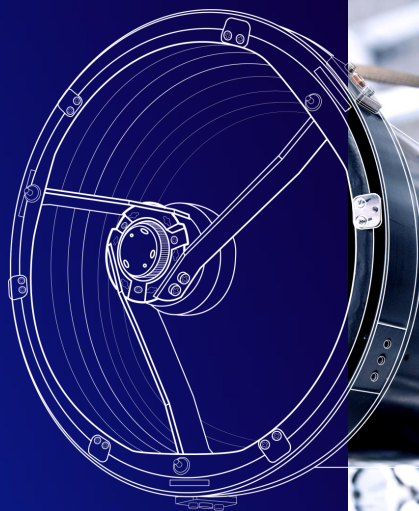
**Meeting Optical Payload
Demand: Scanway's Strategy
Across Earth Observation,
Defence, and Space
Exploration**

Pawel Snopek

Scanway S.A

Scanway Space

optical payloads provider



About Scanway Space

US & Polish

New Space
company with
70+ employees

TRL9

7 payloads
in space
2+ more in 2025

Public company

part of Polish
stock market
since 2023,
Warsaw Stock
Exchange debut
mid-year

9 years

of experience in
space industry

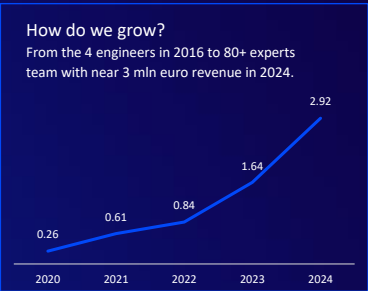
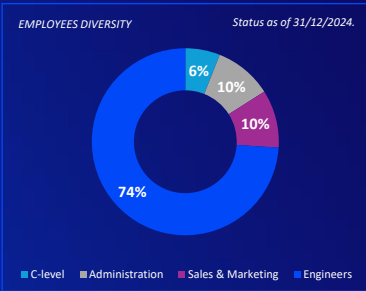
Scanway in numbers



