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PortNews

PROMOTION COUNCIL NORTH SEA PORT
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North Sea Port
Together Smarter

IN THIS ISSUE

REGULARS

ON THE COVER

With the opening of a new branch office in Aarhus, ship agent and cargo surveyor Navonus has expanded its network. Read more on page 16.
Photo courtesy Joris Clappaert – Navonus.

North Sea Port and Promotion Council North Sea Port will be in attendance at various events and trade shows.
Below you'll find a snapshot of the upcoming events that might be of interest to you.

7-9 FEBRUARY 2024
Fruit Logistica
Berlin

12-13 MARCH 2024
StocExpo
Rotterdam

14 MARCH 2024
Multimodaal Transport Expo
Breda

19-21 MARCH 2024
Wind Europe
Bilboa

13-15 MAY 2024
World Hydrogen
Rotterdam

21-23 MAY 2024
BreakBulk Europe
Rotterdam

22 JUNE 2024
Maritieme Haringparty
Vlissingen

17-19 SEPTEMBER 2024
Transport & Logistics
Ghent

TBD OCTOBER 2024
Fruit Attraction
Madrid

26-27 NOVEMBER 2024
Offshore Energy
Amsterdam

5-6 DECEMBER 2024
European Commodities Exchange
Paris

2-5 JUNE 2025
Transport & Logistic
Munich

More than words

North Sea Port, North Sea, Europe, appreciation, collaboration. These are more than just words that apply to the latest developments in our port.

Let me start with the New Lock, which by the end of 2024 will become our crucial link in goods transportation for seagoing vessels towards Terneuzen and Ghent, and for inland navigation between Rotterdam and Paris. This lock officially received a name. Well, the name for the lock itself remains unchanged – operationally, you still have to work with it – but the lock complex is now called 'North Sea Locks'. In terms of branding our port area, this can be quite advantageous.

Europe? That was the common theme of our North Sea Port Conference at the end of November. Over 500 professionals from the business world, industry, and governments deliberated on the TEN-T transport network, energy transition, and cross-border collaboration to further develop Europe. For the first time, ports from other European countries such as Spain, Italy, and Latvia also participated. Thus taking another step in the expansion of North Sea Port as a top European port.

Appreciation? North Sea Port recently received two European awards. The European port organisation ESPO honours our port for the numerous, longstanding efforts in restoring nature in the buffer zones between residential areas and port activities. Additionally, our CEO Daan Schalck was named 'Personality of the Year' by the International Bulk Journal for his role in North Sea Port as a leading dry bulk port, in collaboration with many companies.

Collaboration? This is how we ensure that our port continues to develop and prepares itself for the future. 'Together Smarter' is the way, right?

Astrid Vliebergh,
Head of commercial affairs

Moving forward through collaboration

The North Sea Port Conference this year took place in Ghent on Thursday 23 November. One of the main topics of the event was the collaboration between European ports. This is logical, as recent developments show that cooperation on a European level is necessary to reach various goals.

Together with ports, professionals, and the industry, the conference dove into topics such as a successful TEN-T transport network, European ports as energy hubs, and port collaboration.

Cross-border focus

Seaports such as North Sea Port are strongly embedded in the European port system. The European cross-border focus of the ports is underlined by being part of several European Corridors, which ensures that goods can be delivered quickly and efficiently by rail, road, inland/coastal shipping, and /

> Every port has its unique selling points, but each port is striving for a sustainable modal split and a status as fast emerging hub in the energy transition and circular economy initiatives.

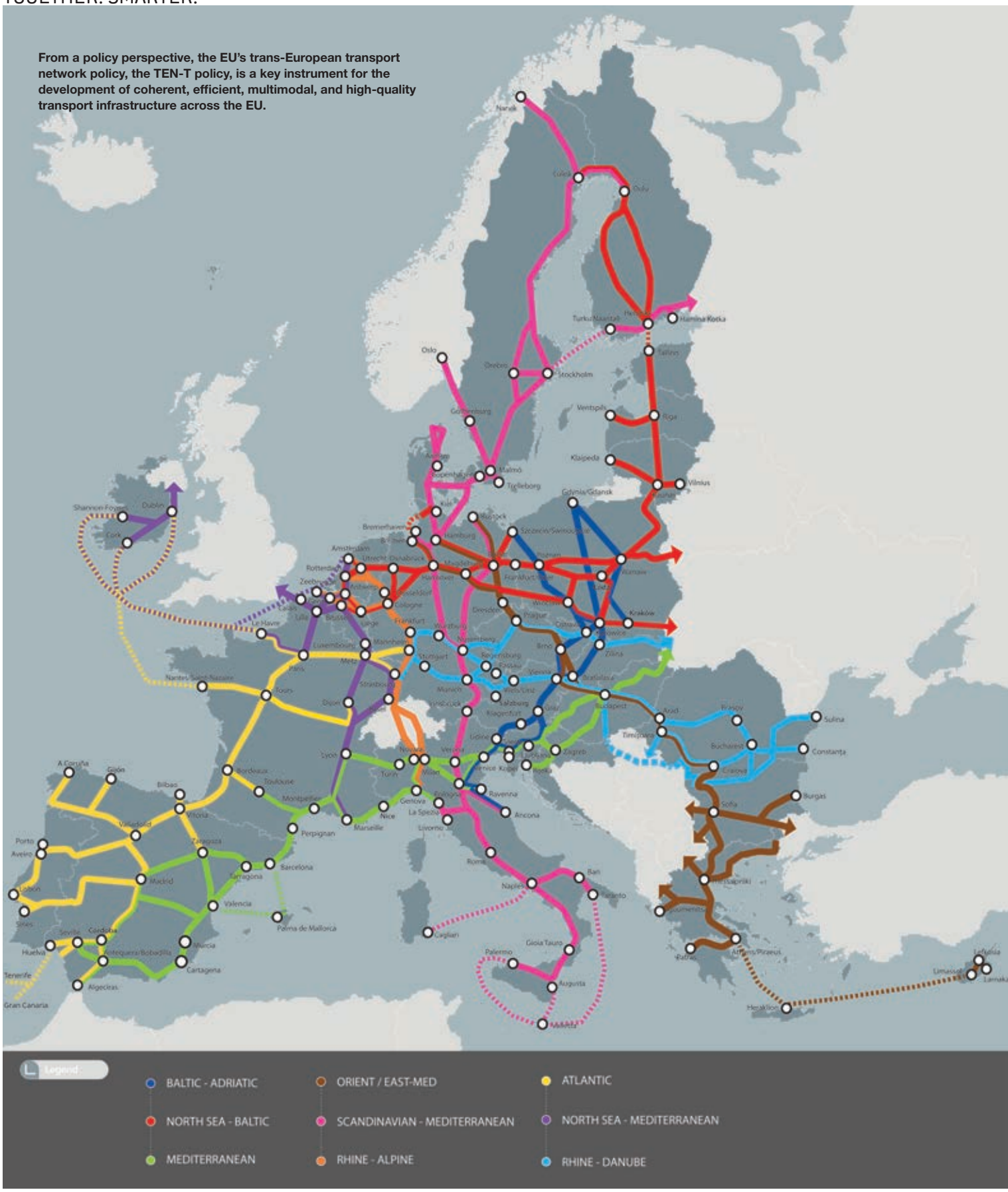
or pipelines to their destination. Every port has its unique selling points, but each port is striving for a sustainable modal split and a status as a fast emerging hub in the energy transition and circular economy initiatives. Although also acting as competitors on a commercial level, port cooperation and exchanges are part of the DNA of these ports, and with today's challenges such as the energy transition and the effects of the geo-political situation, such as in the Ukraine, this collaboration will only become more necessary. "North Sea Port today cooperates on many fronts, for example within port associations, such as ESPO, with local and regional cooperation programmes, and bilateral and multilateral port cooperation schemes," Edwin Evenhuis, public affairs manager at North Sea Port explains. "In 2022, for example, Port of Gothenburg and North Sea Port signed a memorandum of understanding, which provides a framework for strategic collaboration in the fields of energy management, funding opportunities, joint European projects, cargo flows between the ports, and exchange of expertise. We also agreed to cooperate in trying to establish a network of mid-sized European ports to exchange know-how and explore further cooperation. There are many topics on which we could better collaborate instead of each acting on its own."

Transitions and port ecosystems

Daan Schalck, CEO of North Sea Port, is a true promotor of collaboration between the European Ports. "The European ports are submerged in a series of fundamental transitions and shocks," he says, "and major disruptions affect global trade, production processes, and global supply chains. In the recent past, this contributed to political actions and corporate strategies to reduce risks and dependence on certain routes or nations (such as Russia). As a result, European ports must adapt to ever-changing geographical trade patterns, both within the European Union as in connection to the rest of the world. The striving for sustainability is also starting to affect geographical trade patterns. The EU is one of the frontrunners in the decarbonisation of the economy, supported by the Green Deal and 'Fit for 55' programmes, and the RePowerEU programme. The ambitious energy transition and sustainability goals of the EU are flanked by a range of other policies that potentially affect trade with countries outside the EU, for example the Carbon Border Adjustment Mechanism or CBAM. As a result, EU policy is seeking and implementing policies and tools to find a level playing field in fair trade relations with other nations and North Sea Port and other European ports play an important role in this. At the same time, the energy transition and circular economy ambitions are changing the geo-economic and geopolitical landscape. The push for a greener production, consumption, and mobility brings the focus to parts of the world which were less at the forefront of international trade. Green energy options, for example green and low carbon hydrogen, are likely to influence the geography of energy trade, further regionalising energy relations, with the emergence of new centres of influence built on the production and use of hydrogen. In this fast-changing landscape, the European Union is trying to find its place with a wide array of seaports that are pursuing a position as production, distribution and or transit hubs, supported by the required connectivity to overseas and hinterland regions. North Sea Port sees many opportunities to be part of this and to meet our joint European goals."

Port co-operation between ports

"While some of the aspects related to the above transitions are exogenous to ports," Edwin Evenhuis elaborates, "seaport ecosystems have a fundamental role to play in facilitating these transitionary trajectories. To effectively face these transitions,



seaports are challenged to find horizontal and vertical linkages and partnerships among relevant stakeholders within the broader port ecosystems. Port cooperation forms an integral part of this mix." Questions and issues raised on envisaging collaboration between these types of ports, are among others: Which challenges are rather unique to this type of ports in the context of the many transitions port ecosystems are exposed to? What can cooperation add on top of strategies and actions of individual ports?

"Talking with each other," Edwin Evenhuis says, "like in the meeting with other European ports that we organised ahead of the North Sea Port Conference, the CEOs of the ports jointly try to find the answers and solutions to the various issues that arise in the realisation of more operational collaboration between ports."

A successful TEN-T transport network

One of the key aspects for enhancing a port's role in facilitating cargo flows and supply chains and in developing their roles as energy and circular hubs is infrastructural connectivity. "Infrastructural connectivity forms the basis of the multi-layered connectivity profile of a port," Daan Schalck explains. "This also includes the layers transport service connectivity, meaning the actual operation of transport modes and the combination of modes in co-modal and synchro modal solutions, as well as digital supply chain orchestration. From a policy perspective, the EU's trans-European transport network policy, the TEN-T policy, is a key instrument for the development of coherent, efficient, multimodal, and high-quality transport infrastructure across the EU. It comprises railways, inland waterways, short sea shipping routes, and roads linking urban nodes, maritime and inland ports, airports, and terminals. The creation of the TEN-T has a long history of adaptations and revisions. The TEN-T policy is based on regulation which is currently being revised to make the network greener, more efficient, and more resilient, in line with the European Green Deal and the Sustainable and Smart Mobility Strategy. The TEN-T policy raises a range of questions and issues for all European ports and North Sea Port tries to maximise synergies between TEN-T and other connectivity-related initiatives, such as green shipping corridors, for example routes between two or more ports where zero-emission shipping solutions are demonstrated and reported."

European ports as energy hubs

The energy transition from fossil fuels to renewables is widely considered a key action field in decarbonising the global economy. Quite a few seaports, including North Sea Port, traditionally play an essential role as importing or exporting energy hub. Daan Schalck elaborates. "The energy transition challenges existing energy hub ports to prepare for a future decline in fossil-fuel-related activities, and for embracing the production, handling, transit, and storage of renewables. This may potentially have far-reaching implications for ports. North Sea Port, and many companies in the port area, have acknowledged these implications at an early stage and have started to anticipate. However, we think that collaboration with other ports will enlarge the opportunities for all of us to move towards a circular economy. Within this matter, some questions arise such as what impact energy hub development will have on the existing governance in port ecosystems? Will this lead to far-reaching changes in trade relations and leader companies in the port? What new cooperation schemes and business models are being adopted? What are the main opportunities and obstacles for energy hub development in our kind of ports in Europe? To move forward through collaboration means that we jointly find the right answers to these questions, as this will be necessary to realise a solid and stable cross-border collaboration between North Sea Port and our fellow European mid-size ports."

The future of Europe

"Our collective challenges are part of the future of Europe," Daan Schalck states. He continues, "Europe is committed to a competitive, fair, and sustainable single market, in all aspects, and the EU is striving towards a green, digital, and geopolitically-focused Europe. Europe aims for greater strategic autonomy with a strong European industry due to various geopolitical developments. This means that we, North Sea Port, and other comparable European ports, too, must play a significant role in the import and export of crucial raw materials within the EU, in the circular reuse of residual and waste streams, and in the development and reinforcement of European strategic developments such as wind energy and electrolysis. This way, North Sea Port and the other ports in Europe will bring partnerships forward that will help the European challenges on 'a competitive, fair and sustainable single market'."

A fruitful North Sea Port Conference

This year the North Sea Port Conference took place in Ghent on Thursday 23 November. On the eve of Belgium's European presidency and the European elections in 2024, the port conference focused on the cooperation between European ports.

In addition to the current events within North Sea Port, the conference broadened the scope of subjects across the border. Together with representatives of various European ports, professionals, and the industry, the participants of the conference dove into topics such as a successful Ten-T transport network, European ports as energy hubs, and cooperation to achieve EU goals.

By means of various keynotes, panel discussions, and interviews, knowledge was gathered to find out how to collaborate to move forward. Former president of the European Council Herman van Rompuy discussed the current geo-economics from a European perspective. This context is also guiding for the position of industry and European ports like North Sea Port. In his position of the Ministry of Foreign Affairs of Belgium and as a former Belgian Ambassador to Norway, senior coordinator for the Future of Europe Frank Arnaudts spoke about the importance of the energy transition, and promising initiatives and cooperation within Europe.

CEOs of the port of Cartagena (Spain), Triest (Italy), and Riga (Latvia) joined CEO of North Sea Port Daan Schalck to give their view on the topics discussed. What can ports do to contribute to a sustainable and connected Europe? What are the questions from stakeholders regarding these ports? Professor Theo Notteboom summarised the conference, with the day's takeaways and by announcing that the European ports present at the Conference had decided to explore opportunities on several mutual activities for further cooperation.

MORE INFORMATION

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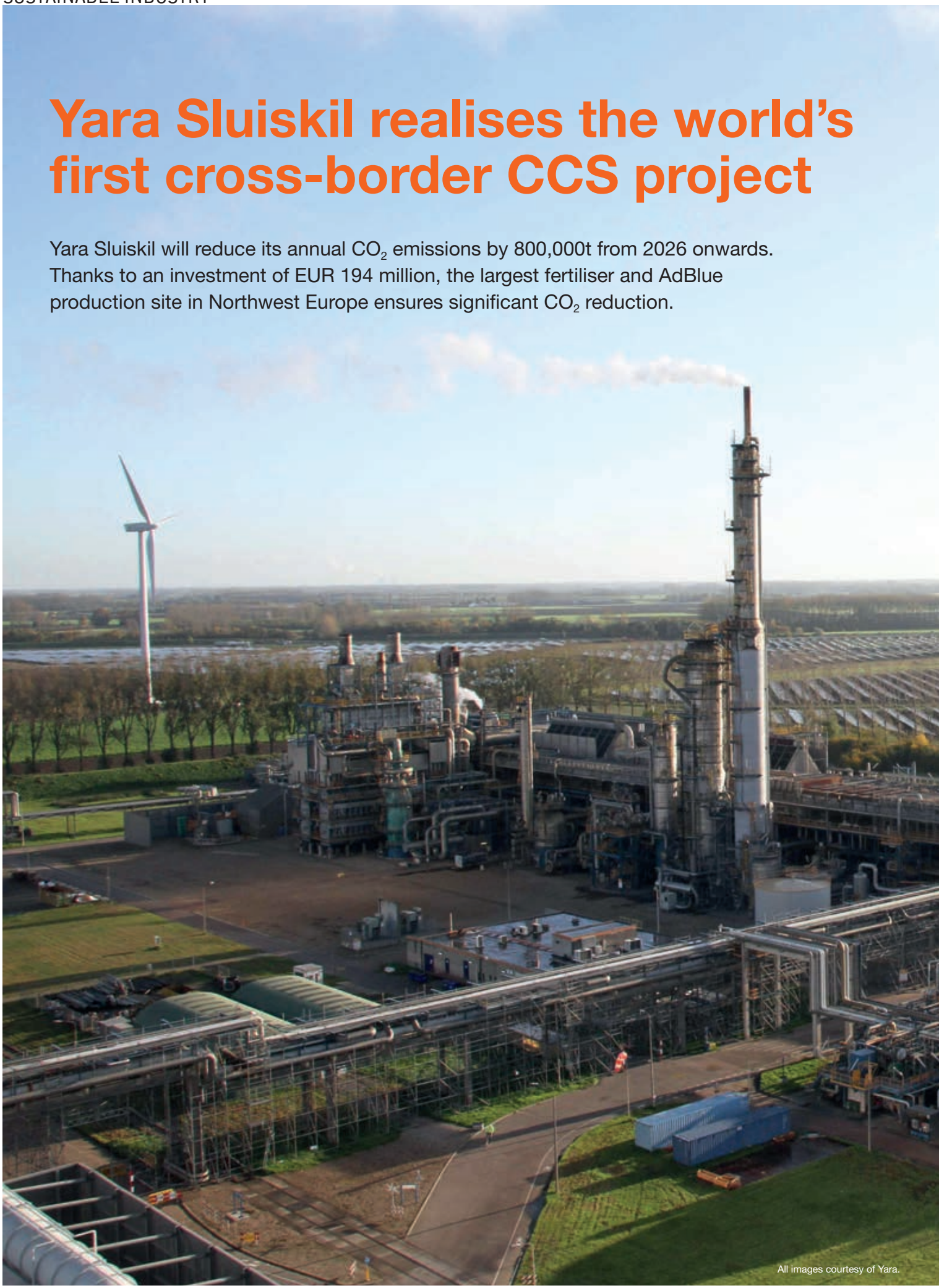
Yara Sluiskil realises the world's first cross-border CCS project

Yara Sluiskil will reduce its annual CO_2 emissions by 800,000t from 2026 onwards. Thanks to an investment of EUR 194 million, the largest fertiliser and AdBlue production site in Northwest Europe ensures significant CO_2 reduction.



All images courtesy of Yara.

The investment was announced today in The Hague, in the presence of minister Micky Adriaansens (Ministry of Economic Affairs and Climate) and the Norwegian ambassador Bård Ivar Svendsen. The Carbon Capture & Storage (CCS) project in Sluiskil is the first project worldwide where captured CO_2 will be stored across borders. This project paves the way for Europe's CO_2 reduction ambition, in which CCS plays a crucial role.

