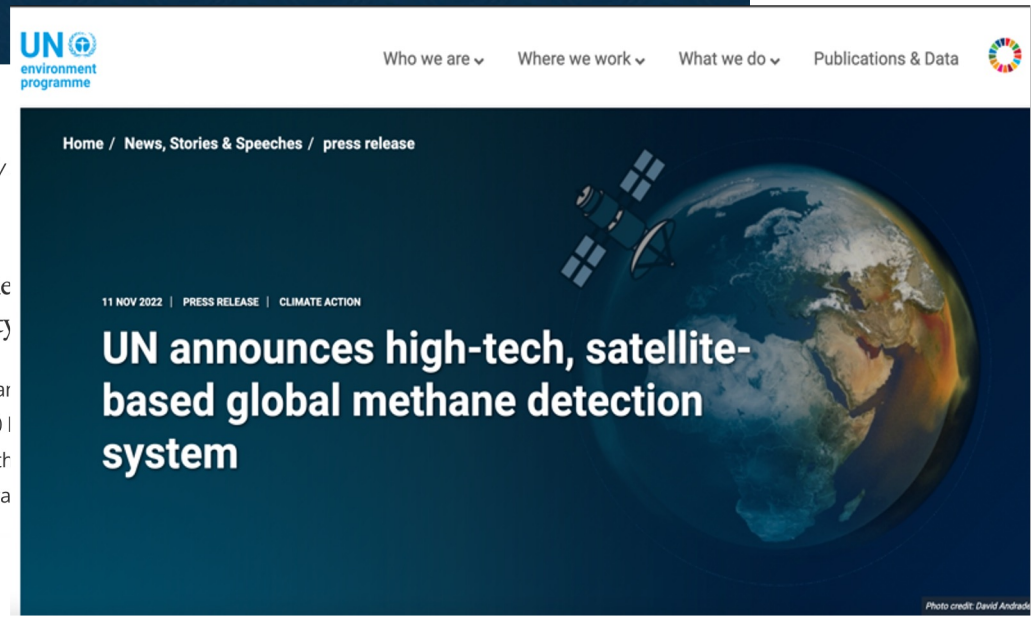
How Will Next Generation Technology Affect Climate Talks?

Mackenzie Huffman – Director of Strategy and Partnerships

The Global “Methane Moment” is Now

Addressing methane has become top of mind for world leaders, businesses, nonprofits, and philanthropists.

- Over 150 countries signed on to the Global Methane Pledge (GMP) – to reduce global methane emissions 30% by 2030 from 2020 levels
- Philanthropy raised over $325 million to support the Global Methane Pledge
- Countries are working to strengthen their existing regulations on oil and gas to target methane – including, the US, EU, Canada, and Colombia.



Why Are Policymakers Focused on Methane?

