

WELKOM OP HET HAN H2 EVENT 30-1-2025

Programma

9:00 – 9:15 Opening door lector Sadegh Seddighi en associate lector Leo Polak

9:15 – 9:45 Keynote door Hans Rienks en René Ammerlaan van Alliander

10:00 – 10:20 Parallelsessie 1

10:20 – 10:40 Pauze

10:40 – 11:00 Parallelsessie 2

11:10 – 11:30 Parallelsessie 3

11:40 – 12:00 Parallelsessie 4

12:00 – 13:00 Lunch en demonstraties

13:15 – 14:00 (optioneel) Excursie naar Hydrogen Lab en Mobility Lab in HAN@Connectr

DECENTRALE WATERSTOF SPRONG (DWS)

SIA
Provincie Gelderland
Saxion

groen
vermogen.nl

SUSTAINABLE ELECTRICAL ENERGY
CENTRE OF EXPERTISE

SEECE



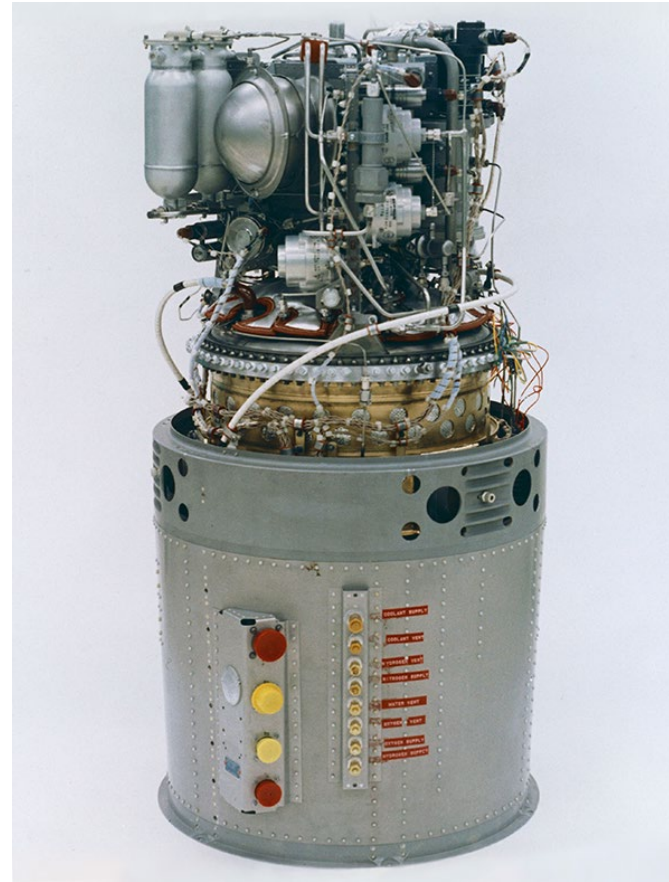
Alliander
TenneT
DNV
KEMA
Laboratories
ElaadNL