Extensive expertise

Yesterday, during the kickoff of Hydrogen Week in Brussels, Yara announced in the presence of Norwegian minister Aasland the signing of a contract with Northern Lights to store CO_2 deep beneath the Norwegian seabed starting from 2025. The participating companies behind the joint venture Northern Lights have had 25 years of successful experience in injecting and storing CO_2 in seabeds. Yara Sluiskil has over 30 years of experience in capturing, purifying, liquefying, and shipping CO_2. Magnus Ankarstrand, executive vice president of Yara International and CEO of Yara Clean Ammonia, states, "The partners in this project have extensive expertise. Within the consortium, decades of experience are combined to achieve decarbonisation in Europe. Simultaneously, this project

> The investment ensures the preservation of ammonia production and technological knowledge, decarbonisation of the food chain, thus securing strategic autonomy for Europe.

Existing CO_2 factories on the Yara Sluiskil site where captured CO_2 is currently liquefied for shipment. In the background, one of the three ammonia factories where CO_2 is captured from the production process. The remaining CO_2 released is visible as a white plume from the factory's stack.

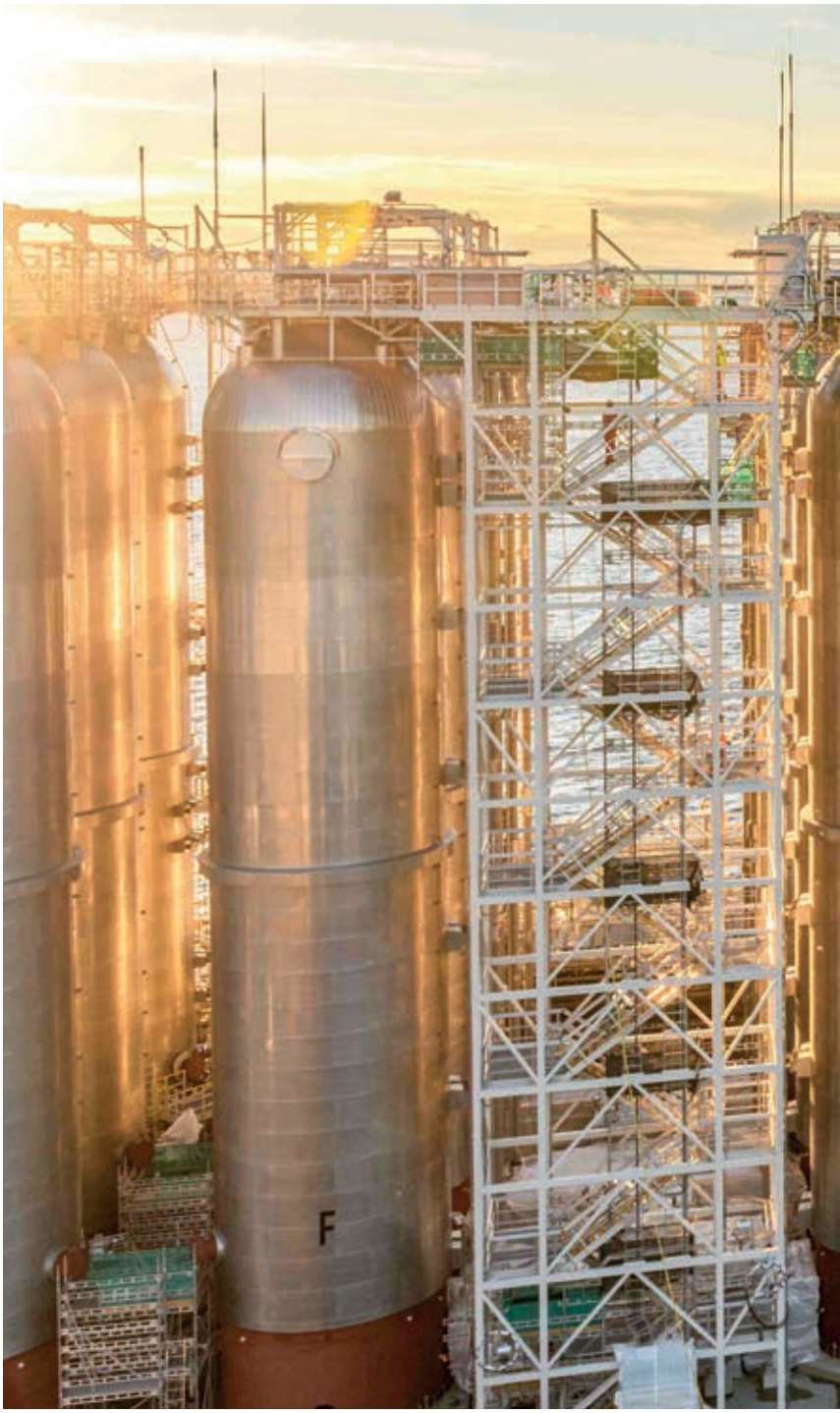
offers unique opportunities for Yara as the largest player in ammonia trading and shipping and the second-largest ammonia producer globally."

Raw material

Since the 1980s, Yara Sluiskil has been capturing CO_2 from the production process, around 2.2 million tonnes per year. Over 60% (1.4 million tonnes) of this CO_2 is currently used directly as a raw material. Examples of its applications include carbonation in soft drinks and beer, AdBlue to reduce nitrogen emissions from diesel engines, fertilisers, supply as a growth stimulant in greenhouses, extraction of caffeine from coffee beans, anesthetic in slaughterhouses, and transportation of pharmaceuticals such as vaccines. This CO_2 doesn't enter the atmosphere in Sluiskil but is used, for instance, when drinking a beer. The remaining 800,000t, currently emitted as pure CO_2 into the atmosphere, will be liquefied by 2026 and then shipped to Norway for permanent storage in porous rock 2.6km deep under the seabed. "The liquefaction and shipping of CO_2 are not new to Yara Sluiskil and mainly represent an expansion of existing activities. Moreover, the project seamlessly fits into our vision of becoming a flexible system player," says Luc Cattoir, plant manager and CEO of Yara Sluiskil.

Rapid and effective

With this project, Yara achieves more than half of its ambition to reduce 1.5 million tonnes of CO_2 by 2030 compared to 2020. For this purpose, an Expression of Principles was signed on 11 July with minister Adriaansens in The Hague. Alongside other investments carried out by the company in the past year or planned for the next two years, an 80% reduction in CO_2 emissions can be achieved by 2026. In 1990, the company emitted 5.2 million tonnes of CO_2 in Sluiskil, which will reduce to a maximum of 1 million tonnes in 2026 while the volume of end products increased from 3 to 5 million tonnes per year. The CCS project positions Yara Sluiskil to play a crucial role as a system player in the energy transition. On one hand, CO_2 reduction is ensured through the CCS project, while on the other hand Yara Sluiskil is working simultaneously on large-scale flexible intake of green hydrogen. From 2026, a connection is planned to the national hydrogen backbone, and in recent years Yara has already prepared its factories for partial direct hydrogen intake. Therefore, the CCS project ensures effective and rapid CO_2 reduction at all times to combat climate change. When green hydrogen becomes available, there will be less CO_2 accessible. To diminish uncertainty regarding the availability of sufficient affordable green hydrogen, minister Adriaansens is providing conditional subsidies. The Advisory Committee for Customised Industry Sustainability (AMVI), led by Carolien Gherels, endowed a positive recommendation on this matter as part of the Customised Agreements. minister Micky Adriaansens states, "Company investments in a sustainable future form the basis of the energy transition. Yara is now effectively taking this step in the Netherlands with an ambitious CCS project. This investment is also an important part of the customised trajectory we are working on with Yara. After a positive recommendation from an independent committee, the government has decided to contribute EUR 30 million once. By limiting investment risks, the company can start more quickly to significantly reduce CO_2 emissions."



Detail of the existing loading installation at Yara Sluiskil. The cold liquid CO_2 is transported by vessel to the CO_2 reception installation in Øygarden, located on the west coast of Norway.

The CO_2 reception installation of Northern Lights in Øygarden. The CO_2 vessels are unloaded here into storage tanks. Subsequently, the CO_2 is stored 100km off the Norwegian coast in empty gas fields consisting of porous rock at a depth of 2.6km in the seabed.

> Company investments in a sustainable future form the basis of the energy transition. Yara is now effectively taking this step in the Netherlands with an ambitious CCS project.

Strategic autonomy

With the CCS project, Yara Sluiskil almost instantly halves the local CO_2 emissions. Compared to the total Dutch chemical industry, which emitted 15.8 million tonnes of CO_2 in 2022, this project signifies a reduction of a whopping 5.1%. This is equivalent to the CO_2 footprint of 100,000 inhabitants, roughly a quarter of the Zeeland population. “Yara, as a frontrunner, has found the project to be complex yet incredibly valuable,” states Michael Schlaug, vice president of Yara Netherlands. “The energy we’ve invested in it is more than worth it because we’re paving the way for CCS as a technology in Europe and giving impetus to a clean hydrogen economy. Additionally, this investment signifies that the parent company sees our Sluiskil plant as a key asset within Europe. The investment also ensures the preservation of ammonia production and technological knowledge, decarbonisation of the food chain, thus securing strategic autonomy for Europe.”

I. YARA.COM

Image courtesy of Cube Cold.

A hot spot for a cold cube

Northfreeze doubles capacity in North Sea Port with new warehouse

Northfreeze, now part of the Cube Cold group, is building a new refrigerated storage facility at one of its three locations within North Sea Port. The new cold storage unit is expected to be operational by the first quarter of 2025. The choice of North Sea Port for this major investment is not surprising, says head of sales and network development Fred Compeer. “For cold storage and temperature-controlled activities, North Sea Port offers a combination of factors that is very attractive to customers.”

The greenfield project will grow Northfreeze's storage capacity in Evergem by 54,000 pallets, doubling the total score in North Sea Port.

Image courtesy of Cube Cold.

Northfreeze is a well-known brand in North Sea Port, with a history dating back to 1995 when it first established a presence in the Ghent port area with a warehouse in Evergem. Nortraffic, its road haulage subsidiary active in FTL and LTL transportation in the Benelux with a fleet of 45 trucks, has been operating since 2004 and moved to a new and larger site closer to the Kluizendok in 2017.

In March last year, the company was acquired by Cube Cold, a relatively new and fast-growing platform of cold storage facilities across strategic areas in Europe (*see box*). "It was a typical kind of seed asset Cube Cold, as a newcomer in this market, was looking for as a cornerstone of the pan-European cold storage platform it is building," says head of sales and network development Fred Compeer.

In less than two years time, Cube Cold positioned itself as a growing power in temperature-controlled warehousing and logistics. "We have become a mid-size operator by European standards. Our ambition is not to become the biggest player

Head of sales and network development Fred Compeer (left) and country manager Belgium Jackie Van Der Vennet (right).

on the pitch, but we definitely want to have a leading position. What we aim for is to create a strong European-wide network that offers our clients the integrated service they need. We only make acquisitions that fit into this perspective," Fred Compeer underlines.

New warehouse

Today, Northfreeze – Cube Cold Belgium – operates three sites in North Sea Port Ghent, plus two smaller facilities in Westerlo and Brugge. Collectively, these locations can store 76,000 pallets, 51,000 of which are designed for frozen goods. The bulk of this capacity (55,000 pallet places) is in Evergem, where the company is active at two locations – in the industrial zone of Durmakker (along the ring canal for inland navigation around Ghent) and on the site of Nortraffic in De Nest (close to the sea canal to Terneuzen).

The upcoming cold storage warehouse in Evergem will increase Northfreeze's capacity by an additional 54,000 pallets, effectively doubling the current score in North Sea Port. 47,000 positions will be dedicated to frozen storage with a temperature regime of -20°C and 7,000 positions for chilled or controlled ambient storage, depending on the customers' needs. On top of that, 18,000 pallet places for ambient storage have recently been added to the capacity on the Evergem-Rieme site.

The new warehouse is one of the largest Cube Cold's current investments, with other expansions planned or commissioned to accommodate growing demand in the Netherlands and the UK, as well as in Brugge and Westerlo.

Low energy, high flexibility

The new warehouse will be built next to Nortraffic at the De Nest site, where space is still available, unlike at the two sites in Durmakker, which do not have additional land for expansion.

The building has been specially designed to reduce the operational carbon footprint, with solar panels on the roof – and possibly a wind turbine – to supply part of the energy needed for cooling.

Maintaining a consistent temperature is vital for refrigerated logistics, so the facility will continuously track and record temperatures to keep all storage zones within the client's specified ranges. In case of a power outage, backup generators will be available to ensure uninterrupted service. The internal

Cube Cold

Cube Cold focuses on the acquisition and development of existing small to medium-sized operators and facilities across strategic areas. It started with the take-over of three companies in early 2022: Frigo Breda in the Netherlands, Northfreeze in Belgium, and Pulleyn in the United Kingdom. This year, two Italian companies, Fridock and FrigoCaserta, and one British company, JR Harding & Sons, have been added to the network.

That network now covers 18 facilities that will offer more than 250,000 pallet places when commissioned greenfield projects (among which Evergem) will be operational. The storage capacity is complemented by an own fleet of 85 reefer trucks. Cube Cold currently employs about 300 coworkers.

CubeCold is looking to expand to other countries. The company has the ambition to grow towards a pallet capacity of more than 700.000 pallets in Europe in the coming years at strategic locations like ports, logistic nods, and area's with high production and consumption volumes.

> “Cube Cold’s ambition is not to become the biggest player on the pitch. What we aim for is to create a strong network that offers our clients the integrated service they need.”

set-up of the warehouse will support both automated and manual operations, tailored to the needs of the customers. CubeCold has finalised the design, applied for the required permits, and is presently in the tendering phase for the construction of its new warehouse. Work is expected to start in early 2024 and the new facility should be ready by the end of Q1 2025. The total investment is expected to exceed EUR 40 million.

Full range, full service

In terms of markets, Cube Cold focuses on both the food and pharmaceuticals sectors, with products that range from french fries, fruit, dairy, fish, meat & poultry, juices and beverages, pet food, and general food items to plasma and serums, vaccines, consumables, medicines, as well as bulk and finished materials. The product flows are separated where required.

“We do not want to limit ourselves to one segment. And though these two sectors are very different, they have at least one essential thing in common: they are both subject to very strict legislation. This requires a deep understanding of what we are doing and how we need to do it, and also demands high levels of certification,” the head of sales and network development of Cube Cold comments. “Seen from that angle, the two are a match.”

The warehouses accommodate a wide temperature range, going from frozen and chilled to conditioned ambient. The same goes for the services Cube Cold can deliver, with storage, handling, stevedoring, and forwarding complemented with value-added activities like processing, labelling, sorting, and packing. A blast freeze capacity of two truckloads is also included in the concept. “A customer can get a total service or opt for the links in the chain that he needs.”

The range of services includes long-term storage, with Durmakker being the primary facility, fast moving flows, as seen in Rieme, and retail, for which the De Nest warehouse will be more specifically designed.

Strategic location

“When extending its network, Cold Cube is looking for strategic locations. North Sea Port is a perfect example of a port that offers a lot of advantages for temperature-controlled activities,” Fred Compeer points out.

“We are close to large production and consumption areas in the hinterland for both food and pharmaceuticals and within range of the largest container ports in Europe, several major air freight platforms, and large fresh markets like Rungis that serves the whole Paris area, to name just one. Both on the import and export side, there are already quite some volumes flowing through this port. Reefer containers constantly come and go and can be reused for import or export, making it possible to offer competitive rates. Highways are nearby and road congestion is low, allowing for quick first and last mile operations. There are border inspection points, several container terminals, and an empty container yard in the immediate vicinity.”

Northfreeze is active in North Sea Port since 1995.

With its fleet of 45 trucks, Nortraffic can take care of FTL and LTL transportation in the Benelux.

“Add to that the manifold multimodal solutions available: regular barge services to Antwerp and Rotterdam and daily trucking to other destinations, the direct rail connections to countries like Italy and the rail capacity to open new corridors, plus the shortsea links to Sweden, Norway, and the UK. It is a combination of factors that is very attractive to existing and potential users. We strongly believe in North Sea Port as a win/win location for Cube Cold and its customers.”

I. NORTHFREEZE-GROUP.COM

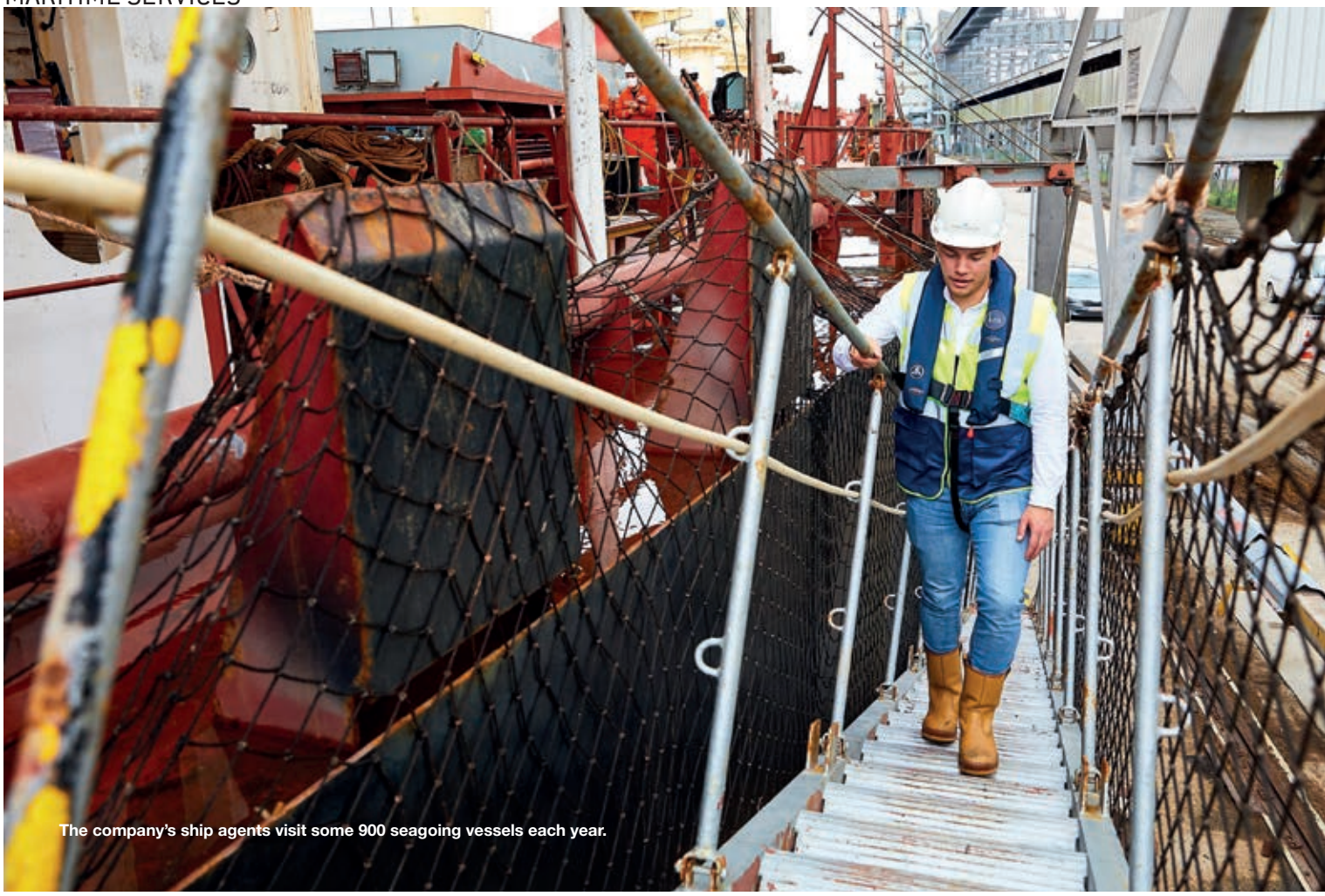
Reaching new markets

Navonus

With the opening of a new branch office in Aarhus, ship agent and cargo surveyor Navonus has expanded its network. Over the past twelve years, the Ghent-based company has experienced steady growth, entering new markets while remaining committed to its philosophy of proximity and service, manager supervision Josie Peiffer and manager agency Joris Clappaert explain.