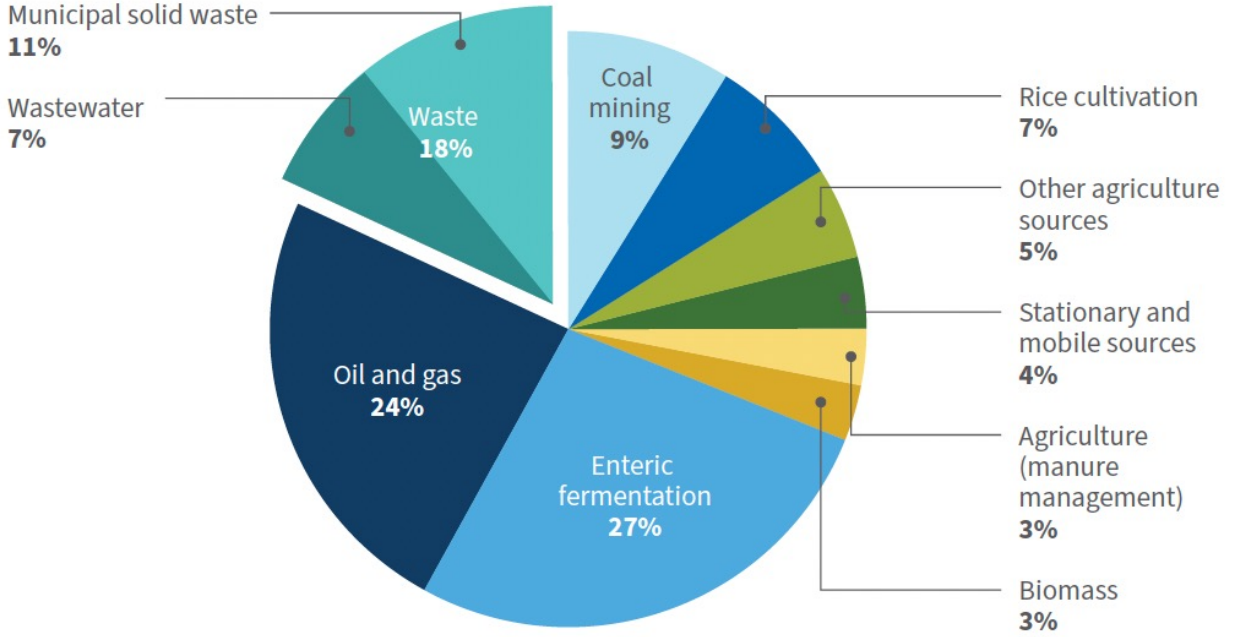
Tackling methane can **achieve immediate climate impacts** – methane is 86x worse than CO_2 over 20 years

- Addressing methane is the **fastest path to meeting 2030 reduction targets**

Methane comes from many sectors, **especially oil and gas, coal, agriculture and waste management**

