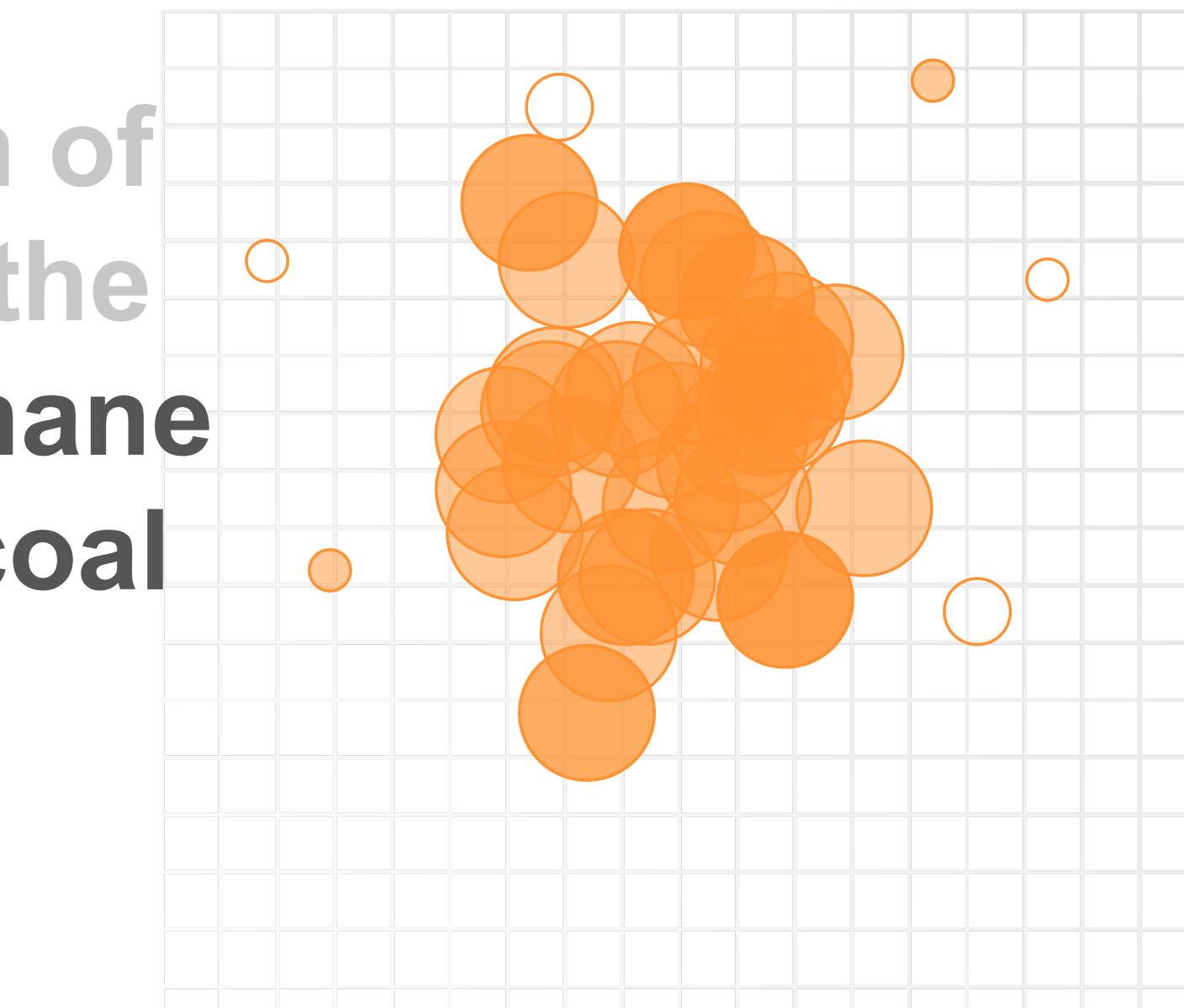
## A new generation of satellites aids in the detection of methane emissions from coal mines.

Antoine Halff, Kayrros





## Kayrros Inside: Regulators and media use Kayrros Methane Watch

**EU & IMEO** set to implement Kayrros powered Methane Alert and Response System.

**IEA** leverages our insights to shed light on global emission levels, trends and successes.

**IMEO** partners with Kayrros to enhance methane detection

### led

### Global **Methane Tracker 2023**



**US regulators** mull the use of satellites to set up a third-party notification system.



**Bloomberg** shares our findings with the world of finance and civil society.

### **Bloomberg**



Exxon Broke Rules With Late Reporting of Permian Methane Leak It's the biggest US operator to publicly acknowledge a misstep i reporting its emissions since high-resolution satellite imagery methane concentrations has become more widely available



The Cheap, Powerful Climate Fix **Energy Companies Are Ignoring** Preventing routine methane releases would be the single most meaningful measure countries could take to cut emissions from oi and gas, IEA says in annual report.

