



**Hydrogen sensors for accelerated
transition to a sustainable future**



Kvartalsrapport Q4 2024

20250220

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Nyckeltal och kommentarer

	2024-10-01 -2024-12-31 3 mån	2023-10-01 -2023-12-31 3 mån	2024-01-01 -2024-12-31 12 mån	2023-01-01 -2023-12-31 12 mån
Alla belopp i tusentals kronor om inget annat angivet				
Nettoomsättning	264	258	1 865	1 948
Rörelsens intäkter	1 571	1 597	5 667	7 501
Resultat efter finansiella poster	-6 671	-8 694	-19 665	-24 266
Resultat per aktie (kr)	-0,13	-0,47	-0,67	-1,69
Resultat per aktie efter utspädning (kr)	-0,13	-0,47	-0,67	-1,69
Kassaflöde löpande- och investeringsverksamhet	-4 132	-4 445	-18 650	-24 433

Kommentarer Q4

- Fortsatt starkt intresse och första försäljningar av NPS-P2
- Vidmakthållen resultatförbättring och lägre burn-rate för 2024
- Slutförd företrädesemission som tillförde bolaget 20,5 MSEK före emissionskostnader

Likvida medel

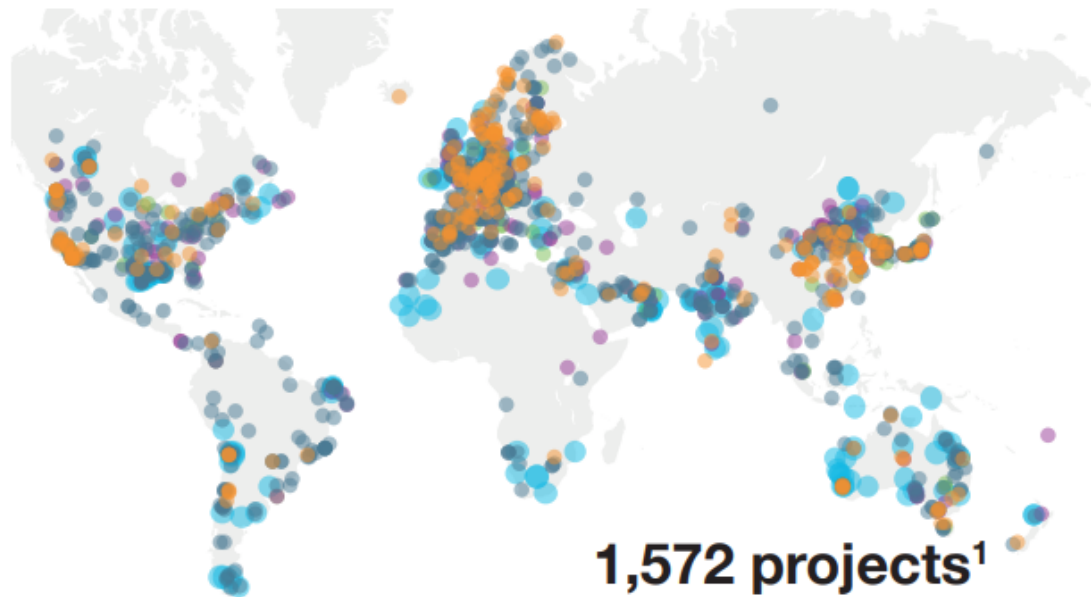
- Kassa & Bank 2024-12-31: 12 753 KSEK

Händelser under kvartalet

- Insplorion ingår avsiktsförklaring med Saab AB för nytt samarbetsprojekt inom flygindustrin
- Insplorion erhåller tre nya affärer med ett totalt ordervärde om 180 KSEK
- Insplorion tillförs genom företrädesemission 20,5 MSEK före avdrag för emissionskostnader
- Insplorions valberedning inför årsstämman 2025 är utsedd

Händelser efter kvartalet

- Insplorion tecknar exklusivt distributionsavtal med Consilium Safety Group för den marina marknaden