All images courtesy of Navonus.

In the survey activities, barges take the lead over seagoing vessels with a large margin. And even scrap can need an inspection.



The company's ship agents visit some 900 seagoing vessels each year.

When Josie Peiffer and Joris Clappaert founded Navonus in 2011 with the backing of Piet Wassenaar, founder and CEO of the Maaskade Group, they took an unconventional step, combining their experience in cargo survey and ship agency into one company and opting to establish its headquarters in Ghent. "In both respects, it was an unusual proposition, but even though the start was challenging, it turned out to be the right choice and we made a name for ourselves," Josie Peiffer comments.

The approach was tailored to the situation in Ghent. "In a port like North Sea Port, where import and bulk flows dominate, goods receivers are often involved in both ship and cargo. This is especially the case in commodity trades like grain, where it is not uncommon for the cargo owner and the ship charterer to be the same company. A cargo owner needs surveyors to oversee the goods, while the operator relies on a ship agent to ensure a smooth port call and a swift turnaround of the vessel. We are strategically positioned to serve both needs."

"The two roles are integrated. When a ship arrives, one of our agents visits the captain, while our surveyor goes to the chief officer to inspect the cargo," adds Joris Clappaert.

As a surveyor, Navonus started out 'with its hands in grain'. But it now covers an whole range of other products.

Growing network

Over the past twelve years Navonus has extended its presence in various directions. Branch offices were established in an increasing number of ports: Antwerp, Zeebrugge and Rotterdam (Zwijndrecht, in 2016) were the first logical steps. The creation of North Sea Port provided new opportunities in Terneuzen and Vlissingen. Hamburg followed in 2020 when the right opportunity presented itself. Navonus also maintains a network of representatives in countries such as France and Spain, in Scandinavia and the Baltic States, in East and Central Europe, and elsewhere overseas. The latest addition to the Navonus chain is the new branch office in Aarhus, Denmark's largest port, which officially opened in October.

"Our ambition is not to become a global player, but we are more than willing to enter new markets when the right conditions are met or the right opportunity presents itself," Josie Peiffer and Joris Clappaert explain. "Our Dutch office was set up at the demand of an existing client. In Hamburg, we were fortunate

> “A cargo owner needs surveyors to watch over the goods, while the ship operator will rely on a ship agent to ensure a smooth port call. We sit at the right crossroad to serve both needs.”

Josie Peiffer (left) and Joris Clappaert (right) in a meeting at Navonus.

to find a local professional with all the right expertise and connections who wanted to start an independent business. Aarhus can be considered as an offshoot of the Hamburg entity, as we followed a client of our German branch who asked us to handle his Danish business. It illustrates how the different branch offices complement each other, often generating new business throughout our network for clients with a reach that extends beyond one port. We are constantly monitoring other developments, but any new initiative must align with our set-up and philosophy,” the manager supervision declares.

Diversification

Given that each branch serves a different port with specific characteristics, activities have diversified to include other trades (liquid bulk, fertilisers, edible oils, rice, scrap…) in addition to the dry bulk commodities like grain that formed the foundation in Ghent.

The agency division now handles about 900 seagoing vessels a year. In that number, Zeebrugge today stands on a par with North Sea Port with about 400 ships each, but the agency business there primarily centers on pure car carriers, where bulkers and tankers abound in Ghent. In Antwerp, alongside tankers, offshore and dredging became part of the portfolio since Navonus won a tender of DEME for the agency of ships that need to make a port call or a lock passage in that port. “Niche markets like these are our forte,” says Joris Clappaert.

On the survey side, Navonus conducts approximately 2,500 inspections a year, with North Sea Port accounting for more than half the total volume and barges taking the lead over seagoing vessels. One inspection can last several days if it involves monitoring the whole unloading operation. It can also imply the intervention of multiple surveyors for different kinds of inspections.

As local situations vary, the balance between cargo survey and ship agency differs from one location to another. “In Hamburg and Aarhus, for instance, activity is almost entirely focused on cargo survey for the time being, more specifically in dry agribulk and edible oils. However, other flows may follow and we always intend to add ship agency in due time, in line with our core values.”

Local and personal touch

Navonus’ core values consist of three major strings: acting locally, offering a comprehensive yet personalised service and maintaining independence, the two managers emphasize. “As a service provider, we aim to give our customers and principals the dedicated attention each one of them deserves. As a cargo surveyor, we cover an extensive range of possible services, from pre-shipment, sampling, quality, weight, and tally surveys to hold condition, draft and bunker surveys etc., issuing the required certificates (like OVOCOM). We operate around the clock and assist clients with logistical solutions and contracts when necessary. We do so under our GAFTA, FOSFA, and ISO 17020 accreditations. The same applies to agency, where we handle husbandry, crew changes, delivery of ship spares, repairs and dockings, customs-clearance, and more. Last but not least, being part of the Maaskade Group gives Navonus financial stability, but we operate with complete independence, even when inspecting barges of that group,” Josie Peiffer and Joris Clappaert stress.

In both fields, modern tools are used, such as port call software and the LiDAR system for measuring stocks in warehouses and silos. Prioritising sustainability is also part of the company’s approach. In 2019 Navonus joined the Green Award programme for a cleaner and safer maritime shipping as an Incentive Provider, offering a 5% discount on bills to shipowners participating in the programme.

Personal touch, local contact

However, maintaining a personal touch and local contact with all stakeholders remains essential. Finding the right staff is imperative. “As a service provider, we can only be as good as our people. So we place great emphasis on finding the right person for each role we perform and providing them with the necessary training. Keeping our workforce satisfied is part of that effort, especially since younger people seek to balance work and private life. We offer a 24/7 service and often work in weekends. It’s crucial to manage that workload effectively. Furthermore, the job underwent a steady acceleration with technology. Today we often work in real time, sending our pictures and reports to our principals as quickly as possible. Time pressure has kept growing since we started off.”

For these reasons, among others the team has tripled to about thirty employees in twelve years. Two thirds of them engage in cargo survey and inspection activities, the remaining third in agency services.

Joris Clappaert and Josie Peiffer are confident about the future. “Ship agents and surveyors are not about to disappear. Their role remains essential to ensure the smooth operation of international trade and the swift turnaround of ships in ports. Having a physical presence on the ground adds significant value to our customers. They will continue to rely on us to be their eyes and ears on the spot.”

I. NAVONUS.BE

All images courtesy of Evolution Terminals.

Large steps taken for Green Energy Hub

In 2020, Evolution Terminals signed a long lease agreement with North Sea for the exclusive use of 14ha of prime industrial land in North Sea Port's Vlissingen port area, which in 2022 was increased to 16ha, to construct and operate a new liquid bulk storage terminal and jetty.

The company has subsequently made continued progress to get closer to the final realisation of the project. Time for an update. "Since we started the project," Arron Smyth, managing director of Evolution Terminals, says, "we have overcome some major development hurdles through a tenacious commitment in realising our vision. As we are talking about a huge and complex, multi-million Euro project, we knew that the development would take time. As venture developers, we mitigated that timeline as much as possible by running our development streams in parallel."

Evolution Terminals' Energy Hub will be located close to the entrance of the North Sea Port's Vlissingen port area.

Various parties are considering to make use of the facilities as soon as possible.

Arron Smyth, managing director of Evolution Terminals.

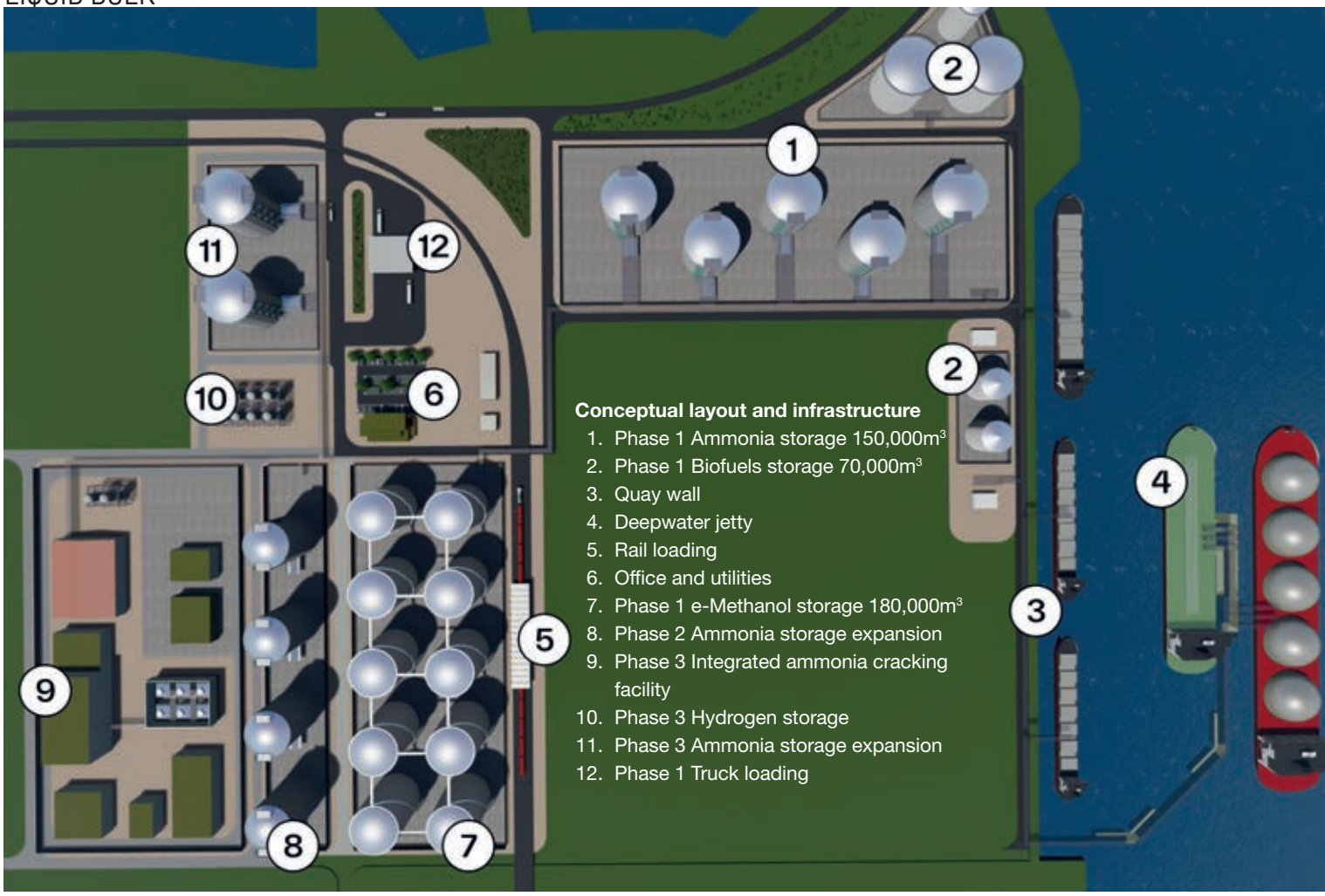
Maarten Reenalda, head of project operations of Evolution Terminals.

Parallel development streams

Arron Smyth explains, "The first one consists of the extensive permitting process. One of major components of the permitting process is the fact that we want to store and process ammonia. Although it is a product that has been safely stored and handled for decades by many companies, safety rules and regulations are still strict which affect the permitting procedure. Evolution Terminals has worked collaboratively and transparently with the authorities and stakeholders to ensure all questions and regulatory policies are addressed in a proper and satisfactory way, and this takes time. Therefore, to maintain progress in the project, we elected to start the preliminary engineering process in parallel with the permitting. Of course, with this strategy we run an increased financial risk, however we are supported by solid investors that believe in our plans to facilitate carbon-abatement and the energy transition. As a third track, we decided to commence the commercialisation of the project through initial conversations with prospective customers, and to ensure their operational needs are taken into consideration through permitting and engineering. In doing so, we received a positive response from many parties and have already developed a portfolio of prospective launching customers. They all realise that working with us is a good bet for their energy plans. We have reached various important milestones throughout this process. In November of 2022, we engaged Linde Engineering to undertake a pre-FEED study for our ammonia import infrastructure with the objective to define the engineering basis for the project and to form the design concepts for the next development phase. As a result of the pre-FEED outcomes, concluded earlier this year, key design decisions have been made regarding storage tank configurations and supporting infrastructure to ensure compliance with all applicable national and international regulatory codes, policies, and safety standards. Technical feasibility has been proven and risks and their mitigation strategies and procedures are mapped. We are now on track with our development plan to finalise the FEED by the end of Q1 of next year and we are targeting FID at the end of Q2 2024."

Major league

According to Maarten Reenalda, head of project operations at Evolution Terminals, this new energy hub for green and



low-carbon products can be considered major league. “When realised, our Energy Hub as an enabler for low-carbon ammonia and hydrogen imports will be one of the largest of its kind in the Netherlands or even in Western Europe. We really are making progress in the various steps we are taking in the development of the project and our Energy Hub is steadily moving towards realisation. This is certainly noticed by the market, resulting in the fact that various parties are considering to make use of our facilities as soon as possible.” For now, the company is aiming at delivering phase 1 of the project. Maarten Reenalda continues, “Because of the complexity and extensiveness of our plans, we decided to divide it into phases. The first phase of our project involves delivering a minimum of 150,000m³ of refrigerated ammonia storage capacity and a new deep-water jetty with up to 17m draught, allowing for the docking of large sea-going vessels, inland vessels, and coasters. The extension of Phase 1 also includes potential for biofuels and e-Methanol handling which would increase the overall Phase 1 capacity to 400,000m³. The terminal will have direct access from the North Sea, and infrastructure will be developed for loading and unloading trucks and trains. The second and third phase planning includes extra storage for green energy carriers and a cracking facility for converting ammonia into hydrogen. In preparation for this, we are already working on plans for the terminal to be connected to the European Hydrogen Backbone, as one of the major connection points is adjacent to our land, for distribution of hydrogen via pipeline into Europe.”

Bunkering

Many things still are beyond the company’s control, but this doesn’t hinder Arron Smyth and his team to keep on going for reaching their goal. “The market for ammonia is evolving fast and demand continues to grow for various applications. North Sea Port will play an important role in enabling this because of its strategic location and the port authority’s sustainability goals. I already mentioned the fact that North Sea Port will be connected to the hydrogen backbone, giving us access to major distribution optionality for the green hydrogen produced by cracking the imported ammonia. In addition, the International Energy Agency recently estimated that by 2050 around 44% of all marine vessels will be powered by green ammonia. With our strategic location being an open North Sea Port, our terminal can facilitate bunkering of many vessels transiting the ARA region.” “Everyone is talking about net-zero emissions and this is indeed a challenge for all of us. To reach these goals, collaboration throughout the value chain is crucial,” Maarten Reenalda states. He continues, “Growing demand for green ammonia and the role we can play in facilitating this offers ample opportunities for the region, not in the least for direct and indirect employment. It is good to see that all parties like the Province of Zeeland, North Sea Port, DCMR, the municipality, and other stakeholders are positively working towards the success of the project. We are all aware of the fact that with our project we are going to contribute to the Dutch as well as the European goals for a low-carbon and green hydrogen economy. Yes, we sometimes have to make difficult discussions but always with the intention to deliver a meaningful and impactful project, and that creates a great working spirit.”

I. EVOTERMINALS.COM

At BMD Advies, specialists work together in mult-disciplinary teams.

All images courtesy of BMD Advies.

Solving a labyrinth

For over 30 years, BMD Advies has its feet firmly anchored in the Zeeland soil. Throughout the years, the QHSE consultancy firm has built sustainable relationships in and around the North Sea Port area. And today, BMD Advies developed from pure QHSE consultancy to consulting on future-proof entrepreneurship.

Jan Willem de Hoop has been working for the Goes-based company since 2011 as consultant and he became a partner in 2021. “Before my time at BMD Advies, I was working as a freelancer for years, specialising in sustainability and environment, for example on a waste management system in Kenia. I also worked for Rijkswaterstaat (Dutch governmental department of waterways and infrastructure) in the field of permitting, so I know the governmental role in QHSE, and more specifically I know a lot about environmental issues.”

Labyrinth

This does not mean that Jan Willem de Hoop has many governmental projects to take care of at BMD Advies. On the contrary, the company has in fact chosen to work for the commercial market only, although it often acts as an intermediary between the industry and governmental organisations. With its many difficult and often changing rules and regulations, QHSE can be quite complicated he says, and it is BMD’s role to assist companies in this. “I often compare it with solving a labyrinth,” Jan Willem de Hoop explains. “Whenever you go in the right direction, you will always find the exit and it is our goal to assist and advise our customers to take the right steps and to see if they continue in the right direction. What I mean is that a company that wants to settle down, for example in the North Sea Port area to start a production facility, has to meet various rules and requirements to get its permits and of course we help them with this. However, once operational, the company also has to meet the regulations at all times and the fact that the rules often change makes things extra complicated. We assist companies with their awareness of those changes, and we help them to look ahead, to stay up to date, and to keep their permits.”

Multi-disciplinary

Although BMD Advies started its activities as an environmental & surroundings advisor, its role has changed and expanded throughout the years. “Acting as an advisor in the field of environment & surroundings, we decided to add occupational

Jan Willem de Hoop, consultant and partner of BMD Advies.

health & safety and sustainability to our services", Jan Willem de Hoop says. "This way, we gained a lot of experience in how companies operate and how we could help them improve. Over the years we have broadened our portfolio with other related issues. We now act for many companies as an advisor in the field of environment & surroundings, occupational health & safety, management & management systems, energy & transition, sustainability, people & organisation, and soil & substrate. All these segments deal with different issues, yet they are often closely related and overlapping and so we gradually became involved in this broad range, gaining ample experience and knowledge. From an organisational point of view, it means that we have grown into a company with multi-disciplinary teams. Next to our year-long expertise within these teams, an active network helped us to support projects and permitting procedures in the Dutch part of North Sea Port, helping to build a giant database of knowledge in the field of port-related issues. BMD Advies has a geographical network in the Netherlands with nine offices. All of them have their own expertise, so if we need to help one of our clients with an issue that we lack experience in, we can always rely on the other BMD offices to look for the right answer."

Future-proof

People often talk about sustainability in the sense of environment and surroundings, though according to Jan Willem de Hoop this is a rather narrow point of view as he believes sustainability should be the common thread in business in many ways. "Of course, sustainability is a hot topic when looking at reducing a company's ecological footprint and the circular economy. But sustainability goes much further than this. Long-lasting relationships for example are sustainable, relationships with customers, suppliers, and employees. Also, a financially healthy company is sustainable. This is one of the reasons why we not only assist companies at the start, but also throughout the following years, which helps companies to remain future-proof. When looking at ourselves, a good relationship with our employees leads to a sustainable organisation. So it is important that they feel safe and secure at BMD Advies. We therefore first help new employees to learn their true skills by letting them work at all our departments. This way they learn a lot about all disciplines we are involved in, and they gradually

Sustainability is a hot topic.

