UNEP’s International Methane Emissions Observatory

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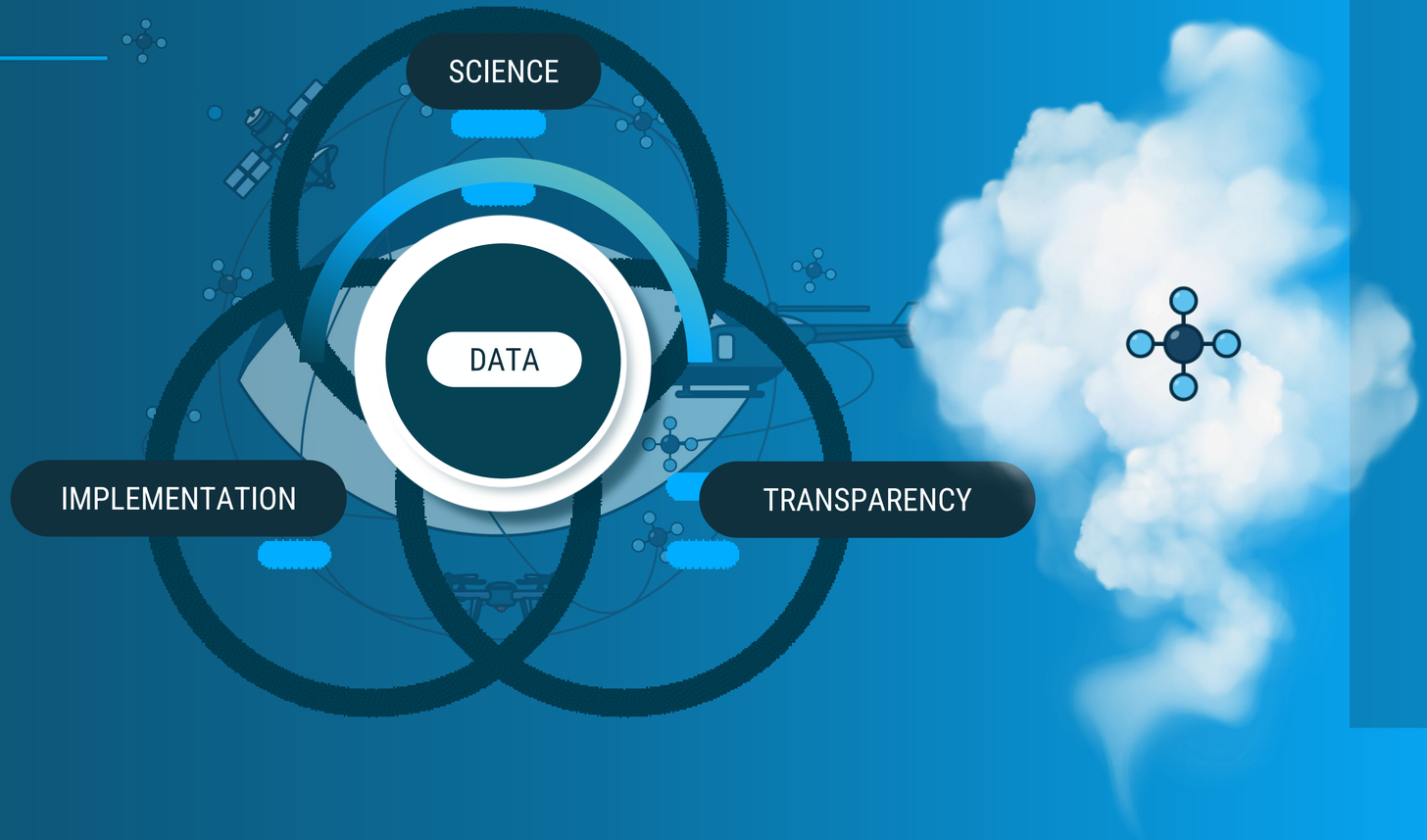
