

PortNews

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IN THIS ISSUE



7



20



38



14



26



47

ENVIRONMENT & CULTURE

50 Stichting Behoud Hoogaars

INDUSTRY

20 Conquering the niche aluminum market

36 First spade in the ground

44 Converting sugar into biobased plastic at Stora Enso

INSIGHTS

12 Taking over: Marco van Lomwel

42 It's my job to build bridges and link people: Sandra de Mey

LOGISTICS

26 Europe's largest natural latex tank terminal

30 Service and safety are top priorities

38 Ready for future challenges

MARITIME SERVICES

18 Loodswezen gets new building

OFFSHORE

24 A rig tow

47 Ready for the job!

PORT DEVELOPMENT

04 Revitalising 4.4 hectares

SHIPPING

14 An experienced shipping partner

52 A smooth port visit

TOGETHER. SMARTER.

07 Just-in-time logistics – sustainable and cost-efficient

REGULARS

EVENTS

02 Calendar

PARTICIPANTS

58 New participants

60 Overview

PORT MAPS

55 Vlissingen, Terneuzen and Ghent

PUBLISHERS

64 About PortNews

WELCOME

03 Henk de Haas, Chairman of Promotion Council North Sea Port



ON THE COVER

North Sea Port is home to a diverse range of companies operating in a variety of industries. They each have their own interesting story. Read more on page 20.

Photo courtesy of Limit Photography.

EVENTS

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

17-19 MARCH 2020	Intermodal South America São Paulo	30-1 MARCH/ APRIL 2020	Trade Mission Romania Romania	13-15 APRIL 2020	TransRussia Moscow
					
21-23 APRIL 2020	Antwerp XL Antwerp	21-23 APRIL 2020	Seafood Expo Global Brussels	4-7 MAY 2020	Offshore Technology Conference Houston
					
12-13 MAY 2020	Windforce Conference Bremerhaven	26-28 MAY 2020	Breakbulk Europe Bremen	9-11 JUNE 2020	TOC Europe Rotterdam
					
22-25 SEPTEMBER 2020	Wind Energy Hamburg	6-8 OCTOBER 2020	Intermodal Europe Rotterdam	13-15 OCTOBER 2020	Cool Logistics Global Valencia
					
27-28 OCTOBER 2020	Offshore Energy Amsterdam	29-30 OCTOBER 2020	European Commodities Exchange Berlin	4-5 NOVEMBER 2020	Top Transport Europe Marseille
					

“ Meet, connect, promote

Welcome

For the promotion council, 2020 truly was a new start. More than 25 years ago, the Zeeland Port Promotion Council was founded with the purpose to connect the companies in the port and to represent and promote the Zeeland port area. With the merger of Port of Ghent and Zeeland Seaports into North Sea Port, we soon became aware of the fact that promoting only half a port area brought us in an awkward split. So things had to change.

Our first step, together with North Sea Port, was to make PortNews a cross border platform for all companies in the port. A second step was to give companies located in the Ghent part of the port the chance to become participant of the council as well. Last year, as a result of this, we could welcome our first Ghent based participant Stukwerkers that was soon followed by Transuniverse. At the end of last year, the ZPPC board decided to take a next final step, which resulted in the new Promotion Council North Sea Port. This new name resembles our extended scope and mission: strengthening the position of North Sea Port and the companies in its port area.

Last year, with more than 20 applications, the council grew to 150 participants. As Promotion Council North Sea Port, we of course aim for the continuation of this growth. Speaking of growth, with a transshipment of 71 million tonnes in 2019, North Sea Port has registered a new record. This is a marvellous result of all efforts from the many logistics and industrial companies in the port area, as well as from the Port Authority.

Looking at 2020, the expectations are slightly modest because of Brexit, shrinking economic growth, and anticipated trade wars. No matter how, we will continue



to promote the importance of cooperation and consultation as one of the instruments to support the international competitive power of our port. And of course, we will continue to inform you about the developments in the port through our magazine PortNews. Enjoy reading!

With kind regards,

Henk de Haas
Chairman Promotion Council North Sea Port



Revitalising 4.4 hectares

Hexaport adds value and labour to North Sea Port

All images courtesy of Hexagon

One of North Sea Port's goals is to use the port area as efficiently and effectively as possible. One solution is to revitalise existing vacant sites, which strengthens the port economy without utilising new terrains.

Property developer Hexagon recently announced the acquisition of an unused 4.4ha terrain. The terrain includes 29,000m² of commercial space in total. After decommissioning, renovating, and construction, a total volume of 27,000m³ for offices, storage and production remain for sale. Jelle Vandendriessche, Managing Director of Hexagon, explains the company's plans to PortNews.



LOCATED AT NORTH SEA PORT, JUST ALONGSIDE THE GHENT-TERNEUZEN CANAL, HEXAPORT IS A PERFECT OPERATING BASE.



“At Hexagon we specialise in the acquisition of existing, vacant commercial sites with the aim of redeveloping them. The Hexaport project will be realised on what used to be one of the Belgian sites of JM Balmatt. This company started producing asbestos in Ghent in the Seventies, but went bankrupt in 1998. After this, the location was, among others, used by a recycling company. The investment company from which we bought the site ultimately owned the premises. They rented out the

warehouse facilities on an irregular basis to various companies for logistics and storage purposes.”

