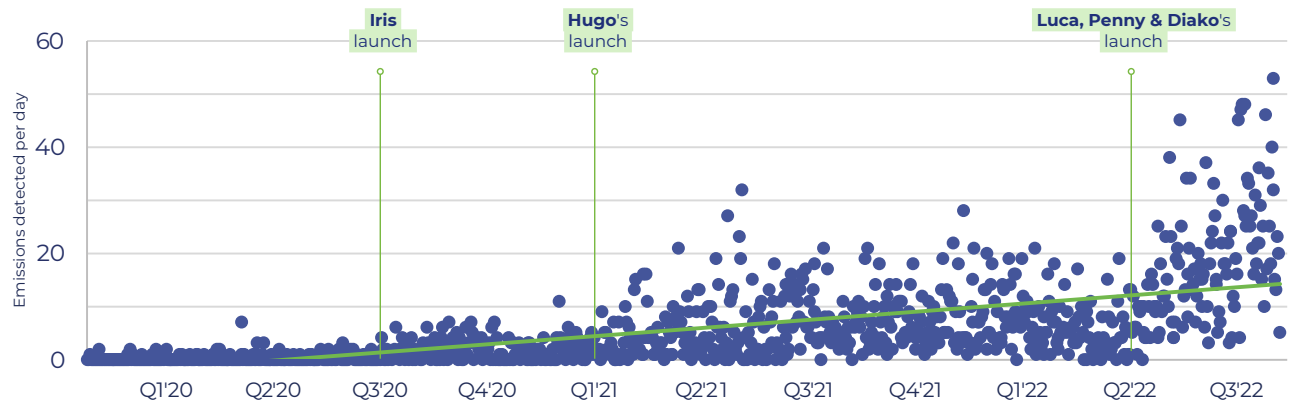


What's happened since COP26?

Ambitious targets were set and 125 countries have signed the Global Methane Pledge. However, the world faces significant and immediate challenges in the shape of conflict and the resulting energy crisis. Short-term fossil fuel security is at odds with climate goals. Since COP26, our constellation detected more emissions daily than ever.

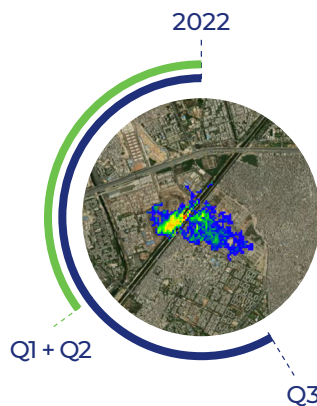


More satellites

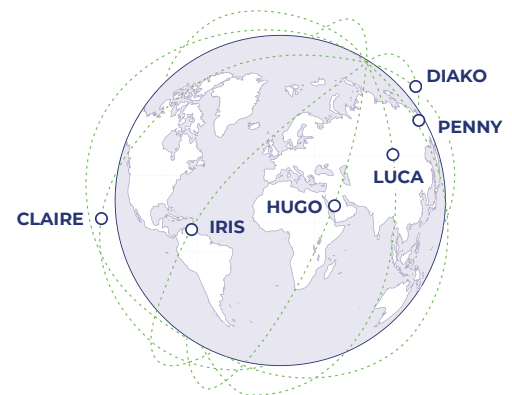
More data

Following the launch, our 3 new satellites are delivering a significant uplift in data.

GHGSat measured more emissions in Q3 than the first half of 2022.

