

Hydrogen Economy

On course together
towards a circular future



Port of
Antwerp



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**Port of
Antwerp**



Chapter 1

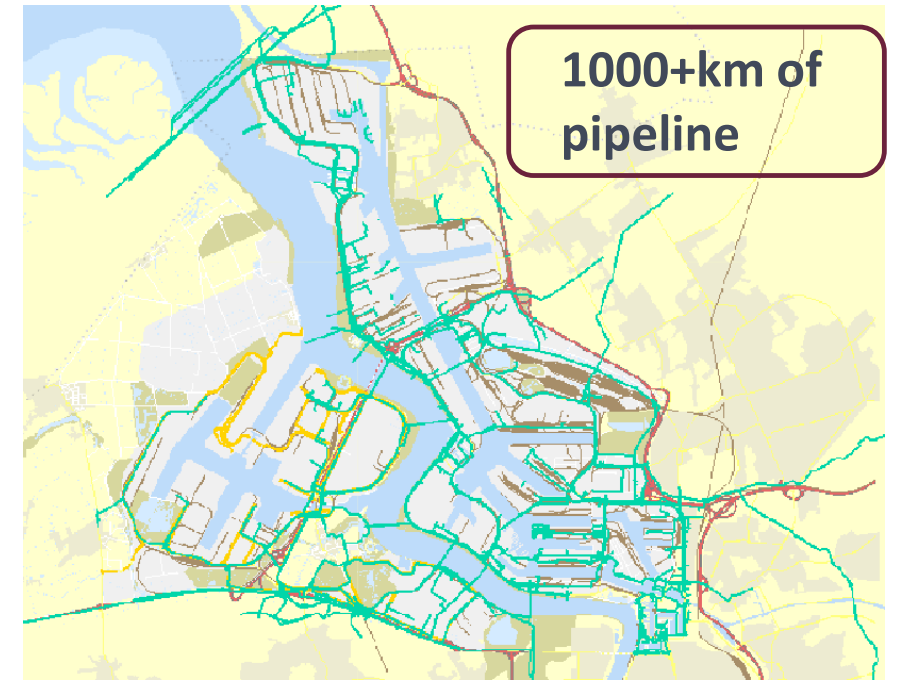
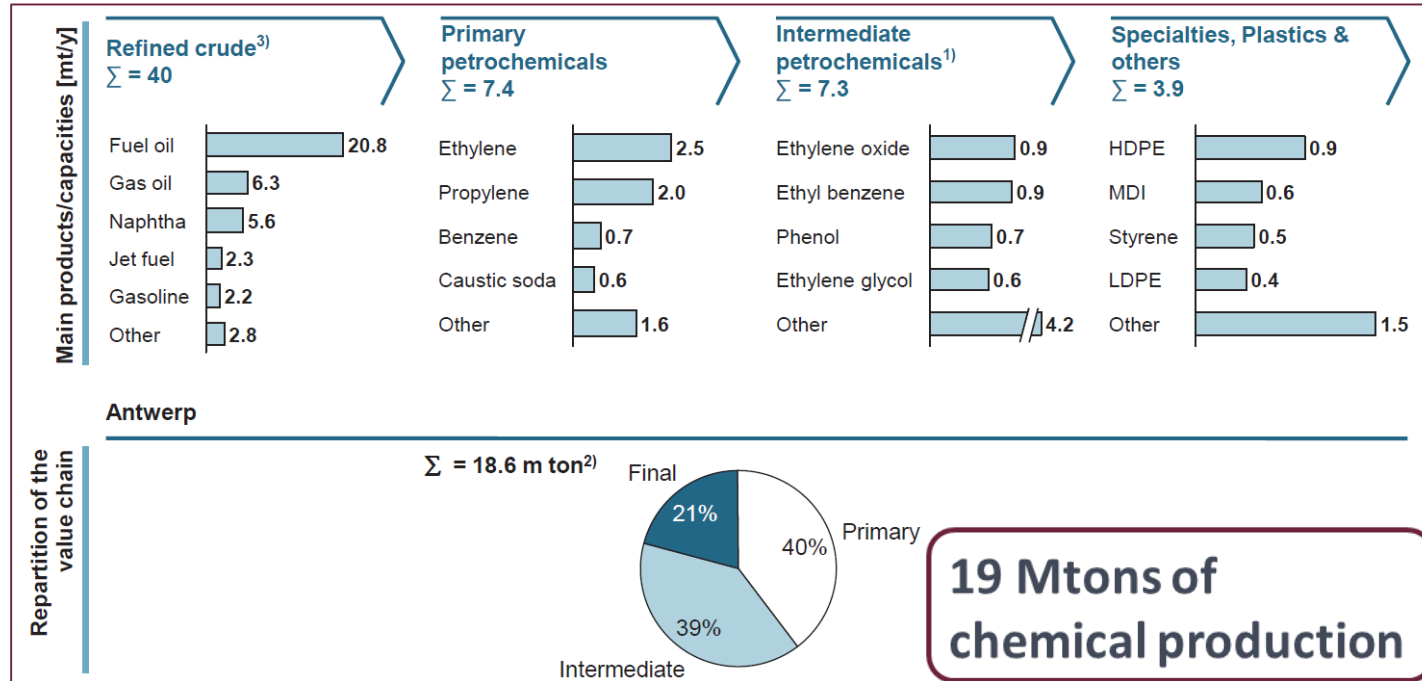
Port of Antwerp in key numbers



Port of
Antwerp

The port in a nutshell

Relevant port numbers



40 Mtons primary distillation capacity

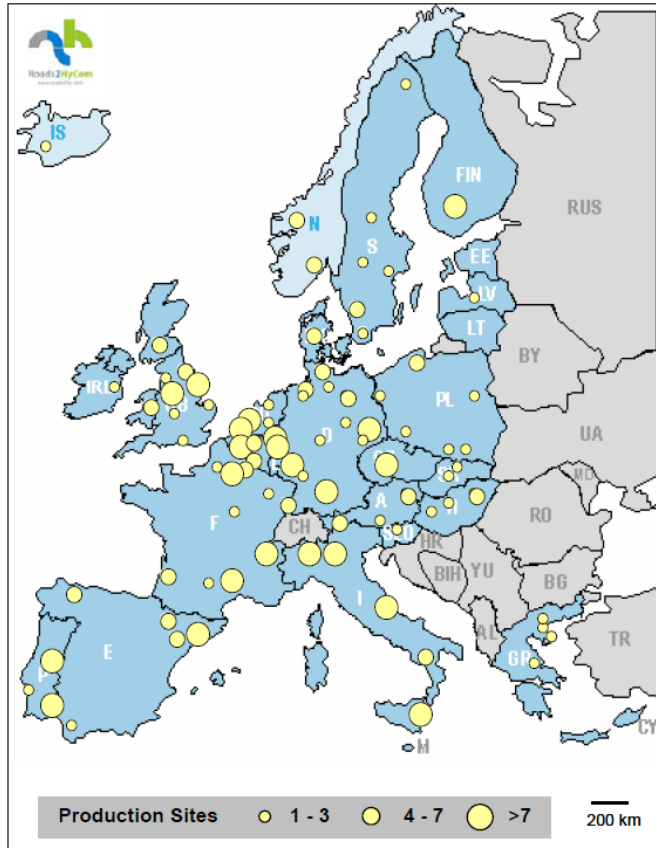
6,5 Mtons of bunker fuels: nr 5 bunker port WW