9+ years of experience

80+ experts

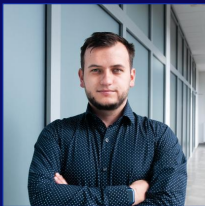
23+ payloads on different stages



Jędrzej Kowalewski - CEO



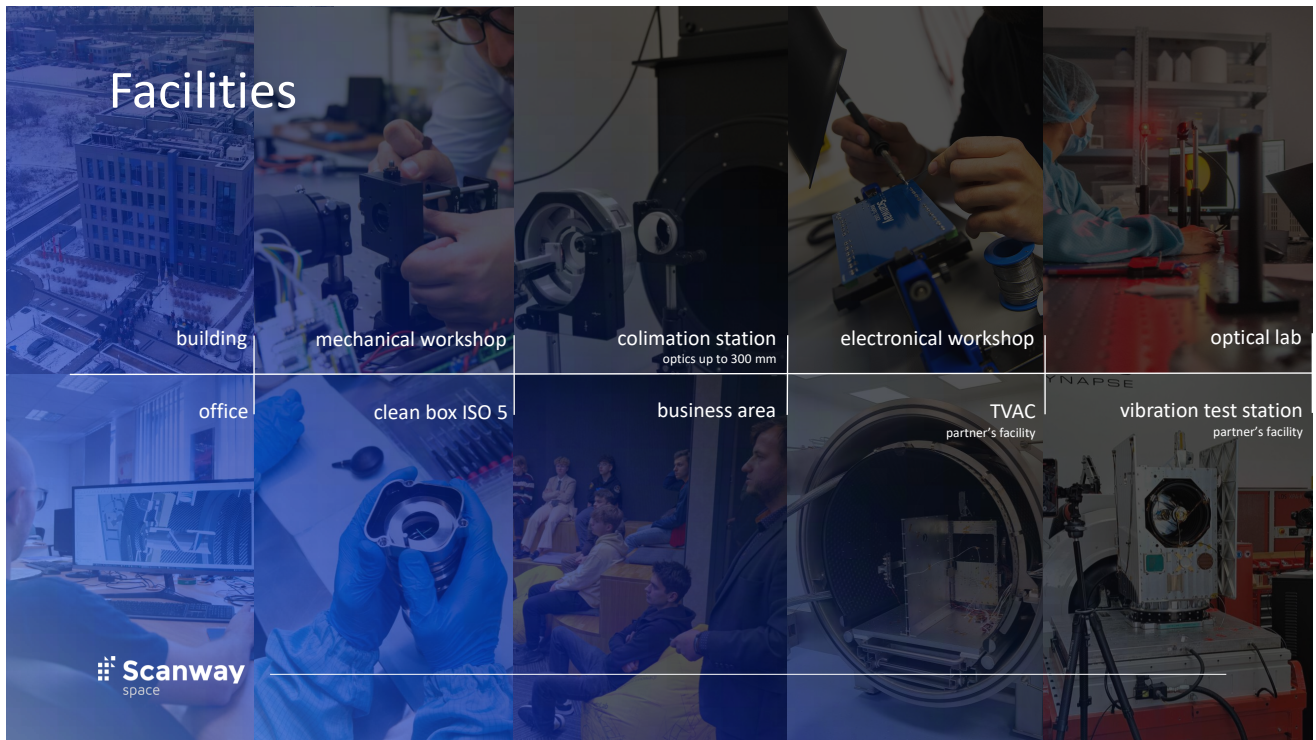
Michał Zięba - CTO



Mikołaj Podgórski - COO

Space branch structure





Space Cameras

support for your space mission

- □ 10+ payloads delivered, 10+ under delivery
- +
- □ TRL 9 for both products
- ■
- ▽ own demo mission on LEO since 2023
- ■

Earth Observation

precise EO with specific optical parameters

TRL 9
2023

Exploration

imagery of Moon, asteroids and deep space objects

TRL 9
2025/26

In-space operations

satellite deployments, docking missions, fairing separations

TRL 9
2024

SSA

support of the SSA missions with high-quality imagery

technical concept

Scanway
space

Our products do work in space

12 payloads under delivery

4 ready to launch

7 were/are in space



Scanway's key missions

STAR VIBE

EagleEye

CAMILA

Ariane 6 (YPSAT)

PIAST

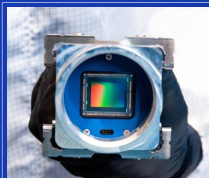
NarSha

SEMOVIS

IM Moon

OTTER

Our missions



Camera for NarSha mission

A Nara Space Technology-led observation initiative focused on near real-time detection of methane emissions using a constellation of microsatellites. Scanway's role in the NarSha project is to deliver a high-resolution optical payload for the K3M demonstration satellite, capable of detecting methane plumes in VIS, NIR, and SWIR bands with spectral resolution below 1 nm and spatial resolution of 30 m.

last delivered

SEMOVIS

450 mm multi-instrument for VIS-SWIR real-time Earth Observation



PIAST

2 optical instruments for security purposes



IM Moon

Optical instrument for mapping the lunar surface



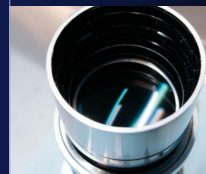
EagleEye

200 mm high-resolution optical instrument for civilian and security purposes



STAR VIBE

Demonstrational mission with optical instrument and camera system



Our partners

ICEYE

NARA SPACE

FLYTRONIC

marble imaging
Earth Observation reimagined

SPACE
INVENTOR

esa

3M

Dr.
Schumacher

our demo mission

Scanway Optical Payload

A camera series designed for Earth Observation and other remote sensing applications, compatible with both micro- and nanosatellites.

