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Filling the Gaps:
Safety in Complex Emissions Environments

13 May 2026

Industrial emitters are in a race to net zero by 2030, yet 69% of their emissions are unmonitored *1.

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*1 Health and Safety Executive (HSE) Offshore Hydrocarbons Release database

The Industrial Monitoring Gap – Why Current Approaches Don't Scale

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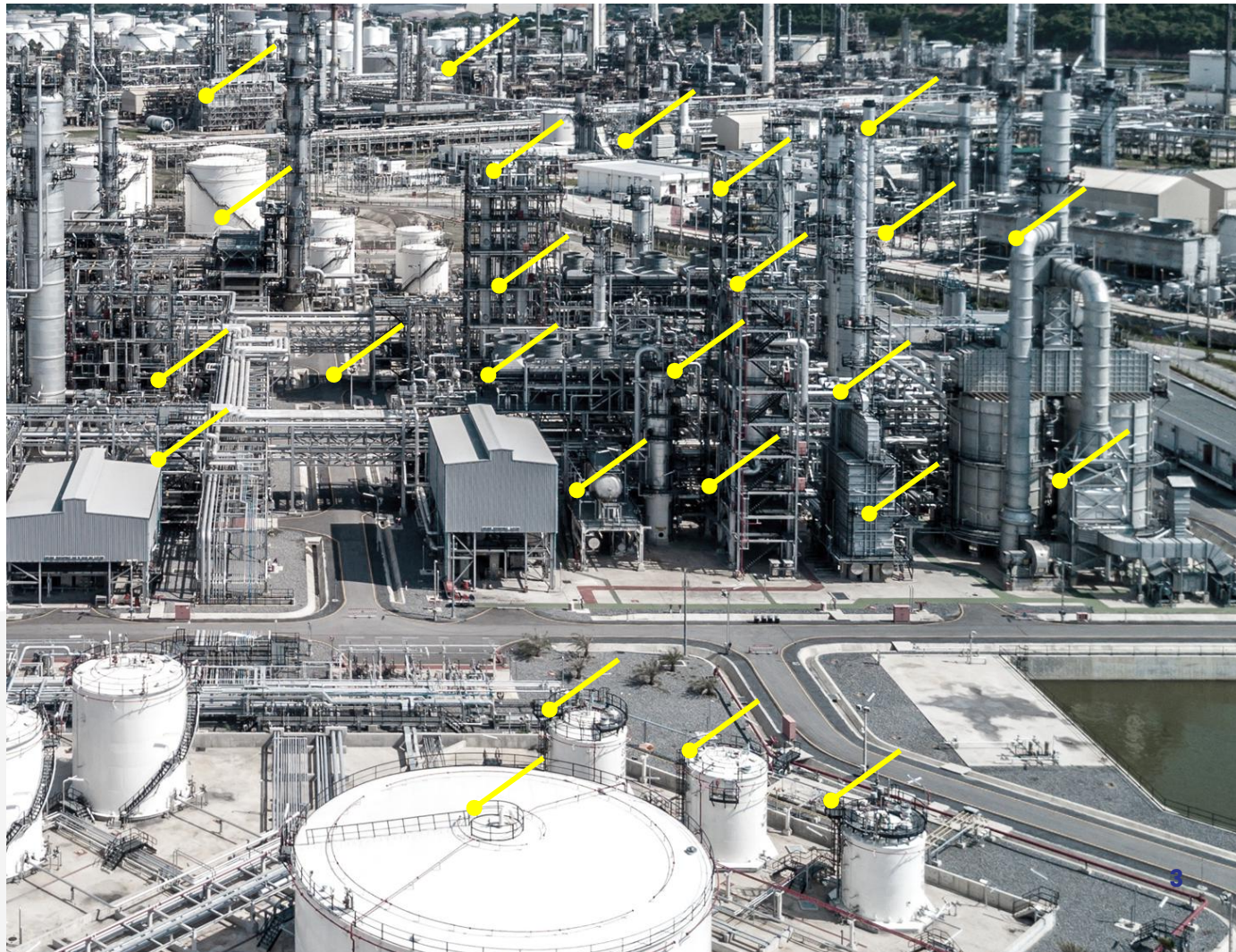
- Large industrial sites have **tens of thousands**[*1] of potential emission spots
- Monitoring relies on a mix of
  - **Fixed point sensors**
  - **Periodic manual inspection**
- Multiple vendors and technologies create **system blind spots**
- Independent studies estimate that a majority of emissions remain unobserved[*2]
- **Continuous, full-site coverage does not exist today**



