NEW MEMBERS SINCE PREVIOUS WIC-MEETING

WATERSTOF INDUSTRIE CLUSTER

virya energy

bosal

EUROPORTS

Swagelok

Swagelok Belgium

HYSTER-YALE GROUP

EMERSON

Luyckx MINDS X MACHINERY

Ruijtenberg Groep

energy

tialoc

vtti

Ortus NL

TNO

NEW MEMBERS PRESENTATION TODAY

WATERSTOF INDUSTRIE CLUSTER

North Sea Port
Together. Smarter.

P&V PANELS

EIFFAGE SMULDERS

brussels airport
the heart of Europe

BEKAERT
better together

IULIUS RL

ZÜBLIN STRABAG
TEAMS WORK.

B.I.P.
elneo

P&VGROUP

P&VPANELS

P&VSERVICE

EBB SMARTBUILDINGS

EREM INDUSTRIAL AUTOMATION

PANELS

- KV Panelbuilder Group

Largest independent Panel builder in the Benelux

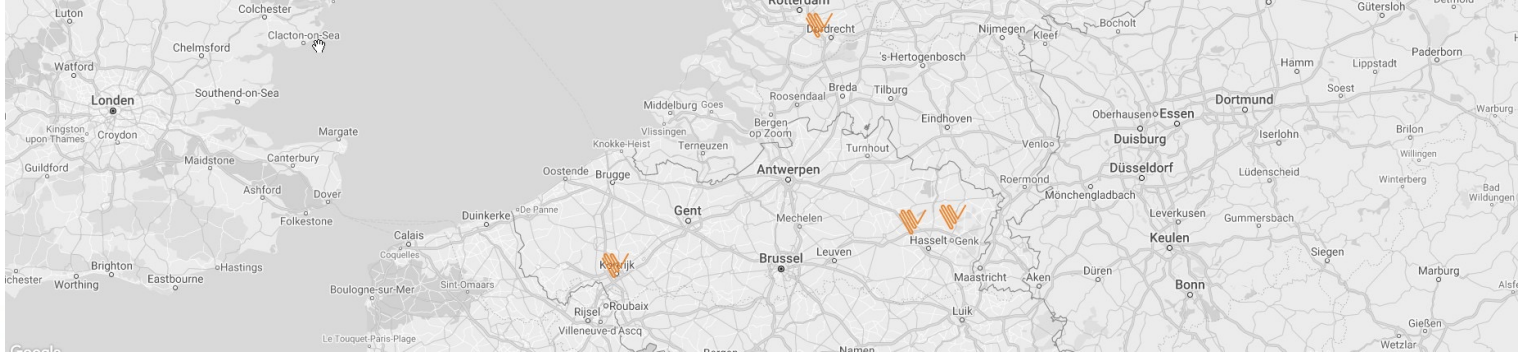
- **Quality**
- **People**
- **Innovation**
- **Trendsetter**
- **International**
- **Ambition**
- **Customer oriented**
- **Succes**
- **Dynamic**
- **Knowledge**
- **Multibrand**
- **Full-Service provider**


-806+32
-806+38
-806+48
FEEDER BREAKER
SUPPLYING
PROCESS MCC B (DSP)
8700-MCC-3002
FEEDER BREAKER
SUPPLYING
GENERATOR SET
8700-GDB-1001
DANGER
DO NOT
OPERATE

P&VGROUP

3 BEDRIJVEN

WAAR LIGGEN WE?



P&V PANELS

P&VPANELS P&VSERVICE

- Infra, industrie en OEM.
- Design en bouw
- Onderhoud en upgrade
- 220 experten

EBB

EBB SMARTBUILDINGS

- Building
- Design en bouw
- BMS-integrator
- 70 experten

EREM ELEKTROTECHNICI BV

EREM INDUSTRIAL AUTOMATION

- Industrie
- Design en bouw
- Software Engineering en E&I installatie
- 85 experten

cu

s

P&V PANELS

Infra

P&V PANELS

Industry

EBB SMARTBUILDINGS

Buildings

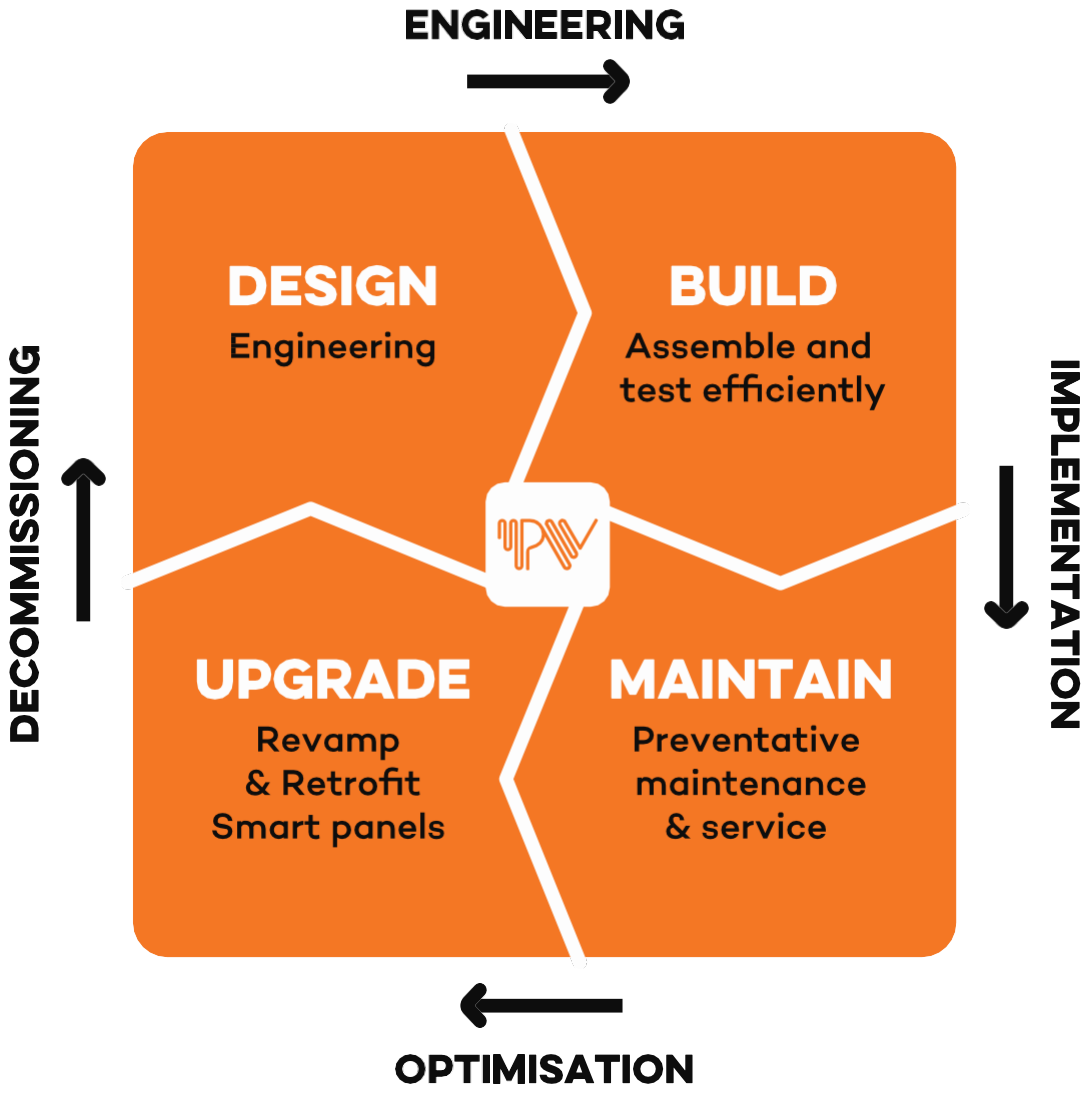
P&V PANELS

OEM

EREM INDUSTRIAL AUTOMATION

EREM INDUSTRIAL AUTOMATION

360° PANEL PARTNER



BOARDS - MULTIBRAND

- MCC:
  - Schneider-Electric Okken
  - Logstrup
- PCC:
  - Schneider-Electric Okken
  - Schneider-Electric Prisma
  - Siemens S8
  - Siemens S4
  - Logstrup
  - EL Steel
- Universal panels
- Network disconnection panels
- Marine & offshore panels
- Shore power panels
- Smart panels
- Sub-stations in containers
- **Integration** BMS KNX HVAC Emergency Lightning

CONTROL PANELS

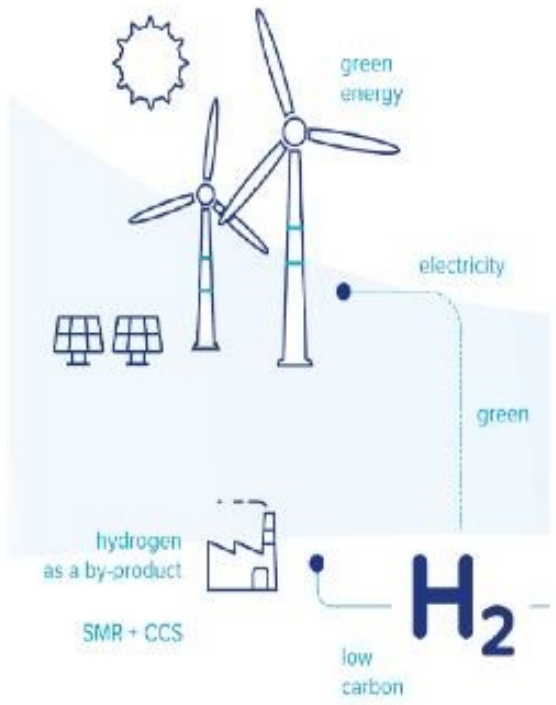
- Analyzers
- Relay panels
- Atex panels
- HVAC panels
- DCS panels
- Pneumatic panels
- PLC panels
- Skids and Machine cabling
- **Industrial Integration**

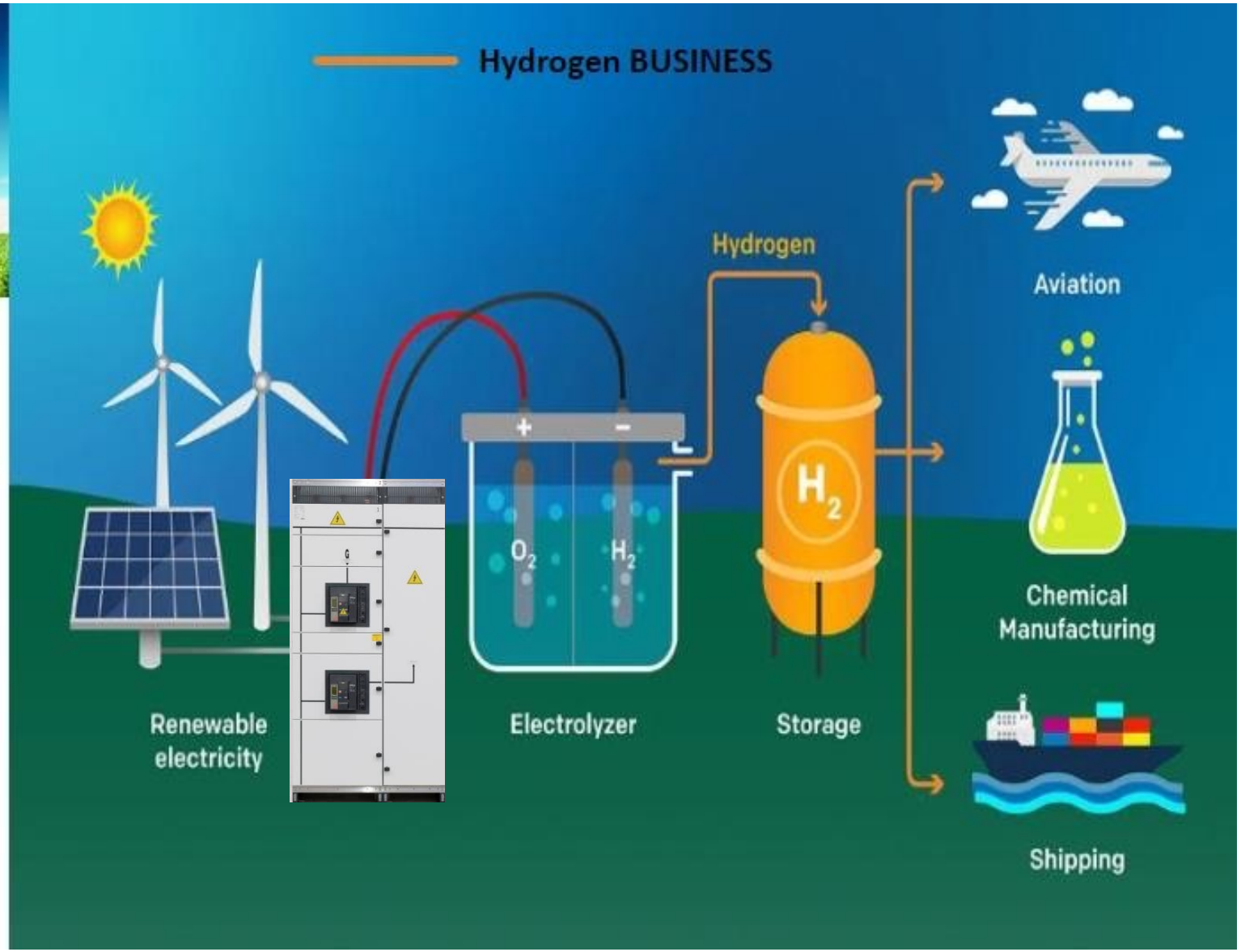
RE BUSINESS

PNV-G

- RDS-PP
- Lloyd's Register Marine
- GWO Certified


H_2


green
energy
electricity
green
hydrogen
as a by-product
SMR + CCS
H_2
low
carbon


Hydrogen BUSINESS
Hydrogen
Aviation
Chemical
Manufacturing
Shipping
Renewable
electricity
Electrolyzer
Storage
O_2
H_2
H_2

