



IPLOCA 58th Annual Convention 2026

Athens

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gasunie

Harry Kamping

Manager Asset & Operations for the
Dutch Hydrogen Network

N.V. Nederlandse Gasunie



Delivering a National Hydrogen Backbone: Repurposing, Adapting and Scaling Infrastructure

Since 1963

60+ years experience
in gas transmission



3,000+
colleagues

17,000km

pipeline network
in the Netherlands
and Germany



100%

owned by
the Dutch
State

100+
collaboration
partners



Our organisation



Business line
Methane transmission



Business line
Hydrogen transmission



Business line
Heat transmission



Business line
CCS



Business line
Gasunie Deutschland



Business line
Storage & Terminals

Central departments

Financial figures

**€ 1,595
million**

revenue in 2024
(underlying)

**€ 355
million**

net profit in 2024
(underlying)

**€ 12
billion**

of investments planned
between
now and 2030,
in **energy transition
and energy security**

45%

'green' share
in our investments
for 2024



A photograph of two people, a man and a woman, standing on a beach at sunset. They are both wearing bright yellow high-visibility safety jackets with reflective silver stripes. The man on the left is pointing towards the ocean. The woman on the right has her back to the camera. The background shows the ocean with waves and a sandy beach under a warm, orange-hued sky. Overlaid on the image is large yellow text.

**For an affordable,
reliable and sustainable
energy supply**

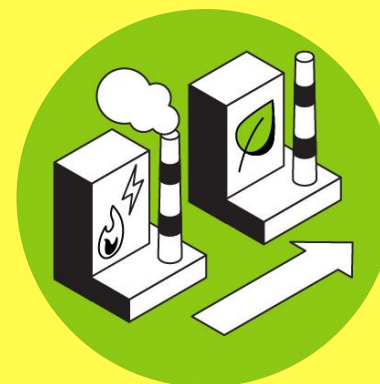
Decarbonisation and security of supply move together

2030



At least 55% net GHG reduction
compared to 1990

2050



Climate-neutral
European Union

This flows through our network, now and in the future



Natural gas



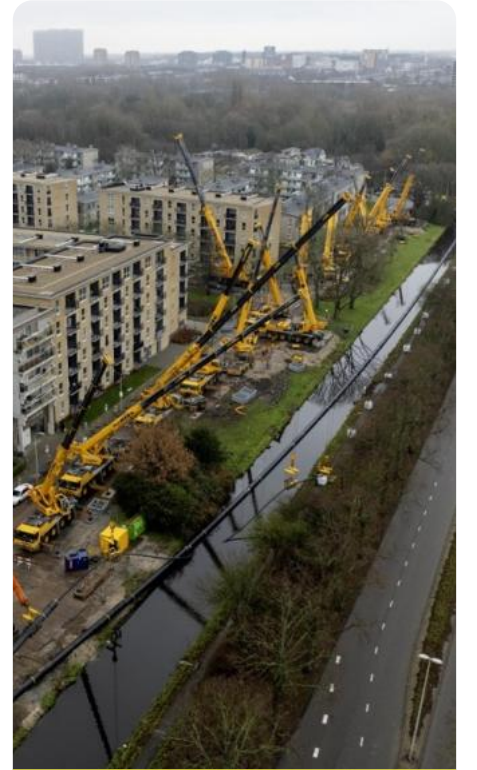
Biomethane



Hydrogen



CO₂



Heat

Investing in the future

Up to and including 2030, Gasunie will be investing around **€ 12 billion** in a reliable and sustainable energy supply

Hydrogen ●

Dutch hydrogen transmission network, Hyperlink, offshore, storage and import

CO₂ ●

Porthos, Aramis, Delta Rhine Corridor, CO₂next, Delta Schelde CO₂nnection, other projects

