

S A T L  N T I S

Space Technology



for **Earth** Observation & **Universe** Exploration

May 2022

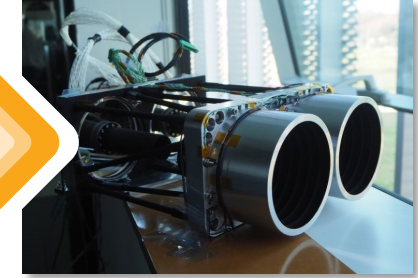
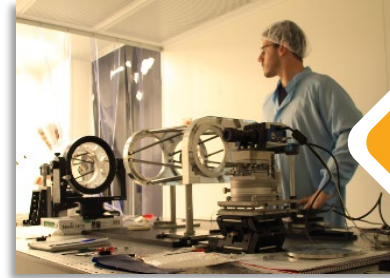
Who We Are



PRIVATE

PUBLIC

SATLANTIS is a Spanish technological SME funded in 2014, supported by a strong **Public-Private alliance**



We focus on the **language of light**, capturing **critical spectral information** through software, hardware and services for **remote sensing applications**



We build **Small Sat Full Solutions**, around the iSIM-technology, to answer **End-users' problems and challenges**

iSIM family

SATELLITES



HERITAGE
SATELLITE
PAYLOAD
SENSOR-BUS ⁽⁴⁾

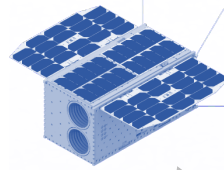
iSIM-SAT 16U

Validation in space in Q2 2022

16U CubeSat (17.9 kg)

iSIM-90

Agility: 1°/s in 30° off-nadir
Downlink: 98 Mbps



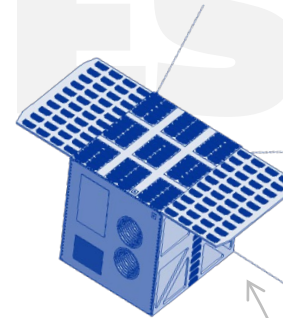
LEAD TIME
6-12 months

iSIM-SAT Micro

MicroSat (~60/80 kg)

iSIM-170

Agility: 1°/s in 30° off-nadir
Downlink: 500 Mbps



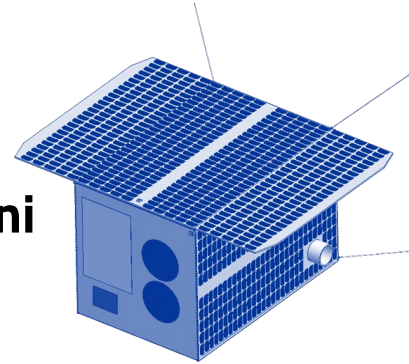
LEAD TIME
12-16 months

iSIM-SAT Mini

MiniSAT (~ 120 kg)

iSIM-300

*(1) Including payload electronics
(2) At 500km reference altitude
(3) At 450km reference altitude
(4) Capabilities are upgradable by sensor-bus specification improvement
(5) Panoramic configuration*