High emissions methane sources can **contribute between 20-60% of regional methane emissions**

Focusing on methane can also **address environmental justice, air quality and health concerns**



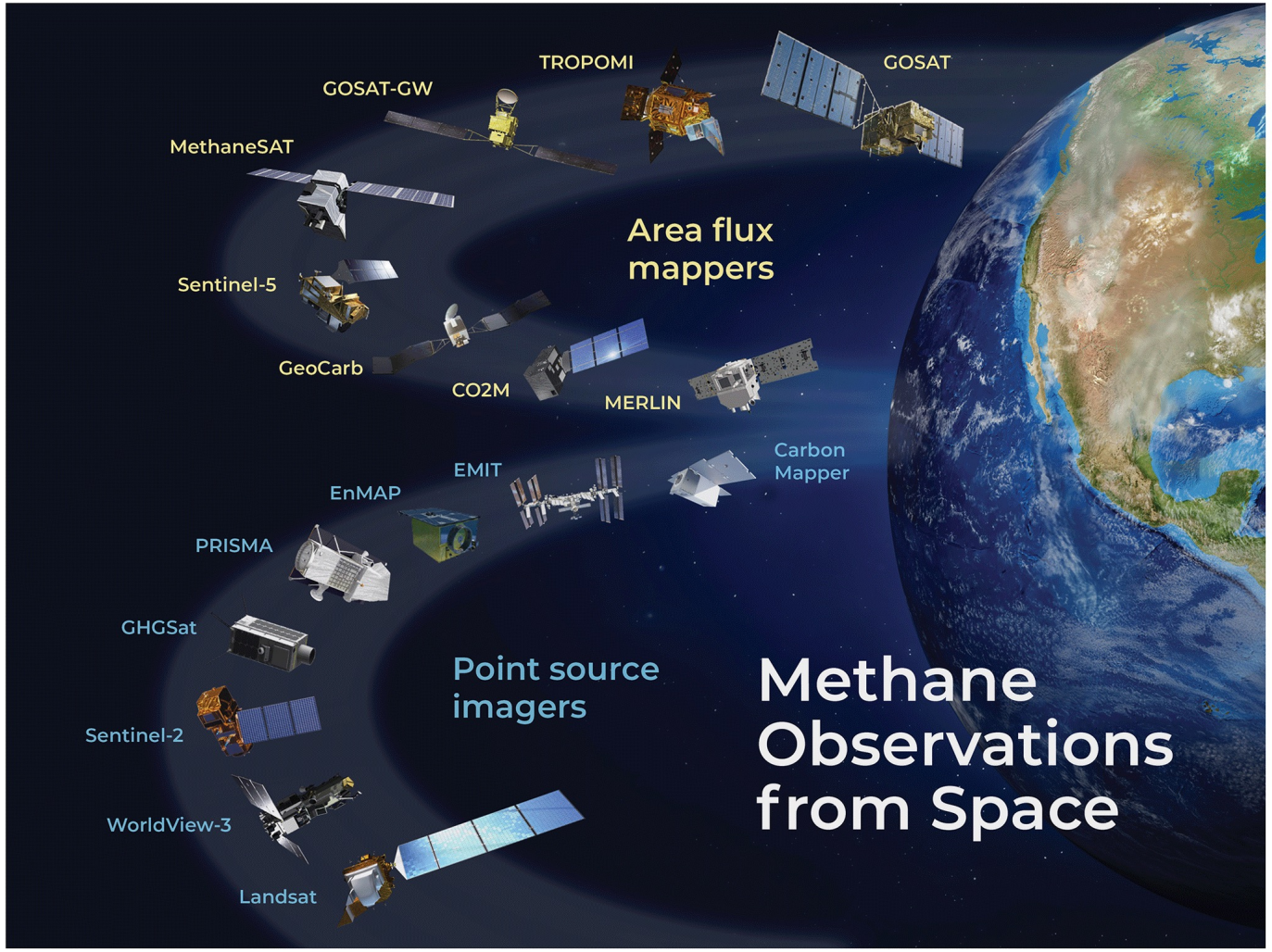
Source: Global Methane Initiative, "Global Methane Emissions and Mitigation Opportunities," https://www.globalmethane.org/documents/gmi-mitigation-factsheet.pdf