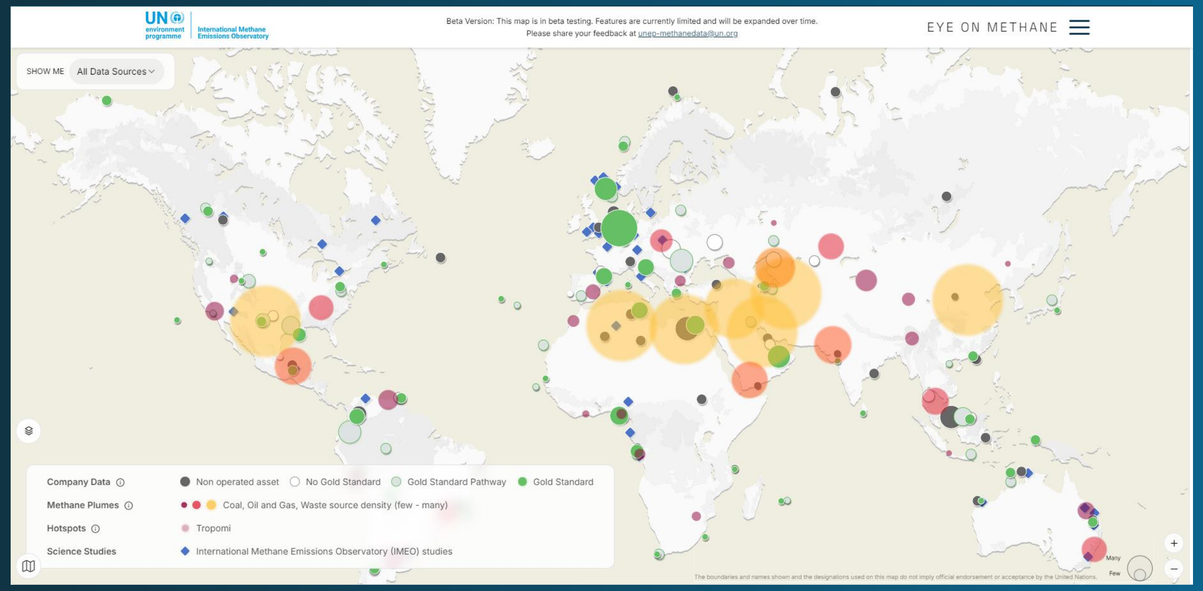
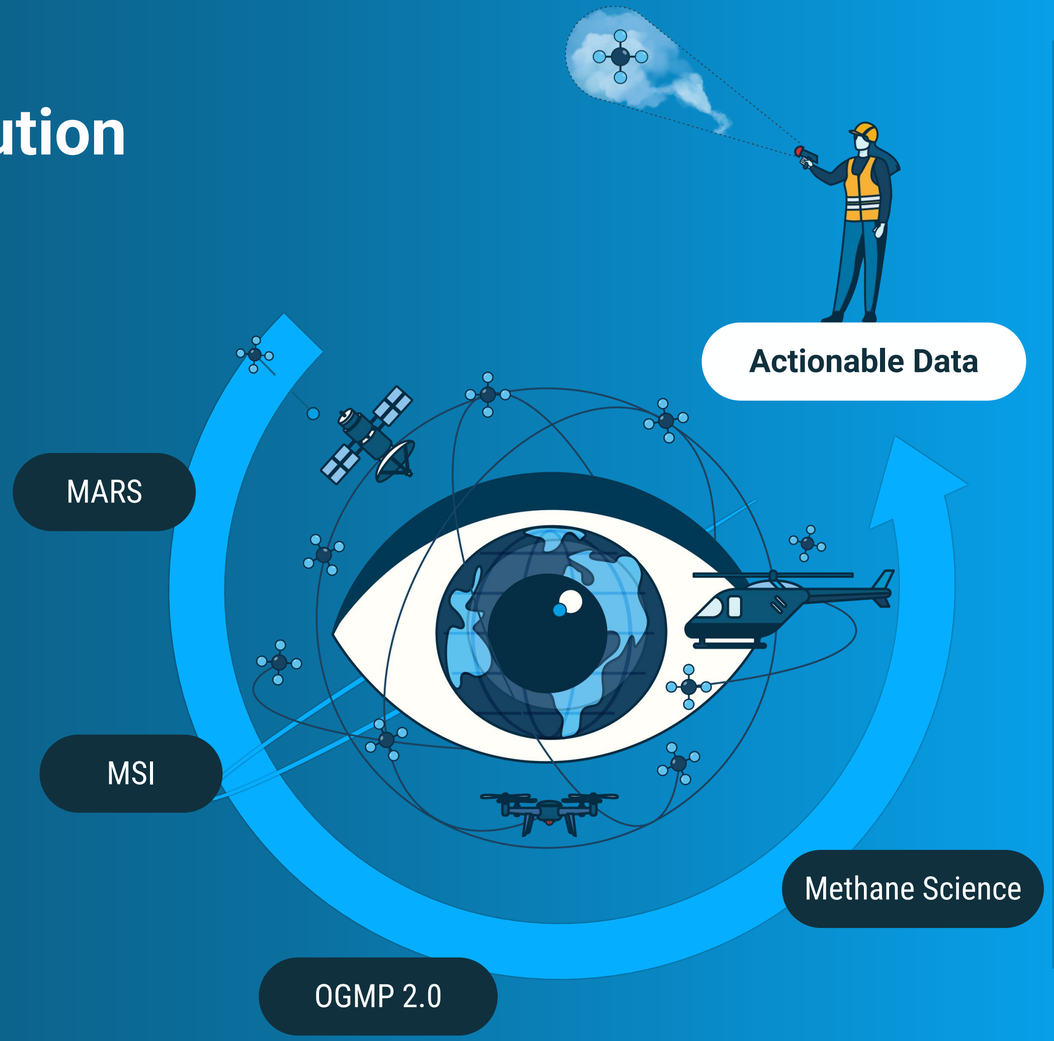
UNEP's IMEO
interconnects better data with targeted action