LEAD TIME
24 months

PAYLOADS

HERITAGE
DUAL-CHANNEL ⁽¹⁾
SINGLE-CHANNEL ⁽¹⁾
IMAGING ⁽²⁾
SWATH ⁽²⁾

iSIM-90

Validated in space in Q4 2021

< 4 kg mass - targeted for 12/16U CubeSats

< 3 kg mass - targeted for 12/16U CubeSats

PAN & VNIR: 1,65m
SWIR: 4,2m

PAN & VNIR: 13 - 26km ⁽⁵⁾
SWIR: 16,5km ⁽⁵⁾



iSIM-170

Validated in space in Q2 2020

< 15 kg mass - targeted for MicroSats

< 8 kg mass - targeted for MicroSats

PAN & VNIR: 0,8m
SWIR: 2,2m

PAN & VNIR: 7.5 - 15km ⁽⁵⁾
SWIR: 8,5km ⁽⁵⁾



iSIM-300

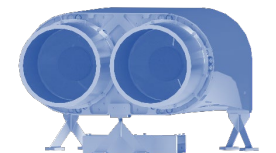
Under development

< 40 kg mass - targeted for MiniSats

< 20 kg mass - targeted for Micro/MiniSats

PAN & VNIR: 0,45m ⁽³⁾
SWIR: 2,1m

PAN & VNIR: 12km ⁽³⁾⁽⁵⁾



EO Missions: Current Contracted & Planned



2020

M1 - IOD

Jaxa launch to ISS
+Ultra High Resolution
+Video

Q2-2020



M2 - CASPR

DoD / NASA launch to ISS
+Multispectrality
+Agility

Q4-2021



2022

M3 - URDANETA

Launch of first iSIM-SAT
16U-CubeSat
+first proprietary satellite

Q2-2022



M4 - MANTIS

Our contribution: iSIM-90 VNIR
+Mission for Oil&Gas
+ESA Launch of a 12U-CubeSat

Q4-2022

M5 - URDANETA 2

Launch of second iSIM-SAT
16U-CubeSat
+second proprietary satellite

Q4-2022

2023

M6 - GEI-SAT Precursor

Launch of third ISIM-SAT
Dedicated to CH₄/GHG & Environment
16U CubeSat + iSIM-90 VNIR-SWIR

Q2-2023

M7 - GEI-SAT Plus

Launch of fourth ISIM-SAT
Dedicated to CH₄/GHG & Environment
MicroSat + iSIM-170 VNIR-SWIR

Q4-2023

M8 - GEI-SAT Constellation

Constellation of 3 MicroSats
Dedicated to CH₄/GHG & Environment
+ *Expanding spectral capabilities (2.5 μm)*

2024-25 (TBC)

GEI-SAT: Proprietary **Methane Detection & Quantification** Satellites

Urdaneta Mission



Current challenges for CH₄ detection



25% of today's global warming is estimated to be caused by anthropogenic methane emissions

50% of CH₄ emissions come from small sources



30% CH₄ emissions reduction by 2030

Pixel size

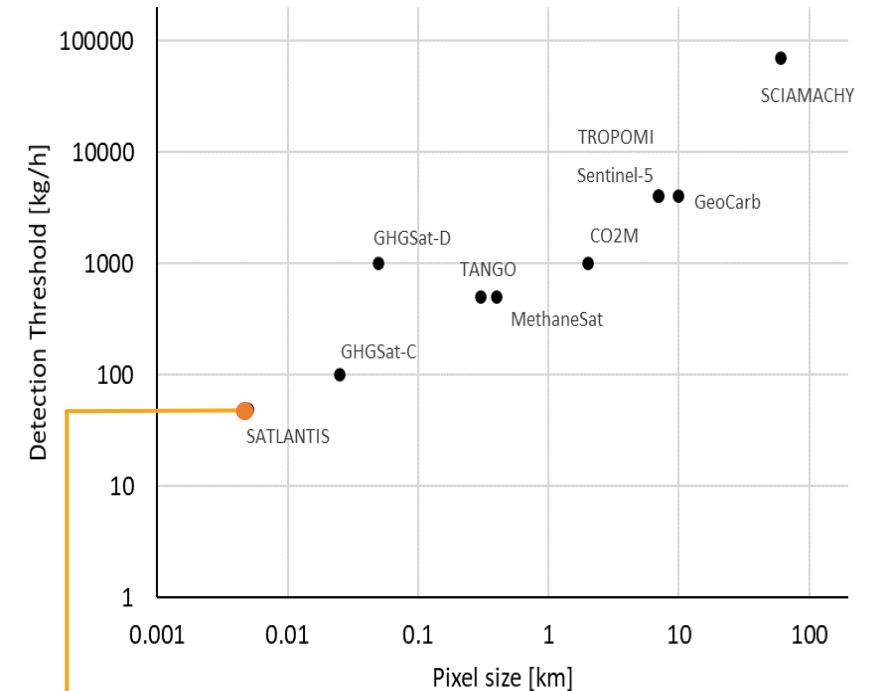
Measure of the smallest methane sources for proper identification and geolocation

