

Tia Scarpelli
Waste Lead
Carbon Mapper

ABOUT CARBON MAPPER

A non-profit working to to reduce emissions by delivering accessible, actionable methane and carbon dioxide data

- Leveraging remote sensing technologies, to detect and quantify methane and CO2 super-emitters for effective action
- Maintaining long-term goal to monitor 90% of global super-emitters
- Working with academics, industry, governments and civil society to translate data into insights and action
- Making all methane and CO2 data publicly available on our portal



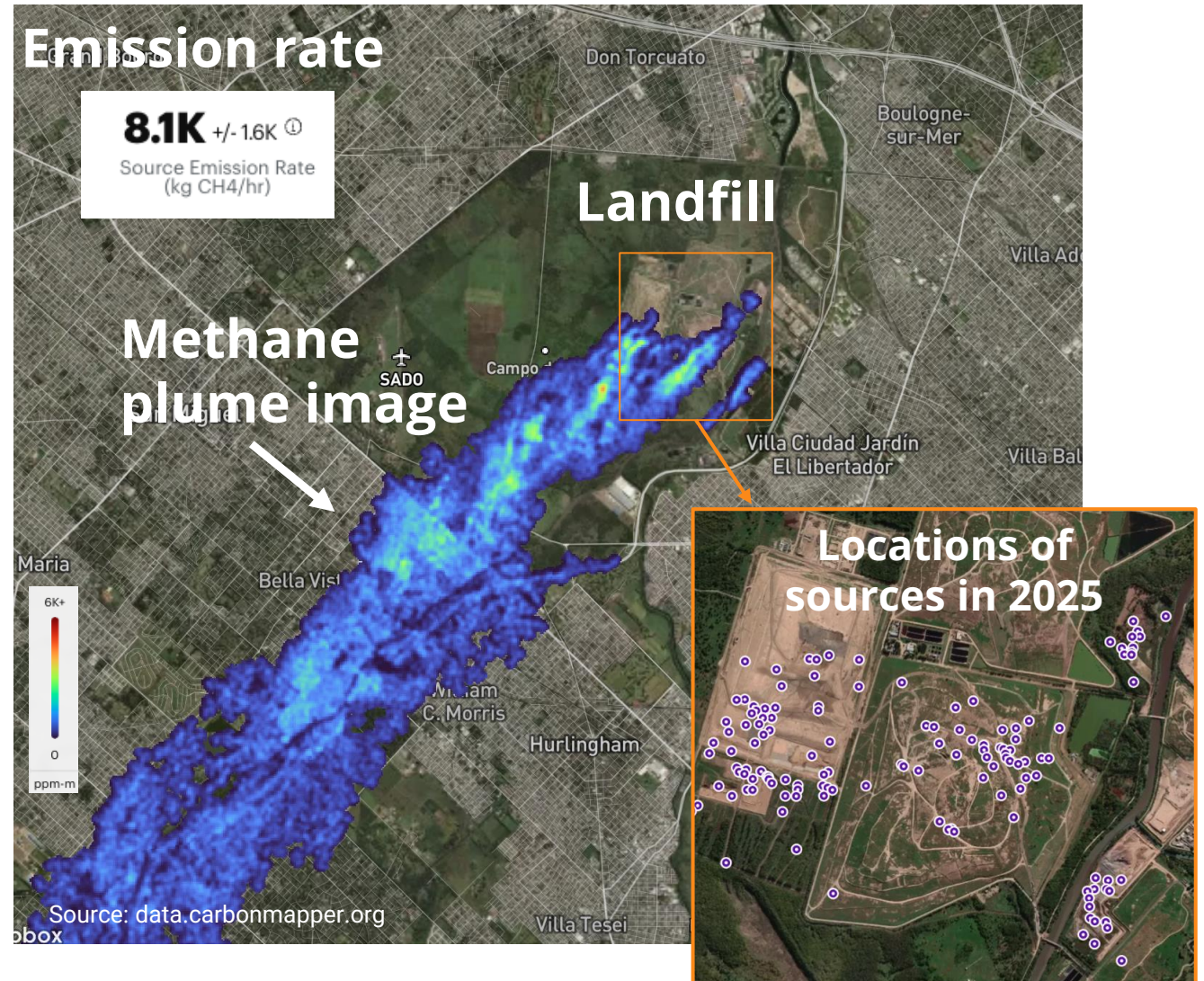
SATELLITES CHARACTERIZE METHANE EMISSIONS

We use point source imaging satellites to **detect and quantify** methane emissions for landfills and dumpsites.