*1: Concawe Report 23/10 "Results of a comparative pilot field test study of a first gen. Quantative Optical Gas Imaging (QOGI) system", Brussels 2022
*2 Health and Safety Executive (HSE) Offshore Hydrocarbons Release database

Emissions environment is often highly complex

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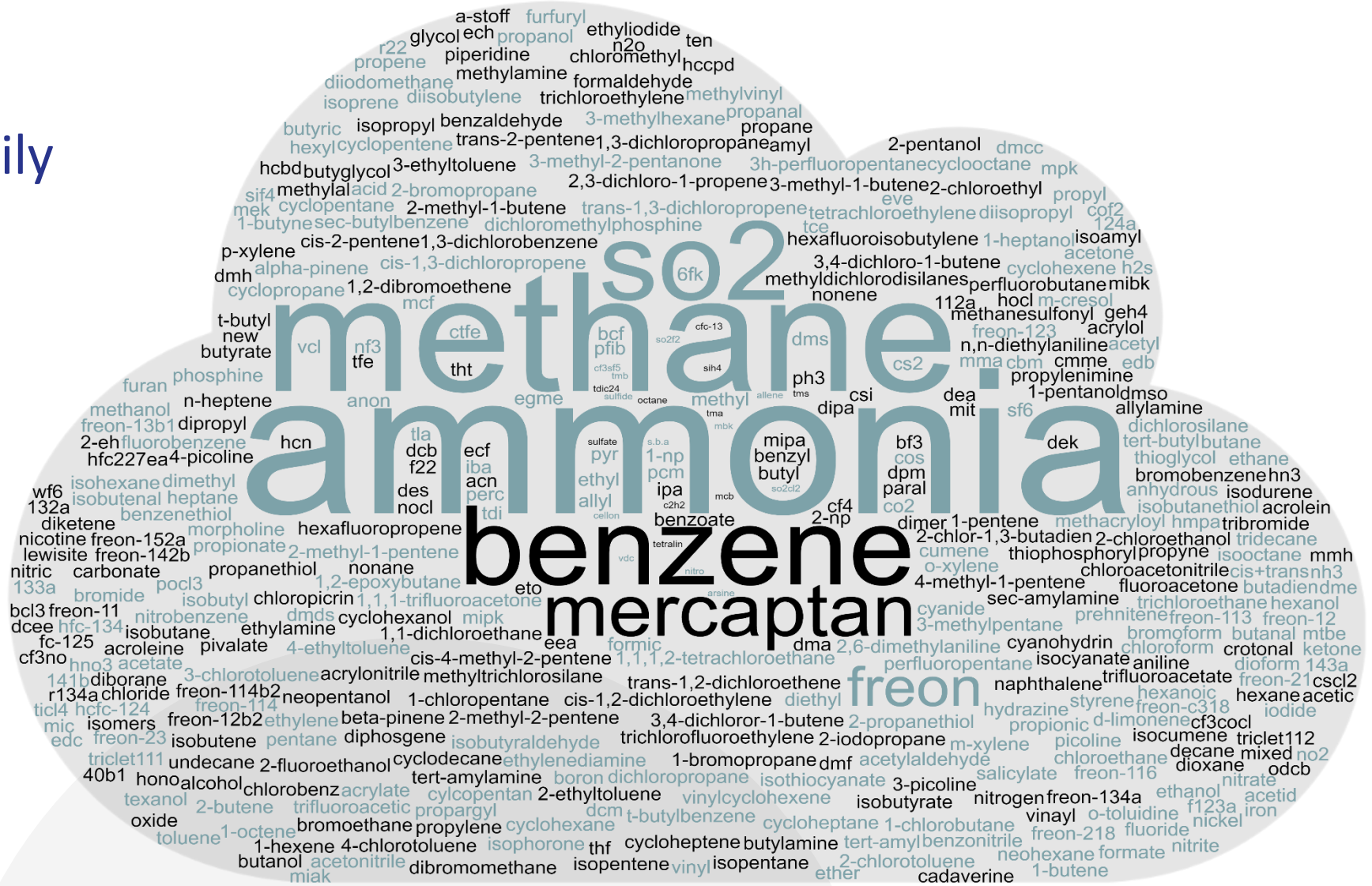
400+ chemical compounds are readily identifiable with FTIR scanning