Meeting at one of BMD's network members.


Occupational health & safety is only one of BMD's focus areas.


BMD offers customers courses through its BMD Academy.

> Digitalisation will help us to further improve our customer support.

become aware of what they are good at themselves and start to specialise."

Challenges

Throughout the years, digitalisation has become increasingly important for BMD Advies. "Digitalisation will help us to further improve our customer support. In October we introduced an online SDG sustainability scan," Jan Willem de Hoop says. "With this tool, companies can see how sustainable they are. This scan is based on the seventeen Sustainability Development Goals set by the United Nations. These goals should lead to less poverty, less inequality, less injustice, and less climate change. So the scan gives companies a view of how sustainable they are, not only regarding their ecological footprint but in a much broader context. Apart from this, we have introduced more digital tools to help our customers, and this will only expand over the next years." One of the challenges for BMD Advies' customers for the next few years will be CSRD reporting (CSRD stands for Corporate Social Responsibility Directive). Jan Willem de Hoop elaborates, "As of 2024, more and more companies must report on the impact of their activities for human and nature. The report will also tell how human and nature affect the company. It thus helps companies to act sustainably in many ways. We now are preparing our customers for this CSRD reporting. We offer companies courses to get them prepared and to teach them how to create this kind of report. As we believe in community of practice (CoP), we offer these courses not only individually but also to various companies at the same time. They can hereby also learn from one another which can be very useful, not in the least when they are acting in the same supply chain, affecting each other's CSR."

Collaboration

According to Jan Willem de Hoop, collaboration, like in the aforementioned CoP, is one of the keys for success for any company and it will also help promote BMD's growth and that of its customers. "Within our team, specialists work together in multi-disciplinary teams. This, together with collaborating with the other BMD offices, and our extensive network of business partners such as North Sea Port's port authority, will give us the right circumstances to continuously meet our customers QHSE challenges."

I. BMDADVIES.NL

Striking the right balance

North Sea Port wins ESPO Award

North Sea Port has added its name to the list of winners of the prestigious ESPO Award. The European Sea Ports Organisation rewarded North Sea Port for the innovative way in which it balances port development with the preservation of biodiversity, the restoration of nature in and around the port area, and the protection of neighbouring communities.

This year, the theme of the ESPO Award on Social Integration of Ports was 'Nature restoration projects in ports benefiting the local community'. The independent jury of experts and specialists shortlisted four applications from a total of ten submissions. When the votes came in, North Sea Port was selected as the winner over the Spanish ports of Cartagena and Vigo and the French Guadeloupe Port Caraïbes.

Multifunctional corridors

North Sea Port won the ESPO Award 2023, the fifteenth edition, for its project 'Connecting nature in ports and residential areas – Ghent Canal Zone and Moervaart Valley'. It focuses on the development of nature corridors that shield residential areas in the Ghent canal zone, the Flemish part of North Sea Port, and in the Moervaart Valley from port activity and industry, with the aim of mitigating their impact on nature and local communities and strengthening public support for the economic development of the port. "The areas are buffer zones that not only bring more greenery to the port but also strike a high-quality balance between work, home, and living environments," Daan Schalck, CEO North Sea Port, points out.
In designing these buffer zones, nature development and nature restoration are paramount, but land is also earmarked for recreation, small-scale agriculture, orchards, hiking trails, and bike paths, and the project integrates water management and aspects like cultural heritage and archaeology. Whenever possible, multifunctional thinking is applied: a fire-fighting water basin can double as a pond, providing a refuge for protected bird species, for example. This turns the nature corridors into unique places.

Participative process

North Sea Port takes a long-term view at the programme, which has its roots in the 'Project Gentse Kanaalzone' launched in the 1990s, and is ready to invest heavily in it. The entire project started with the construction of the first nature corridor in 2010. Eventually, the sixteen areas planned in the Ghent canal zone

Image courtesy of Vlaamse Landmaatschappij.

Nature preservation and restoration stands paramount…
… but the buffer zones are fully multifunctional.

Image courtesy of ESPO.

Dimitrios Theologitis, chairman of the jury, to the left, Isabelle Ryckbost, secretary-general of ESPO, Zeno D'Agostino, chairman of ESPO, and Magda Kopczynska, director general of DG MOVE, to the right, joined the North Sea Port team (Daan Schalck, Annemieke van Woercom-Kats, Marjolein de Kerf-Vereijken, and Marijke De Vreese) receiving the award, which in the ESPO tradition takes the form of a work of art.

> Eventually, the sixteen nature corridors in the Ghent canal zone will cover a full 730 hectares.

will cover a full 730 hectares within the port area, with different landscapes flowing into each other. Ten of them have already been completed. The valley of the Moervaart, a small and partly canalised waterway that connects to the sea canal linking Ghent to Terneuzen, comprises about 3,000 hectares.
All efforts are closely coordinated with all stakeholders, not only authorities, ports, and companies, but also environmental organisations, farmers, and local residents, who are directly involved in the design and development of the areas and remain closely involved in the management and maintenance of the corridors.
This bottom-up approach is proving its worth, says spatial planner Marijke De Vreese, who on behalf of North Sea Port took part in the project coordinated by the Vlaamse Landmaatschappij: "Local residents experience that the areas have a positive impact on the quality of their living environment and their appreciation of the port and its industry. The project is important for North Sea Port, its license-to-operate strategy and our motto: Together. Smarter. This project is living proof that North Sea Port takes this strategy and its role as a connector seriously. Hopefully we will inspire other ports with our approach."

New painting

The ESPO Award was established in 2009 to promote innovative projects of port authorities that improve social integration and thus the sustainable development of European ports and their cities. North Sea Port contented for the award before. At the very first edition in 2009, the Port of Ghent came in a close second to winner Gijón.
Magda Kopczynska, director general of DG MOVE in the European Commission, handed out the ESPO Award 2023 during the yearly ESPO Award Ceremony and Dinner, which took place on 7 November at the Museum of Arts and History in Brussels. It was a specially festive edition, since it also marked the 30th anniversary of ESPO as the voice of the European seaports in EU policy making. More than 180 guests gathered at the event. The award painting given to North Sea Port was the first of a new series made exclusively for ESPO by Dutch port painter Sasja Hagens.

I. ESPO.BE
I. NORTHSEAPORT.COM

Image courtesy of Volvo Cars.

The EX30 is Volvo's smallest SUV to date.

Turning a double post

Volvo Cars Gent

With the decision to build the new, fully electric EX30 in Ghent from 2025 and to end production of all diesel-powered models by early 2024, Volvo Cars announced two milestone decisions on its road to full electrification.

Volvo Cars plans to sell only fully electric cars by 2030. By mid-decade, half of its global sales should consist of vehicles of this type. The plant in North Sea Port and the new EX30 both play a pivotal role in these ambitious plans. Joining the XC40 and C40 models on the Ghent production line, the EX30, Volvo's smallest SUV to date, will be the third fully electric model to be produced in Europe.

Growing demand

Volvo expects the EX30, which was only revealed in June and has already won several awards, to become one of its best-selling models. Production started earlier this fall in Zhangjiakou, China. Building the EX30 in Ghent will boost Volvo's capacity for the brand-new car. This also reflects Volvo Cars' ambition to build its cars where it sells them as much as possible. The top-selling XC60 and XC40 SUVs are assembled both in Europe and China as well.

By adding Ghent as a production location of the EX30, the car manufacturer is responding to the strong demand for its electric cars. Over the first ten months of the year, total sales went up 18% to 569,020 vehicles. Europe was up 24% at 233,660 cars. In both cases, sales of fully electric models more than doubled, to 91,120 units worldwide, of which 59,775 in Europe.

The new model will be assembled on the same line but is based on a different platform than the current models built in Ghent, namely the Sustainable Experience Architecture 2 (SEA 2) platform. It means 2024 will be a transition year for the plant to allow for the required investments and preparations.

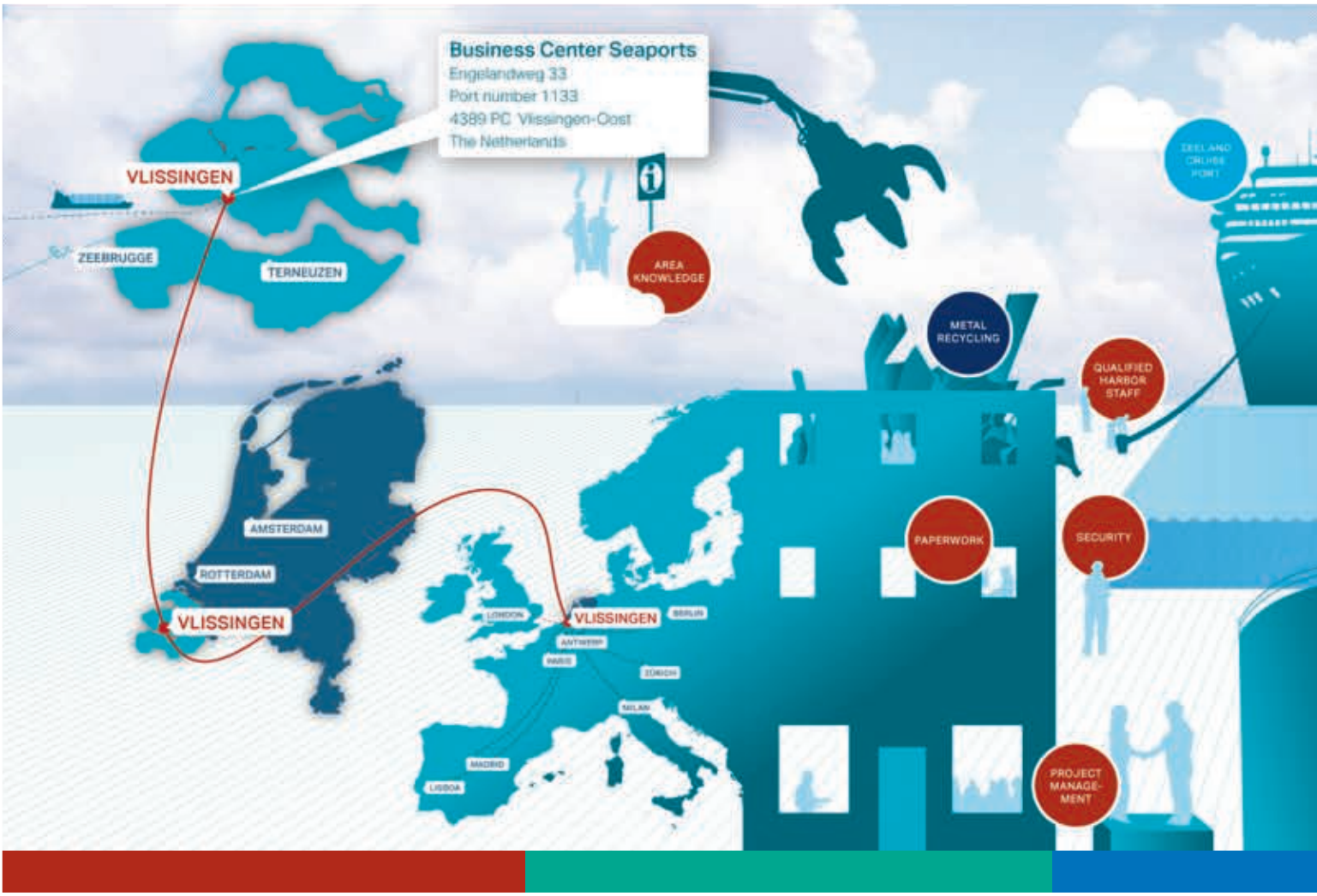
End of diesel

In line with its strategic transformation, Volvo Cars recently announced that it will produce its last diesel-powered car in early 2024. Last year, the group already exited the combustion engines business. "We're no longer spending a single krona of our R&D budget on developing new internal combustion engines," Volvo Cars said.

"Our decision to completely phase out diesels by early 2024 illustrates how rapidly both the car industry and customer demand are changing," Volvo Cars added. "Only four years ago, while electrified models were only just beginning to make their mark, the diesel engine was our bread and butter in Europe, as was the case for most other car makers. That trend has largely inverted itself since then. The majority of our sales in Europe now consists of electrified cars, with either a fully electric or plug-in hybrid powertrain."

In Ghent, production of diesel cars will cease as early as the turn of January and February. It will mark the end of an era. Last year, Volvo Cars Gent still produced 5,519 diesel-powered cars. Due to a lack of parts for the fully electric cars their number rose to 8,654 this year. The absolute record was set in 2015 with more than 118,000 diesels on a yearly volume of 252,000 cars.

I. VOLVOCARS.COM



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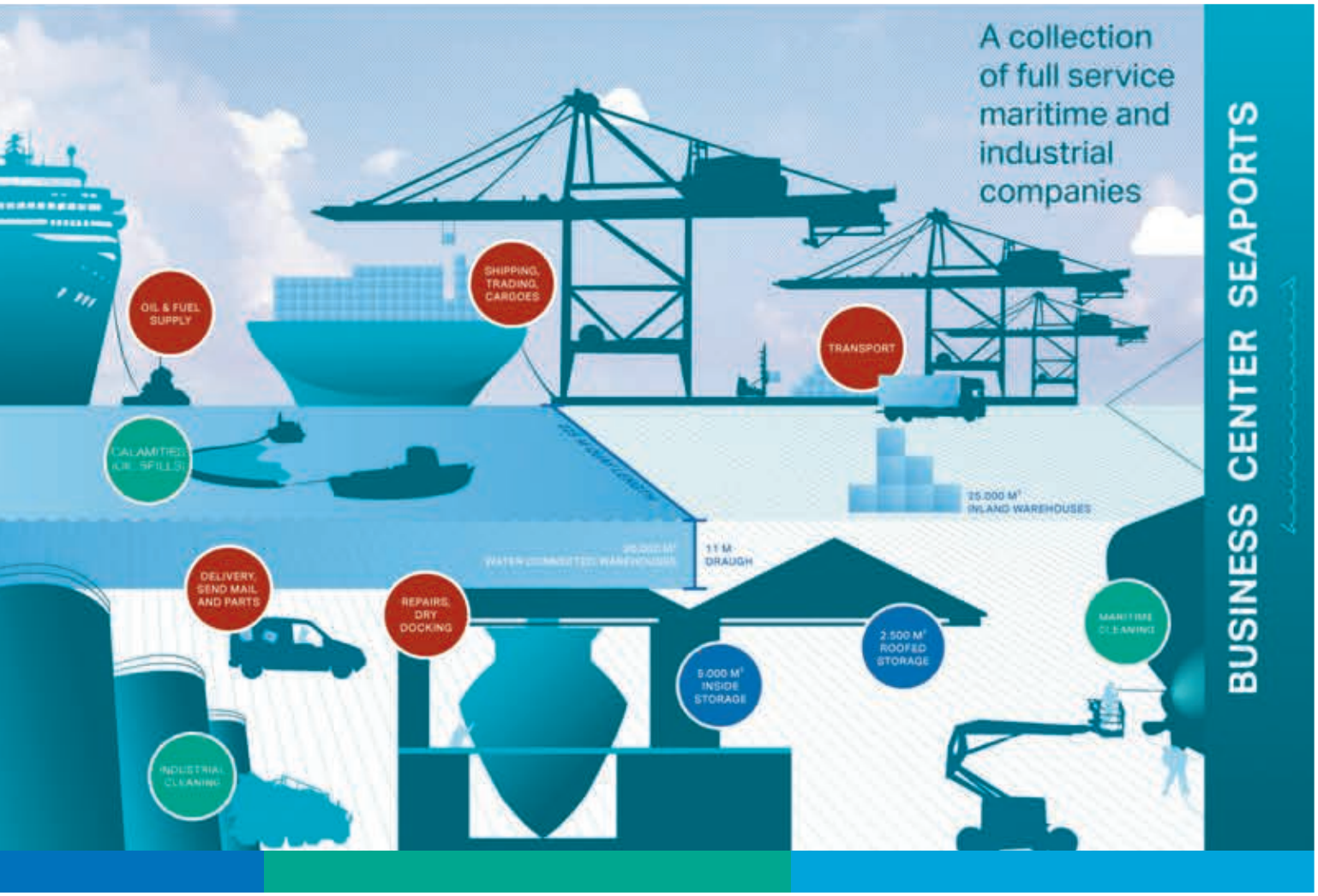

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Engaged in sustainability

Preparations are made to establish a new pilot plant at Valuepark Terneuzen. With this pilot plant, ALTA Group wants to convert CO_2 into a solvent in electrolytes that can be used for batteries. This way, the company contributes to a more sustainable world in multiple ways.

Image courtesy of ALTA Group.

Frank Vergunst is CEO of ALTA Group. The company was established in 1998. It was originally working as consulting company for the oil & gas industry. In 2012 a change was made towards sustainability. The ALTA Group's day-to-day activities consist of engineering support and consultancy, developing innovations such as Carbon Capture and Utilisation (CCU), manufacturing organic cyclic carbonates, and research & development. In addition, it offers engineering support, trouble shooting and turn-key solutions. Finally, it supports in developments in sustainability technologies such as the re-use of waste heat.

Electrolytes

Starting in a new industry in 2012, ALTA had to search for new markets and customers. This resulted in conversation with companies in 2015 about capturing CO_2 from their exhaust gases. "I already knew a bit about the technology to extract CO_2 from gas streams," Frank Vergunst explains, "but at that time, the system was simply too expensive. The ETS price was five to six euros per ton. This is why I started thinking about what you could make from CO_2, thus making retrieving it from exhaust gases more attractive. This resulted in the idea to use CO_2 to produce a liquid for electrolytes that facilitates ion transport in batteries. With our concept we can produce a very

At Valuepark Terneuzen ALTA Group wants to use CO_2 to produce a liquid for electrolytes that facilitates ion transport in batteries.

pure product, needed for the batteries no matter what the quality of the CO_2 is. This makes it a very flexible and efficient solution." As a consulting firm, ALTA initially wanted to sell the concept, but in 2016 it was decided to construct their own factory to keep things in their own hands as this would help to accelerate the project. Frank Vergunst explains, "Our team has ample experience in the oil & gas as well as the process industry, so we know a lot about the high standards needed to build a chemical plant. In the early days we spent a lot of money, mostly from my own equity, but now we have financial support from RVO for feasibility studies, a valuable contribution from Impuls Zeeland, a substantial DEI subsidy,

Image courtesy of ALTA Group.

Frank Vergunst, CEO of ALTA Group.

At Valuepark Terneuzen, ALTA Group leases a plot of 4ha.

and a JTF subsidy partly from the EU. This support shows that many parties believe in our technology, and it gives us a solid base to continue our plans."

Valuepark Terneuzen

For the pilot plant's location ALTA Group opted for Valuepark Terneuzen at North Sea Port. "Our head office is located in Gouda," Frank Vergunst elaborates, "which is close to the port of Rotterdam, so we first looked over there for our pilot plant. However, being a small company with a new concept meant we received little attention, which is why we looked further. Now, we receive a lot of support from Valuepark Terneuzen's shareholders North Sea Port and Dow Benelux, as they really believe in our concept. What also helps is that our plan fits in the port authority's strategy to realise a circular economy in and around the port area. Also, Zeeland is a small province and once you have met the right people, it is very easy to get in touch with other relevant persons and organisations. This really helps to work fast and efficiently towards the realisation of our plans, although permitting procedures always take more time than desired.