Biomethane (connections) ●

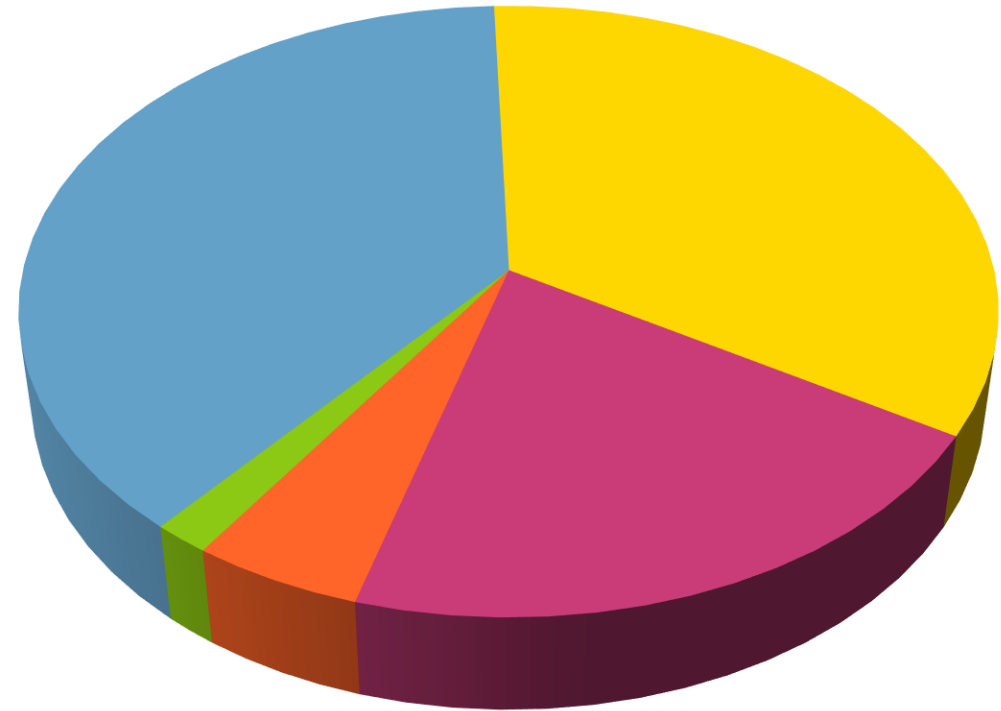
Small-scale investments for boosters

Natural gas and LNG ●

Maintenance, energy security, reduction of methane emissions

Heat ●

WarmtelinQ



Our network connects

Full of new energy

992
gas receiving stations
12
compressor stations



2
LNG terminals in
the Netherlands
for importing
(liquefied) natural gas



1.2 metres
diameter of our
largest pipeline

63.4
billion m³

natural gas transmission
in 2025, almost 13 times
the volume of the
IJsselmeer lake