P&VGROUP

P&VPANELS

P&VSERVICE

EBB SMARTBUILDINGS

EREM INDUSTRIAL AUTOMATION

FACTS & FIGURES

+375
Experten in borden / paneelbouw

+80
milj euro omzet

+500
tevreden klanten

+50
vaste service contracten

4
vestigingen In België en Nederland

4
actief in vier sectoren


1
Bordidentificatieblad
AANDACHT !
150Q1
Schneider

P&V PANELS P&V SERVICE EBB SMARTBUILDINGS EREM INDUSTRIAL AUTOMATION

1 STEP AHEAD

P&V GROUP

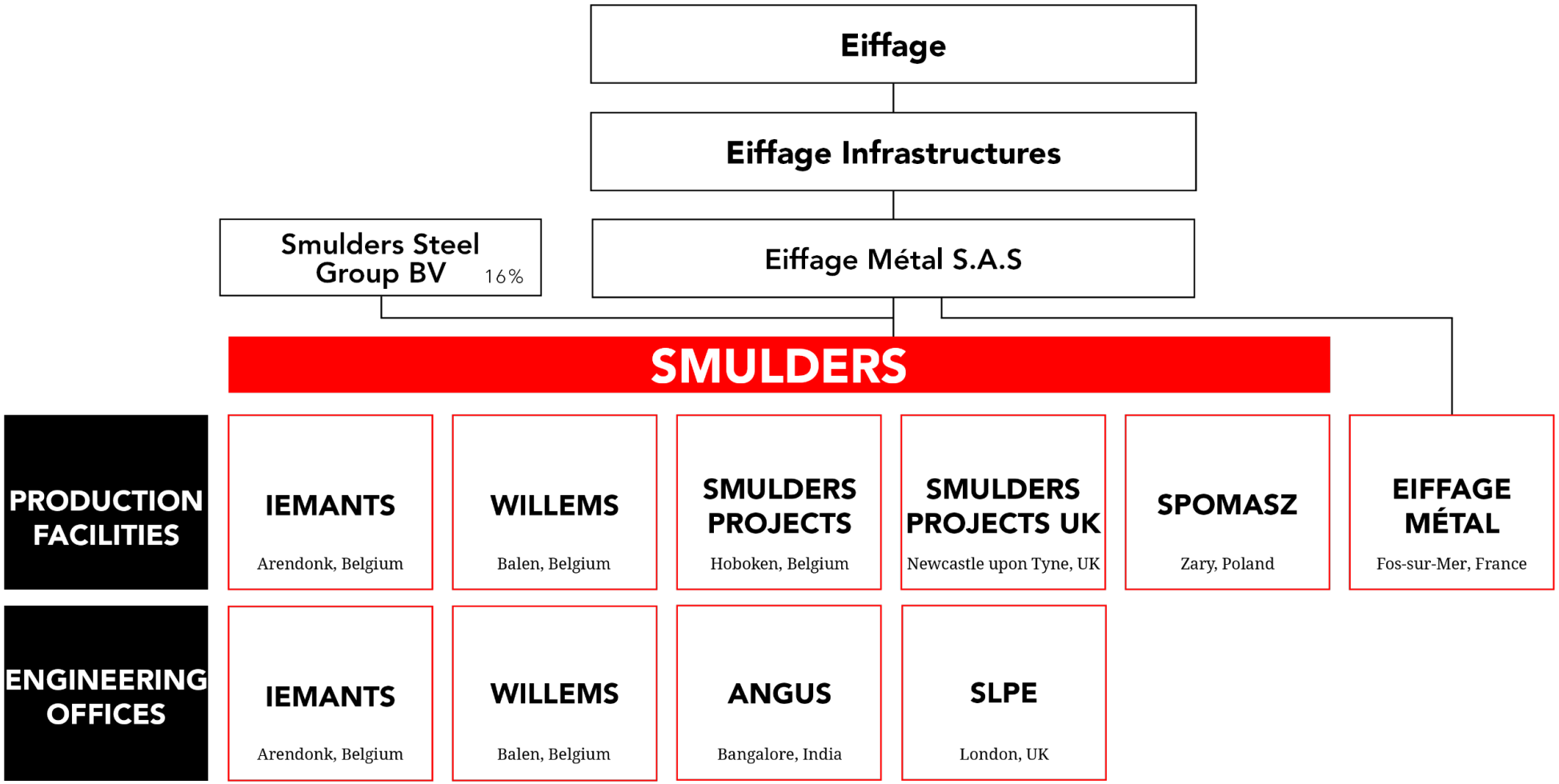
Site Heusden-Zolder (HQ) Industrieweg 10, B-3550 Heusden-Zolder • +32 (0)13 61 11 00
Site Kortrijk Doenaertstraat 32, 8510 Kortrijk • +32 (0)56 92 20 00
Site EBBnv Kompelstraat 9, 3600 Genk • +32 (0)89 41 00 40
Site eReM Merwedeweg 53336 LG Zwijndrecht • +31 (0)78 303 9000
info@pnvpanels.be • **www.pnvpanels.be** • **www.pnvgroup.be**

Smulders

General presentation

To the members of WaterstofNet -
01/12/2022.

Our organisation



Key figures

Turnover

414

mio € in 2021

Employees

1 178

Markets

2

Civil & Industry

Offshore Wind

Turnover per market

17%

Civil & Industry

83%

Offshore Wind

Our production facilities

Geographic situation

BELGIUM
Head office / Iemants (Arendonk)
Willems (Balen)
Smulders Projects (Hoboken)

UNITED KINGDOM
Smulders Projects UK (Newcastle upon Tyne)
SLPE (New Malden, London)

POLAND
Spomasz (Zary)
Spomasz (Niemodlin)
Spomasz (Łęknica)

FRANCE
Eiffage Métal (Fos-sur-Mer)

INDIA
Angus (Bangalore)

lemants

Workshop area

50 000 m²

Covered surface

80 000 m²

Total area

Employees

425

Operational activities

- Engineering
- Production
- Assembly
- Surface treatment

Annual capacity

955 000 h

90 000 h engineering
315 000 h production
550 000 h assembly

Annual capacity

20 000 ton

Lifting capacity

100 ton

Road transport

7,5 x 40 m

Willems

Workshop area

32 000 m²

Covered surface

140 000 m²

Total area

Employees

145

Operational activities

- Engineering
- Production
- Surface treatment

Annual capacity

292 000 h

27 000 h engineering

265 000 h production

Annual capacity

15 000 ton

Lifting capacity

200 ton

Water transport

22 x 77 m

Access to Albert canal

Smulders Projects

Titan Hall

12 000 m²

Total production area

400 ton

Overhead lifting capacity

560 ton (excl. hoisting material)

Gantry crane over 60 000 m²

Albert Hall

14 720 m²

Total production area

500 ton

Overhead lifting capacity

Annual capacity

805 000 h

695 000 h production
110 000 h assembly

Harbour basin

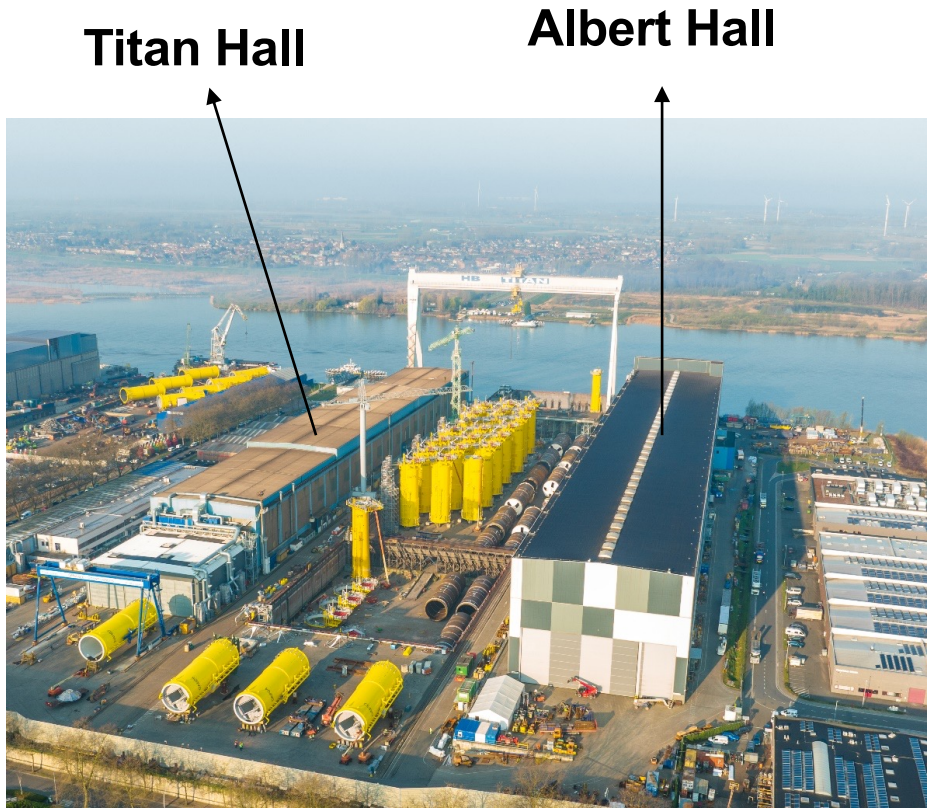
- Access for coasters & barges
- Travel to Flushing within 6 hours

Dry dock

485 m x 65 m, storage under reach of gantry crane

Operational activities

- Production
- Final assembly
- Surface treatment



Smulders Projects UK

Workshop area

35 000 m²

Covered fabrication area

104 000 m²

Open fabrication & erection area

325 000 m²

Total area

Employees

150 - 300

Capacity

13 000 ton

Load-out capability

50 000 ton

Fabricated structures

872 000 h

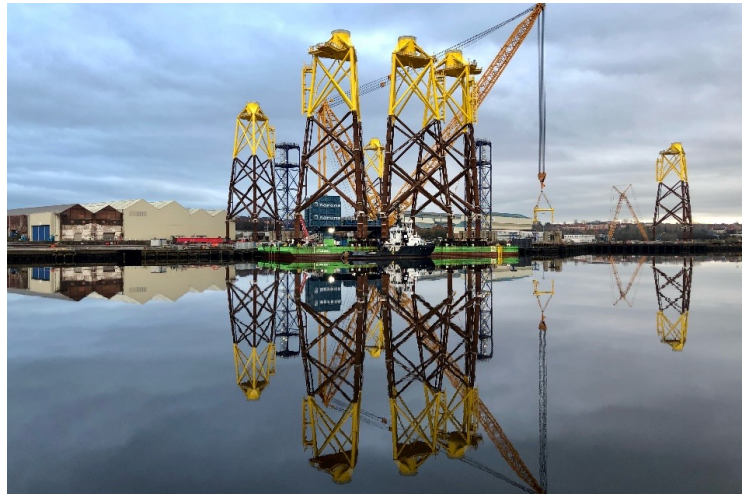
15 000 h engineering

857 000 h production

Operational activities

- Production
- Assembly
- Coating

3 main areas with 3 load-out quays



Spomasz

Workshop area

16 000 m² (Zary)

15 200 m² (Niemodlin)

8 159 m² (Łęknica)

Covered production surface

45 000 m² (Zary)

57 100 m² (Niemodlin)

133 155 m² (Łęknica)

Total area

Employees

337

Operational activities

- Production

Annual capacity

419 000 h (Zary)

205 000 h (Niemodlin)

120 000 h (Łęknica)

production

Annual capacity

10 000 ton (Zary)

8 500 ton (Niemodlin)

5 000 ton (Łęknica)

Lifting capacity

80 ton

Fos-sur-Mer

Workshop area

17 000 m²

Covered fabrication area

32 000 m²

Outdoor assembly area

Products

- Offshore wind floaters
- Offshore wind components
- Offshore platforms & modules
- Jackets
- Living quarters

Access

- Road access
- Rail access
- Mediterranean Sea Access

Engineering

Engineering offices

Smulders offers a full range of services from ***fabrication*** to complete ***EPCI*** *projects*.