An emerging suite of advanced technologies are changing the landscape

Satellites are increasingly recognized as essential tools to drive reductions

- UNEP International Methane Emission Observatory announced Methane Alert and Response Program
- US State Department and GMP partners announced Global Methane Pledge “Pathways”
- EPA Super-Emitter Response Program

An emerging ecosystem of technologies and actors are coming online to support aggregate accounting and inventory efforts as well as direct mitigation guidance

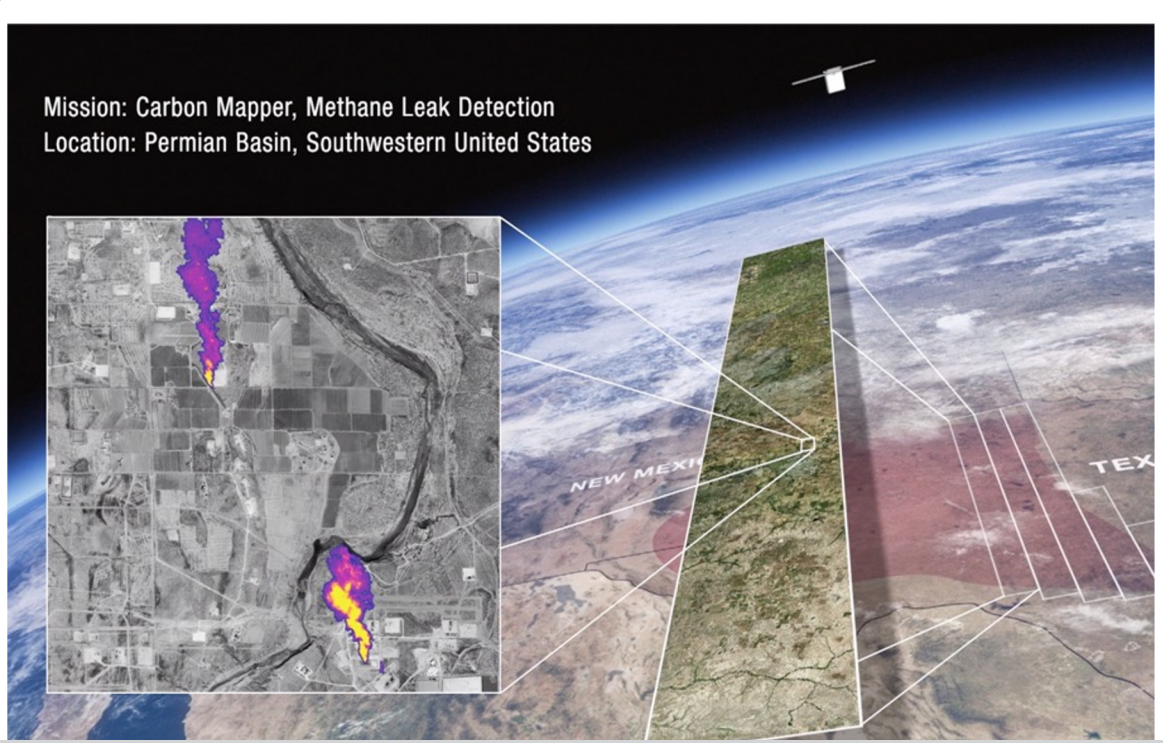


What is Carbon Mapper?

- Carbon Mapper the non-profit: public good mission to deliver actionable, localized CH_4 and CO_2 data
- Carbon Mapper leads a public-private partnership to build & use constellation
- Phase 1: Launch first 2 satellites targeting late 2023/early 2024
- Phase 2: Goal to expand full constellation with daily to bi-weekly monitoring
- Track 90% of high emitting CH_4 & CO_2 point sources globally
- All CH_4 & CO_2 data publicly available

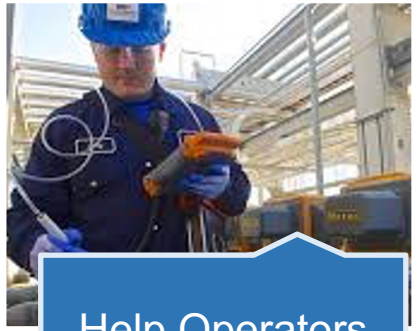
Integration

Policy | Technology | Technology | Science | Policy

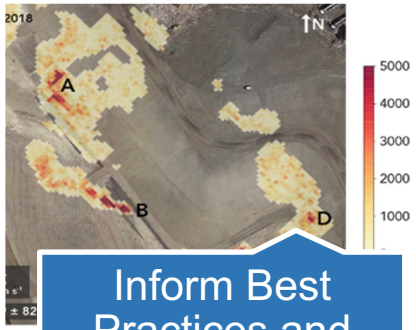


Making the Invisible Visible Drives Mitigation Action

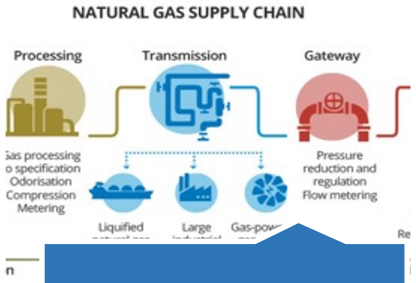
Accessible and actionable methane and CO_2 data can support various actions for emissions reduction



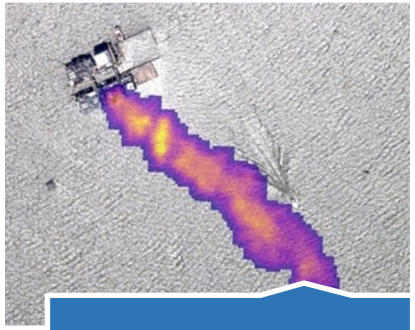
Help Operators Screen for Leaks



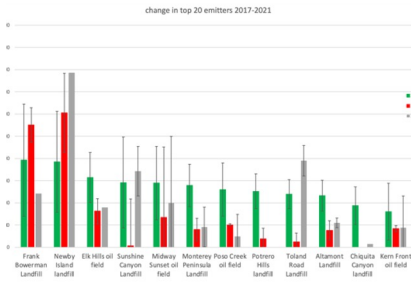
Inform Best Practices and Investment Priorities