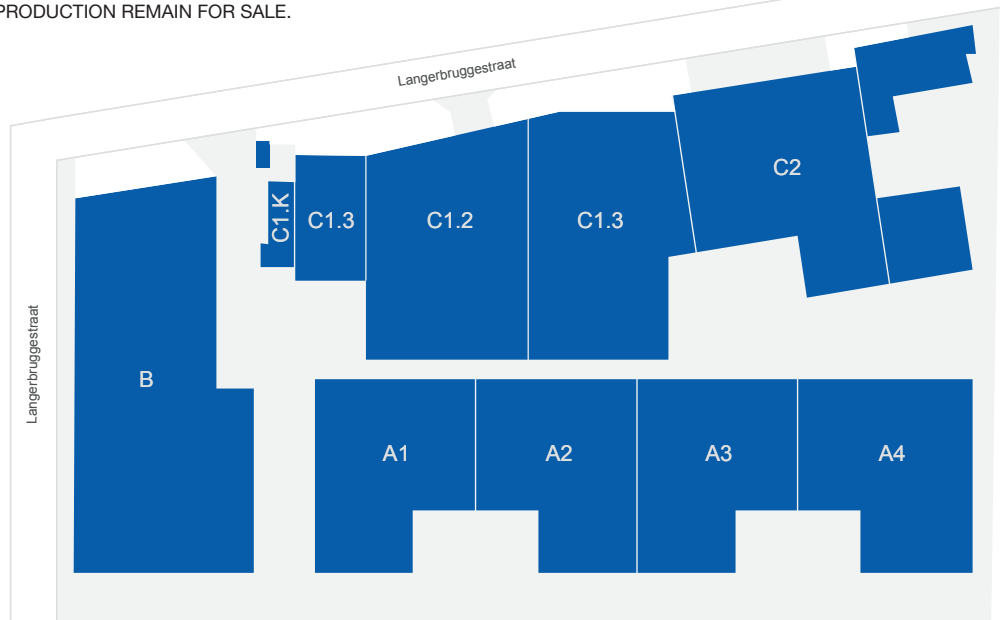
No soil sanitation

The part of the facility that was in use as asbestos factory is going to be decommissioned, as it contains a lot of asbestos. “Of course, the demolition of the factory needs to be carried out with great care, and according to legal rules and regulations”,



JELLE VANDENDRIESSCHE, MANAGING DIRECTOR OF HEXAGON: "HEXAPORT IS STRATEGICALLY LOCATED TOWARDS BOTH THE WESTERN SCHELDT RIVER AND THE DENSE NETWORK OF MULTIMODAL ROUTES TO THE HINTERLAND."

AFTER DECOMMISSIONING, RENOVATING, AND CONSTRUCTION, A TOTAL VOLUME OF 27,000M² FOR OFFICES, STORAGE AND PRODUCTION REMAIN FOR SALE.



Mr Vandendriessche explains. "But other than this, it was good to learn that there is no need for soil sanitation, so together with the decommissioning we could also start with the renovation of the warehouses that will remain in use."

He continues, "The buildings that we are currently taking care of have a surface of around 5,800m² and 7,800m². They have a free clearance height of 12m. Each building has a number of loading ramps, and approximately 300m² of office space."

Four times 2,500

Hexaport also plans the construction of an additional 10,000m² of warehouses with an equal 12m clearance height, loading ramps, and office space. For the construction, Hexagon applied for a building permit for four 2,500m² units. "This way," Mr Vandendriessche explains, "there is no obligation to construct the 10,000m² all at once. With this flexibility, companies can also buy a smaller warehouse and it gives us the opportunity to build in parts, rather than the total volume. Our goal is to first sell and then start constructing. Though when desired, we can build the entire 10,000m² in one go, adding the four units together into one spacious production and/or storage facility."

Perfect operating base

Located at North Sea Port, just alongside the Ghent-Terneuzen canal, Hexaport is a perfect operating base. "Hexaport is strategically located towards both the Western Scheldt River and the dense network of multimodal routes to the hinterland," states Mr Vandendriessche. "As these kind of locations are scarce, the activities of companies that want to settle down here obviously have a certain amount of port dependency." Despite this obligation, Mr Vandendriessche experiences plenty of interest from the market. "Hexaport offers ample opportunities for both industrial and logistic purposes. So far, we are engaging in some serious talks with potential customers."

Willingness to cooperate

The realisation of Hexaport yields a number of advantages for North Sea Port. First of all, it fits within its goal of expanding the



Hexaport offers ample opportunities for both industrial and logistic purposes.

logistic and industrial opportunities of the port area. It is also a fine example of a so-called 'infill development', in which existing and vacant sites are given a new purpose. Having sustainability high on its strategic agenda, the Port Authority is also happy with the decommissioning of the buildings containing asbestos. Finally, with the future logistic and industrial activities, the project will furthermore contribute to additional regional labour and added value. "When we got in touch with the Port Authority for the first time to talk about our plans, we met a lot of willingness to cooperate and this really helped us to get the project started", comments Mr Vandendriessche. "And their commercial department is very helpful, for example by introducing prospects to us."

Better living environment

Just like North Sea Port, the municipality of Ghent sees the project as a positive development of the region, with the city of Ghent slowly expanding up north towards the port area. "The municipality is glad to see that we are revitalising the terrain", voices Mr Vandendriessche. "Apart from the employment and added value, it will contribute to a better living and working environment as well", he concludes. According to him, the sales value of the total site lies around EUR 20 million. Renovation has already started, along with sales activities. The construction of the newly built part will begin this summer. If everything goes according to plan, the first new customers should be able to start their business at Hexaport by mid-2021.



WORKING WITH A LONGER TERM PLANNING WINDOW GIVES AMPLE COMFORT AND CALMNESS IN THE ENTIRE LOGISTICS CHAIN.

Just-in-time logistics

Sustainable and cost-effective

Last year, the Dutch Green Deal Zeevaart, Binnenvaart en Havens (Sea Shipping, Inland Shipping and Ports) became effective, which is an agreement between forty parties, among which the Dutch Ministry of Infrastructure and Water Management, the Dutch Ministry of Economic Affairs and Climate, trade organisations, knowledge institutes, and seaports represented by their trade organisation BOZ. With this agreement, all parties committed themselves to a number of joint agreements to make shipping more sustainable between 2020 and 2050.



FOR DFDS, NORTH SEA PORT'S TRIAL WITH A NEW LOCK PLANNING HAS BEEN VERY SUCCESSFUL.

Facilitating role for seaports

According to Thomas Desnijder, Policy Advisor Energy at North Sea Port, the Green Deal aims at reducing the exhaust of nitrogen dioxides, sulphur dioxides, and particulate matters, as well as the emission of greenhouse gases (CO₂). “Goals,” he says, “are confirmed in the Green Deal to reduce CO₂ emissions by 2050 for seagoing vessels with at least 70% when compared to 2008. For inland shipping, the goal is to have emission-free vessels that are climate-neutral by 2050. Action plans have been drawn up to reach these objectives, and the roles for executing the plans and realising the goals have been described. The actions first of all imply technical measures for the vessels, but the Green Deal also looks at other solutions in which ports can play a role.”