18 Mtons of CO₂ of which 10% from high purity sources

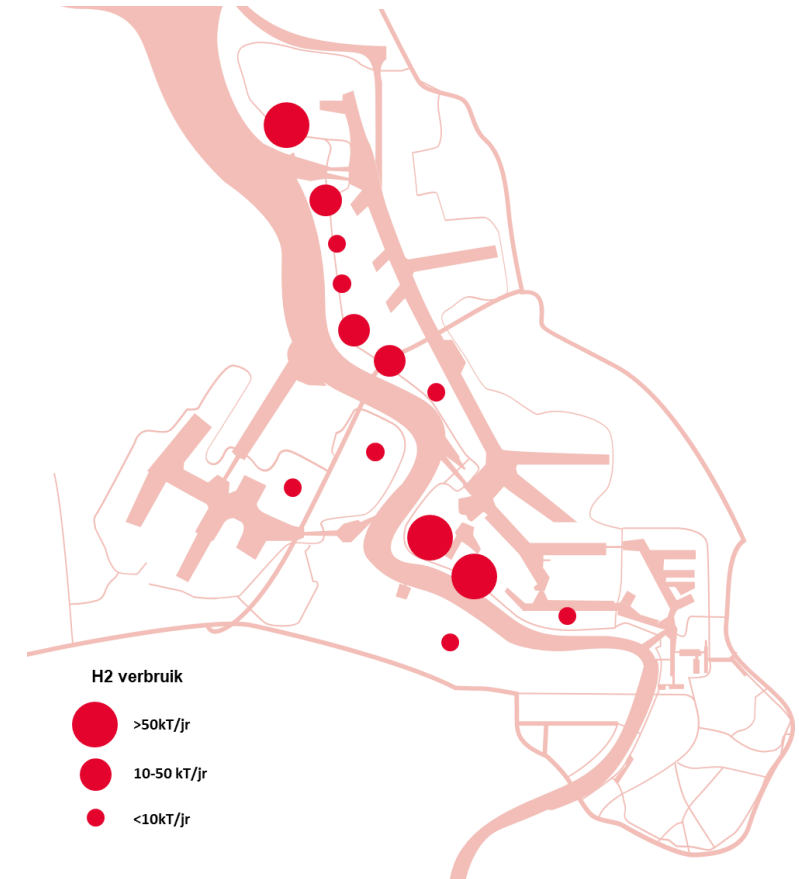
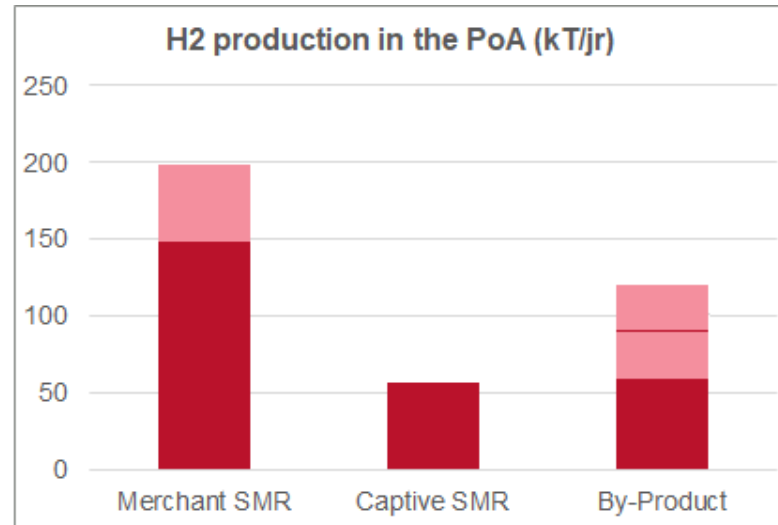
**287 MW of RE installed and growing
Mainly wind**

All ingredients on board

10% - 15% of EU hydrogen production in the Port of Antwerp



Bron: roads2hy



Chapter 2

The challenges



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A myriad of challenges and questions

H-import:
H₂/eLNG/eMeOH/LOHC?

CE: bio/synthetic?

H₂ for cars or BEV
only?

CCS/CCU/CCUS?

Long Haul Road: BEV
or FC?

Electrolysis cost
efficiency: where
are we in the
asymptote?

Direct solar H₂
production?

Who will create the
dynamics needed for an
open access backbone
deployment

Which moonshots
will bring the
game changer?

