Emission Monitoring and Leak Detection

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COP29, Baku, November 2024

tunisian talents united

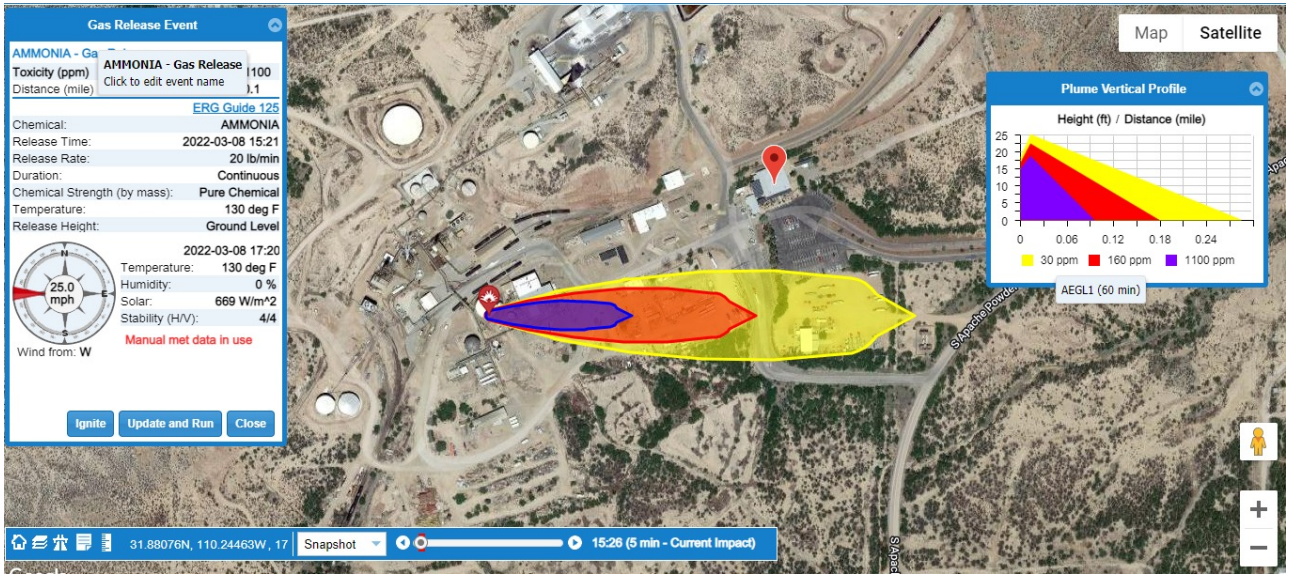
Building a Country of Leaders

Predictive, Preventive, Remedial Technologies

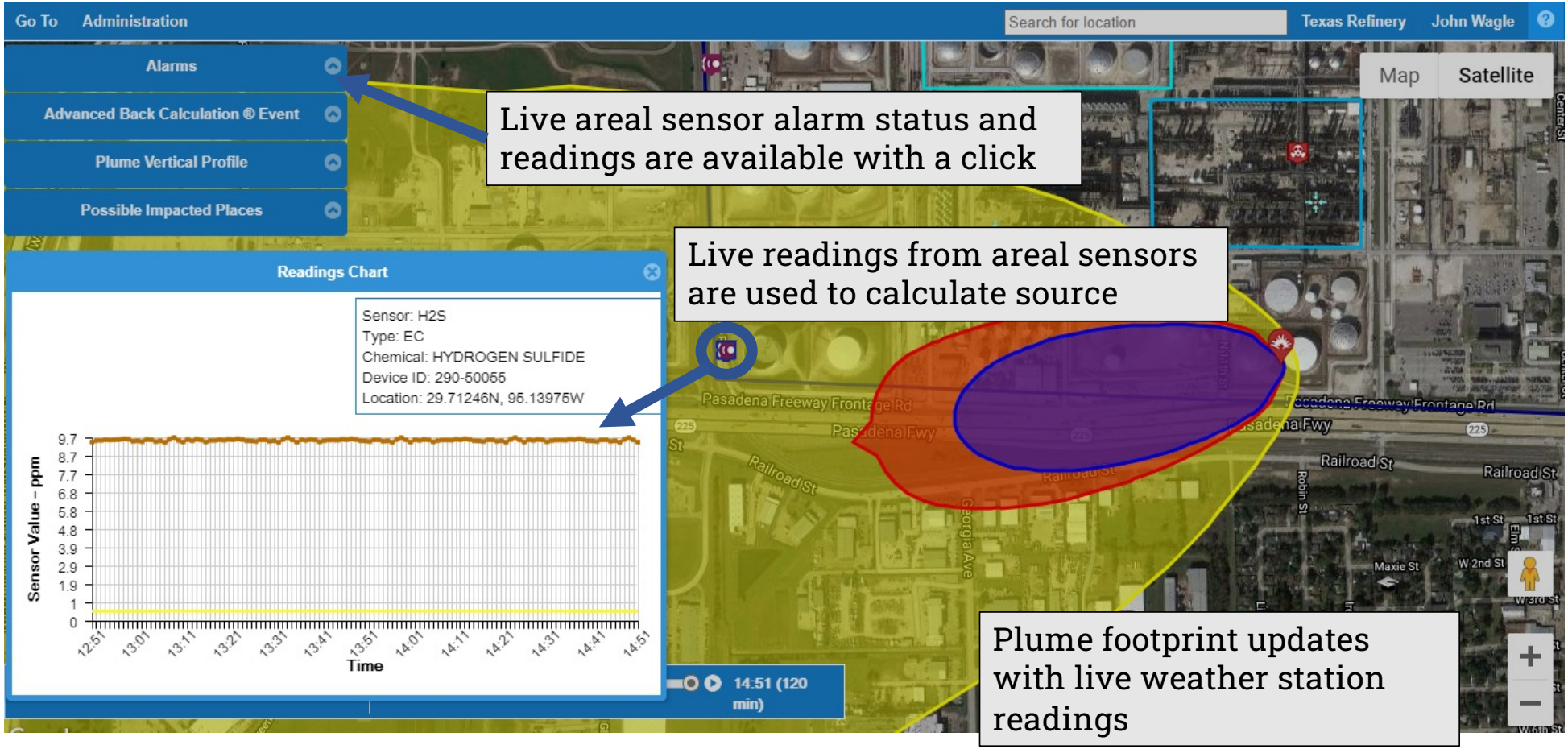
- Gas Detection Fixed and Portable
- Air Analysis and Weather station
- Plume Modeling
- Leak Detection
  - Ultrasonic, Infra-red, Wired
- Satellite Image Analysis
- Corrosion monitoring
- Direct emission estimation
- Bolting Solutions
- And more to come …

