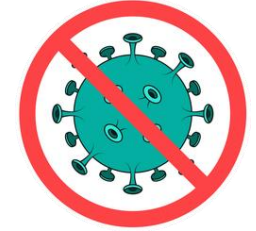


WIC MEETING SEPTEMBER 8, 2021

Welcome to the WIC meeting!



Welcome to our digital WIC meeting!



A few game rules:

✓ Mute yourself but you can use camera



✓ Ask your questions in the chat



✓ You can use mic/cam in the question round



AGENDA

New members

10.00 – 10.40 AM : Presentation new members: ERIKS, Linde Gas, Verwater, Universiteit Antwerpen, Jan De Nul, WDP

Guest speakers

10.30 – 10.50 AM : The Dutch approach towards hydrogen and mobility (Alexia Michel, IenW NL)

10.50 – 11.10 AM : Activities & collaboration with WIC (Filip De Weerd, Flanders Investment & Trade)

11.10 – 11.30 AM : Port of Rotterdam as an EU hydrogen hub (Randolf Weterings, PoR)

General WIC info

11.30 – 11.50 AM : News from the cluster

11.50 – 12.00 AM : News from cluster members

PRESENTATION NEW CLUSTER MEMBERS



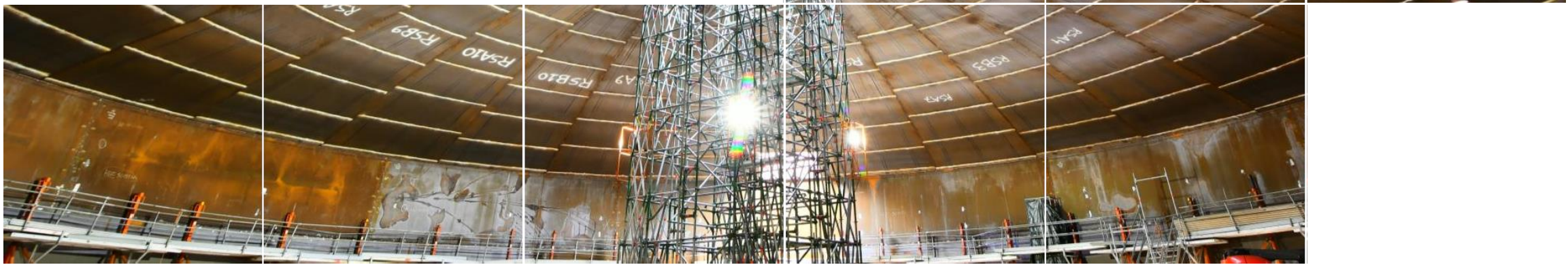
Making our world
more productive



**Presentations new
members**



***VERWATER
COMPANY PRESENTATION***



Content Verwater company presentation

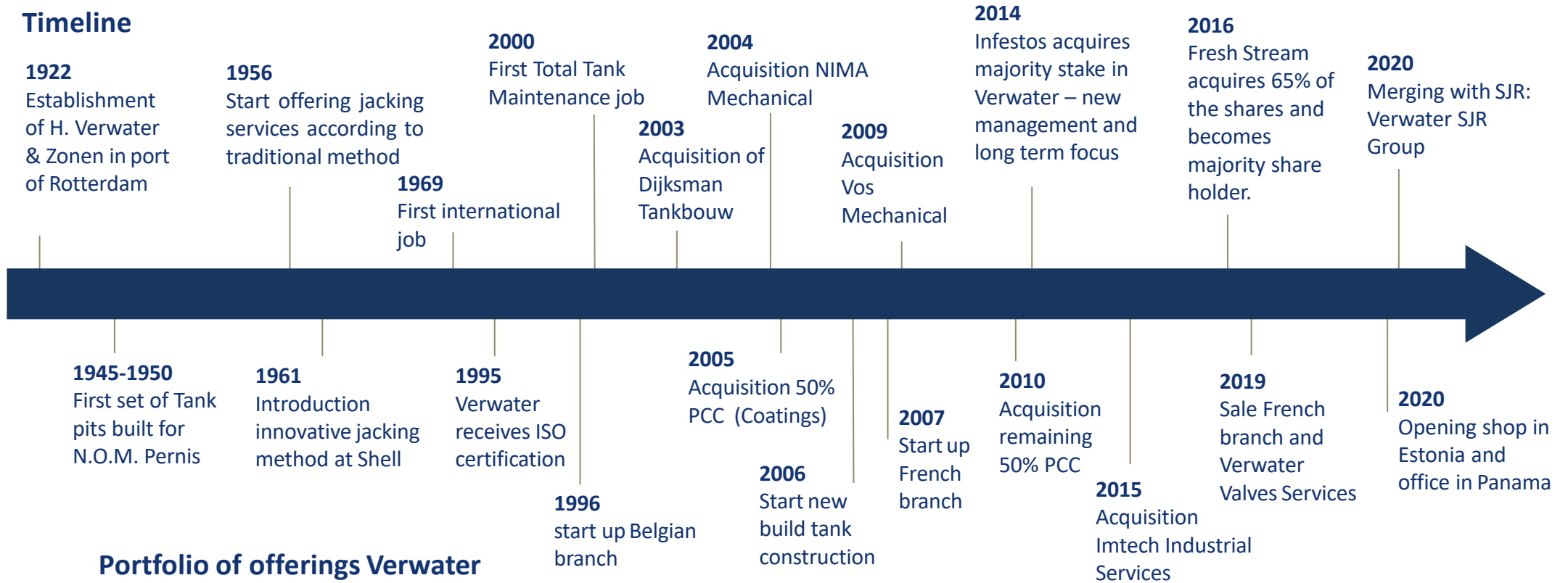
- History
- Overview of our Services
- Detail of Tank Maintenance approach and services
- General Maintenance Management
- References EPC Projects

HISTORY



Over the years we built a portfolio of multiple service offerings

Timeline



Portfolio of offerings Verwater



From our global offices we meet the highest demands of projects wo

- Locations in the Netherlands (HQ), Belgium, Estonia, Louisiana, Singapore, Panama and Oman
- Annual turnover of €180.000.000
- Appr. 1.200 experienced people are working for us globally



***OVERVIEW OF
OUR SERVICES***



We offer a unique kind of in-house services



Tank Maintenance



Piping & Mechanical



Tank Construction



Engineering



Civil



Hydrocutting



Tank Jacking



Electrical & Instrumentation



Tank Relocation



Engineering & Automation

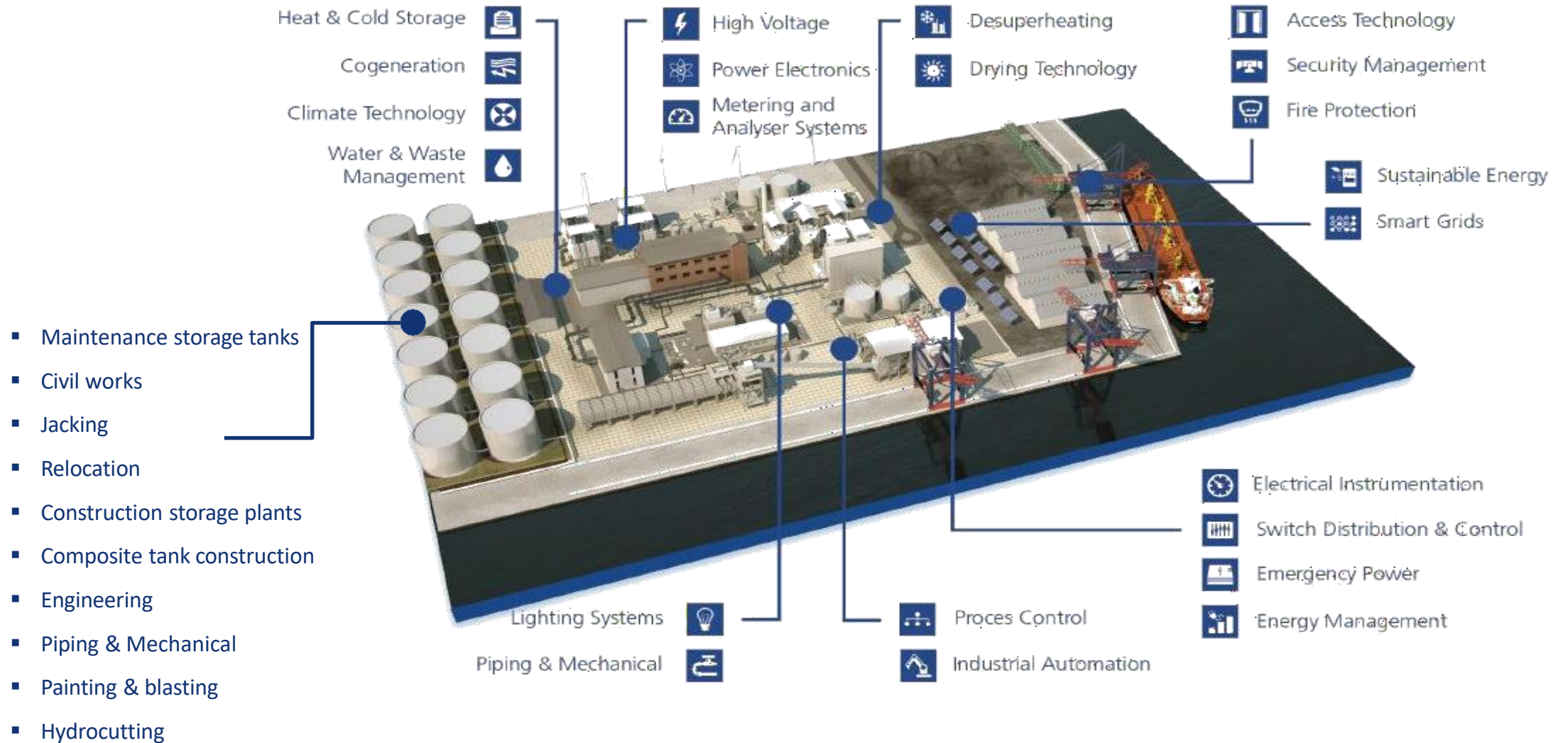


Protective Coating



Panelbuilding

Our offering



***OVERVIEW OF
OUR SERVICES***



Verwater + hydrogen

- Invest in sustainable energy sources
- Assist our valued clients in their energy storage transition
- Looking to develop efficient hydrogen storage
- Provide innovative storage solutions for the future

END



Hydrogen Short Overview Presentation

LOHC General – Findings from Review Paper

- **Hydrogen Storage Capacity : medium density / efficiency compared to others**
- **Easy long term storage**
- **Easy to cycle**
- **Readily available infrastructure for transport**
- **Use for large scale applications → Reactor systems + heat required**
 - Trains
 - Ships
 - Supply system for hydrogen fuelling stations



Reactor Technology

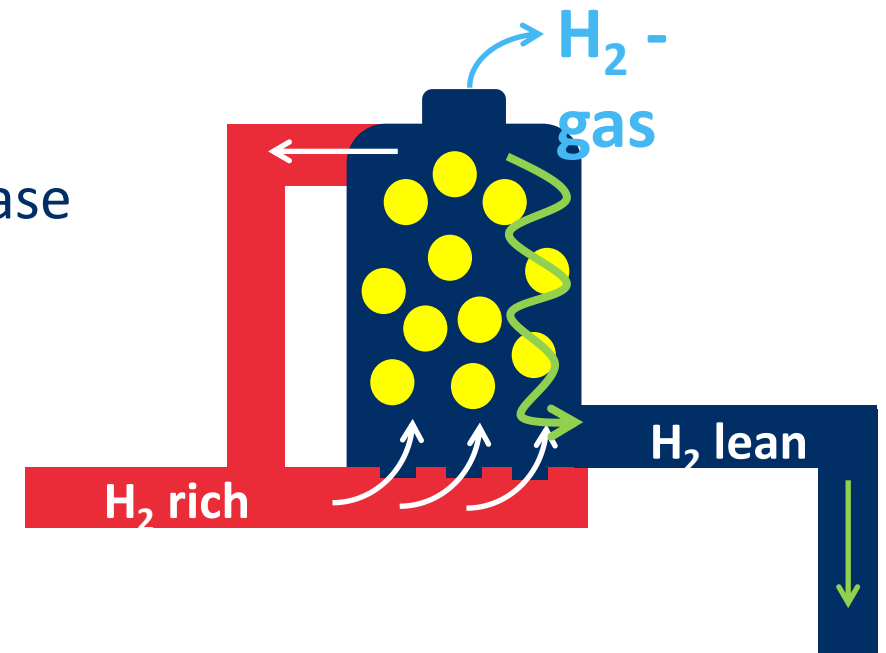
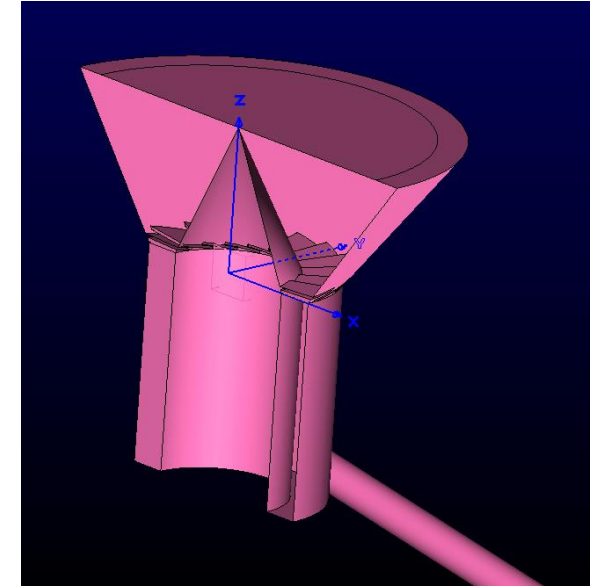
▪ Reactor Engineering using CFD

- High contact between catalyst and reagent
 - 1 PhD running
 - 1 PhD starting October
 - 1 Master Thesis Starting February