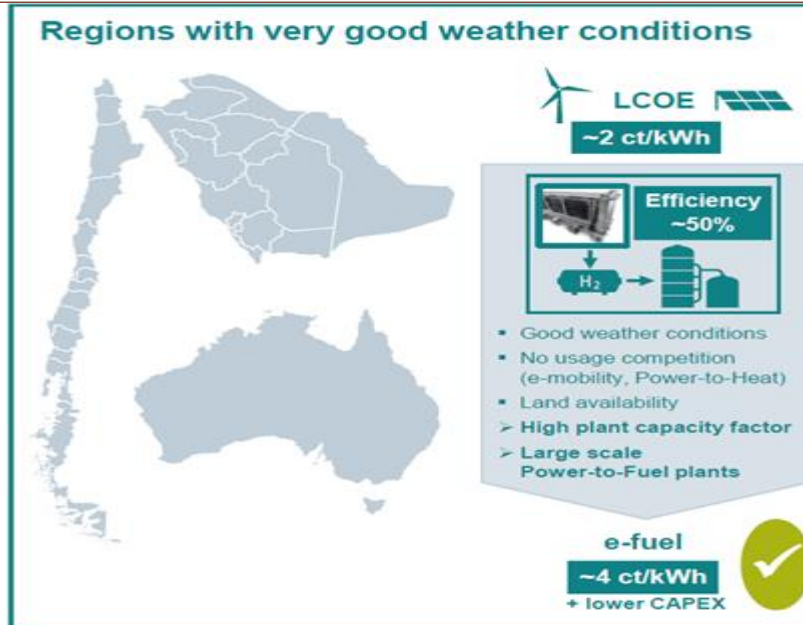
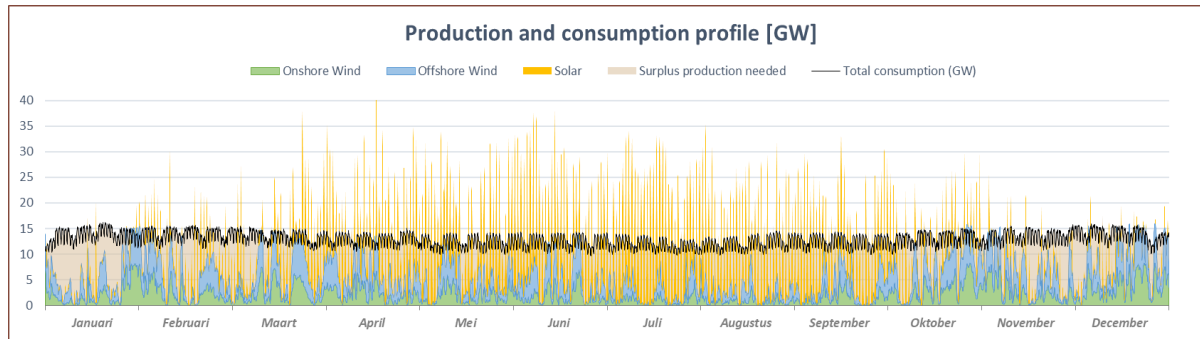
Will DAC meet its
breakthrough?

Salt caverns as
primary storage
facility?

Shipping: which fuel
for the ICE:
eMeOH/eLNG/eH₂?