Coverage

Global vs targeted
Revisit frequency

Detection threshold

Smallest leak rate a system is expected to detect & quantify



Satlantis' solution for **methane detection and quantification: GEI-SAT constellation**

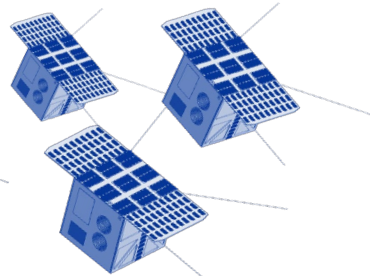
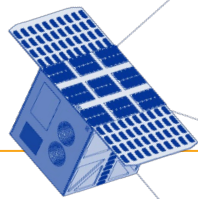
GEI-SAT: Methane End-to-End Solution



Full Solutions, from scientific-grade payloads to final data products, **built around the End-users' need**

UPSTREAM

DOWNSTREAM



ADDED VALUE PAYLOADS & PLATFORMS

- **Customer** configuration
- Spectral range tailored for methane, **SWIR up to 2.5um**
- **Agility**: unique capability in the market for **pipeline monitoring**



Launch service

+ Rideshare and Dedicated



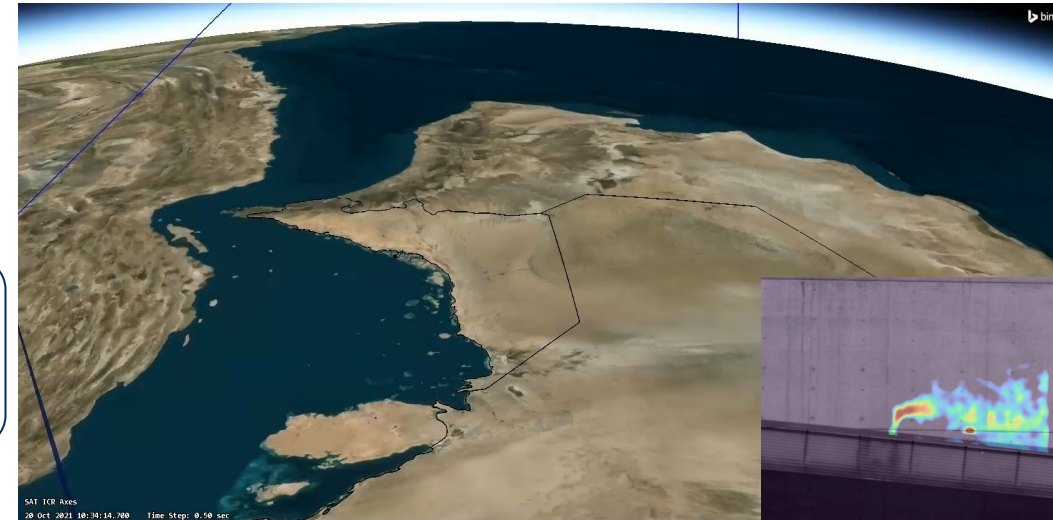
DATA CENTRE

Data fusion.
Proprietary & third-party data.

Additional datasets

- + Public datasets
- + Complementary third-party data
- + Bottom-Up measurements, ground sensors, drones...

Data analytics for methane measurements



USER PLATFORM

Real time data visualization
Layered maps/thematic mapping
User-oriented platform



+ Periodical O&G reports

SATLANTIS



Spain Headquarters

Science Park
University of the Basque Country
Sede Building
48940 Leioa-Bilbao
SPAIN

Roberto Fabrizi

Business director Satlantis

fabrizi@satlantis.com



USA R&D laboratories

Innovation Hub
University of Florida
747 SW 2nd Avenue Suite 235
Gainesville, FL 32601
USA