SITECH
SERVICE

The scanfeld® system concept — from fragmented sensing to site-wide visibility

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- ✓ **Wide-area optical sensing** enables continuous, site-scale coverage with few instruments
- ✓ **Multi-compound detection** replaces single-gas, single-point monitoring
- ✓ **Always-on operation (24/7/365)** provides temporal continuity, not snapshots
- ✓ **Integrated software layer** turns raw spectra into actionable site intelligence

Custom long-range imaging spectrometers

Integrated analytics & control software

Laboratory-Grade Performance, Industrial Deployment

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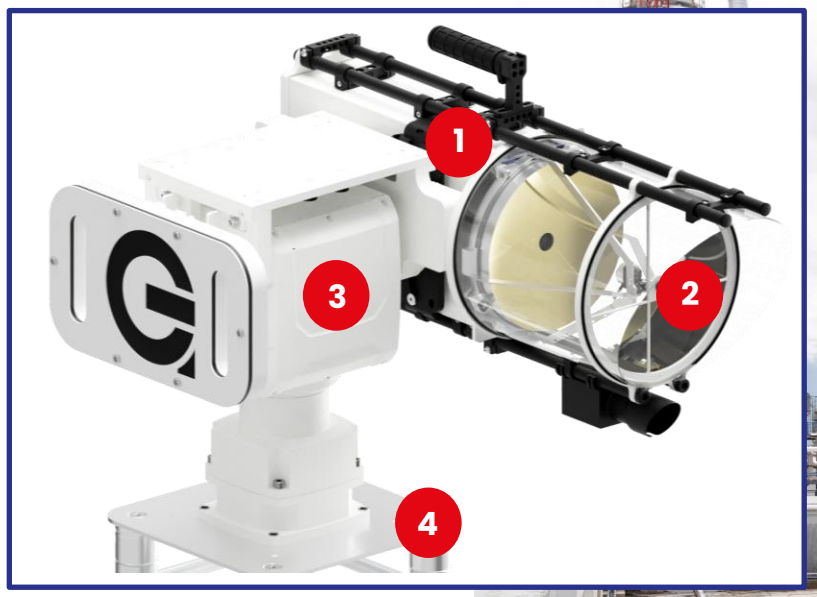

1. **Laboratory-grade infrared analyser** for identifying 400+ chemical compounds
2. **Long range, high-definition telescope** for high sensitivity at over 1 km
3. **Panning & tilting axis** for 360^0 view and over 3 km^2 coverage area
4. **Robust build and materials** for deployment in any environment, low-maintenance operations

Spectroscopy-enabled identification

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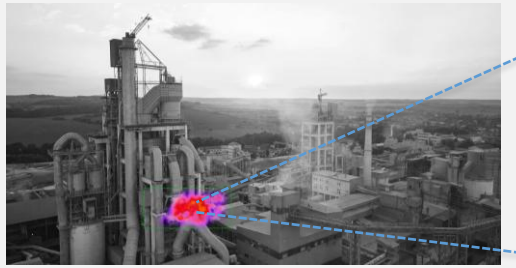
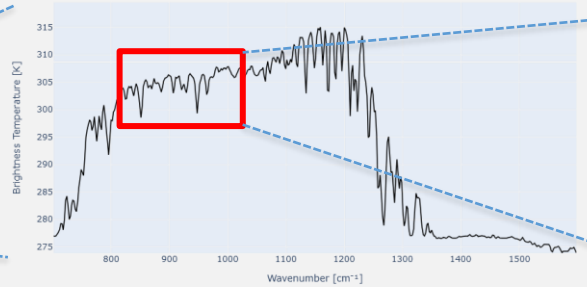
1 Capture