▪ Electrification of Chemical Reactors

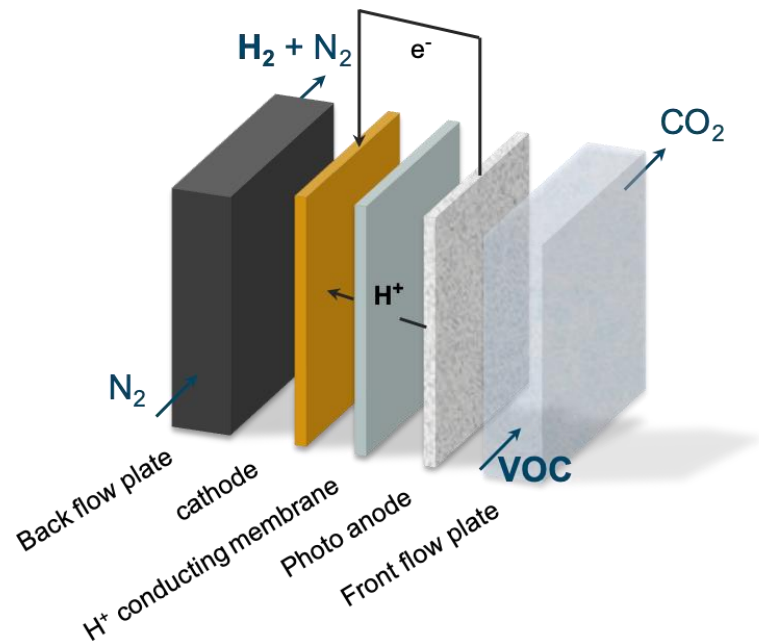
- Test Project Electrically heated reactor for H₂ release from Formic Acid

▪ Reactive Distillation

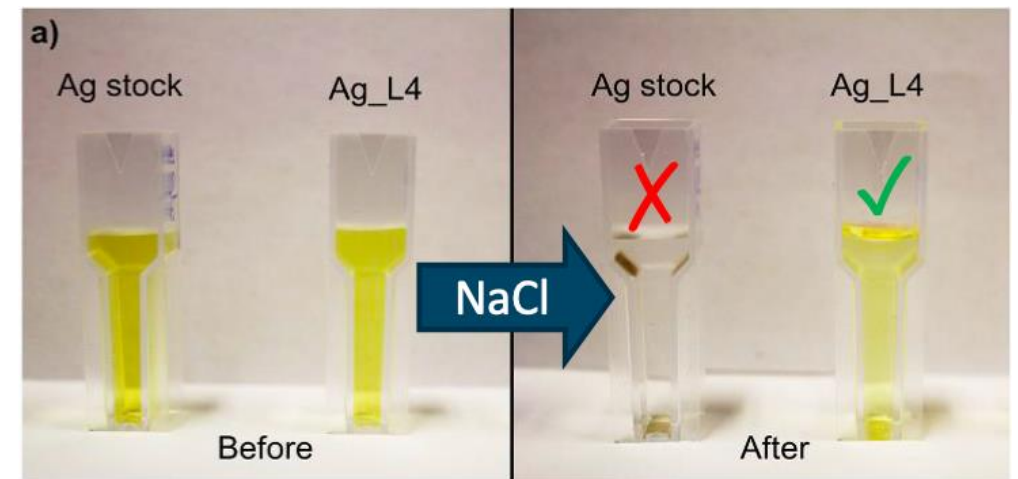


Emerging solar-driven H₂ Production Technologies

- H₂ recovery from waste
 - Degradation of organic waste at the photoanode
 - H₂ formation at the cathode
 - Sunlight as sole energy input



- H₂ production from seawater
 - Water splitting in the presence of salts
 - Focus on photocatalyst compatibility (solar response and stability)



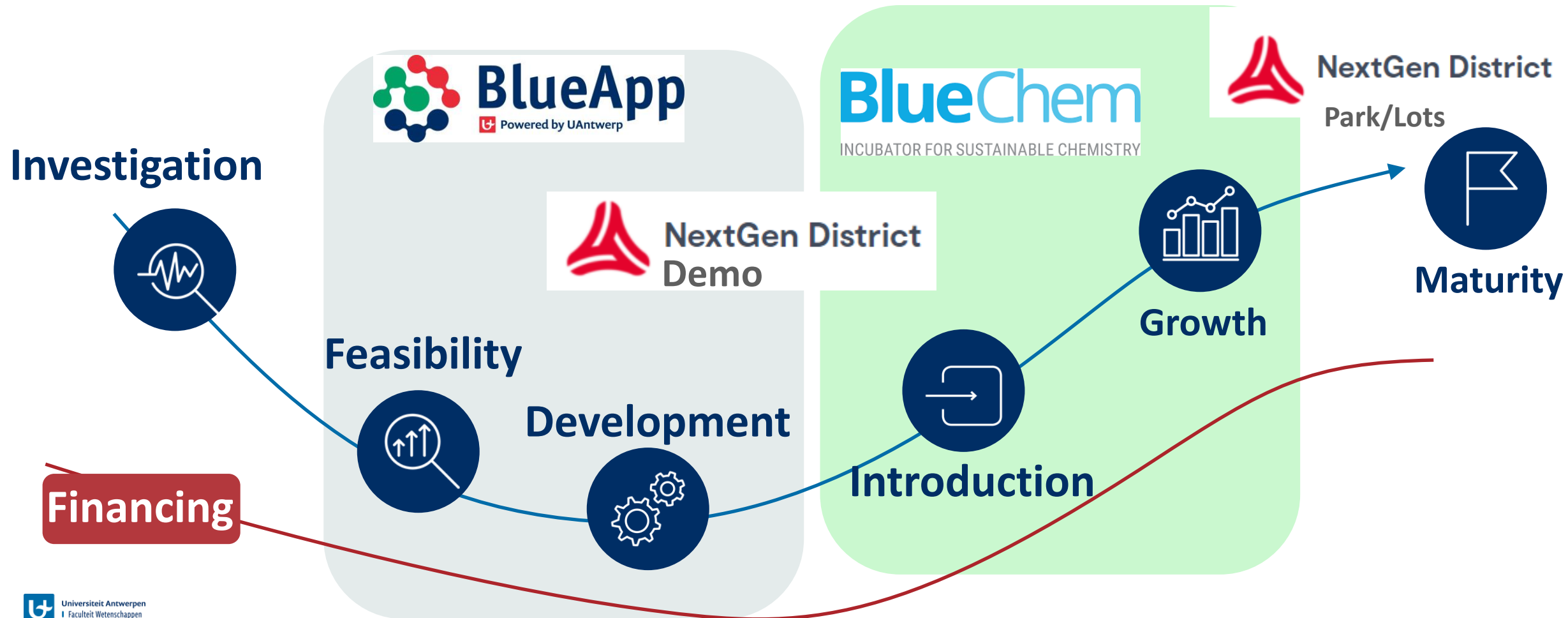


Electrolysis and plasma-based hydrogen production

- Tackle power usage of electrolysis by optimizing reactor design: structured 3D electrodes
 - High surface area and structured geometry, a reduced ohmic resistance, an efficient bubble release, a small pressure drop and a uniform current distribution
- Various plasma reactors for CH_4 (or other hydrocarbon, or biogas) conversion into H_2 and C

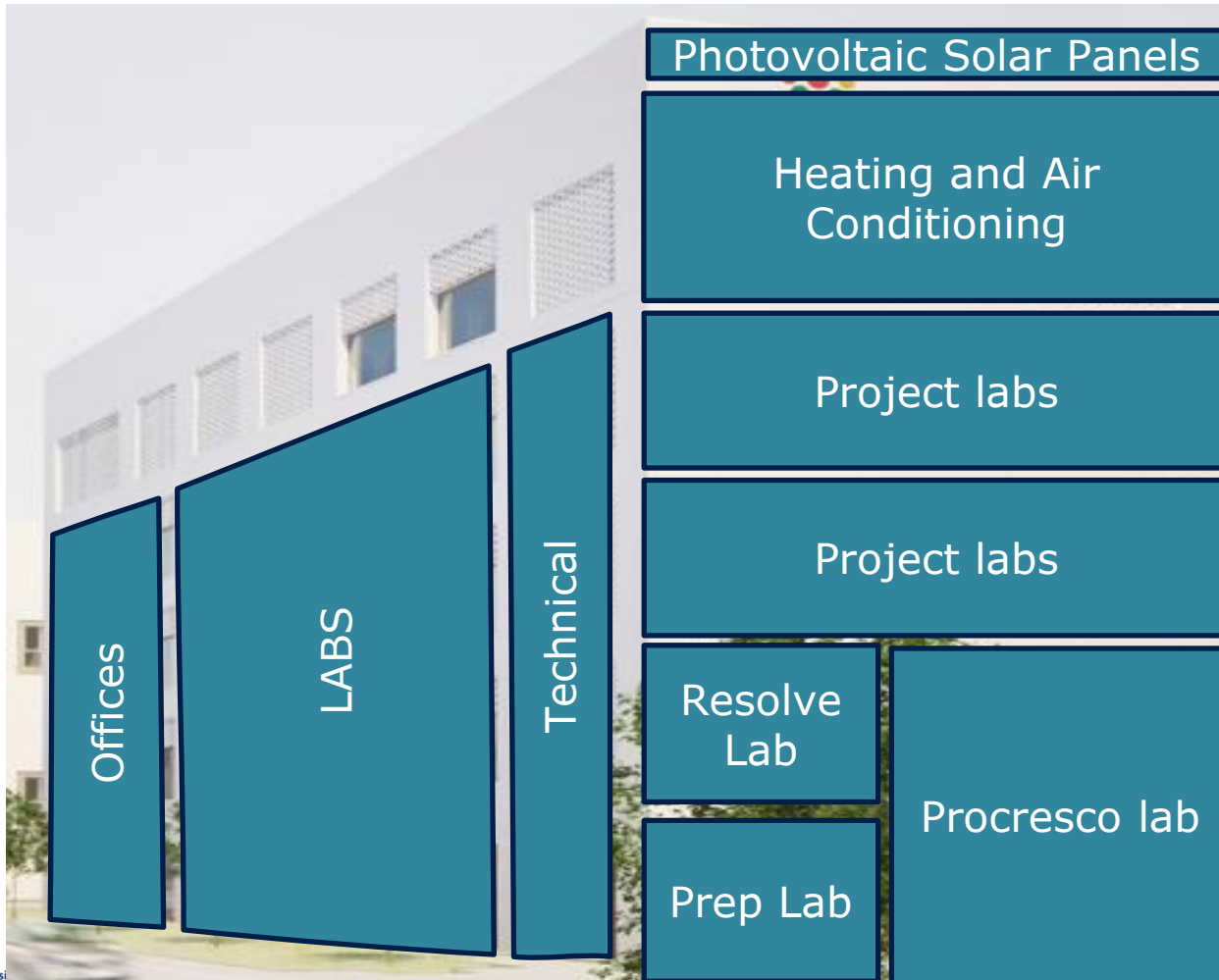
BlueApp

The Antwerp region takes action to close the innovation gap



BlueApp

Infrastructure for an inspiring workplace



- **Project lab (1470 m²):** entrepreneurs in sustainable chemistry.
- **Pilot facility (400 m²):** from lab-scale to production – ceiling height up to 7m
- **Prep lab (110 m²)**
- **Resolve lab (340 m²):** analytical lab to support R&D



Waterstofnet

Company introduction

8 September 2021

Jan De Nul at a glance.



Offshore Energy.

Full balance of plant, design, installation and cable connections of all aspects of offshore energy projects.



Marine Works.

Concept realisation, design, expansion and maintenance of ports, rivers and coastlines.



Civil & Industrial Constructions.

Design and construction of onshore infrastructure, buildings, industrial installations and foundations.



Circular Solutions.

The answer to environmental issues. Reconversion of sites, remediation and maximal valorisation and reuse of sediments.



**Total solution
provider.**



**Global
experience and
family owned.**

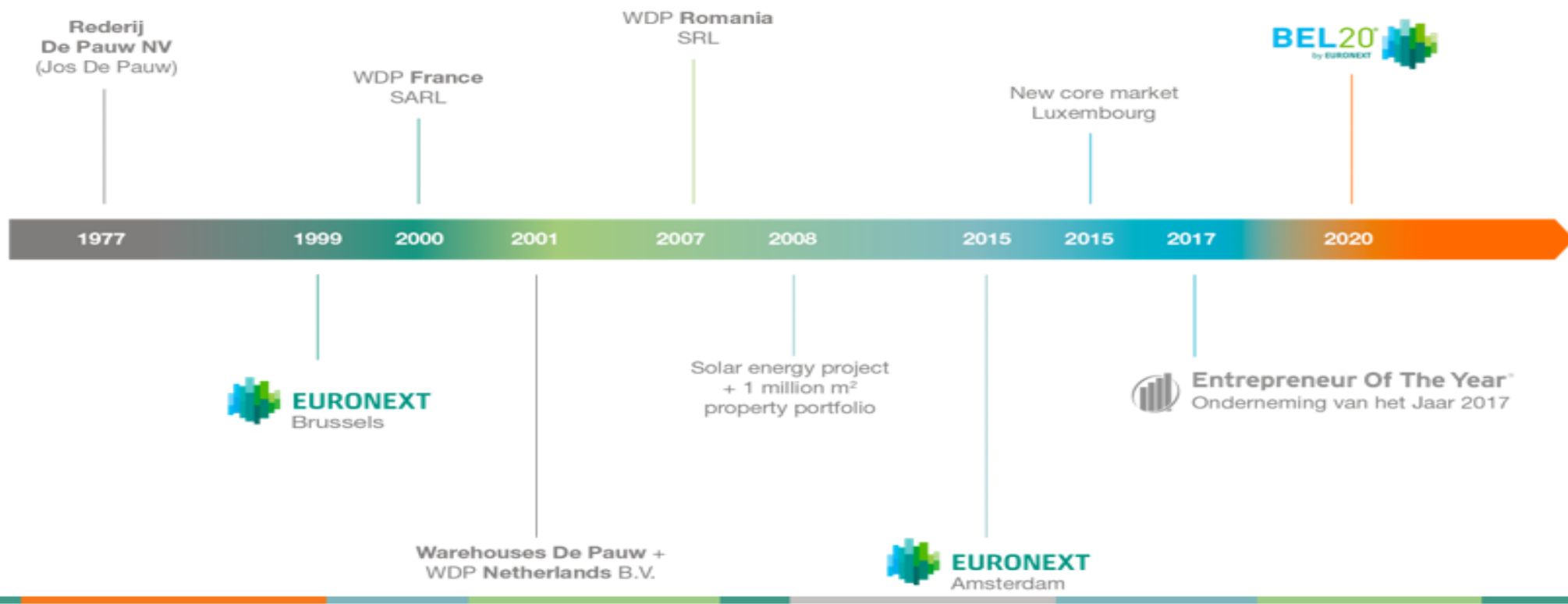
INTRODUCTION

About WDP

- Established in 1971.
- Own, develop and manage logistics and semi-industrial property.
- The family character of our company and values are the hallmark of our commitment.
- Rental market leader for business and warehouses space in the Benelux region.
- Our main fields of operation are in The Netherlands, Belgium, North of France, Romania, Germany and Luxembourg.
- WDP has been listed on the NYSE Euronext stock exchange since 1999.
- Fair value of property at 1-1-2021 > EUR 4,765.5 million



