10th Tartu Hydrogen Days

Experiences with hydrogen projects in Belgium/Netherlands

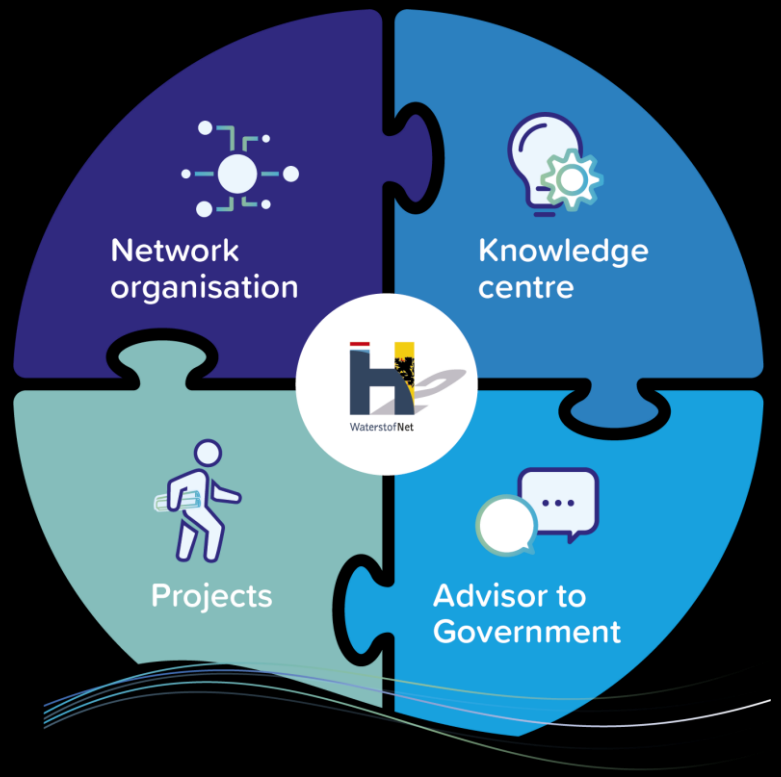
Adwin Martens

Founder/CSO

WaterstofNet

WaterstofNet

- °2009, non profit, 13 employees
- Offices in Turnhout (B) and Helmond (NI)
- 4 pillars
  - Industrial cluster with 130 members
  - Projectorganisation > 20 projects
  - Partner of governments
  - Knowledge: studies, consultancy
- Hands-on experience



Hands-on experience WaterstofNet :

Hydrogen Valley Estonia

2011: Opening hydrogen station at Colruyt in Halle (350 bar)

2013 : Opening hydrogen station in Helmond (350 and 700 bar)

refuelling, 5 kg in 5 minutes, over 500 km range

Cars:

2014: Hyundai ix35

2018: Hyundai Nexo

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Hydrogen Industry cluster

- 2016 : 20 members
- 2019 : 40 members
- 2020 : 65 members
- Now: > 130 members

Hydrogen Valley Estonia

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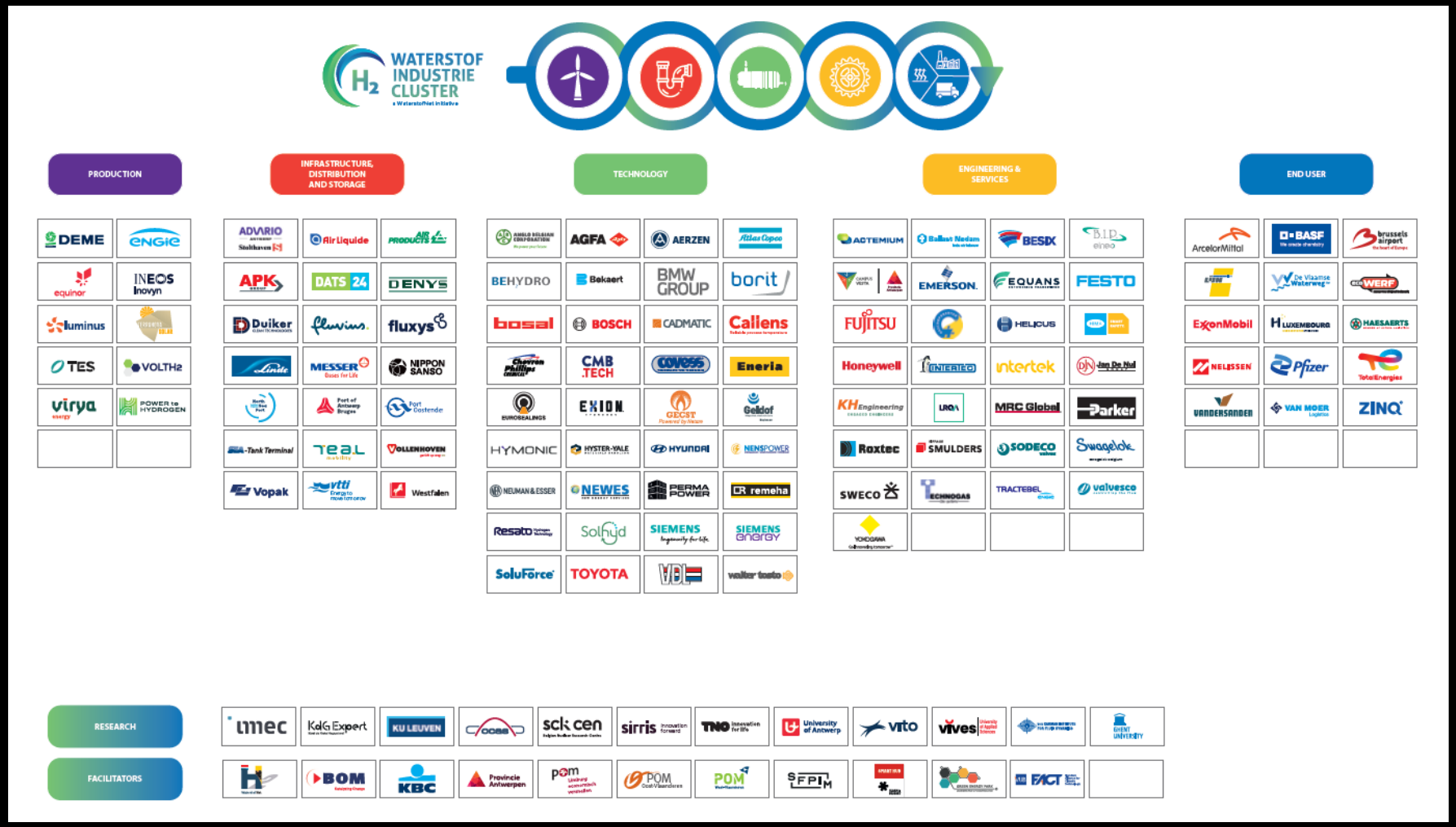
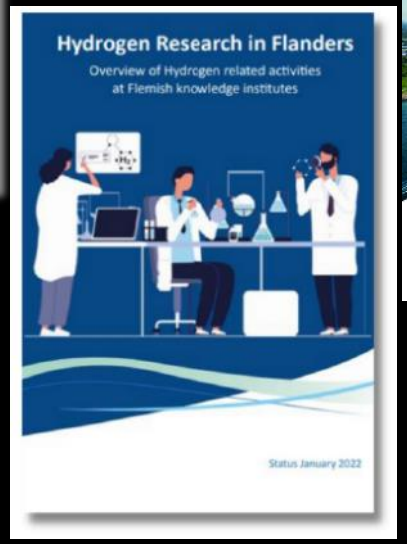
.... covering the value chain

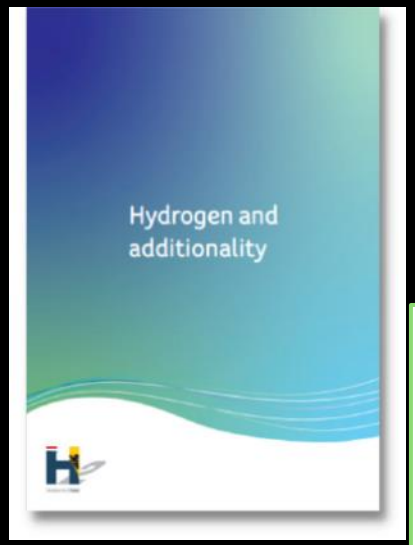


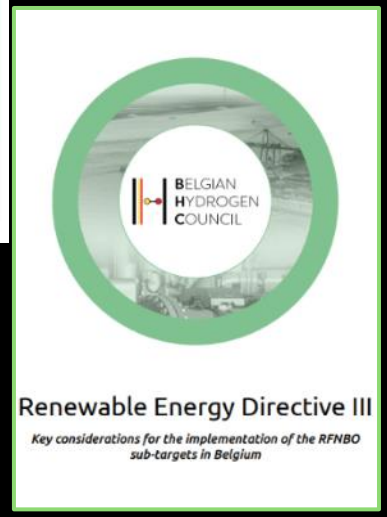
Belgian Hydrogen Council (BHC)