The International Methane Emissions Observatory exists to provide open, reliable, and actionable data to those that can act to reduce methane emissions

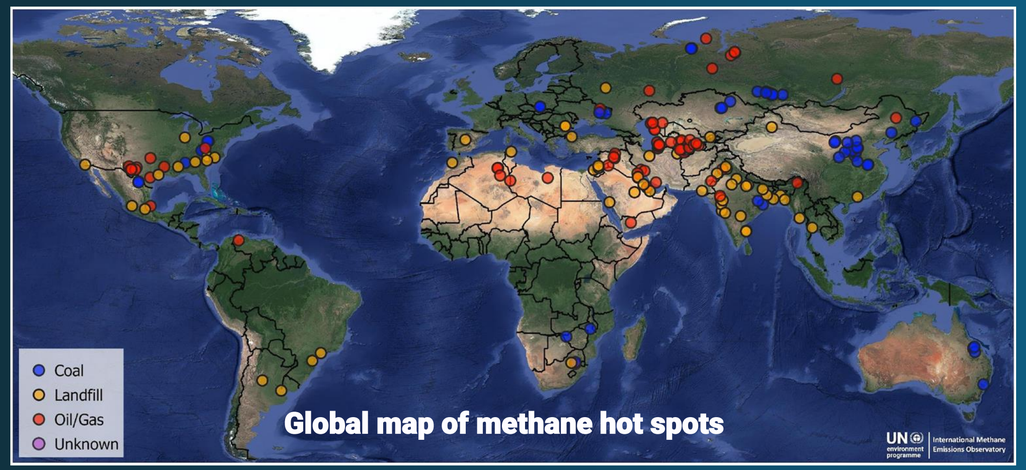


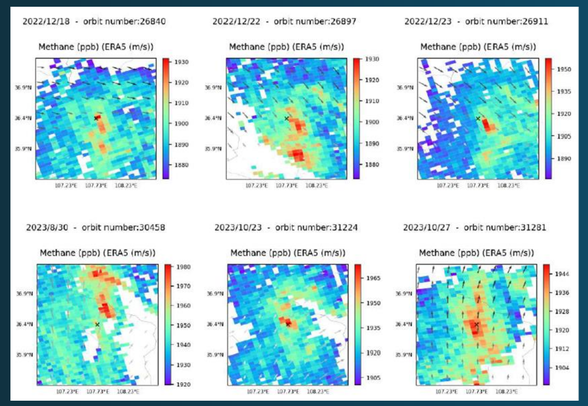
Data to Action
Tapping into the methane data revolution