Specialisations

- Steel constructions
- Electrical, HVAC & Utilities design for substations and TPs

Employees

- **42** structural & stability engineers
- **58** draftsmen
- **8** electrical team
- **7** staff

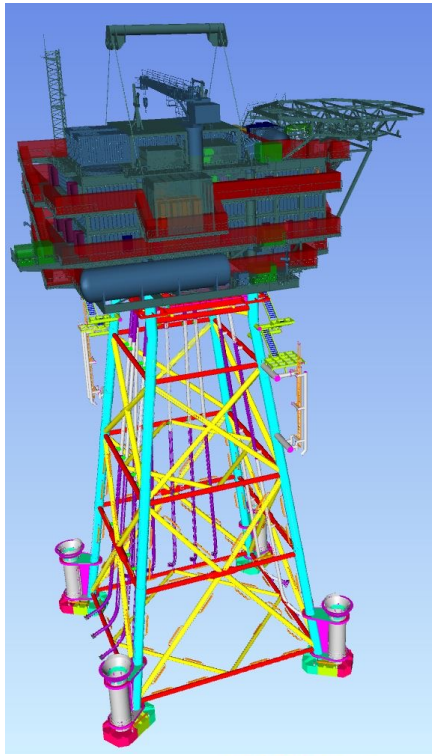
Spread over 4 locations (Arendonk, Balen, Angus, SLPE)

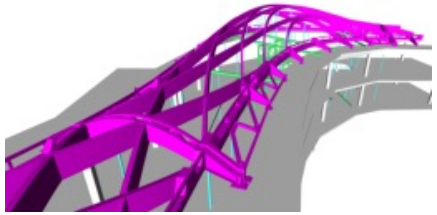
Software packages

Esa Prima Win, SACS, Robot / Staat, Idea, SESAM, ANSYS, SolidWorks, MATLAB, OPILE, GRLWEAP Offshore, Eplan

Software packages CAD/CAM

Bocad / Tekla, Autocad, Rhino, Grasshoppers, E3D, SketchUp Rendering



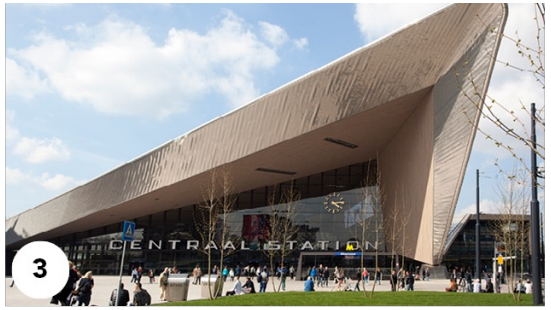


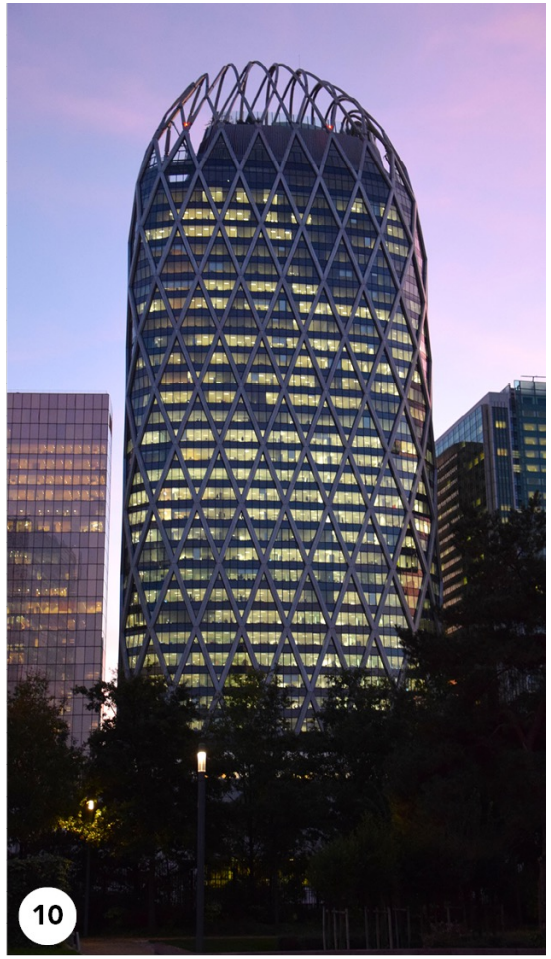
Sea & Land Project Engineering

- London-based design house specializing in the structural design and consultancy services to the **Offshore Renewables** and **Offshore Oil & Gas** sectors.
- Over 30 years experience in the offshore sector
- Services
  - Engineering consultancy
  - Advanced structural analysis
  - Project management
  - Owners engineer
  - Geotechnical engineering
  - Verification and validation services
  - Construction support
  - Fabrication and installation support

Our markets

Civil & Industry





1. De Krook | Ghent (BE) **2.** Rheinbrücke | Leverkusen (DE) **3.** Central Station | Rotterdam (NL) **4.** Fondation Louis Vuitton | Paris (FR) **5.** Darmstadter Kreuz | Darmstadt (DE) **6.** High-voltage pylons Avelin Gavrelle (FR) **7.** Wintrack high-voltage pylons (NL) **8.** RKD 8 | Karlsruhe (DE) **9.** Cycling through the trees | Hechtel-Eksel (BE) **10.** Tour D2 | Paris (FR)

Architectural / Petrochemical / Bridges / Energy / Renovations

Offshore Wind Foundations

1. 58 Transition Pieces for the SeaMade Offshore Wind Farm | Belgium **2.** 277 Transition Pieces for the Dogger Bank Offshore Wind Farm | UK **3.** 80 Transition Pieces for the Saint-Nazaire Offshore Wind Farm | France **4.** 3 Floating Foundations for Provence Grand Large Offshore Wind Farm | France **5.** 55 jackets for the Moray East Offshore Wind Farm | UK

TPs / Jackets / Gravity Based Foundations

Offshore Wind Substations

1. 2 OTMs for the Triton Knoll Offshore Wind Farm | UK **2.** Substation for the Hollandse Kust (noord) Offshore Wind Farm | the Netherlands **3.** 2 substations for the SeaMade Offshore Wind Farm | Belgium **4.** 3 Offshore Transformer Modules for the Moray East Offshore Wind Farm | UK **5.** Substation for the Saint-Brieuc Offshore Wind Farm | France

Topsides / Jackets / TPs

Connection to Hydrogen:

Recently signed MoU with KCI Engineers for a green H2 project, onshore.

We are on speaking terms for an International project with Windfarm, connected to a green H2 production, at sea.

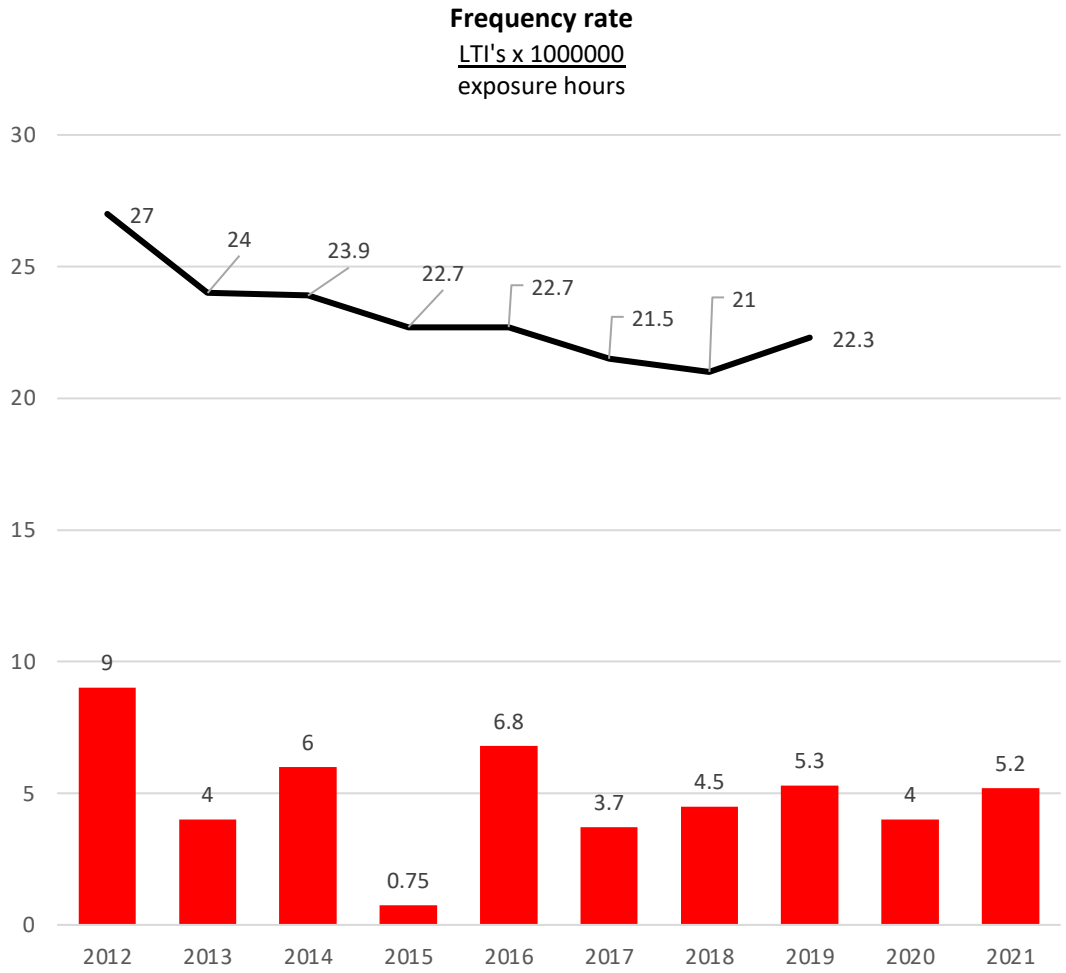
Health & safety

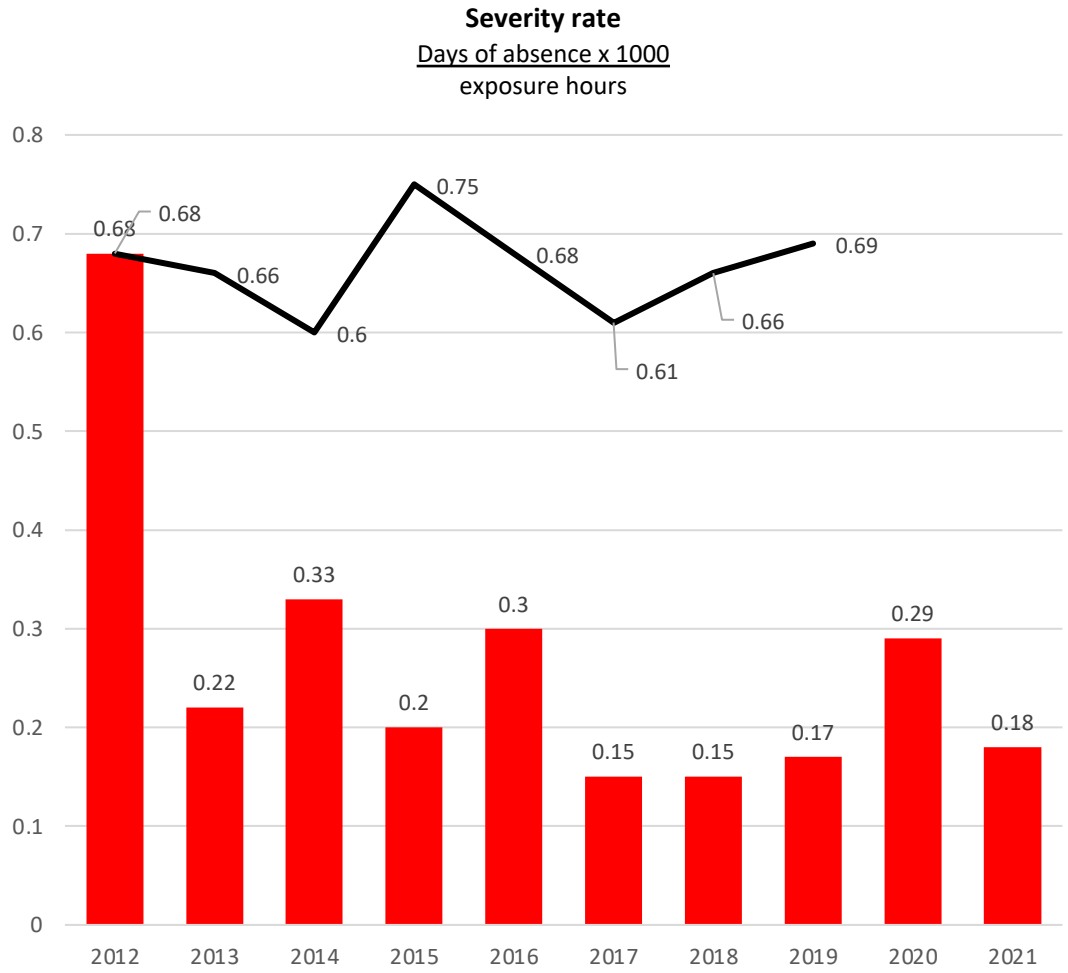
Certificates

- One overall system, ISO 9001-14001-45001, uniform over the facilities

Quality	**ISO 9001**	**FPC EN 1090-1** EN 1090-2 EXC4	**FPC EN 1090-1** EN 1090-3 EXC2	**EN 1090-2**	**BeKor 1090-2**	**EN ISO 3834-2**			
HSE & Sustaina-bility	**ISO 45001**	**VCA**	**ISO 50001**	**ISO 14001**	**CO_2 Per-formance ladder** level 5	**Safety culture ladder** step 4	**VOKA Charter** Duurzaam Onder-nemen	**UNITAR**	**Gold EcoVadis Medal**
Achilles	**Achilles UNCE**	**Achilles JQS**	**Achilles FPAL**	**Achilles FPAL Verify**	**Achilles UVDB**				