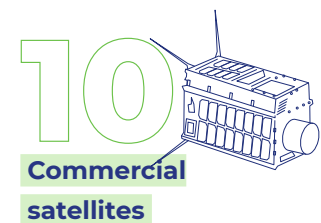


6 satellites in orbit now

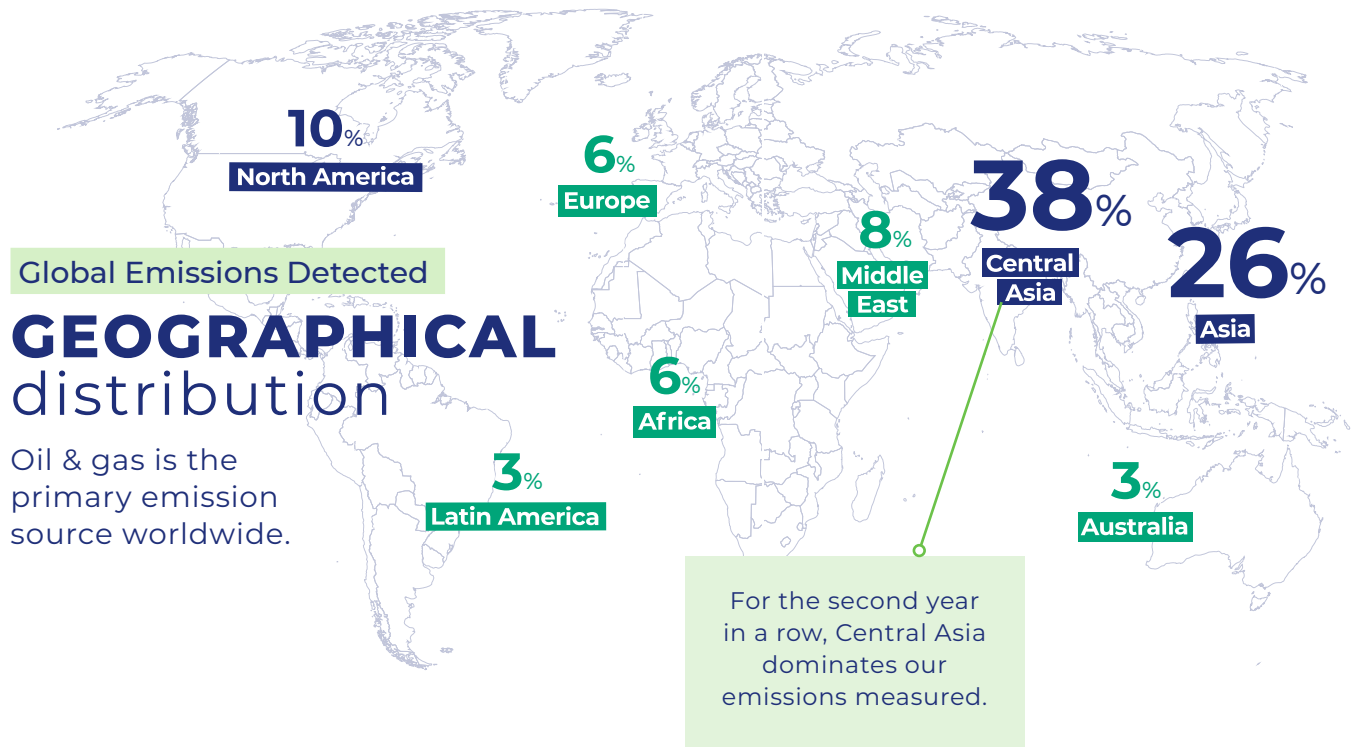


Frequent monitoring is necessary to see, understand, benchmark and inform methane strategies.

Our constellation delivers data daily on industrial emissions to operators, governments, regulators and financial markets.