SOME MILESTONES



INFRASTRUCTURE

MULTIMODAL

CONSUMER

> 6,100,000 m² warehouse space





PROJECTS IN EXECUTION



Wehkamp Zwolle

E-commerce



AUTOMATED

E-COMMERCE

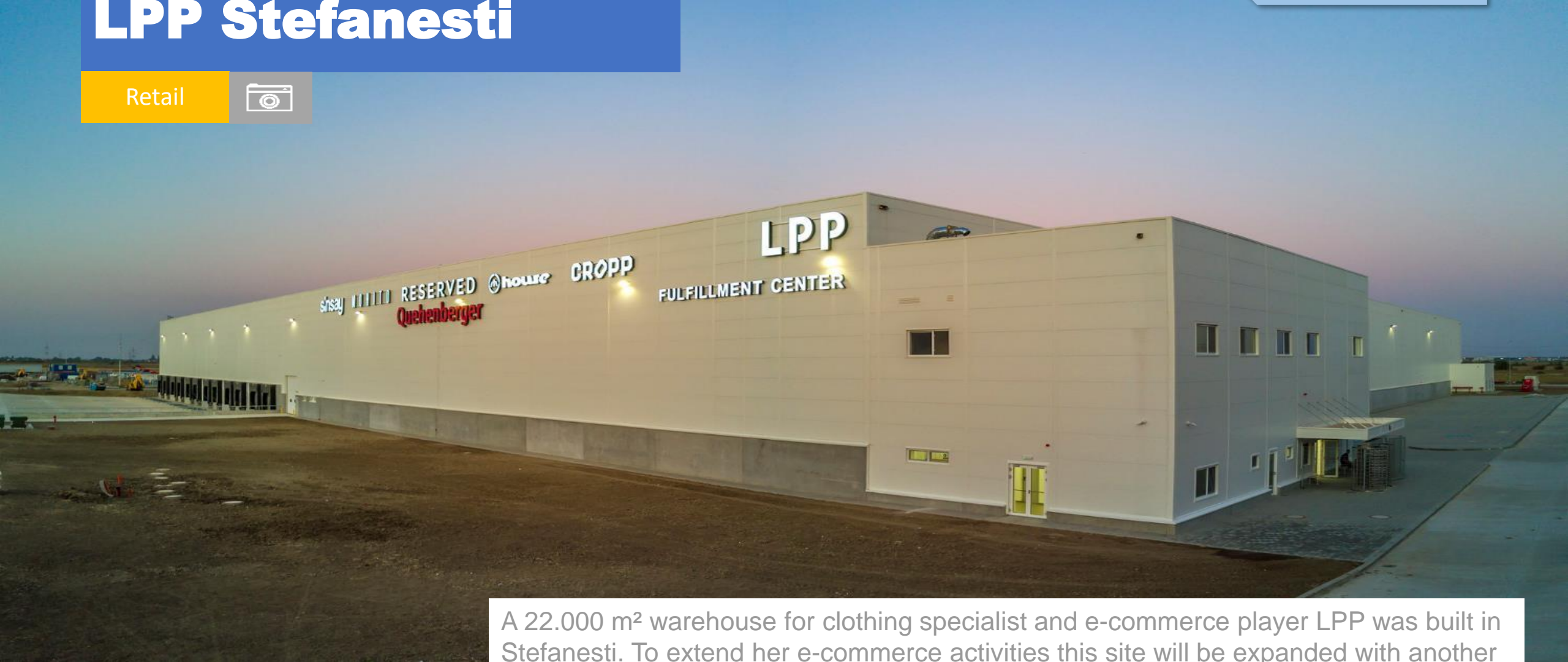
When this fully automated 53,000 m² e-commerce distribution centre for Wehkamp in Zwolle opened its doors, it was by far the largest of its kind. The building is BREEAM EXCELLENT certified and later expanded with another 57,000 m² warehouse. With its 10,000 m² mezzanine, luxurious finishes and impressive KNAPP installation, this distribution centre is a paragon of ambition and efficiency.

LPP Stefanesti

Retail



E-COMMERCE



A 22.000 m² warehouse for clothing specialist and e-commerce player LPP was built in Stefanesti. To extend her e-commerce activities this site will be expanded with another 22.000 m² with expected delivery in Q3 2021.

BIG BOX Ghent

Retail



A multi-tenant distribution centre covering approximately 150,000 m² will be added to the WDPort of Ghent multimodal logistics park at North Sea Port. Retailers X2O Badkamers, Overstock Home and Overstock Garden have committed to a long-term lease.

Barry Callebaut Lokeren

Food



AUTOMATED

°T CONTROLLED

BREEAM

The brand-new global distribution centre for chocolate producer Barry Callebaut in Lokeren is an exceptionally ingenious, one-of-a-kind project. With over 60,000 m² of surface, this will be the largest chocolate warehouse in the world! The BREEAM OUTSTANDING certified facility, equipped with a low bay and a fully automated high bay with controlled temperature, is also fitted with large quantities of solar panels for maximum sustainability. For an optimal use of space, the building was vertically integrated. With ceilings reaching up to 40 metres, this high-rise has room for over 83,000 pallet spots.

Decathlon Stefanesti

Retail

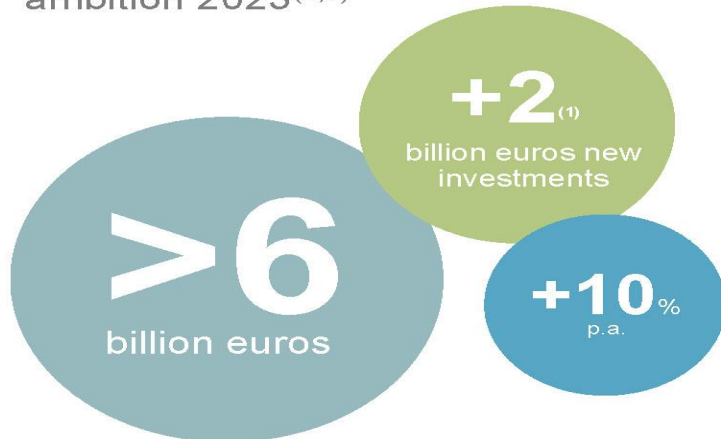


This 21,000 m² omni channel distribution centre for Decathlon is the linchpin of the number-one sports equipment retailer in Europe. This warehouse was built with close attention paid to the slightest detail, fully in keeping with the client's corporate identity. Currently expanded with another 10,000 m² with expected delivery in Q1 2021.

Growth plan 2019-23

Towards a 6bn portfolio

Property portfolio ambition 2023^(2,3)



EPRA EPS ambition 2024^(2,3)



DPS ambition 2024^(2,3)



- (1) Investment volume to be realized i.e. excluding portfolio revaluations and referring to the net effective economic interest of WDP (i.e. excluding minority interests and including the proportionate share in joint ventures). The targeted investment volume in the 2019-23 growth plan amounts to 2.0 billion euros by the end of 2023 – implying that the envisaged investment will have grown within the balance sheet by then and the annualised impact on the EPRA Earnings per share is expected in 2024.
- (2) WDP sees support to realise its 2019-23 business plan – for which it is well on schedule – based on the present rhythm of identifying new investments. This rhythm is also necessary in terms of the focus on pre-let projects and following the increased complexity and longer delivery period of some projects.
- (3) These profit forecasts are based on the current knowledge and situation and barring unforeseen circumstances (such as the further evolution and consequences of the COVID-19 pandemic).

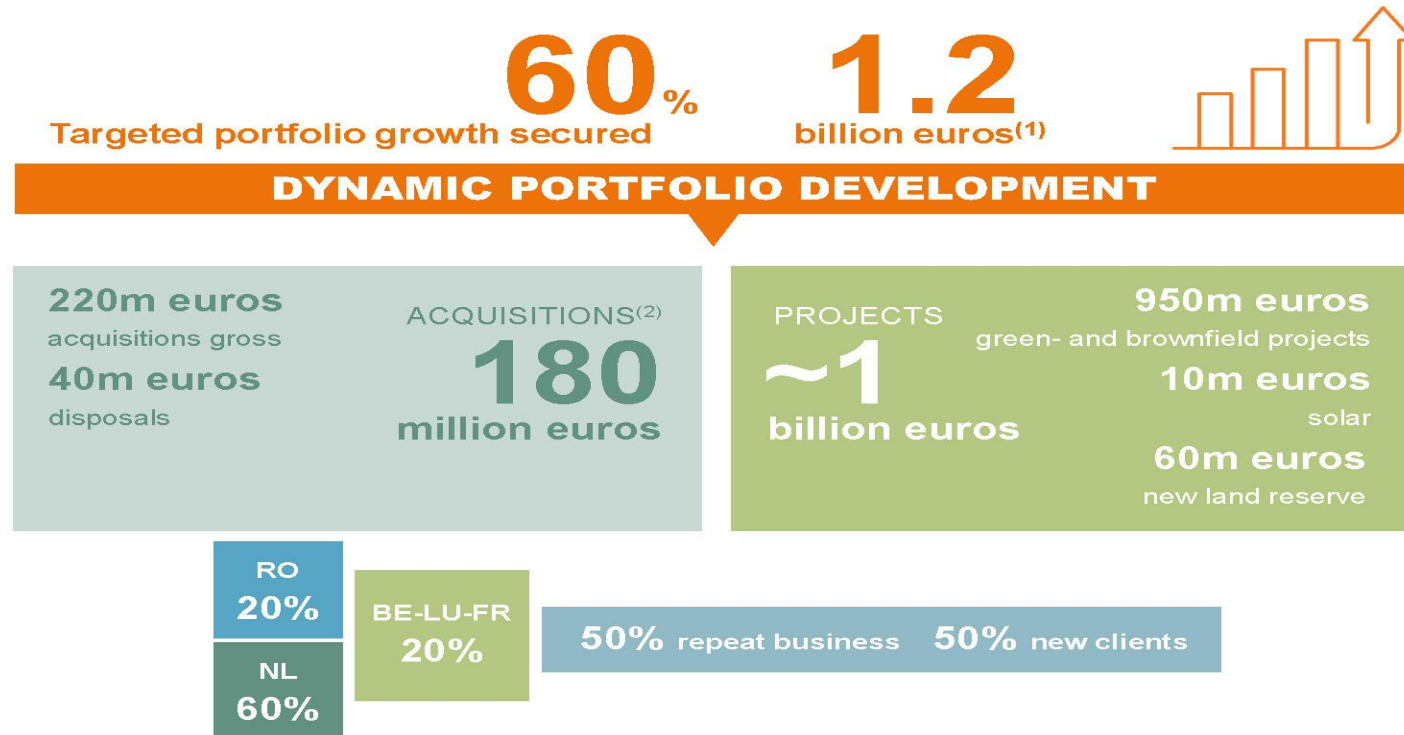
BASE YEAR 2018

- ✓ EPRA EPS: 0.86 euros
- ✓ Portfolio: 3.5bn euros
- ✓ DPS: 0.69 euros

Roll-out scorecard growth plan as of HY 2021

Towards a 6bn portfolio in 2019-23

5Y GROWTH PLAN



(1) The package of 1.2 billion euros in investments (out of the envisaged 2 billion euros) refers to new projects and acquisitions identified within the context of the recently upgraded growth plan 2019-23. These are secured investments which are already reflected in the balance sheet or those in execution.

(2) Net of disposals.

WDP's journey on ESG

Goals for WDP's corporate social responsibility



ESG Framework

ESG Roadmap 2019-23

ESG

2018

2019

2020

2021

2022

2023

S

#TeamWDP training and development
ESG KPI for each team member
Attraction of talent
HSES
Charity
Digitisation



Stakeholder engagement

S

G

Employee Code of Conduct
From Comm. VA to NV/SA

G

Supplier Code of Conduct
Grievance mechanism

Compliance training

G

E

80MWp solar energy
Energy monitoring system
Green financing



Climate Action plan

E

100MWp solar energy
Alignment with
EU Green Deal

Ratings and indices

Progress status and future ambition

	2019	2020	Ambition
Corporate ratings	 BB Dec 2018	BBB ▲	A
	 Not Prime D+	Not Prime C- ▲	Prime C
Index	 22/100	42/100 ▲	Inclusion

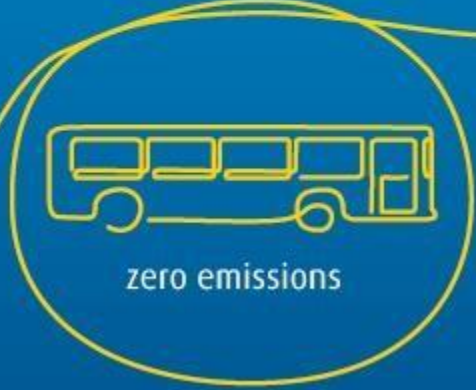


THANK
YOU



This is right now.