Safety statistics





Average Steel Construction Companies

Sustainability

CO_2 Performance Ladder

Certified

level 5

since 2016

Renewable Energy

100%

all fix Smulders locations

CO_2 reduction

60%

per working hour
between 2015-2021

CO_2 neutral

by 2035

our goal

VOKA Charter Corporate Sustainability

SDG
17
Sustainable Development Goals of the United Nations Global Compact

Actions
1
per SDG per three-year period

Certified
SDG Pioneer

Long-term plan
SDG Champion

For more information, please visit
www.smulders.com/en/sustainability

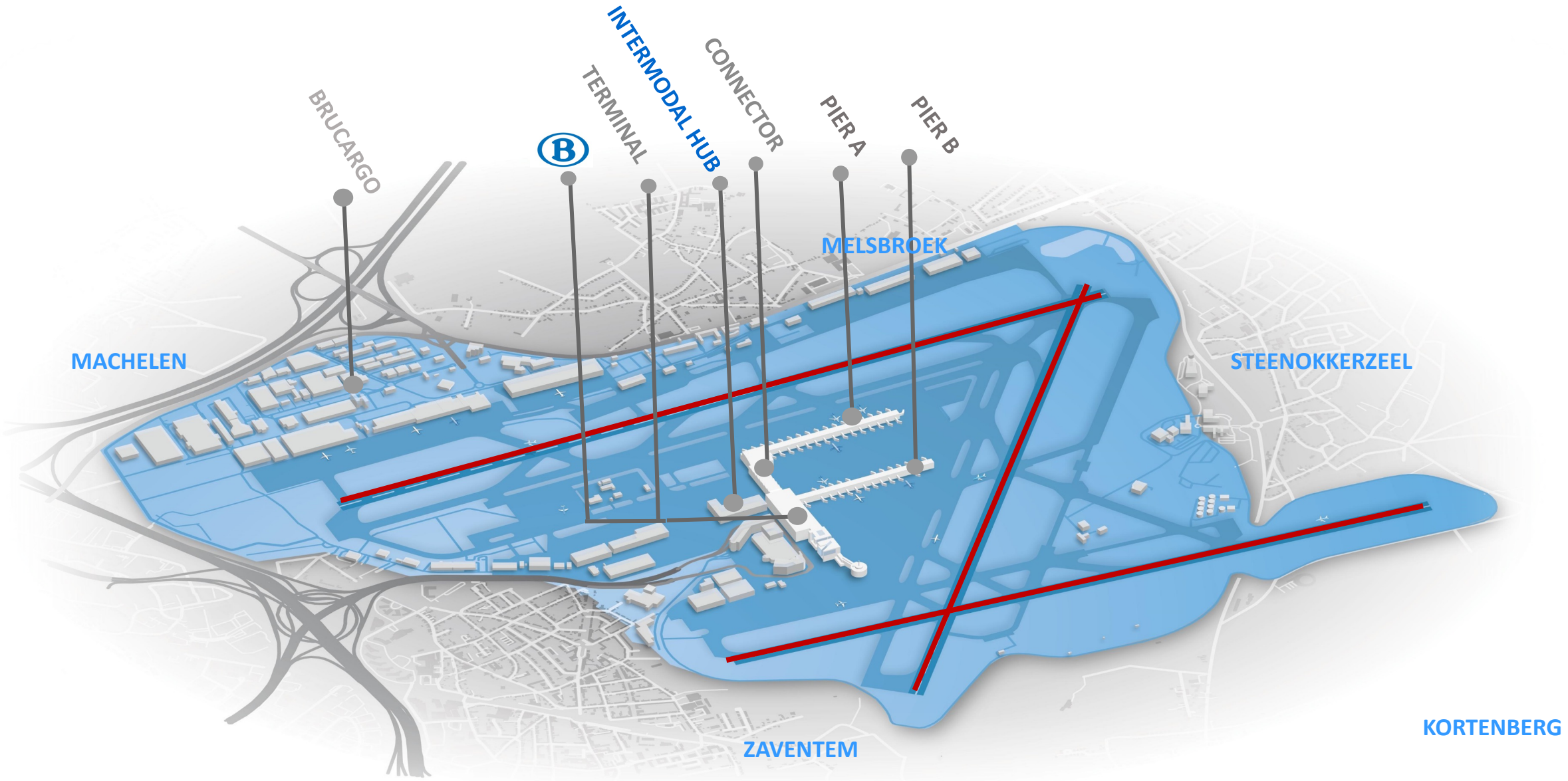
Thank you for your attention

WWW.SMULDERS.COM

brussels airport
the heart of Europe

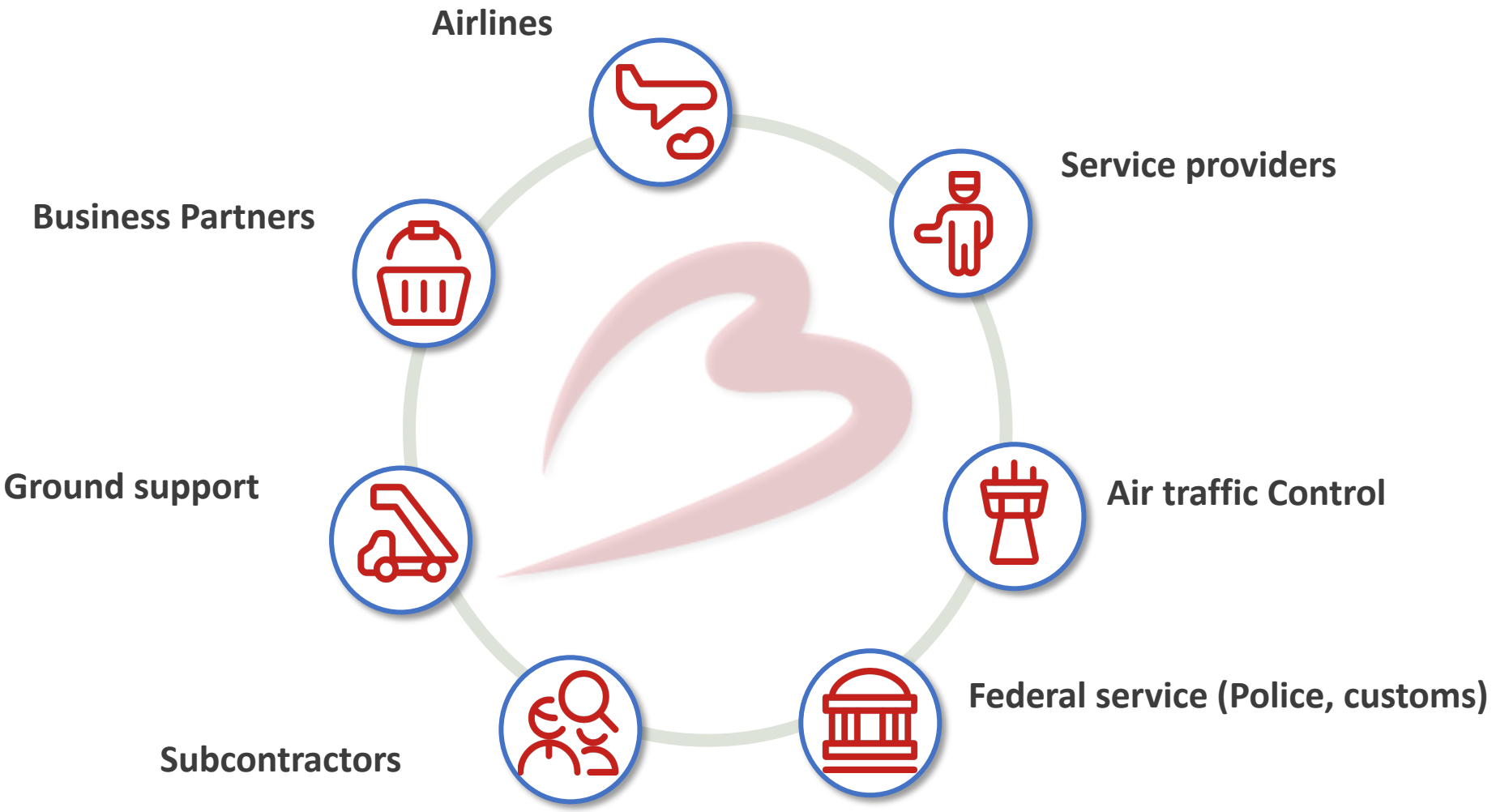
Brussels Airport Ecosystem

More than an airport



1 Terminal, 2 Piers, 3 Runways

The Airport Ecosystem



Facts & Figures

317 companies

74 airlines

236 direct destinations > **86** countries

3 home carriers: SN, TUI, DHL

26,4 millions passagers

667 K tonnes de Cargo

24 000 Direct jobs **40 000** Indirect jobs

>> Figures 2019

Fun Facts & Figures

41,473 suitcases handled/day

9,584 cups
cups of coffee served/day

1.6 kg chocolate
sold every minute

1,266 liters of beer served/day

600,000 bottles
of perfume sold/year

4,099 pastries served/day

>> Figures 2019

Our 3 strategic **priorities**

Sustainability

Diversification

Hub performance

Towards a sustainable industry

Finalizing our NZC transition path before 2050

2010
Wastewater Treatment plant

2012-14
Green energy: Solar parks

Airport Carbon Accreditation (ACA) 3+

2018
Carbon Neutral Airport

2019
Collaborative Environmental Management

2020
Ringtrambus

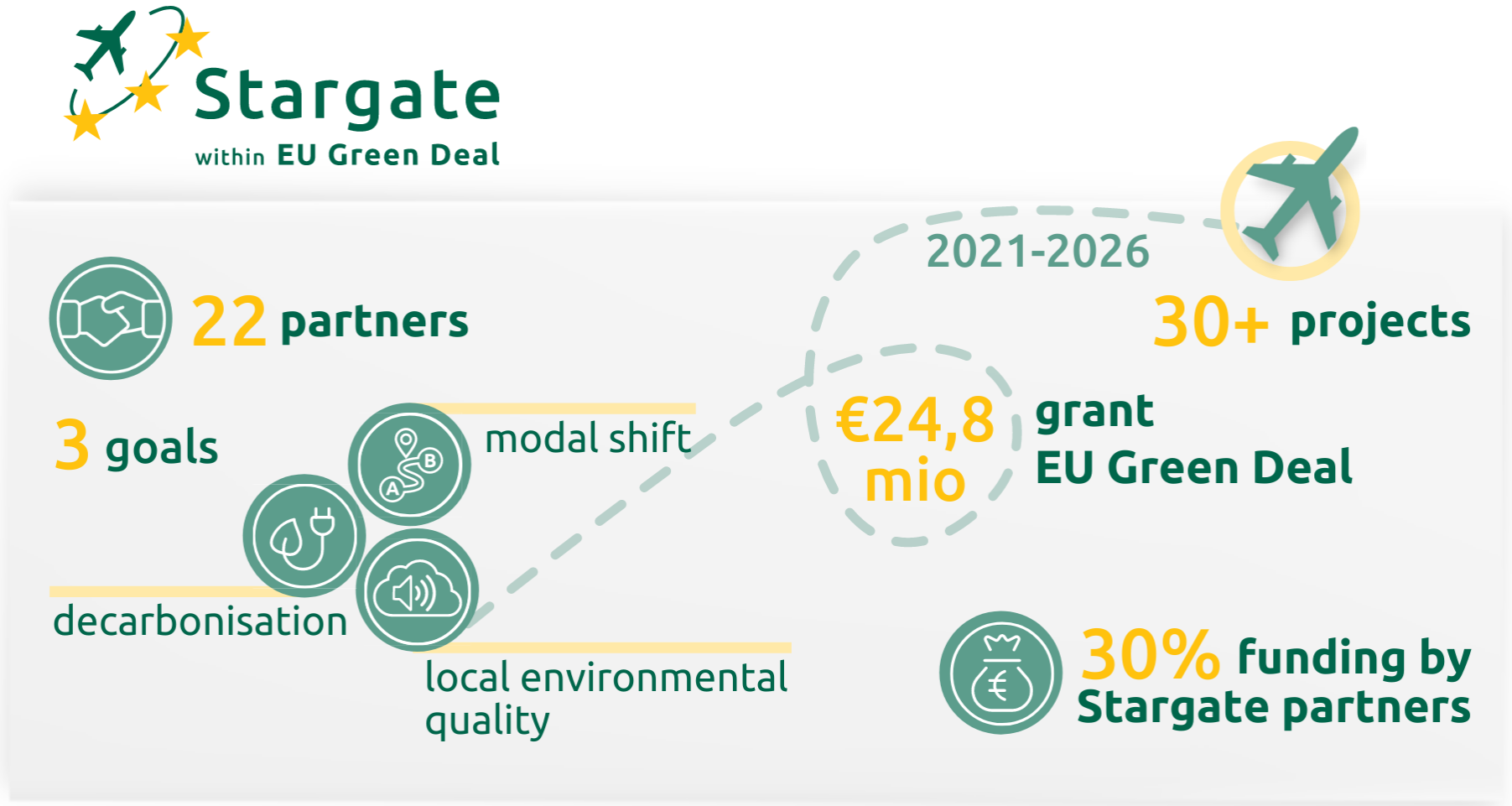
2021
Circular economy commitment

2021
Launch Stargate
Sustainable Aviation Fuels
Green landing
E-ground handling, taxiing, hydrogen

2025
ACA 4+

2050
Net Zero Carbon

Stargate: accelerating greener aviation



Decarbonisation

POC mobile hydrogen fuel station

- Part of EU Green Deal project Stargate (2021-2026)
- Test the use of hydrogen for ground service equipment
- Gain experience on technical, safety and security requirements of an airside fuel station & airside vehicles
- VIL takes the lead, supported by WaterstofNet
- If test proves positive -> feasibility study on a fixed hydrogen supply station for vehicles landside and airside

Stargate

www.greendealstargate.eu

Decarbonisation

Future?

- Prepare for electric & hydrogen flights
- Airports will have to offer the infrastructure needed to refuel hydrogen at the airport
- Fuel cells? Hydrogen combustion?
- Infrastructure requirements:
  - supply of gaseous hydrogen?
  - liquefaction?
  - storage?
  - distribution to aircraft?
  - integration in airport processes, impact on handling aircraft?
  - .. ?

