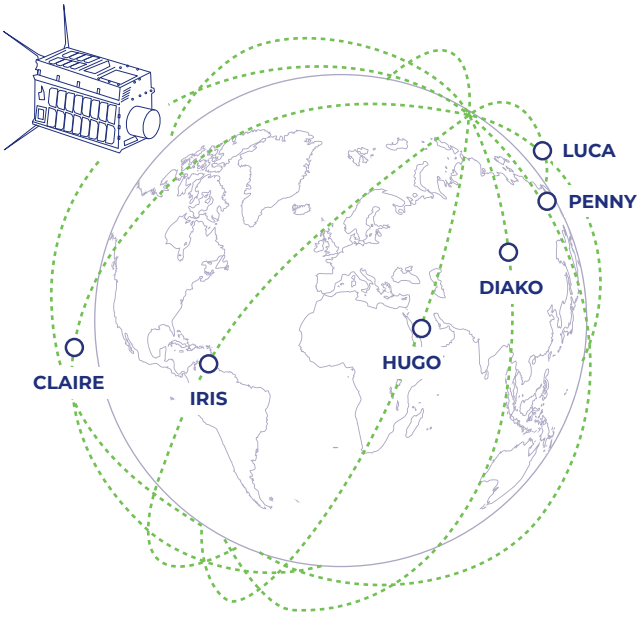
A clear view of greenhouse gas emissions

GHGSAT™

1ST HIGH-RESOLUTION EMISSIONS MONITORING CONSTELLATION

GHGSat **pioneered the technology** that delivers high-resolution data on greenhouse gas emissions from space.

GHGSat operates the **first satellite constellation** capable of accurately pinpointing industrial sources of methane.



Every day, GHGSat's constellation of satellites can detect and measure methane emissions at high-resolution worldwide. The accurate and timely data they capture, enables operators to take action, improve operations and reduce emissions.

GHGSat is providing its data to the International Methane Emissions Observatory (IMEO), a UN Environment programme (UNEP). IMEO will collect and integrate global emissions data to accelerate the reduction of methane emissions.

Spatial resolution: ~25 m class (~82ft)
Field of View: 12km x 12km (7.5 miles x 7.5 miles)
Size: Comparable to a microwave oven
Weight: 15kg (33lbs)
Orbit: Sun-Synchronous Polar

IN ORBIT TODAY

A constellation is essential to ensure optimal monitoring coverage and accurate data for industrial and financial use. Our capacity is more than doubling in 2022.

GHGSat satellites are named after the children of team members.

CLAIRE

Technology demonstrator satellite, Claire, proved that greenhouse gas can be detected and measured accurately from space.

2016

IRIS

GHGSat's first commercial satellite, Iris delivers 10 x better performance than Claire and is the technology blueprint for the fleet.

2020

HUGO

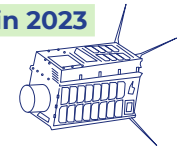
Hugo marks the ramp-up of capacity to measure more sites, more frequently across the globe.

2021

LUCA PENNNY DIAKO

2022

+5 satellites in 2023



2023

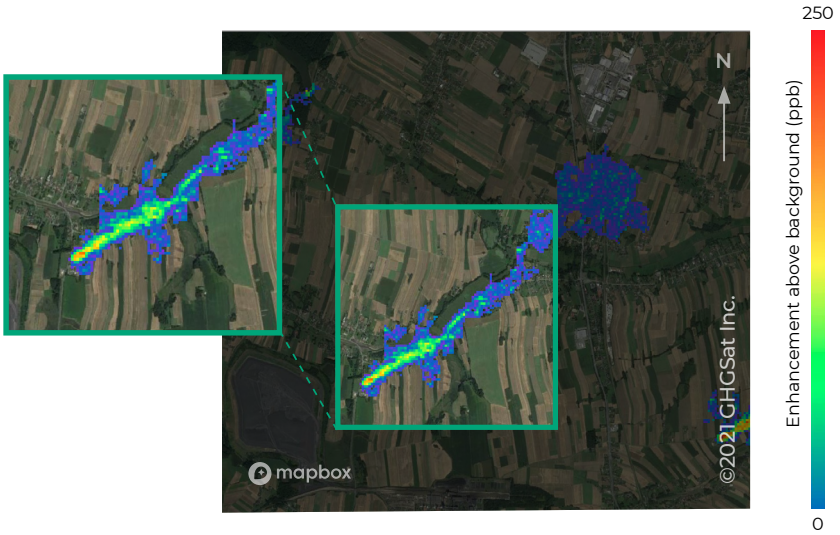
CONSTELLATION

100x

Detecting **emissions sources 100x smaller** than some satellites.

Attributing emissions sources with **100x higher precision** than other satellites.

Combining both in **satellites 100x smaller** than those in orbit.



COAL MINE — Śląskie, Poland
Date: 2021-04-05 **Time:** 08:55:35 UTC

PATENTED SENSOR TECHNOLOGY

Compact, powerful and proven in orbit, GHGSat satellites combine high-resolution with low-detection threshold for optimal and frequent industrial asset monitoring.

Fitted with a patented imaging spectrometer, the sensors measure the absorption of sunlight by methane at very high spectral resolution and provide accurate methane concentration values for over 200,000 pixels in each image.

We detect what others can't

GHGSat satellites can detect large emission events but also smaller ones. Giving a clear view of emissions.

Be the first to know.

76%

At least three quarters of emissions observed by GHGSat satellites in 2021 were undetectable by public satellites

SPECTRA
GHGSAT

EMISSIONS DATA PORTAL

Analyze, communicate and act on the data

Operational efficiency and environmental integrity are now intimately linked in the value chain of energy products. Data visualization is essential to assess and deploy the right resources to address emission reduction and prevention operations.

See the data and our constellation in action.

TALK TO OUR EXPERTS FOR A DEMO ⟶

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