Hydrogen Production and Import

Necessity, economics and transport solution



Source: Siemens



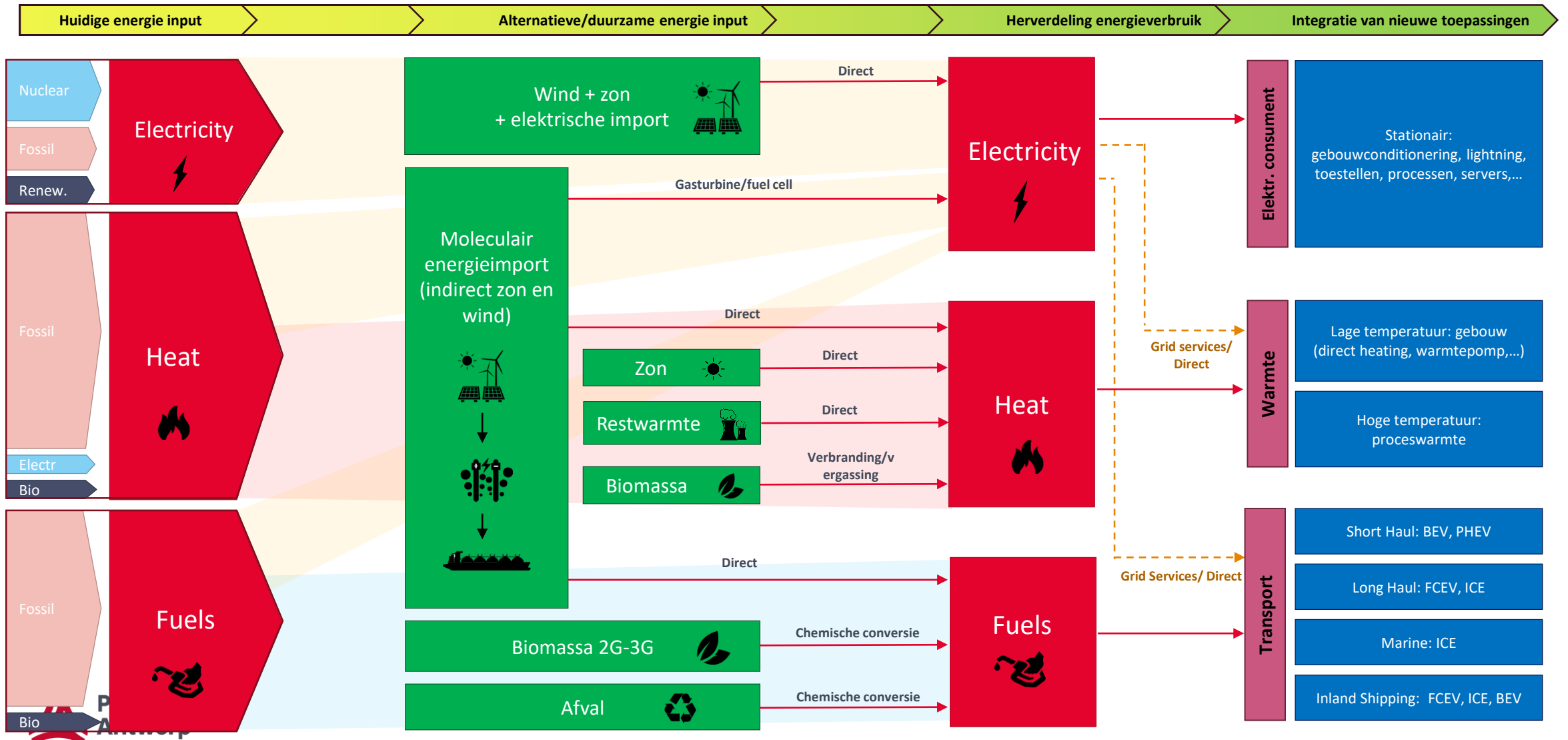
Chapter 3

The action plan

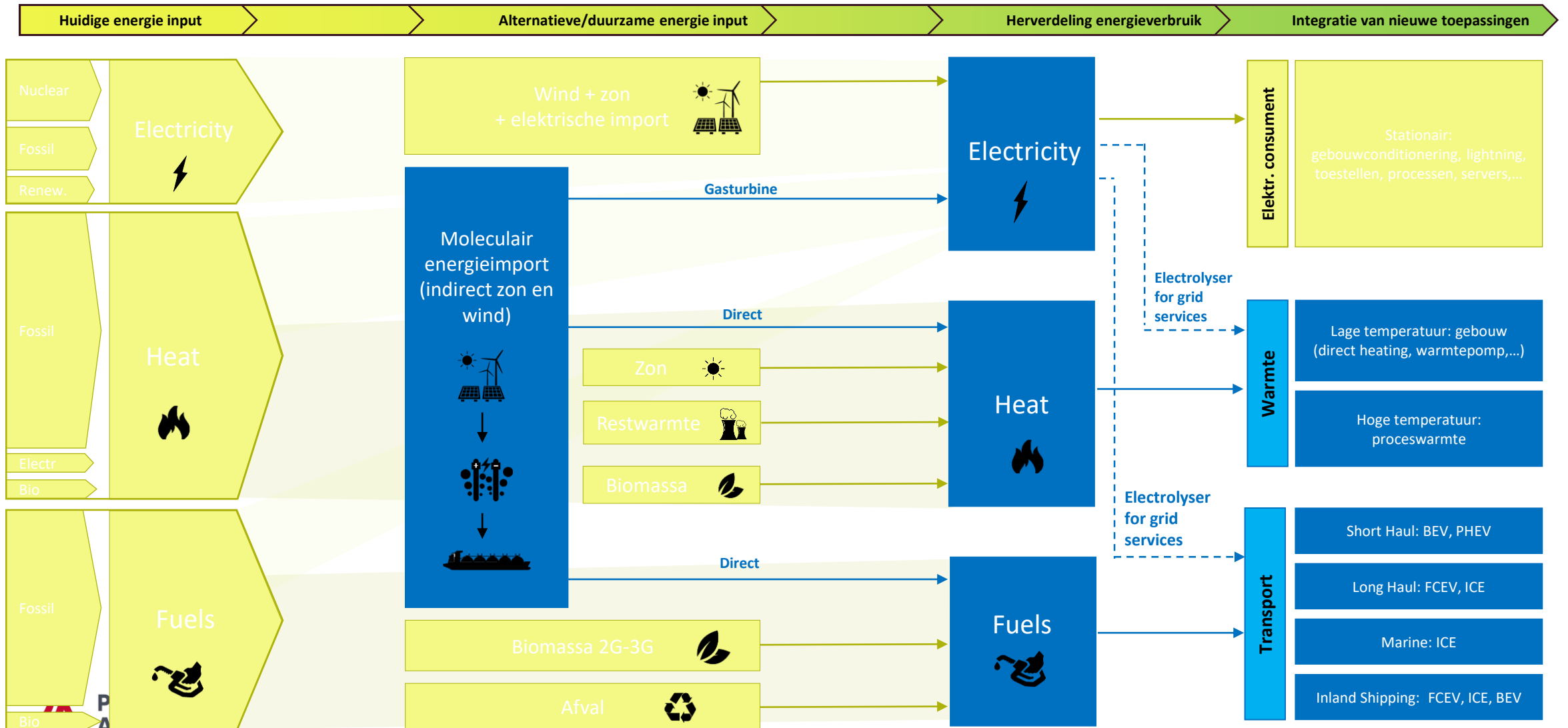