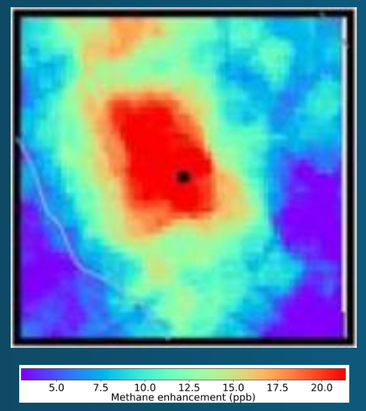


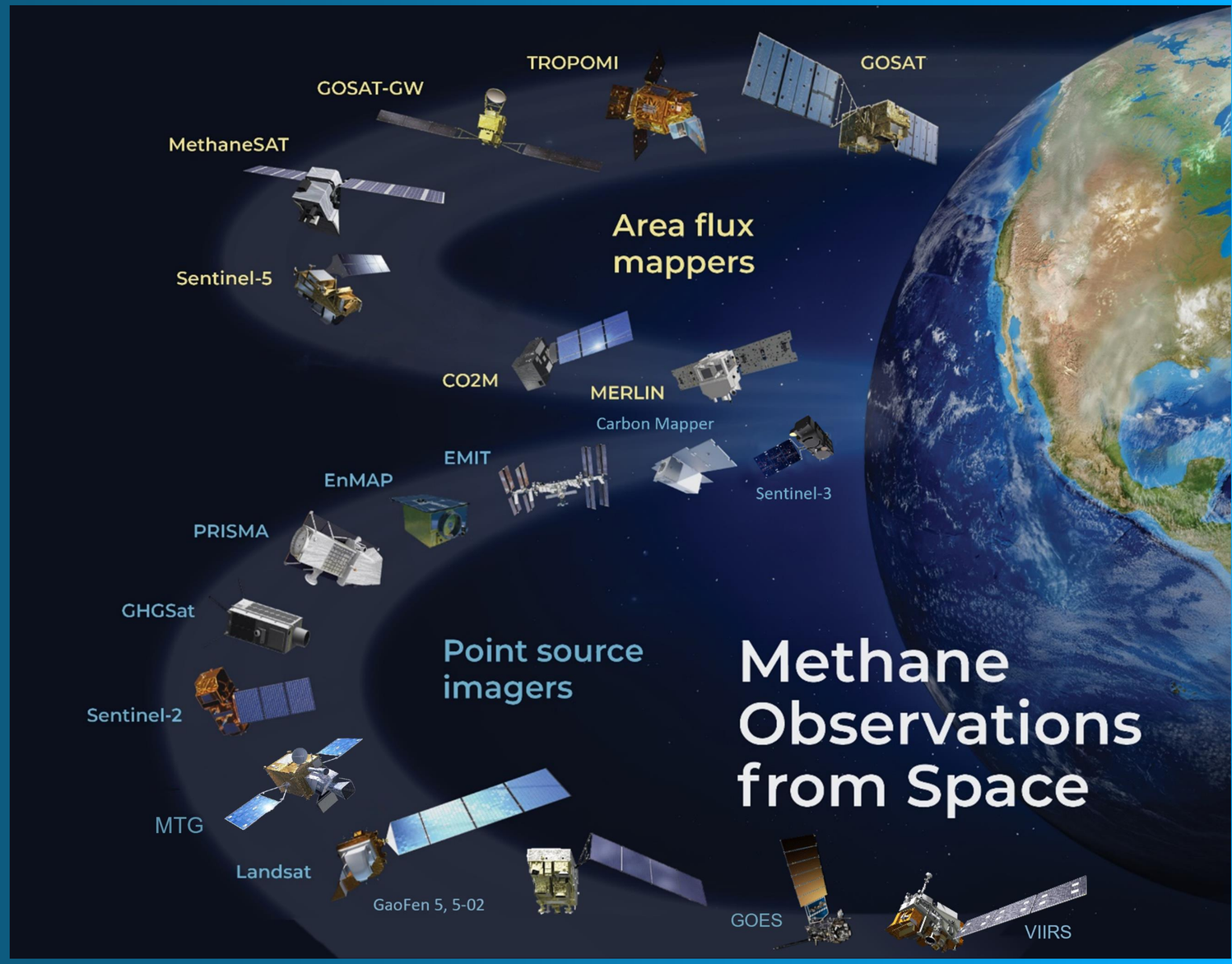


→ Global mapping satellites are used to identify very