



Hydrogen sensors for accelerated transition to a sustainable future

February 2024

Insplorion in short

Based in Gothenburg,
Sweden. 15 FTE

Public company listed
on Nasdaq First North

Founded as spinoff
from Chalmers
University in 2010

Core is Nano
Plasmonic Sensing
(NPS) Technology



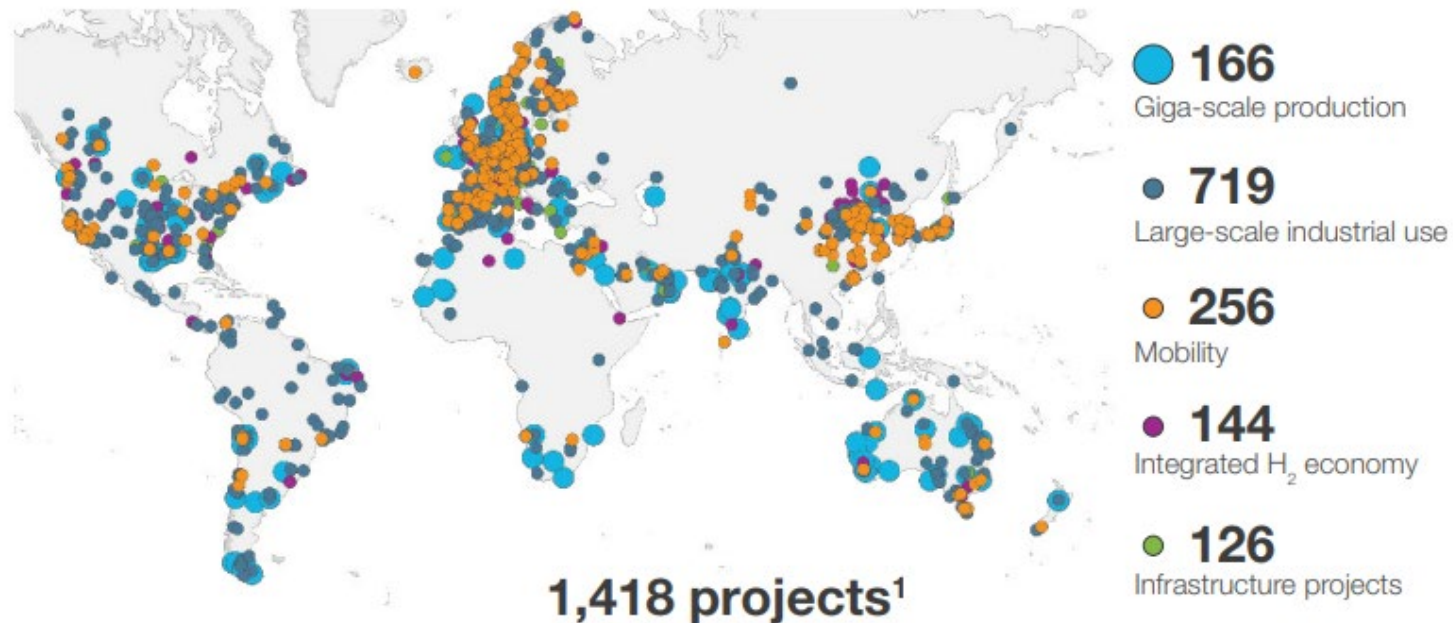
Research Instruments

- Research instruments for measurements in gas or liquid
- More than 125 research articles published by our users

