



Co-financed by the Connecting Europe
Facility of the European Union

Op weg naar duurzame mobiliteit

Mede mogelijk gemaakt door:



Ministerie van Infrastructuur
en Waterstaat



TSO 2020: HYDROGEN REFUELING STATION

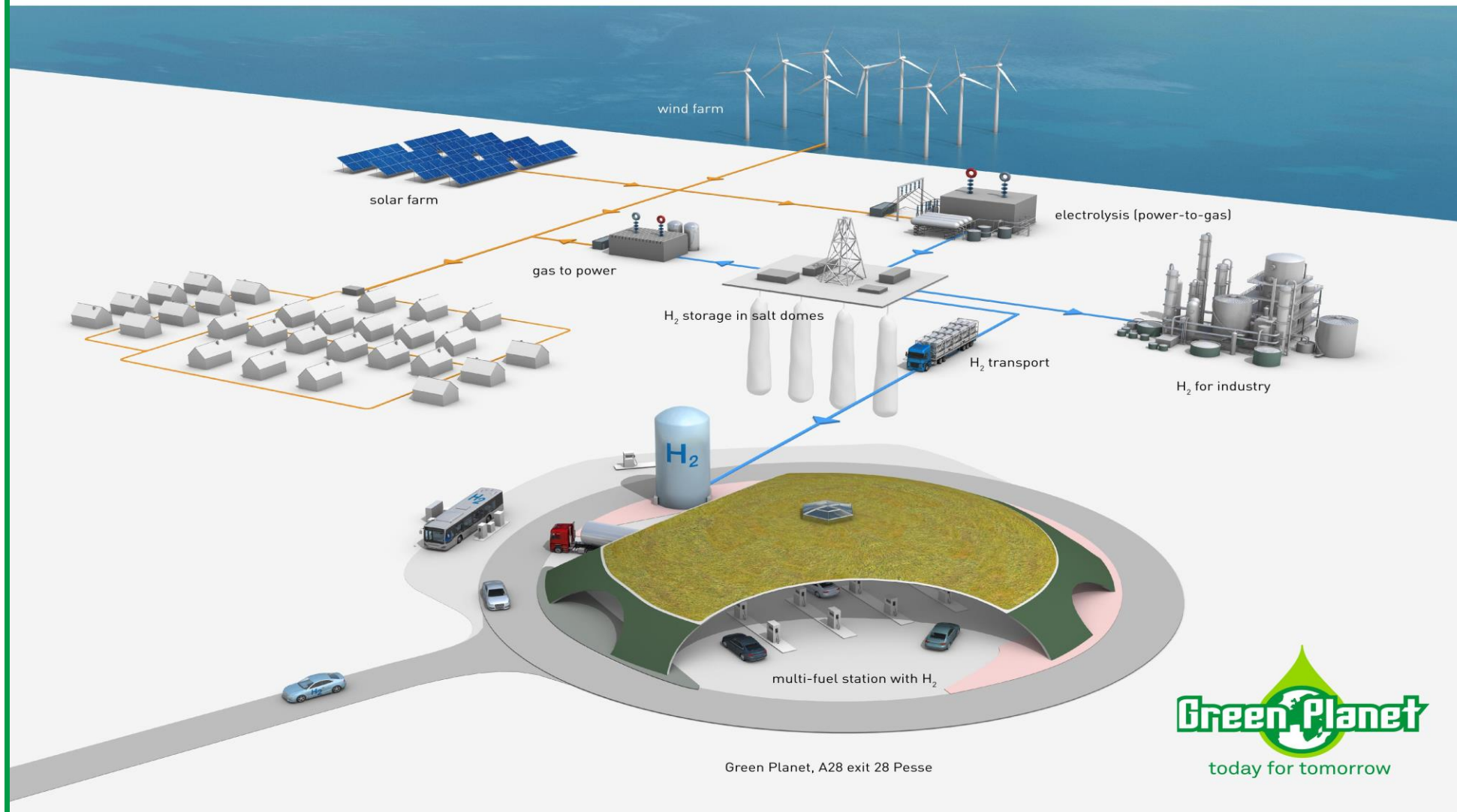
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OUR POSITION IN THE TSO 2020 PROJECT



GREEN PLANET - PARTNER IN TSO 2020 PROJECT

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Connecting Europe Facility



MAXIMATOR

Dispense pressure	700bar
Throughput capacity	50 to 80kg/hr @ low pressure supply (<100bar). Scaling up to more than 120kg/hr @ medium pressure supply (>250bar).
Filling capacity (700bar peak)	1 x 4kg car within 4 min then 3 min recovery time to be ready for next car (continuously).
Max. fill capacity (700bar)	7kg/ car (not continuously).
Dispenser	Shell design with Maximator valve arrangement.
Scale up	Easily scaling up by adding extra compressor, medium and high pressure storage and buffer capacity.