Energy storage

in underground caverns
so large, the Eiffel tower
would fit in them

Our networks

**Natural gas
& biomethane** >

Heat >

Hydrogen >

CO₂ >



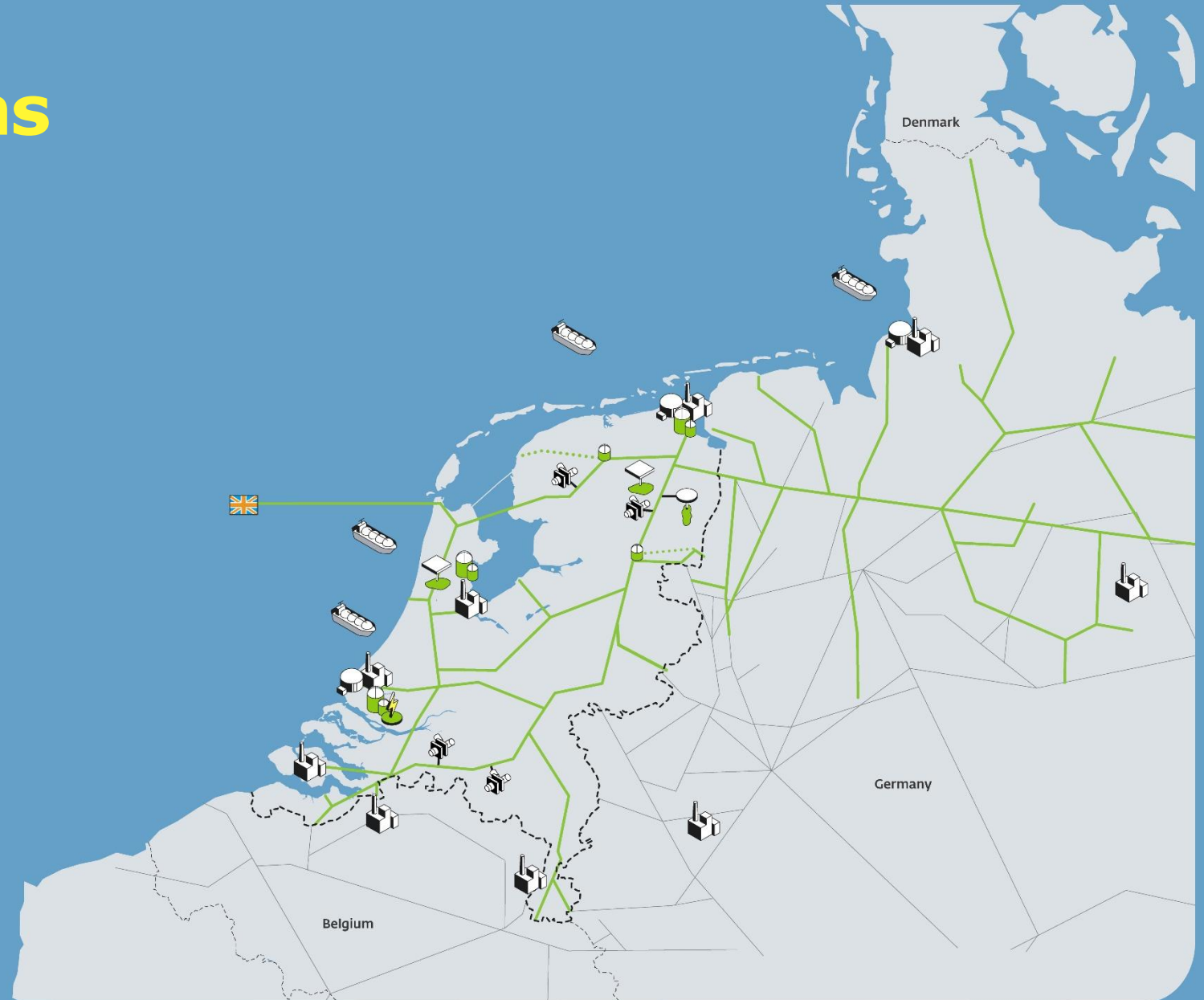
Natural gas remains vital while the system transitions