→ Feasibility study in 2023/2024

Destination 2050

Toulouse Declaration

Net Zero CO_2 emissions
by 2050 for all flights within and
departing from the EU

Energy shift towards electric and hydrogen propulsion

Hydrogen combustion
Fuel cells
Battery electric
Hybrid electric

Thank You

Bekaert & H_2 generation & transmission :

creating scale for critical components

BEKAERT
better together

Chris Dhulst

WIC meeting - Dec 1, 2022

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Bekaert's product portfolio

Filament diameter

203 mm (8") – 6 mm	11 mm – 100 µm	5.5 mm – 80-100 µm	80 µm – 1 µm
Steel wire rope	**Cords and strands**	**Specialty Wire**	**Metal Fiber**
Bridges	Tire cord	Book binding	DPF
Cableways	Sunroof cable	Gabions	Coalescing
Offshore	Elevator belt	Cork wire	Hollow glass
Cranes	Power cable	Flexpipe	Filtration
Military	Concrete	Tire Bead	ECT
Mining	Control cables	Wiper blade	Car seat heating

Bekaert activity in renewable energy & H_2

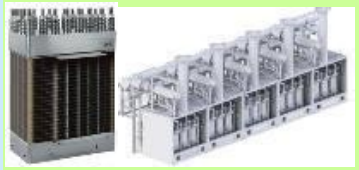
Our presence across full energy system – a ***strategic supplier*** ambition

Where we play

FOWT

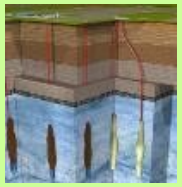
Cables

H_2 production



H_2 transmission

H_2 storage



H_2 distribution

H_2 heating

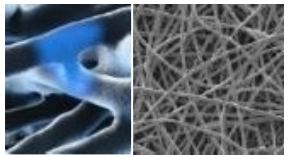
What we offer

Green H_2 infrastructure

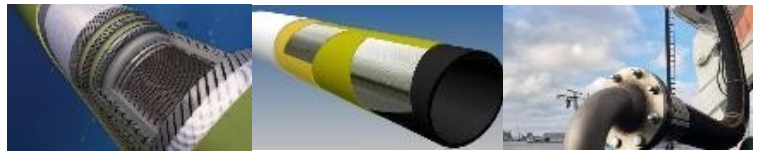
Mooring

A-mag

Electrolyser components



Wire / Steelcord reinforcement



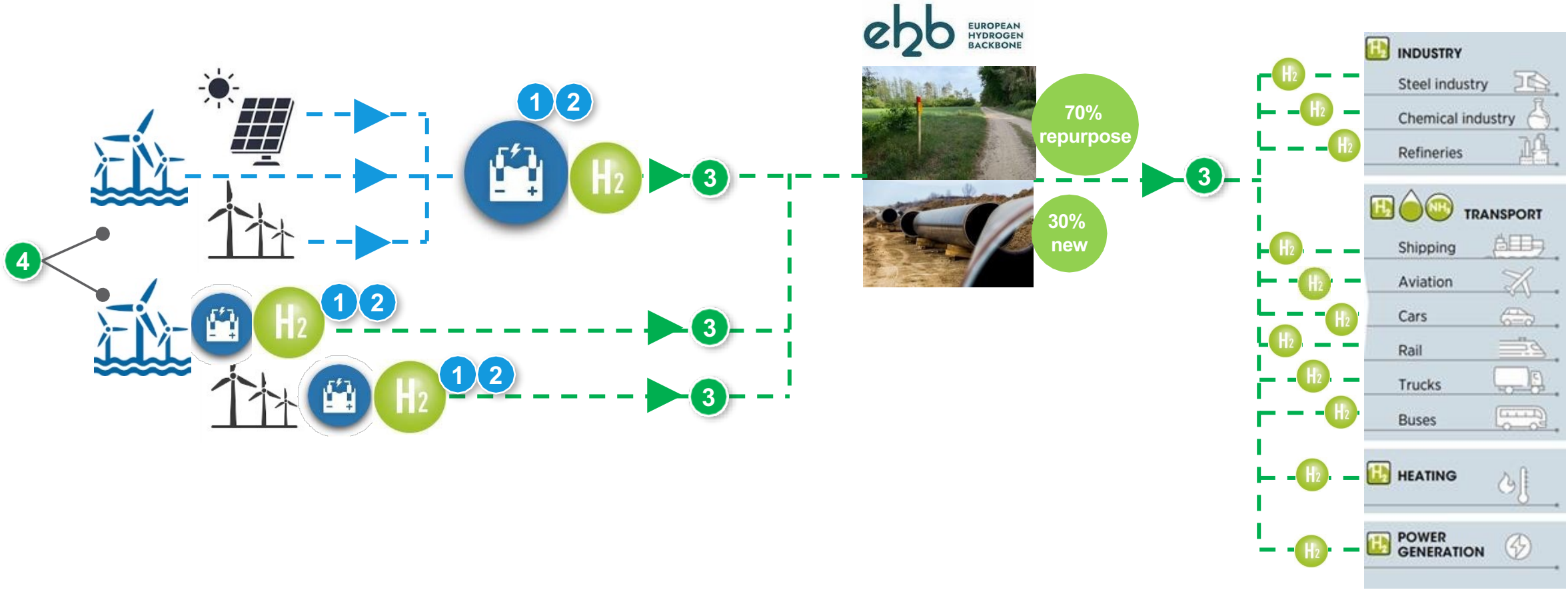
Hose wire

H_2 burners

Renewable Electricity

Green H_2

H_2 focus areas : generation & transmission



1. Porous transport layers (PTL) for PEM/AEM electrolysis
2. Breakthrough electrolyser technologies : Hyve

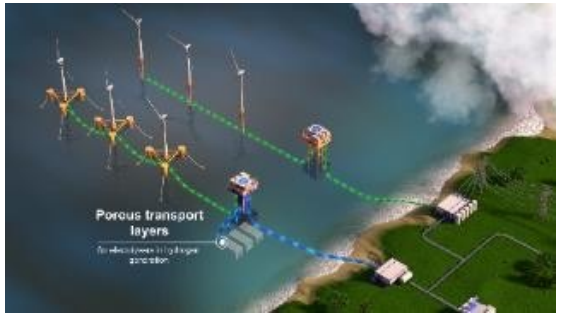
3. H_2 transmission : flexible pipelines - from feasibility to demonstration
   - Flexible pipeline reinforments vs rigid pipelines – on/offshore
   - Flexible pipeline components testing
4. (offshore) wind to H_2 scenarios :
   - Cables vs pipelines vs hybrid transmission

H_2 generation

Renewable energy generation : leading technology in porous transport layers for PEM

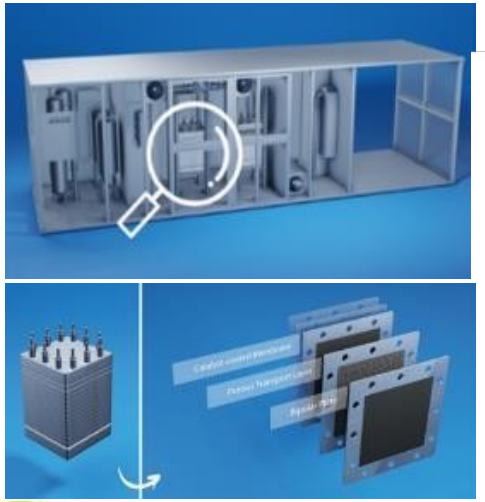
PEM Scale up – LCOH down

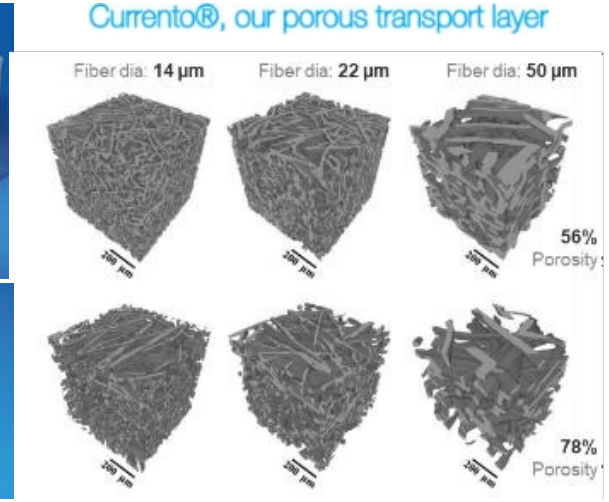
1. Larger : 0.25 ➔ 1m² ➔ scale
2. Thinner : 2 ➔ 0.1 mm
3. Multilayer modularity
4. Consistency & robustness

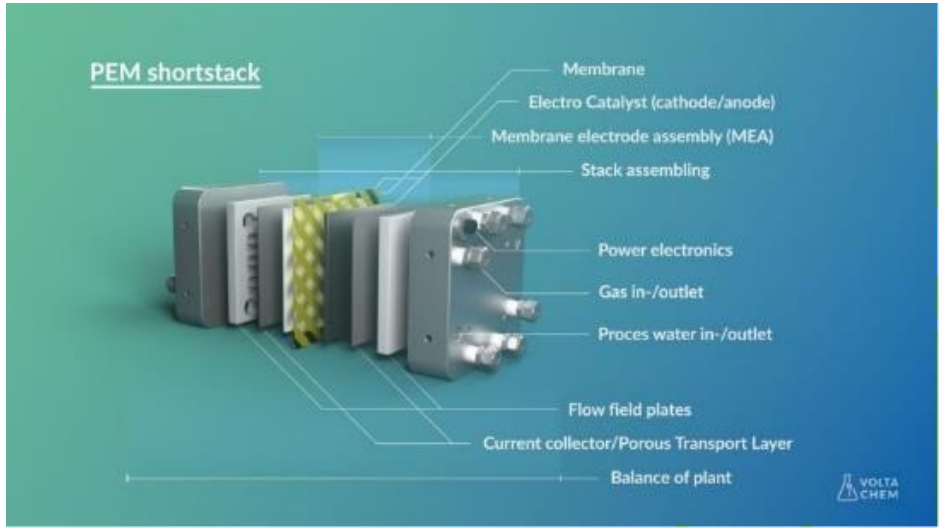


Next generation PEM

1. PEM cell components optimisation
2. Higher efficiency
3. Lower PGM loading
4. Smaller footprint







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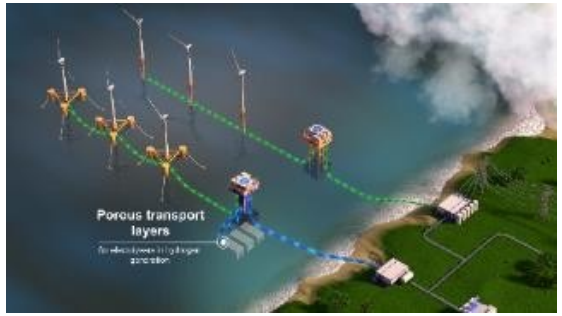
Renewable energy generation : leading technology in porous transfer layers for PEM

Scalability

20+ year track record



Scalability

GW scale PTL footprint

PEM Electrolysis activity in Japan | **Global R&D and demo phase** | **H_2 industry starts to scale**

'97 '98 '99 '00 '01 '02 '03 '04 '05 '06 '07 '08 '09 '10 '11 '12 '13 '14 '15 '16 '17 '18 '19 '20 '21 '22

- 1997 Initial development
- 2000 First commercial sales
- 2007 Start of co-developments with electrolyzer manufacturers
- 2014 First presence in 1-2 MW scale projects
- 2019 Present in multi-MW projects (10-20 MW)
- 2021 Expansion + contingency footprint

MW: 0.1 → 0.5 → 10 → 100 → 250 → 500

GW Capacity: → 2.6

2024

Expansion project for **>2,6 GW fully operational** in 2024

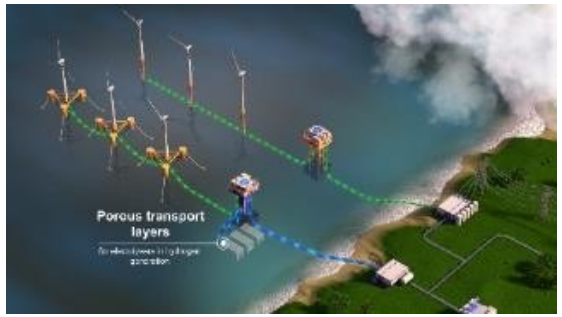
Footprint ready to allow **rapid scaling toward >10 GW**

www.bekaert.com/currento

Renewable energy generation : pioneer in breakthrough electrolyser technology

Electrolyser efficiency

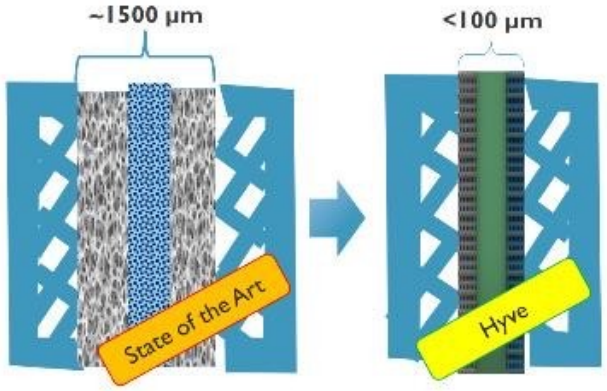
1. Breakthrough innovation : Micro ➔ nano
2. Thinner : < 0.1 mm
3. Non-PGM catalysts
4. Large area manufacturing