Mr Desnijder continues: “Seaports, including North Sea Port, play a facilitating role for the Green Deal goals. A number

of actions are described in the Green Deal, which can be summarised as follows:

For inland shipping

- Look for more uniformity in the way of stimulating sustainable inland shipping by means of tariffs and/or discounts, and meanwhile effectively meet the goals of the Green Deal.
- Stimulate logistic chain optimisation.
- Realise a model with uniform fundamentals for inland shipping to remove barriers for inland shipping in the logistics process.
- Facilitate the expansion of shore power and based on demand, the location for the change of batteries, as well as the infrastructure for alternative, sustainable fuels.

For sea shipping

- Investigate the use of improved scalable mobile and fixed shore power concepts.



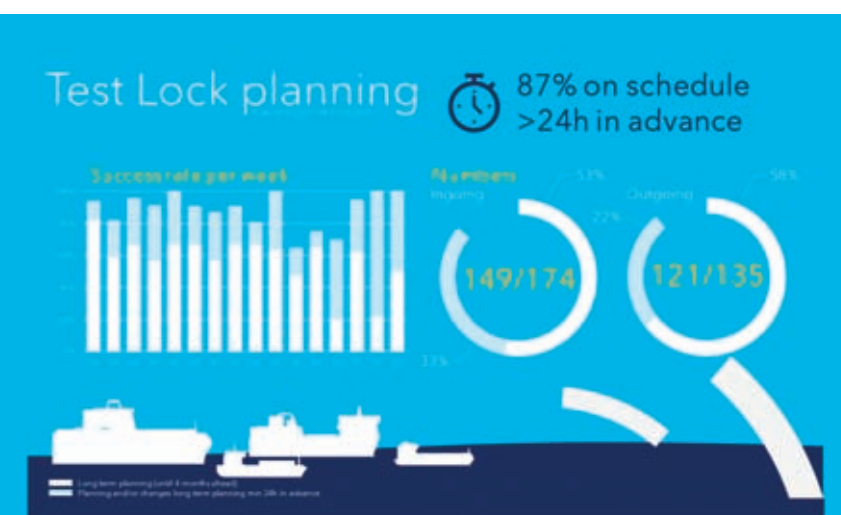
Alain de Brauer, Route Operations Manager at DFDS

“For DFDS, North Sea Port’s trial with a new lock planning has been very successful. The new schedule based on a planning of four months ahead has resulted in a higher reliability of our trips to and from Ghent. Because of this, we could also schedule our largest vessel Hollandia Seaways. Although we must always face circumstances beyond our control such as bad weather conditions, we have been able to raise efficiency, also towards all our customers (mainly Volvo Ghent), to lower costs, and to reduce our CO₂ footprint. So are in favour of continuing this way of scheduling our liner services.”

- Optimise the Environmental Ship Index and Green Award, in order to make the discount on port tariffs for greener vessels better suited to the Green Deal objectives.
- Look for further chain optimisation by means of the development of digital tools and by improving the collaboration in the logistics chain.
- BOZ, together with KNVR (the Dutch association of ship owners) and terminal operators, are going to discuss the possibility of implementing the just-in-time principle in all seaports, and to investigate the option of joining an international programme that endorses an equal just-in-time principle.”

Improved planning

Frederik Dierckens, Head of Nautical department at North Sea Port, offers his view on the efforts from North Sea Port in the field of just-in-time logistics. “The Green Deal suggests a number of goals and actions to reduce the harmful exhaust of inland and seagoing vessels. Although we do not have direct influence on the techniques used for vessels, we can play a facilitation role, for instance by providing shore power facilities. In fact, even without the Green Deal many ports are already putting great effort into sustainability, though the agreement surely helps to coordinate things better. One of the projects we have been working on recently is improving the planning of seagoing vessels that arrive at the entrance of the Ghent-Terneuzen Canal on their way to our port. This project aims at the reduction of delays and a better traffic flow to and from the part of our port, located behind the Terneuzen lock system.” The locks near Terneuzen connecting the Ghent-Terneuzen Canal with the Western Scheldt act as a physical bottleneck. The planning for North Sea Port so far is ruled by the planning of the locks. Vessels with destination Terneuzen or Ghent aspire to arrive at the locks with as little delay as possible. “The running order of vessels arriving at the locks is organised on a ‘first come, first serve’ base. This principle is improved for regular liner services and vessels using nautical services, like pilots and tugboats, by granting them a certain level of priority. For the ‘first come, first serve’ system, the time of arrival at the pilotage station on the North Sea is leading. Simply said, the estimated time of arrival at the pilot station determines the order of planning, a planning that is final six hours prior to entering the locks.”



AN IMPRESSIVE AMOUNT OF 90% OF THE PASSAGES WAS EXECUTED ACCORDING TO THE PLANNING AT LEAST 24 HOURS IN ADVANCE.

Inefficient sailing

Unfortunately, things in real life do not always going as planned, which also applies to the ranking system for the planning order.

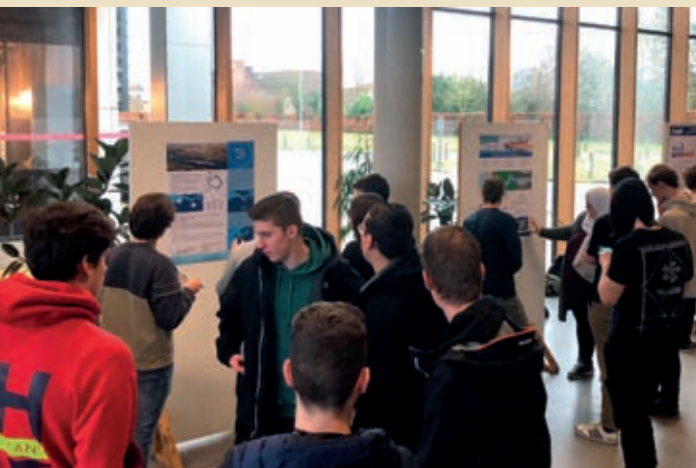
Wilco de Zwart, Sector Manager Logistics, Outokumpu

“For our regular liner services, good planning is very important, as it will affect our entire supply chain. The test with the new schedule has so far turned out highly satisfactory for us, also because it did not negatively affect the arrival and departure of non-liner vessels. We expect that the new routine will help to adequately respond to future delays caused by extensive construction works on the New Lock at Terneuzen and the decommissioning of the Middle Lock, as this will add additional stress on the West Lock.”