TRL 9

20-450 mm
aperture
up to submeter
GSD in RGB from 500 km

NIR/PAN
SWIR/RGB

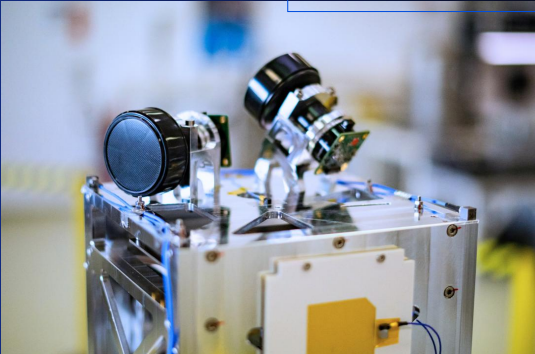


Scanway Camera System

A series of compact camera systems primarily designed to support diverse missions and aid decision-making by providing insights into process flows.

TRL 9

1
cameras
+
UART, SPI, GigE
interfaces
frame & video
capture



Scanway
space

Optical Payloads (SOP)

for EO and other remote sensing applications

TRL 9



Scanway Optical Payload

SOP NANO

for nanosatellites < 10kg total mass

20-100 mm
aperture

up to 5m/pixel
GSD in RGB from 500 km

**NIR/PAN
SWIR/RBG**

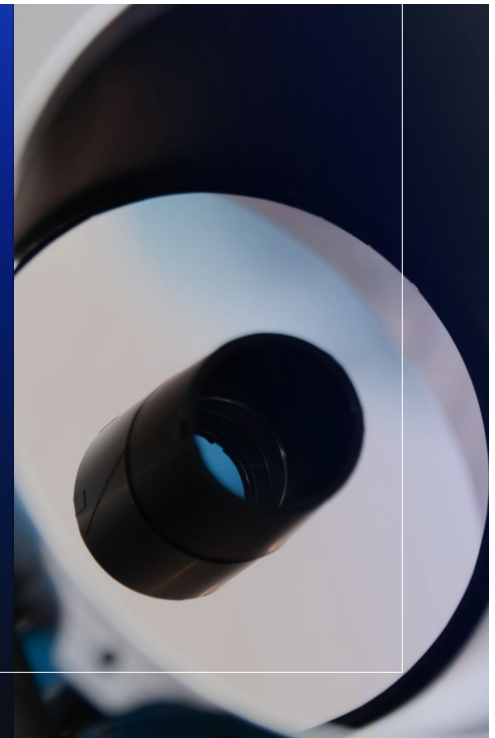
SOP MICRO

for microsatellites < 200kg total mass

120-450 mm
aperture

up to submeter
GSD in RGB from 500 km

**NIR/PAN
SWIR/RBG**



Scanway in-house technology

Mechanical
interfaces

Telescope structure

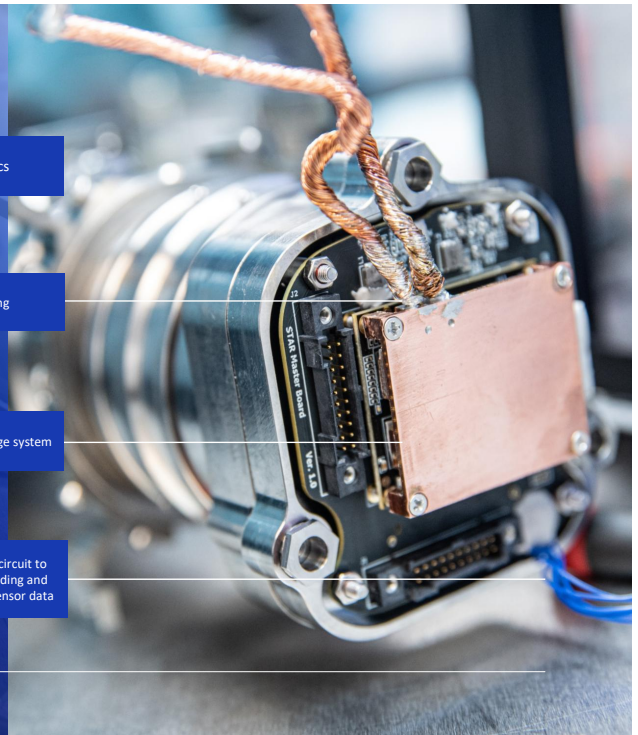
Optics

Wiring

Heat exchange system

Electronic circuit to
control reading and
writing of sensor data

A significant part of Scanway's expertise lies in the in-house development of system-level technologies, providing full control over quality, integration, and testing.