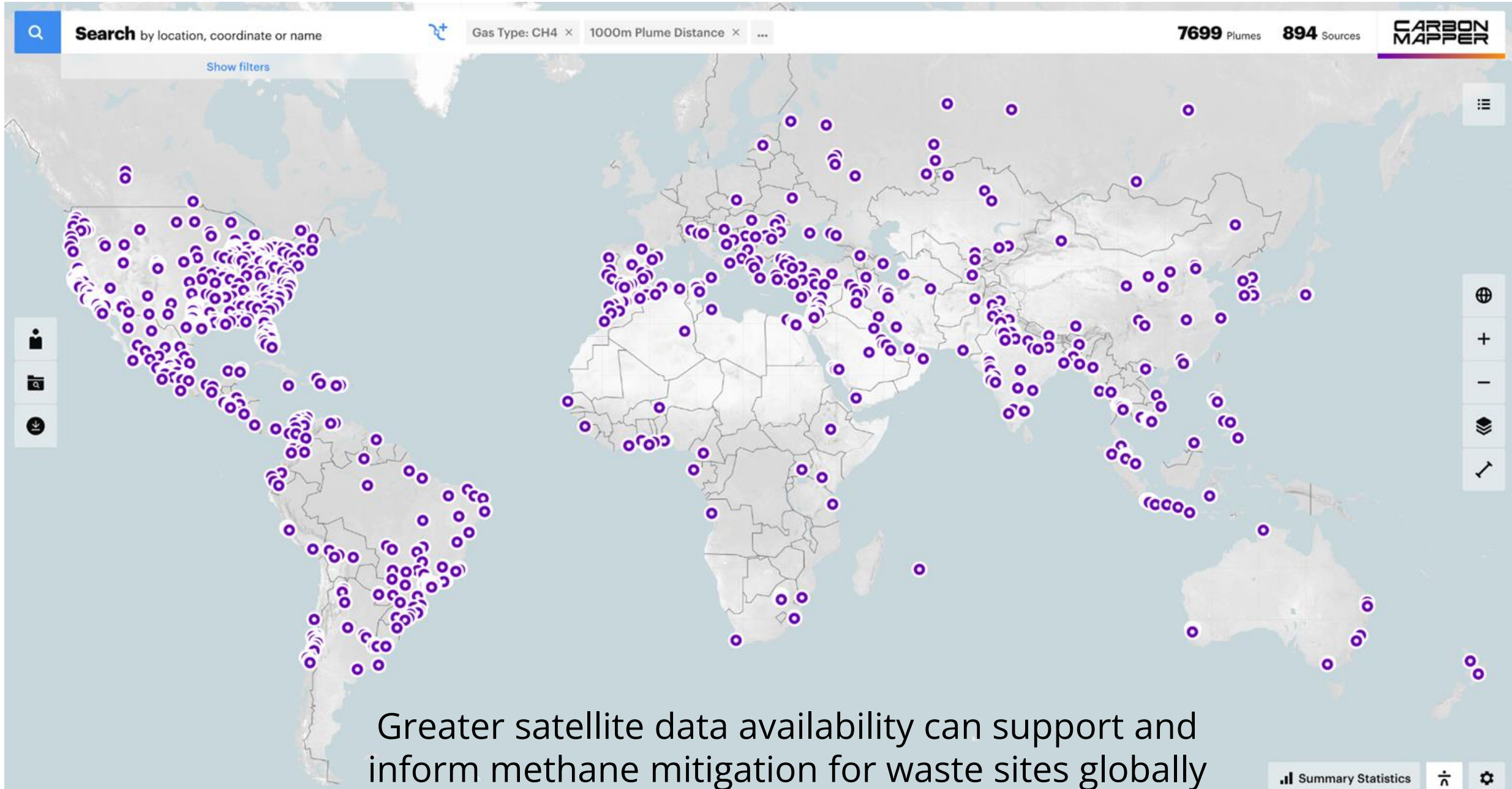
For a single observation, this data includes

- The **location** of the emission source
- An **image** of the methane being emitted (i.e., a plume)
- An **emission rate** in kilograms per hour

Satellite data at a landfill. Example observation at a landfill in Buenos Aires, Argentina, from July 2025.