Natural gas & biomethane >

Heat >

Hydrogen >

CO₂ >



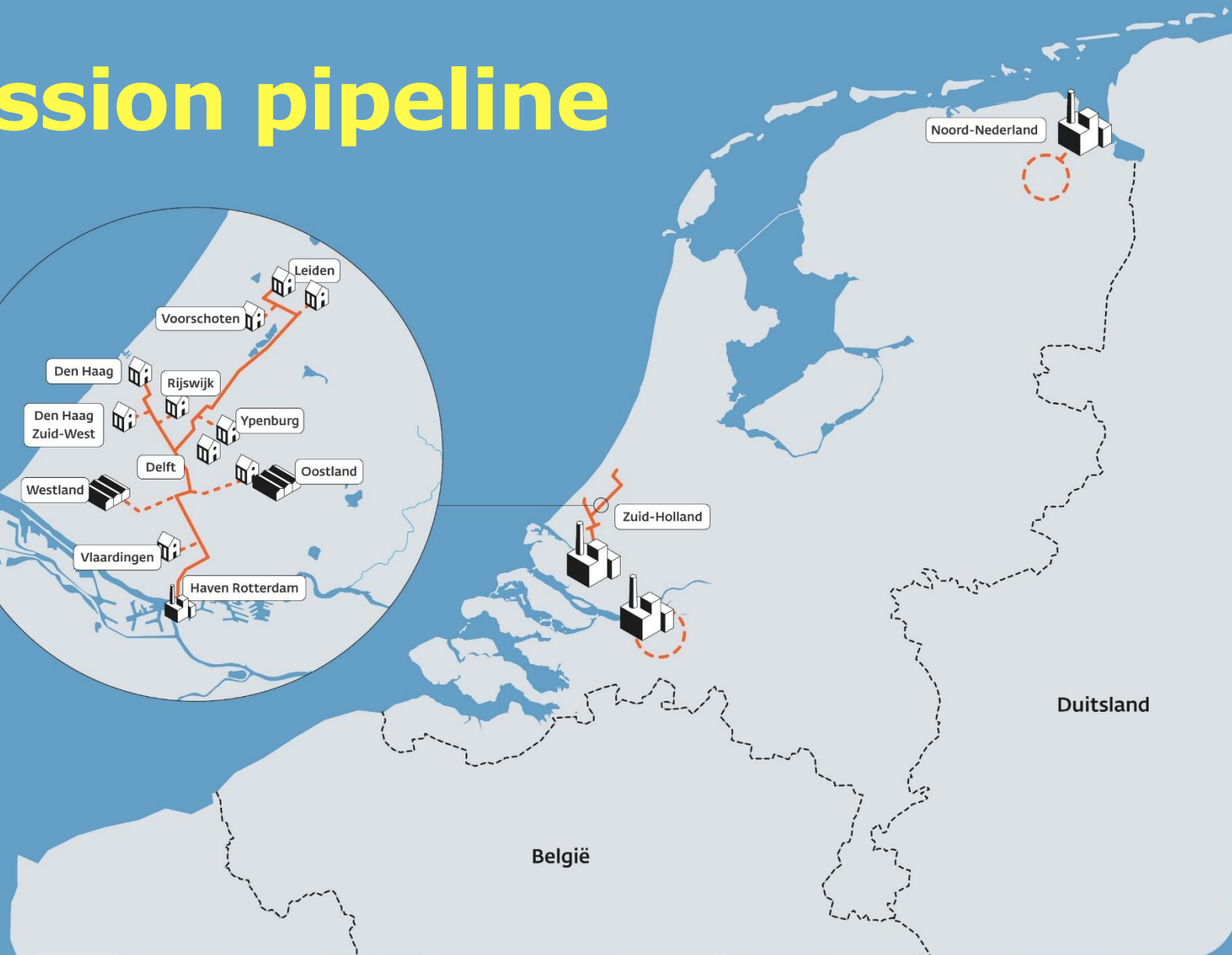
Heat transmission pipeline in 2035

Natural gas
& biomethane >

Heat >

Hydrogen >

CO₂ >



CO₂ network in 2035

Natural gas
& biomethane >

Heat >

Hydrogen >

CO₂ >



Hydrogen Network Netherlands links clusters, storage, imports and borders