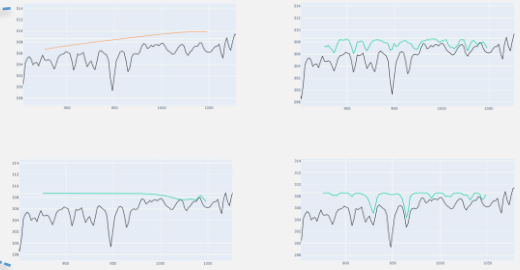
Discrete measurement positions are taken from each gas cloud image

2 Analyse



Every measurement position includes a complete infrared spectrum

3 Decomposition



Spectral decomposition removes all interfering compounds e.g. water

4 Identify

Remainder of spectrum is compared against library spectra to identify compound

Source(s): Company information

Compound intelligence through spectral fingerprinting

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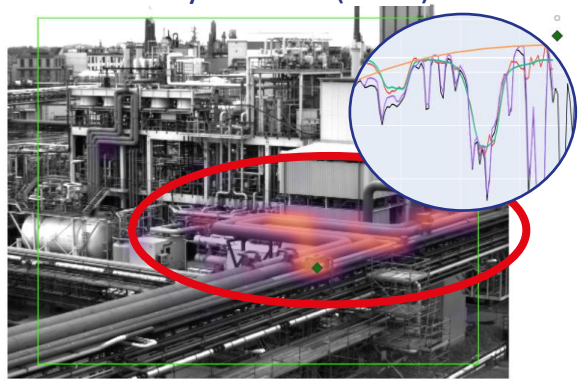
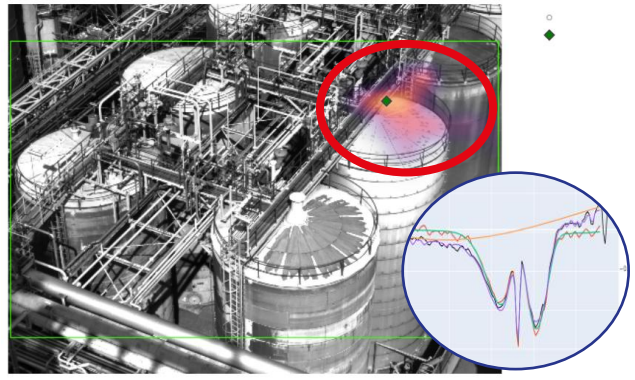
- ✓ Compounds identified by **unique spectral fingerprints**
- ✓ **Multi-compound and mixture** analysis
- ✓ Continuously **expanding industrial data record** across compounds, sites and operating conditions
- ✓ Foundation for **scalable chemical intelligence**

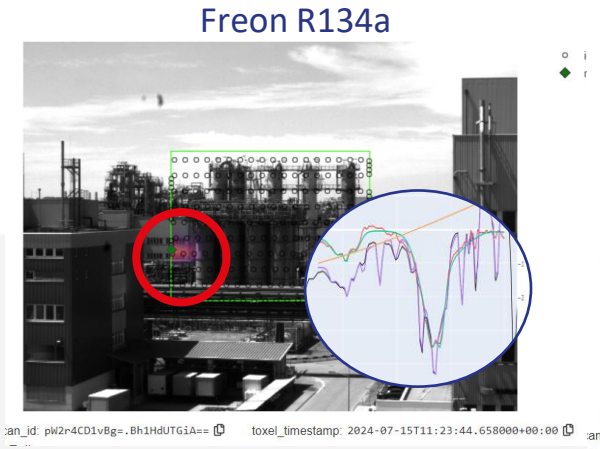
Vinylacetate (VAM)