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The Energy Transition

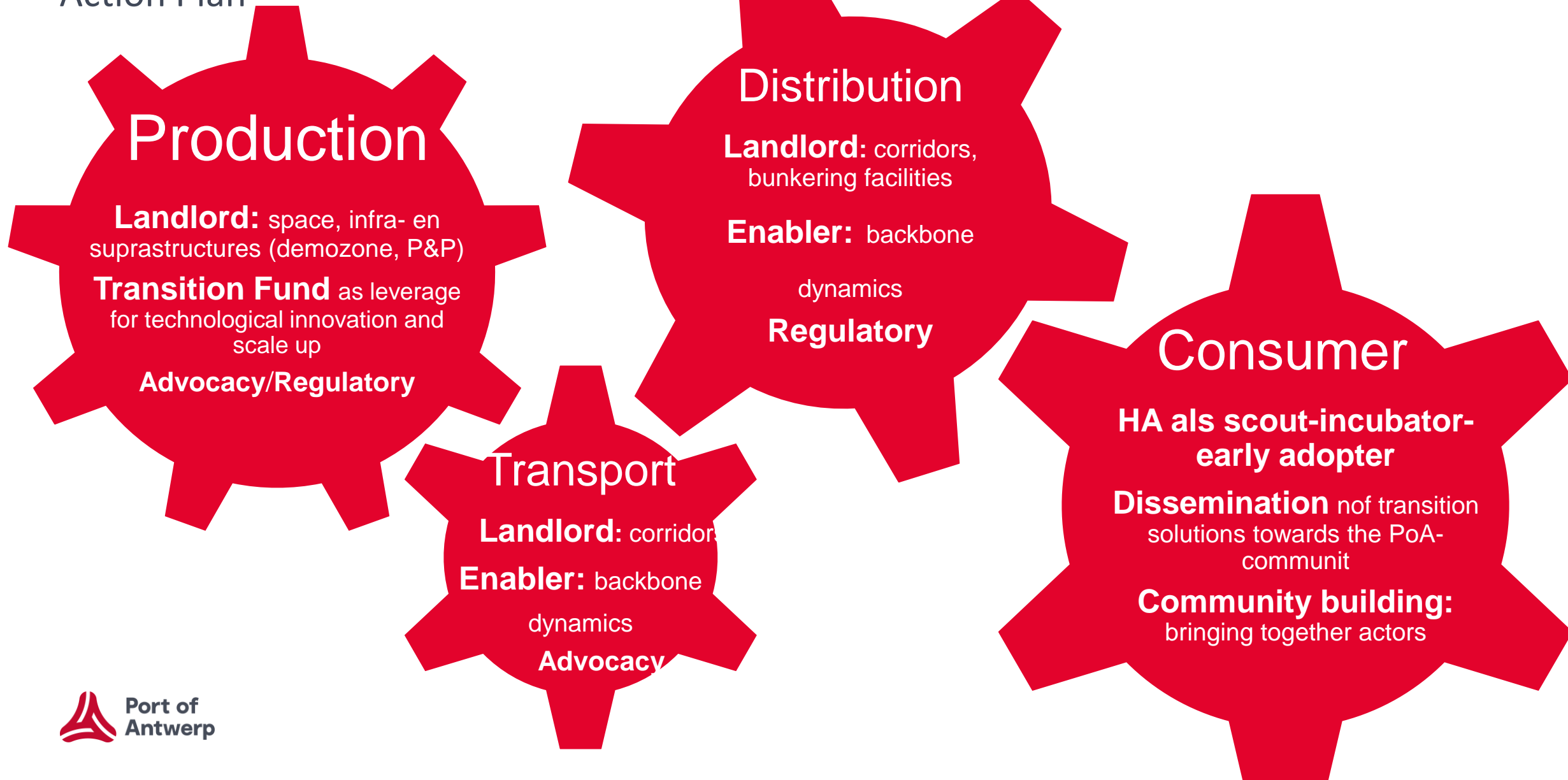


Hydrogen in the Energy Transition



Hydrogen Economy in the Port of Antwerp

Action Plan

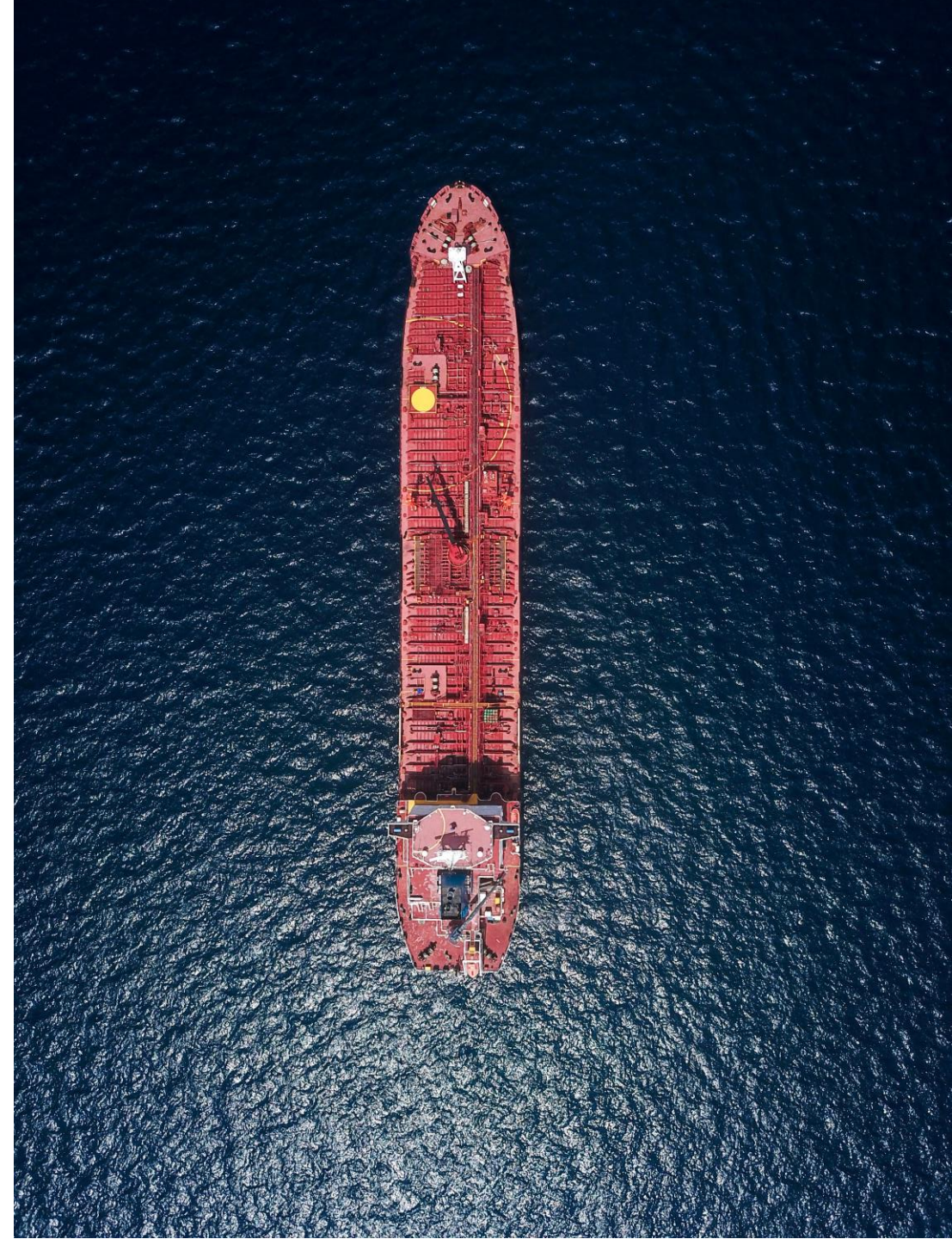