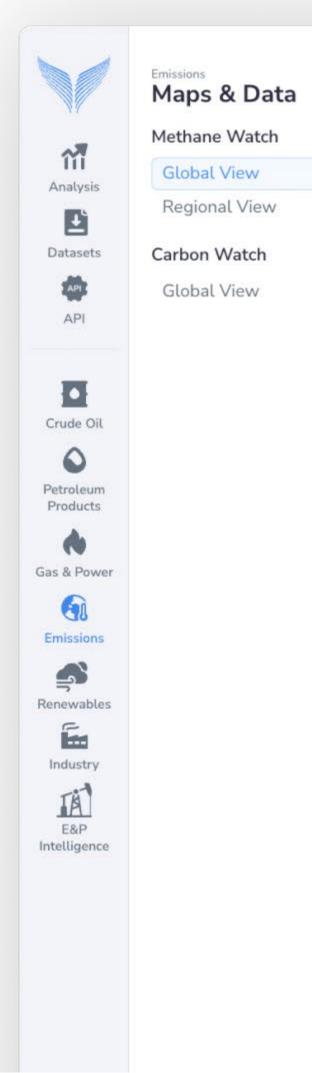


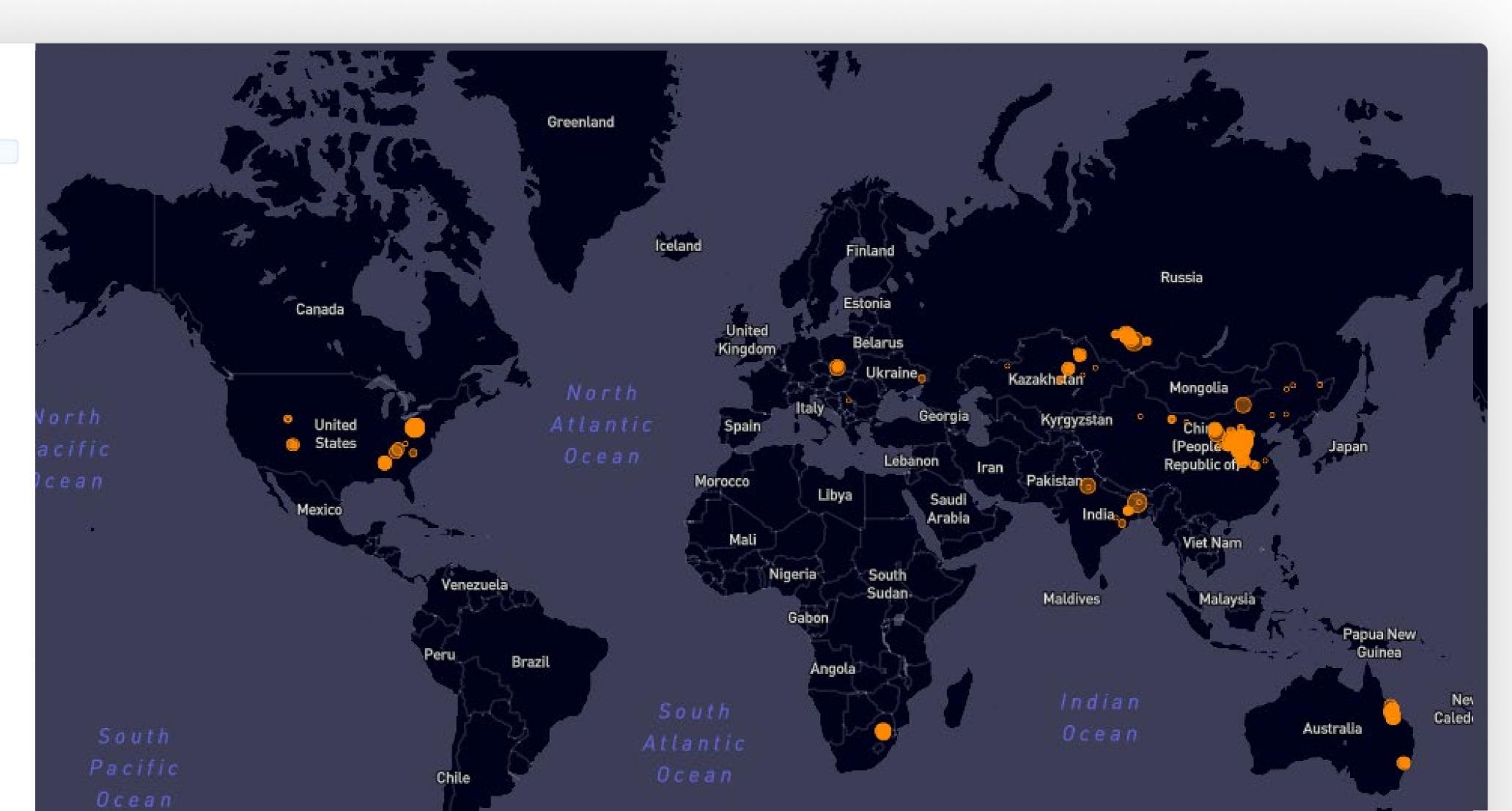
Texas Probes Targa's Failure to Swiftly Report Big Gas Release State regulators investigate why US pipeline operator took two



This Five-Mile-Long Cloud of Methane Was Spotted Over Wyoming Three satellites observed a big plume of the potent planetwarming gas over the US state last month, which scientists attributed to a natural gas facility.