At times when it is very busy at the locks, vessels will have to wait much longer before entering the locks. According to Mr Dierckens, this leads to undesirable, but foreseeable delays. “What we see is that vessels on their way to the Western

Scheldt show an uncoordinated, ineffective way of travelling. The planning for entering the port is only final a couple of hours prior to arriving at the pilot station, leading to very little time for our nautical service providers to respond. This also means that ships don't have the opportunity to react to foreseeable delays and adapt their speed accordingly. Everyone understands that this is not an ideal situation. It leads to inefficient sailing, with higher fuel consumption, costs, and pollution as result. By the time the vessels arrive, they usually have to wait longer than desired. These delays cost a lot of time, money, and fuel, thus impacting the environment as well. As part of a supply chain system, one waiting vessel leads to a chain reaction at terminals, at production facilities, and for nautical service providers, which are all affected by the delay. And this will ultimately also alter the vessel's return trip, which might cause even more delay. Hence the focus on liner services for our test, as turnaround time and sailing schedule are not only key for sailing, they are paramount to their entire business model.”

PORT CASE



THE STUDENTS OF HOGESCHOOL GENT AND HZ UNIVERSITY OF APPLIED SCIENCES EXCHANGED THEIR FINDINGS DURING A HALF-TERM MEETING IN DECEMBER.

Another just-in-time logistics project initiated by North Sea Port is a cross-border project in which students of Hogeschool Gent (Ghent) and HZ University of Applied Sciences (Misingen) collaborate. “Together with POM Oost-Vlaanderen (the development company of the province of Oost-Vlaanderen), North Sea Port supports companies in optimising their logistics chain”, comments Mr Stefan Yzewyn, Advisor Logistic and Infrastructure at North Sea Port. “This support entails the sharing of information, initiating activities, and developing projects. By doing so, we want to raise economic growth, efficiency, and sustainability.” With this in mind, the Port Authority initiated this Port Case regarding just-in-time logistics. Mr Yzewyn explains, “With just-in-time logistics, we mean that goods arrive or leave at the desired time. For this, it is important that the entire chain, from origin to destination, are geared towards each other and delays are avoided.”

The student survey's overall aim was to propose logistic operational improvements in the alignment between parties in maritime and inland shipping. The case involved three questions: identify the bottlenecks, know how to deal with the

bottlenecks, and formulate an optimisation of the logistics flow. Mr Yzewyn continues, “The main purpose of the study was to investigate and recommend, and meanwhile it could act as relevant input for the Green Deal programme. Students should of course take into account the desires of the various companies. For logistics companies, wishes depend on the type of commodity handled, their connections with the hinterland, and position within the port.”

To keep the students aligned, the case was given a certain focus by North Sea Port and POM Oost-Vlaanderen:

- Focus should lie on bottlenecks that cause late arrivals or departures of goods, for example due to lack of staff and quay capacity, but also on logistic operational flows that could be optimised.
- Solutions can be proposed within the trajectory, from the pilot station located in the North Sea until the moment the goods arrive at their loading/unloading berth.
- For inland shipping, (potential) logistical barriers on all Belgian and Dutch inland waterways are relevant.
- Optimisations for maritime shipping should not negatively influence inland shipping.
- It is assumed for the case that the adjustments of the lock system at Terneuzen, such as the new lock, are ready.
- Focus lies on existing process, operational solutions, and improvements, or ones that can be swiftly implemented.
- Solutions should fit within the Green Deal agreements.

The survey is well underway and the students of both institutes exchanged their findings during a half-term meeting in December. In March, the results will be presented and assessed in a meeting with the collaborating companies. Maritime service providers will be informed about the results in April, so as to find out where their challenges lie. “Depending on the final results, it will be decided if the survey will have a follow-up programme,” says Mr Yzewyn, “but no matter what the findings will be, the Port Case is a fine example that demonstrates the benefits of cross border cooperation from universities in the region, as supported by North Sea Port.”



Based on a prudent calculation, an estimated EUR 1.5 - 2 million is annually saved in fuel consumption.

Improve planning horizon

Based on the experience of the nautical department and customers, North Sea Port started a project a few months ago to solve this problem. This project of improving the planning towards the locks, was instigated for various reasons, which are described below.

- First of all, the construction of the new Terneuzen lock may lead to extra delays, as the Middle Lock is no longer available for seagoing vessels. The Middle Lock will be entirely decommissioned in 2022, putting even more stress on the West Lock in the search of additional capacity to lock capacity for inland barges.
- Vessels are getting increasingly larger, which makes usage of the full capacity of the locks more difficult.
- A better planning of the vessels will help to improve the terminal operator's planning for the deployment of people needed to unload and/or load the vessels, the planning for further transport of goods to the hinterland, the planning for maritime service providers, and will prevent delays at production facilities in the port area.
- A better planning will improve the predictability and reliability of operations.
- A better planning will improve sustainability.

"In summary," Mr Dierckens explains "it was the intention to improve the planning horizon of the port user (just-in-time logistics), to make the nautical chain more reliable, and to make the start-up routes of the shipping services more economical and sustainable." The test started in September and lasted until December 2019. After this period, the project results were examined, concluded, and discussed with all parties concerned. Mr Dierckens continues, "For the test, we collaborated with DFDS, I-Motion Shipping, Wagenborg, and Outokumpu. These companies all have liner services on a frequent and regular base. We asked them to provide us with their sailing schedule of four months ahead. In the test phase, the scheduled services were locked through according to these sailing schedules, instead of the regular schedule based on calculated arrival times and assigned prioritisation. A decreasing margin was used so that the reliability of the proposed lockage increased as the remaining sailing time decreased, while still leaving flexibility to optimise the locking sequence. The planning for these vessels became definite 24 hours before arrival, instead of the usual 6 hours. We expected that all this would result in an improved lock operation flow. In case a liner vessel would arrive outside its sailing schedule, the existing prioritisation of the lock planning was applied. During the test, the other sea and inland vessels remained scheduled via existing methods and agreements."

An impressive 90% success rate

After the trial period, North Sea Port now concludes that the results are positive. "During the test," explains Mr Dierckens, "sixteen vessels participated, with a total amount of 174 inbound passages through the lock and 135 outbound.