H₂ TECHNOLOGY

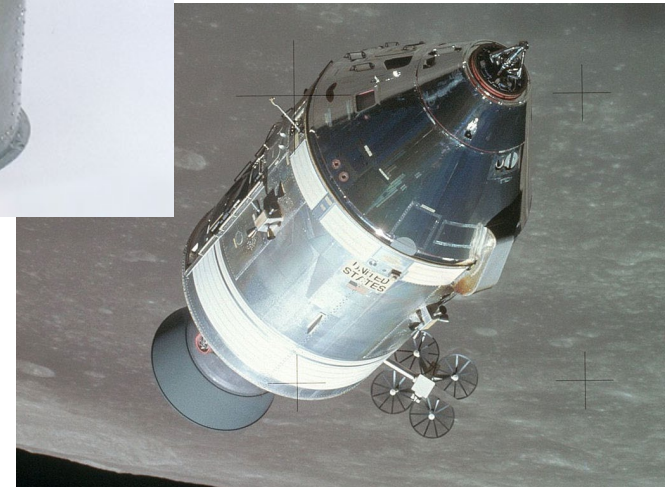
HISTORICAL ACHIEVEMENTS

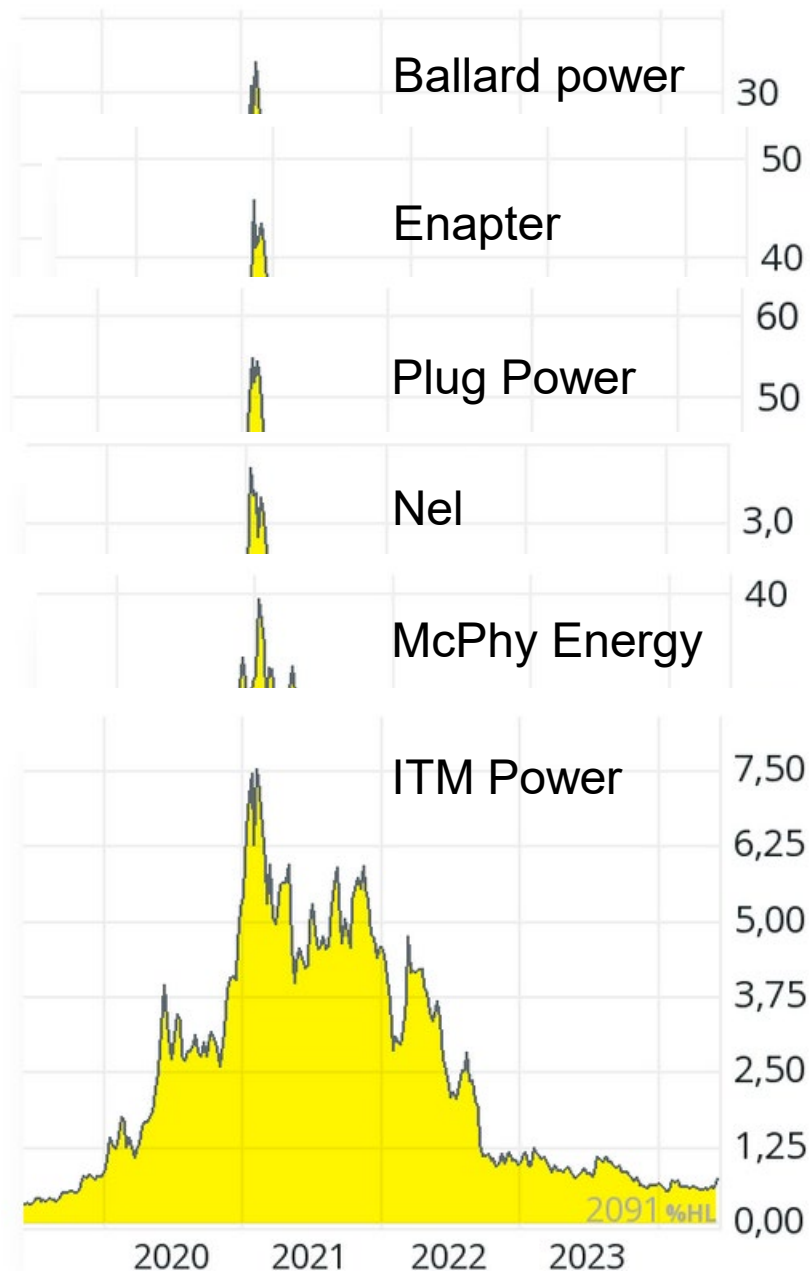


135 MW alkaline electrolyzer
from Norsk Hydro -1949



Apollo mission
fuel cell - 1968



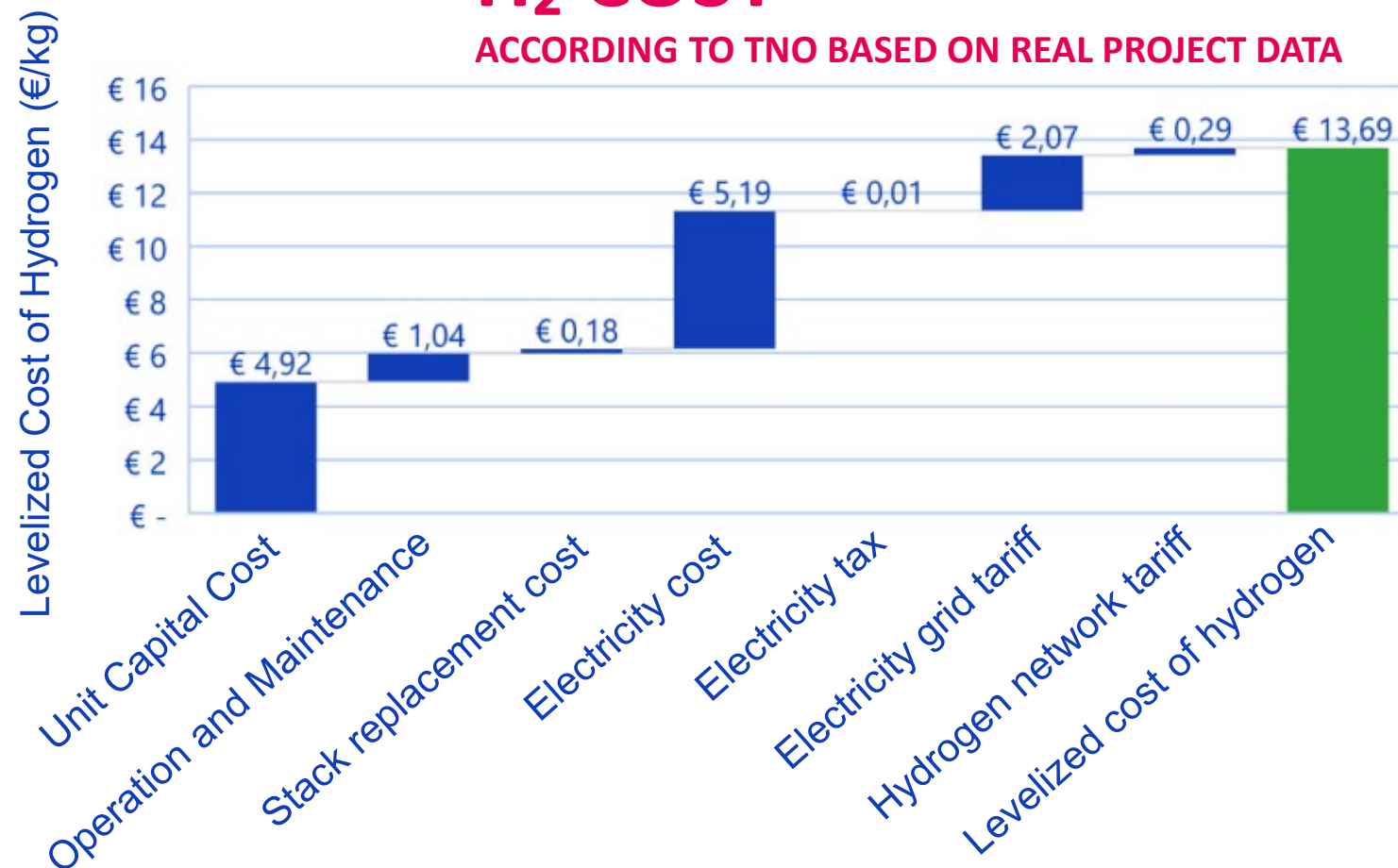


H₂ STOCKS

OF MAIN STACK MANUFACTURERS

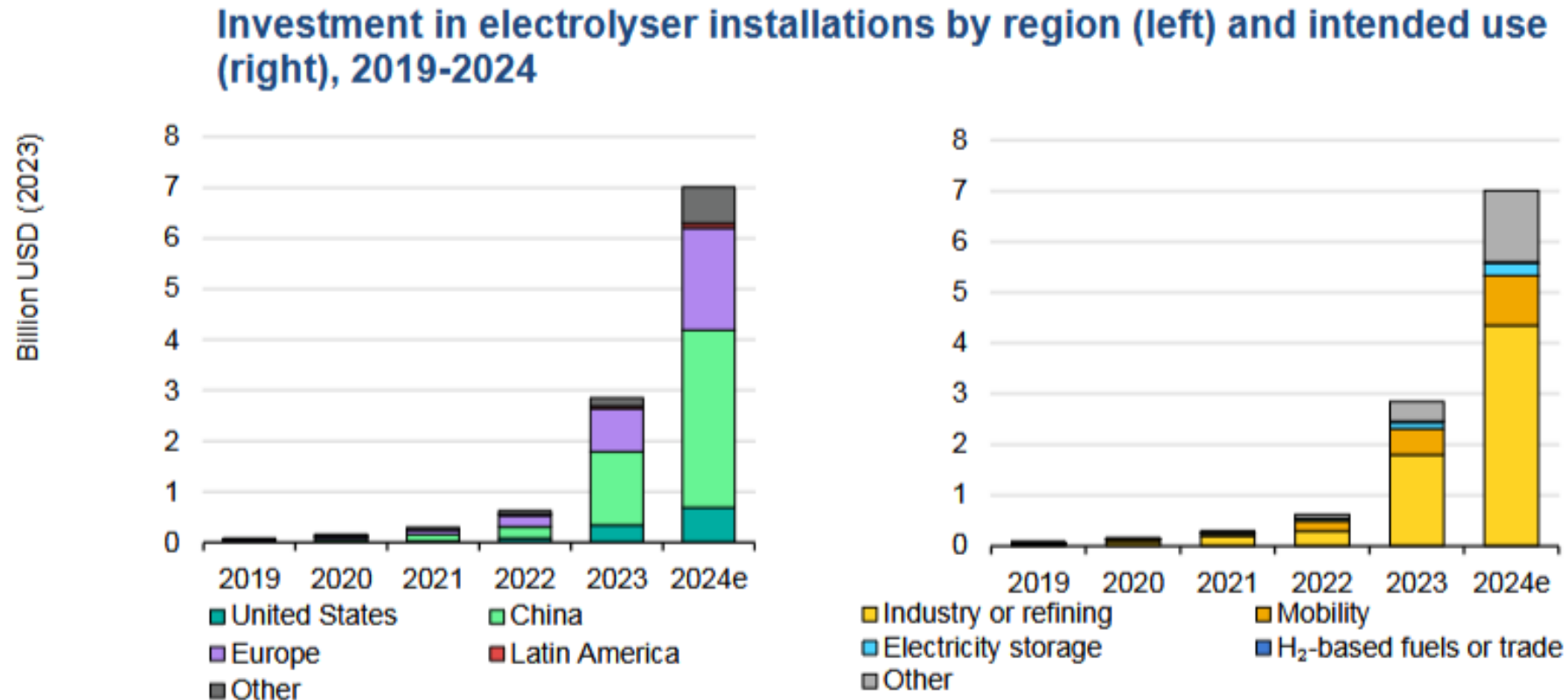
H₂ COST

ACCORDING TO TNO BASED ON REAL PROJECT DATA



H₂ INVESTEMENTS

ACCORDING TO THE INTERNATIONAL ENERGY AGENCY (IEA)



GroenvermogenNL

50 M€

- National human capital agenda



Human capital

- Regional learning communities
- Digital platform
- National coordination



R&D

7 work packages:

1. Making carbon neutral H₂
2. Transport & storage of H₂
3. Direct use of H₂
4. Green H₂ & e⁻ for C-based chemistry
5. Green H₂ & e⁻ for N-based chemistry
6. Green H₂ & e⁻ for specialties
7. Socio-economic aspects & H₂ implementation

177 M€



Pilot support

Projects throughout the value chains of production, transport, storage and industrial use of green hydrogen (carriers).

- 3-5 projects in H₂ value chain
- Small scale demonstration
- Regional testing facilities