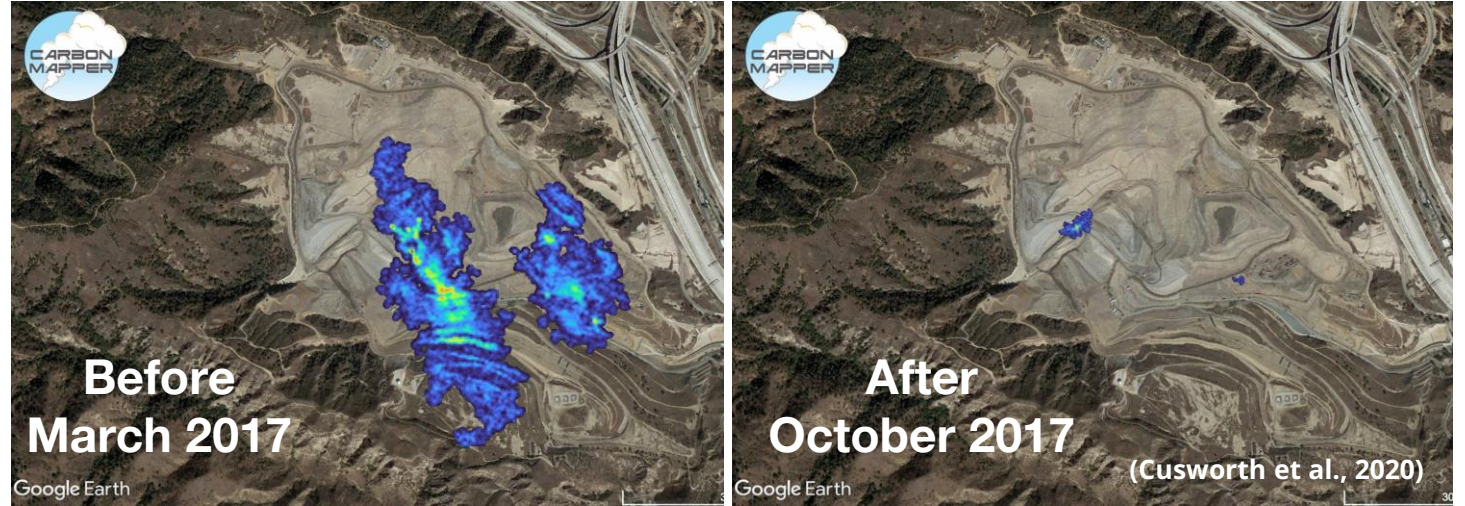


ENHANCED ACCESS TO DATA AND INSIGHTS



TRANSLATING DATA TO ACTION

Rapid detection and mitigation of methane leaks at a California landfill



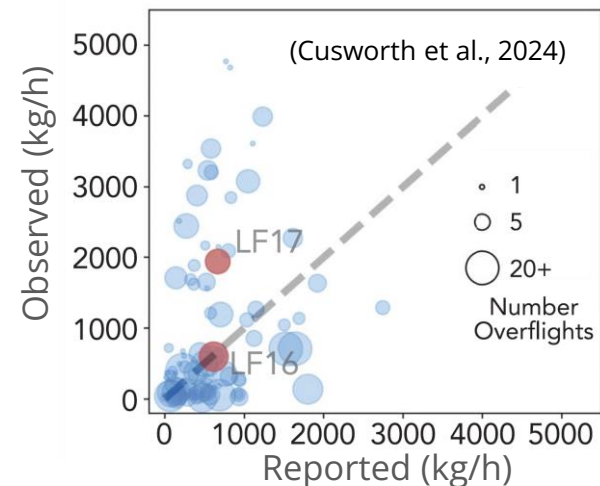
Data is used directly for mitigation

- Identify and track high-emitting methane sources
- Flag methane events for operators and regulators
- Verify mitigation success

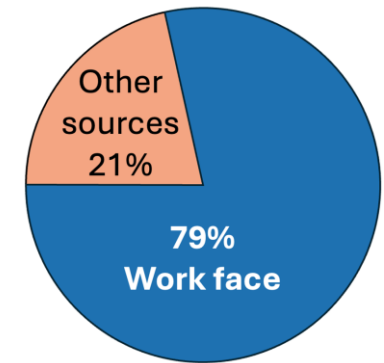
Insights can inform best practices, policy, and reporting

- Identifying causes of large emissions
- Enable Measurement, Reporting, and Verification (MRV) using transparent data
- Identify information gaps in current landfill emission models

Observations show biases in landfill emission models



Identifying the landfill work face as a major source of methane



(Scarpelli et al., 2024)



We use satellites to prioritize, inform, and verify methane mitigation action for waste.

Data is one piece of the puzzle, so we work with stakeholders and research partners to bridge the data-to-action gap.

We are looking for stakeholders to partner with!

Contact me at
tia@carbonmapper.org

All data available at
data.carbonmapper.org