Some Lighthouse projects

Focus on infrastructure and community

➤ CCUS and H₂ backbones

- ✓ PP-Partnership established, PRE-FEED



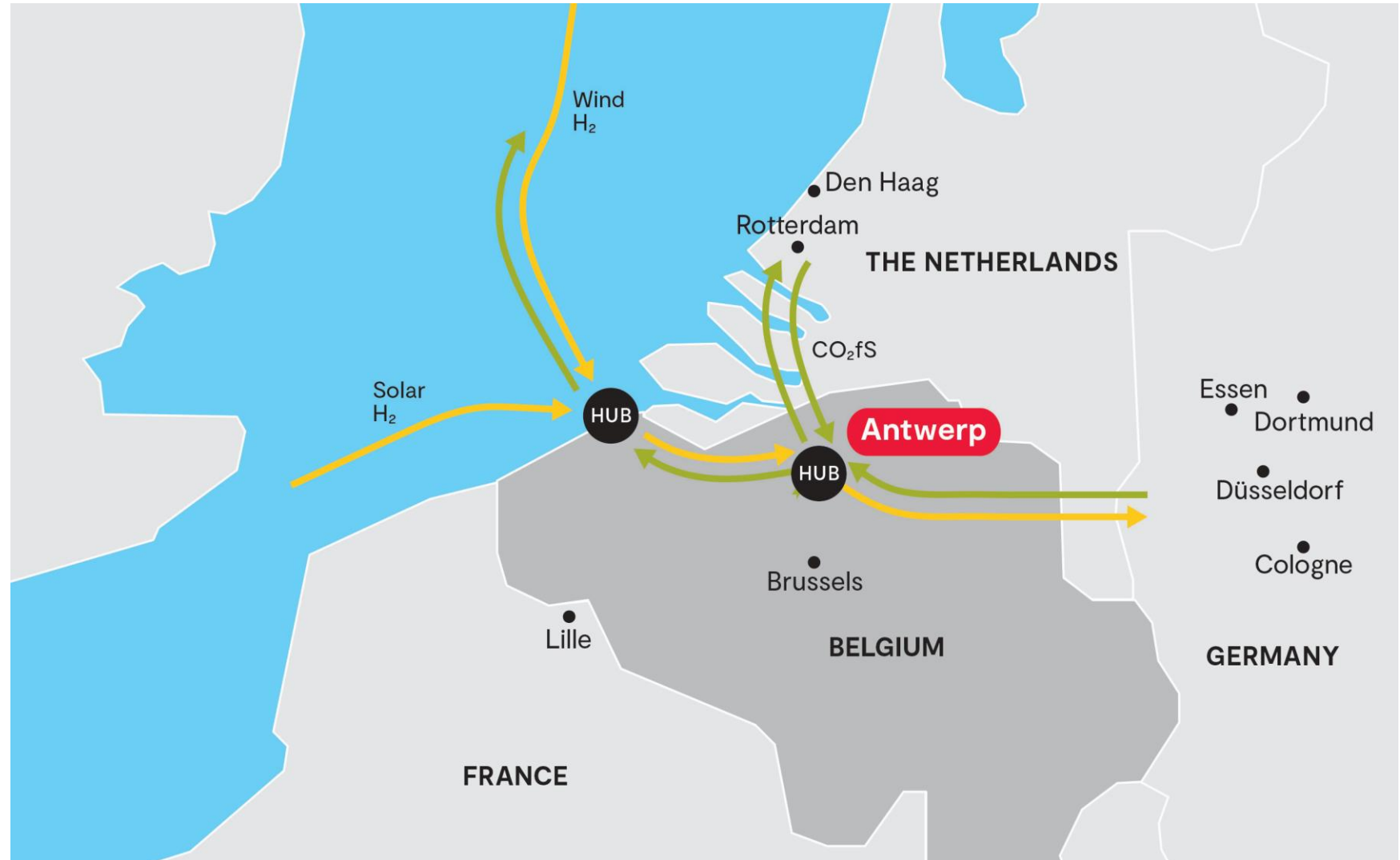
Port of Antwerp hydrogen economy lighthouse projects