### Kayrros met detection from the coa

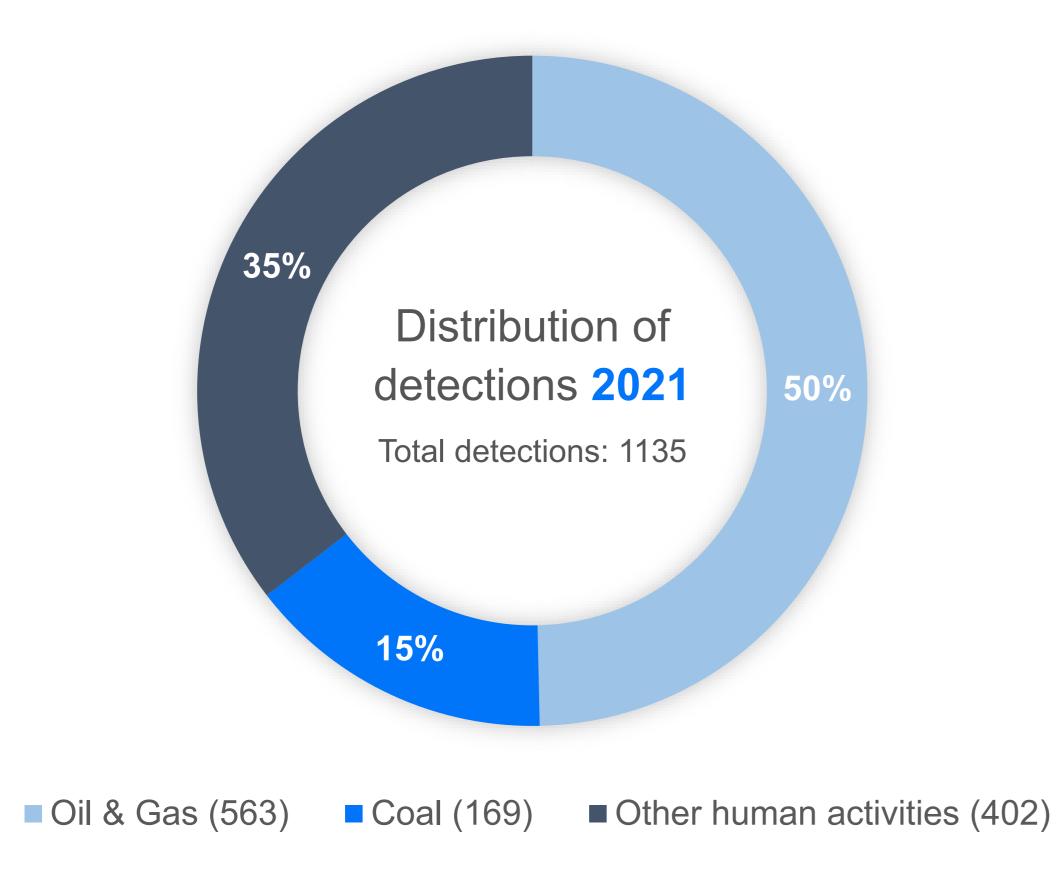




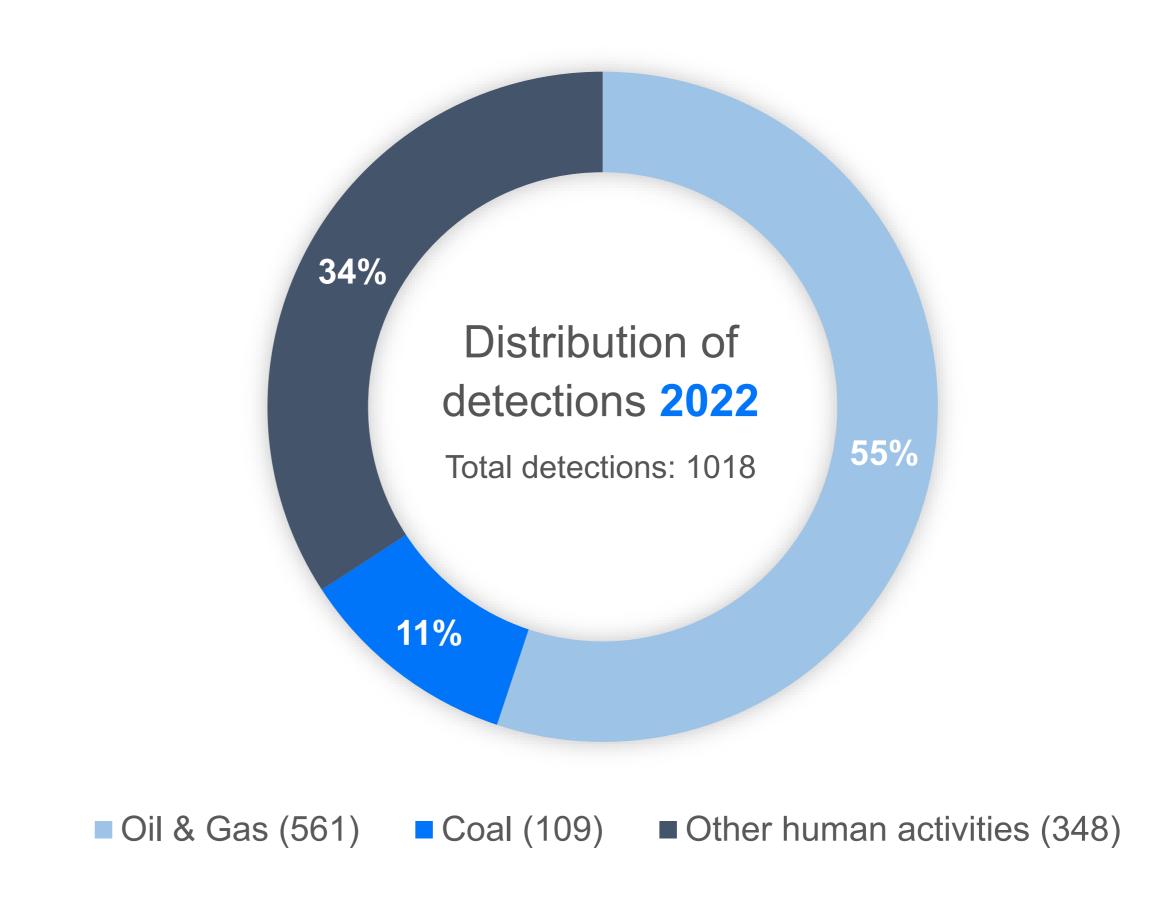


## Kayrros methane super-emitters

detection from the coal industry between 2019 and now.