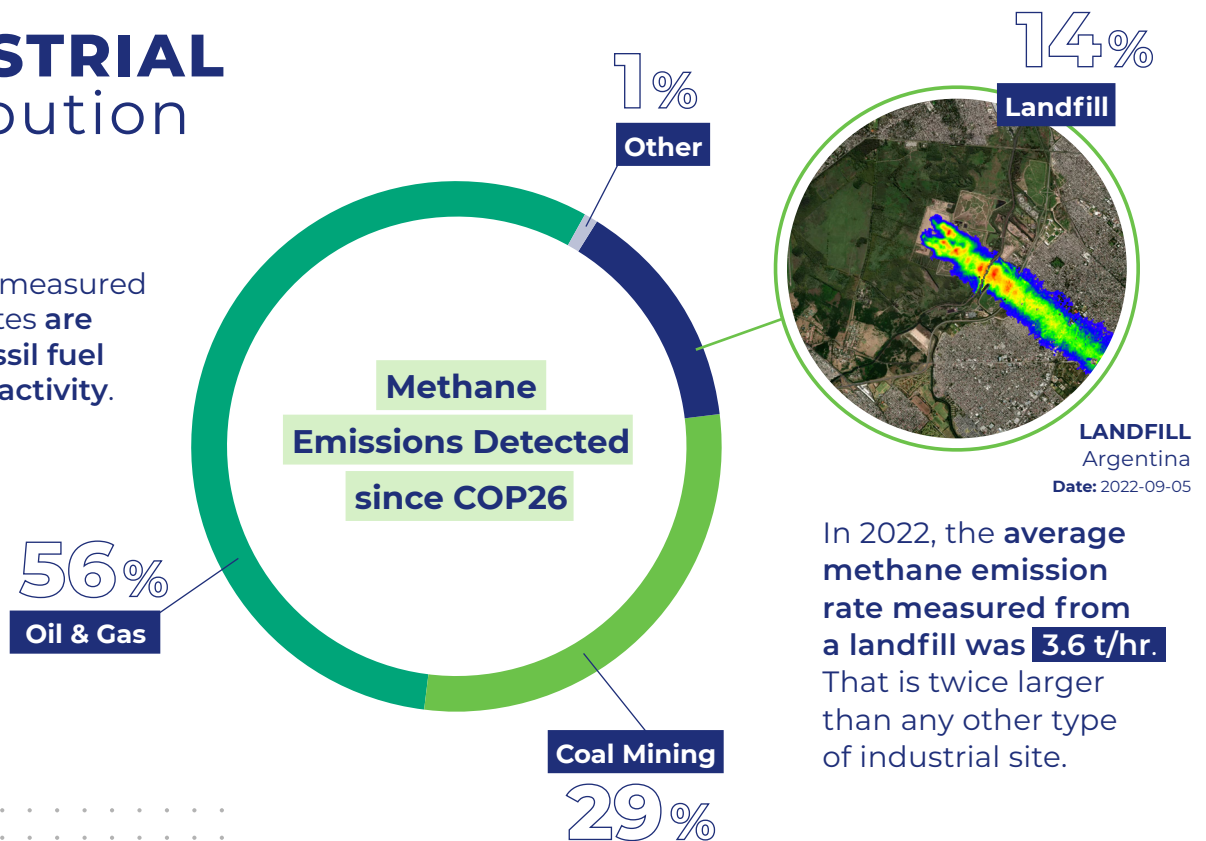
By the end of 2023, we are set to double our constellation again, for a total of 10 commercial satellites.



INDUSTRIAL distribution

85%

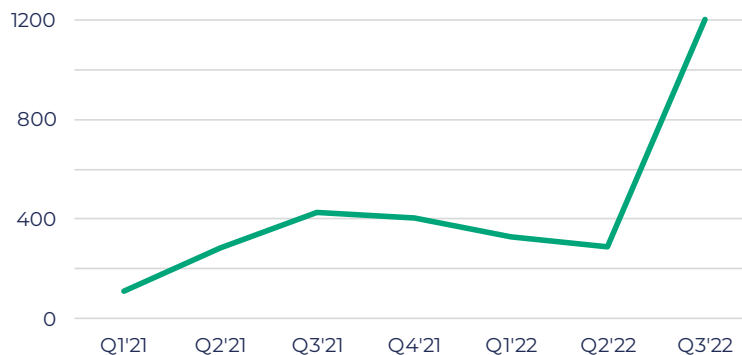
of emissions measured by our satellites are related to fossil fuel exploitation activity.



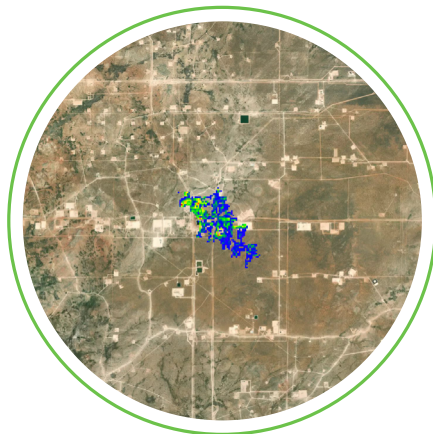
OIL & GAS

Monitoring frequency matters

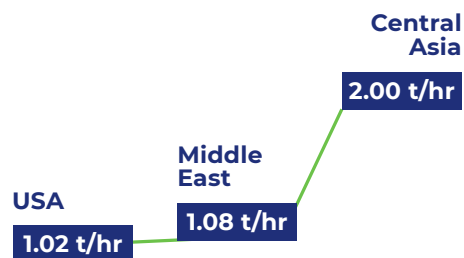
With more satellites in orbit at the end of Q2'22, we dramatically increased the number of emissions detected from oil & gas.