SOP 3U/50

for STAR VIBE nanosatellite

Configuration details

500 km	orbit
RGB / NIR	spectrum
50.8 mm	aperture
25 m	GSD
102.4x76.8 km	FOV
0.1 m	focal length
2.1	focal ratio
1.2 kg	mass
210x77x100 mm	size

Payload status: working on orbit since 03/01/2023

 **Scanway**
space

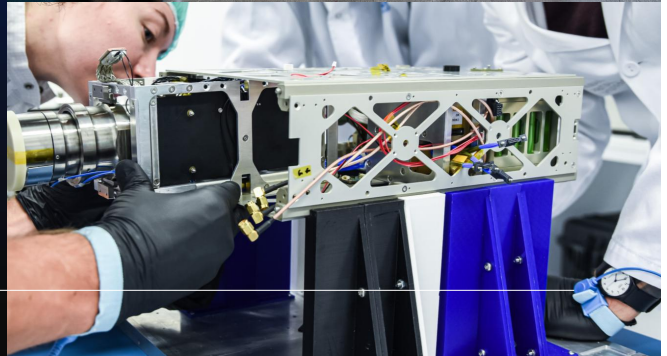
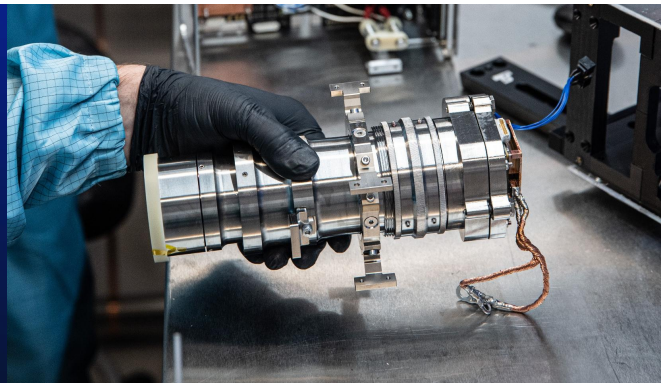
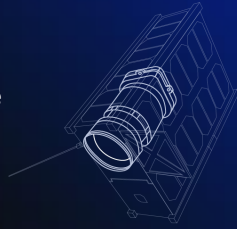
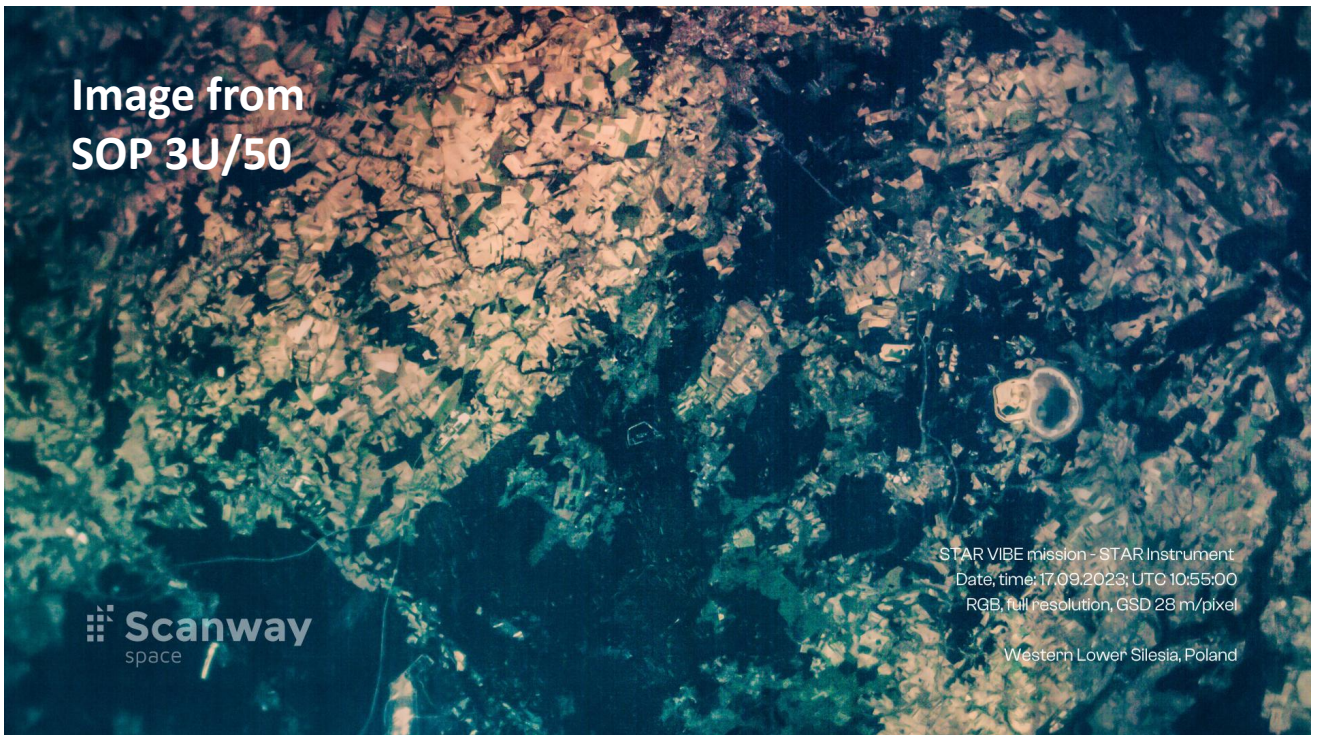