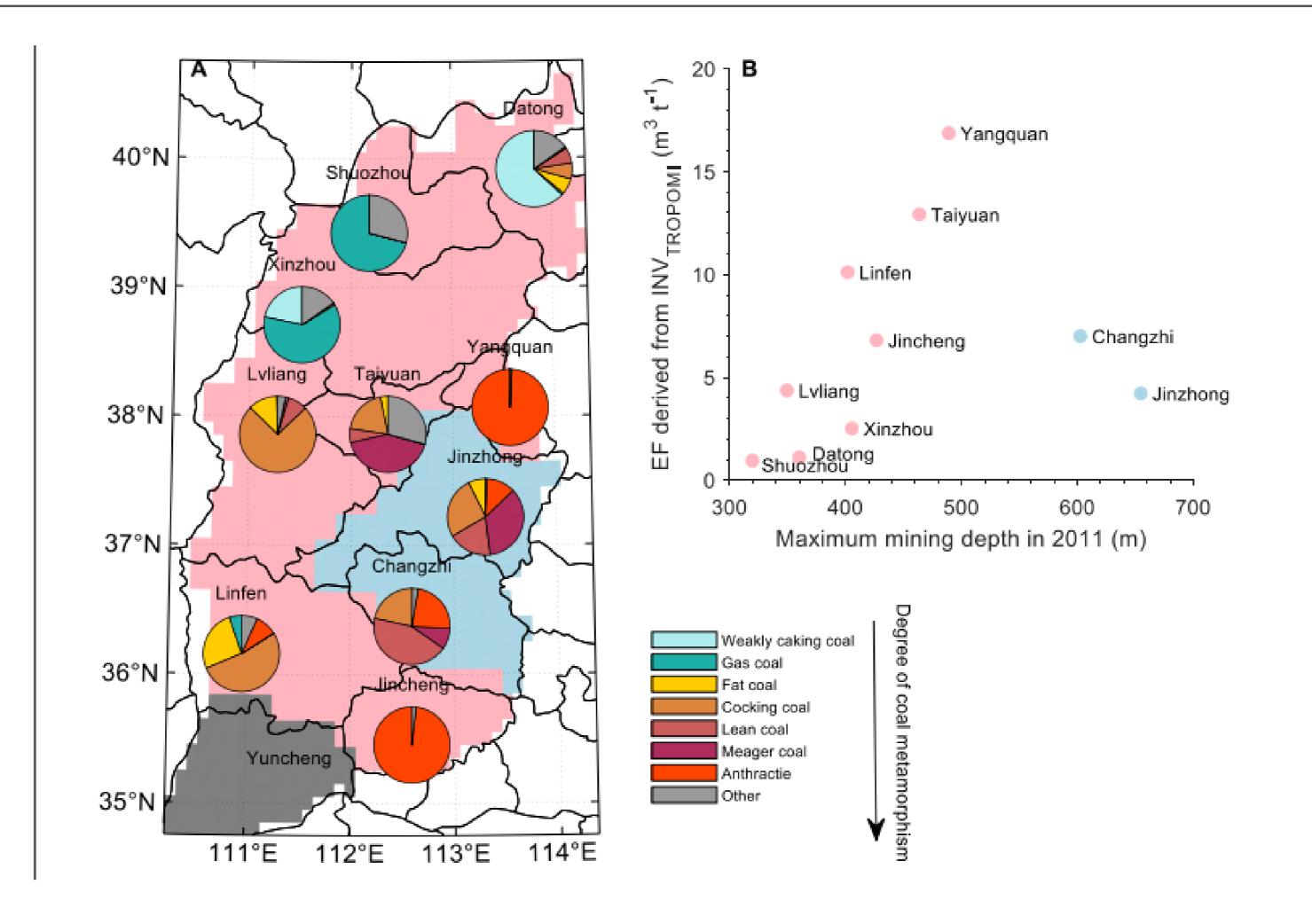






# Coal in Shanxi region

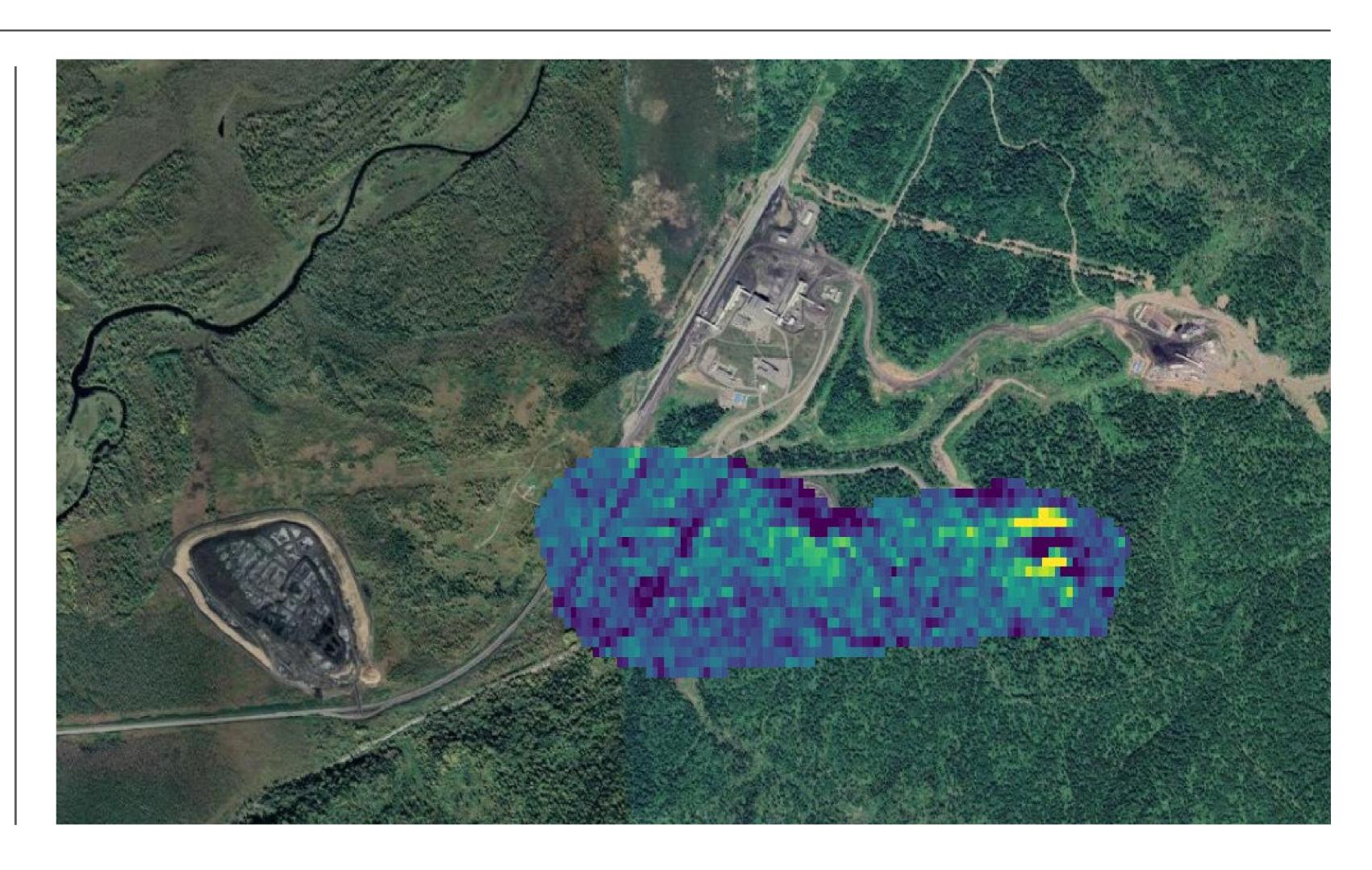
Methane intensity positively correlated with mining depth.