HANDLING OF GOODS AT THE TERMINAL OF OUTOKUMPU. A BETTER PLANNING OF THE VESSELS WILL FOR EXAMPLE HELP TO IMPROVE THE TERMINAL OPERATOR'S PLANNING FOR THE DEPLOYMENT OF PEOPLE NEEDED TO UNLOAD AND/OR LOAD THE VESSELS.

We have learnt that an impressive amount of 90% of the passages was executed according to the planning at least 24 hours in advance. This was around 50% in the months preceding the test. Apart from these plain figures, the parties involved also are very satisfied. Not only was reliability improved, the test furthermore did not negatively affect the passages of the other vessels at the locks. Working with a longer term planning window gave ample comfort and calmness in the entire logistics chain. Based on a prudent calculation, an estimated EUR 1.5 - 2 million is annually saved in fuel consumption, resulting in a subsequent reduction in CO₂ emissions of approximately 20 - 30,000t." With these positive results in mind, North Sea Port has decided to start implementing the new planning procedure into daily practice step-by-step. Earlier planning based on a reliable sailing schedule should in time become standard for vessels with destination North Sea Port. Mr Dierckens concludes, "With the test, we have shown that where there is a will, there is a way. Together with all parties, we have proven that more adequate planning is possible. We think that this is not only helpful for vessels that need to enter the Ghent-Terneuzen Canal, but for all other destinations in our port as well. Even more, all ports are more or less dealing with the same issues. Other ports that want to learn from our experience have already contacted us for information. Ports, and the complete logistics chain in between, act as communicating vessels. Our planning project will hopefully finally result in an optimal just-in-time logistics operation on an international multi-port level, contributing to higher efficiency, lower costs, and more sustainable shipping."

Taking over

On 31 January 2020, Peter de Graaff, General Manager of Euro-Mit Staal, officially went into retirement after leading the company for 28 years. Following in his footsteps is Marco van Lomwel, who previously held the position of Manager Accounting & Finance at the company.

Q: Mr van Lomwel, could you tell us a little bit about your background?

A: I was born and raised in Zeeland. I currently live in Oost-Souburg. My professional background lies in accounting and finance. After working in the financial department at a different company for several years, I started working for Euro-Mit Staal in 2002. Back then, around 30 people worked at the company, and I was the only person in the accounting department. Then we started growing. Our employee numbers grew along with the tonnage we handled. We now have 75 people working here.

Q: How did you end up in your new role as general manager?

A: We discussed Mr de Graaff's retirement within the management team, and I was approached for the role. Working as general manager will be quite different from accountancy, but I am up for the challenge. I especially look forward to

communicating with all the different departments. We have a great group of people at Euro-Mit Staal, so I thoroughly enjoy getting the opportunity to work with them.

Q: What have you learned from your predecessor?

A: I have worked with Mr de Graaff for many years. He was here from the start, when our current site was nothing but a grassy field. Together with Mitsui in Japan, he built up our company from scratch. It is now up to the rest of us to pick up where he left off.

The social character that Mr de Graaff has provided the company with is definitely something I want to continue. I believe people achieve most when they enjoy their job, when they can continue their self-development through training, and when they feel supported. I am dedicated to making that effort.

Q: How did Euro-Mit Staal end up in Vlissingen?

A: Euro-Mit Staal is part of Mitsui & Co, a large Japanese trading firm with numerous branches. The electrical steel that we handle was already part of their product portfolio. Mitsui used to supply electrical steel for the European transformer industry all the way from Japan. If a customer needed another steel coil, it would sometimes take six months to arrive. For that reason, they started looking for a suitable location for a European affiliate. They considered Hamburg, Rotterdam, and Antwerp, but none of those ports ticked all the required boxes. Vlissingen, however, did. And so Mitsui built their European

MARCO VAN LOMWEL,
GENERAL MANAGER OF
EURO-MIT STAAL.



office here back in 1992. It turned out to be a smart decision; we have been thriving ever since. We have expanded our site twice, in 2007 and again in 2012.

The entire building has been outfitted with motion-sensorised led lighting. And just last month, the installation of 3,200 solar panels on our roof was completed. The generated electricity will be used by an external party, but it is roughly equal to the amount of power required by our machines on a yearly basis. We are a conscious company, so we try to limit our impact on the environment wherever we can.

Q: What is Euro-Mit Staal's core business?

A: We started out slitting thin gauge steel plate to smaller coils from bigger coils, and that is still our main business. During our 2011-2012 expansion, we added a cutting machine that also allows us to cut laminations from the coils. The transformer market is fairly conservative; the design may change, but not much else. However, the current market situation provides us with lots of opportunities. The increasing demand for electricity, partially due to the popularity of electrical cars, as well as the surge in wind turbine construction, are all factors for a vivid electrical steel market.

Q: Do you plan on making any changes in Euro-Mit Staal's activities?

A: To build a transformer, individual laminations are stacked on top of each other. At present, we send the cut laminations to external parties who stack them and build the transformer. We are keen to investigate whether it would be worthwhile to do the stacking process ourselves. There is no rush though. We want to continue doing what we do best. And we are very good at slitting coils.

Q: Where do your operators learn their skills?

A: There is no specific educational requirement for our machine operators. We just look for enthusiastic, technical people who then need three to six months to learn the trade. It sounds so simple, cutting a steel coil – our line of work does not make for a good story to tell at parties. But the technique really requires that instinctive 'fingerspitzengefühl'; the operator needs to have a feel for the machine, its speed, and the materials, in order to meet our quality and efficiency demands. The only way to learn that is by doing it, aided by experienced colleagues.

Q: Do you have a specific target market?

A: Euro-Mit Staal is the downstream of Nippon steel, which is high-grade steel, for the European transformer industry. Our customers are also in Sweden, Italy, Spain, and Poland. We are of course in direct contact with Mitsui in Japan. I really enjoy the international character of our work relationships.

Q: What do your logistics flows look like?

A: A vessel from Japan comes in once a month on average. The ship docks at Verbrugge, where it is unloaded and the materials are stored. The steel coils are delivered to our workshop by truck, where we slit them into smaller coils that we deliver to our customers by either truck or train. Whenever possible, we work with local subcontractors and suppliers. It keeps transport costs low and it is more environmentally-friendly, too. Moreover, why wouldn't we help one another? That is another thing Mr de Graaff taught me: to build professional relationships for the long run. Long-lasting cooperation will ultimately benefit you the most.