CO₂ and H₂ transport system joint approach

PCI-partnerships

- ✓ NSP-Antwerp-Rotterdam
- ✓ NSP-Antwerp-Norway

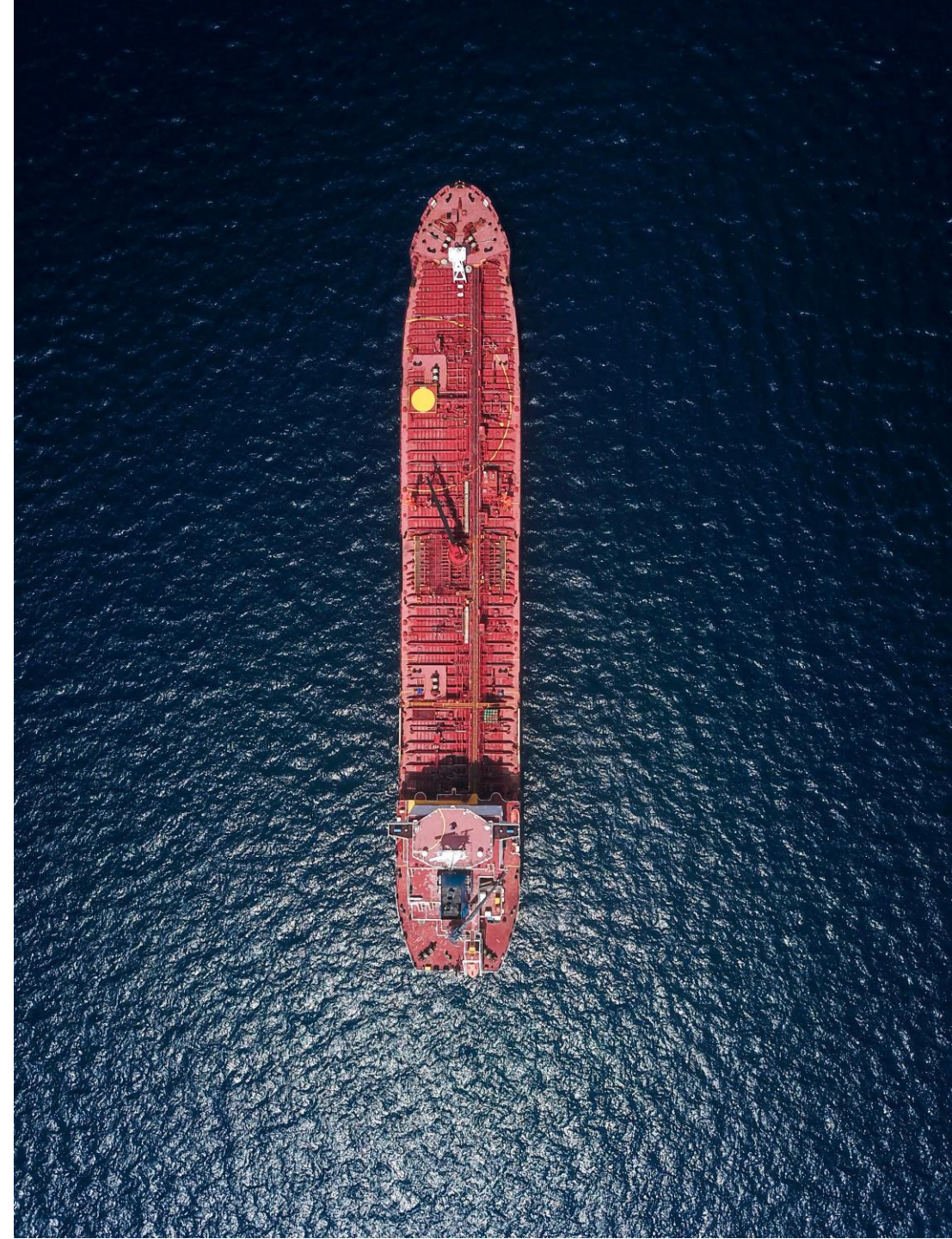
IF-submission
CCUS-call



Some Lighthouse projects

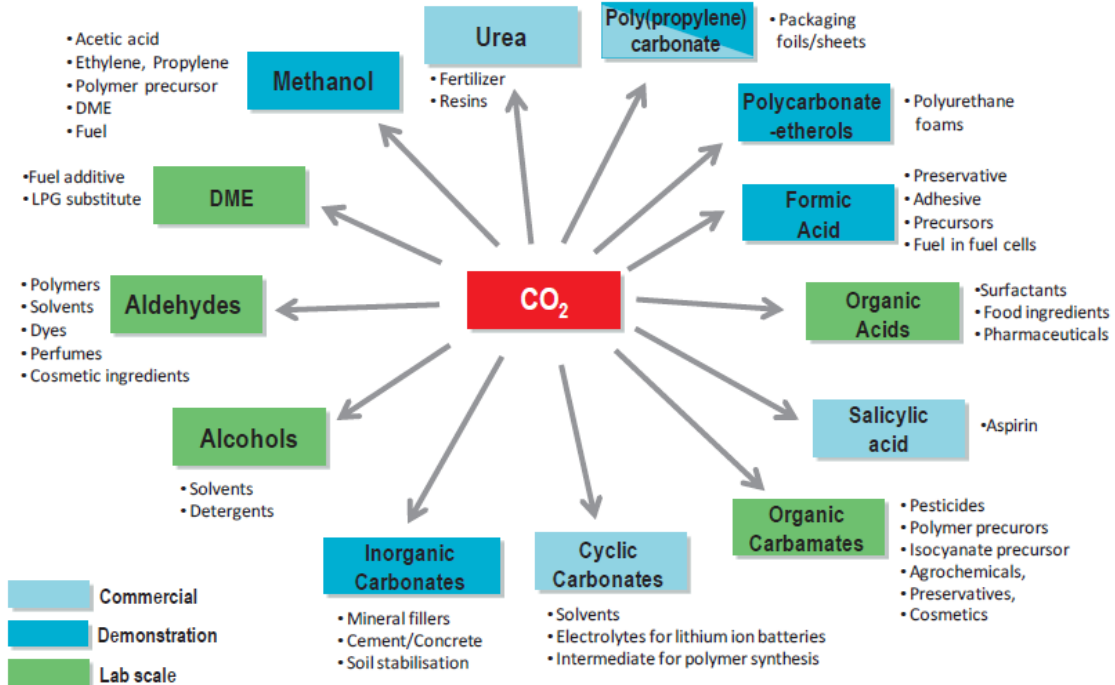
Focus on infrastructure and community

- CCUS and H₂ backbones
 - ✓ PP-Partnership established, PRE-FEED
- Circular chemistry P&P and demo zone
 - ✓ Capital committed
 - ✓ land secured