## Coal Russia – PRISMA

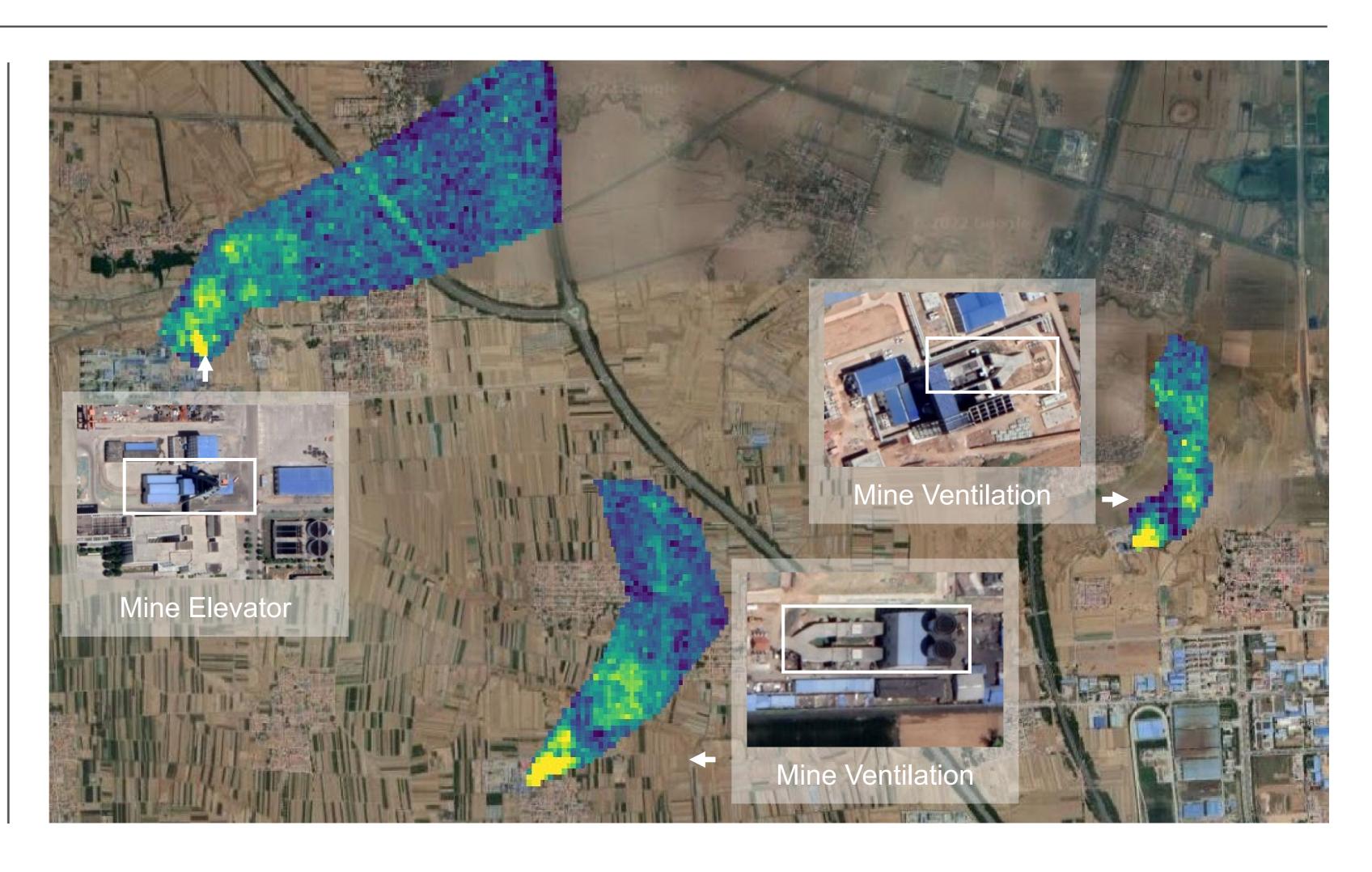
Hyperspectral detection on coal mines 1/4