1,572 projects¹

1,418 in Oct 2023

186
Giga-scale production

783
Large-scale industrial use

268
Mobility

190
Integrated H₂ economy

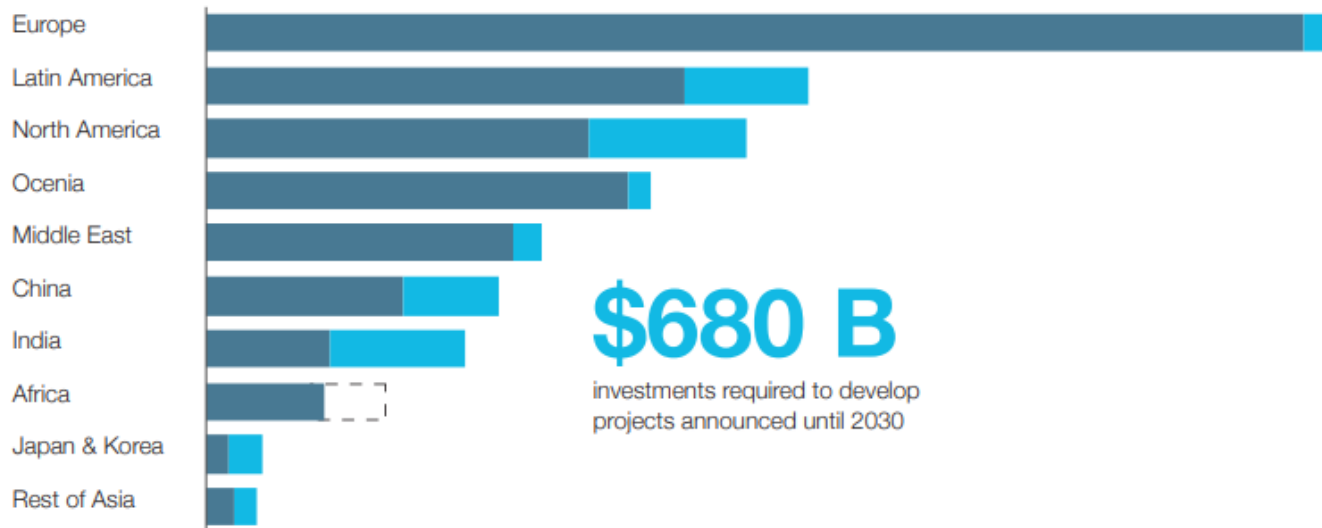
138
Infrastructure projects

2024 May vs 2023 Oct

October 2023

Increase

Decrease



\$680 B

investments required to develop
projects announced until 2030

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



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



Fast response
enables quick action



Low O₂ environments
applicable in low oxygen
environments



Optical readout
sensor can be separated
from electronics

Commercial progress



Product sales Hydrogen sensors

- Marine safety – Consilium Safety group AB
- Automotive ICE (Internal Combustion Engines)
- Process chemistry
- Packaging industry
- Natural gas and Hydrogen mix
- Electrolysis equipment
- Gas turbine manufacturer
- Electrical engineering company

Development partners using fiber optics for hydrogen sensor read-out

Saab Group

- LOI - respond to aviation safety projects from large aircraft manufacturers
- Soft funded Vinnova project (3.7 MSEK) project for demonstrating principle using fiber optics

Another Aviation company – paid testing and development of sensing principle

Road ahead



Sell NPS-P1 & NPS-P2 for system design, validation and pilot projects

- Leak detection/safety
- Process monitoring

Launch ATEX certified NPS-P2 in Q2 2025

Partnerships for

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

TOP INNOVATORS IN HYDROGEN IN 2024



Electric Hydrogen manufactures, delivers and commissions advanced PEM electrolyzer units for large-scale green hydrogen production. They have opened their Giga-Factory in April 2024.



Enapter manufactures patented AEM electrolyzers for hydrogen production, offering flexible, modular units. They secured a 4MW order in Italy and raised €8M this year.



Graforce's Plasmalysis technology converts methane into hydrogen and solid carbon. They are currently integrating their products into energy co-generation projects with Kawasaki among other developments.



H2Site a spin-off from Tecnia and Eindhoven University, uses patented membrane reactor technology to produce hydrogen from carriers, with a UK project delivering 200 kg/day..



Koloma is a geologic hydrogen company utilizing proprietary data and technology to identify and commercialize global hydrogen resources, currently advancing initial test drilling.



Arculus Solutions repurposes natural gas pipelines for CO2 or hydrogen transport using a patent-pending barrier coating, receiving support from Breakthrough Energy to achieve net zero by 2050.



Insplorion developed highly selective hydrogen gas detectors using NanoPlasmonic Sensing, offering fast detection across various market applications.



Blackcurrent is an AI-driven marketplace for hydrogen and low-carbon fuels, accelerating project commercialization, streamlining transactions, and delivering robust market analytics to enhance decision-making and transparency.



Stegra is a company developing processes to decarbonize heavy industry. They are currently focusing on building their first large-scale facility on green steel production, planned to start in 2026.



ZeroAvia is pioneering electric propulsion technologies for aviation, developing hydrogen-electric engines for commercial aircraft and supplying components for electric air transport applications.