large methane plumes and methane hot spots









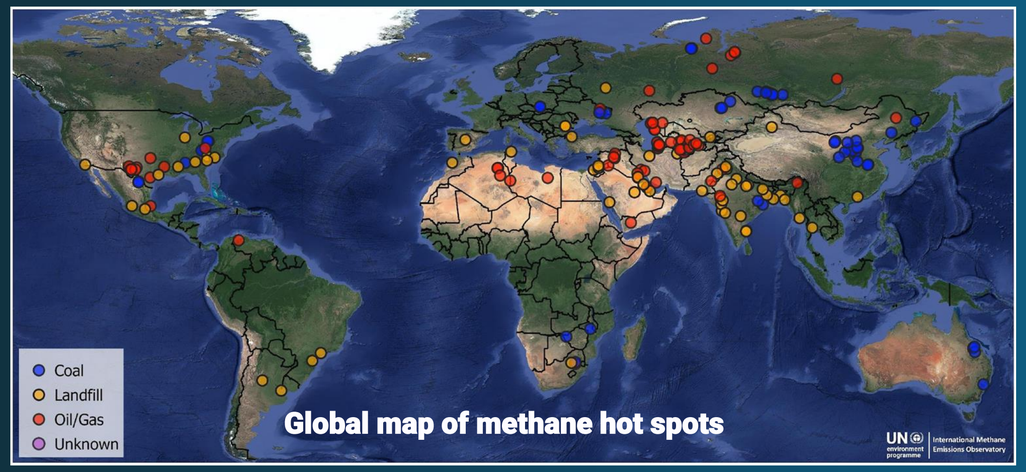
SRON Netherlands Institute for Space Research

