



Hydrogen sensors for accelerated transition to a sustainable future

Redeye Sept 24, 2024

Insplorion in short

Based in Gothenburg,
Sweden. 13 FTE

Public company listed
on Nasdaq First North

Founded as spinoff
from Chalmers
University in 2010

Core is Nano
Plasmonic Sensing
(NPS) Technology



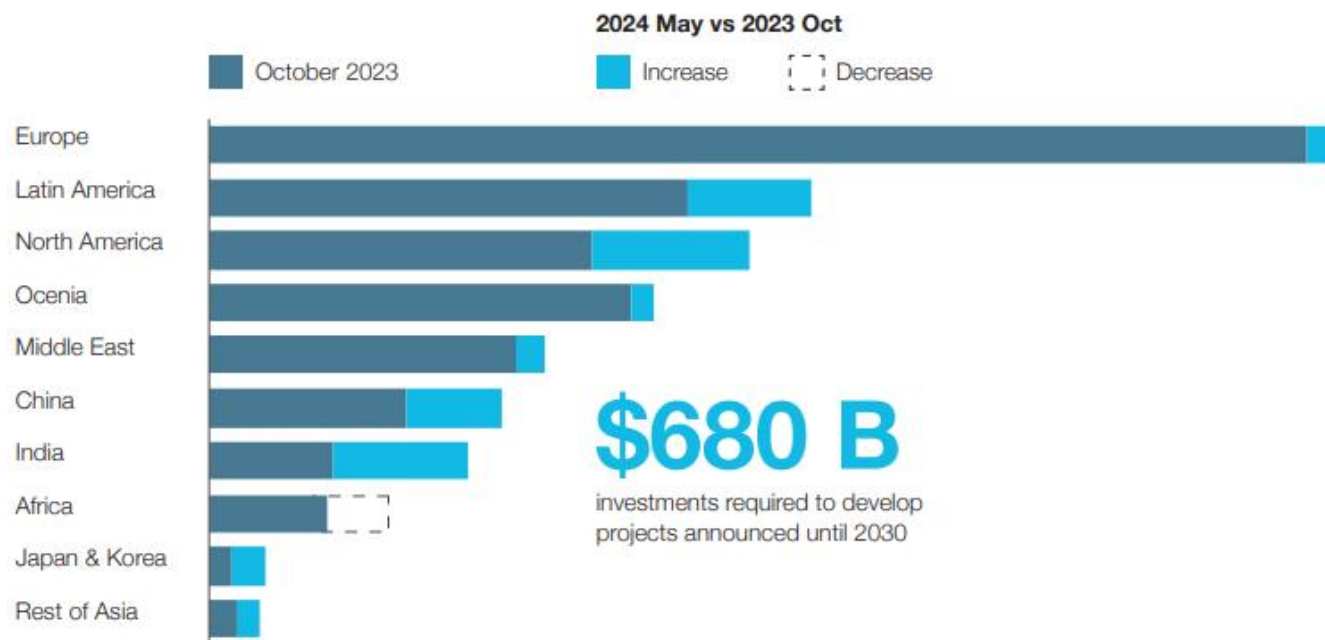
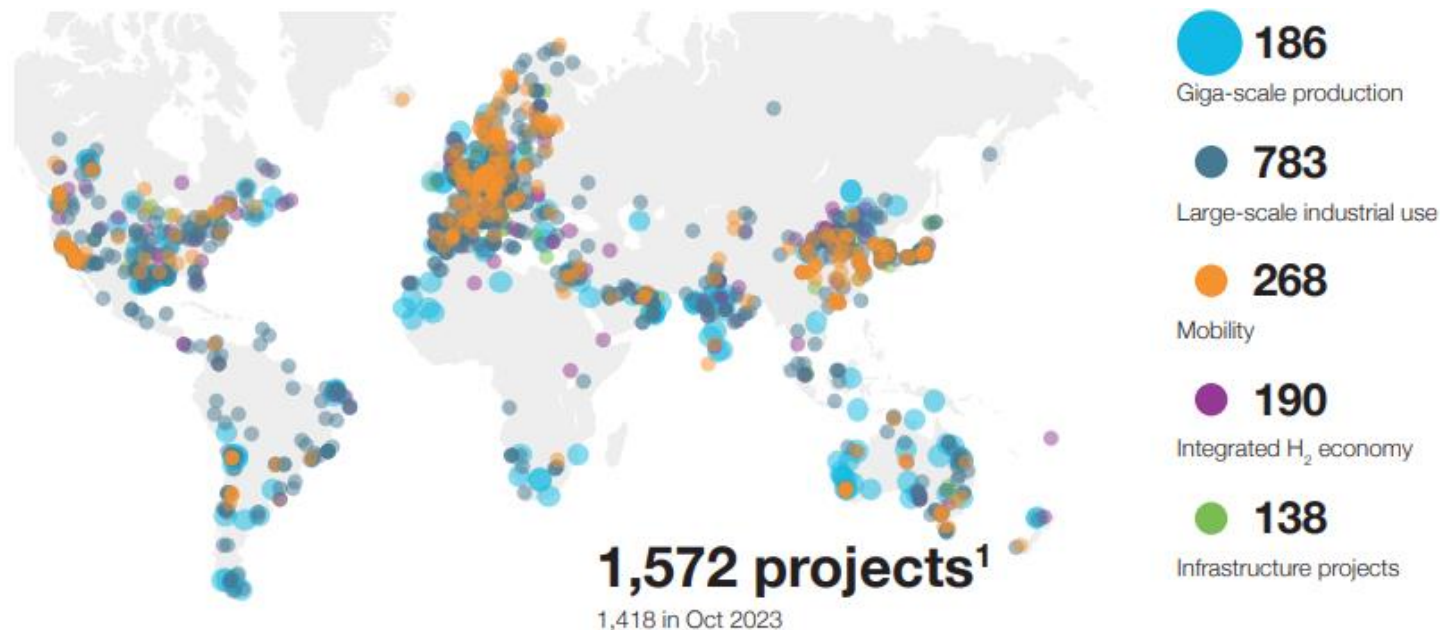
Research Instruments