Natural gas
& biomethane >

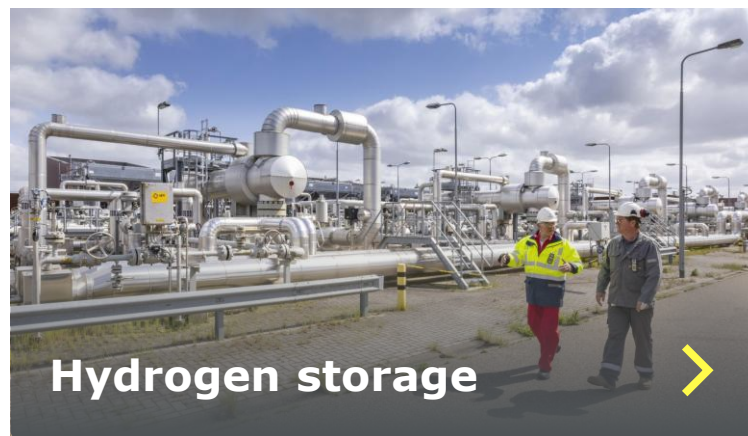
Heat >

Hydrogen >

CO₂ >



Groundbreaking projects



Repurposing enables faster backbone scaling

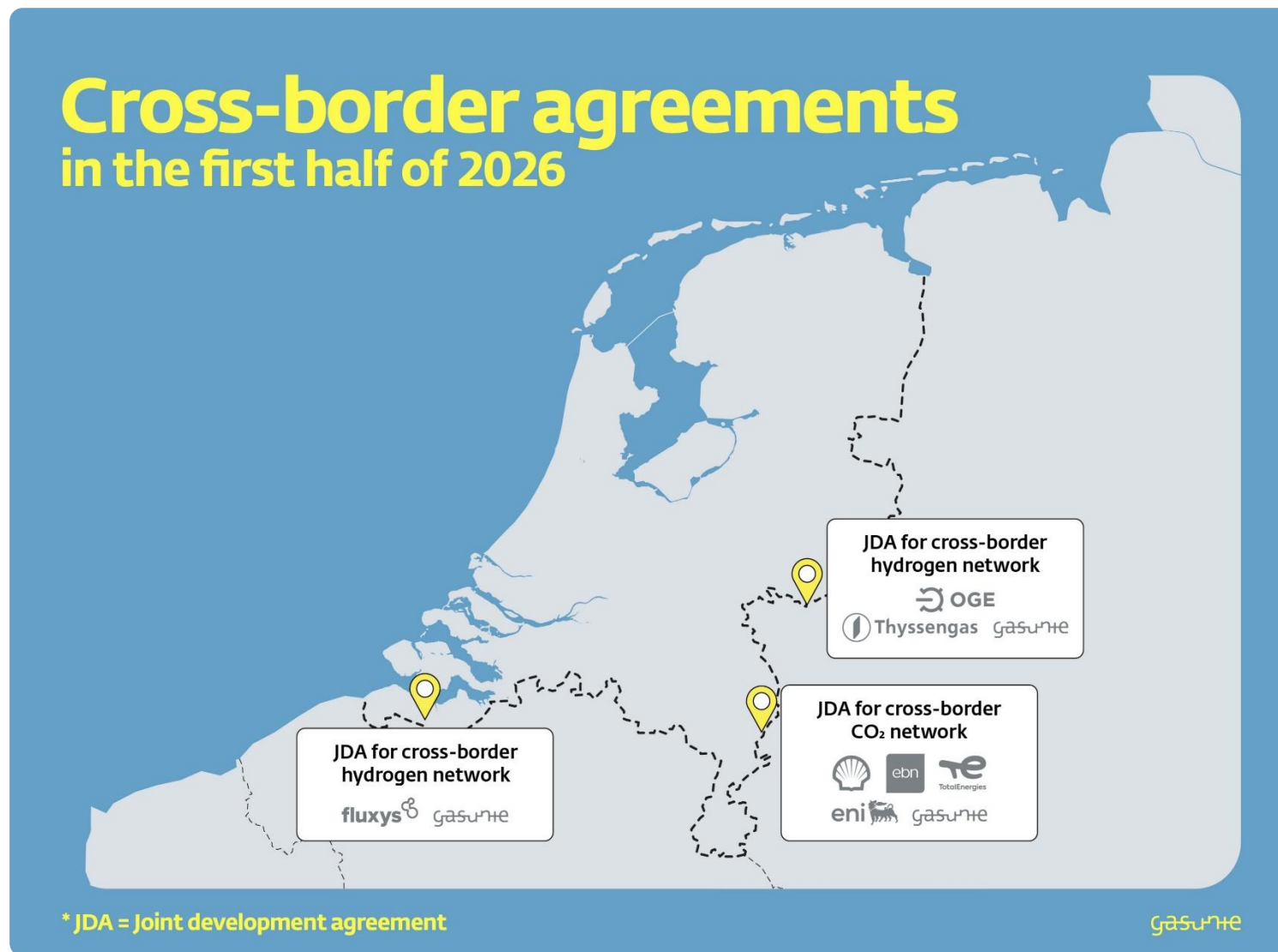
Connects clusters, storage, import/export hubs and borders