LINDE
HYDROGEN





Waterstofnet cluster WIC

8 September, 2021

Pieter den Hooglander – Business Development Manager Green Hydrogen, Onsite and Tonnage

T: +31(0) 6 4887 04 22

E: pieter.den.hooglander@linde.com

THE LINDE GROUP

Linde

Introduction to Linde

THE LINDE GROUP

- * The leading industrial gases and engineering company
- * Formed in 2018 with the merger of Linde AG and Praxair, Inc – two world-class companies with nearly 140 years of shared history and successful achievements
- * Proven critical project execution knowledge in diverse geographies
- * Best-in-Class Safety Performance

One Linde

Uniting with a shared Vision, Mission and Strategic Direction, and demonstrating our Values and Behaviors in everything we do

2 million+ customers

Establishing a more diverse and balanced portfolio

- * Linde Gas Benelux is headquartered in Schiedam
- * ~220 employees
- * Production facilities and offices in Ijmuiden, Rotterdam Botlek, Eindhoven, Hedel, Dieren, Grimbergen and Namen

100+

countries

Enabling strong, complementary positions in all key geographies and end markets

~80,000 employees

Achieving our full potential, individually and collectively

\$27 billion

Reported sales in 2020
With 7% represented by hydrogen

6,500+

active patent assets worldwide

Leading with innovative products, solutions and technologies



RECOGNITION

MEMBER OF

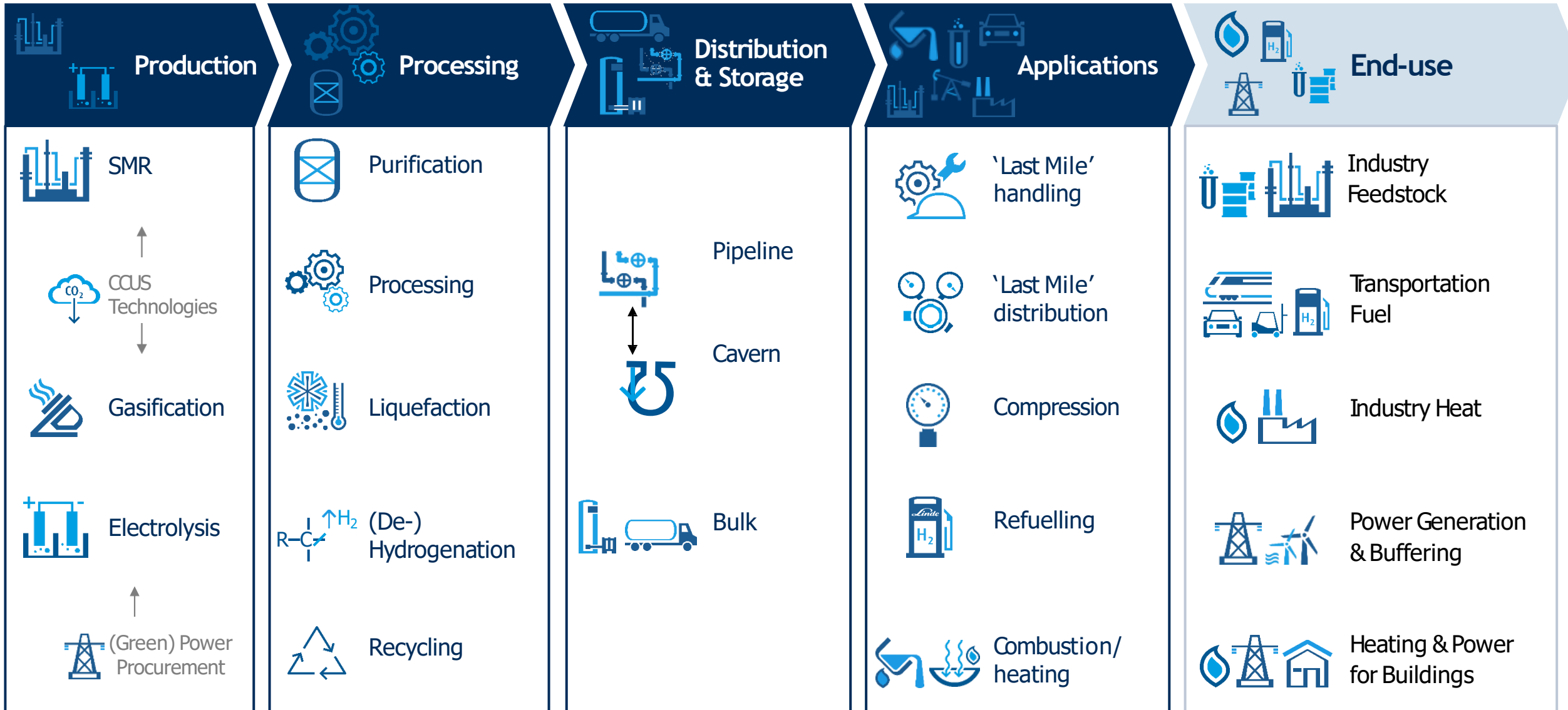
Dow Jones Sustainability Indices



EXCELLENCE Europe



Linde's capabilities today: experts in H₂ production & handling technologies.
 Well prepared – missing link closed for green H₂ production.



Unrivalled H2 network: global reach, strong local presence

From production



Operation of **150+** steam methane reformers and PSAs

80+ electrolyzers installed

Joint Venture with ITM Power providing PEM electrolysis plant solutions

Through processing



Largest H2 liquefaction capacity in the world with 170 tons/day

Vast experience in **H2 compression 40+** installed

To storage and distribution



1600+ Liquid and Gaseous H2 trailers

200+ Liquid and Gaseous H2 refueling stations

1000+ km H2 pipeline

World leader in cryogenics. **20,000+** cryogenic tanks supplied*

Solutions for **on-site production**

* more than 20,000 cryogenic tanks for liquefied gases supplied since 1960

Gearing up for clean hydrogen

How Linde supports customers and industry partners



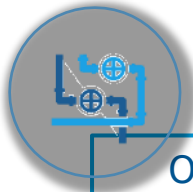
Hydrogen production with electrolysis

Global green gas solutions at industrial scale using ITM Power's modular PEM electrolysis technology and Linde's world class EPC expertise and technologies.



Renewable energy storage

Experienced partner in the development of energy parks. Operating the first commercial high-purity H₂ cavern for over a decade.



Infrastructure

Over 1000 km of H₂ pipeline. Decades of experience in operating high-purity, high-pressure H₂ pipelines. Largest global hydrogen liquefaction capacity and distribution fleet of liquid and gaseous trailers.



Hydrogen Refueling Stations

Highly efficient and fast fueling concepts for cars, trucks, trains, forklifts and buses. Worldwide leader in installed H₂ refueling stations.



Carbon capture, utilization and storage

Linde offers proven CCUS technologies and is part of numerous R&D alliances to leverage government funding.



Industry feedstock

Trusted supplier of heavy industries, such as steel, chemicals and refining, Linde is well equipped to support the transition to a low carbon production.

ITM Power - relationship at a glance

Jointly getting ready for market ramp-up in green H₂

GLOBAL
GREEN GAS
SOLUTIONS

ITM LINDE ELECTROLYSIS



- ITM Power specialise in the manufacture of integrated hydrogen energy systems
- Founded in June 2001
- ~180 FTEs
- Factory for 1,000 MW annual output, with first phase of 300 MW p.a. production started 2021



Linde's role:

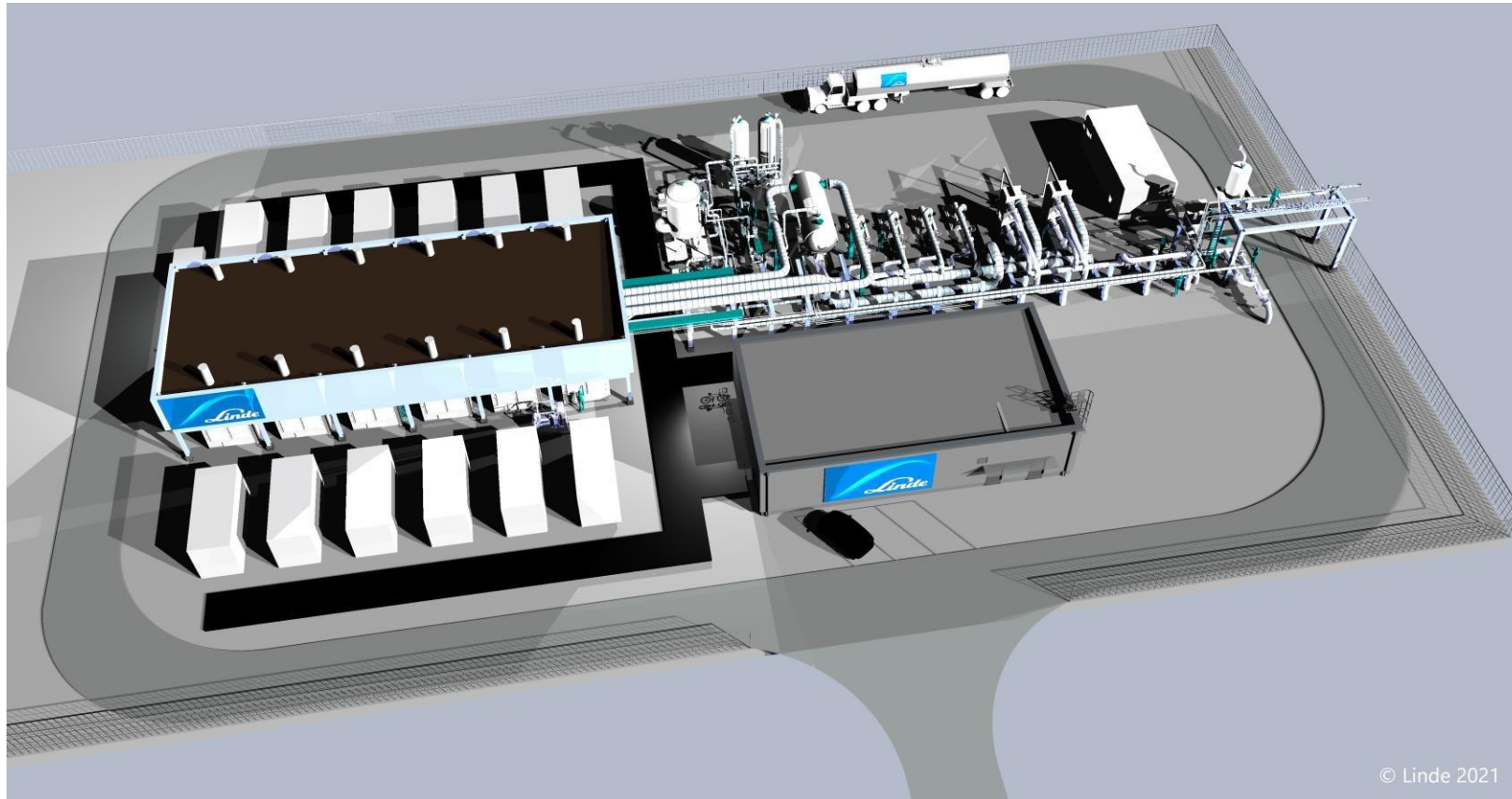
- 20% minority share
- 50/50 JV with ITM Power on market & project development, feasibility studies, proposals & sales, and project mgmt. coordination relating to EPC projects in market segments mobility, refinery, steel, chemistry and other Power-2-X, and preferred supplier for Linde Gas

ITM Power - relationship at a glance

First success story in green H₂ partnership



- Construction of the worlds largest PEM electrolyzer 24mW at Linde's industrial park at Leuna Chemical Complex, Germany
- Operational in 2022
- Supplying green gaseous and liquified H₂, avoiding up to 40.000 MT CO₂e per year



Linde Hydrogen Fueltech for hydrogen mobility

Decarbonize transportation.



Linde subsidiary (100%), supplier of hydrogen infrastructure solutions
 → reliable H2 supplies through state-of-the-art fueling station systems



Compression
(ionic compressor)



Pumping
(cryo-pump)



Stand-alone dispenser
(350/700 bar)



Integrated dispenser
(700 bar mobile fueling)



Service/Maintenance
(smart operation)



✓ >200 fueling stations installed worldwide

✓ Supplier of the world's biggest hydrogen bus depot in California

✓ >1.5 million fuelings of cars, buses & forklifts

✓ Supplier of the world's first H₂ station for passenger trains



Supply for H₂ cars



Supply for H₂ busses/trucks



Supply for H₂ forklift trucks



Supply for H₂ trains

About Linde Hydrogen FuelTech GmbH

Solutions and services to enable H2 mobility projects worldwide



About Linde Hydrogen FuelTech

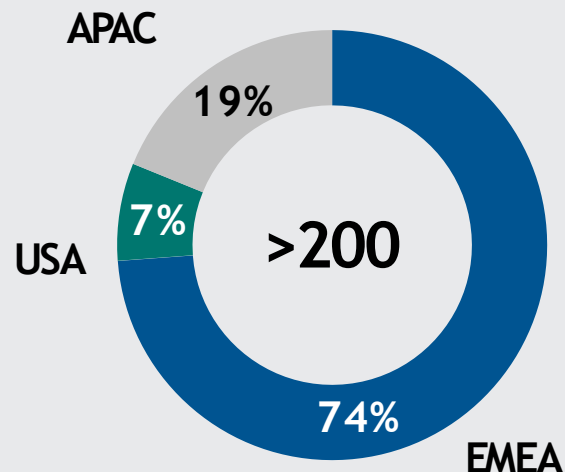
Experience: +15 years of technology development

Products: H₂-refueling systems (HRS) & services

Scope of work: Development of key components, process & system design, manufacturing, installation & commissioning, after sales services

Manufacturing Locations: Germany, Austria and China

Number of Linde HRS installed



Best in class - Out of experience!