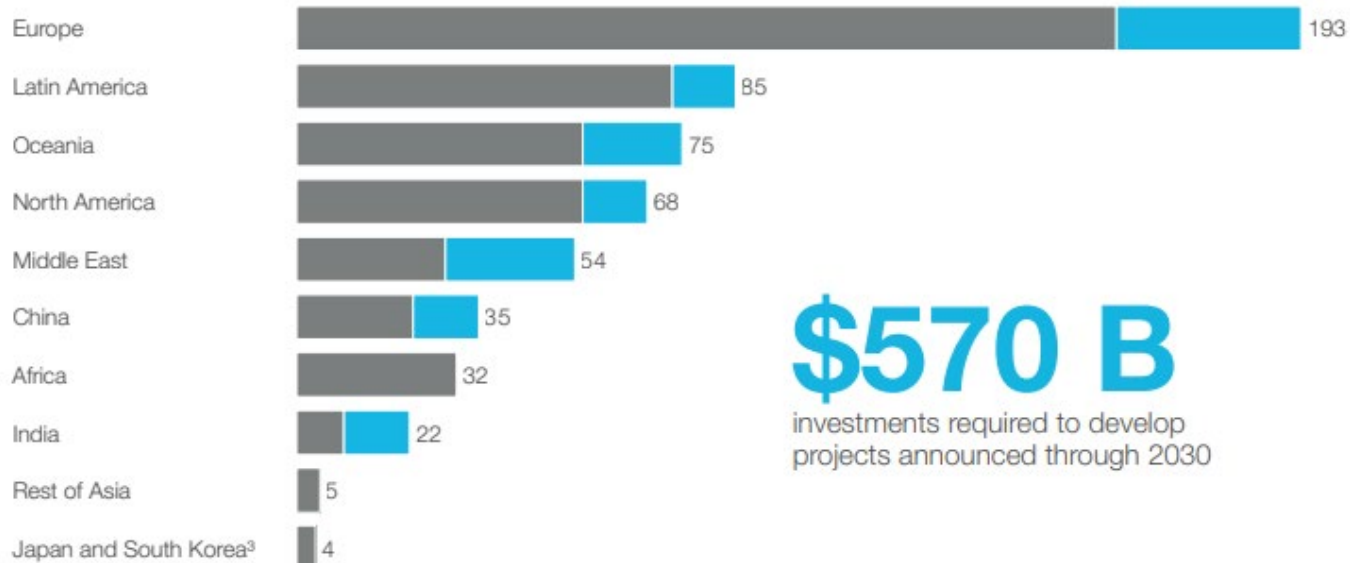


H₂ Sensors

- Very fast & specific
- Optical readout
- Flexible platform
- Commercial phase



■ Jan 2023² ■ Oct 2023



\$570 B

investments required to develop projects announced through 2030

Hydrogen holds a critical role for a sustainable future

- 36% increase of announced clean hydrogen projects from May 2023 to October 2023
- 570 billion USD investment until 2030 expected - 30% increase from May 2023
- Sensors needed in all parts of the value chain – from production, storage, transportation and use

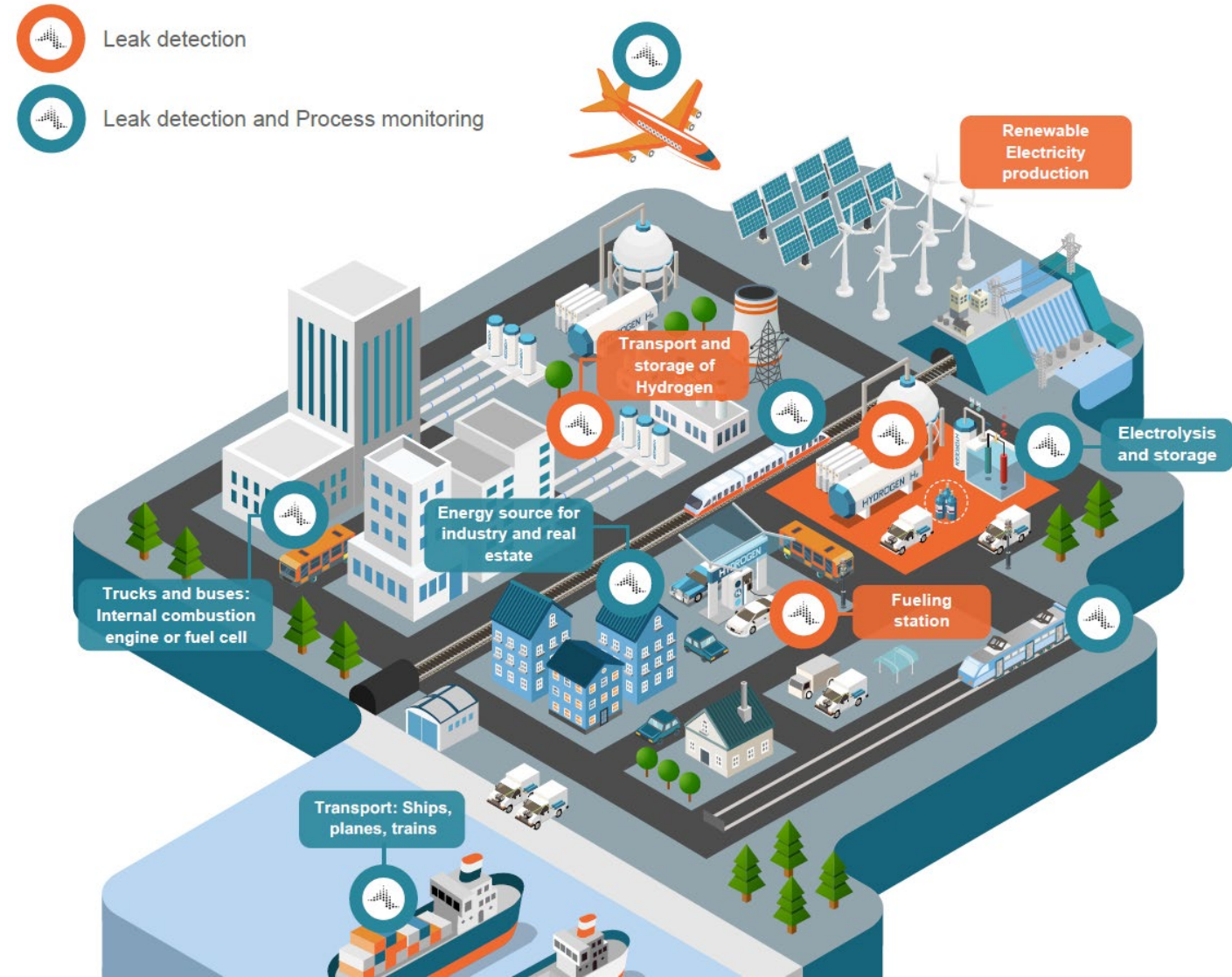
To utilize the benefits of hydrogen as an energy carrier throughout the value chain, it must be safe and efficient

Safety

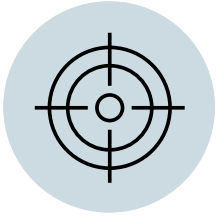
Accidents mean physical damage, to property and potentially human lives, financial damage, and setbacks in public perception.