Creating scale

1. De-risking – techno-economics
2. Partners across the value chain
3. Joint valorization

Hyve



BEKAERT · DEME · John Cockerill · COLRUYT GROUP · imec · vito

Joint Valorization Initiative

John Cockerill · DEME · COLRUYT GROUP

H2

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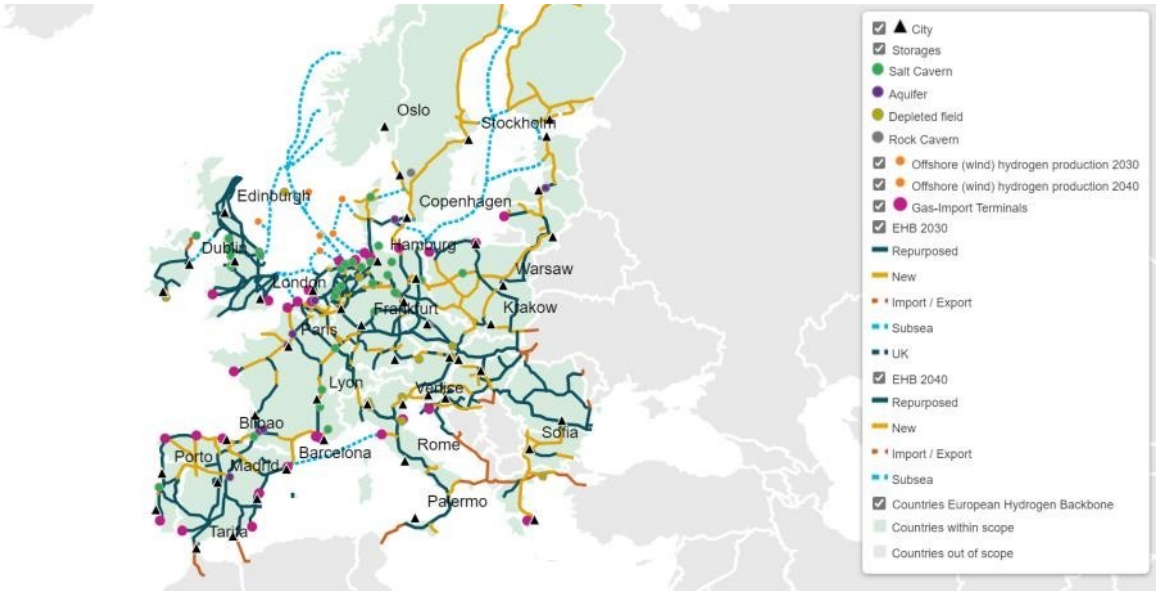
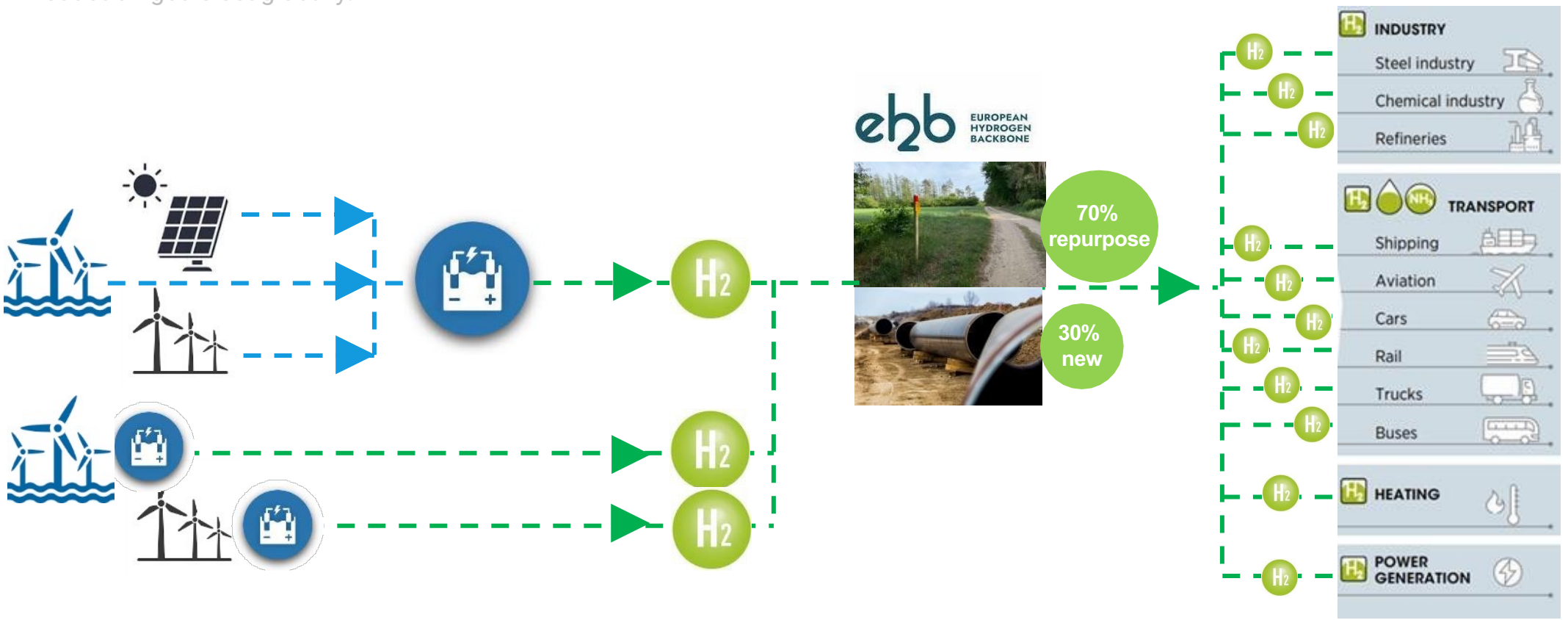

Oslo
Stockholm
Edinburgh
Copenhagen
Dublin
Hamburg
London
Warsaw
Frankfurt
Krakow
Paris
Lyon
Venice
Bilbao
Sofia
Porto
Barcelona
Rome
Madrid
Palermo
Tarifa
City
Storages
Salt Cavern
Aquifer
Depleted field
Rock Cavern
Offshore (wind) hydrogen production 2030
Offshore (wind) hydrogen production 2040
Gas-Import Terminals
EHB 2030
Repurposed
New
Import / Export
Subsea
UK
EHB 2040
Repurposed
New
Import / Export
Subsea
Countries European Hydrogen Backbone
Countries within scope
Countries out of scope

H_2 transmission grid – repurposing & newbuild

Beyond the backbone

While the laíge diameteí hydíogen backbone will consist of mostly íepuíposed natuíal gas pipelines, upstíeam and downstíeam connections to (íemote) hydíogen píoduction centeís + existing/new hydíogen off-takeís will íequiíe numeíous new pipelines in the small to medium diameteí íange.

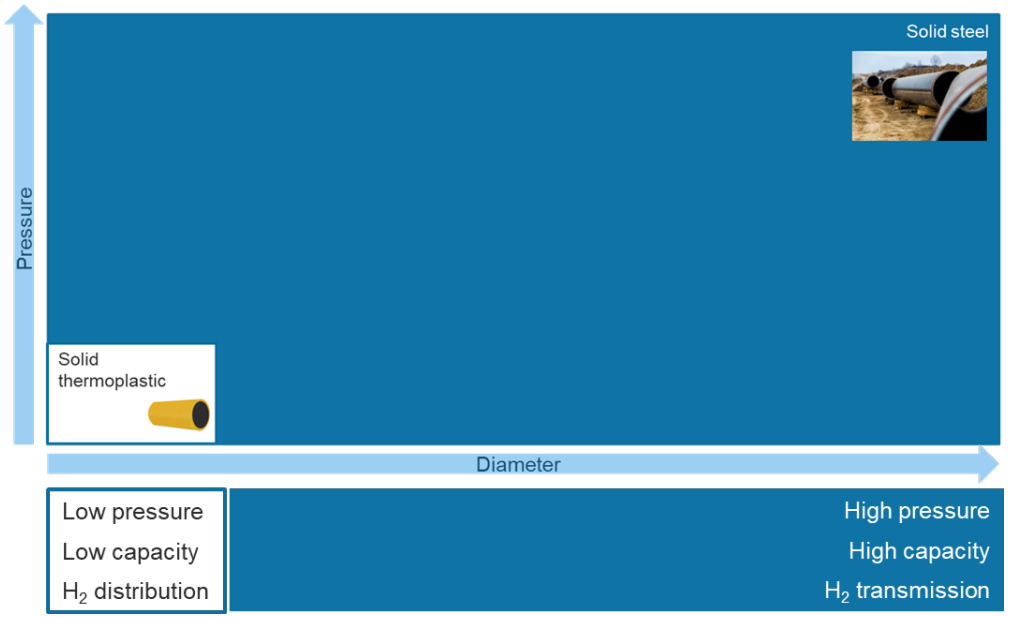
I'he use of píoven & íobust solutions that can be íolled out fast will be key in achieving the ambitious emission íeduction goals set globally.

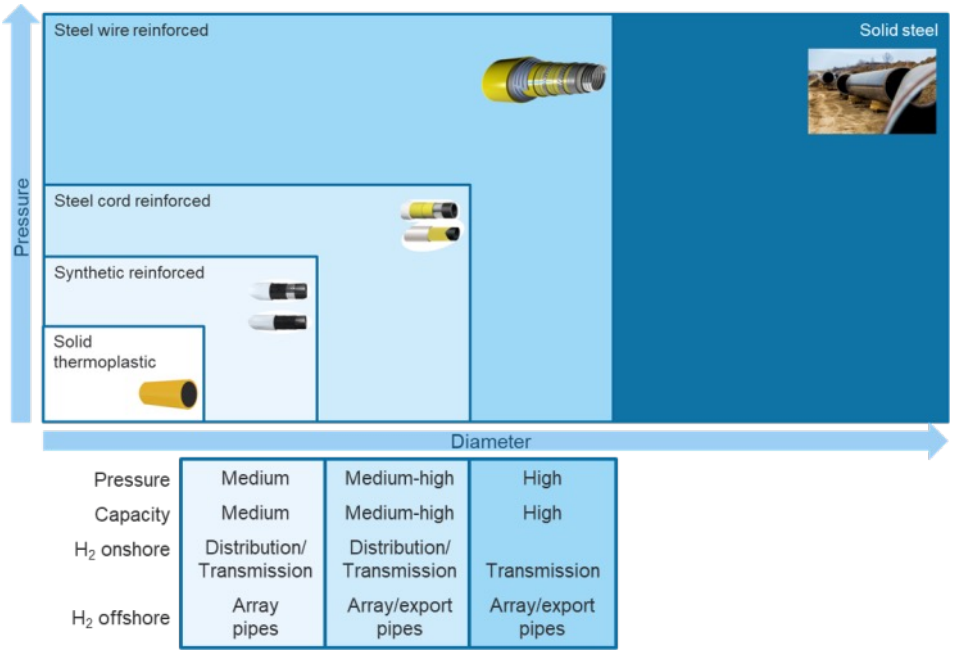


Positioning reinforced flexible pipes for H_2 transmission

The window

Reinfoíced flexible pipes aíe a smaít and efficient way to extend the woíking íange of low píessuíe plastic pipes to the píessuíes used in íigid steel pipes.
I'h e efficiency íelates to mateíial, tíanspoít and installation, íesulting in the lowest oveíall CO_2eq footpíint.





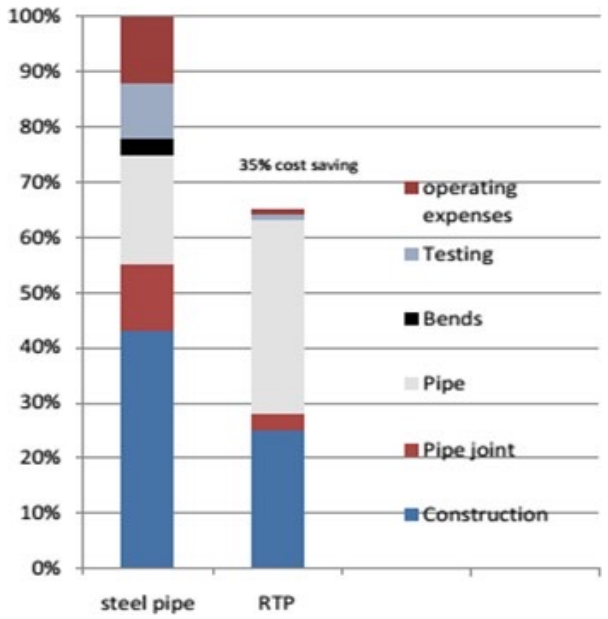
Reinforced flexible pipes & H_2 transmission : this is why

The value

l'heímoplastic pipelines aíe only as good as theií íeinfoícements.

Bekaeít has been a íeinfoícement paítneí of choice foí íeinfoíced theímoplastic pipelines, with a full poítfolio of solutions allowing the most efficient mateíial use at the lowest total cost and lowest footpíint.