- 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



Hydrogen holds a critical role for a sustainable future

- Sevenfold increase in global number of Hydrogen projects from Dec 2020 to May 2024
- 50% increase of clean hydrogen projects from May 2023 to May 2024
- 680 billion USD investment until 2030 expected - 56% increase from May 2023 to May 2024
- 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.



Hydrogen outlook



US targets massive cost reduction in hydrogen for deployment in transport and industry this decade

The US government's Hydrogen and Fuel Cell Technologies Office (HFTO) has outlined a long list of interim targets in its latest Multi-Year Program Plan, with an eye towards massively driving down the cost of clean hydrogen for use in transportation and industry.

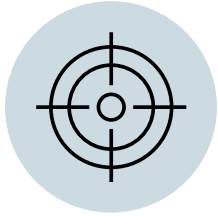
These include an aim to reduce the cost of electrolysis to \$2/kg by 2026, and a target for hydrogen delivered to heavy vehicles to cost less than \$7/kg by 2028 — or roughly halving the current price in less than four years.

Leaking hydrogen catches fire at world's largest chemical complex in Germany

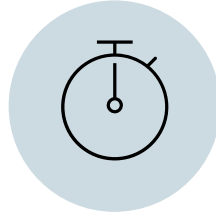
Incident at BASF's giant factory in Ludwigshafen contained by on-site fire brigade, with no injuries



Our H₂ sensors respond to existing challenges



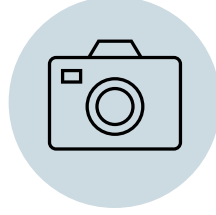
Highly specific to H₂ - detects H₂, even in presence of other gases



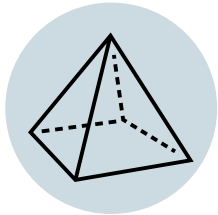
Fast response - enables quick action



Low oxygen environments
Able to measure in reduced oxygen environments



Optical readout - sensor can be separated from electronics



Flexible - can be adapted to different sensor needs and environments

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 for testing in Marine, Packaging, Chemical, Automotive etc
- Scale up for larger volumes with launch in Q1 2025 of an ATEX certified Hydrogen Leak Detector (NPS-P2)

Commercial orders/projects

Packing Industry

- Global company
- Process testing for hydrogen
- NPS-P1 leak detectors
- 200 KSEK

Automotive

- Japanese company
- Supplier of testing services to automotive
- NPS-P1 leak detector
- 50 KSEK

Chemistry industry

- European company
- Hydrogen in corrosive environment
- NPS-P1 leak detectors
- 300 KSEK

Aviation sector

- Saab
- Fiber optic testing and development
- Vinnova funded
- 3.7 MSEK

Power conversion

- Amogy (US)
- Ammonia cracking technology
- NPS-P1 leak detectors
- 400 KSEK

Maritime sector

- Consilium (SWEDEN)
- Supplier to global marine market
- NPS-P1 leak detectors
- 600 KSEK

Aviation sector

- European supplier to aircraft manufacturers
- Fiber optic testing and development
- 1.5 MSEK

NPS-P2



Strategy – commercial roll-out



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



The Insplorion team

Business development & Sales



Johan Rask, CEO



*Daniel Lundberg,
CFO*



David Nilebo



Martina Wennesjö

Product development & Tech



*Elin Langhammer,
CTO*



*Olof Andersson,
CPO*



Martin Sech



Johanna Gullman



Henrik Wikström



Umair Javed



David Tomecek



Per Klockar



*Christoph
Langhammer*



Robin Faust

Our team of dedicated employees and consultants bring together a strong combination of business and technical competences to propel our business forward.

Board of Directors



**Jonas Ehinger
(Chairman)**

20 years of CEO
experience. CEO of
Gapwaves AB.



Jan Burenius

Vast international
experience from both
large corporations
and start-ups.



Magnus Jonsson

Long experience from
high tech operations
Chairman of
Powercell AB.



Hedvig Paradis

Profound experience
within the Hydrogen
field. VP Hydrogen
H2 Green Steel.



Daniel Johansson

Long experience in
renewable energy,
green transition.
Chairman of Solarwork.

Our five Board members provide Insplorion a deep network and an extensive set of experiences and competencies in strategy, operations, internationalization, complex technology business models, and product development.



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



Rights Issue October 2024

- Size: SEK 34.3 million initially, warrants for additional shares in May 2025
- Valuation: SEK 19 million pre-money
- Secured: 60% through subscription and guarantee commitments
- Proceeds: Focus on launching and commercializing ATEX certified NPS-P2 sensor, and partnerships
- Subscription: October 8 - 22

<https://www.insplorion.com/sv/investerare/foretradesemission-2024/>



Questions



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