Differentiate Gas Supply Chains



Guide Policy



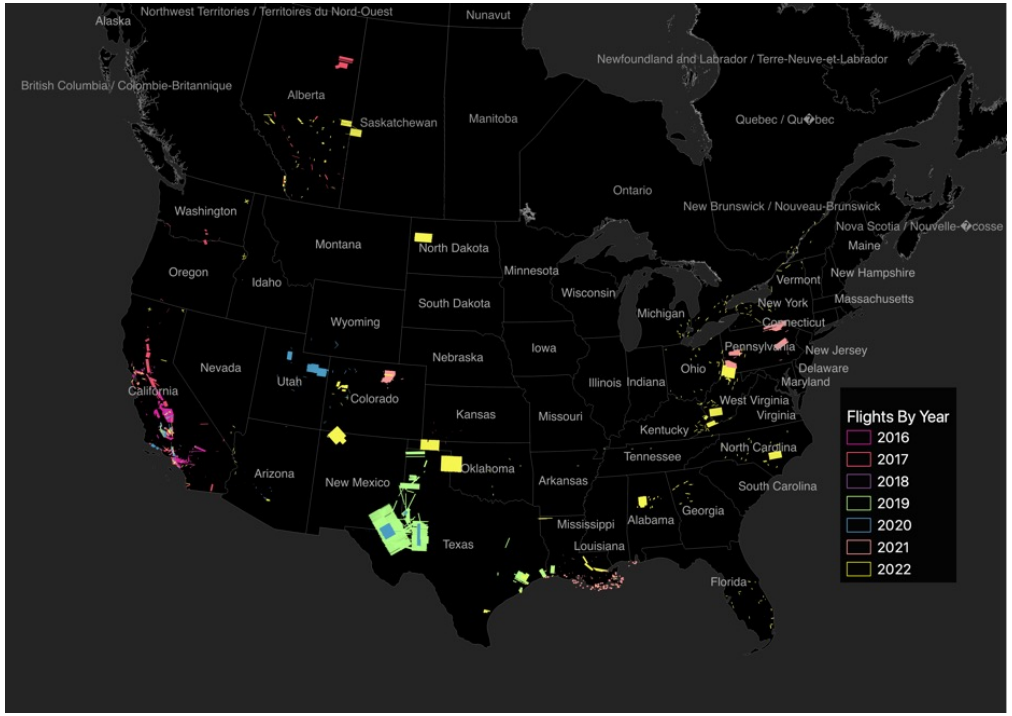
Inform Trends and Assess Progress

Support Community Health/Safety

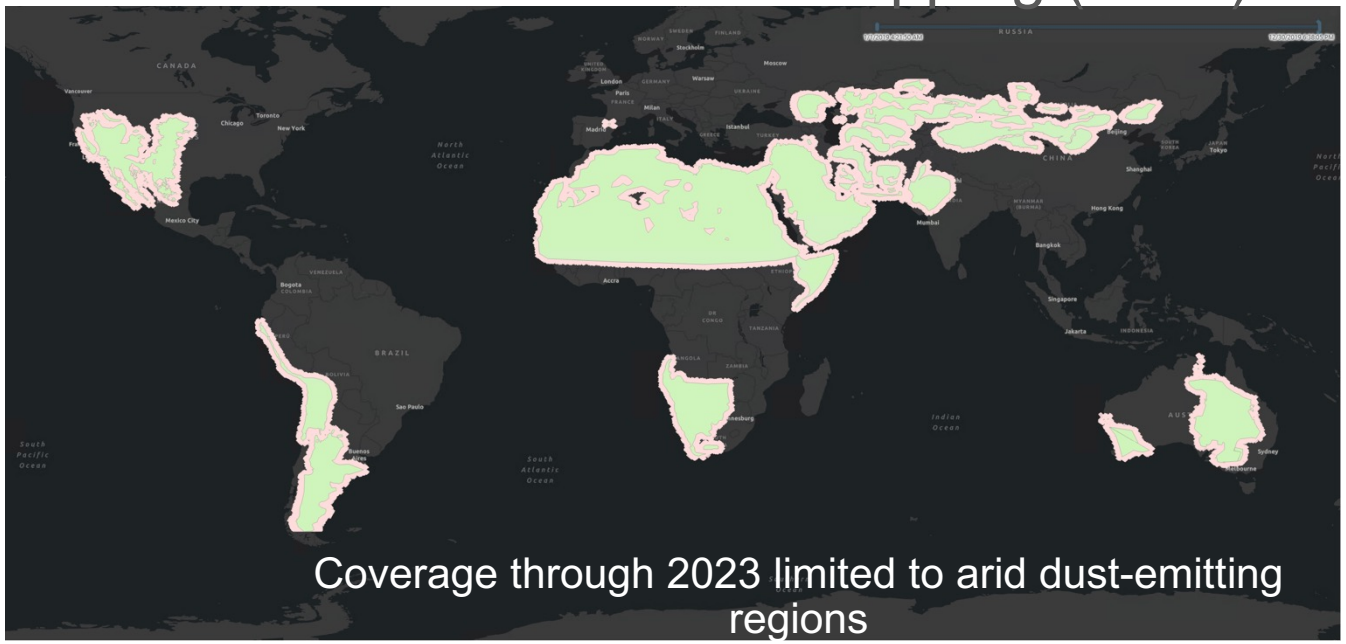
Making the Invisible Visible - Globally

Improving satellite detection capabilities