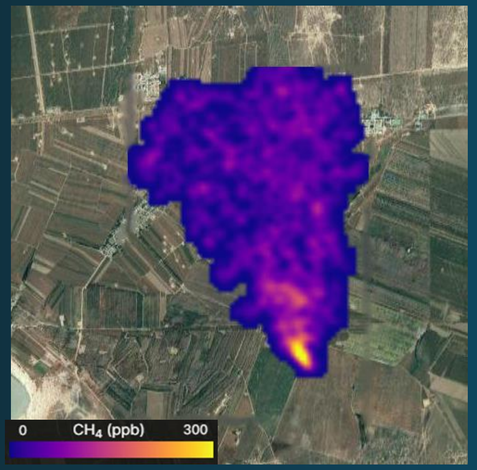
KAYRROS

UNIVERSITAT POLITÈCNICA DE VALÈNCIA

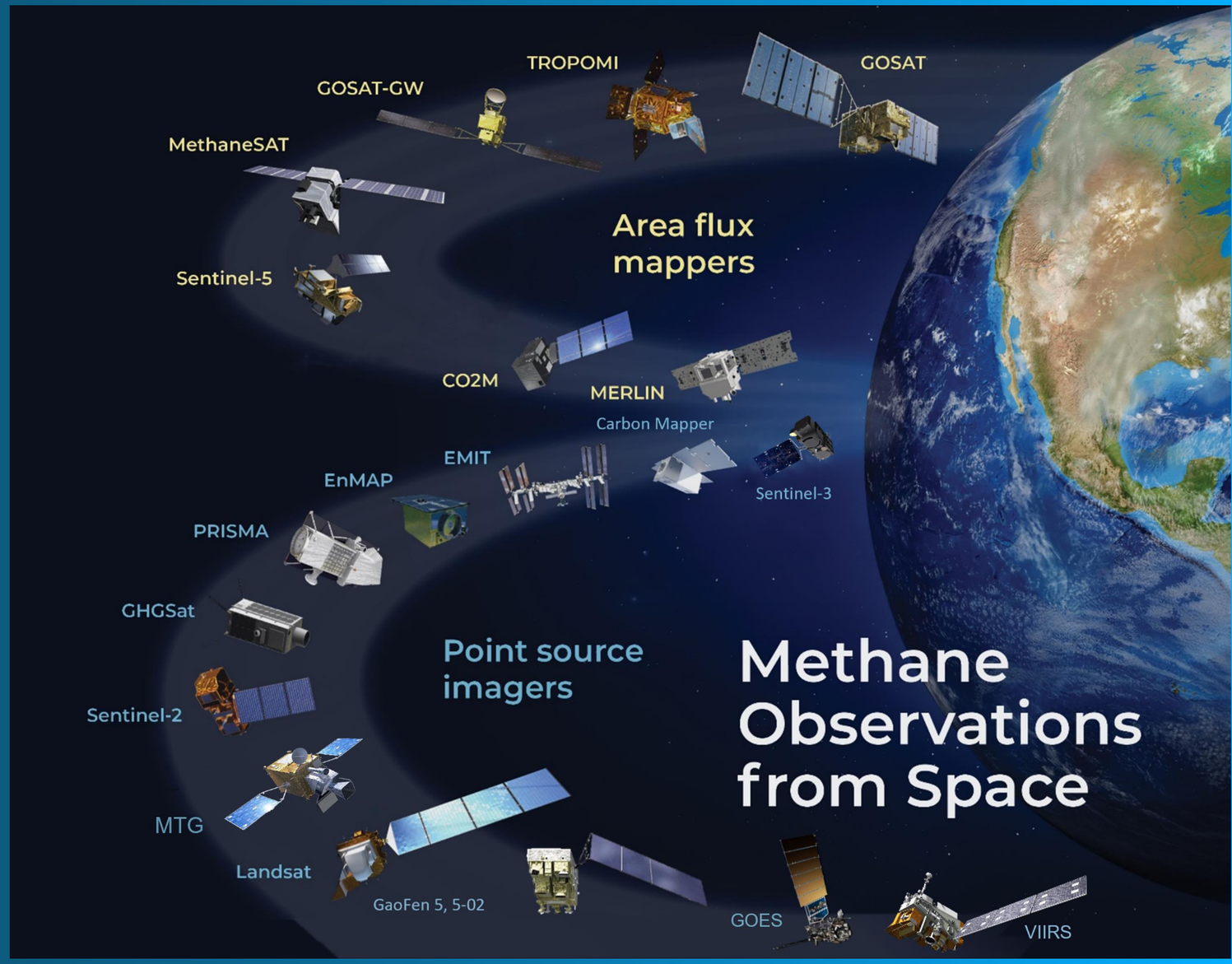
Jacob et al., ACP, 2022 (edited)