100 M€



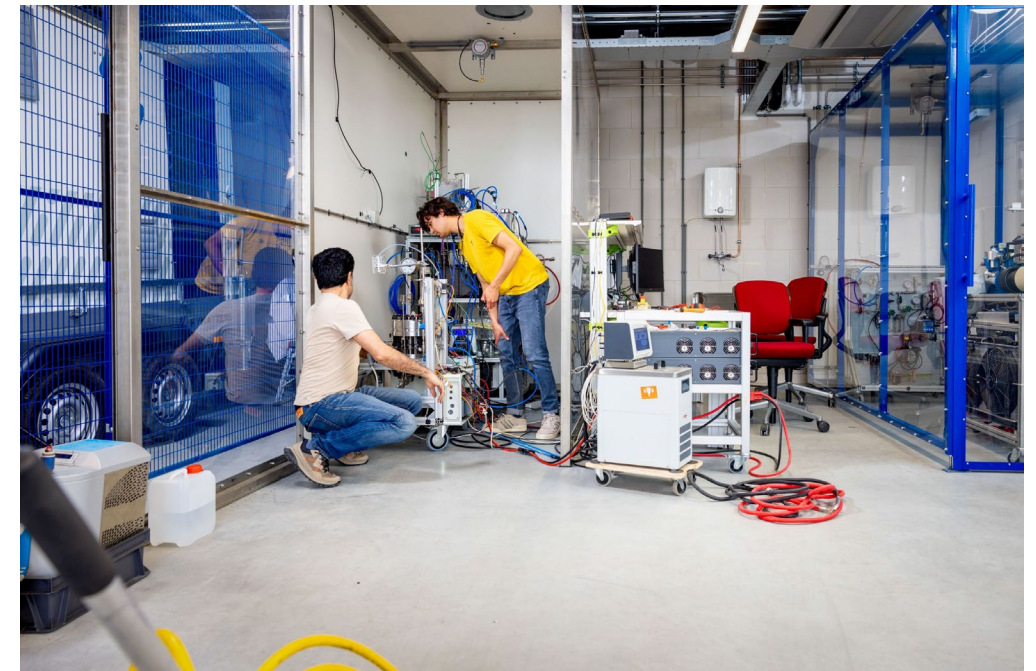
Demo support

Support for the manufacturing industry
Demonstrating value chain projects
Feed/feasibility studies
Potential endurance testing facility

500 M€

H2@HAN

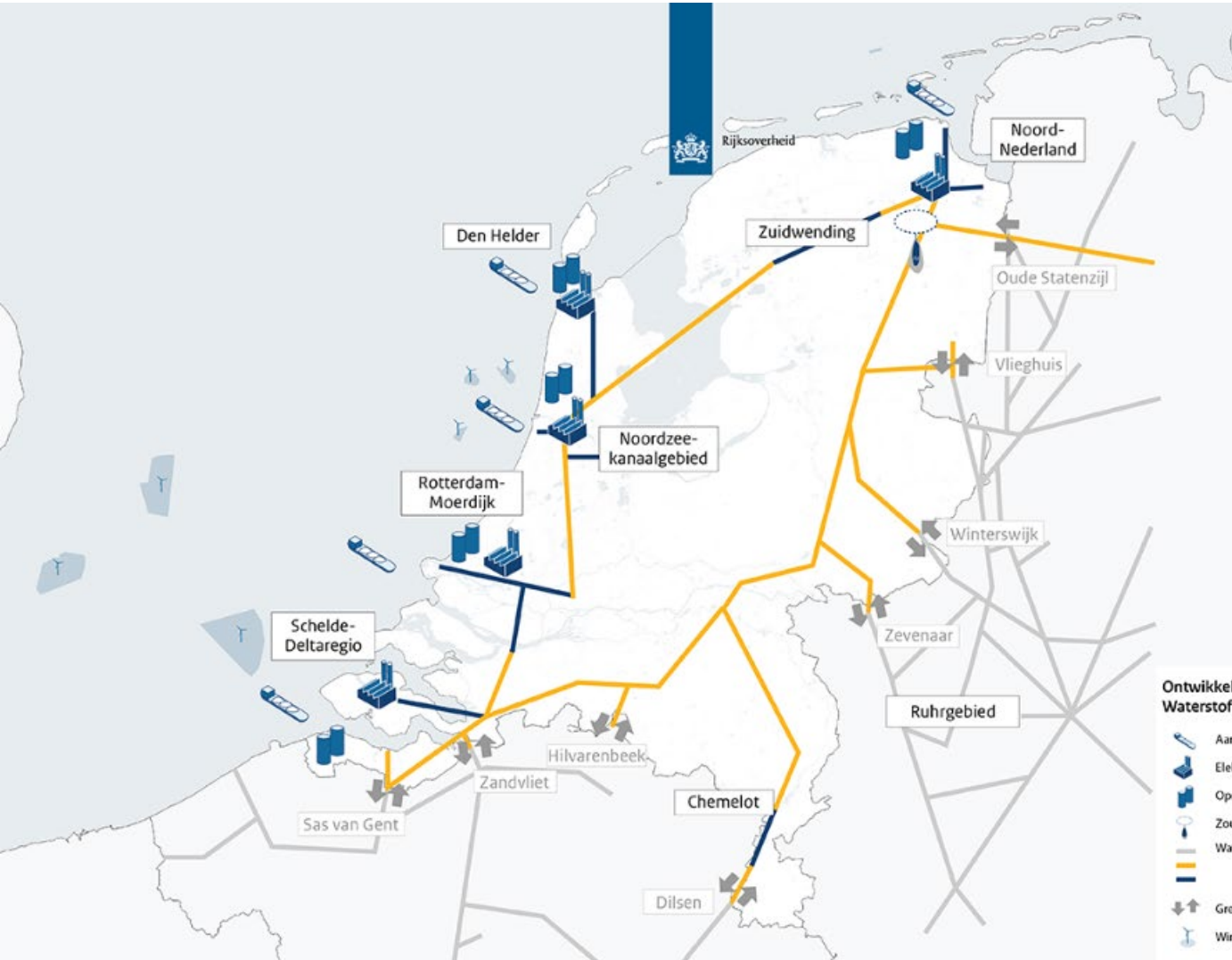
- Lectoraat Balanced Energy Systems
 - Flexibel Energy Solutions
 - Engineering Hydrogen Systems
- Lectoraat Automotive Research:
 - Elektrificatie van de aandrijflijn
 - Optimalisering brandstoffen, motoren en emissies
 - Alternatieve brandstoffen
- Hydrogen Lab HAN@Connectr
- Themaroute Waterstoftechniek
- Master module Hydrogen Technology
- Team Hydromotive
- ...