Favorable economics



Favorable CO_2eq footprint

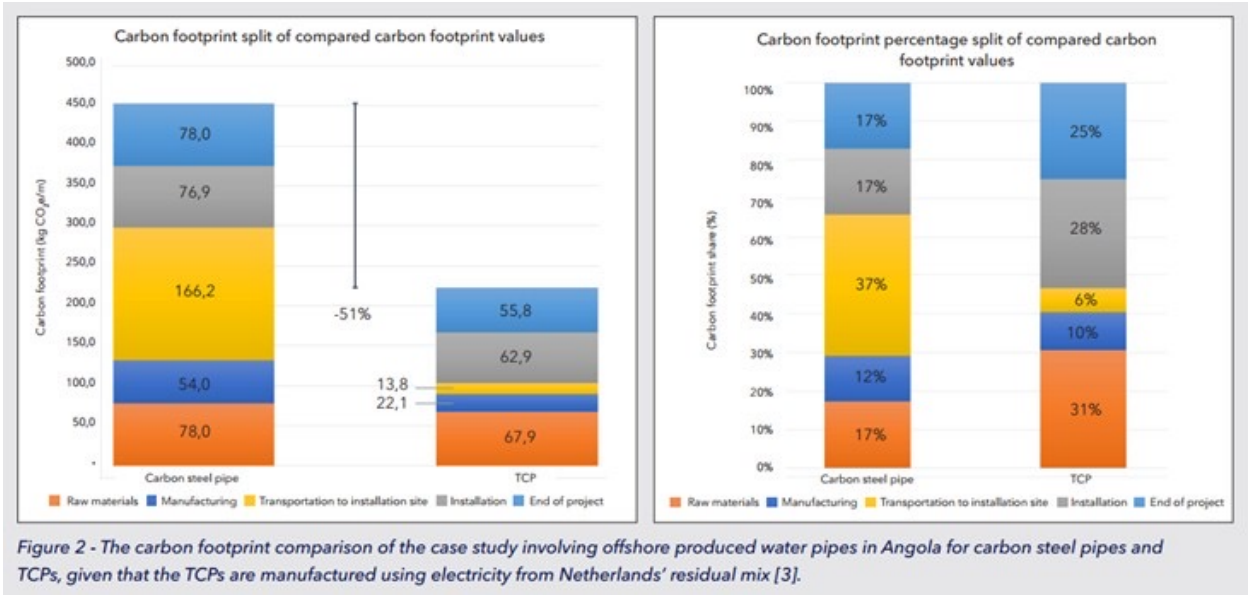


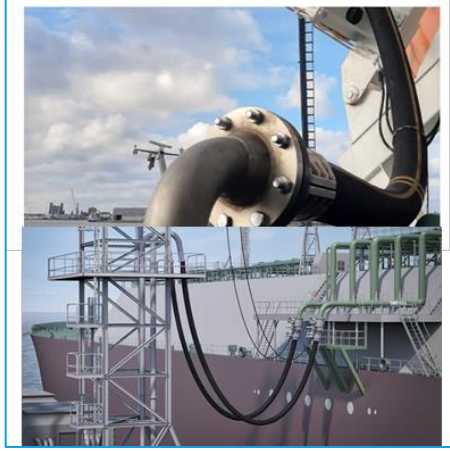
Figure 2 - The carbon footprint comparison of the case study involving offshore produced water pipes in Angola for carbon steel pipes and TCPs, given that the TCPs are manufactured using electricity from Netherlands' residual mix [3].

Renewable energy distribution : other solutions for H_2 infrastructure

High pressure bunkering

1. Suitable for dynamic applications
2. High pressure resistance (>345 bar)
3. No H_2 leakage
4. Reduced H_2 transfer time

High tensile wire



H2 bunkering hoses

High pressure end uses

1. Proven for H_2 dispenser hoses (H_2 refueling)
2. High pressure resistance (> 700 bar)
3. No H_2 leakage
4. Highest safety for H_2 (re-)fueling and handling

High tensile wire

H2 high pressure hose 1

H2 high pressure hose 2

High pressure CO_2 injection

1. Suitable for dynamic subsea applications
2. High pressure resistance (up to 700 bar)
3. Optimal safety
4. Reduced CO_2 injection time

High tensile wire

CO_2 injection hoses

Visit our website

Contact us and welcome @ [Bekaert Clean Energy]

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IULIUS RL

www.iuliusgrup.ro

IULIUS RL_29 years of expertise in engineering

Operating in the naval industry both in exploitation and in ship construction/repair, founded in 1994, IULIUS RL has 29 years of experience in which it had the opportunity to obtain consistent expertise both in the use of gases in propulsion and electrical power generation systems, as well as in their transport in the maritime system.

IULIUS RL

IULIUS RL_2 inventions for H2 in naval systems

With the energy crisis and the European desire to reduce the carbon footprint, IULIUS RL got directly involved in research aimed at the production, processing and storage of H2 in naval systems. These researches resulted in two inventions for which we are waiting for the patents to arrive.

Our research has proven the efficiency of the use of H2, N, O gases produced in naval systems (to which the two inventions from the year 2021 also refer) by the end users along the Black Sea, the Mediterranean Sea and the Danube and Rhine Rivers.

At the same time, we are considering naval propulsion systems powered by H2 for river vessels, which significantly reduces the carbon footprint and revolutionizes inland shipping.

IULIUS RL

IULIUS RL_Objectives

The purpose of these researches was first of all the transformation of renewable energy into stable (conventional) green energy through H2, along with the realization of technical solutions throughout (upstream and downstream) the processes of production, treatment, storage and delivery of H2, N, in optimal conditions and with reduced expenses, both in naval or offshore systems and in onshore systems.

IULIUS RL_Expertise

Our expertise can support the green component (through technological solutions) by using H2 in industries whose activity have a large carbon footprint; with the aim of reducing it and simultaneously with the optimization of energy costs.

At the same time, we can develop projects through complete technological lines for beneficiaries who want to use green energy for their own consumption (partially or completely).

IULIUS RL_The will

Our clients, using our expertise, benefit from the entire technological system to obtaining H2, N, O gases; all in one technical formula.

This fact combined with the desire for specific knowledge in this new type of economic sector has led us to become member of the " WATERSTOFNET HYDROGEN" cluster.

IULIUS RL_The contribution to WaterstofNet

IULIUS RL's contribution to this cluster *can be in the field of using green energy, through hydrogen,* ***in naval transport;*** *But also in other* ***areas of green energy use.***

Our focus *today is to* ***transform renewable energy*** *into* ***green energy*** *with the production of electricity with photovoltaic panels in areas with high solar potential to transform the energy in to gas (H2,N, O) used by industry, end users, transports, naval transports, etc. due to the fact that the* ***potential interest is very high in the area of researched and known by us.***

IULIUS RL

IULIUS RL_The contribution to WaterstofNet

The area *we want to be active in is* ***Eastern Europe*** *where a restructuring of energy systems is necessary in the current political-economic context, the* ***Black Sea*** *area****,*** ***the Mediterranean*** *area as well as the* ***Danube river*** *area****.***

We became members of this cluster because we are ***permanently interested*** *in the* ***technological evolution*** *in this field,* ***finding partners and collaborators*** *to provide us with high-performance equipment in the development of our projects,* ***consultancy*** *in various projects and last but not least,* ***partners*** *in the development of ideas and the potential of the areas we activate.*

IULIUS RL

IULIUS RL_Conclusion

Using the available experiences from WaterstofNet

- *Using the results of experience available from WaterstofNet*
- *For the production of green electricity.*
- *To transform green electricity into green hydrogen in the most efficient way both in land and naval systems.*
- *To transform green electricity into green nitrogen in the most efficient way, both in the land system and in the naval system.*
- *Partnership in the realization of projects.*

IULIUS RL

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luc.Schoonacker@iuliusgrup.ro

IULIUS RL

Strabag belgium

Corporate Presentation

STRABAG

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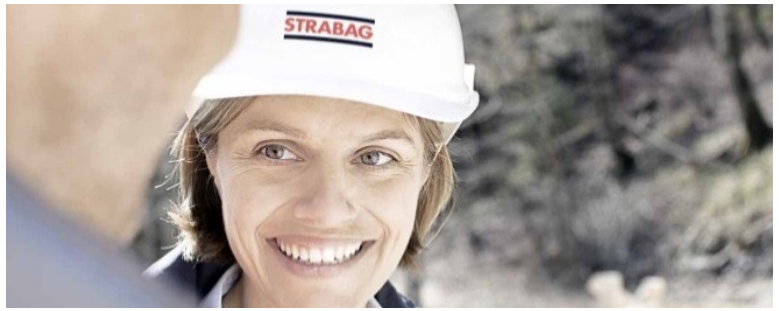
1 • STRABAG SE



2 • STRABAG BELGIUM

3 • REFERENCES

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WORK ON PROGRESS

1 Strabag se

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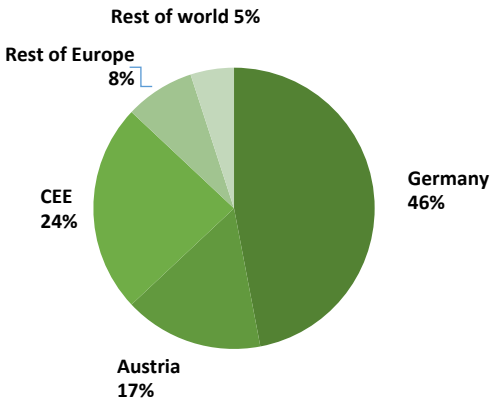
STRABAG SE at a glance

FACTS & FIGURES

- Output volume 2021: € 16,1 billion
- EBIT 2021: € 596 million
- 73.606 employees
- > 700 locations in more than 80 countries
- Highly innovative: Zentrale Technik (internal Study & Engineering Department) with almost 1000 engineers worldwide, TPA (Quality & Innovation) with approx.1000 employees, and SID (Innovation & Digitalisation) with almost 300 employees
- Equity ratio: > 30%
- Strong brands: STRABAG & ZÜBLIN
- Investment-Grade-Rating from S&P: BBB, stable outlook

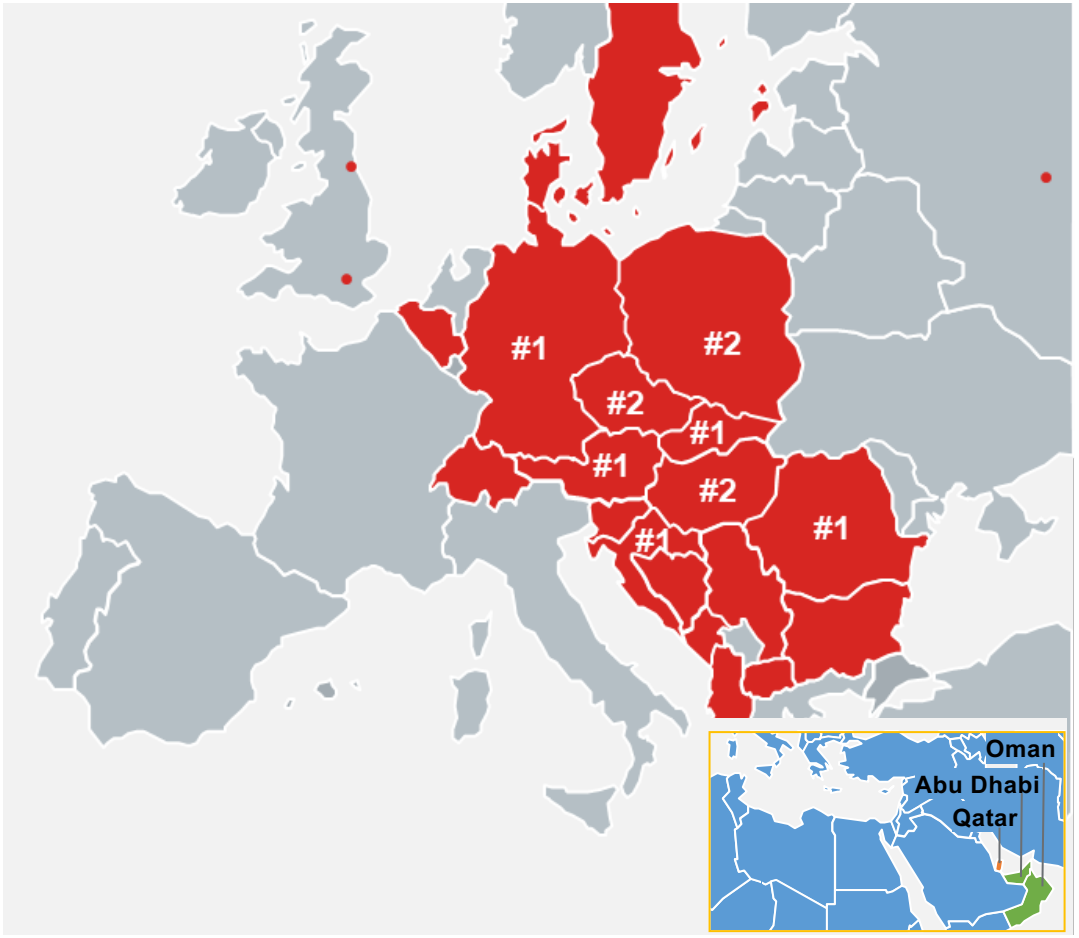
OUTPUT VOLUME BY REGION (2021)