Emission Monitoring

- Continuous monitoring for C02
- Provides the ability to both monitor and predict plumes and sources of C02
- Automatically notify key parties in event of a release over a certain threshold
- Quickly model scenarios to understand impact of a release and prepare emergency responders



Emission Monitoring



Evolution of Leak Detection

Chemical

- Perks
  - Cheap
- Cons:
  - Contact Measurement
  - Slow
  - Big leaks only

Audible

- Perks
  - Cheapish
- Cons:
  - Reflection
  - Noise
  - No Exact location

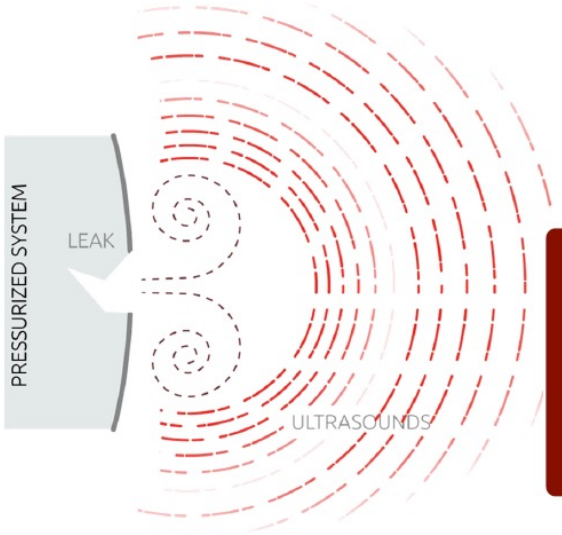
Visual

- Perks
  - Fast
  - Precise Location
  - Measure Leak rate
  - Cost Leak rate
  - Avoids reflection
  - Immune to noise
- Cons:
  - Expensive