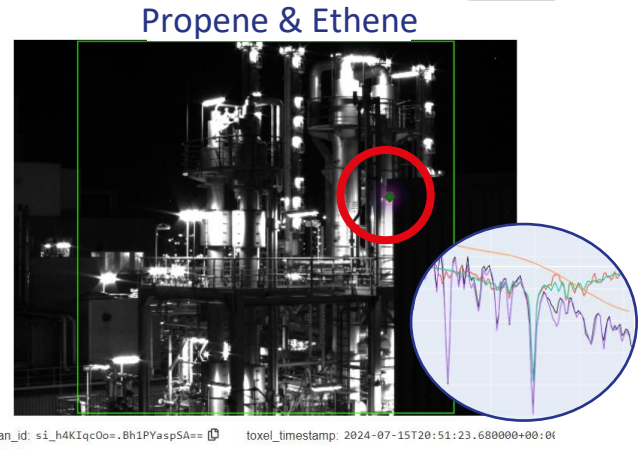
Methanol



Freon R134a



Propene & Ethene



Live Process Control System Connectivity

Embedding in multiple workflows

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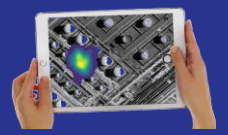
***80 active users** across multiple departments (single industrial site)*[1]