## Coal Shanxi – PRISMA (extraction)

Hyperspectral detection on coal mines 2/4





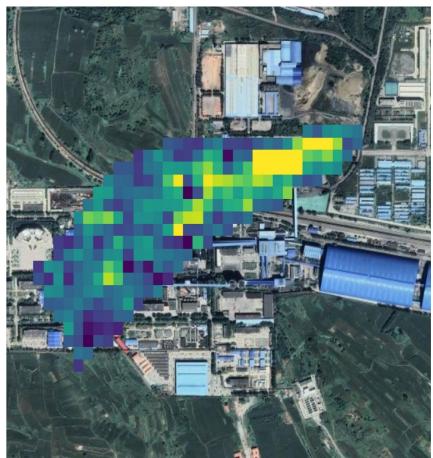
## Coal Shanxi – PRISMA (industry)

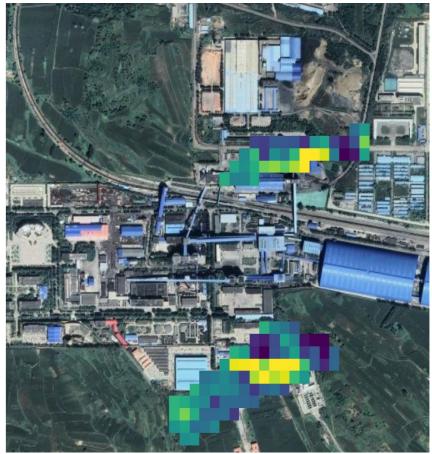
Hyperspectral detection on coal mines 3/4