Image from SOP 3U/50

 **Scanway**
space

STAR VIBE mission - STAR Instrument
Date, time: 17.09.2023; UTC 10:55:00
RGB, full resolution, GSD 28 m/pixel

Western Lower Silesia, Poland



SOP 200

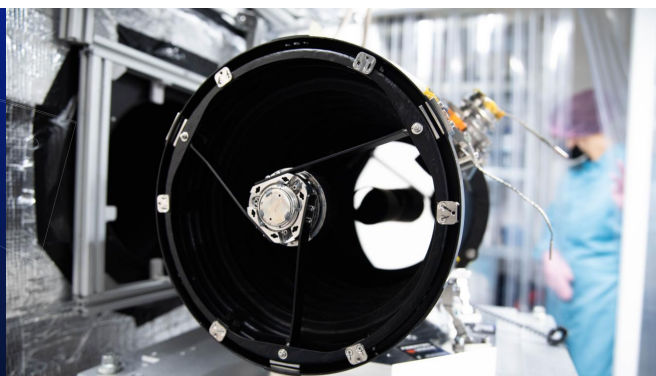
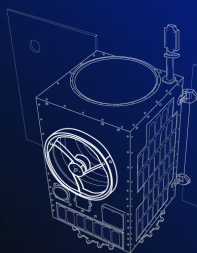
for EagleEye microsatellite

Configuration details

500 km	orbit
RGB / NIR	spectrum
198 mm	aperture
1.75 m	GSD
7.2x5.3 km	FOV
1.6 m	focal length
8	focal ratio
8 kg	mass
430x350x300 mm	size

