

# **Risk Management for Pipeline Integrity**

Evolve from Prescriptive to Risk-Based Management with Real-Time Data and Remote Methane Detection

At Irth, we know that data only matters if it leads to effective action. That's why we pair the latest in remote sensing, AI, and machine learning with the deepest, broadest dataset in the industry to provide actionable insights and recommendations that elevate your pipeline integrity management initiatives.

## Unmatched Experience

We leverage over 30 years of experience working with the most recognized names in energy, infrastructure, damage prevention, and risk management to get the right data in the right hands at the right time.

## • Fast and Accurate Leak Detection, Location, and Quantification

Irth integrates real-time methane data with external data sources (including weather data) across temporal frequencies and a wide geographic range to provide accurate leak detection, location, and quantification – faster than any other solution.

## Robust Data, Advanced Learning Models, Powerful AI

#### Data Agnostic, Fully Customizable

Irth combines data from a variety of the latest remote sensing tools including aircraft-based and satellite-based technologies (Sentinel 5+2, Landsat 8-9, and PRISMA) as well as stationary sensor networks to maximize your methane detection coverage and effectiveness.

## Rapid Analysis of Potential Risks and Impacts

Irth harnesses the power of complex physics and Al-based calculations to perform rapid analysis across hundreds of curated geospatial data layers – accurately pinpointing your most vulnerable assets and predicting the potential risk and impact of storms, floods, and other events before they occur.

By combining real-time data with operational history and external data sources, Irth bridges the gap from simple automation to true, neural network-enabled artificial intelligence – recommending the most effective actions to proactively mitigate risk and potential impacts as well as rapidly address possible leaks.



# Combined Sensing Technologies for Efficient Leak Detection

Ensure the most effective methane detection coverage by considering data from a variety of the latest sensing technologies.



- Satellite (Sentinel 5) 0.1% Leaks Detected, 10% Emissions Reduction
- Satellite (Sentinel 5+2; Landsat 8-9) 1% Leaks Detected, 15% Emissions Reduction
- Satellite (Sentinel 5+2; Landsat 8-9, PRISMA) 80% Leaks Detected, 70% Emissions Reduction

Satellite + Aircraft 90% Leaks Detected, 90% Emissions Reduction

Satellite + Aircraft + Sensor Network 99% Leaks Detected, ~100% Emissions Reduction

# Building Partnerships for a More Granular View of Emission Flow Rate

We actively partner with technology providers on the cutting edge of methane detection. Irth is fully customizable and is built to consider data from a variety of different sources – meaning our risk solution perfectly fits your organization's unique needs.



# **Proactive Mitigation of Storm and Flood Risk**

- Go beyond simple weather forecasts and calculations.
- Bring assets into context with rapid in-platform analysis of risks and impacts.
- Calculate and utilize historical weather distributions.
- Incorporate forecasts from providers like ECMWF or NOAA/NCEP.
- Consider hundreds of curated data layers.
- Compare weather and risk data with land use, historical distributions, etc.
- Create custom models and data layers.
- Harness complex in-platform physics and Al-based calculations and workflows.