Advisor to governments

Hydrogen Valley Estonia







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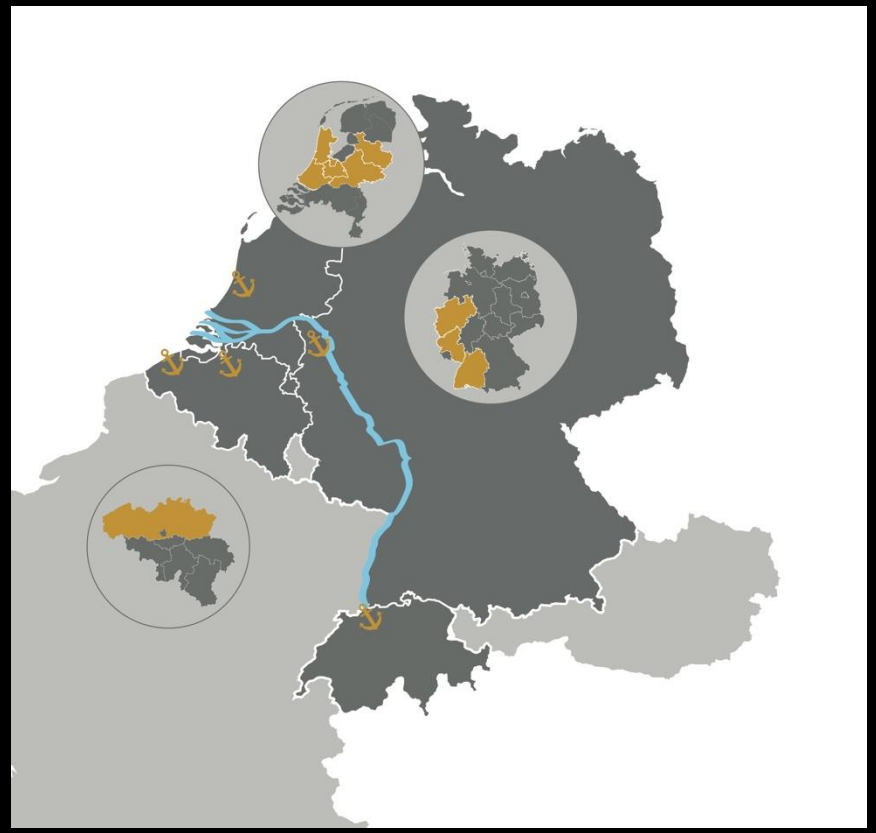
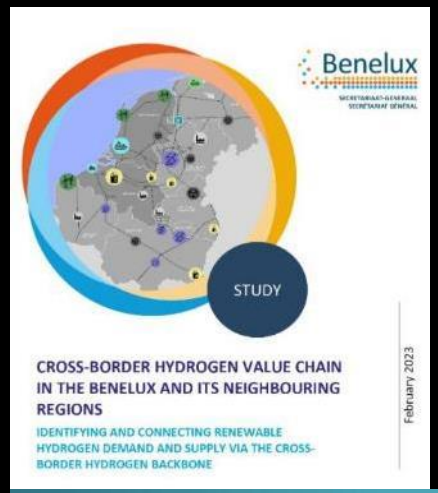
RH2INE – Inland shipping



- 4 ports
- 9 governments
- 30+ partners

RH2INE
Rhine Hydrogen Integration Network of Excellence

Knowledge centre



Hydrogen Academy
WaterstofNet

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Projects

Identifying and facilitating ‘next step’ projects

Hydrogen Valley Estonia

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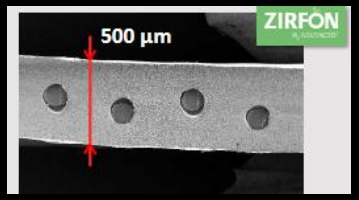
Not only logo's, but this is 'made/demonstrated in Flanders/Belgium/Benelux'

H2 Hydrogen Valley Estonia



Our experiences with initiating projects

- Start with ‘clear idea, good consortium, affordable budget and realistic timing’
  - 1 page: projectidea
  - 1 page: consortium
  - 1 page: budget and timeline