→ Further analysis using other satellites and datasets enables attribution





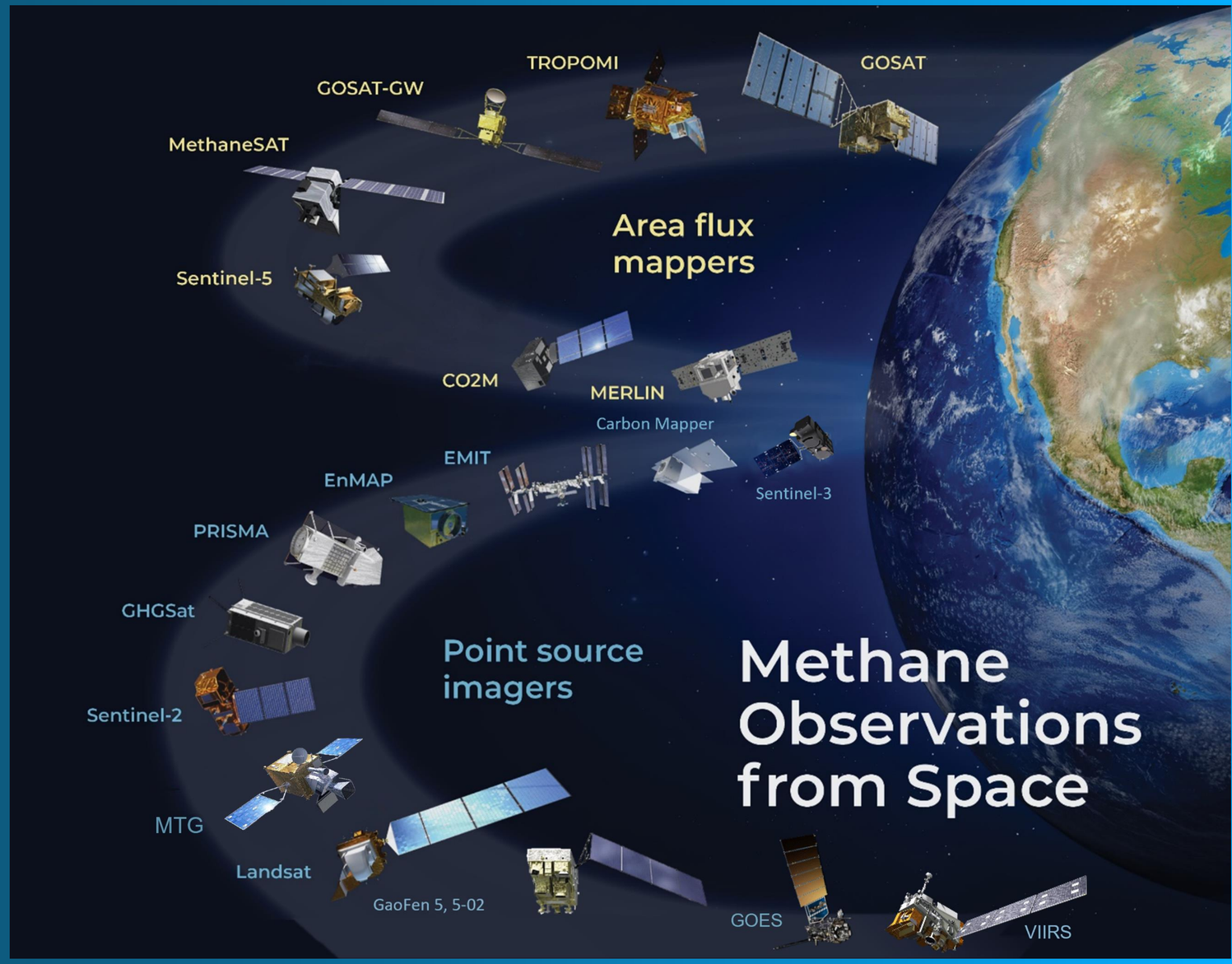
EMIT detection at an O&G facility, Jilin, China. 11 Oct. 2023
Plume detection through the MARS Plume Viewer



Jacob et al., ACP, 2022 (edited)

→ Satellite use within the IMEO's initiatives

- **MARS:** system for detecting and notifying large methane emissions to governments and companies worldwide based on satellite observations
- **Science studies:** Reconciliation of multi-scale measurements, including satellite
- **Baseline-studies:** Using satellite data to target measurement sites; improving prior estimates for national-level inversions