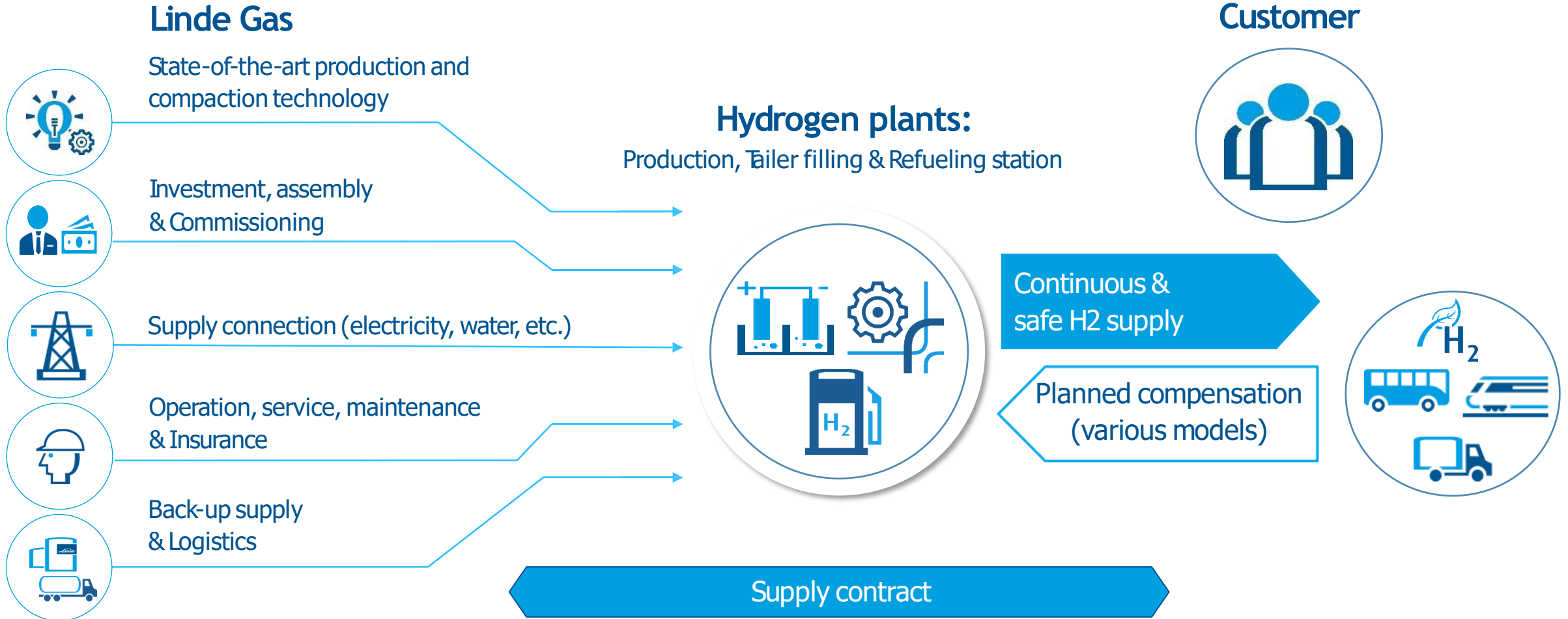
- ✓ **Highest efficiency** $\sim 1,3 \text{ kWh/kg}^1$
- ✓ **Highest reliability** $> 97\%^2$
- ✓ **Highest safety** **Zero** incidents at any HRS in operation

¹ based on Ionic Compressor platform versions

² based on all Ionic Compressor based HRS commissioned in the last 24 months

Innovative business model.

Build-own-operate model for hydrogen production and filling or refueling station.



Making our world more productive



Enabling the energy transition



**“The Dutch approach
towards hydrogen and
mobility”**

Alexia Michel, IenW NL



Ministerie van Infrastructuur
en Waterstaat



The Dutch approach towards hydrogen and mobility

Alexia Michel
programme manager
Sustainable Mobility

8th September 2021



Overview of the actual arena

- › 1. The Dutch context: Climate Agreement and National Hydrogen Vision
- › 2. European Commission framework: Hydrogen Strategy & Fit for 55
- › 3. Dutch overall vision on the transition towards Zero Emission Mobility
- › 4. Roll out ambitions: Action Programme Hydrogen in Mobility (under construction)
- › 5. Wrap up & questions



1. The Dutch overall policy context

- The Dutch Climate Agreement (2018): setting the scene for 49% reduction of GHG in 2030
 - No reference at all to “hydrogen”
- National Hydrogen Vision (2020): the first comprehensive framework towards an integrated approach on the value chain of “clean hydrogen” (= blue & green)
 - Hydrogen is mentioned as “robust system molecule” in the future energy system
- Note: in 2016 the Dutch Ministry of Infrastructure already introduced DKTI (innovation stimulation in sustainable mobility, hydrogen included)
 - National public investments on hydrogen: +/- EUR 45 mln in the last 5 years

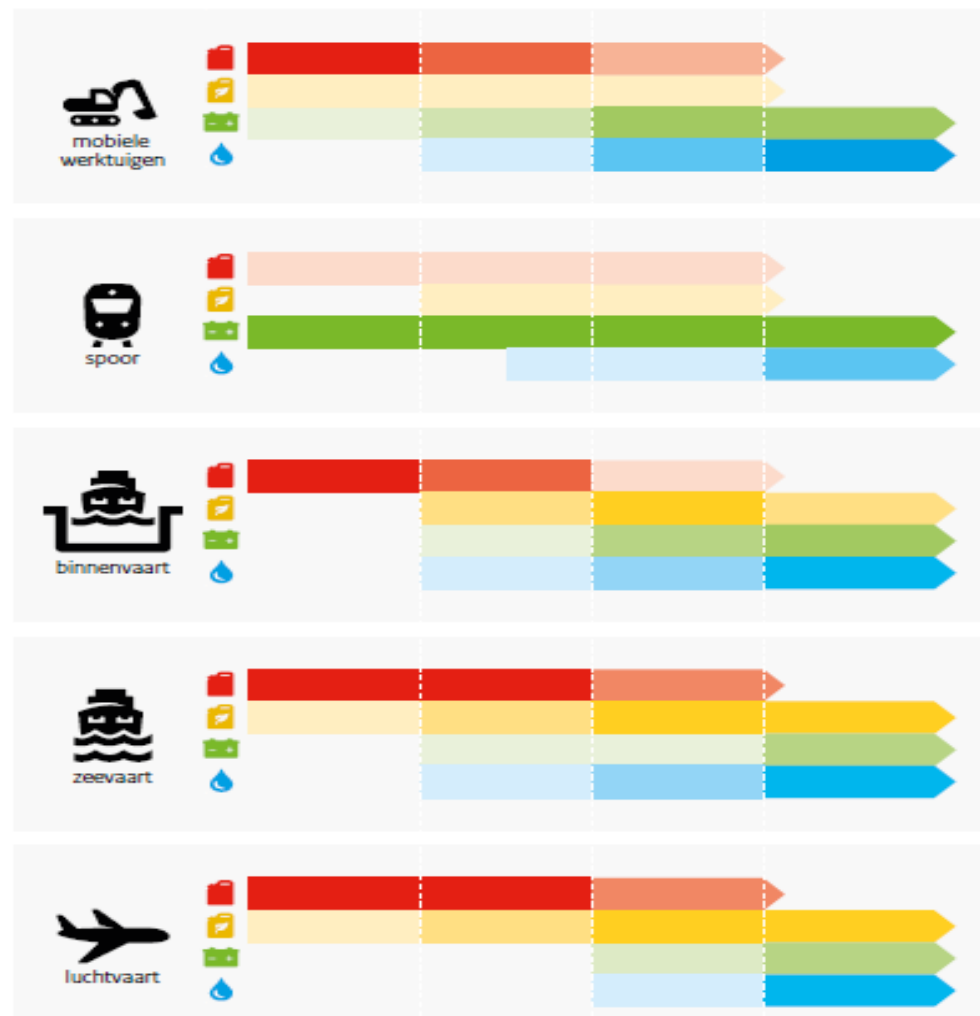
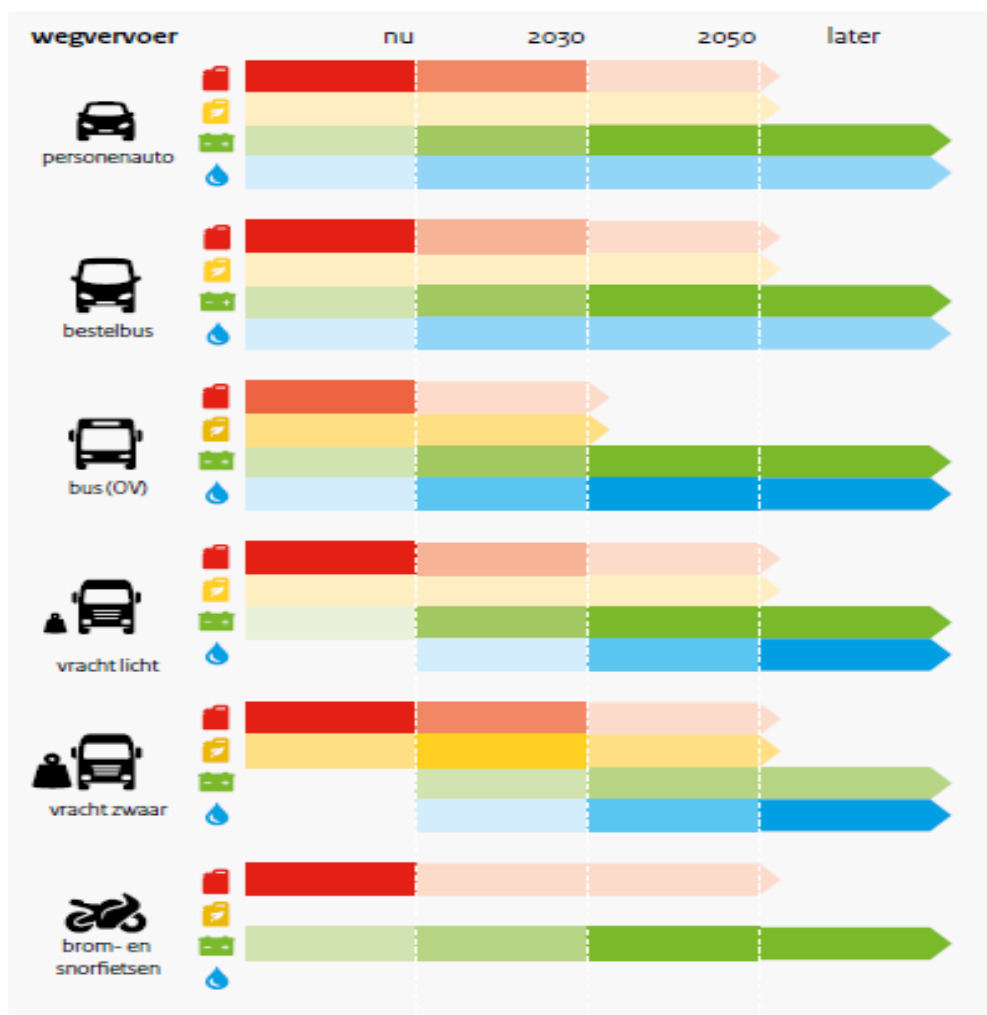


2. European Commission Framework

- Green Deal & Hydrogen Strategy (2020): a steep route towards large production volumes of green hydrogen
 - Ambition: 40 GW electrolysis capacity in Europe in 2030 (and another 40GW in neighbouring regions as Northern Africa / Middle East)
- Recent announcements “Fit for 55”: acceleration via a set of regulatory updates
 - Alternative Fuel Infrastructure Regulation (AFIR): Hydrogen is mentioned as “robust system molecule” in the future energy system
 - RED III: feeding green hydrogen into the energy system (for industry and mobility) is mandatory
- In progress: supporting financial programs (Horizon, CEF, RFF) are updated to fulfill the transition towards a climate neutral energy system



3. Dutch vision on transition towards Zero Emission Mobility (2020)





4. Roll out ambition: Action Programme “Hydrogen in Mobility 2022 – 2025” (under construction)

- Climate Agreement -> Public-private agreement to accelerate hydrogen in mobility
- Main objective: realisation of (at least) 50 HRS-stations in NL in 2025
 - with a clear sight on positive exploitation schemes
- Focus on most promising sectors
 - Taxis, Delivery vans, Light Duty Vehicles (LDV)
 - Heavy Duty Vehicles
 - Public transport (busses)
 - Garbage trucks and other cleaning vehicles
 - Inland shipping
- Strategy: developing new HRS-locations **including** the first fleets of vehicles
- Combining opportunities
 - introduction of Zero Emission Zones, Dutch agreement on Zero Emission Public Transport etc.



Overview of HRS locations (in operation or shortly to be opened)

Hydrogen Refueling Stations (HRS) in The Netherlands



Situation July 2021 based on company information with 80/20 estimates for 2021 and 50/50 for 2022



Demonstration projects are numerous!

- > Garbage trucks: REVIVE, H2RenT (Waterstofnet projects)
- > Inland shipping: RH2INE
 - Ambition: rolling out hydrogen on the TEN-T Rhine – Alpine corridor
- > Major initiatives on Heavy Duty: HyTrucks & H2Accelerate
- > Public Transport: already 50 busses on hydrogen (JIVE I & JIVE II)
- > ... and 100+ identified other projects/initiatives!



5. Wrap up

- › Hydrogen is expected to be a robust element in the climate neutral energy system
 - Scaling up production demands huge investments
- › Acceleration of hydrogen in mobility is promising in heavy duty, inland shipping and aviation
 - Hydrogen in mobility: complementary to BEV
 - With still strategic choices to be made on appearances (gaseous, liquid, LOHC, synfuels)
- › Seeking for coherence and synergy: designing an effective “Action Programme Hydrogen in Mobility”
- › Inspiration and co-operation: share your best practices!