Payload status: **launched 16.08.2024**

 **Scanway**
space



Project is financed by The National
Centre for Research and Development

Fundacja
Europejska
Europejski Fundusz
Innowacyjny

Rzeczpospolita
Polska

NCBR
Narodowe Centrum
Badań

Unia Europejska
Europejski Fundusz
Innowacyjny

Logo of the European Union

SOP 450

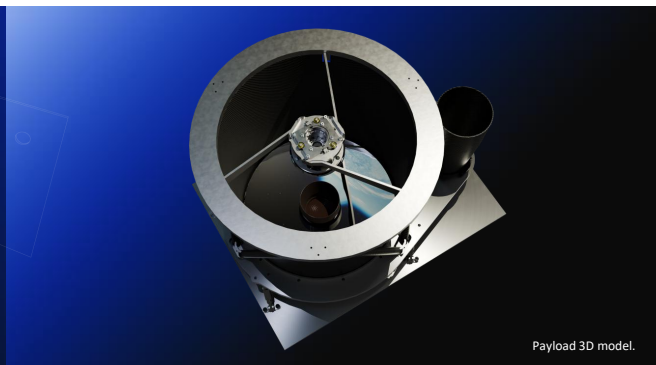
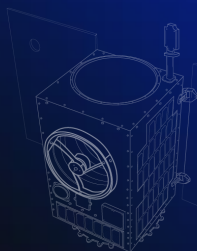
for SEMOVIs project

Configuration details

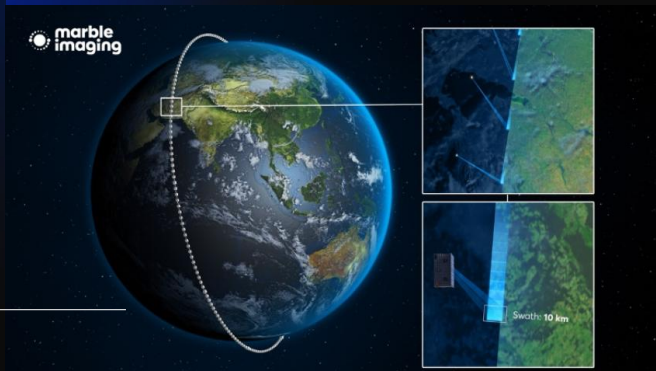
500 km	orbit
RGB	spectrum
450 mm	aperture
0.8 m	GSD
10.2x7.64 km	FOV
2.2 m	focal length
4.8	focal ratio
30 kg	mass
700x500x500 mm	size

Payload status: in development.

 **Scanway**
space



Payload 3D model.



Camera Systems (SCS)

for space applications

TRL 9

What types of camera systems do we provide?

SINGLECAM

Space Camera Unit

MULTICAM

Space Image Acquisition System

SMARTCAM

Space Image Processing System

camera, optics +
different interface options

multiple singlecam modules +
optional basic image processing +
tailored communication interface