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An experienced shipping partner

On its website, Vertom describes itself as ‘expert in worldwide shipping with over 40 years of experience’. And so much is true. Founded in 1974 as a company specialised in shortsea dry bulk services for minerals, fertilisers, and high-quality raw materials, the company has extended towards a more diversified range of maritime activities.



“Ton Pols founded Vertom more than 40 years ago”, says Arjan de Jong, Managing Director of Vertom, as he gives a short historical overview. “The name Vertom refers to the name of his first vessel, MV Vera Tomson. The company expanded in 1981 by opening various offices in Europe. In the mid-Eighties, the first steps were taken to establish a liner service to the Caribbean. Vertom has throughout the years managed to continue this growth. Vertom Shipping UK started business in 1999, and the first port agencies outside the Benelux were soon opened.

Family features

A merger took place in 2010 with Unity Beheer (UCS), boosting the number of employees and activities, and this growth has been a fact up until today. This was also the moment when I came over from UCS to join Vertom.” Mr de Jong continues, “Today, we have offices all over Europe in order to be close to the market. Despite our growth, we are still an independent company and although there is currently no role for the founding family Pols, our organisation still has many features of a family-owned

VERTOM'S VESSELS OFTEN VISIT TERMINALS AT NORTH SEA PORT, SUCH AS BULK TERMINAL ZEELAND.





VERTOM'S SUBSIDIARY VERTRACO SHIPPING IS A MANAGING AND COMMERCIAL AGENT OF THE EUROPE CARIBBEAN LINE (ECL) THAT OPERATES SERVICES BETWEEN NORTHWEST EUROPE AND THE NORTHERN COAST OF SOUTH AMERICA.

Photos courtesy of Vertom.

company. Our business is driven by the relationships we have built up over the years. Many of our customers have become partners and friends. Amongst them are smaller trading houses and major players in our industry."

Two roles

Vertom's activities today can be roughly divided into two roles: shipowner/broker and shipping agent. "Looking at our shipowner's role, we expanded our scope from dry bulk to almost all commodities. Whether it is dry bulk, breakbulk or rolling material, we can take care of it with a large fleet of vessels. We have at present around 85 vessels in service, of which 60 are (partly) owned. We deal with the technical management of a total of 45 vessels via our office in Germany. It might sound a bit strange, but our expansion as shipowner is partially caused by the worldwide financial crisis. Many smaller shipowners had invested in new vessels just before this crisis. When worldwide trade collapsed and banks became hesitant in offering a helping hand, it resulted in a great consolidation of vessels, in which we could play a role as well."

Important port

"As shipping agent," Mr de Jong says, "we can rely on the knowledge and experience we have built up in the past decades as shipowners. We speak the shipowners' language and know what their customers want." Although located in Rhoon, close to the port of Rotterdam, Vertom has ample connections with North Sea Port. First of all, the company is shareholder of shipping agent STT with its office in Vlissingen. "It is obvious that with our involvement in STT, North Sea Port is

“ Contacts are very easily made here with the companies and the Port Authority, as thresholds are low and flexibility is high.

an important port for us", states Mr de Jong. "Apart from this, we act as agent for ArcelorMittal for their production facilities at North Sea Port. ArcelorMittal and Yara Sluiskil are also regular destinations for our vessels. We offer a regular service from the Supermaritime's Vlissingen terminal to South America, and our vessels often visit Bulk Terminal Zeeland with grain and scrap."

Low thresholds

Mr de Jong admits that he likes doing business at North Sea Port, and Vertom has been active in this port for about twenty years now. "I am currently noticing an increased activity at the North Sea Port area. Contacts are very easily made here with the companies and the Port Authority, as thresholds are low and flexibility is high. Apart from this, it is obvious that the port has an ideal location towards the North Sea shipping routes and the hinterland. For the latter, the facilities for inland shipping could in my opinion be further improved, as it now seems like priority is often given to seagoing vessels."

Data communication

Looking at the future, Mr de Jong sees the continuation of the consolidation of vessel ownership. "The number of shipowners

will continue to decrease and the size of vessels will grow. I also think that one of the upcoming challenges will be IT and the development of data communications. Port authorities are developing advanced data communication platforms that simplify paperwork. This could become a threat for shipping agents, as they do a lot of paperwork for shipowners. In order to stay relevant, agents should respond to this threat on time. Vertom has the advantage of having abundant knowledge and experience in data collecting and sharing. And as owner of this data, we can decide ourselves whether or not, and what, we want to share with others, such as port authorities. We are now working on a data communication system with a coverage throughout Europe via our various offices, something that a single port authority is incapable of.”

Efficient and sustainable

Another challenge, according to Mr de Jong, is sustainability. “Transport and logistics are often considered as one of the causes of the high levels of CO₂ and NOx emissions. In my opinion, IT could play a role in this as well. Investing in greener vessels is of course a good thing, but the efficiency of vessel movements can be raised with, for example, tools such as artificial intelligence and data analytics. When we can improve the routes of vessels from port to port, but also from terminal to terminal, sailing could become more efficient, fuel-saving, and sustainable. These solutions are quite simple to implement at relatively low costs, so they should not be overlooked.”

ARJAN DE JONG, MANAGING DIRECTOR OF VERTOM: “AS SHIPPING AGENT, WE CAN RELY ON THE KNOWLEDGE AND EXPERIENCE WE HAVE BUILT UP IN THE PAST DECADES AS SHIPOWNERS.”



Photos courtesy of Yellow & Finch Publishers.

VERTOM HAS AT PRESENT AROUND 85 VESSELS IN SERVICE, OF WHICH 60 ARE (PARTLY) OWNED.



Photos courtesy of Vertom.

Maritime services

Over the years, Vertom has transformed into a company with a broad range of maritime services.

Dry chartering

For dry bulk, Vertom operates a modern and environmentally-friendly fleet with a capacity ranging from 1,500 to 10,000DWT.

Tank chartering

For liquid bulk, Vertom acts as a full service broker providing comprehensive, innovative, and efficient solutions, including short and deepsea, inland tank barging, and tank containers.