**“Activities & collaboration
with WIC”**

**Filip De Weerd, Flanders
Investment & Trade**

WaterstofNet Cluster meeting

Filip De Weerd

Science & Technology Coordinator



Flanders
State of the Art





Our services



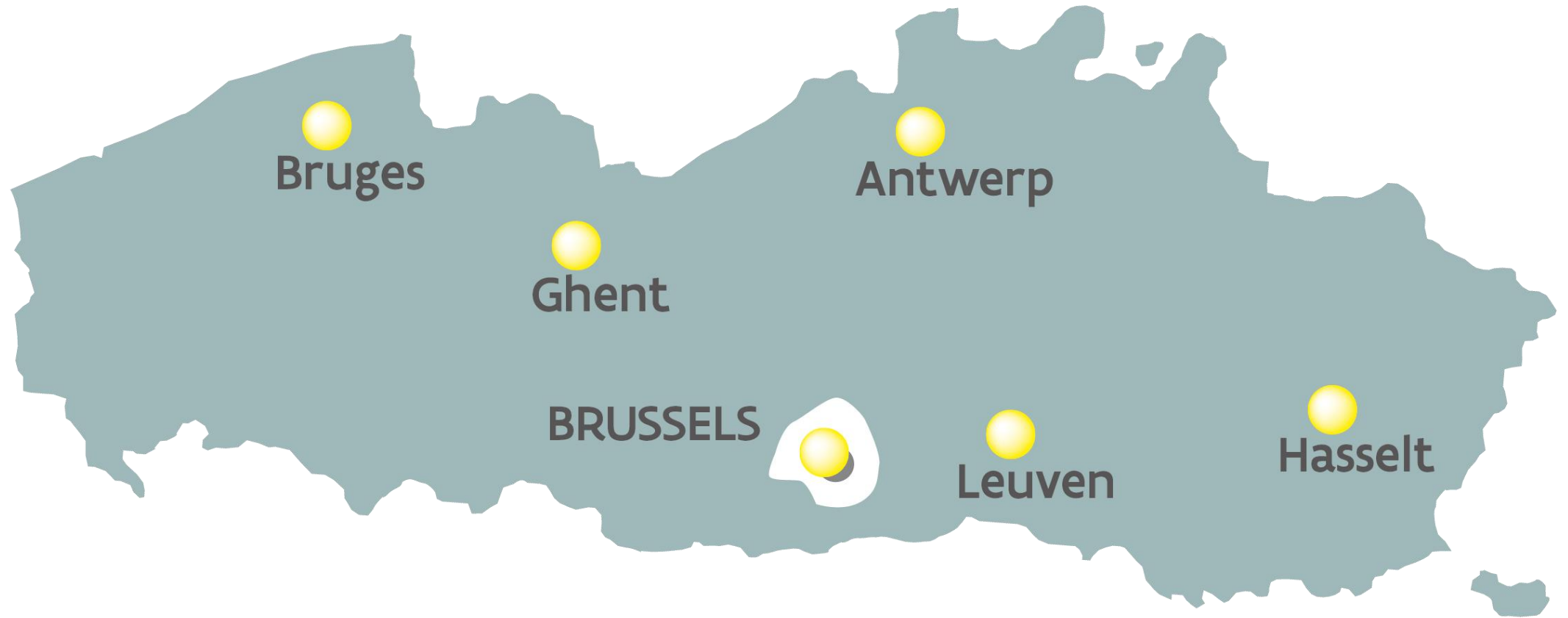
We advise and provide guidance to companies with an investment project in Flanders



We help companies in Flanders with their export plans







We bring buyers into contact with Flemish producers



OFFICES IN FLANDERS



WORLDWIDE NETWORK

-  Economic representation of Flanders
-  Antenna
-  Science & Technology office
-  Tech deputy to the economic representative

Partnerships for common strategy & goals





STRUCTURAL PARTNERS

AGORIA Vlaanderen



**BELGIAN-CHINESE
CHAMBER OF COMMERCE**
比中经贸委员会



flanders.bio





SPEARHEAD CLUSTERS



STRATEGIC RESEARCH CENTERS





Trade



We advise and provide guidance to companies with an investment project in Flanders

We help companies in Flanders with their export plans





Advice



Financial support



Actions & Events



Market information



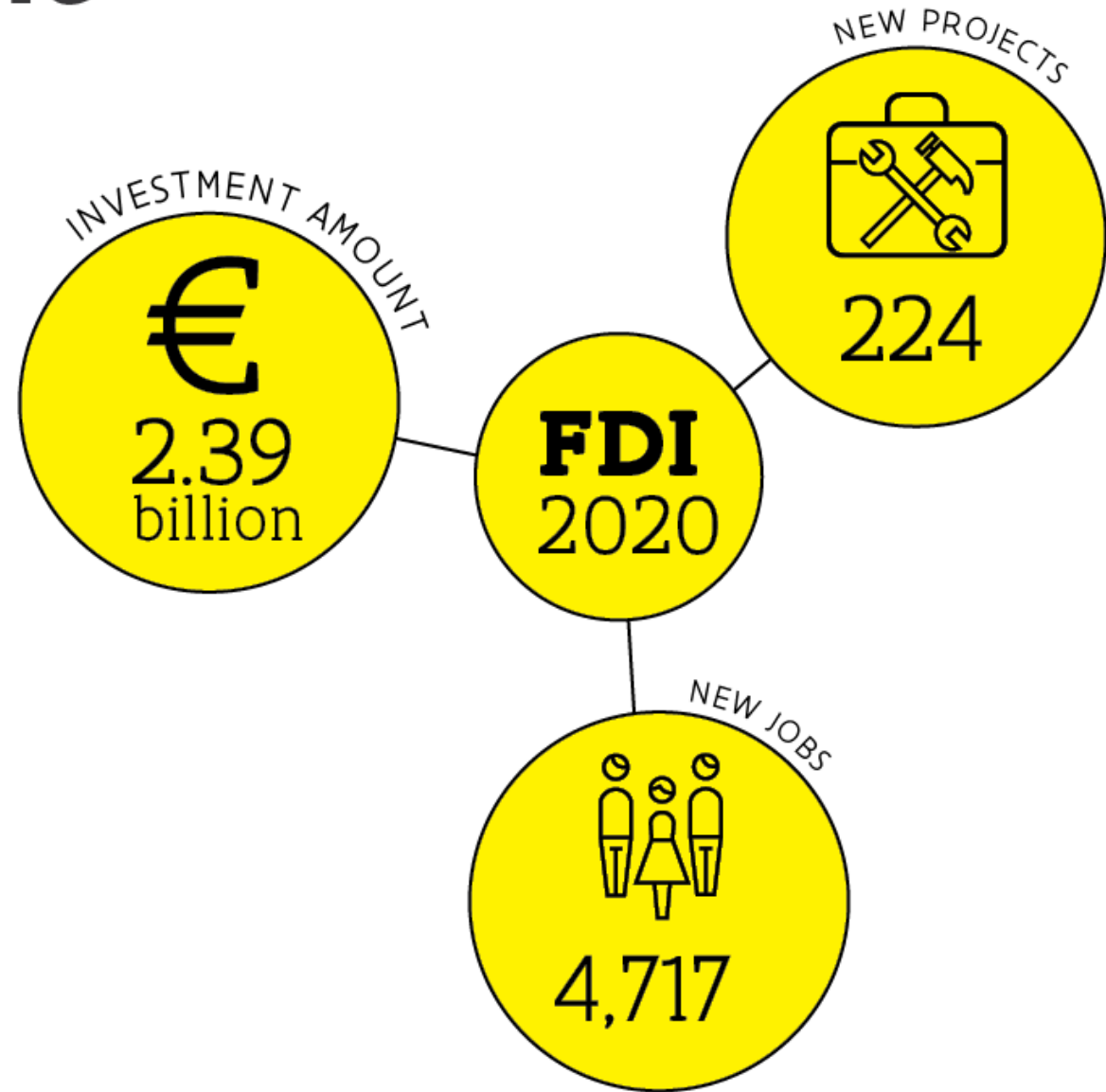
Investment



We advise and provide guidance to companies with an investment project in Flanders



foreign investment in Flanders





Results 2020

€ 2.39 billion
investment amount



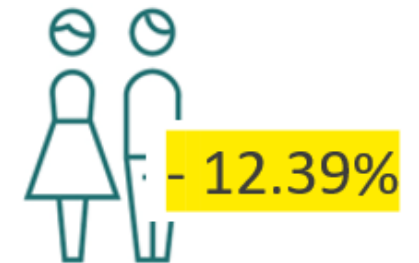
€ 5.20 billion in **2019**
€ 4.24 billion in **2018**

224
new projects



258 in **2019**
234 in **2018**

4717
new jobs



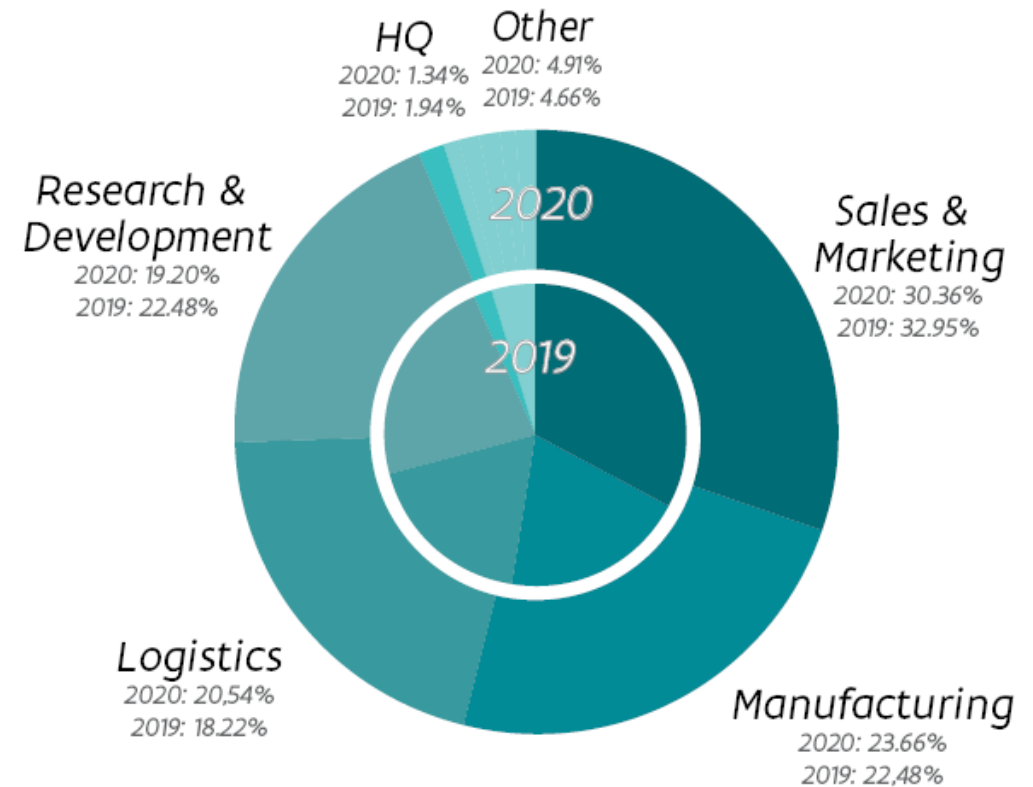
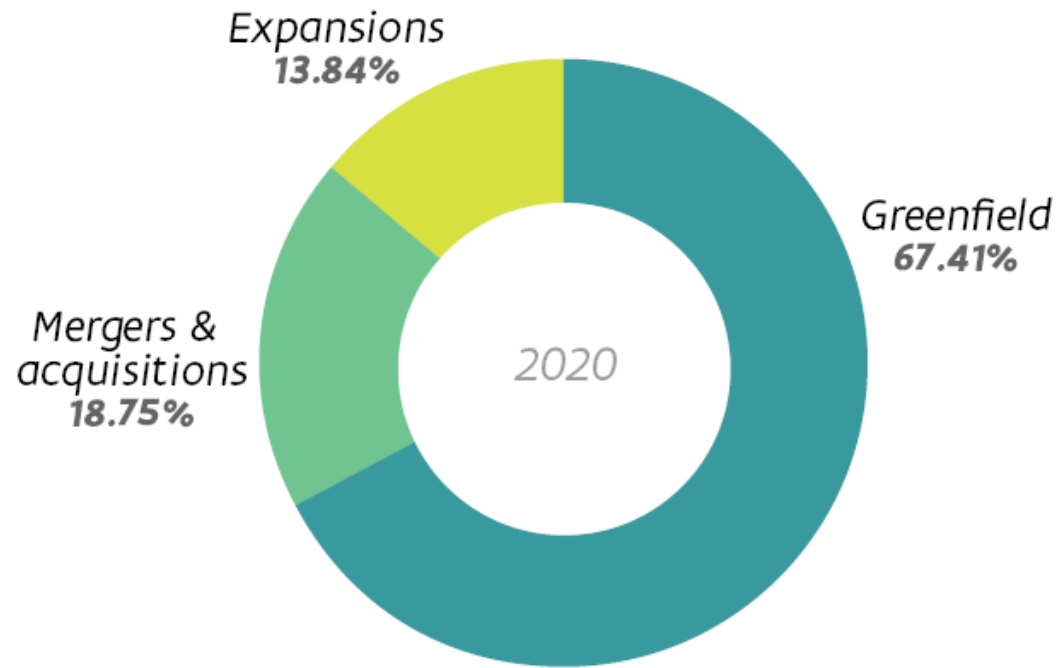
5384 in **2019**
5339 in **2018**

top 10 investors in Flanders



2020

investments according to type & activity





FDI 2019: our position in Europe

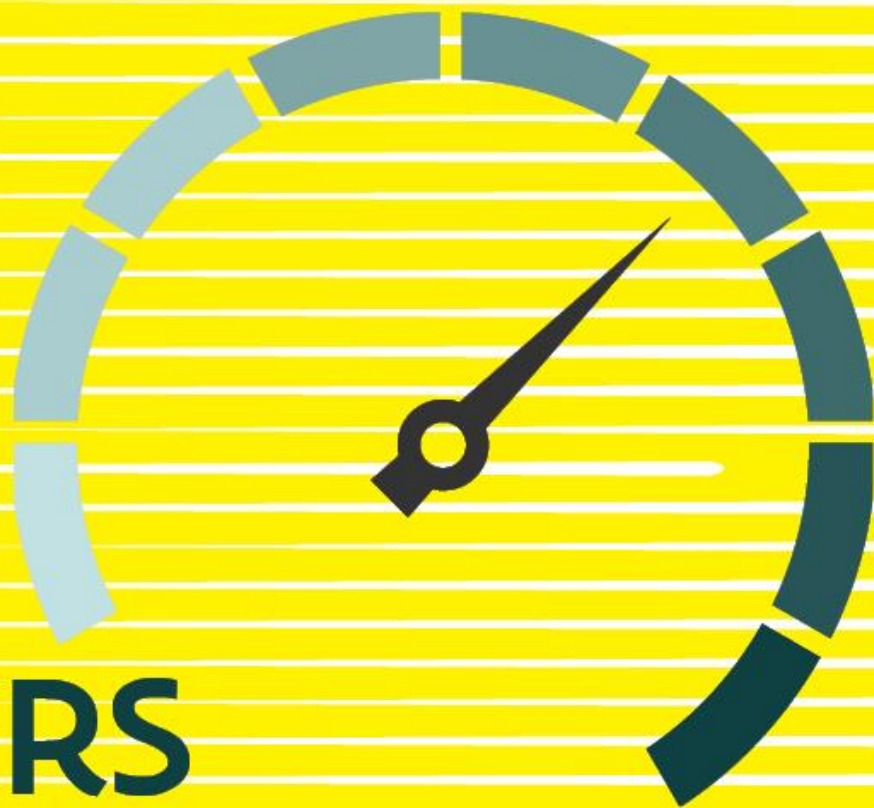
Top 10 FDI European destination countries

Rank	Country	2018	2019	Change 18/19	Market share 2019
1	France	1.027	1.197	17%	19%
2	United Kingdom	1.054	1.109	5%	17%
3	Germany	973	971	0%	15%
4	Spain	314	486	55%	8%
5	Belgium	278	267	-4%	4%
6	Netherlands	229	255	11%	4%
7	Poland	272	200	-26%	3%
8	Ireland	205	191	-7%	3%
9	Russia	211	191	-9%	3%
10	Turkey	261	176	-33%	3%

Source: EY European Investment Monitor (EIM), 2020.