OIL & GAS
USA
Date: 2022-01-31



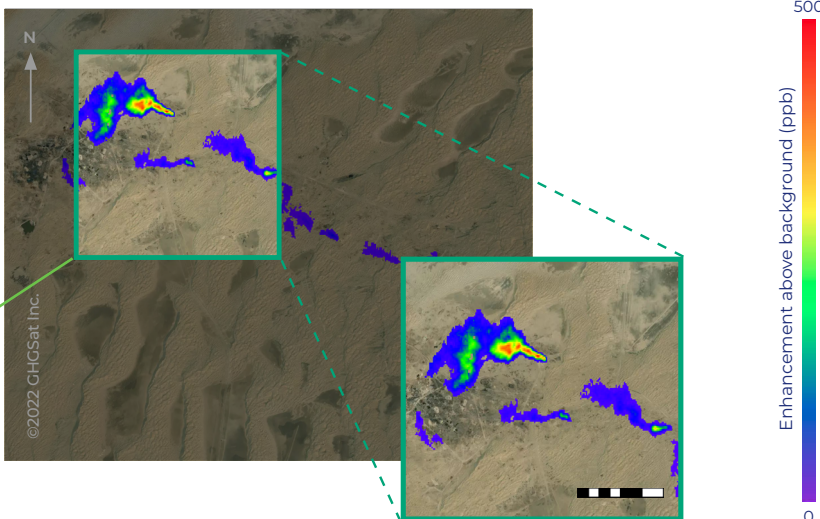
Since COP26, both the USA and the Middle East show average emission rates of ~1 t/hr. In contrast, Central Asia has the highest average emission rate.



OIL & GAS
Central Asia
Date: 2022-08-19

The observation measured **15 distinct emissions** for a total estimated emission rate of

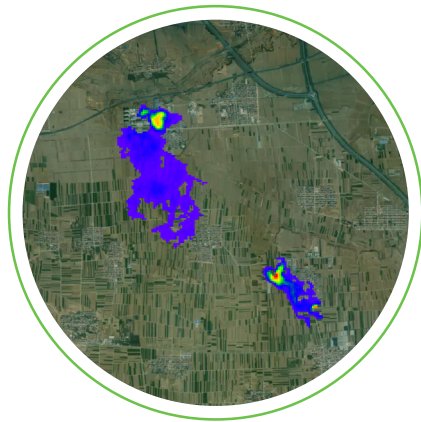
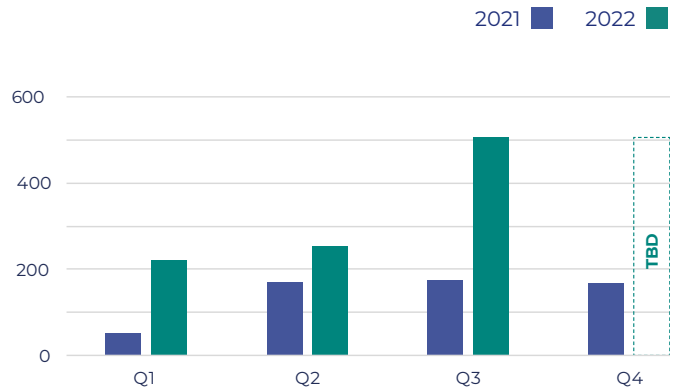
64.5
t/hr



COAL MINING

Resurgence in methane emissions

Our satellites have already detected nearly **twice as many methane emissions** from coal mines in 2022, compared to 2021.