Zhaozhuang Coal Industry Capacity: 8 Mt / year



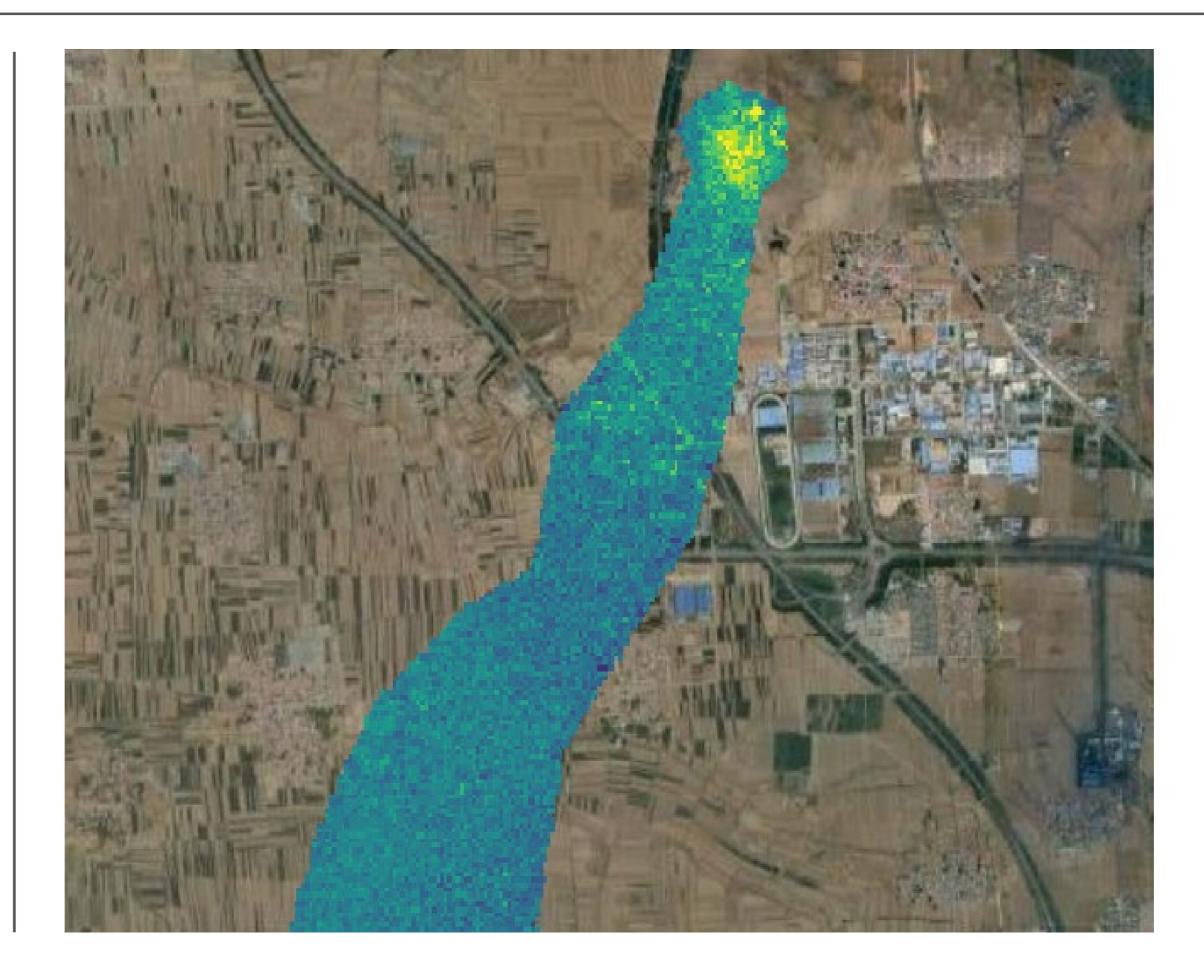






# Coal Shanxi – EnMAP (Contains modified EnMAP data ©DLR [2022])

Hyperspectral detection on coal mines 4/4

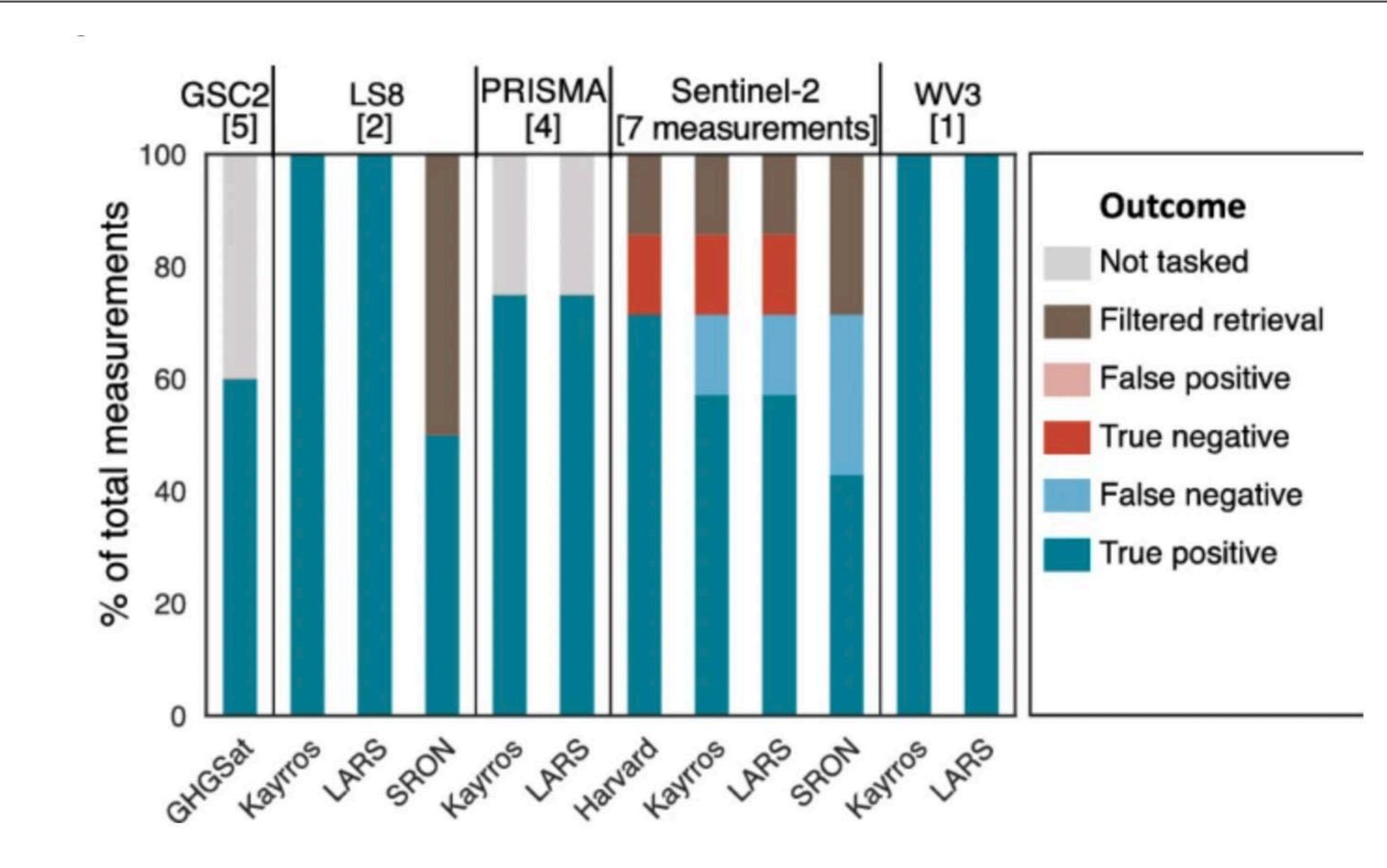




## Stanford: scientific report

"Single-blind validation of spacebased point-source detection and quantification of onshore methane emissions".

Published: March 07, 2023





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