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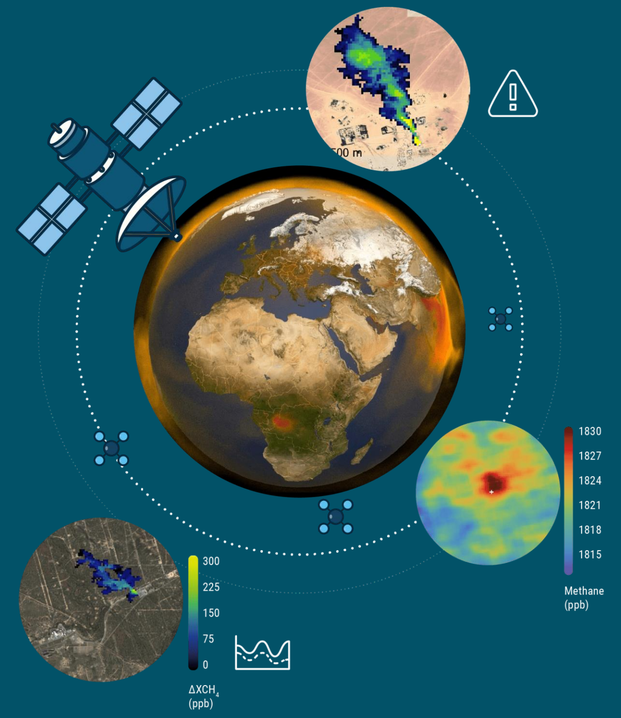
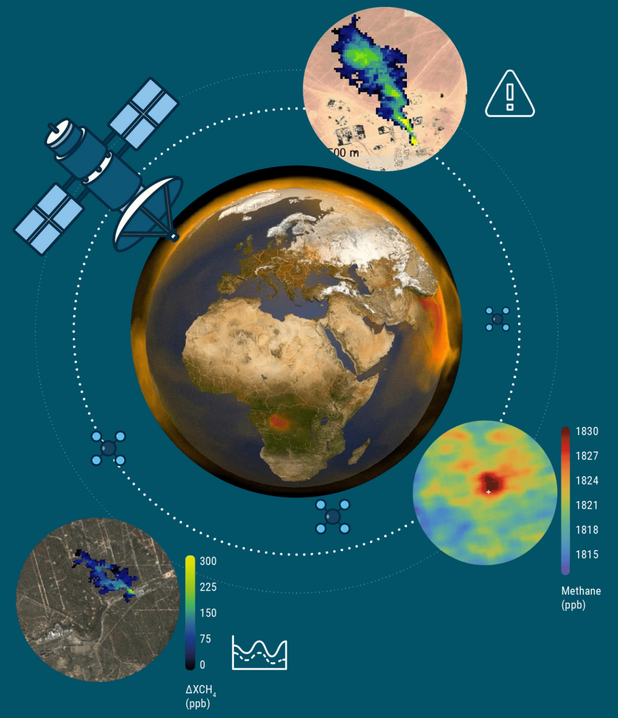
IMEO as a user in the AGATE project

- IMEO aims to increase its measurement capacities and research network in the agricultural sector.
- Satellites have the potential to provide data that are not possible to obtain with other methods: global and high frequency data.
- Many of the currently available methane-sensitive satellites provide open data and accurate measurements.
- IMEO uses satellite data to detect, monitor, and inform on methane emissions from O&G, coal, and waste.
- The ability and accuracy of satellites to measure methane emissions from the agriculture sector is still unclear.



IMEO’s requirements for AGATE project

- → IMEO needs high quality data to drive mitigation actions.
- → Assess whether the use of currently available satellites is accurate for measuring agricultural emissions in order to inform stakeholders correctly.
- → If satellite-based ag. methane emission measurements are feasible, have a clear view of their limitations and their potential for use in IMEO's efforts.
- → We are looking forward to share knowledge and enhance collaboration between these groups.
- → Work complementarily avoiding duplication of efforts.
- → IMEO seeks to take action on the results. We need actionable data.



Thank you !

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