- Phased by Hynetwork
- Repurposes gas pipelines wherever safe and efficient
- Requires targeted modifications and extensive inline inspection

Current scope of the hydrogen network 1,236 km:

- 422 km new-build (34%)
- 813 km repurposed infrastructure (66%)
- Inline inspection status: 345 km completed in total.

Cross border backbone development



Phase 1 opens the first corridor ahead of demand

Phase 1: Rotterdam (2026)



Rotterdam hydrogen network



Shell Holland Hydrogen I electrolyser

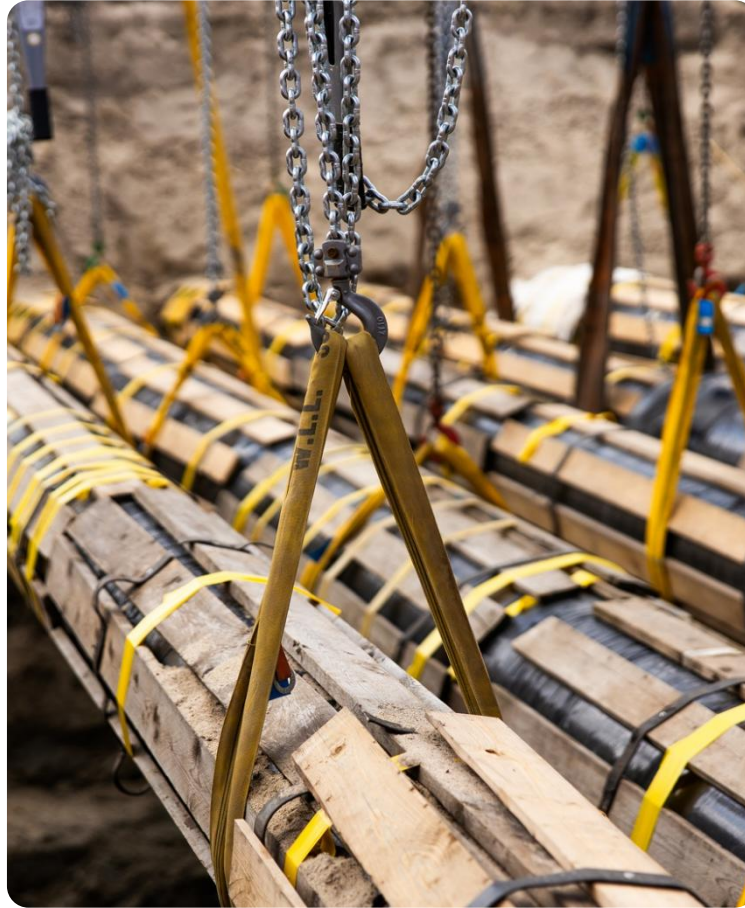
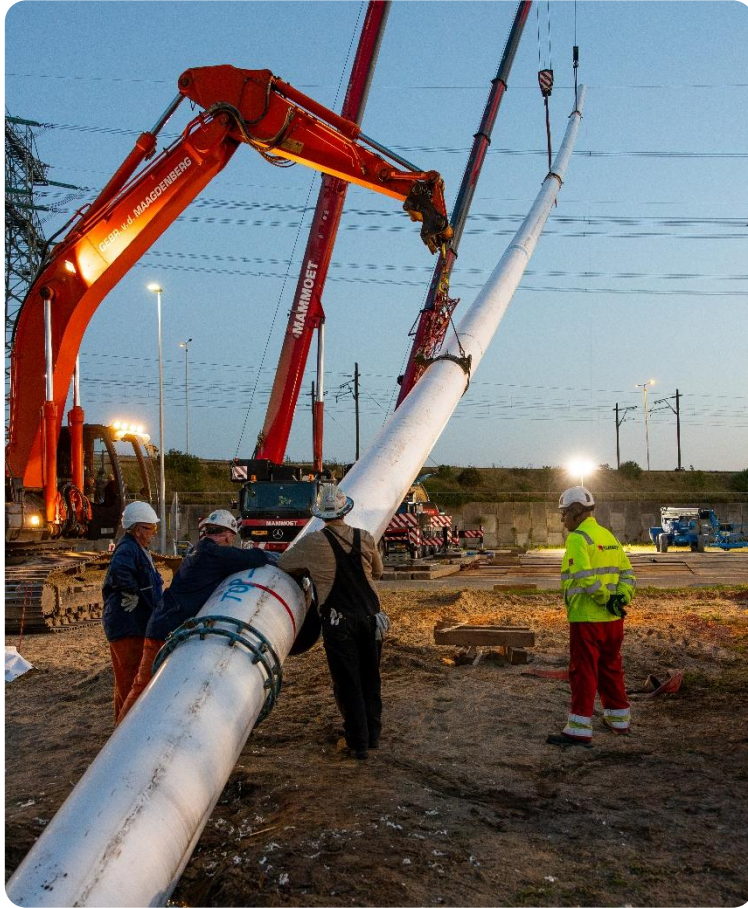
- 200MW renewable hydrogen plant
- Up to 60,000kg hydrogen per day
- Powered by Hollandse Kust (Noord) offshore wind