Modular components

Frank Vergunst hopes to have all permits granted and final financing arranged in Q1 of 2024. "Permitting and financing are two sides of one coin, Frank Vergunst says. "To help investors over the line, it is important to have all permits granted, and we need both to be able to start. The actual construction of the pilot plant at Valuepark Terneuzen will be relatively easy, as this will consist of the assembly of prefabricated components. These components will be manufactured, assembled, and tested in a factory elsewhere. After that, the components will be disassembled and transported to Valuepark Terneuzen. Once the components have arrived, it will be relatively easy to assemble and start up production. Hopefully this will be some time in 2025."

Image courtesy of ALTA Group.

With the learnings from the pilot plant, ALTA wants to realise two larger commercial-size plants.

Multimodal

At Valuepark Terneuzen, ALTA Group leases a plot of 4ha and for the pilot plant only a small part of that will be needed. "With the learnings from the pilot plant, we want to realise two larger commercial-size plants, which is why we opted for a large

The actual construction of the pilot plant at Valuepark Terneuzen will be relatively easy, as this will consist of the assembly of prefabricated components.

Image courtesy of ALTA Group.

> “An important advantage of the multimodal Valuepark Terneuzen is that it has many logistics facilities we can use.”

plot. An important advantage of the multimodal Valuepark Terneuzen is that it has many logistics facilities we can use. We will make use of the Evos terminal for the storage and handling of the CO_2 and electrolytes. And Bertschi has a train terminal at Valuepark Terneuzen.” Frank Vergunst continues, “The pilot plant will be remotely operated from Gouda, however, our plans for a second and third plant at Valuepark Terneuzen mean that we will need people to work for us in Zeeland in a five-shift operation and when producing at a larger, commercial scale, we will have offices at North Sea Port, too. This way we hope to positively contribute to the Zeeland economy. It is good to see that in this early stage we already receive applications from people that would like to work for a sustainable company like ours. We are also talking with HZ University of Applied Sciences and Scalda for collaboration. Think for example of traineeships, graduation projects, and guest lectures.”

Contribution in various ways

It is obvious that the future of ALTA Group looks promising given the predicted growth of battery manufacturing in Europe.

“We hope to reach 10 million tonnes of CO_2 per year that we want to capture from the industry and use to make products in twelve years”, Frank Vergunst says. “10 million tonnes is a lot, but you must have ambition. In that scenario, we also look at societal value. What does it contribute to a sustainable future? We contribute to the new energy market in various ways. We directly use CO_2, and to help the industry to become more sustainable we use 80% less energy. Also, we produce in Europe, and not for example in China. They can do it there, but with a more polluting technology. They specifically produce CO_2 from fossil raw materials, only to extract it again and ship it here. Our goal is not to constantly grow bigger or earn even more. We want to be engaged in sustainability. We can’t continue the way we’re doing things now. If we make good money with my CO_2 technology, we want to use it to do other beautiful things. To give a specific example, the building in Gouda where our head office is located is owned by me. As we do not need all space for ourselves, part of it is used by a nursery and a physical therapist. We hence contribute to the local society, and it gives a very positive vibe at our Gouda offices. Apart from contributing to a more sustainable world, we can hopefully support the North Sea Port region in the same way, too.”

I. ALTAGROUP.NL

Setting the bear loose

MG Real Estate builds new logistics complex at Kluizendok

MG Real Estate has started the construction of a brandnew, large-scale warehousing complex, The Big Bear, at the Kluizendok in Ghent. With this new project, which literally 'bears' a bit of a strange name, the real estate developer will add a major building block to its already strong presence in North Sea Port.

An artist's impression of the Big Bear logistics campus. Construction has started on the first phase, which will be ready early next year.

Image courtesy of MG Real Estate.

When completed, the new logistics platform at the Kluizendok will offer 185,000m² of warehousing capacity. The first phase will cover 60,000m² in four units with an internal free height of 13.7 metres. It will be fully operational in the second quarter of 2024. The tenant will be logistics service provider EUTRACO, for whom MG Real Estate already built 75,000m² of storage and handling space on a nearby site that opened in 2022. EUTRACO already partnered with MGRE for the building of warehouses in other locations, among which the "first carbon- and energy-neutral logistics centre in Belgium" built in 2021 in Willebroek.

In the new warehouses in North Sea Port, MG Real Estate will apply the same high standards in terms of sustainability, smart monitoring, and integral site management, with the added touch of strong architectural design that combines 'the beauty and the boost', as the company puts it.
The new complex received an uncommon name – Big Bear – a reminder of MG Real Estate's long history of innovation. When founder Ignace De Paepe started his first major demolition projects in the 1980s (*see box*), he switched from the 30-tonne scissors

> "We have a strong belief in the potential of ports. They still offer space for XXL logistical platforms and they are by definition multimodal nodes."

The former power plant at Langerbrugge is an example of the brownfield projects MGRE is not afraid to take on.

Image courtesy of MG Real Estate.

that were common in that business at the time to 50- and 85-tonne machines. Big Bear was the nickname given to the largest scissors in the world.

Home turf

"North Sea Port can be said to be our home turf", CEO Ignace Tytgat refers to the same history. "The list of MG Real Estate's realisations is already quite long, with different types of buildings in many corners of the Ghent port area: from the offices of the Port Police and the distribution centre of Gates Europe on the right bank of the sea canal to the installations of companies such as Libert Paints, mobile crane operator Desutter, engineering group Visser & Smit Hanab, and building materials distributor Gedimat on the left bank. The most recent development has been the newly constructed warehouse of EUTRACO at the Kluizendok. The redevelopment of the former power plant at Langerbrugge is still ongoing."

Logistics has been the main driver in the group's steep growth and international expansion over the past years, which saw equity rise from EUR 110 million in 2020 to 185 million last year. "We surfed on the wave of the need for warehousing capacity in the wake of the coronavirus crisis and on the rising tide of nearshoring. Available capacity proved to be in short supply and occupancy rates skyrocketed. Demand could only be met with the development of new warehouses. The increased emphasis on the greening of logistics operations added another dimension to this trend, coming on top of price and speed as a key factor in new projects. MG Real Estate is spearheading this evolution", the CEO says.

> "We aim for a close partnership with our customers, because, in the end, our biggest asset is not the building, but the client."

Image courtesy of Eutraco.

The first warehouses of EUTRACO at the Kluizendok already bear the MGRE stamp.

Ports as a prime location

North Sea Port benefited from the situation. “In Belgium, the largest developments of logistics used to be centred on the Antwerp-Brussels axis. But with space for large projects becoming harder to find, companies started to look for alternatives. With its geographical position as the third tip in the golden triangle for logistics in Flanders, its accessibility and low congestion, Ghent logically came into the picture. It was something waiting to happen.”

When it comes to logistics, ports are a location of choice, Ignace Tytgat adds. “We are very convinced about the potential of ports. They continue to provide ample room for XXL logistical platforms and they are by definition multimodal hubs. We just broke ground for our first investment in France: we did it in Calais, another port. There will always be a future in ports. When new transport systems such as the hyperloop will make their appearance, ports will very likely be the first locations where they will be implemented.”

Brownfields

As space becomes more scarce by the day, new solutions will have to be found, however. “Double-deck warehouses could be one of them. But repurposing existing land will inevitably be part of the picture. In this field, the expertise MG Real Estate acquired in the redevelopment of brownfields and abandoned industrial sites will serve our group well in the future”, Ignace Tytgat reckons.

Brownfields come with their own challenges, of course, as shown by the power plant of Langerbrugge. The surrounding grounds have already been given a new purpose, but the imposing main building, a ‘cathedral of Ghent industry’ with its vast hall and 102-metre high chimney, the tallest in the country, is still in the scaffolds. “We knew from the start that this would be the hardest nut to crack in the whole project. We remain confident that the right solution will ultimately be found. We collaborate closely with all the stakeholders to discover this solution. In the meantime, we keep an open mind and we continue to work out new concepts. It is a process that has been very instructive so far.”

Ignace Tytgat, CEO of MG Real Estate.

Image courtesy of MG Real Estate.

“In the end, as always, we aim for a close partnership with our customers, new or existing, and a long-term approach to their needs. Because our biggest asset is not the building, but the client.”

I. MGREALESTATE.EU

An international group firmly rooted in Ghent

MG Real Estate originated in 2000 as the rebranded identity of De Paepe Group (the MG in the new name stands for Margaux and Guillaume, the two children of president and owner Ignace De Paepe). Back then, it had five people on its payroll. Today, it is an international group with a team of 80 employees, offices across six countries, and 1.5 million square metres of realisations, with Belgium and the Nordic countries as main markets. “We are the number one logistics real estate developer in Belgium and Denmark”, Ignace Tytgat proudly states.

What is still a family-owned business but now a self-defined “high-speed developer for logistics, offices, retail and residential projects”, once was a company that earned its marks in groundwork, road building, dredging, concrete, decontamination, and the redevelopment of brownfield sites. Ghent played a pivotal role in that story. Ignace De Paepe’s very first assignment was the decontamination of the short-lived Texaco refinery in the port area, around what is now the Mercatordok but was then aptly known as the Petroleumdok. The company tackled 250 hectares of contaminated soil. It was an unprecedented venture in Belgium that solidified De Paepe Group’s reputation in the demolition and decontamination industry. Similar large-scale projects soon followed in other countries. MG Real Estate’s expertise still largely rests on this foundation.

Be it in logistics, offices, retail or residential real estate, MGRE is still very present – and very visible if not always recognisably so – in the city and region of Ghent. To name just a few realisations: the 119 metre high MG Tower, the highest office building in Flanders, to the south of the city, the MG City Store in the century-old Post-Plaza building and the 12,000m² MG Shopping Centre in the very heart of Belgium’s third largest town, and the multifunctional MG City Station business centre near Ghent’s main railway station.

A masterpiece for energy transition

All images courtesy of Elia/TM Edison.

With the growing number of offshore wind farms, the traditional way of connecting them to the onshore grid will result in an overload of export cables and onshore grid connections. The use of energy islands will solve this issue.

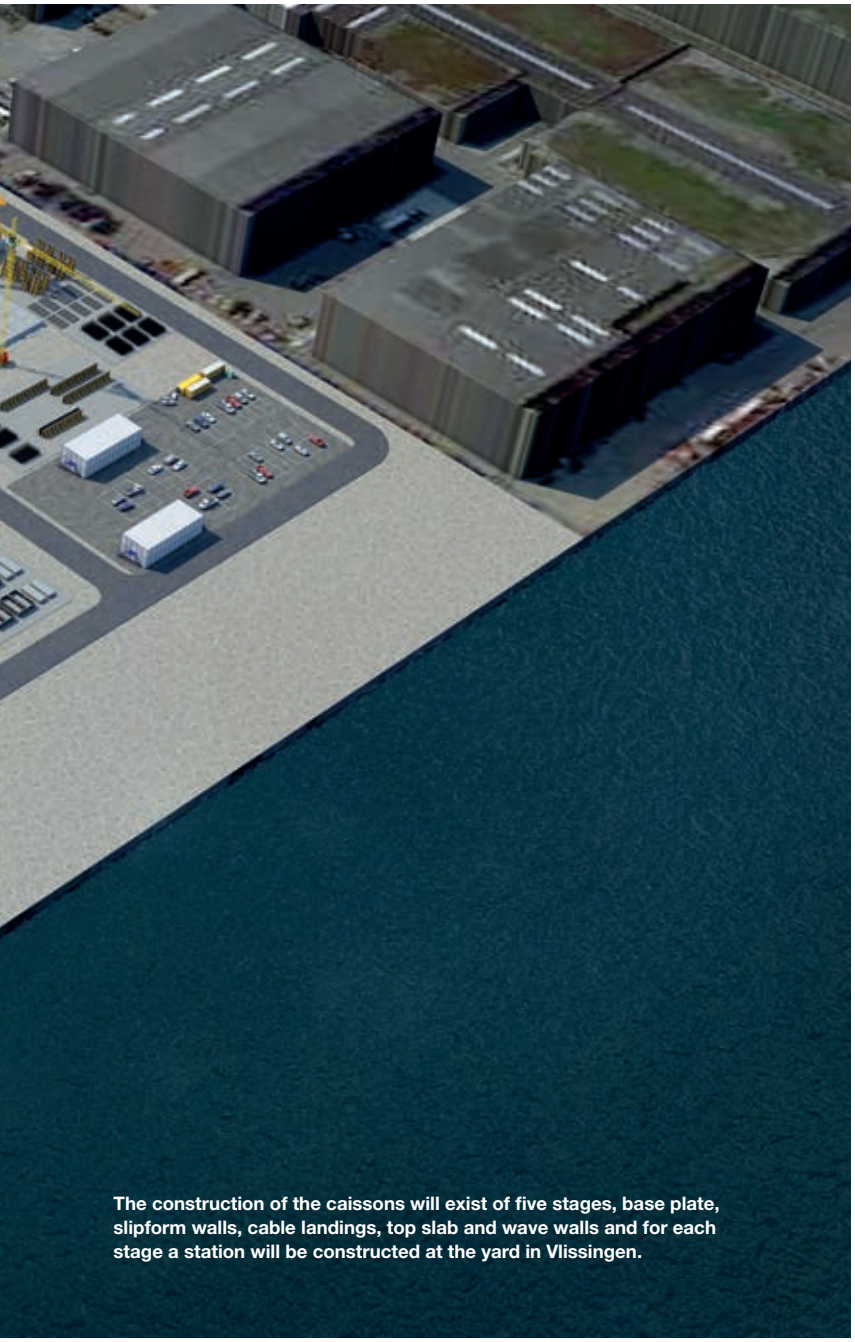
With these energy islands, wind turbines can be placed further away from the coast, and they distribute the generated power between several countries more efficiently. The islands serve as hubs – or green power plants – that gather electricity from the surrounding offshore wind farms and distribute it directly or indirectly through other hubs to the grid of one or more countries. This allows electricity from an area with vast wind resources to be more easily routed to areas that need it the most, while also ensuring that the energy generated from the turbines is utilised as efficiently as possible in terms of demand for electricity.

Princess Elisabeth Island

Off the Belgium coast, TSO Elia is going to realise the Princess Elisabeth Island. This artificial island is an electricity hub where cables from both the Belgian 3.5GW Princess Elisabeth offshore wind farm zone and future offshore wind farms will come together. “The Princess Elisabeth Island will be the first building block of an integrated European offshore electricity grid that will connect various hubs and countries,” Pierre-Yves Guilermin, project manager at ELIA, explains. “This will give access to the massive amounts of renewable energy that are needed to make the industry less dependent on fossil fuels in the short term.”

Hybrid interconnectors

He continues, “The Princess Elisabeth Island is the world’s first artificial energy island that combines both direct current (HVDC) and alternating current (HVAC). The island’s high-voltage infrastructure will bundle the wind farm export cables of the Princess Elisabeth zone together, whilst also serving as a hub for future interconnectors with Great Britain (Nautilus) and Denmark (TritonLink). These are so-called ‘hybrid interconnectors’ that have a dual function and are therefore



The construction of the caissons will exist of five stages, base plate, slipform walls, cable landings, top slab and wave walls and for each stage a station will be constructed at the yard in Vlissingen.

more efficient. They facilitate the exchange of electricity between countries and are also connected with gigantic offshore wind farms in the North Sea that will in due course provide Belgium with large volumes of renewable energy."

TM EDISON

The area set aside for the installation of the electrical infrastructure will be approximately 6ha in size. The artificial island will be constructed from concrete caissons filled with sand. On 28 February of this year, it was announced that the Belgian consortium TM EDISON (Jan De Nul and DEME) has won the tender for the construction of the island. Now that the construction contract has been awarded, the design of the island can be finalised. The construction of the island will start in early 2024 and will continue until August 2026. The caissons will be built and installed in 2024 and 2025. These will form the contours of the island. After that, the base of the island will be raised and prepared for the construction of the electrical infrastructure. Elia aims to ensure all wind farms are fully connected to the mainland by 2030.

Impressive dimensions

TM EDISON has chosen North Sea Port as the location for the construction of the caissons. At the Quarleshaven in the Vlissingen port area, the consortium is going to make use of a 12ha large terrain. This is leased from Verbrugge, that they in their turn are renting as part of a 12ha large lot from DHG Group. According to Bart Callens, deputy project manager of TM EDISON, the construction of the island offshore will begin in early 2024 and will take 2.5 years. After that, the installation

> TM EDISON is very pleased with the decision to have the caissons constructed at North Sea Port.

The island's high-voltage infrastructure will bundle the wind farm export cables of the Princess Elisabeth zone together, whilst also serving as a hub for future interconnectors with Great Britain (Nautilus) and Denmark (TritonLink).

TM Edison already started construction of the five production stations at the Quarleshaven.

By the end of December, all five stations should be ready.

> All these activities, apart from the floating of the caissons, can take place without disrupting maritime traffic in the Vlissingen port area.

of the high-voltage infrastructure can be started. The latter will be necessary for bringing the electricity from Belgium's future offshore wind zone to shore. "At the Quarleshaven," Bart Callens says, "we are going to construct a total of 23 caissons for the Prinses Elisabeth Island. Each one will have a size of 58x28x28 meters (L, W, H) and will weigh around 20,000t, which are quite impressive dimensions. The construction of the caissons will exist of five stages, base plate, slipform walls, cable landings, top slab and wave walls and for each stage a station will be constructed at the yard in Vlissingen. Each production station will take about seventeen days, meaning that for each caisson we will need around 85 days. Once the second station of a caisson starts, the first station for the next caisson will also begin, et cetera."

Favorite location

Hedwig Vanlishout, project manager of TM EDISON, explains that TM EDISON is very pleased with the decision to have the caissons constructed at North Sea Port. "We had various options for the construction yard, and North Sea Port has many

advantages for this particular project. We are enthusiastic about the location for various reasons. First, for the five production stations we need a large amount of space, space that is available at the Quarleshaven. On top of this the port offers various logistical advantages. When finished, the caissons need to be moored for a while before they sail off to their destination in the North Sea. For this temporary mooring we can use the DEME base in the Scaldiahaven." "Before this," Bart Callens adds, "we first need to load the caissons on a semi-submersible barge. For this it is very convenient that the Quarleshaven is not too deep alongside our production location. We are constructing a temporary quay where we can easily moor the barge on just a bed of rock on the bottom of the Quarleshaven. This load in location is away from the fairway, so this will not disrupt traffic. After the load in, the barge will be towed to the Kaloothaven, where North Sea Port has a 19.2m deep immersing pit. Over there we can submerse the barge in sheltered weather-proof surroundings, and safely get the caissons to float. After this, they will be towed to DEME's yard in the Scaldiahaven, where they can be moored."