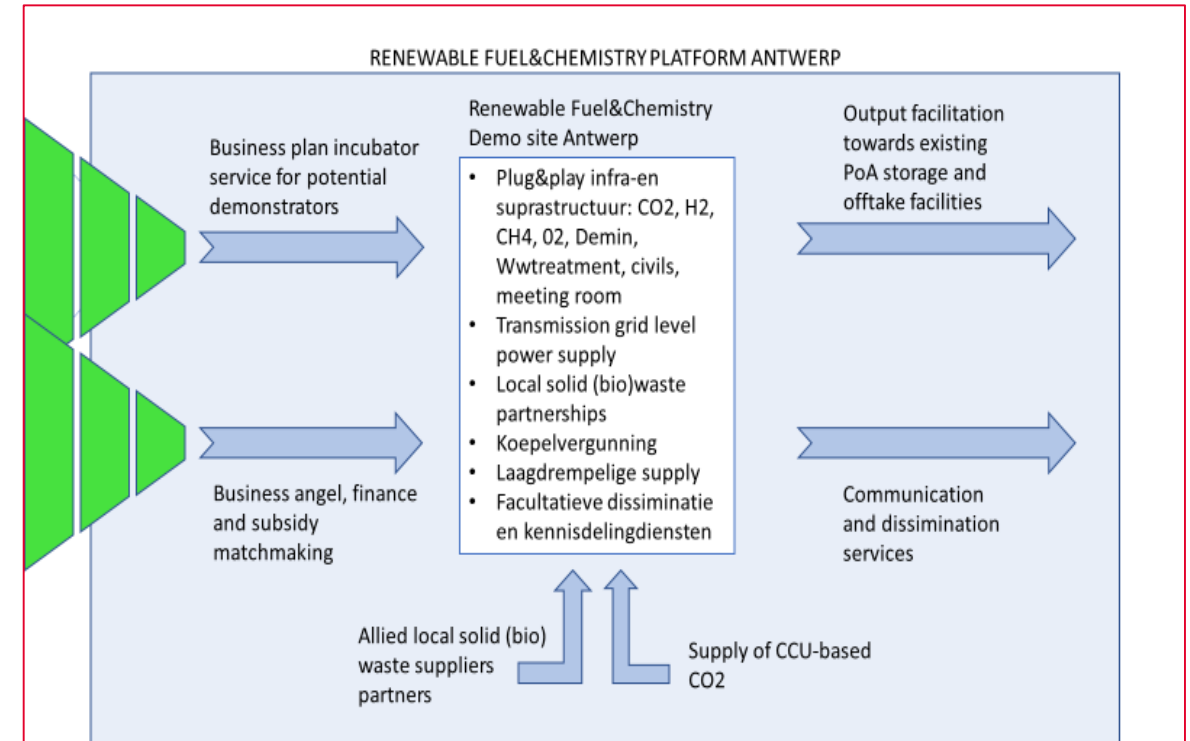


Port of Antwerp hydrogen economy lighthouse projects

Power-to-Methanol demonstrator



Bron: Dechema

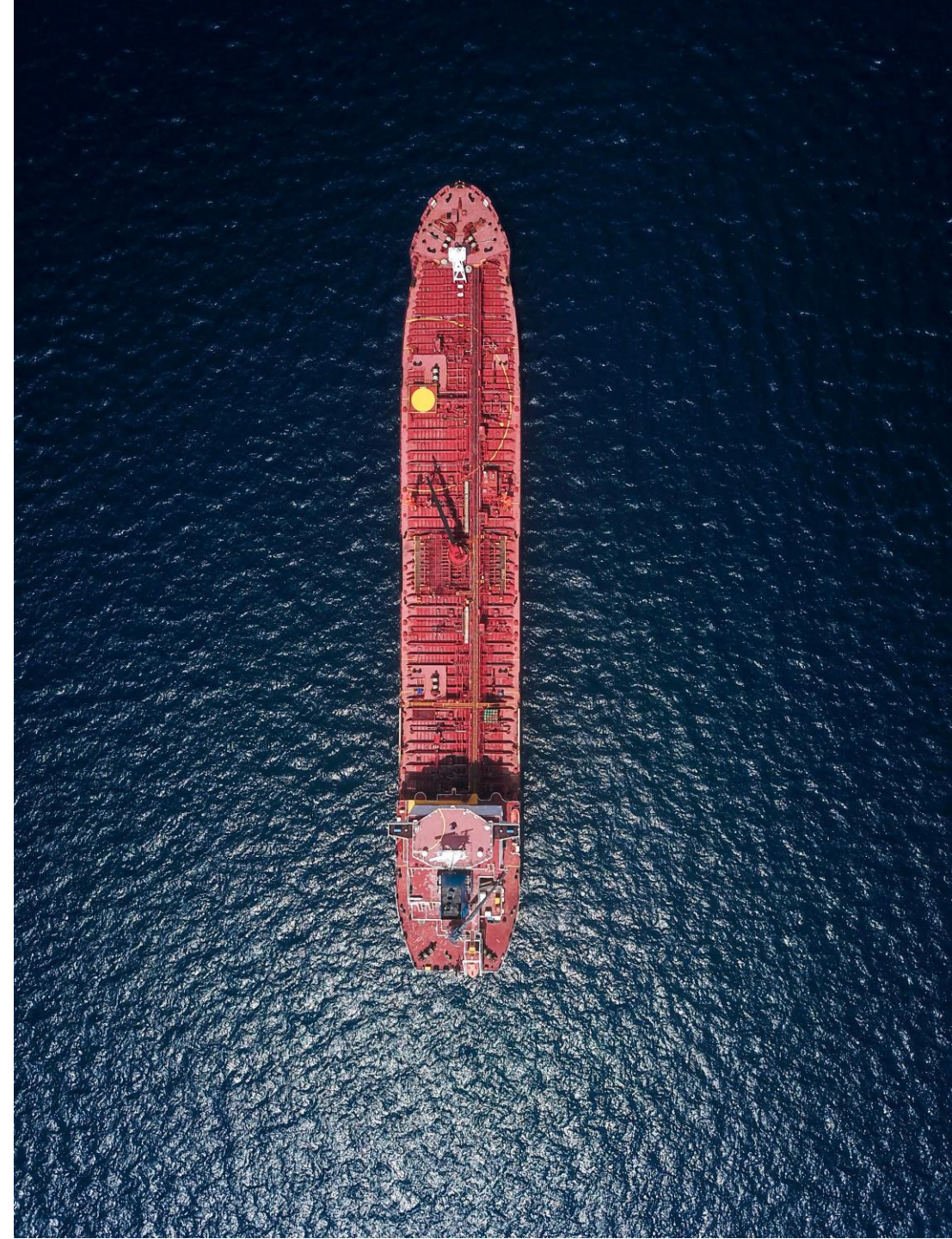


Low threshold demonstrator and scale up zone (2ha-20ha)

Some Lighthouse projects

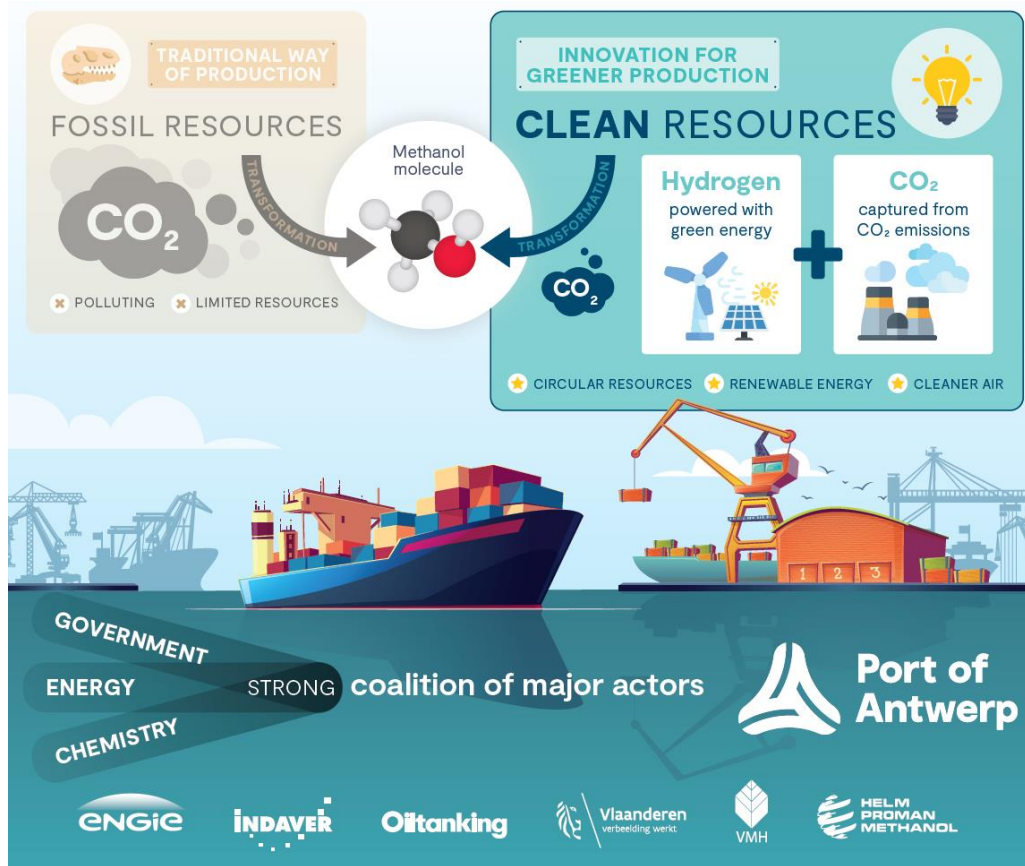
Focus on infrastructure and community

- CCUS and H₂ backbones
 - ✓ PP-Partnership established, PRE-FEED
 - ✓ Innovation Fund as the game changer
- Circular chemistry P&P and demo zone
 - ✓ Capital committed
 - ✓ land secured
- Power-to-Methanol demonstrator:
 - ✓ investment partnership established



Port of Antwerp hydrogen economy lighthouse projects

Power-to-Methanol demonstrator



Some Lighthouse projects

Focus on infrastructure and community

- CCUS and H₂ backbones
 - ✓ PP-Partnership established, PRE-FEED
- Circular chemistry P&P and demo zone
 - ✓ Capital committed
 - ✓ land secured
- Power-to-Methanol demonstrator:
 - ✓ investment partnership established
- Antwerp Multifuel Bunkering Hub
 - ✓ Concessions granted, target LNG-MeOH-H₂ by 2025
 - ✓ MeOH to tugging project