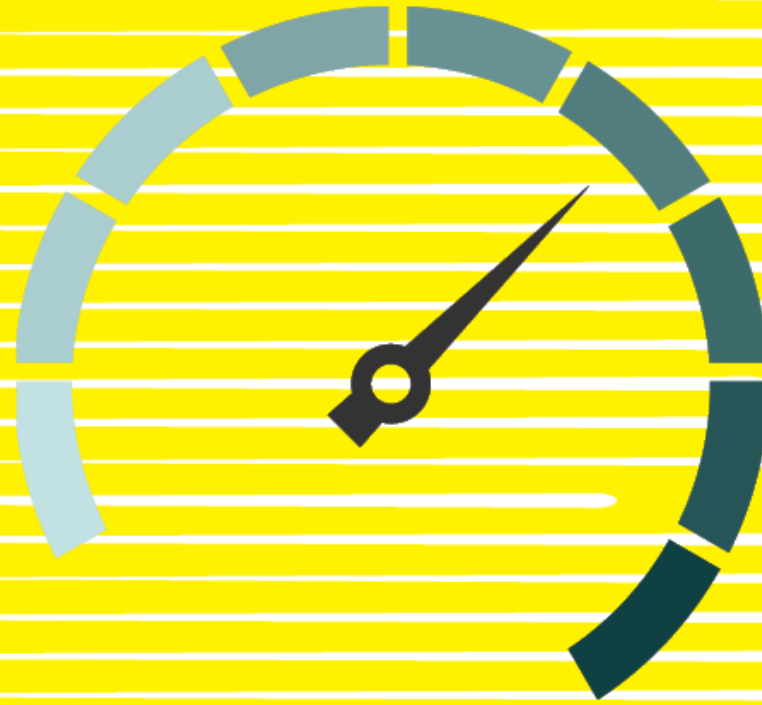


Future



FLANDERS ACCELERATES!

Collaborating on the internationalization
of the economy of Flanders !



Food

Smart Logistics

Life Sciences & Health

Solution driven engineering & technology

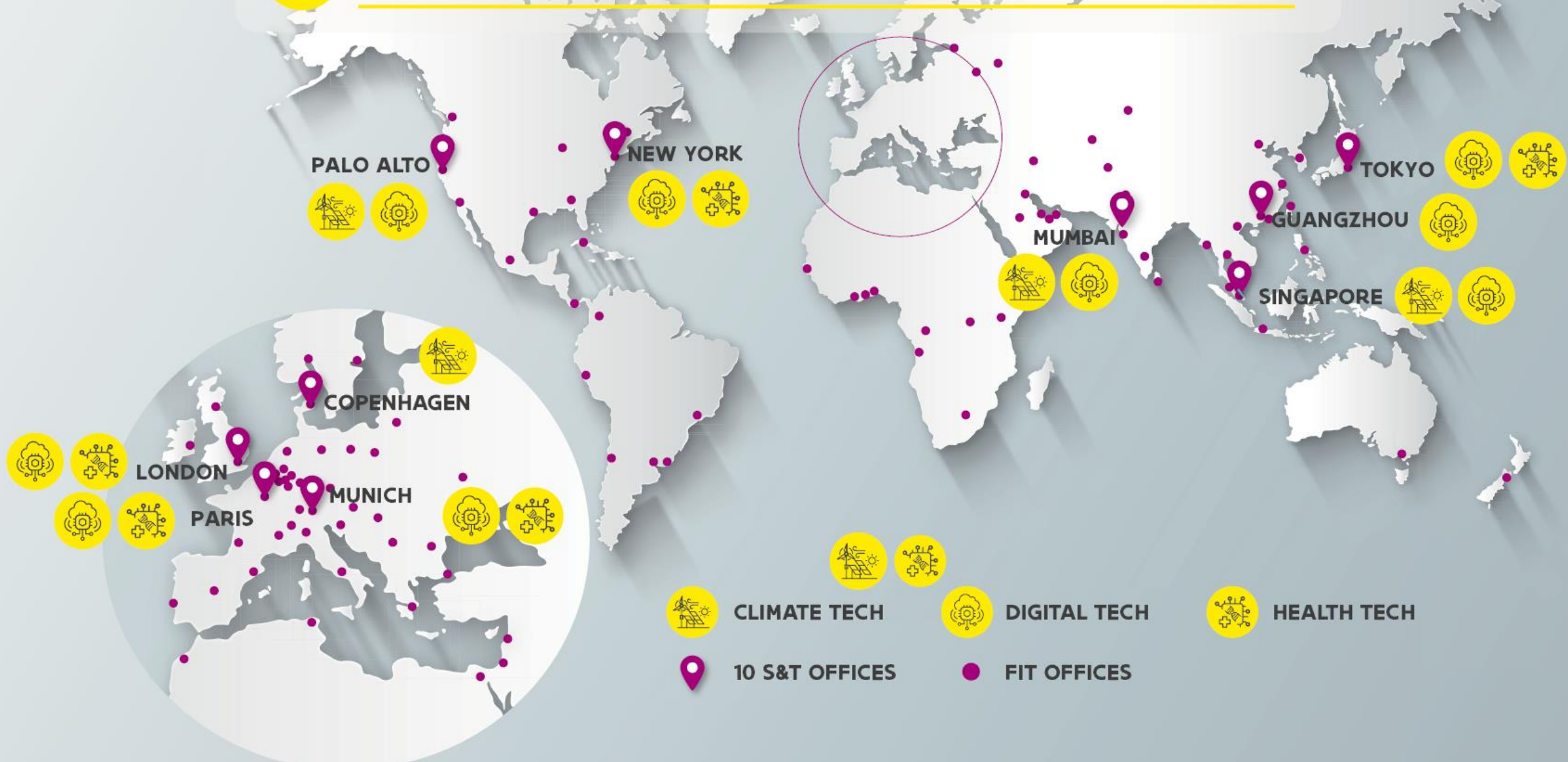
Sustainable resources, materials & chemistry



Technology domains are cross cutting in the strategy



FLANDERS INVESTMENT & TRADE'S 10 SCIENCE & TECHNOLOGY OFFICES



S&TO in the world: the team



Pieter De Maeght

TA Munich



John Baekelmans

TA New York



Jan Wauters

TA Paris



Peter Tanghe

TA Guangzhou



Maarten Lambert

TA Copenhagen



Kim Demeyer

TA Singapore



Ralph Moreau

TA



Wim Sohier

TA

Palo Alto

Assistant TA



Alexander Bleyaert



Julia Sprott

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**“Port of Rotterdam as an
EU hydrogen hub”
Randolf Weterings, PoR**

EU HYDROGEN HUB PORT OF ROTTERDAM



Randolf Weterings
Port of Rotterdam



Current situation in Rotterdam

Position of Rotterdam in the current energy system (2018 figures)

- 8.800 petajoule (PJ), 13% of the energy consumption of Europa (more than 3x the Dutch energy consumption).
- For the production of steam, heat and electricity in the Port of Rotterdam, 430PJ of energy was used (29 Mton CO2 emissions / 20% of the total Dutch emissions).

Current hydrogen market in Rotterdam

- Current hydrogen demand per year in Rotterdam is 450 kt, mainly used for oil refinery
- In the Port of Rotterdam 2 hydrogen grids exist from Air Products (local network) and Air Liquide (international network)

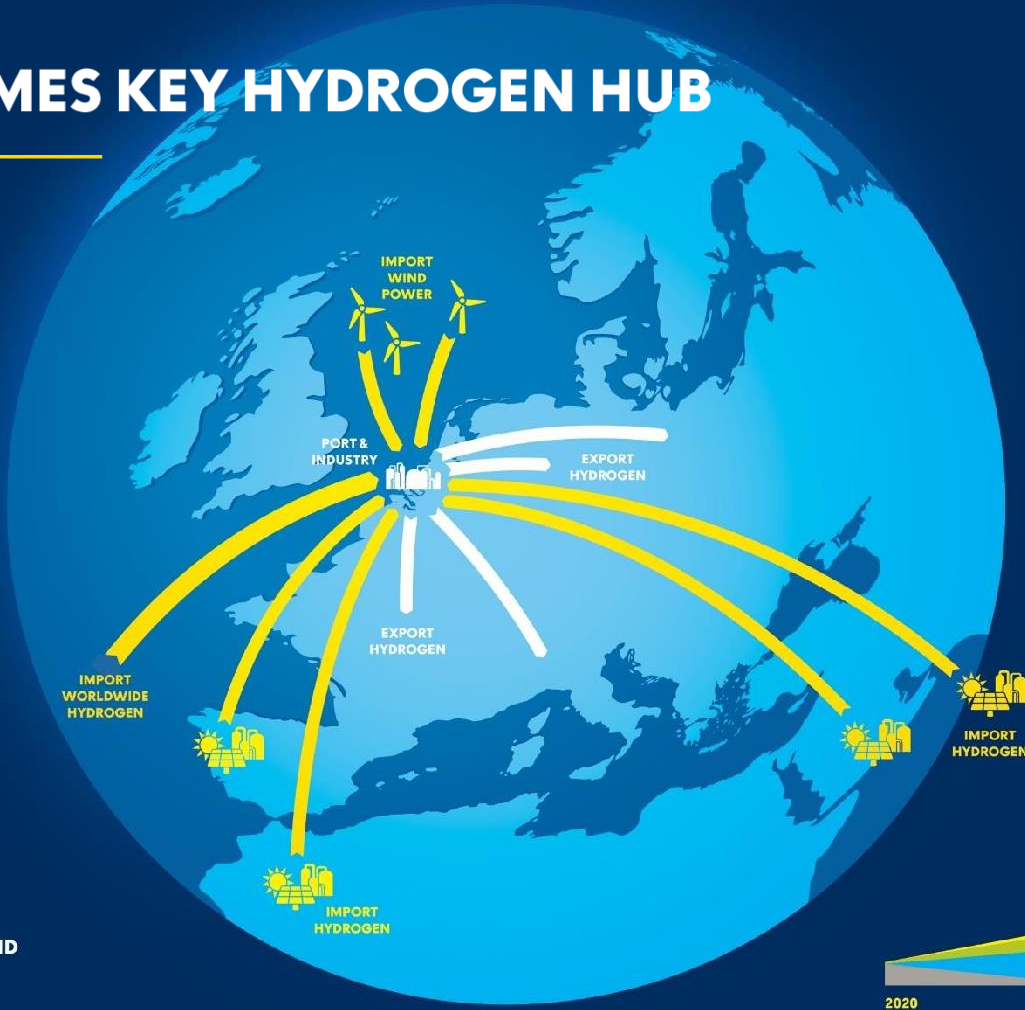


Pipeline network of Air Liquide, hydrogen in RED

WATERSTOF VISIE ROTTERDAM BECOMES KEY HYDROGEN HUB

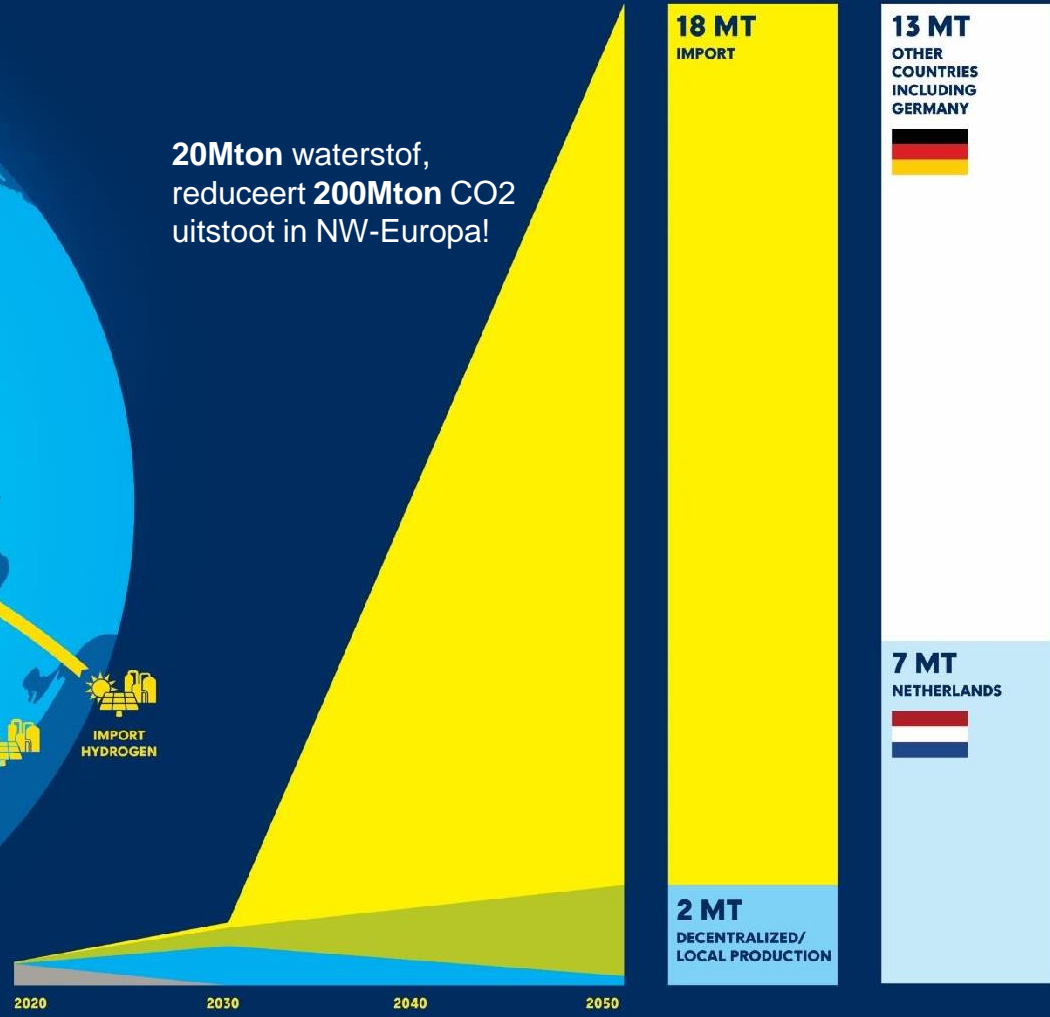


Connection with national H₂ grid, Chemelot and North Rhine–Westphalia (NRW).