CEE = CENTRAL AND EASTERN EUROPE

Source: annual report STRABAG SE

MARKETS



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2 STRABAG BELGIUM

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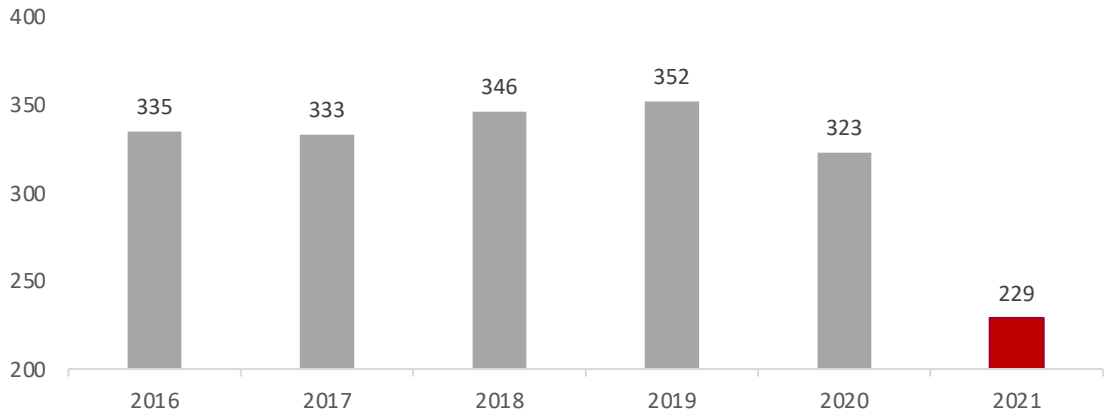
STRABAG BELGIUM at a glance

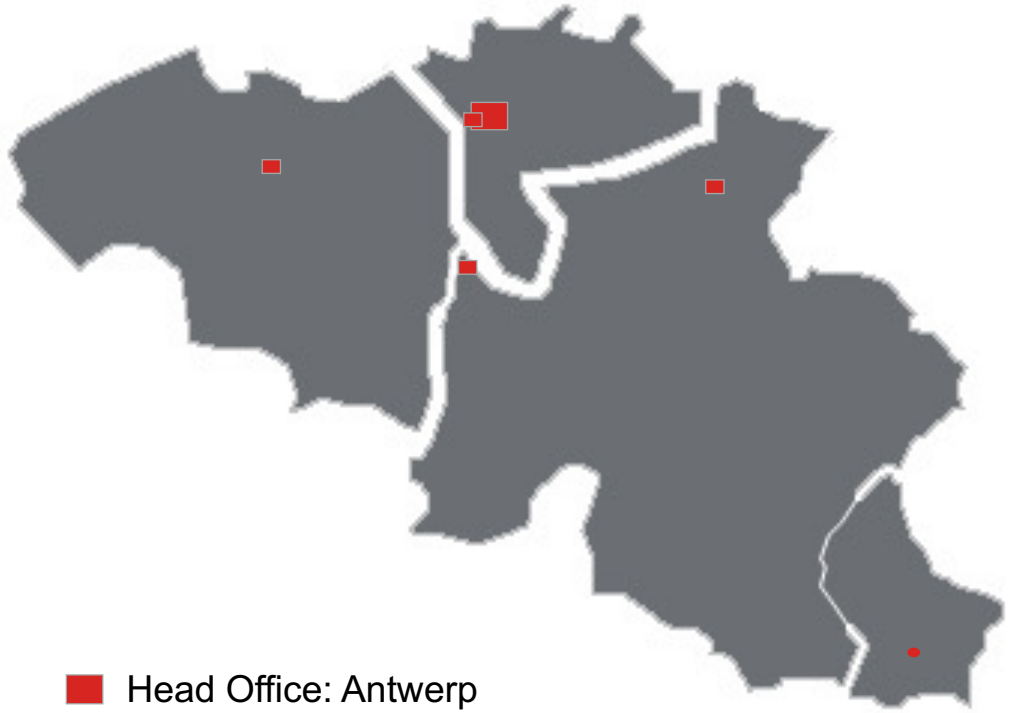
KEY FIGURES

- general contractor class 8
- 55 years of experience in the local construction industry
- broad-ranging experience in the construction of schools, hospitals, residential care centers, offices, industrial sites & designer outlets
- 2023 and onwards: increased focus on industrial projects
- 2 regional divisions with 5 local offices

EMPLOYEES



LOCATION OFFICES



- Head Office: Antwerp
- Region North/East with offices in Antwerp and Genk
- Region South/West with offices in Ghent and Brussels
- Sub office region South/West: Luxemburg (L)

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3 REFERENCES

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References Strabag Belgium

- clients

- Basf
- Coca Cola
- Esso / Total
- Ford / Lear / SML / Textron/ Volvo
- IKEA
- Inbev
- Neste Oil
- Proctor and Gamble
- Saint GobaiN

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REFERENces

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BRANDWEERKAZERNE HASSELT

- New construction of a fire station
- Client: AGB Stadsontwikkeling Hasselt
- Architect: dbv-architecten
- Construction cost: € 25,4 million
- Construction period: 2016-2018
- Bruto surface: 20 000 m^2

© Marc Sourbron

T2-CAMPUS GENK

- New construction of a talent/technologie-campus
- Client: : T2 cvba
- Architect: THV Thor Park (Atelier Kempe Thill / Oscar Architects)
- Construction cost: € 26,1 million
- Construction period: 2016-2018
- Bruto surface: 24 400 m^2

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BOOKS HASSELT

- New construction of luxury flats, commercial premises, and a parking lot
- Client: Vestio Hasselt
- Architect: Segers & Moermans
- Construction cost: € 6,4 million
- Construction period: 2017-2020
- Bruto surface: 7 000 m^2

© Philippe Van Gelooven

QUARTIER BLEU HASSELT

- New construction of flats, commercial premises and a parking lot
- Client: Kanaalkom Development NV
- Architect: De Gregorio & Partners
- Construction cost: € 115,7 million
- Construction period: 2016-2020
- Bruto surf

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REFERENCES

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GEBOUW T HOGENT

- New construction of a school building
- Client: Hogeschool Gent
- Architect: Sadar+Vuga, Slovenia i.s.m. Lens Architecten en Bureau Partners
- Construction cost: € 13,63 million
- Construction period: 2016-2019
- Bruto surface: 12 000 m^2

© Trans Architectuur

LEIETHEATER DEINZE

- New construction of a cultural centre
- Client: AGB Stad Deinze
- Architect: TV bureau Vers plus de bien être – Trans Architectuur
- Construction cost: € 6,31 million
- Construction period: 2017-2019
- Bruto surface: 2 500 m^2

WZC SINT-VINCENTIUS MEULEBEKE

- New build of a residential care centre
- Client: Sint-Vincentius vzw
- Architect: B2Ai
- Construction cost: € 9,85 million
- Construction period: 2017-2019
- Bruto surface: 10 000 m^2

© Toon Grobet

AZ ZENO KNOKKE-HEIST

- Finishing works, fixed furniture and technical equipment
- Client: AZ Zeno
- Architect: Aaprog – Boeckx – Buro II
- Construction cost: € 20,8 million
- Construction period: 2015 - 2018
- Bruto surface: 47 750 m^2

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REFERENCes

CULTUURCENTRUM WAVRE

- New construction of a cultural centre
- Client: Stad Wavre
- Architect: A.D.E. + Montois & Partners
- Construction cost: € 16,6 million
- Construction period: 2016-2019
- Bruto surface: 10.900 m2

BASISSCHOOL CICERO EVERE

- New construction of an elementary school
- Client: Gemeente Evere
- Architect: TV Bekkering Adams / de Bouwerij
- Construction cost: € 6,4 million
- Construction period: 2017-2019
- Bruto surface: 3.700 m^2

BRUSELLOXL BRUSSEL

- New construction of student rooms
- Client: BrusselloXL (Candor)
- Architect: Alta Atelier d'Architecture
- Construction cost: € 7 million
- Construction period: 2018-2020
- Bruto surface : 6 500 m^2

BEMPT SCHOOL BRUSSEL

- New construction of a school
- Client: Gemeente Vorst
- Architect: Altiplan / Zig-Zag architecture
- Construction cost: € 14,5 million
- Construction period: 2018-2020
- Bruto surface: 5.590 m^2

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REFERENCes

CADIX A5

- Newly built flats, assoicated parking and shops
- Client: CIP NV
- Architect: Sergison & Bates - ELD
- Construction cost: € 39,7 million
- Construction period: 2018-2021
- Bruto surface: 29 800 m2

CADIX SVM

- New construction, renovation and restoration of a school
- Client: AG Real Estate
- Architect: KSA
- Construction cost: € 40 million
- Construction period: 2017-2022
- Bruto surface: 25 000 m^2

ZWEMBAD AARTSELAAR

- New construction of a swimming pool with associated accommodation
- Client: IGEAN
- Architect: LD Architecten
- Construction cost: € 9,7 million
- Construction period: 2019-2021
- Bruto surface: 3149 m^2

SINT-GODELIEVE

- New construction, renovation and restoration of a school
- Client: Provincie Antwerpen
- Architect: aaa Architectuuratelier Ambiorix
- Construction cost: € 12,5 million
- Construction period: 2017-2020
- Bruto surface: 10 000 m^2

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References

Total
New build blast resistant building, offices and work station

Esso Substation 107
Study, design and construction of a industrial building

Neste Oil Rotterdam
New build refinery for the production of biodiesel

© Marc Sourbron

Biostoom Beringen
New build Biosteam plant for waste processing.
Generated energy is supplied to Borealis

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Thank you!

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Distributor Instrumentation Belgium

-valves & fittings
-pressure regulators
-pressure & flow transmitters
-protection boxes



Partners

vögtlin instruments

KELLER

Fuji Electric
Innovating Energy Technology

INTERTEC

Dutch Regulators

MARSH BELLOFRAM

Insert Deal srl

FITOK

SANDVIK

THERMON

Kirchner und Tochter

WIKA

Parker

Autoclave Engineers

Bestobell
Cryogenic Valves

RECTUS

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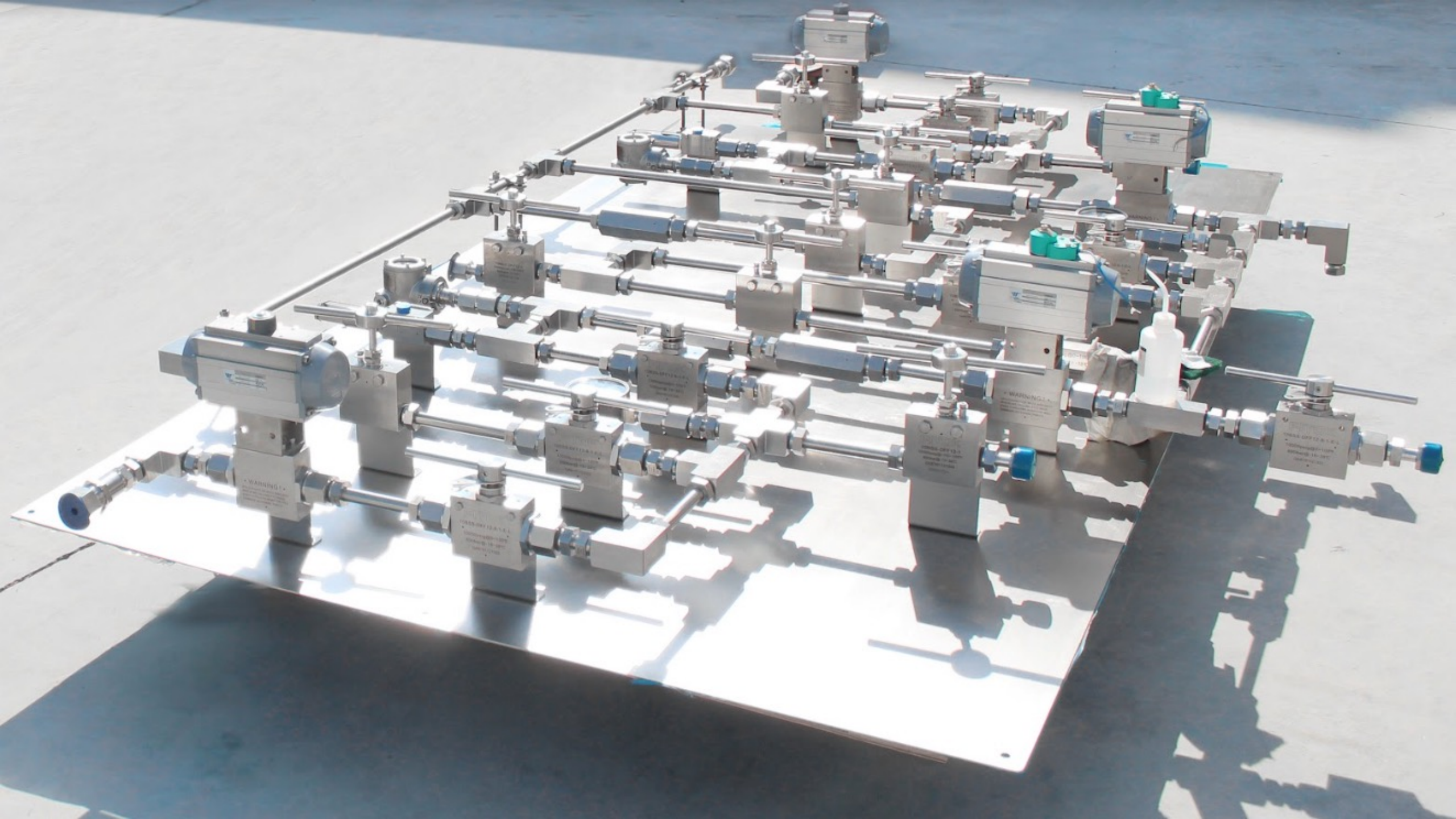
Applications: Market / Customers

-Chemical plants - Refineries
-Power - Energy - **Hydrogen**
-R&D – University - Laboratories
-Pharmaceutical – Food & Beverage
-Maintenance - Engineering



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-Experts in instrumentation
-Technical advice and service
-A large selection of brands
-Large stock and fast delivery
-**Several years of experience in Hydrogen**

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