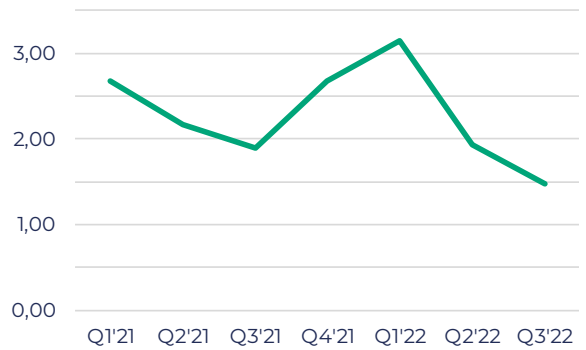
COAL MINE
CHINA
Date: 2022-05-01

- 1 CHINA
- 2 RUSSIA
- 3 KAZAKHSTAN

TOP 3 COUNTRIES
Most emissions detected since COP26 by GHGSat

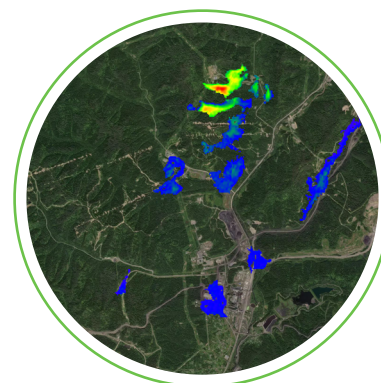
Major emission events show in the data

Average methane emission rate for coal mines is 1.48 t/hr in Q3'22 vs 3.14 t/hr in Q1'22. The spike in Q1 is due to large emission events seen for example in Russia.



In January 2022, GHGSat observed **13 distinct methane emissions during a single satellite pass** over the Rospadskaya coal mine in Russia. It is the largest leak measured with a total estimated emission rate of **87 t/hr.**

GHGSat has continued to **detect emissions from the mine every time it has observed it in 2022.**



Estimated emission rate

87
t/hr

COAL MINE
Russia
Date: 2022-01-14

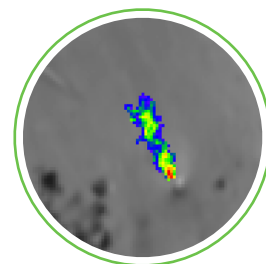
BREAKTHROUGH

Detecting offshore emissions from space

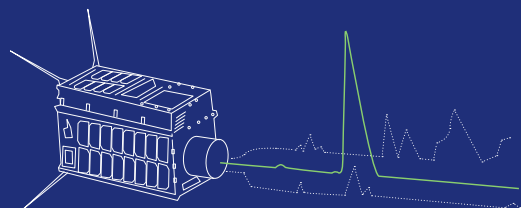
New technique for true global monitoring

Offshore methane emissions are notoriously hard to detect because water absorbs the wavelengths needed to measure leaks. GHGSat is testing a new technique with game-changing results.

In August, **our satellites measured a record-low detection at 1.5 t/hr** from an oil & gas platform in the Gulf of Mexico, off the coast of Louisiana.



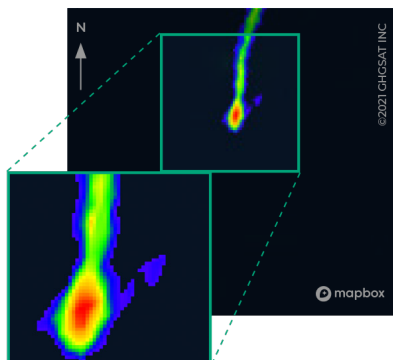
OIL & GAS
Offshore Gulf of Mexico
Date: 2022-09-30



About GHGSat

GHGSat uses its own satellites and aircraft-based sensors to measure greenhouse gas emissions directly from industrial sites, providing actionable insights to businesses, governments, and regulators.

With proprietary and patented remote-sensing and analytics technology, GHGSat enables strategic decision-making through its monitoring and analytics services, with better accuracy and increased frequency at a fraction of the cost of other technologies.



A month later, one of our satellites recorded its largest single-source emission at **79 t/hr** from the Nord Stream 2 leak in the Baltic Sea.

OIL & GAS
Offshore Nord Stream
Date: 2022-09-13

SCIENTIFIC VALIDATION

High-Resolution Monitoring Expertise

GHGSat's satellite technology performance and accuracy is best in class.

IN PEER REVIEW

[Single-blind validation of space-based point source methane emission detection and quantification](#)

Collaboration is essential and all monitoring systems are complementary in the fight against climate change.

PUBLISHED

[Using satellites to uncover large methane emissions from landfills](#)

Methods — GHGSat satellites measure methane concentrations using a patented method described in this [peer-reviewed overview](#). Emissions are detected using algorithms and verified by human operators. Emission rates are estimated for each detected emission using [peer-reviewed methods](#). Emissions per quarter are then estimated by aggregating emission rates for persistent and intermittent sources.