Liner services

Vertom offers various liner services. Vertom's subsidiary Vertraco Shipping is a managing and commercial agent of the Europe Caribbean Line (ECL) that operates services between Northwest Europe and the northern coast of South America. ECL maintains two separate liner services. Using backhaul capacity of reefer vessels from Seatrade, a service is offered from Vlissingen to Paramaribo and Georgetown every fourteen days. ECL also offers a monthly service from Antwerp, Ipswich, Gijon to Georgetown, Paramaribo, Point Lisas and Palua/Matanzas vice versa, and any other port on inducement.

Shipping agencies

Vertom Agencies acts as shipping agent for numerous shipowners and charterers, providing services across a wide range of vessel types and industries.

Cable recovery

Vertom collaborates with Subsea Environmental Services (SES) for the recovery and recycling of Out-Of-Service (OOS) submarine telecommunications cables.

Technical management

The technical management of Vertom's fleet of ships is carried out by Vertom-Bojen in Germany. Vertom-Bojen controls a fleet of more than 40 modern multi-purpose vessels/bulkers of varying sizes, ranging from 3,000 up to 10,000DWT.

Maritime cleaning

Zeeland Maritime Cleaning (ZMC Vlissingen) originates from maritime cleaning and is, together with Van Hamburg Cleaning (Spijkenisse), a Vertom subsidiary. Mostly executed at repair shipyards, seagoing vessels and inland tanks are cleaned inside and outside by means of vacuum trucks and high-pressure units. Alongside these maritime activities, both companies also concentrate on industrial cleaning.

I. WWW.VERTOM.NL



Loodswezen gets new

Climate-neutral accommodation and maintenance building for pilotage service

For Nederlands Loodswezen (Dutch Pilotage Service), its new Pilot Support Building on the quays of the Binnenhaven in Vlissingen is a dream come true. The service can finally offer its crew inhouse accommodation and on top of that, the building is climate neutral and includes a bonus World War II bunker.

Until recently, the Scheldemonden region of Nederlands Loodswezen had to house its visiting crew members in holiday cottages around Zeeland, while maintenance supplies for the various vessels were scattered around different locations. With the opening of the new Pilot Support Building along the Binnenhaven of Vlissingen, this logistical challenge has come to an end, says Loodswezen Scheldemonden's President Georg Jaburg. "We have wanted our own accommodation building for quite some time, so when the municipality of Vlissingen offered to renovate our berth in the Binnenhaven on the condition that we purchased land adjacent to the quay, we jumped at the chance."

Green design

The building was designed by WTS Architecten from Vlissingen. It is energy-neutral with extra insulation, a heat pump, solar panels and no gas connection. "Loodswezen is placing increasing emphasis on being climate neutral, so when we designed this building we wanted it to have as little impact on the environment as possible", says Mr Jaburg. "We are delighted with the result. The heat pump stores the summer heat for the winter months and we use the winter cold to cool the building in summer. It is so effective that we need very little additional heating. There are solar panels on the roof and any additional electricity we use comes from green sources."

Comfortable accommodation

On the ground floor of the two-storey building are the office and storage for the maintenance department. The first floor houses the temporary living quarters for visiting crew members. "Our 160 pilots live in the region, but the support staff to man our vessels is regularly called in from other parts of the country", explains Mr Jaburg. The accommodation consists of a spacious living room with kitchen and balcony overlooking the port. In a separate wing, there are six comfortable bedrooms with a single bed, a workstation with a television, and bathroom facilities.



building

All photos courtesy of Scherpl! Fotografie

Loodswezen Scheldemonden

The registered pilots of the Scheldemonden region are active in all ports on the Western Scheldt, as well as in the Eastern Scheldt area. In total, 160 Dutch pilots provide the piloting of approximately 21,000 ships into and out of the Scheldt ports every year. They are supported by some 80 boatmen, office staff, and maintenance personnel. Loodswezen Scheldemonden uses Aquila-class tenders, Discovery-class tenders, and L-class tenders. It also has three P-class Pilot station vessels: Polaris, Pollux and Procyon. Each pilot station vessel can carry up to three launches. Additionally, there are two SWATH vessels that can be deployed under practically all weather conditions.



LOODSWEZEN
SCHELDEMONDEN'S
PRESIDENT GEORG JABURG.



Our 160 pilots live in the region, but the support staff to man our vessels is regularly called in from other parts of the country.

Each bedroom is named after one of Loodswezen's former vessels, which have all been named after stars. As an added touch, each room has a picture on the wall of its namesake vessel. Mr Jaburg continues, "Because the crew works in shifts, it is important they get their rest. We occasionally had crew members stay on board the Pilot Station Vessel that was docked for maintenance, but with people carrying out work onboard, it wasn't always the most tranquil place. Now our crew has dedicated accommodation, where they can recharge in comfort."

World War II bunker

Loodswezen's new site is also home to an enormous munitions bunker from World War II. "One of the municipality's conditions was that we would integrate the bunker into the plans for the

new building. We initially wanted the accommodation wing to rest on top of it, but it unfortunately turned out that the structure wasn't strong enough to support the new building, so we came up with a slightly different design", explains Mr Jaburg. "But we intend to renovate the bunker and turn it into extra storage space. We are also considering opening it up to the public on certain occasions. It is an interesting bunker and it would give people a chance to see it and become acquainted with Loodswezen."

Perfect location

At the end of last year, the building was officially opened and christened with a bottle of champagne by mayor of Vlissingen Bas van den Tillaar. "The building is a wonderful addition to our headquarters on the Boulevard de Ruyter.", says Mr Jaburg. "It has taken us four and a half years to find the perfect location for the Pilot Support, but now we have a berth and a large quay in the Binnenhaven, as well as an accommodation building with dedicated space for logistics and maintenance. It feels like everything has now finally come together."

Conquering the niche aluminium market

The remarkable journey of Zalco



Like a phoenix rising from the ashes, aluminium company Zalco has transformed itself following a dramatic bankruptcy in 2011. Just over eight years later, the company is thriving and specialised in producing aluminium for a wide range of industries and products.

Photos courtesy of Limit Photography.



ALUMINIUM IS HIGHLY SUITABLE FOR RECYCLING AND ZALCO USES MORE AND MORE SCRAP ALUMINIUM FOR ITS PRODUCTS.

EXTRUSION BILLETS READY FOR SHIPPING.





THE REMELT FURNACE HAS JUST BEEN LOADED WITH SCRAP ALUMINIUM.