ACOUSTIC LEAK IMAGING

OUR TECHNOLOGY: ACOUSTIC LEAK IMAGING

How does it work



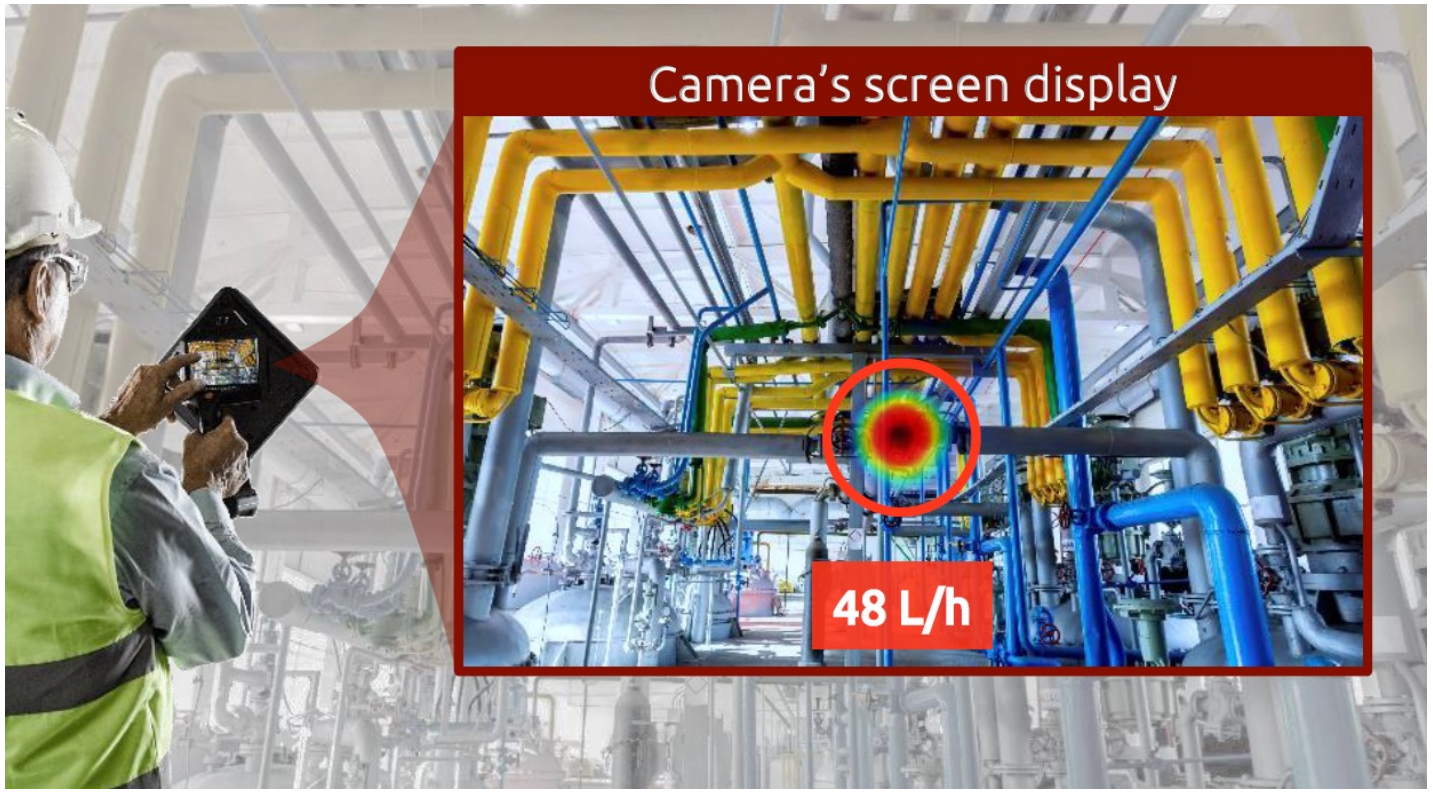
As the human ear,
Ultra Pro detects sounds
emitted by gas leaks
thanks to
its 124 microphones

Real Time visualization of ultrasounds emitted by gas leaks

How does it work

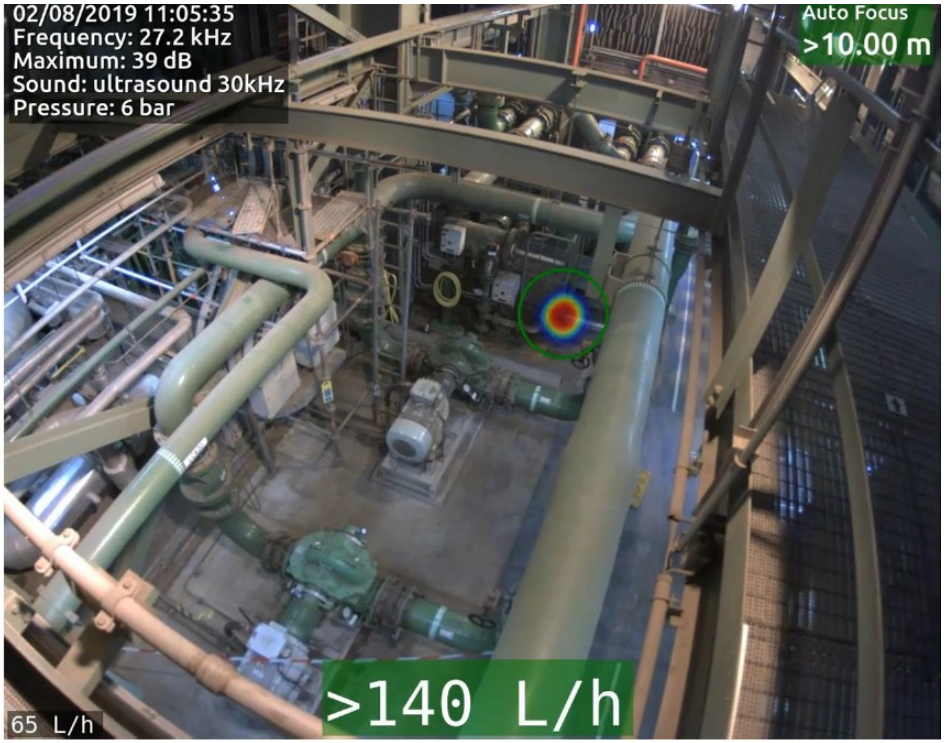
- **Detects** ultrasounds
- **Processes** acoustic signal
- **Overlays** acoustic image on optical image
- **Pinpoints** sound source position

Real time visualization of ultrasounds emitted by gas leaks 2



Real Time visualization of ultrasounds emitted by gas leaks 3

Ultrasonic imaging pinpoints gas leaks from the sounds they emit – at a distance



Leak detected 15 meters away