- Mindset consortium partners is crucial (family owned company helps)
  - realistic
  - willing to cooperate
  - willing to invest
  - focus on results
  - A strong dose of endurance and resilience

- Detecting smart project ideas/consortia is harder than detecting possible grants

Clean Hydrogen Partnership

Co-funded by the European Union

H2 Hydrogen Valley Estonia

First hydrogen valley in Belgium

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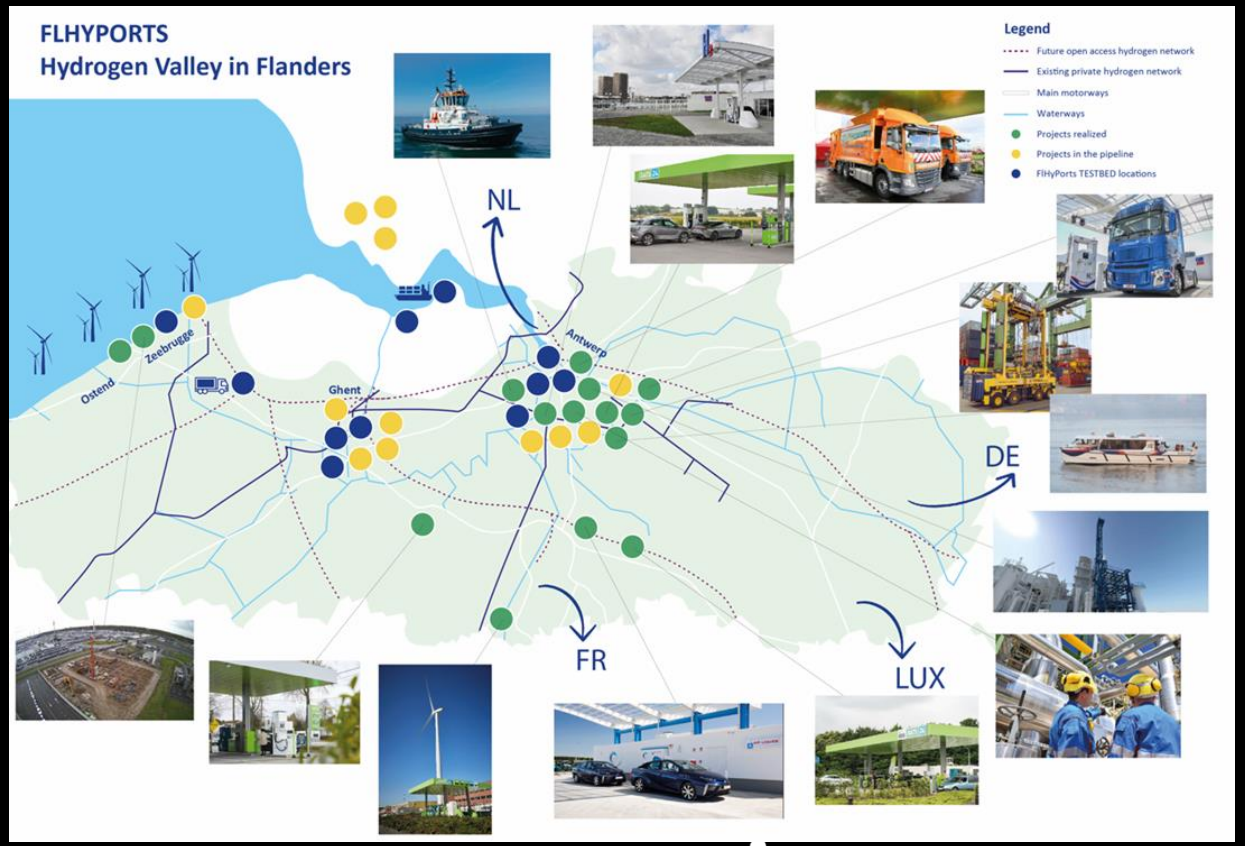
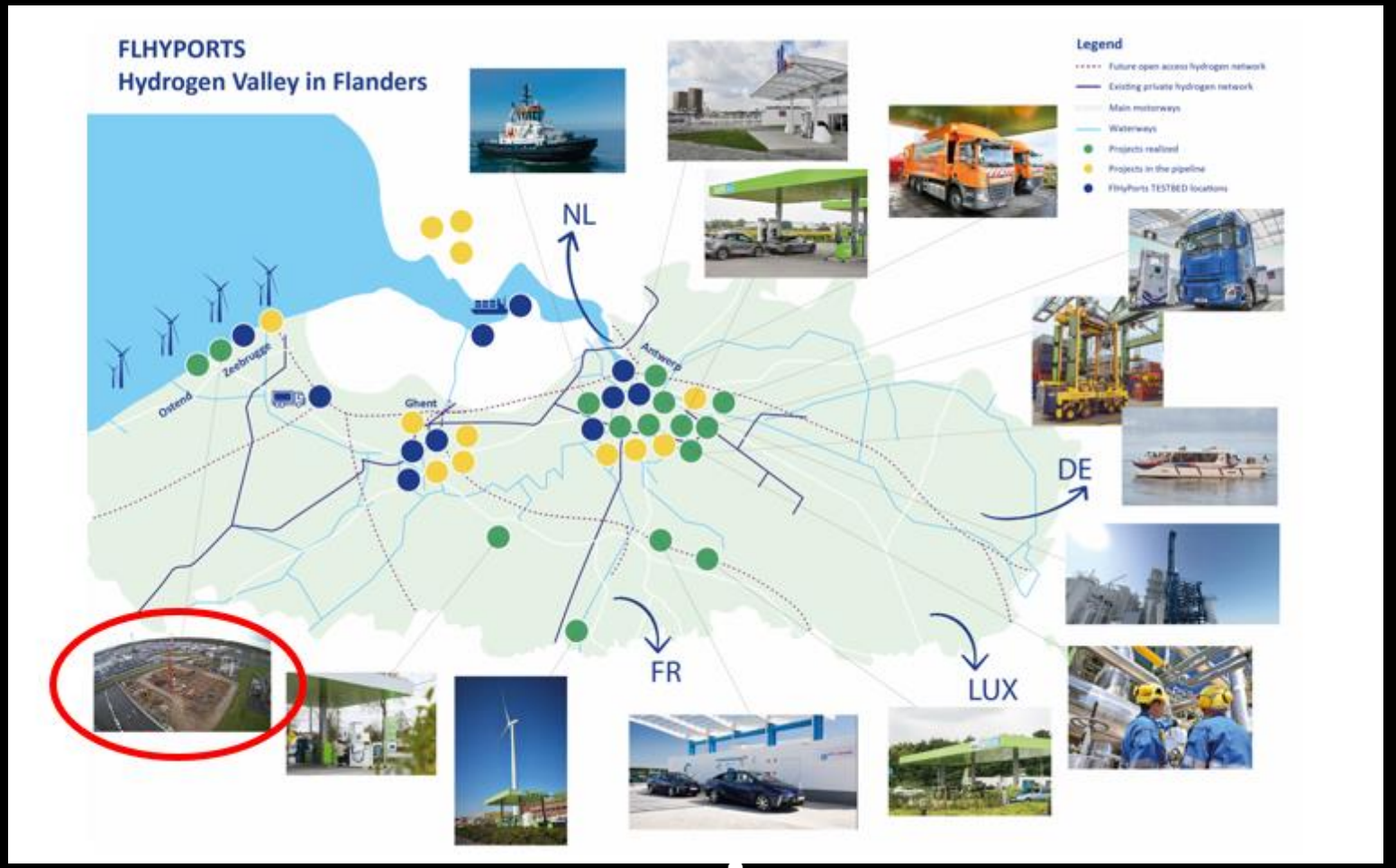
* example logo => under development with a comm. bureau