will enable identification of high-emission methane events globally

Regional aerial surveys

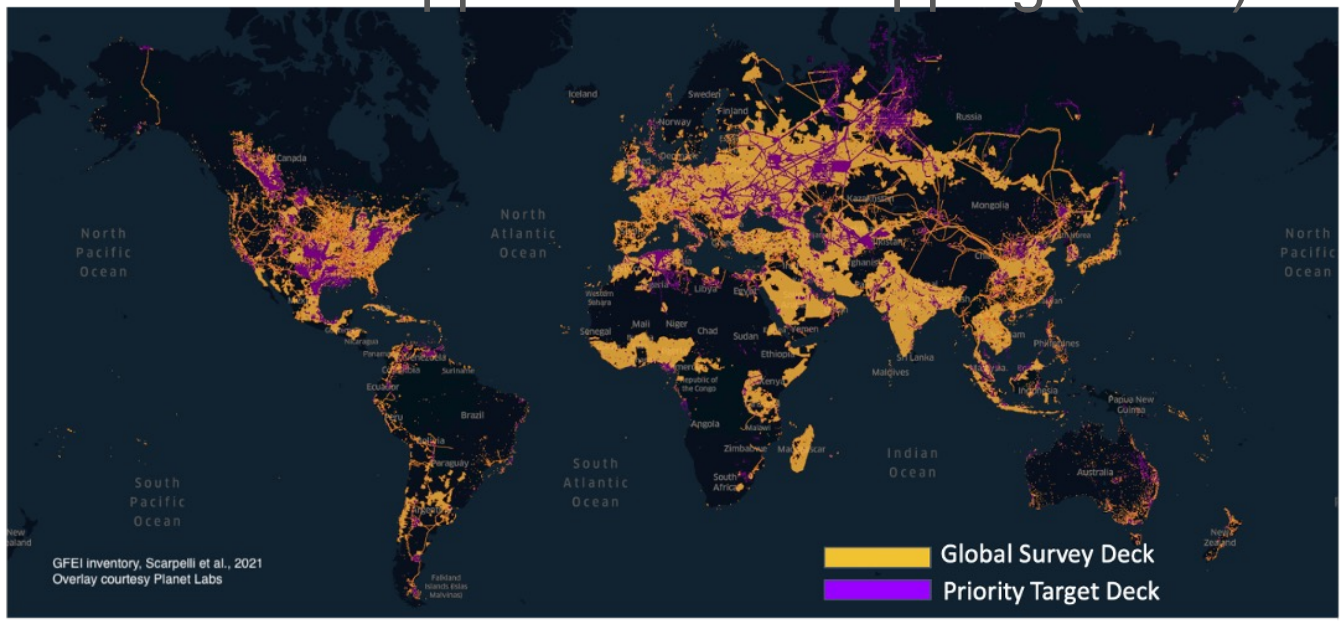


NASA EMIT satellite mapping (2023)



Coverage through 2023 limited to arid dust-emitting regions

Carbon Mapper satellite mapping (2024)



Thank You