<https://darcypartners.com/research/darcy-insights-2024-review-top-innovators-in-hydrogen>



Questions



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Hydrogen sensor development journey



2023: P0

“Split configuration”.
Emphasize versatility.
Used for technology evaluation and tests in laboratory (own and partners) and for development and productization of the components.



2023-24: P1

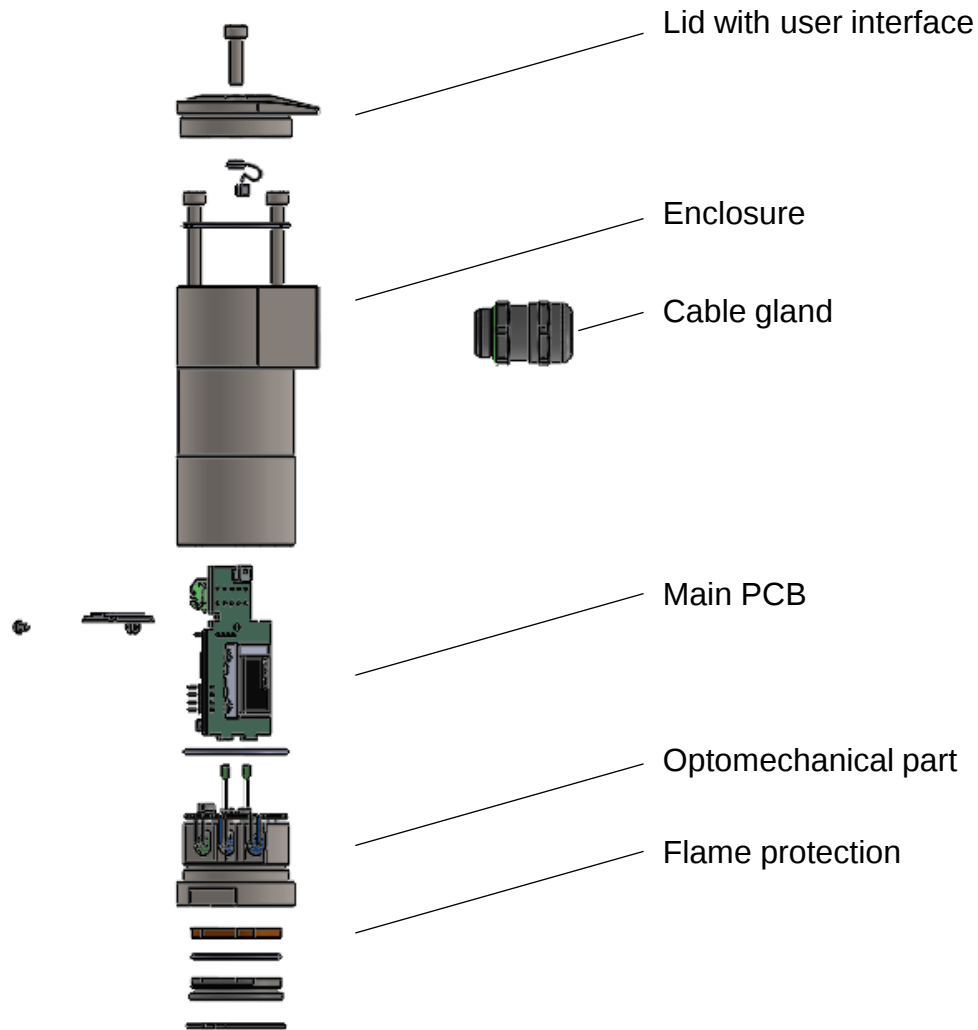
“Single enclosure”.
Emphasize robustness.
Used for application testing in real conditions (with partners and customers) and for in house development of methods and design practices.



2025: P2

ATEX ready.
Emphasize robustness, producibility, and customer needs.
Complete product intended for integration in customer systems in the early phase. (Validation of customer systems.)

P2 Manufacture and Assembly



- Machined parts - Local workshop
- PCB and components - Local manufacturing partner
- Cable gland, optical window and flame protective filter - European suppliers
- Electronics assembly, firmware flash, and QC to be performed by partner.
- Optomechanical part assembly at Insplorion.
- Calibration at Insplorion.
- Current capacity 500 per year.

P2 Sensing Element Manufacture and Assembly

Local manufacturing partner.

QA/QC currently under establishment with manufacturing partner.

Posttreatment processes at Insplorion and with global manufacturing partner.

Final assembly at Insplorion.

Current capacity >10 000 per year.