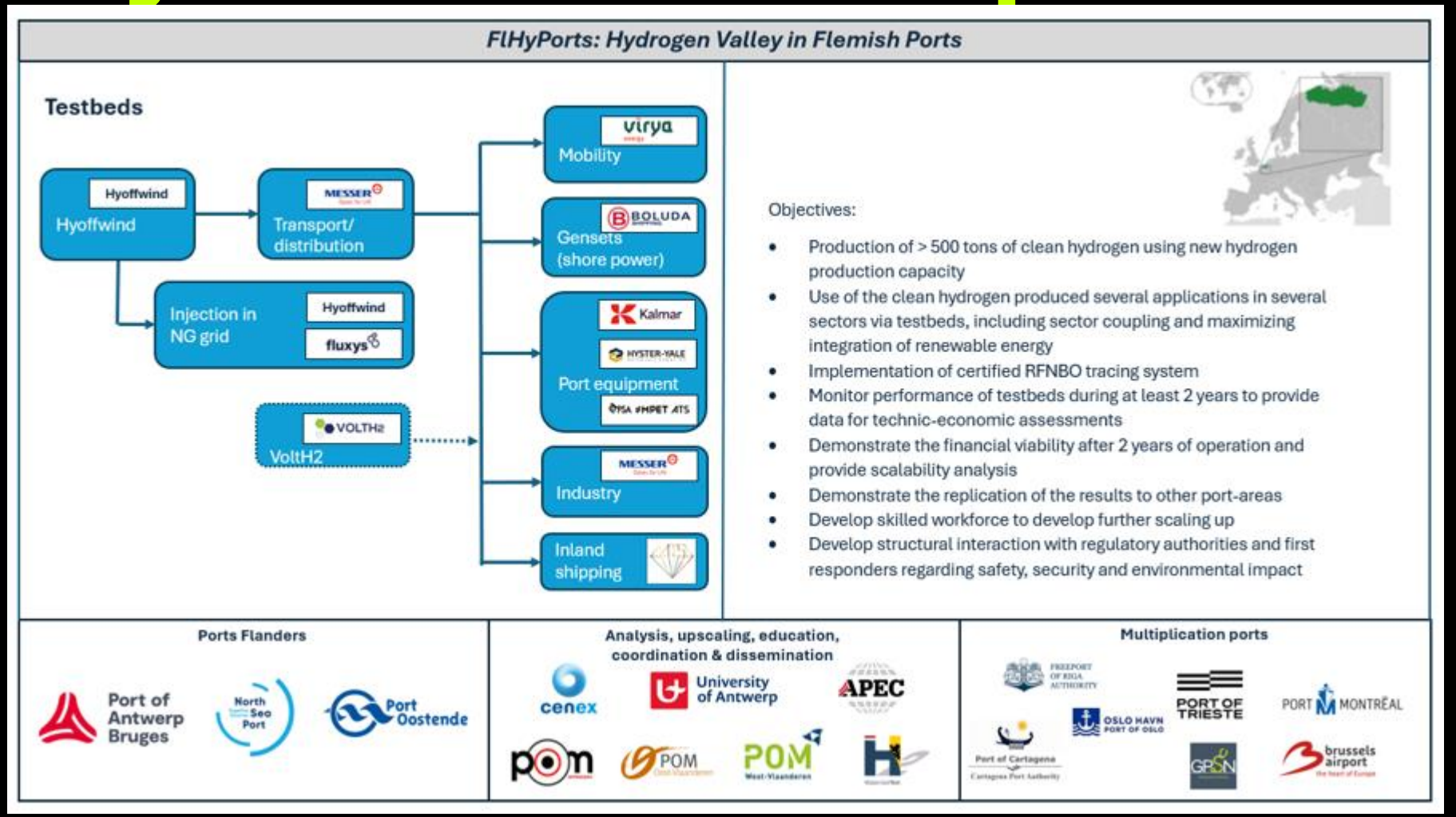
Starting point: activities/projects in/round ports