IN REALITY: SHELL POWER DISPENSER



IN REALITY: HYDROGEN REFUELING STATION



IN REALITY: HRS MACHINES INSIDE OUT

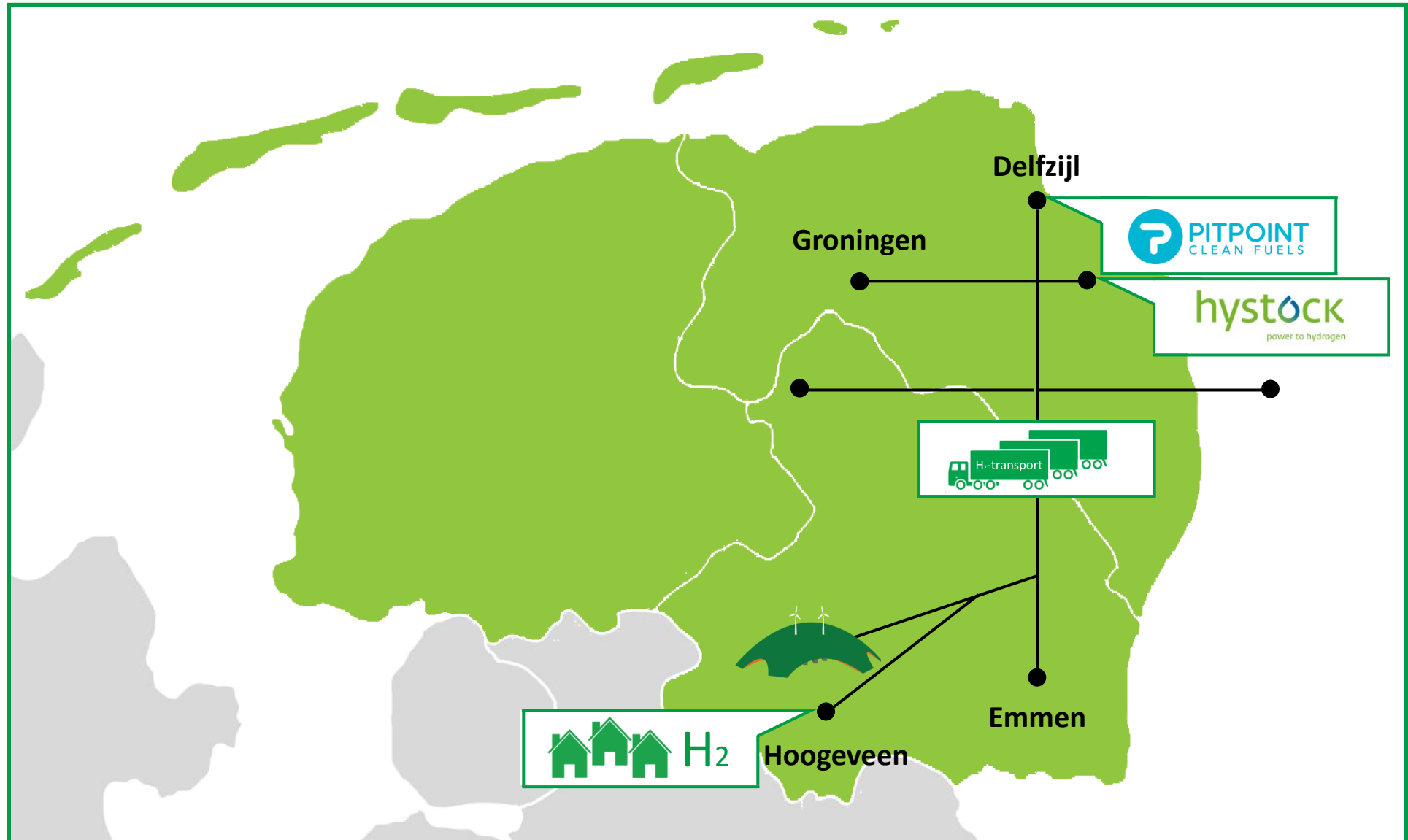




TSO 2020: H₂-HUB DELFZIJL

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HYDROGEN TRANSPORT & STORAGE



IN REALITY: H₂-TRAILERS



PARTNERSHIP WITH VREDEVELD TRANSPORT COMPANY



IN REALITY: LOADING H₂ AT PITPOINT DELFZIJL



IN REALITY: LOADING H₂ AT PITPOINT DELFZIJL



IN REALITY: DELIVERY H₂ AT GREEN PLANET





CONCLUSION

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TSO 2020 GIVES US OPPORTUNITIES

Knowledge absorbtion in collaboration with many partners:

1. The development of the hydrogen market and the proposition of Green Planet
2. Hydrogen station providers
3. Permits and safety regarding hydrogen
4. The realization of a hydrogen station
5. Hydrogen trailer providers
6. Safety and certifications regarding hydrogen transport (ADR)
7. Hydrogen quality

KNOWLEDGE DISSEMINATION

Knowledge dissemination by:

1. Press releases
2. Publications in trade journals
3. Webinars
4. Meetings
5. Guided tours (post Covid)

MANY THANKS TO:



Ministry of Infrastructure
and Water Management



gasunie
crossing borders in energy



MAXIMATOR®
Maximum Pressure.



Zuidema 
GROEP



VREDEVELD
Group



SPECIAL THANKS TO:



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Rijksdienst voor Ondernemend
Nederland



Thank you for your attention!