Safety

Control Room

- Full 360° site overview
- 24/7, fully automated

Technical inspection



Real Time:
Alerts & Mapping

- Total gases leaked
- Timing of leaks

Maintenance

Quantification & Timing

- Type and location of gas
- Accurate at 1km distance

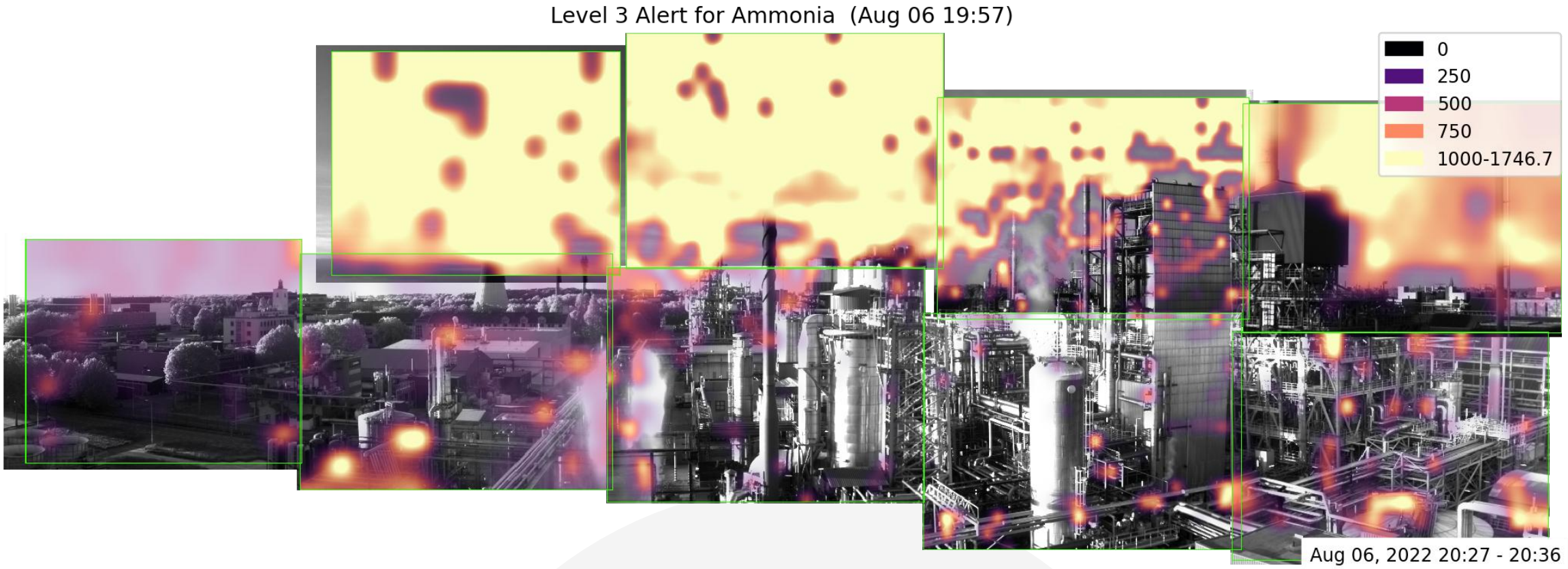
Compliance

Reporting:
End-to-End Emissions Data

- Historical data
- Compliance-ready reports

Incident Progression & Response

Ammonia Incident Progression & Response



Real-Time Detection & Localization of Ammonia Release

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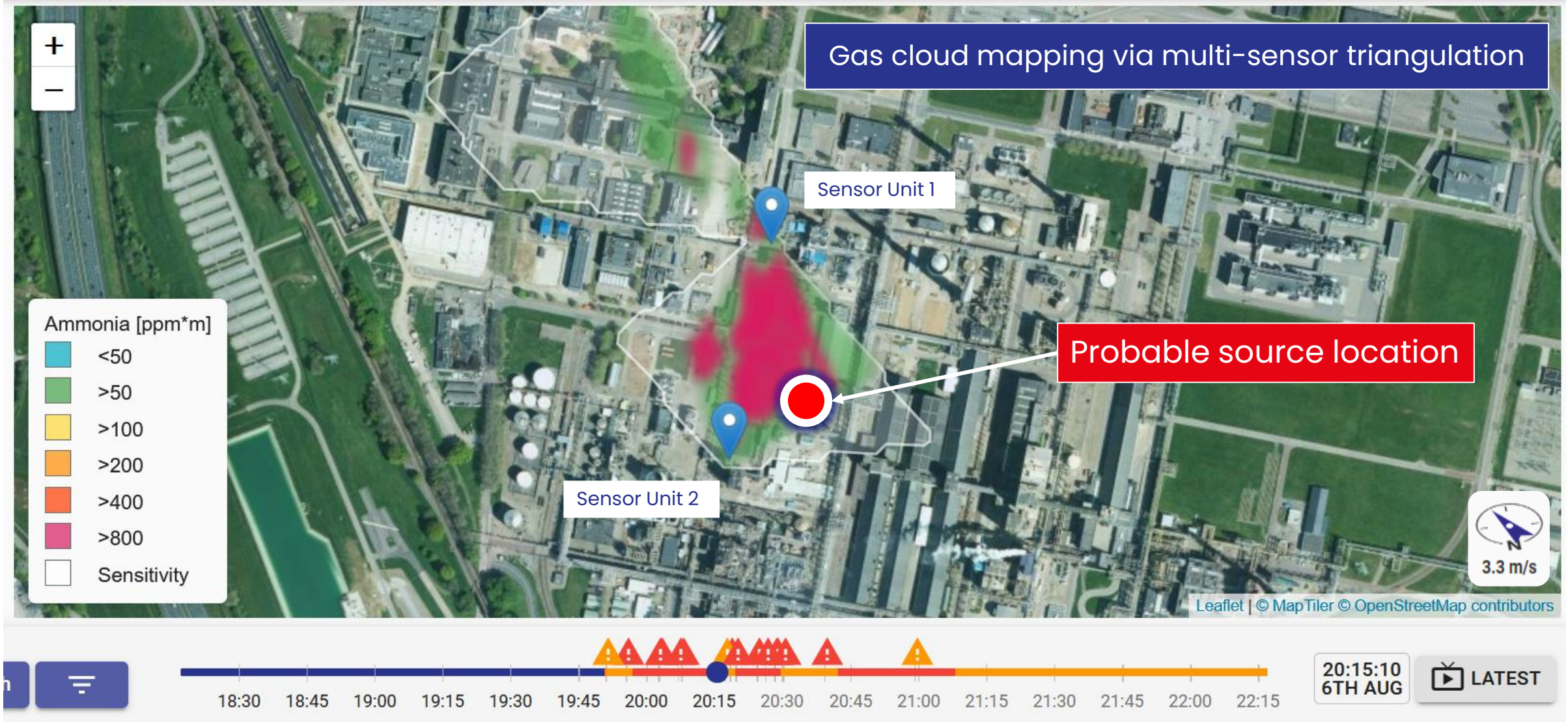