Focus to one H_2 production plant



FLHyPorts Concept



FLHyPorts : Combined financing

Project	Cost [M€]	Grants [M€]	Private Funding [M€]	Status
Hyoffwind electrolyser	80	30	50	FID 2024, under construction
FLHyPorts	12,1	8,9	3,2	
multipurpose fuelling				concept/permit ready
injection natural gas grid				concept/permit ready
distribution equipment				TRL 6 equipment
RFNBO-compliant tool				tool to be developed/certified
port equipment				TRL 6 equipment
gen sets /shore power				TRL 6 equipment
mobility/trucks				6 HRS operational
industry grey/green				existing end users
inland vessel				TRL 6 equipment
evidence based plans for: upscaling FLHyports area replication other ports education/civil servants				experienced partners
Total	**92,1**	**38,9**	**53,2**	**CHP funding (8,9 M€) required as 9,7% of overall budget, remaining budget is already committed**

Status: HyoffWind (25 MW electrolyser)

Interreg
Co-funded by the European Union
North-West Europe
ValHyCon

ValHyCon

"Interregionally connecting and upscaling Hydrogen Valleys for the North-West Europe area"

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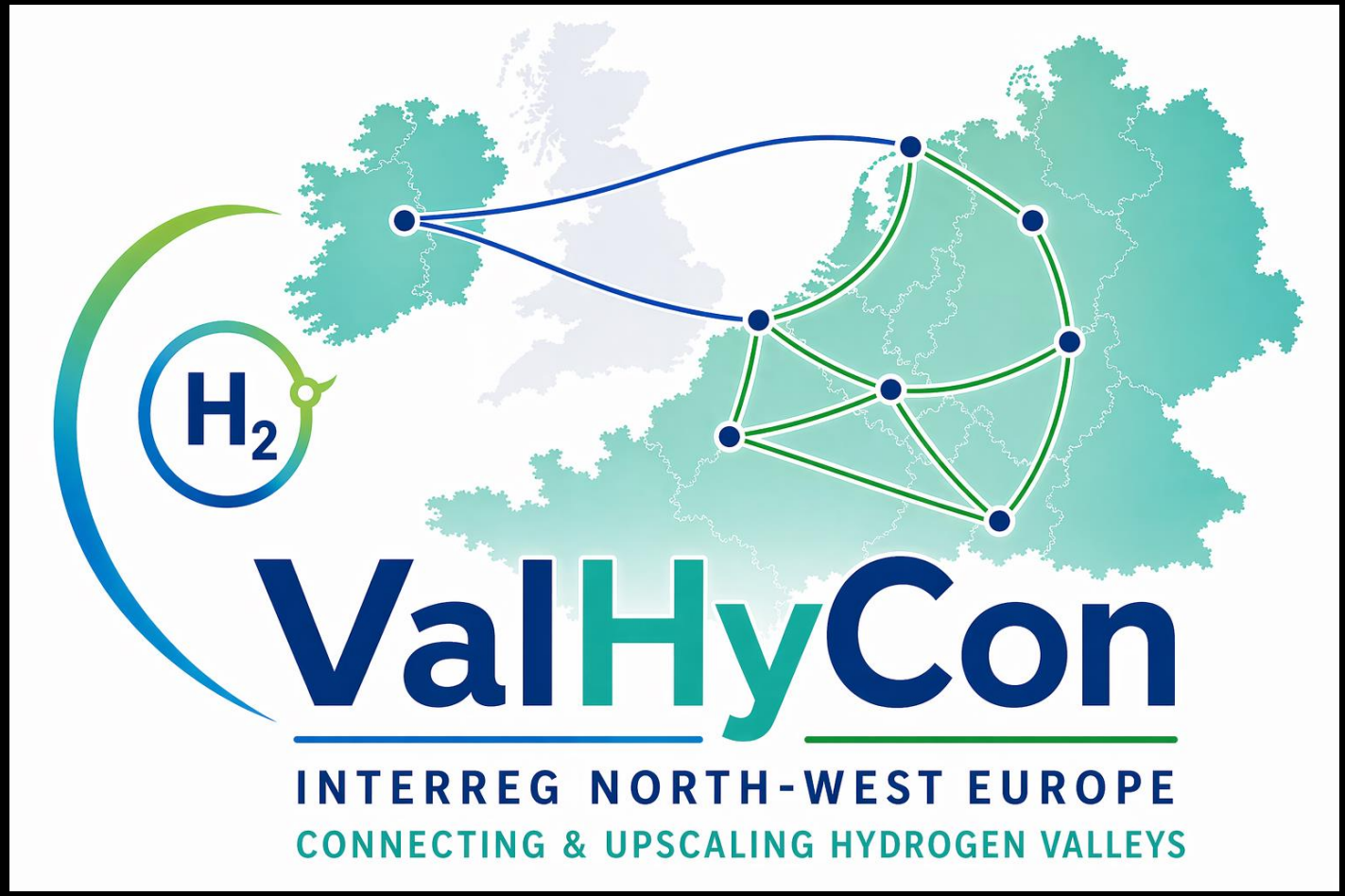
H2 Hydrogen Valley Estonia



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Connecting hydrogen valleys

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WaterstofNet	(B)	FLHyPorts
Cluster Tweed	(B)	Green WaHyVe
HyNorth	(NL)	HyNorth
Univ. Luxemburg	(Lux)	LuxHyVal
HyCologne	(D)	RheinRurh
H2Emsland	(D)	H2Emsland
Hydrogen Ireland	(IE)	SH2amRock
Pôlénergie	(F)	projects

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Hydrogen Valley Estonia

Looking forward

for sharing experiences

and collaboration

with Estonia

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Questions ?