multicam features +
advanced data processing +
AI capabilities

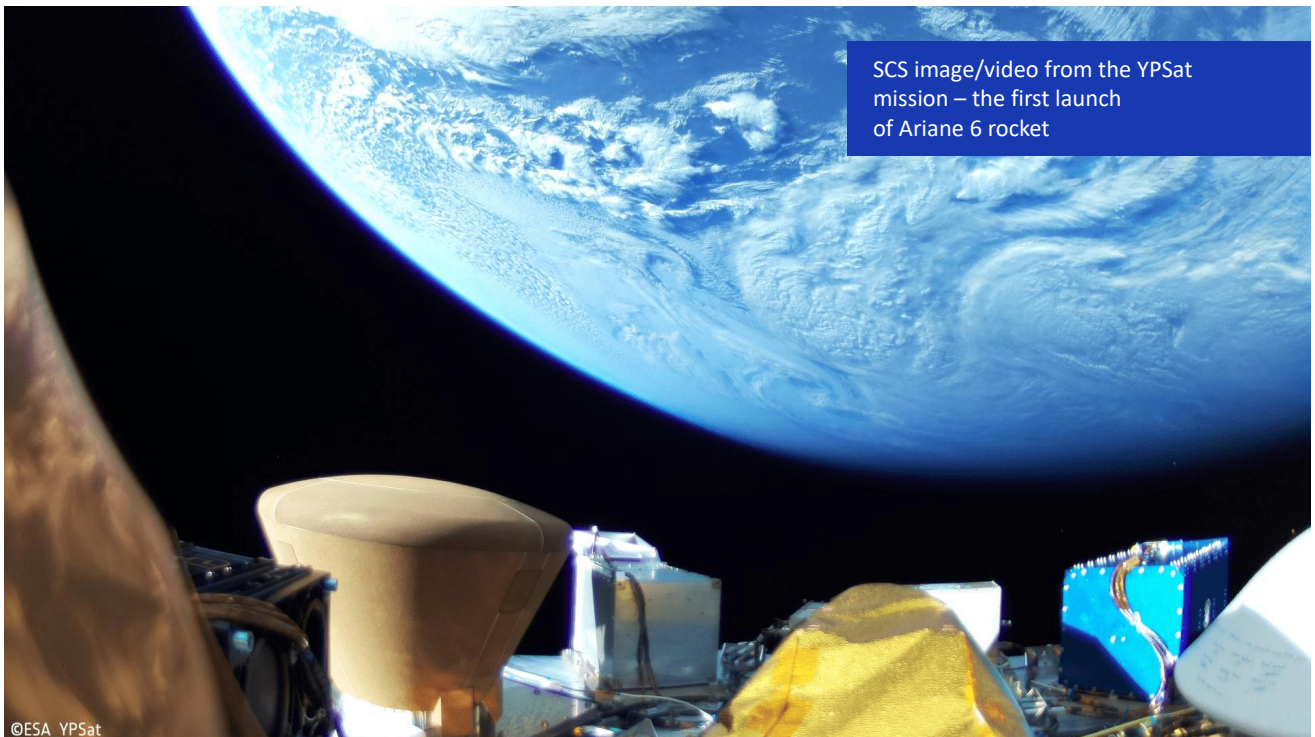
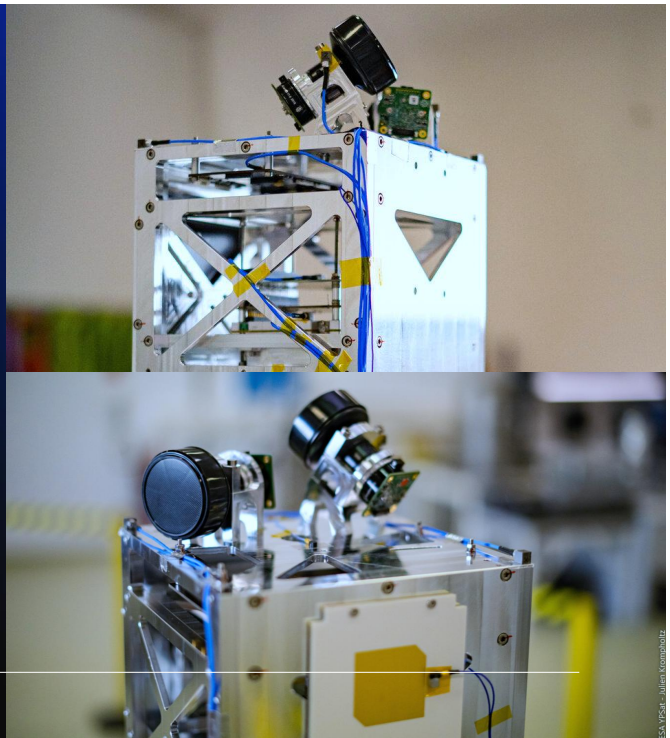
2 Cam System for YPSat mission (Ariane 6)