Real-Time Data Enables Targeted Emergency Response

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From Safety Monitoring to Process Intelligence

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1

Recurrent anomaly events

- Repeated nitric acid alarms detected despite no known nitric acid sources in the area
- **No obvious leaks, customer asked GP to validate**

2

Cross-domain data correlation

- Time-aligned correlation **revealed emissions as consistent phenomenon**
- Events occurred exclusively when using an alternative filler formulation

3

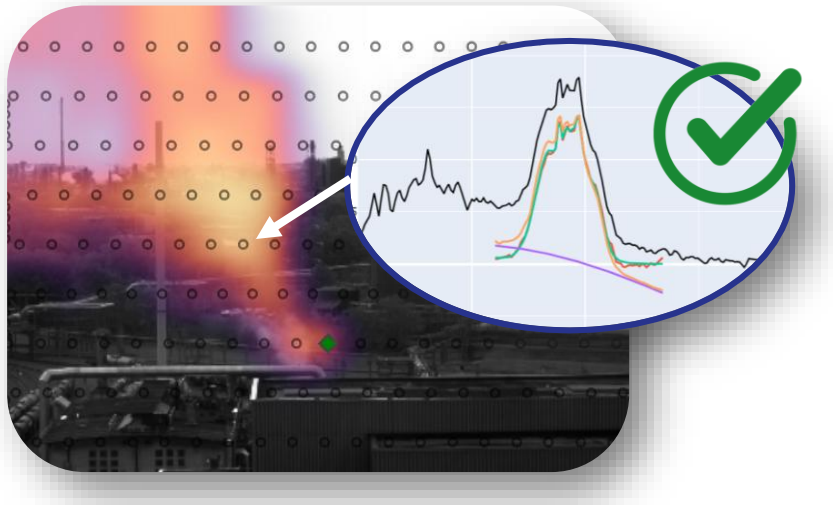
Continuous, full-chemistry monitoring analysis

- High-resolution spectral data confirmed nitric acid originated from a process stack
- **Real unexpected emissions**, customer only expected ammonium nitrate + trace ammonia

4

Outcome & forward value

- **New continuous emissions data is enriching existing continuous process data**
- New insights into unwanted behaviors of different brand filler materials
- Continuous learning loop spanning detection, causality, and prediction



Operational Advantage at Scale

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Safety	Performance	Compliance
Continuous, site-wide gas monitoring	Detection of fugitive emissions and gas losses	Continuous monitoring vs periodic inspections
Early detection of toxic & explosive releases	Quantification enables prioritization of leaks	Quantified emissions for reporting (CO_2, methane, VOCs)
Reliable alerts with near-zero false alarms	Reduced manual inspection effort (LDAR, patrols)	Audit-ready, traceable emissions data
Reduced risk of incidents and downtime	Faster root cause analysis through full-site visibility	Future-proof for tightening regulations
Outcome: Safer operations with faster response times	**Outcome**: Lower operating cost & improved efficiency	**Outcome:** Reduced regulatory risk & simplified reporting

Filling the Gaps: Delivering safety, efficiency, and compliance simultaneously

Grandperspective – at a Glance

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Industrial-scale **situational awareness** and **emissions intelligence** through long-range chemical sensing

Our Mission is to **enable safer**, **cleaner**, and **more manageable industrial operations** through continuous chemical insights

Chemical Intelligence as a new strategic category for industrial safety and operations

- **Multi-use, system-level monitoring** across safety, compliance and operational insights
- **Wide-area, continuous gas detection covering** entire sites with a handful of instruments
- **Always on operation (24/7/365)** with a broad target library (400+ HAPs, VOCs, TICs)
- **Industrial-grade data architecture** (on-prem + cloud) for real-time analytics, alarms and reporting

Designed for scalability, reliability, and long-term industrial deployment.

GRANDPERSPECTIVE

STOP GUESSING.
START KNOWING.

Grandperspective GmbH
Rheinstrase 15A
14513 Teltow

Phone: **+49 30 86384011**
Email:
scanfeld@grandperspective.de

Simon Bunegar

bunegar@grandperspective.de