Construction of 32km DN600 / 24-inch pipeline

- Work started in late 2023
- Crossings: roads, waterways and existing pipelines
- Interfaces with Porthos and removal of existing gas lines



Building Rotterdam hydrogen network



'Mikado with pipelines'

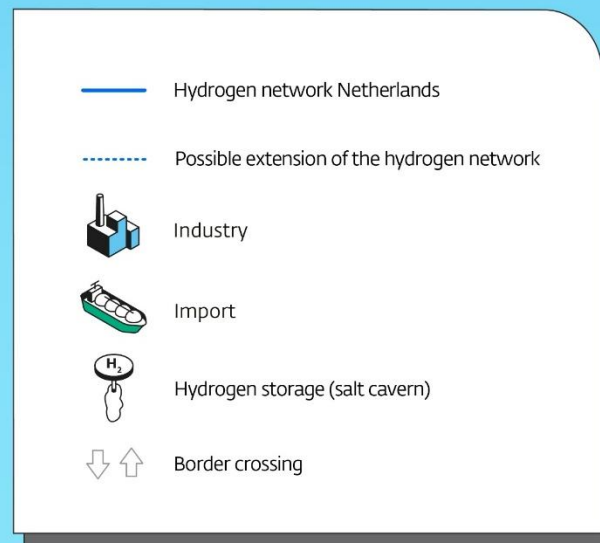


Phase 2: Coastal industry clusters (in or before 2030)



19 november 2024 - 1.0

Phase 3: Connecting (2031-2033)



19 november 2024 - 1.0

Phase 4: Strengthen (year not yet known, but after 2033)



Hydrogen storage

Underground hydrogen storage for sustainable energy supply

- Hydrogen can store surplus sustainable energy (solar and wind)
- Storage in caverns: cavities in salt formations deep underground
- Construction of 4 caverns in Zuidwending for a total of 24 kt hydrogen (1 TWh)

Four disciplines enable hydrogen repurposing

**INSPECT
& qualify**



**ADAPT
pipelines**



**MODIFY
installations**



**OPERATE
safely**



Extensive ILI · targeted modifications · evidence-led handover · operational readiness

A photograph of a wind farm at sunset. The sky is filled with vibrant orange and red clouds. Several wind turbines are visible, with one prominently in the foreground. The foreground is a field of golden-brown crops.

Full of new energy