HYNETWORK

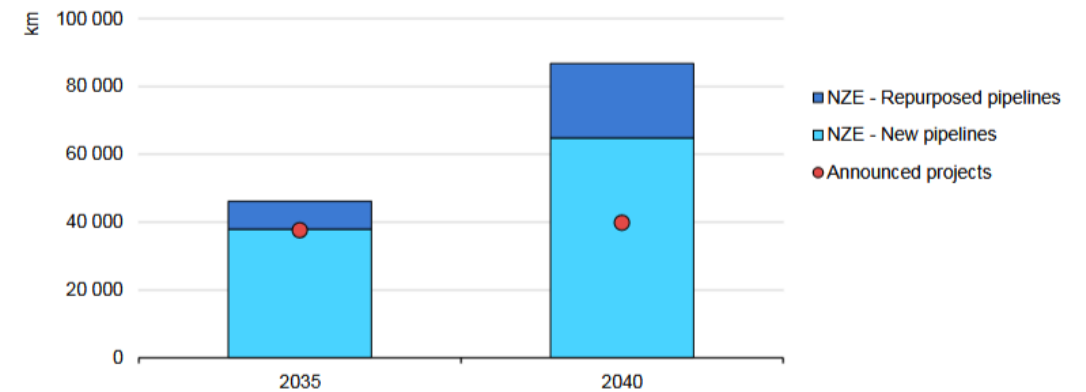
THE DUTCH HYDROGEN BACKBONE UNDER CONSTRUCTION



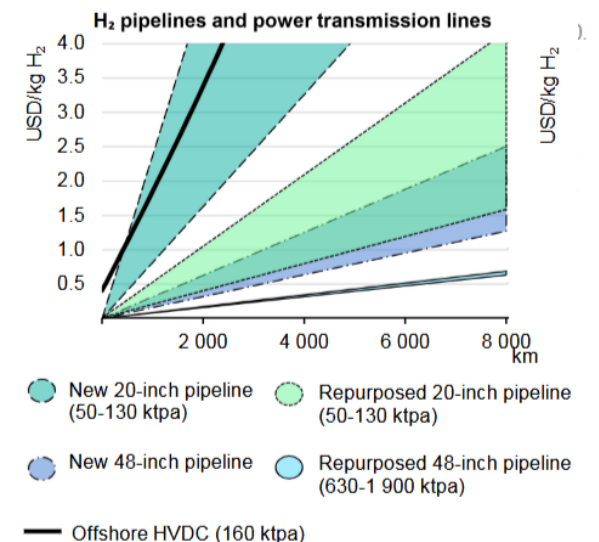
H₂ INFRASTRUCTURE INVESTMENTS

ACCORDING TO THE INTERNATIONAL ENERGY AGENCY (IEA)

Figure 4.5 Global hydrogen transmission pipeline length in the Net Zero Emissions by 2050 Scenario and announced projects, 2035-2040



Note: NZE = Net Zero Emissions by 2050 Scenario.



VEEL PLEZIER OP HET HAN H2 EVENT 30-1-2025

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