Big plus

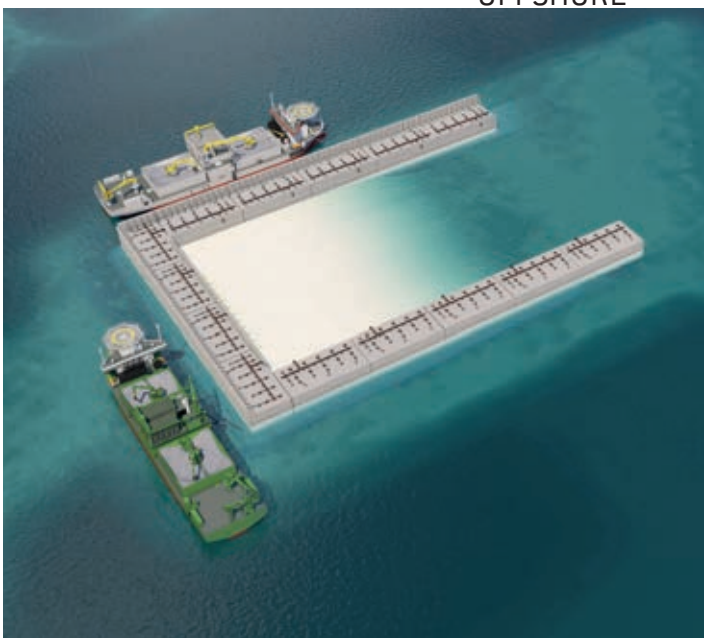
Bart Callens continues, "All these activities, apart from the floating of the caissons, can take place without disrupting maritime traffic in the Vlissingen port area." "What should also not be forgotten is the fact that North Sea Port is relatively close to the construction site of the island, so transport will not take too long," Hedwig Vanlishout states. Apart from these practical advantages, North Sea Port has another big plus according to both men. "Both DEME and Jan De Nul feel at home at North Sea Port, as both companies have branches at North Sea Port and we already know the port authority as a pleasant and collaborative partner and for this project too, we have been working very well together," Hedwig Vanlishout elaborates. "In fact, it was North Sea Port that told us about the available location and it all started from there," Bart Callens adds, "and they also helped us during the permitting process with ample valuable advice and suggestions."

Installation at sea

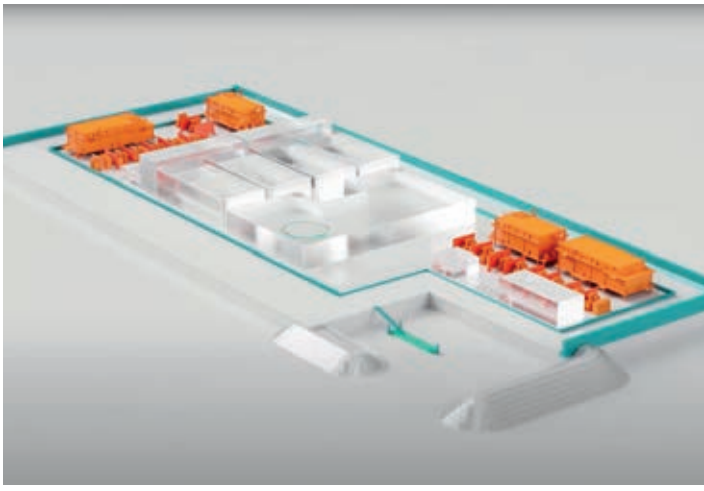
The installation of the caissons is planned for the summer of 2024 and 2025. "We are planning to have the first fourteen caissons ready over the summer of next year," Bart Callens says, "and this means that we already started construction of the five production stations. The first station is almost ready to start producing and the second is about 70% ready. By the end of December, all five stations should be ready and meanwhile the first step in the production of the caissons should have begun, too. As from July 2024, the first caissons will be installed at sea, with the aim to have fourteen caissons installed over the summer season of 2024. During winter, offshore work will come to a halt but the construction of the caissons in Vlissingen will continue, so that installation at sea can start again in April 2025."

Masterpiece

Once fully operational, around 300 people will be working at the Vlissingen production site. "An international crew will work together as one team to construct the caissons in Vlissingen," Hedwig Vanlishout voices, "and where possible, we try to make use of regional subcontractors. For both DEME and Jan De Nul, this project really is a masterpiece. We both operate in various markets and as contractors we have built a great track-record, both offshore and onshore. Now we have the unique opportunity to combine our onshore and offshore experience and skills in one project that furthermore enables us to contribute to the energy transition. This is exciting and motivating for all of us." Bart Callens adds, "This project may not be the largest project we have carried out, but it is a world's first and everyone is looking at us. Therefore, a good collaboration between all partners, including Elia and North Sea Port, is important for the success of the project and together with them, we are looking forward to bringing this sustainability project to a successful end."



The caissons will be built and installed in 2024 and 2025 and will form the contours of the island.

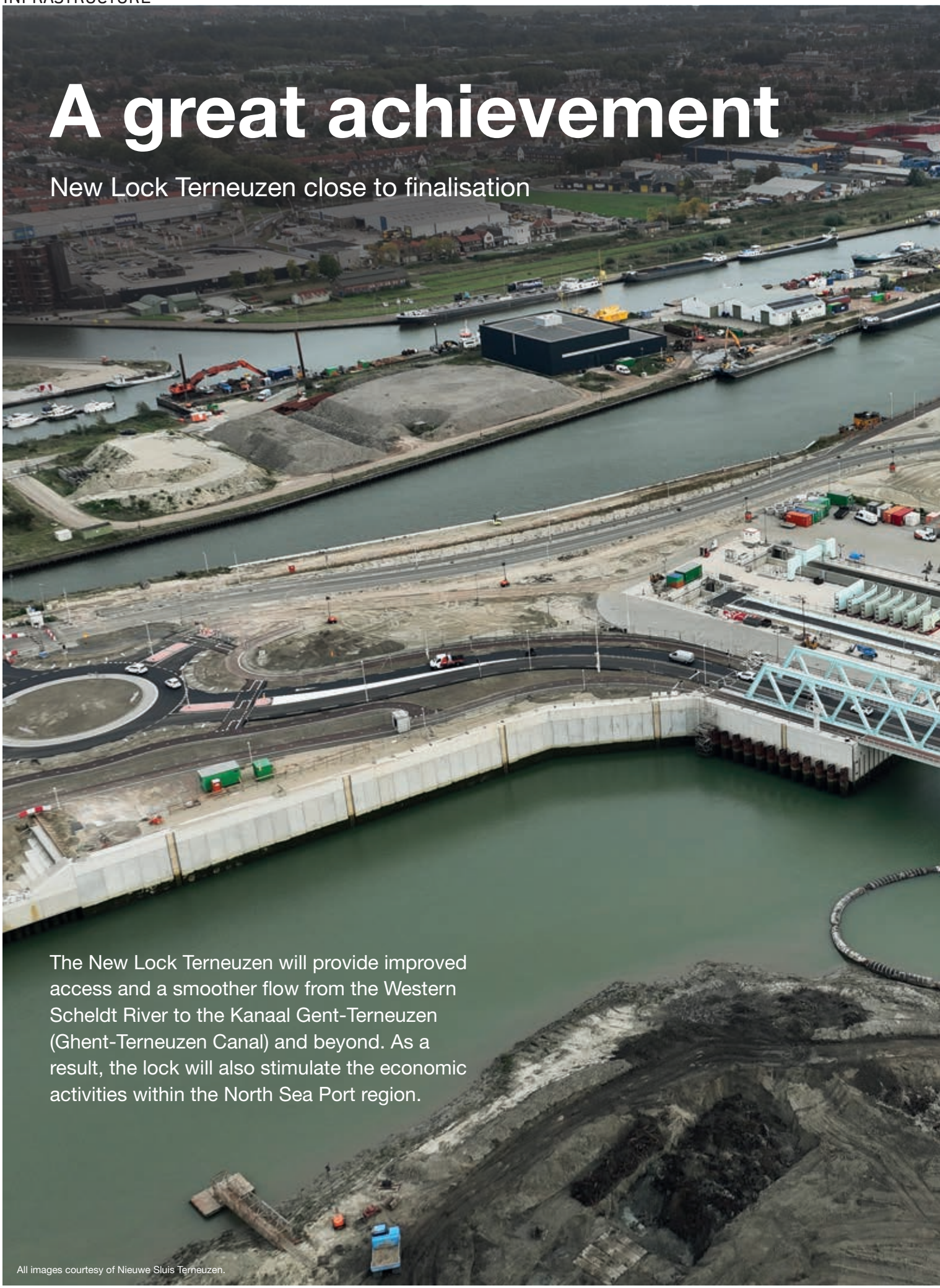


The construction of the island will start in early 2024 and will continue until August 2026. Elia aims to ensure all wind farms are fully connected to the mainland by 2030.

I. DEME-GROUP.COM
I. ELIA.BE
I. JANDENUL.COM
I. TM-EDISON.BE (UNDER CONSTRUCTION)

A great achievement

New Lock Terneuzen close to finalisation



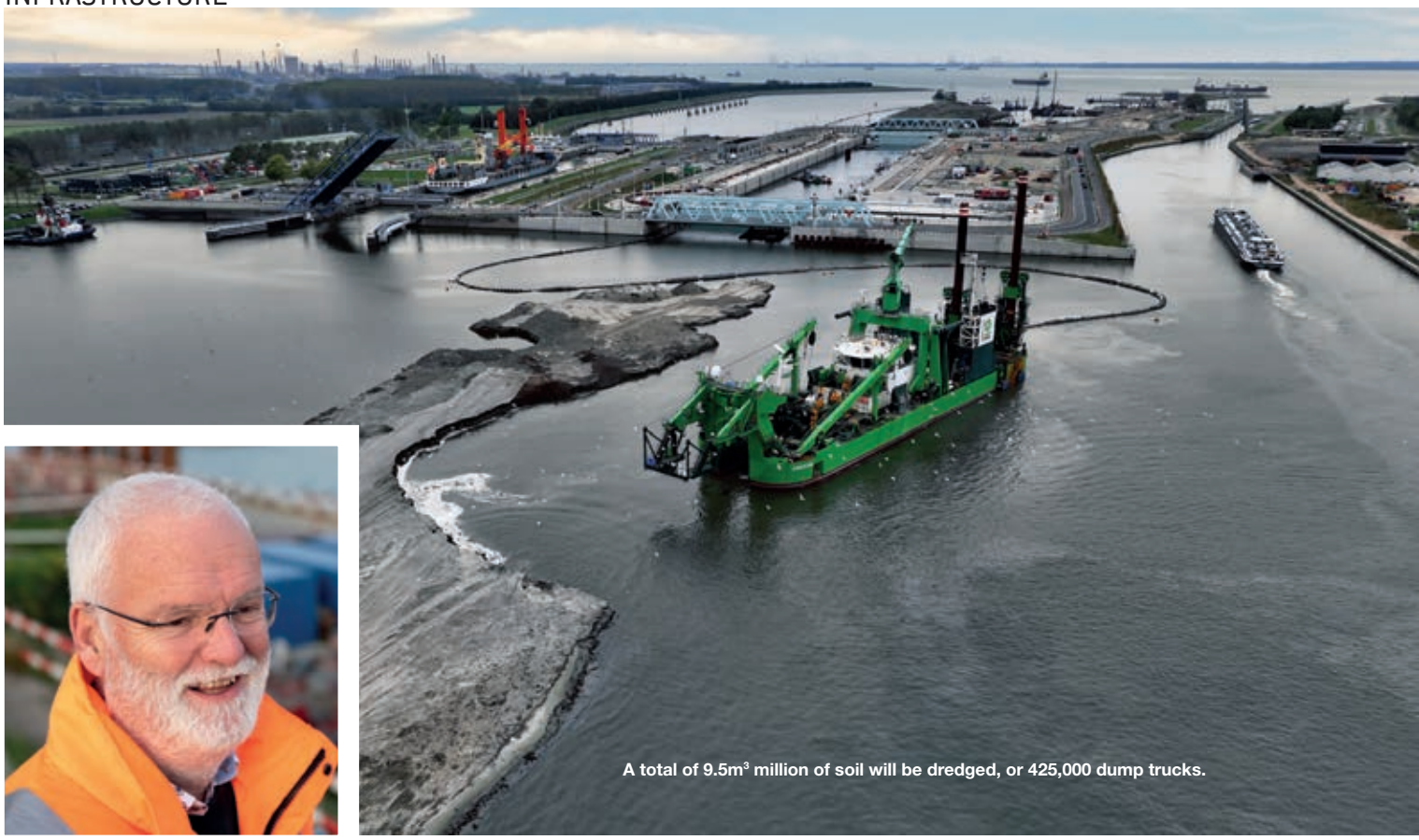
The New Lock Terneuzen will provide improved access and a smoother flow from the Western Scheldt River to the Kanaal Gent-Terneuzen (Ghent-Terneuzen Canal) and beyond. As a result, the lock will also stimulate the economic activities within the North Sea Port region.

All images courtesy of Nieuwe Sluis Terneuzen.

The New Lock is close to finalisation.

Facts and figures New Lock

- 427m long.
- 55m wide.
- 16.44m deep.
- The lock is as big as four to five soccer fields.
- The lock is as large as the locks in Panama.
- The width of the lock is comparable to two or three lanes of traffic.
- 32,000t of steel is used for the construction, which equals four times the Eiffel Tower, and 330,000m^3 of concrete, which is the equivalent to 120 Olympic-sized swimming pools.
- A total of 9.5m^3 million of soil will be dredged, or 425,000 dump trucks.
- Project budget of EUR 1,184,000,000 including VAT, at the 2023 price level.



A total of 9.5m³ million of soil will be dredged, or 425,000 dump trucks.

Harm Verbeek, public affairs officer of the New Lock project.

With the introduction of the new lock, larger seagoing vessels will be able to navigate through the canal to reach the Terneuzen and Ghent part of North Sea Port. Additionally, the capacity of the entire lock complex increases, reducing waiting times for inland shipping vessels. In 2024, the first ship will pass through the New Lock, marking the finalisation of a huge project that formally started in 2012. Harm Verbeek is public affairs officer of the project team and has been involved in the project from the very start. PortNews talks with him about the various milestones and challenges of the project.

Birth certificate

"The New Lock Terneuzen project started in 2012 when two decisions were made," Harm Verbeek says. "Based on a thorough investigation, a so-called consultative stakeholder forum advised to improve the entrance to the Kanaal Gent-Terneuzen, and in March 2012 a political agreement was reached to start the planning phase for the construction of a new lock called the New Lock Terneuzen. I consider this agreement as the birth certificate of the New Lock Terneuzen." During the planning phase, various designs of the new lock were considered, resulting in a final concept of a new lock in the middle of an existing complex of locks. "What surprised me most in those days was that when we published the final design for public reviewing, we did not encounter many arguments against it and it was good to see that many stakeholders, including the inhabitants of Terneuzen as well as the companies and organisations up and around the lock complex all embraced our plans," Harm Verbeek explains. He continues, "Between the planning phase and the realisation we entered what we called the bridging phase. In this phase we had to deal with a legal track aimed at the acquisition of terrains around the lock complex. We had to initiate conversations with those that had to move from the complex to make room for the construction of the new lock. Some companies accepted the move, and some decided to end their activities, so all together this phase went quite smoothly. What helped in this matter was that a large part of the grounds needed (mainly the Schependijk) was owned by Zeeland Seaports (now North Sea Port editor) and they were very collaborative, not in the least as they saw the importance of the project. As a matter of fact, we have been in touch with the port authority throughout the entire project in a positive way concerning agreements and conditions."

Living a dream

One of the next challenges was to find a partner to construct the new lock and for this a European tendering procedure was conducted between June 2016 and September 2017. "For me," Harm Verbeek states, "this was a very interesting and motivating period in which we talked intensively with three contractor combinations about the tendering trajectory and their plans. In the end, only one combination was granted the project, meaning that the other two had invested a large amount of money and time for nothing." The tender was won by the Sassevaart contractor combination, consisting of BAM Infra, Stadsbader Contractors, DEME Infra Marine Contractors, DEME Dredging International, Van Laere, and Equans. "Once the contractors were chosen," Harm Verbeek elaborates, "the period of demolition and building started and at the start of the project everything was new to us. With a lot of positive thinking, no mistakes, and no troubles, we were living a dream. Of course, we soon went back to reality. Throughout the entire project we tried to limit any pains as much as possible, and we put a lot of effort into informing our stakeholders about the proceedings of the project. This phase started with building the construction pits, which was quite challenging because of the large scale and the soft soil we had to build the pits in. After finishing the pits, the actual construction of the lock could

> Another unexpected threat was of course COVID-19, which hindered the project in many ways.

commence. Not surprisingly, we encountered many unexpected situations throughout the project. This already happened during the digging and dredging for the construction pits. We found soil with high concentration of naturally formed arsenic, which we were not allowed to deposit in the Western Scheldt River. After storing it in the hinterland, the soil was later used for construction works, for example in the expansion of a golf course. Much later, the project was endangered by the discovery of PFAS in the excavated soil. The discussion on the PFAS danger to health was totally new for everyone and this even endangered the entire project. In the end, after many discussions with all relevant stakeholders, a satisfactory solution was found and we could continue."

Learning experiences

Harm Verbeek continues, "Another unexpected threat was of course COVID-19, which hindered the project in many ways. We had almost 600 men working at the site in those days and because of the corona restriction this was not allowed for a long period. Mechanics from Germany could not travel to Terneuzen for repair and maintenance of the equipment, the workers that could continue had to keep 1.50m distance, limiting their maneuverability on site, et cetera. What I remember most from that period is that the contractor acted constructively and solution-oriented, so we ultimately survived this period without any great delays. One of the most recent issues was the demolition of the Middensluis. For this we had planned a number of controlled explosions. However, due to miscalculations, the first explosions were too fierce for the desired effect and also caused undesired damage to houses and buildings nearby. We subsequently acted fast and openly towards the public, and swiftly compensated financially for the damage in around 200 cases. In the end the public opinion on this mistake was not negatively influenced and the second effort was executed successfully and without any problems. Now that the project is reaching its end, one of the biggest challenges is space. Many things are happening at one time on a location that gets smaller and smaller, as we are gradually giving back terrain for public use. And meanwhile vessels are moving in and out of the existing locks. From a logistical point of view, this really is a challenge for us, forcing us to constantly look for solutions. Once the construction works are completed, the first testing will start. This is an important yet rather invisible phase, as it will be limited to testing the systems of the bridges, the lock, and the lock doors. We expect the construction combination to be ready next year, and the integrated testing will take place in July. During this, all kinds of scenarios will be reviewed with the many parties involved, from mechanics to the municipal fire brigade. After this, the New Lock itself will become operational and testing with vessels will start to see whether the vessels are able to pass the lock safe and sound. Weather conditions such as wind and tide are important variables and to be honest, this testing will still take place in the first months of the operational phase, as many unexpected situations could happen that may be considered as learning experiences."

The Dutch minister Mark Harbers (l) and Flemish minister Lydia Peeters (r) unveiled a new name for the lock complex on 17 November: North Sea Locks.

New name lock complex

The Dutch minister Mark Harbers and Flemish minister Lydia Peeters unveiled a new name for the lock complex on 17 November: North Sea Locks. They did so during a working visit to the New Lock. The name North Sea Locks was chosen to create a connection between the port of Ghent and Terneuzen and the adjacent sea area. Furthermore, the name aligns well with the port company North Sea Port. Internationally, the North Sea Locks will be in the port area of North Sea Port. A special committee chaired by the mayor of Terneuzen, Erik van Merrienboer, chose the name for the lock complex. The naming committee also included Mathias De Clercq, mayor of Ghent, Daan Schalck, CEO of North Sea Port, and Willy Dekker, chief engineer-director of Rijkswaterstaat Zee en Delta. The committee decided to maintain the names East Lock, West Lock, and New Lock for the individual locks within the complex. The New Lock will remain the New Lock.

Sense of proudness

Looking back on almost twelve years, Harm Verbeek is proud of the achievements of the entire project team so far. "Of course," he says, "we have had our ups and downs during the many years of working together on this project", Harm Verbeek states. "However, I think we can speak of a pleasant and positive relationship in our team and with our stakeholders. What surprises me is the sense of proudness among the inhabitants of Terneuzen. Many of them follow the works almost daily. Also, the port information center Portaal van Vlaanderen that currently has an exhibition on the construction of the locks, including guided tours, is visited by many. We have had to deal with many unsuspected issues, forcing us to improvise and come up with deviation solutions. Nevertheless, the construction of the New Lock Terneuzen can be considered a great achievement for everyone involved, and it will be a region with ample economic opportunities."