Efficiency

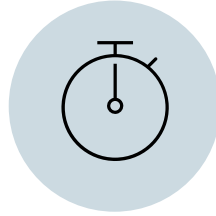
Downtime and yield has direct effect on profitability.



Our H₂ sensors respond to existing challenges



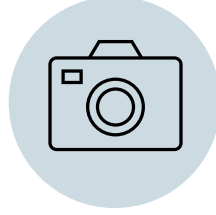
Highly specific to H₂ - detects H₂, even in presence of other gases



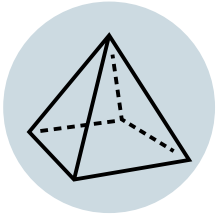
Fast response - enables quick action



O₂ independent - operates without oxygen, e.g. in inert environments



Optical readout - sensor can be separated from electronics

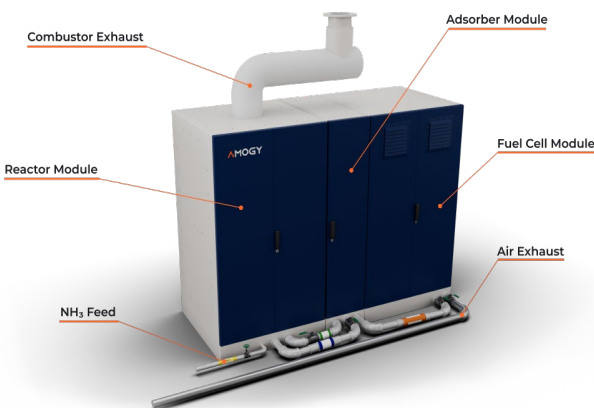


Flexible - can be adapted to different sensor needs and environments

Announced commercial deals

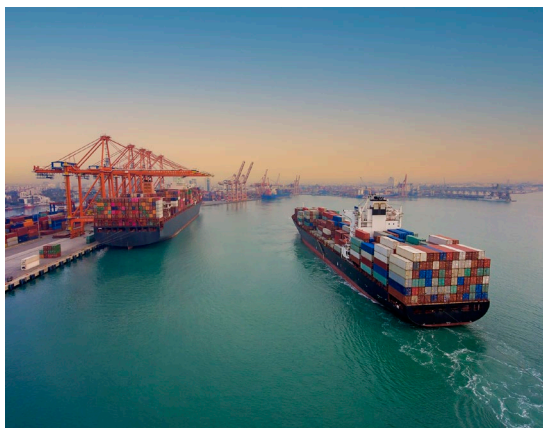
Power conversion

- Amogy (US)
- Ammonia cracking technology
- Delivery of NPS-P1 leak detectors
- 0.4 MSEK



Maritime sector

- Consilium (SWEDEN)
- Supplier to global marine market
- Delivery of NPS-P1 leak detectors
- 0.6 MSEK



Aviation sector

- European company
- Supplier to aircraft manufacturers
- Validation of technology using fiber optics
- 1.5 MSEK



Process/chemistry

- European company
- Hydrogen in corrosive environment
- Delivery of NPS-P1 leak detectors
- 0.3 MSEK



NPS-P1 - Hydrogen leak detection



- Insplorion NPS-P1 – Field test ability in a broad range of potential applications where hydrogen needs to be detected.
- Commercial deliveries to Consilium Safety Group AB, Amogy Inc, etc
- Scale up for larger volumes with launch in Q1 2025 of an ATEX certified Hydrogen Leak Detector

Strategy – prove customer value and work with partners



Sell NPS-P1 for system design, validation and pilot projects

- Leak detection/safety
- Process monitoring

Launch ATEX certified leak detector (NPS-P2) in Q1 2025

Partnerships for

- Commercial rollout of NPS-P2
- Co-development for specific segments/applications



Investment rationale

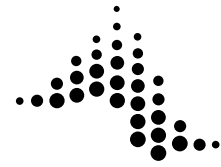
Hydrogen - a key to a sustainable future - major investments and development ongoing

Insplorion contributes to an accelerated transition with sensors for safe and efficient use of hydrogen in the whole value chain

Unique proprietary sensor platform with several key advantages that address customer needs

Commercial phase with several ongoing projects with partners in aviation, marine, energy systems and chemistry.

Solid foundation from research and an experienced team in place



Insplorion

Questions



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