Strong growth in hydrogen flow through Rotterdam due to imports.

20Mton waterstof, reduceert 200Mton CO₂ uitstoot in NW-Europa!

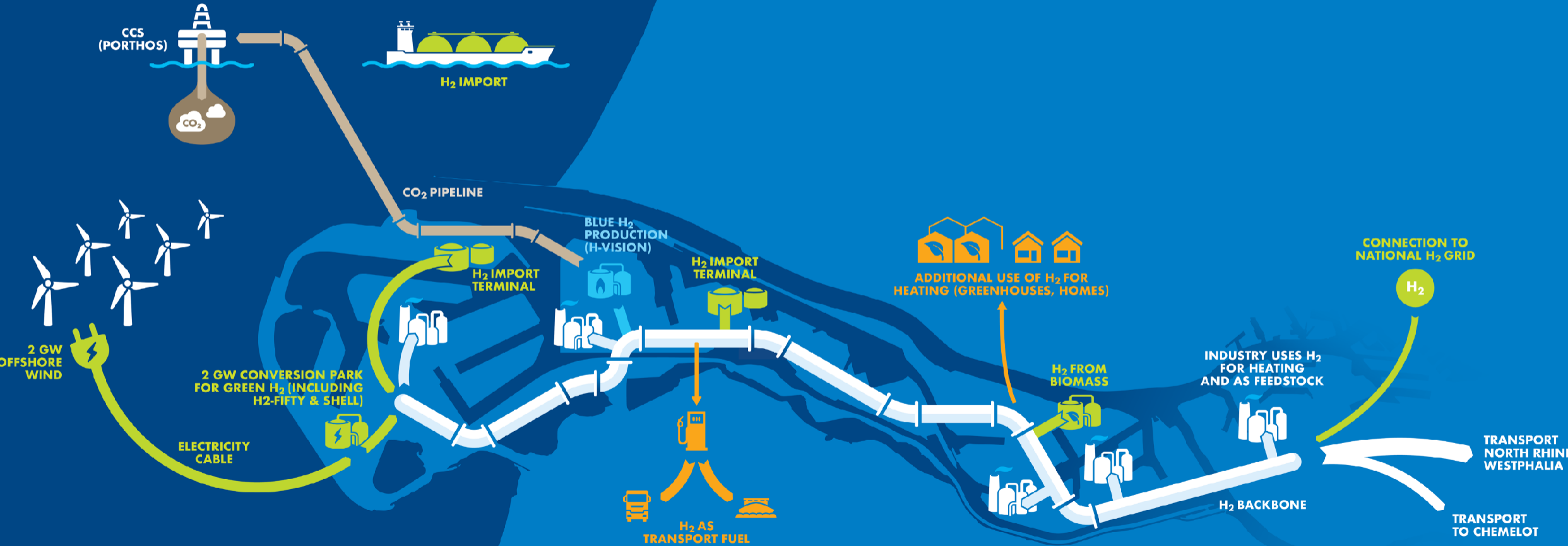


Grey hydrogen
Blue hydrogen
Green hydrogen
Imported hydrogen

Green & Blue hydrogen made with 20-25GW offshore wind.
Estimated use of 20 MT hydrogen by country.

Hydrogen vision: <https://bit.ly/32M6Wrl>

HYDROGEN ECONOMY IN ROTTERDAM STARTS WITH OPEN ACCESS BACKBONE



The locations depicted are approximate.



FIRST PROJECTS OPERATIONAL IN 2023

2023
Shell 150-250 MW
electrolyser
operational on
conversion park

Hydrogen backbone
operational

2024
LOHC import at
industry scale

Green ammonia
import terminal
operational

H₂-Fifty 250 MW
electrolyser
operational (BP,
Nouryon)

Uniper first 100
MW operational
(towards 500 MW
in 2030)

2025
Road transport:
1000 hydrogen
powered trucks of
which 500 in
Rotterdam

RH₂INE 12 inland
barges
operational

H-vision
operational (blue
hydrogen)

2026
LH₂ terminal
operational

Pipelines to
Chemelot and
North Rhine –
Westphalia
operational

2026

2030
2 – 2,5 GW
electrolyzers
operational

**POWER UP
YOUR IDEAS
MAKE IT HAPPEN**

Randolf Weterings

LET'S CONNECT



Developments in the WIC

- (New) member info
- Status working groups
- News from the governments FL-B-NL
- Overview FL/BE/EU funding
- Networking & meetings

NEW MEMBERS SINCE PREVIOUS MEETING JUNE



FROM HERE. FOR ALL OF US. ABOUT TOMORROW

> 100 MEMBERS!





STATUS WORKING GROUPS

Mobility



Monitoring and facilitating H₂ refuelling stations in Benelux. Increase utilisation.

Policy



Evaluation & statements
Related to EU or national legislation

Shipping



Development of H₂ pilots & infrastructure
(coll. With De Blauwe Cluster)

H₂ for all



Disclosing the world of H₂
to the broader public

WORKING GROUP MOBILITY



Monitoring and facilitating H2 refuelling stations in Benelux.
Increase utilisation.

- Group of 23 companies
- Meetings on 26/05 and 7/09
- Five goals/objectives:
 - H2 Roadmaps for Belgium and the Netherlands → first proposal
 - Monitoring, exchanging “data and experiences ” of HRS and FCEV → quarterly updates
 - Short, uniform and transparent approach of opening an HRS → first proposal
 - Increase utilisation HRS → involvement WIC
 - Communication and lobby

WORKING GROUP POLICY



Evaluation & statements
Related to EU or national legislation

- Recent activities:
 - Policy recommendations on REDII / additionality
 - Analysis of CCfD-type of support mechanisms
=> Available on WIC portal
 - Sent to FL & Belgian representatives
- To do coming period:
 - Discuss WIC reaction on Public Consultation round 'Fit for 55' (before Nov 1)



Turnhout, 13 juli 2021

Betreft: De implementatie van de Renewable Energy Directive en het additionaliteitsprincipe voor de productie van hernieuwbare brandstoffen



Exploitatiesteun en (Carbon) Contracts for Difference (CCfD)

Inhoud	
Aanleiding.....	2
Inleiding.....	2
Exploitatiesteun voor hernieuwbare elektriciteit.....	2
Carbon Contracts for Difference.....	3
Achtergrond: Het Europees Emissiehandel Systeem en CO ₂ prijzen.....	3
Carbon Contracts for Difference: concept & werking.....	4
Voordelen.....	4
Uitdagingen.....	7

WORKING GROUP SHIPPING



Development of H₂ pilots & infrastructure for shipping; in collaboration with

- Recent activities:
 - Knowledge sharing
 - Info updates on shipping initiatives in the region
 - Info on regulatory framework
 - Proposal on collective demonstration project => call for ideas & participants
 - To do coming period:
 - Regular info updates
 - Search for projects
 - Next meeting to be planned end of September
-



Disclosing the world of H₂ to the broader public

- Recent activities:
 - Kick-off meeting with small group: defining the objectives
 - Second meeting with small group: choosing the means
 - Updated and more visually attractive information on the website
 - A podcast
 - To do coming period:
 - ⇒ Review existing information on website and elaborate
 - ⇒ Record first podcast episode
 - ⇒ Third meeting: feedback on the progress
-



Helping our WIC members to stay on top of the game

- Medium-short “explainer” articles on Brussels’ hot topics/concepts, such as:
 - Carbon Contracts for Difference
 - The different associations (the European Clean Hydrogen Alliance, Hydrogen Europe, Clean Hydrogen for Europe, etc.)
 - Additionality
 - Etc.
 - Aimed at giving a thorough yet concise explanation of the concept and its context in accessible language
 - The documents will be made available on the members’ portal and will be updated regularly
-

H2 NEWS FROM OUR GOVERNMENTS (FL/BE)

- “Flemish Taskforce Hydrogen”
 - First meeting July 5
 - Stakeholders: universities, Energyville, Flemish spearhead clusters, SERV, Vario, Bond Beter Leefmilieu, VOKA, Essencia, Febeg, Agoria, Arcelor Mittal, Fluxys, the Flemish ports and **WaterstofNet**
 - Further development of Flemish hydrogen strategy
 - Federal hydrogen strategy
 - Focus on federal competences: infrastructure, import/export, “H2Hub”, production targets
 - **WaterstofNet** stakeholder
 - Expected in October
-

- National Hydrogen Program (Nationale Waterstofprogramma) is published on 7 July 2021 ([Cross-sectorale werkgroep waterstof · Nationaal Waterstof Programma](#))
 - The working group advises to concentrate the implementation of the work plan on three tracks
 1. Development on a large scale for industry
 2. Decentralized for the region
 3. Organizing the preconditions for tracking and organizing the activities
 - EUR 338 million foreseen for green hydrogen & green chemistry (“Groenfonds”) (April 2021)
 - 73 million already approved for 2022-2023
 - Uncertainties for budget allocations due to the absence of government
-

- > 400 project proposals in EU
 - Netherlands 24 projects
 - Belgium 15 projects
- Germany coordinates the submission (chapeau document,...)
- Submission in different waves:
 - Wave 1 & Wave 2 submitted on August 31 – NL: 13 projects & BE: 10 projects
 - Wave 3 in preparation; timing Q3-Q4, 2021
- Next step:
 - Proposals are evaluated by DG Comp; result expected before the end of '21

Upcoming Calls

- Energietransitiefonds Belgie ([Energietransitiefonds | Agentschap Innoveren en Ondernemen \(vlaio.be\)](#))
 - Thema: renewable energy in the Belgian exclusive economic zone in the North Sea, biofuels, nuclear energy, security of supply and grid balance
 - Deadline: expected to be open between 15 November 2021 and 31 January 2022
- EUREKA ([Eureka | greenhydrogen-2021 \(eurekanetwork.org\)](#))
 - Thema: transporting infrastructure for Hydrogen
 - Deadline: the call is open now till 5 September
- Interreg ([Calls for Projects Archive • Interreg.eu](#))
 - Check the website for the upcoming calls
- LIFE (https://cinea.ec.europa.eu/life_en)
 - Thema: Financing climate, nature, and environmental projects. The subprogram "Clean energy transition" is relevant for WIC.
 - Deadline: July 2021 till 22 September 2021 - 13 April 2022 depending on the call
- Horizon EU – Climate, Energy & Mobility Cluster 5 ([Search Funding & Tenders \(europa.eu\)](#))
 - Thema: climate science and solutions; energy supply; energy systems and grids; buildings and industrial facilities in energy transition; communities and cities; industrial competitiveness in transport; clean, safe and accessible transport and mobility; smart mobility; energy storage
 - Deadline: June 2021 till 12 Septemebr - 5 January 2022 depending on the call topic

- WaterstofNet : assignment of Flemish government to support roll out H2 strategy
 - “Research agenda”:
 - Inventory of relevant research
 - Matchmaking with industry
 - Identify opportunities & focus points for R&D in Flanders
 - Matchmaking activities 2021 (invitations this week)
 - Kick-off (online) on October 14 (13.30-15.00)
 - Matchmaking sessions in Brussels, November 9, afternoon
 - Spearhead clusters will be included
-

HYVOLUTION 2021

- HyVolution 2021 @ Paris October 27 and 28
- Large scale hydrogen event for energy, industry and mobility with 120 exhibitors & brands and over 2000 visitors
- Participation with WaterstofNet/WIC still possible via a shared booth (4 sqm for 1.500€)
- Interested? Contact Yannick



WORKING VISIT GRONINGEN 2021

- October 6 – 7 – 8
- Visit HyStock, HRS Pesse and Wind meets Gas conference
- Free of charge
- Group limit = 25
- Still spots available! Interested? Contact Yannick



AGENDA MEMBER INFO & NETWORKING

- WIC Webinar, next edition on September 30
- Working visit Groningen October 6 – 7 – 8
- Kick-off matchmaking process industry-academia FL: October 14
- Meet & Greet (online): October 21
- Matchmaking industry-academia FL: November 9
- Conference on November 22, Brussels (free for WIC members, subscription from mid Sept.)
- Hydrogen Academy: starts October 11, 6 Mo-evenings, Agfa Mortsel
- Cluster meetings, next on December 8



News from Cluster Members



CMB



COLRUYT
GROUP

Everfuel 

Questions & Comments?