I. NIEUWESLUISTERNEUZEN.EU

Doing business on the shoulders of their predecessors

muZEEum 2.0

Zeeland has a long history deeply intertwined with maritime and sea-related activities, and the city of Vlissingen has played a significant role in this for many centuries. The Maritiem Muzeeum Zeeland, also known as the muZEEum, now presents this history to its visitors in a completely renewed exhibition.

According to Onno Bakker, director of the muZEEum, seafaring and trade are in Zeeland's DNA. "Zeeland has a rich history when it comes to seafaring and trade," he says, "and even today, a significant part of our economy relies on water-related activities like trade and transport. While many things have changed over the years, much has also remained the same. Just look at the Western Scheldt River. Like four centuries ago, from the Vlissingen Boulevards people still see many ships passing by, albeit much larger than before, carrying more cargo, and with relatively fewer crew members. Those working in today's maritime and logistical activities in Zeeland are in a way standing on the shoulders of their Zeeland predecessors. Our goal is to establish this connection between the present and the past, and to then interpret it."

The Western Scheldt River

This year, the muZEEum's exhibition has been redesigned for this purpose. Onno Bakker says, "In recent years, we would tell everything about Zeeland's maritime history without distinction. The Western Scheldt River was not the only important sea route for this province in the past, and cities like Veere and Zierikzee also played prominent roles as ports. However, by telling everything, there's a risk of visitors losing the thread of an exhibition. That's why we decided to focus on maritime history from the perspective of the Western Scheldt River."

Cornelis Lampsins

The building in the Nieuwendijk in Vlissingen, where the muZEEum is located, already has a rich maritime history and therefore provides the perfect backdrop for a journey through time.
"Our building was constructed in 1641 as a city palace commissioned by the Fleming Cornelis Lampsins," explains Onno Bakker. "Cornelis Lampsins had his office on the ground floor of his residence, and the living quarters were upstairs. He came from Oostende to Vlissingen to build his trading empire here. The Lampsins family demonstrates that at that time, Zeeland primarily benefited from developments in Flanders and was much less focused on Holland. Antwerp was already an important port and because all ships had to pass by Vlissingen on their way there, this city also benefited. Lampsins was a wealthy man who owned various companies all over the world. You could say that his business was one of the first multinational corporations. In addition to a shipping company with dozens of ships, he also owned the island of Tobago in the Caribbean with a plantation on it. So he was not only a shipowner but also a landowner and entrepreneur. Moreover, he was involved in privateering and the slave trade."

Onno Bakker, director of Maritiem Muzeeum Zeeland.

Part of the muZEEum is located in the former city palace of the Lampsins family (the yellow building in the centre of the photo).

More or less guided by historic person Michiel de Ruyter, visitors to the muZEEum are taken on an interactive exhibition that is engaging for young and old alike.

Image courtesy of Maritiem Muzeeum Zeeland.

Michiel de Ruyter

One of our great Zeeland maritime persons, Michiel de Ruyter, worked as a rope maker's boy for the family at a young age and later became captain of one of Lampsins' ships. More or less guided by this historic person, visitors to the muZEEum are taken on an interactive exhibition that is engaging for young and old alike. Onno Bakker continues, "The story the muZEEum tells has different perspectives. First and foremost, attention is given to entrepreneurship at that time, and it's striking that even then there was a great deal of emphasis on finding forms of collaboration. Sending a ship on a voyage was fraught with many dangers, and to reduce the financial risk of losing a ship and its cargo it was often financed by various parties. The captain was essentially an entrepreneur as well. He was the one who often had to make various commercial decisions during the voyages on behalf of the shipping company and its clients. There is also a lot of focus on the role of the woman behind the captain. In addition to their household responsibilities, they often handled numerous matters for the ship, such as paying the crew and purchasing provisions for the voyage."

Melting pot

Onno Bakker continues, "Today, a shortage of personnel is a significant challenge for many companies, but even in those days it was not easy for shipowners to find personnel. People were recruited in every possible way, and personnel were recruited from all over Europe, resulting in ship crews being a melting pot of different nationalities.

Slave trade

"The slave trade played a significant role in those days, and the muZEEum's story cannot ignore this aspect. Not by passing judgment or by trivialising, but by sticking to the facts. "At that time," Onno Bakker voices, "the slave trade was commonplace, and we naturally show this because it played a crucial role in the economic development of Zeeland and based on what we tell, visitors can form their own opinions. We also challenge them to reflect on these sensitive subjects at the end of the exhibition."

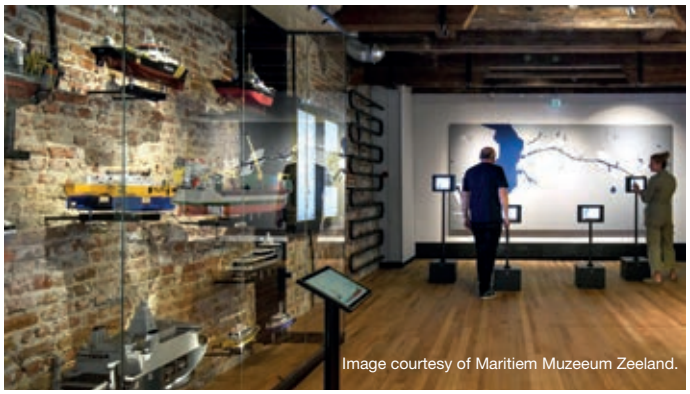


Image courtesy of Maritiem Muzeeum Zeeland.

A special North Sea Port exhibition highlights the developments within this cross-border port.

Meeting place

The muZEEum also provides space for contemporary maritime activities. Currently, there is a lot of focus on working in the offshore industry, and a special North Sea Port exhibition highlights the developments within this cross-border port. "With our renewed muZEEum, I sometimes jokingly refer to it as muZEEum 2.0, we have built a contemporary exhibition that forms a bridge between the modern economy and the past that laid its foundation. Additionally, we are a meeting place in a unique historical setting where you can easily imagine yourself back in the Vlissingen that was made great, in part, by the Lampsins family. For this, we offer various options for room rental, catering, and events, which is yet another good reason to visit the muZEEum," concludes Onno Bakker.

I. MUZEEUM.NL

Pallets by the millions

Den Doelder now part of PGS Group

In the pallet business, proximity is a trump card and rapid delivery a must.

Image courtesy of PGS Den Doelder Pallets.

Den Doelder Pallets is a company with a decades long history in the Dutch part of North Sea Port. It just turned another corner with its full takeover by the French PGS Group at the end of June this year. It is a perfect match and a move that will benefit both parties, say Christian den Doelder and Thomas Cappoen of PGS Belgium.

Former owner Christian den Doelder sketches the broader picture: “The pallet market is changing rapidly. Competition is intense and the sector is going through a concentration phase in which mergers and acquisitions abound. In the Netherlands there still are quite some small to medium-sized producers. The new generation at the helm of these companies understands the need to achieve larger economies of scale and to reach a higher level of professionalism at a time when the focus on sustainability, circularity, and recycling is creating new challenges.”

“At Den Doelder, we strongly broadened the scope of our activities over the past years, putting more emphasis on the production of customised pallets, we invested heavily in new machinery and new technology, we opened new sites in Belgium, and we made reconditioning an integral part of our operations. In the Benelux, we are now one of the top-five

Christian den Doelder and Thomas Cappoen, with some of the pallets Den Doelder Pallets brings to PGS Group in the background.

players on the pallet scene. But the time was ripe for taking the next step. With PGS Group, we found the right partner to do so. Our strategy and philosophy closely match, we reinforce each other on almost every point, and they will bring us the support of a larger group. So this was simply the best decision to take," adds Christian den Doelder, who remains active in what is now called PGS Den Doelder Pallets.

New market for PGS Group

Thomas Cappoen, managing director of PGS RDB Pallets, the Belgian subsidiary of the French group, fully concurs: "We complement each other perfectly in terms of activities and markets and we share the same vision. With Den Doelder, we also gain a strong foothold in the Dutch market, where we did not have a direct presence so far. By doing so, we add a ninth country and three new production sites to our network, and we increase not only our production but also our repair and recycling capacity in the Benelux."

"Den Doelder offers us the added advantage of reinforcing our presence in one of the main industrial areas in Europe, with first-rank clusters as Rotterdam, Antwerp, and North Sea Port at very close distance. This is important because in our business, proximity is a trump card. Our customers aim at keeping their stocks as low as possible, while remaining as reactive as possible to the demand of their own clients. When they need pallets, we need to be very flexible and we have to be able to deliver the pallets that meet their specific requirements almost immediately. This is PGS's market, as it is Den Doelder's."

Major assets

Den Doelder brings some major assets to PGS Group. The company has three production sites. The main one is still located in Axel, where three fully automatic pallet production lines for standard pallets and large series of custom work can churn out up to 3 million units a year of 150 different types of pallets. With its own two lines, Westdorpe focusses to a large extent on smaller batches of customised and/or larger pallets, special pallets (e.g. for the transportation of steel coils), and boxes and other wooden packaging for out-of-gauge or industrial cargo. In Westdorpe, automation goes hand in hand with manual work. The third production unit is a smaller entity located in Rijkevorsel, east of Antwerp in Belgium. It mainly assembles beam (two-way) pallets in large series for customers in the region, adding smaller manually-produced batches to that.

Since 2019, Den Doelder also has a sorting and reconditioning hub in Mechelen. There it annually sorts 600,000 pallets for LPR (La Palette Rouge), one of the major lessors in this sector. In the process, it also repairs some 250,000 units for that customer. The ultramodern line can sort about 500 pallets per hour by various qualities, sending the ones in need of refurbishment to a double repair line.

Next to all this, Den Doelder runs a small sawmill in Latvia for cutting special orders (such as beams with a groove).

More custom-made products

Together, the three production sites assemble some 3 million pallets of very different kinds each year, from CP pallets (available in nine versions) for the chemical industry, VMF pallets (originally

The production site in Westdorpe sits inside the North Sea Port area.

Image courtesy of PGS Den Doelder Pallets.

created for the transport of glass bottles), and standard Europallets to customised ones (often derived from standard ones to fit the use and specifications of a customer), transport and export boxes (in large series or just one), dunnage to secure shiploads etc. Customers are to be found in Western Europe in chemistry, steel, and food in the first place.

Over the past decade, a shift happened, though, explains Christian den Doelder. "We used to concentrate on CP pallets, but nowadays their share is down to about 35%. After the financial crisis, demand emanating from the chemical industry slowed down and we had to reinvent ourselves. We entered new markets and moved away from the bulk products in our sector to customised, reusable pallets. Today, these account for half our production, the remaining 15% mainly consisting of special pallets for the transport of steel coils. We also adapted our machine park to be able to produce in smaller series and to switch easily from one to another."

Den Doelder also put a growing emphasis on sustainability, the use of environmentally-friendly materials, with wood from ecologically managed forests, and the reuse of pallets.

Integration within PGS Group

In the coming months, the process of integrating Den Doelder within PGS Group will be completed. Overhead functions like financial management, human resources, and purchasing will move to Gistel near Bruges, the Belgian headquarters of the group.

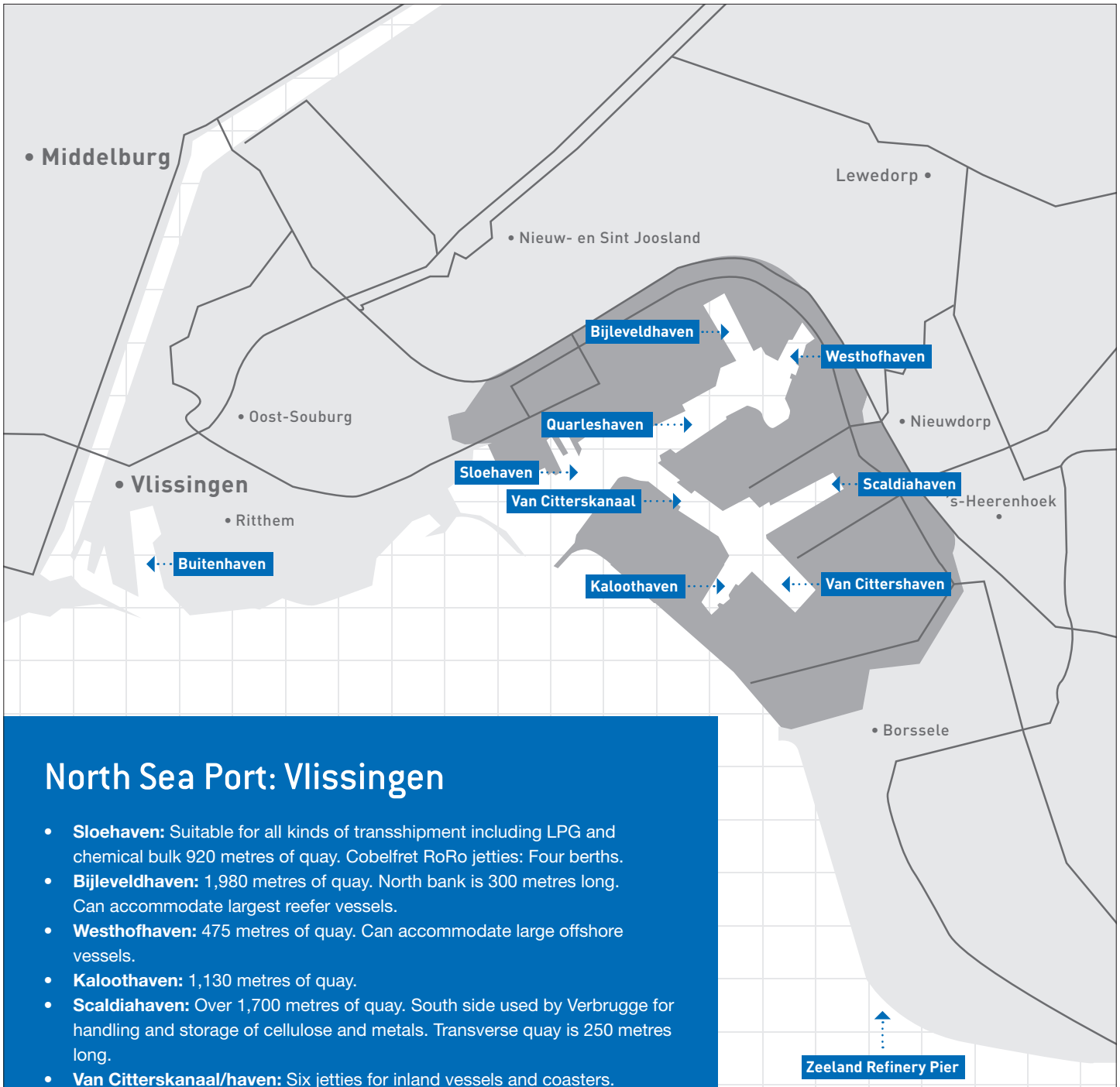
"But all three production sites of Den Doelder and the reconditioning hub in Mechelen will remain in full operation and will benefit from the expertise PGS Group can offer them, in particular in the field of R&D for robotised sorting and the reconditioning of pallets," concludes Thomas Cappoen. "We will certainly use our new acquisition as a stepping stone to extend our reach in the Netherlands and to produce pallets at the most efficient location. Of course, we will also aim at finetuning our logistics set-up by combining certain flows. A truck coming to North Sea Port to unload pallets could thus find a return cargo in Axel, for example. Because in our activity, each storage is one too many."

I. PGSGROUP.COM

I. DENDOELDERPALLETS.COM

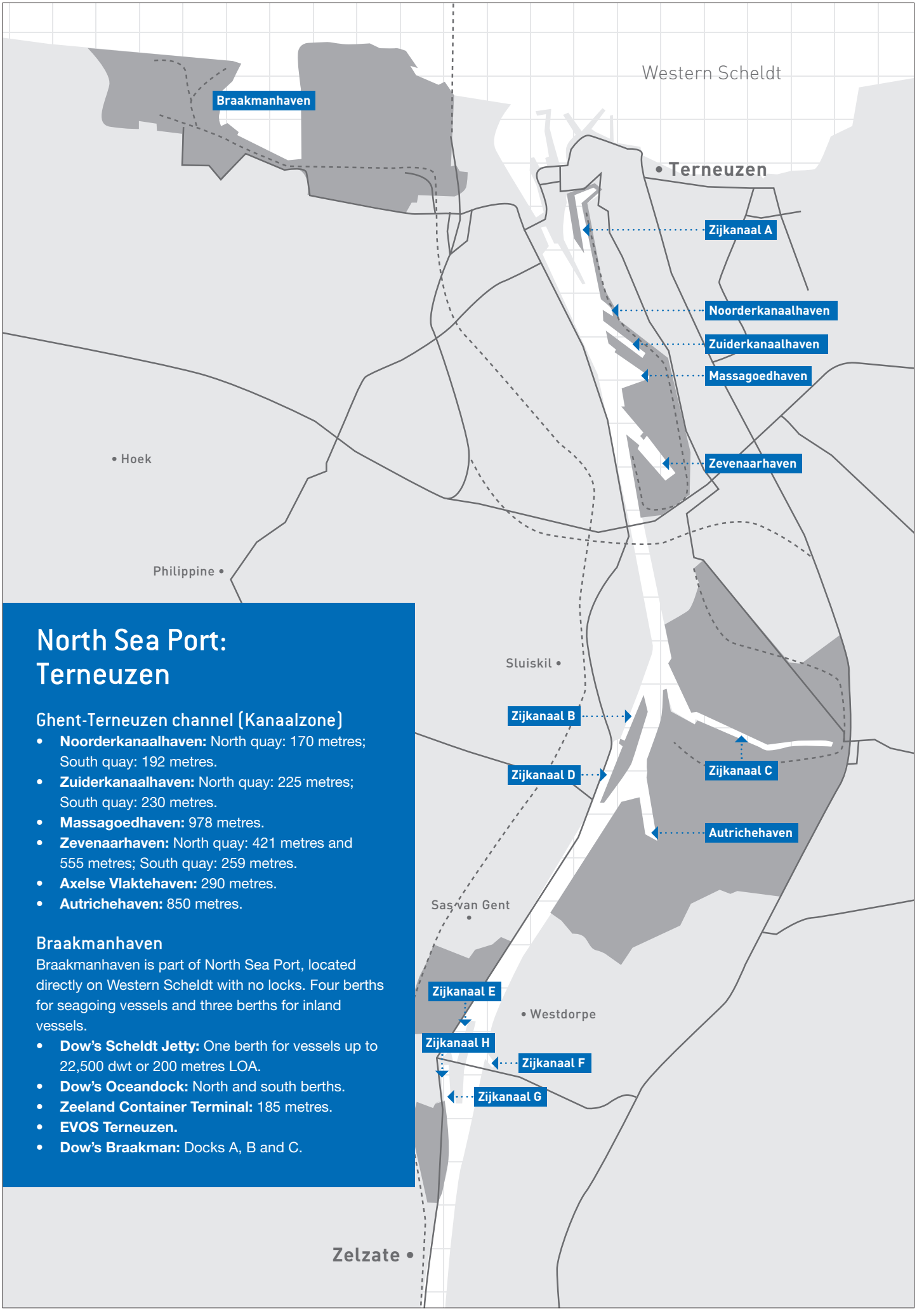
A short history of Den Doelder

- The business started in 1938 with a sawmill in Axel, on the Dutch side and on the right bank of the Ghent-Terneuzen sea canal. Four generations of the Den Doelder family succeeded each other at the helm.
- The first pallets were produced in Axel in 1965, at the time when Dow established its largest plant outside the US in Terneuzen. The main focus was on chemical pallets, with the food sector as second largest client.
- The full focus shifted to the production of pallets in 2006, when the sawmill activity was terminated. The company's name was changed into Den Doelder Pallets.
- In 2007, a second site was opened in the North Sea Port area on the Axelse Vlakte in Westdorpe, mainly for manufacturing special packaging products but also for repair and recycling activities.
- In 2018, major investments were made in an ultramodern production line for customised pallets in Axel.
- In June 2019, the sorting and reconditioning hub in Mechelen becomes part of the group.
- Since the opening of its biomass plant in 2020, Den Doelder Pallets is 100% energy- and CO_2-neutral.
- At the time of the takeover by PGS, it employed about 70 people, annually producing some 3 million pallets of very diverse types.