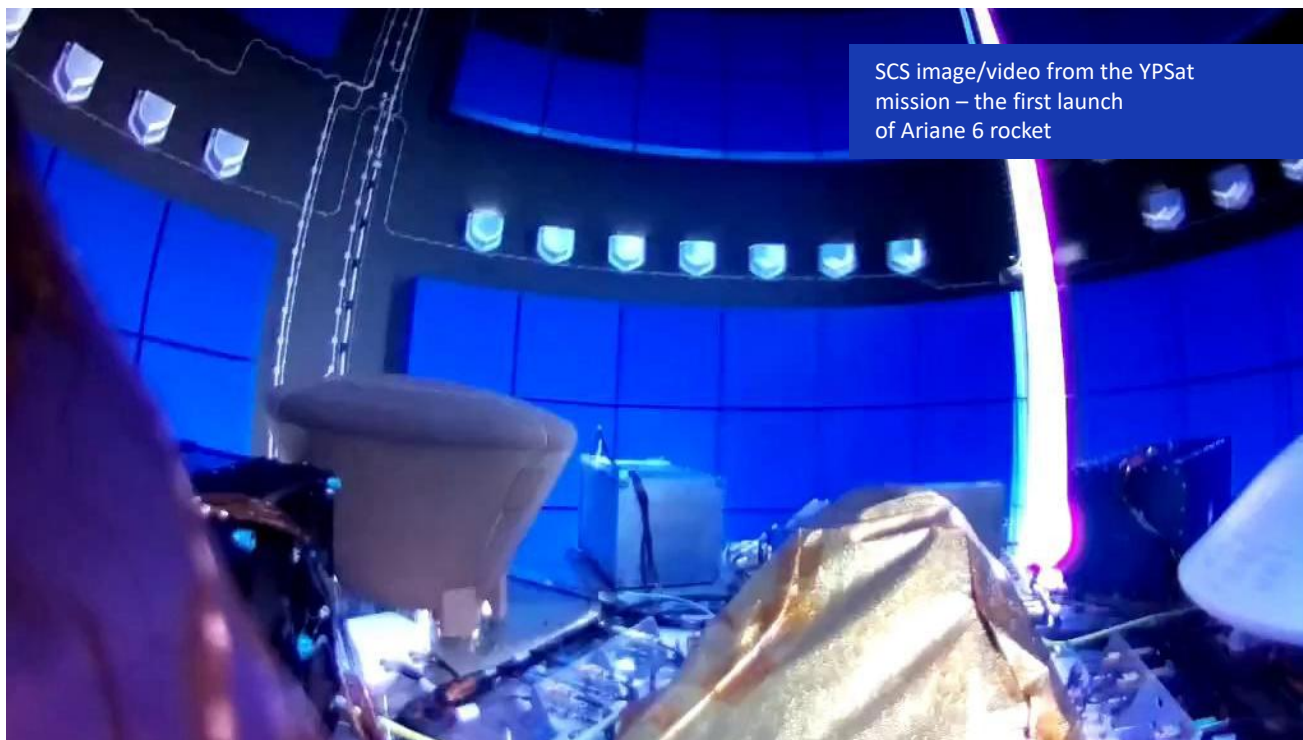
Configuration details

2	number of cameras
12 VDC, 3	voltage & power
SPI, UART, Ethernet	interface
136x102 deg	FOV
4056x3040 pixels	image size
video, photo	image mode

Payload status: **launched**

Payload purpose: observing the fairing separation
and the deployment of the CubeSats from the Ariane 6





SCS image/video from the YPSat mission – the first launch of Ariane 6 rocket



SCS image/video from the YPSat mission – the first launch of Ariane 6 rocket

Why payloads from Scanway Space?



01

Space-grade quality
designed and manufactured to meet
the highest aerospace standards

02

Tailored to requirements
design tailored to customer
requirements, adaptation
of our existing solutions

03

Mission support
support of on-orbit operations
of telescope – use and tasking

04

Tried and tested
solutions have passed all
environmental tests and are
successfully working in orbit

All you need are mission
requirements, we take care of the
rest:

2

Test, calibrate, and
integrate.

1

Design, develop and
manufacture.

3

Help to operate the
payload on orbit.



Key areas of Scanway's expansion in the coming years



VHR



Constellations



Defence Industry

Moon Exploration



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Scanway Space
optical payloads provider