North Sea Port: Vlissingen

- **Sloehaven:** Suitable for all kinds of transshipment including LPG and chemical bulk 920 metres of quay. Cobelfret RoRo jetties: Four berths.
- **Bijleveldhaven:** 1,980 metres of quay. North bank is 300 metres long. Can accommodate largest reefer vessels.
- **Westhofhaven:** 475 metres of quay. Can accommodate large offshore vessels.
- **Kaloothaven:** 1,130 metres of quay.
- **Scaldiahaven:** Over 1,700 metres of quay. South side used by Verbrugge for handling and storage of cellulose and metals. Transverse quay is 250 metres long.
- **Van Citterskanaal/haven:** Six jetties for inland vessels and coasters. 0n south bank, 275 metres. 0n north bank, 200 metres. Heerema quay: 230 metres and 220 metres.
- **Quarleshaven:** Extension of Sloehaven to NNE, 315 metres of quay. Set of two mooring buoys on east bank with a span of 320 metres. Zalco quay: East bank, length of 150 metres. Vopak Terminal Vlissingen: Four LPG jetties.
- **Zeeland Refinery Pier:** Located on Western Scheldt. Accommodates tankers up to 100,000 dwt with maximum LOA of 280 metres.
- **Buitenhaven:** Located outside lock system with direct access to sea, 300 metres of quay. Northern basin has area for coasters and lighters. Vesta also operates an oil jetty for tankers.



North Sea Port: Terneuzen

Ghent-Terneuzen channel (Kanaalzone)

- **Noorderkanaalhaven:** North quay: 170 metres; South quay: 192 metres.
- **Zuiderkanaalhaven:** North quay: 225 metres; South quay: 230 metres.
- **Massagoedhaven:** 978 metres.
- **Zevenaarhaven:** North quay: 421 metres and 555 metres; South quay: 259 metres.
- **Axelse Vlaktehaven:** 290 metres.
- **Autrichehaven:** 850 metres.

Braakmanhaven

Braakmanhaven is part of North Sea Port, located directly on Western Scheldt with no locks. Four berths for seagoing vessels and three berths for inland vessels.

- **Dow's Scheldt Jetty:** One berth for vessels up to 22,500 dwt or 200 metres LOA.
- **Dow's Oceandock:** North and south berths.
- **Zeeland Container Terminal:** 185 metres.
- **EVOS Terneuzen.**
- **Dow's Braakman:** Docks A, B and C.

North Sea Port: Ghent

Zeekanaal Ghent - Terneuzen: The depth of water in the canal is 13.5 m and there are no currents or tides. Inside the port there are five large docks and three smaller docks, offering a total quay length of 31 kilometres for vessels up to 92,000 DWT.
22 kilometers with a depth of water of at least 12.5 metres. All the docks have direct access to the canal.

- **Kluizendok:** Is a brand-new dock. Has a total quay length of 4,300 metres with a depth of water of 13.5 metres and a width of 350 metres.
- **Rodenhuizedok:** Quay on the southern side is 790 metres long with 13.5 metres of depth. Width of 270 metres.
- **Mercatordok:** Quay is 1,800 metres long with 13.5 metres of depth. Width of 250 metres.
- **Alphonse Sifferdok:** Quay is 4,800 metres long, with 12.5 – 13.5 metres depth. Width of 300 metres.
- **Grootdok, Noorddok, Middendok and Zuiddok:** Total quay length of 6,855 metres. 6,575 metres with 13 metres depth of water, and 280 metres with 8.5 metres depth of water.
  Width: Grootdok: 150 metres
  Noorddok: 200 metres
  Middendok: 250 metres
  Zuiddok: 220 metres

The Promotion Council North Sea Port is pleased to welcome new members. Founded in 1993, the Promotion Council North Sea Port represents members located in North Sea Port. Together they offer a complete range of the best possible port facilities and all the logistics solutions you need. See pages 57-59 for a complete list of members.

LION STORAGE NETHERLANDS

Lion Storage is a leading and independent developer of large-scale battery storage systems in the Netherlands. These projects contribute to achieving the energy transition by making the electricity system more sustainable, reliable, and cost-effective. To accomplish this, Lion Storage continually seeks the most reliable, sustainable, and cost-efficient technologies and partners. In the North Sea Port area, Lion Storage is developing Project Mufasa, a battery capable of extracting and supplying 350MW of power to the grid for a period of two to four hours. This enables sustainable producers to connect more solar parks and wind turbines to the grid and helps them avoid unwanted curtailment. It simultaneously facilitates the gradual phasing out of coal and gas power plants while maintaining flexibility, contributing to a faster sustainability transition in the Dutch energy supply. Additionally, Mufasa will empower grid operators to better utilise their networks' capacity, resolve congestion issues, lower and stabilise energy prices, and assist the Netherlands in maintaining a high level of energy supply reliability.

I. **LION-STORAGE.COM**

WITTE-BOUSSEN ASSURANTIËN

Witte-Boussen is an independent insurance firm that offers advice and mediates in the field of insurance policies, real estate, pensions, and mortgages. The company ensures certainty and continuity for both companies and private individuals and focuses on establishing lasting relationships with private and professional customers. Witte-Boussen establishes this relationship by creating a unique customer value as a specialist in the region. The company arranges thorough risk analyses, compares premiums and conditions of various insurers, and offers informed advice and products. The developments on the insurance market are closely monitored by its expert and skilled employees to be able to inform customers about important changes in a timely manner. Assisting customers in all phases of their lives, offering insight into risks, mitigating these wherever possible, and offering solutions gives them peace of mind and certainty.

I. **WITTEBOUSSEN.NL**

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	5G Multimodal	**www.5gmultimodal.com**		■		■	■		
A	A.C. Rijnberg transportservice B.V.	**www.rijnberg.com**				■			
	Aannemingsmaatschappij Van Gelder B.V.	**www.vangelder.com**	■	■					
	ABAB Accountants en Adviseurs	**www.abab.nl**						■	
	ABN AMRO	**www.abnamro.nl**						■	
	Access World Terminals B.V.	**www.accessworld.com**				■		■	
	Adriaanse & van der Weel Advocaten	**www.avdw.nl**						■	
	Aerssens & Partners	**www.aenpmakelaars.nl**						■	
	Agro Minne	**www.agro-minne.be**		■		■			
	ASD Group / Vervaeke	**www.industrial.vervaeke.be**	■						
	Atlas Professionals	**www.atlasprofessionals.com**						■	
	AXXAZ	**www.axxaz.nl**						■	
B	Baker Tilly N.V.	**www.bakertilly.nl**						■	
	BMD Advies	**www.bmdzuid.nl**						■	
	Boels Rental B.V.	**www.boels.com**						■	
	Boluda Towage Europe	**www.boluda.eu**		■					
	Bouwgroep Peters B.V.	**www.bouwgroep-peters.nl**						■	
	BOW Terminal	**www.bowterminal.nl**			■	■			
	Brandtie	**www.brandtie.nl**						■	
	Brandwacht Huren België	**www.brandwachthuren.be**						■	
	Brandwacht Huren Nederland	**www.brandwachthuren.nl**						■	
	Bulk Terminal Zeeland Services B.V.	**www.btzeeland.nl**		■	■	■			
C	Cemminerals N.V.	**www.cemminerals.be**	■						
	CLdN	**www.cldn.com**				■			
	Competence Development Center	**www.bbeu-cdc.org**						■	■
	Control Union Belgium NV	**www.petersoncontrolunion.com**	■	■	■	■	■	■	
	Cordeel Nederland B.V.	**www.cordeel.nl**	■			■			
	C.T.O.B. Transport & Logistics	**www.ctob-logistics.com**				■			
	Customs Support Terneuzen	**www.customssupport.com**				■		■	
D	Damen Shiprepair Vlissingen	**www.damen.com**	■	■	■				
	Danser Group	**www.danser.nl**		■		■			
	DB Cargo Belgium B.V.	**www.dbgargo.com**				■		■	
	DB Cargo Nederland N.V.	**www.nldb.cargo.com**				■			
	De Baerdemaecker N.V.	**www.stukwerkers.com**				■			
	De Pooter Personeelsdiensten	**www.depooter.nl**						■	
	De Ruyter Training & Consultancy	**www.drtc.nl**							■
	De Zeeuwse Alliantie Notarissen	**www.dezeeuwsealliantie.nl**						■	
	Delta Safe Security Services B.V.	**www.delta-safe.nl**						■	
	DFDS Seaways Belgium	**www.dfds.com**				■			
	DHG	**www.dhg.nl**						■	
	dNM	**www.dnm.nl**						■	
	DOC Logistics B.V.	**www.dutchcontractors.com**		■	■	■			
	DOW Benelux B.V.	**www.dow.com**	■						
	Draftec B.V.	**www.draftec.nl**	■		■			■	
	DRV Accountants & Adviseurs	**www.drv.nl**						■	
	Dutch Marine B.V.	**www.dutchmarinebv.com**		■				■	
E	E.I.B. Insulation NV	**www.eib-group.eu**	■				■		
	Elloro	**www.elloro.nl**						■	
	Elopak BV	**www.elopak.com**	■						
	ELTEN Benelux B.V.	**www.elten.com**	■						
	Embedded Coaching & Consultancy	**www.ecc-coach.nl**						■	
	Epesi B.V.	**www.epesi.nl**						■	
	Equans	**www.equans.be**	■						
	Euro-Mit Staal B.V.	**www.euro-mit-staal.com**	■						
	Euro-Silo N.V.	**www.eurosilo.be**				■			
	Evolution Terminals B.V.	**www.evoterminals.com**					■		
	Evos Ghent NV	**www.evos.eu**				■			
	Evos Terneuzen B.V.	**www.evos.eu**	■						

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F	Fertilife Benelux B.V.		■						
	Feyter Group	**www.feyter.com**	■					■	
	FincoEnergies Marine	**www.fincofuel.com**		■			■		
	Firma Klouwers Terneuzen	**www.klouwers.nl**				■			
	Flushing Shipping Agencies	**www.fsagencies.com**				■		■	
	FMJ E & I Zeeland B.V.	**www.fmj.nl**						■	
G	Gould services	**www.foundgould.com**		■	■	■			
	Green Blue Offshore Terminal	**www.greenblueot.nl**		■	■				
H	H4A	**www.h4a.nl**	■			■	■		
	Havenwerk B.V.	**www.havenwerk.nl**						■	
	Heylen Warehouses	**www.heylenwarehouses.com**	■					■	
	Henk Kramer Communicatie	**www.henkkramer.nl**						■	
	Heros Sluiskil B.V.	**www.heros.nl**	■						
	Holland Shipyards	**www.hollandshipyardsgroup.com**		■	■				
	Hoondert 's-Heerenhoek	**www.kampsstraalbedrijf.nl**	■	■	■	■	■	■	
	Hoondert Services & Decommissioning	**www.hsd.nl**	■	■	■	■	■	■	
	HR Expat Services	**www.hrxpats.com**						■	
	Hudig & Veder Chartering B.V.	**www.hudigveder.nl**		■		■			
I	IBS Staalbouw B.V.	**www.ibs-hallenbouw.nl**	■					■	
	ICL-IP Terneuzen B.V.	**www.iclip-terneuzen.nl**	■						
	IGL B.V.	**www.igl.nl**		■	■			■	
	Impuls Zeeland	**www.impulszeeland.nl**						■	
	ING Business Banking	**www.ing.nl/zakelijk**						■	
	Ingenieurbureau Walhout Civil B.V.	**www.walhoutcivil.com**	■	■	■			■	
	Interface Terminal Gent (ITG)	**www.stukwerkers.com**				■		■	
	Interlashing B.V.	**www.interlashing.com**				■		■	
	IPC Services België BV	**www.ipc-services.be**	■					■	
	Istimewa Electrotechniek B.V.	**www.istimewa-elektro.nl**	■		■		■	■	
J	Jonkman Opleidingen B.V.	**www.jonkmanopleidingen.nl**							■
	Justion Advocaten	**www.justionadvocaten.nl**						■	
	Juust B.V.	**www.juust.nl**						■	
K	Kamps Straal- en Industriële Spuitwerken	**www.kampsstraalbedrijf.nl**	■	■	■	■	■	■	
	Katoen Natie Westerschelde B.V.	**www.katoennatie.com**				■		■	
	Koch adviesgroep Ingenieurs & Architecten	**www.kochadviesgroep.nl**						■	
	Koolwijk Shipstores B.V.	**www.shipstores.nl**				■		■	
	KWS Infra/Aquavia	**www.kws.nl**						■	
L	Labojuice B.V.	**www.labojuice.nl**	■					■	
	Lalemant N.V., Lalemant Trucking N.V.	**www.lalemant.com**		■	■	■		■	
	Legrant Freight Management B.V.	**www.legrant.eu**				■			
	LGH BVBA	**www.lgh.eu**	■	■	■			■	
	Liftal Hijstechniek	**www.liftal.com**						■	
	Lineage Logistics Vlissingen	**www.kloosterboer.nl**				■			
	Lion Storage Netherlands B.V.	**www.lion-storage.nl**					■		
	Loodswezen Regio Scheldemonden	**www.loodswezen.nl**		■		■		■	
	Luctor Belting Nederland B.V.	**www.luctorbelting.com**	■					■	
M	Maaskade Bevrachters Belgium	**www.maaskade.com**		■		■		■	
	Mammoet Nederland B.V.	**www.mammoet.com**	■	■	■	■		■	
	Maritiem & Logistiek College de Ruyter	**www.scalda.nl**						■	
	Maritiem Muzeeum Zeeland	**www.muzeeum.nl**		■				■	
	Martens Renewables	**www.martenscleaning.nl**	■	■					
	MasChem B.V.	**www.musimmas.com**	■						
	Meyland NV	**www.meyland.be**	■						
	MMPS	**www.mmps.nl**		■	■	■			
	Montis Mooring- and Boatservice B.V.	**www.montismooring.com**		■					
	Multraship Towage & Salvage	**www.multraship.com**	■	■	■				
	Municipality of Borsele	**www.borsele.nl**							■
	Municipality of Middelburg	**www.middelburg.nl**							■
	Municipality of Terneuzen	**www.terneuzen.nl**							■

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	Municipality of Vlissingen	**www.vlissingen.nl**							■
N	Navonus N.V.	**www.navonus.be**		■					
	North Sea Port	**www.northseaport.com**	■	■	■			■	
	Northfreeze NV	**www.northfreeze-group.com**				■			
	N.V. Westerscheldetunnel	**www.westerscheldetunnel.nl**				■		■	
O	Oceanwide Personnel Services B.V.	**www.oceanwidecrew.com**						■	
	Oliehandel Dekker B.V.	**www.oliehandeldekker.nl**				■			
	OMC Services B.V.	**www.linkedin.com/in/chvdo**						■	
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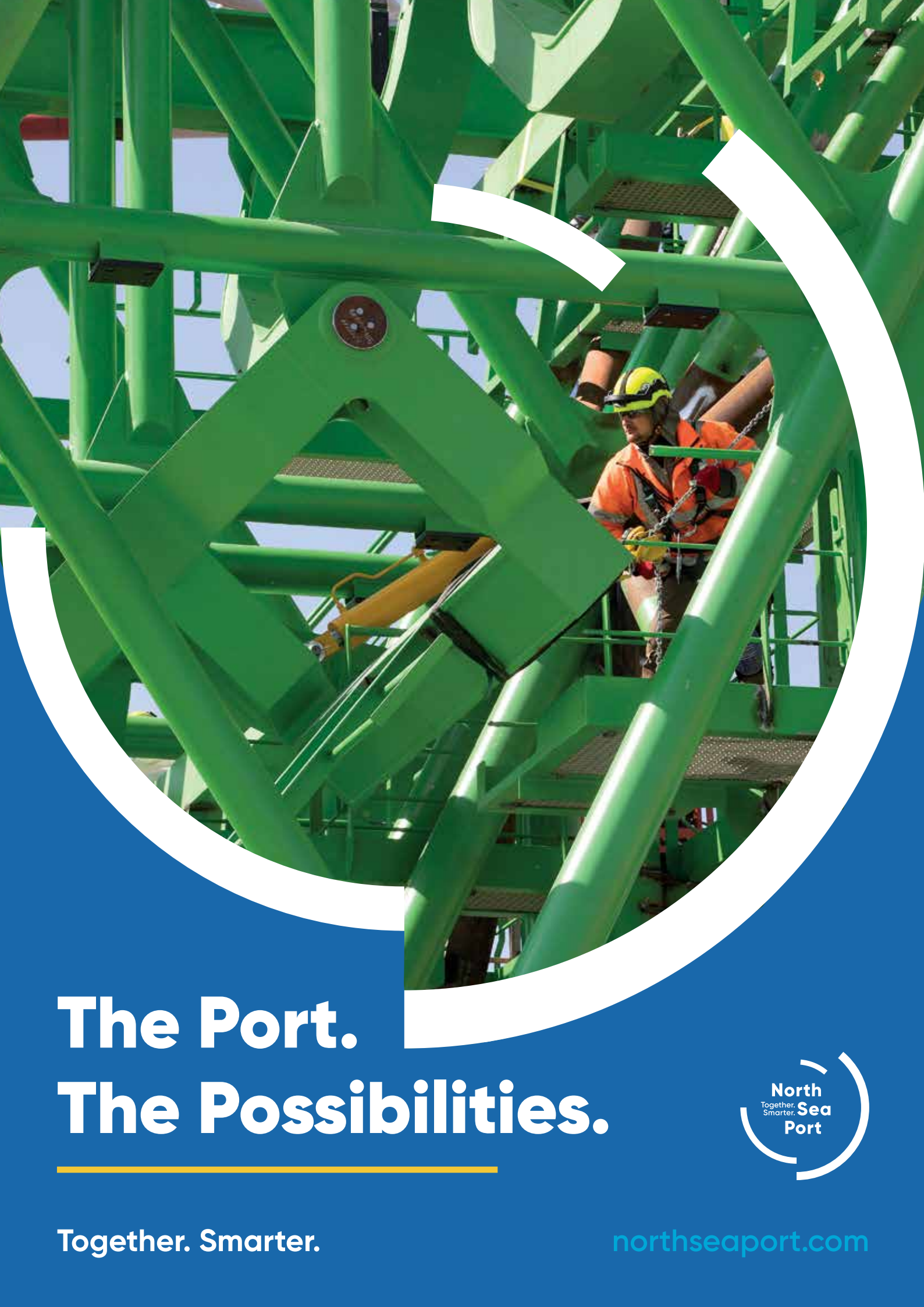

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