It was a shock that reverberated throughout the region when Zeeland Aluminium Company Zalco went bankrupt in 2011. From one day to the next, the American investors pulled the plug and the smelting and foundry facility shut down its operations. What followed were months of insecurity for the staff and intense negotiations about a possible restart for parts of the company. New investors saw the merit in business proposals drafted by staff, which would take the company in a new direction. In 2012, the company was split up: the smelting facility was permanently shut down and dismantled. While the anode plant was relaunched separately, the foundry facility was reopened with the help of investment company UTB Industry. The new foundry company kept the Zalco name and nearly forty members of staff. However, some significant changes were made, reveals Zalco's Director Joop de Ridder. "The two biggest changes were the move to specialised aluminium alloys for more niche products and the shift from producing our own new aluminium to using more and more recycled aluminium."

Strict quality requirements

Until 2011, Zalco produced aluminium mostly for commodity products such as window frames. Since the relaunch, the company has shifted its focus towards niche markets. It specialises in casting aluminium extrusion billets and rolling slabs in various dimensions and chemical compositions, for a wide range of products. These can vary from components for car exhausts and air conditioning units to parts used in trains or airplane wings, and from medication packaging to linings for milk cartons.

Because each of these industries and components has its own requirements such as strength, flexibility or density, they each demand aluminium with a different kind of chemical composition, or alloy. For instance, there are various copper alloys, zinc alloys or high silicon alloys, which each give the aluminium different characteristics. In order to be allowed to make these specialised alloys, a company has to meet strict safety and quality requirements.

"We had to apply for certificates to be able to manufacture these various alloys", explains Mr de Ridder. "It was a lengthy process



HR AND FINANCE MANAGER JAN VAN WIJCK, DIRECTOR JOOP DE RIDDER, AND TECHNICAL SERVICE MANAGER JEROEN BAKKER AMONG THE EXTRUSION BILLETS READY FOR SHIPPING.

of audits, test products, and applications, but we managed to get most of the certification for which we applied. The only reason we were able to do so was because we kept the original Zalco staff in all the key positions in the company, as well as many of the operators. Without all that knowledge and experience, it would have taken us much, much longer to get certified."

Smart recycling

While Zalco was working to get the various certificates, it started with the second change: switching to recycled aluminium. Before



THESE 8M LONG EXTRUSION BILLETS HAVE JUST BEEN CAST AND ARE TAKEN OUT OF THE CASTING PIT.

the bankruptcy, the company had its own smelting facility where new aluminium was made. However, new aluminium is costly to produce because, in addition to the raw materials, the process requires enormous amounts of electricity. Fortunately, one of aluminium's greatest benefits is that it is highly suitable for recycling. "There is a lot of scrap aluminium available for recycling, which means that it is much more economical to use secondary or recycled aluminium", comments Mr de Ridder. "As an added bonus, it is also much more environmentally-friendly than producing new aluminium. In comparison, recycling can lead to a reduction in energy consumption of 95%, with a corresponding reduction in CO₂ emissions."

While all aluminium can be recycled, not all secondary aluminium is suitable for the products produced by Zalco. "It all depends on the alloy", explains Mr de Ridder. "The beauty of aluminium is that once you melt it down, it has the exact same properties of the original raw material. So as long as the chemical composition is right, we can use it to turn it back into charges with the required alloy."

Over the years, Zalco has built a network of reliable suppliers of recyclable aluminium with the right alloys, meaning that more and more scrap aluminium can be used. Mr de Ridder adds, "In the beginning, we used 20% recycled and 80% new aluminium. These days, the percentages are almost reversed: more than 70% is secondary aluminium and we aim to further increase that figure."

Made to order

Zalco produces its aluminium extrusion billets and rolling slabs with conventional casting and with the Wagstaff Airslip method, which has been designed to overcome consistency problems and ensures the charges meet high metallurgical standards. Zalco's end products serve as raw material for the aluminium processing industry such as pressing shops and rolling mills. Because the company works to order, each charge is alloyed according to the customer's specifications.

To ensure the quality of the aluminium from start to finish, Zalco carries out extensive tests throughout the entire manufacturing process. "It starts with entry checks for all incoming shipments to

Zalco's history

Zalco's story began in 1969 with the construction of the plant Pechiney Nederland NV (PNL) under commission of French multinational Pechiney. Vlissingen was selected as its location as the port is situated in deep water, which facilitates bringing in raw materials and transporting final products. The first furnace was started up in April 1971. These days, the company produces a broad range of extrusion billets and rolling slab products. Extrusion billets are available in 27 different diameters, while rolling slabs are available in 60 different formats. This applies to all types of alloys, with lengths available from 500mm to 8,000mm.



test the purity of the secondary aluminium and we do a chemical analysis to make sure it meets our requirements", states Mr Ridder. In addition, each product manufactured is analysed for the right composition by an optical emission spectrometer before casting is begun. "We have an on-site laboratory, which we use to certify all the various alloys throughout the productions process. This takes great precision because there are so many different alloys." Each batch is given a certificate according to European regulations (EN 14726), which is a determination of the chemical composition of aluminium and aluminium alloys by Spark Optical Emission Spectrometry (OES).

The aluminium alloys can also be homogenised, which is a high temperature heat treatment. The treatment is performed after casting and consists of three steps; heat-up, soak and cooldown. The result of the treatment is that the extrusion billets have the exact same structure and quality throughout, something which is of vital importance when the aluminium is used for components in cars or airplanes.

The future is aluminium

Nearly eight years since the relaunch, Zalco is now a healthy company with great plans for the future. "Our goal is to expand, because we have the extra capacity to do more", remarks Mr de Ridder. "We are looking to expand even further into the niche markets. We can't compete with the major aluminium producers who churn out aluminium for the commodities market, but we can stand out through the enormous variety and quality of our alloys." The plans will hopefully also include building a wind turbine on the company site in Vlissingen-Oost. Zalco is currently in discussion with North Sea Port and various parties to see if the plans are feasible. Because the company operates 24/7, the ability to generate its own energy from wind could lead to significant savings. All in all, the future is looking good, concludes Mr de Ridder, "We were very lucky that we found an investor who believed in our vision for the company. Back in 2012, we had an idea and we hoped that there would be a market for what we had planned. We have proven there is."

I. ZALCO.NL



Photo courtesy of maritimephoto.com

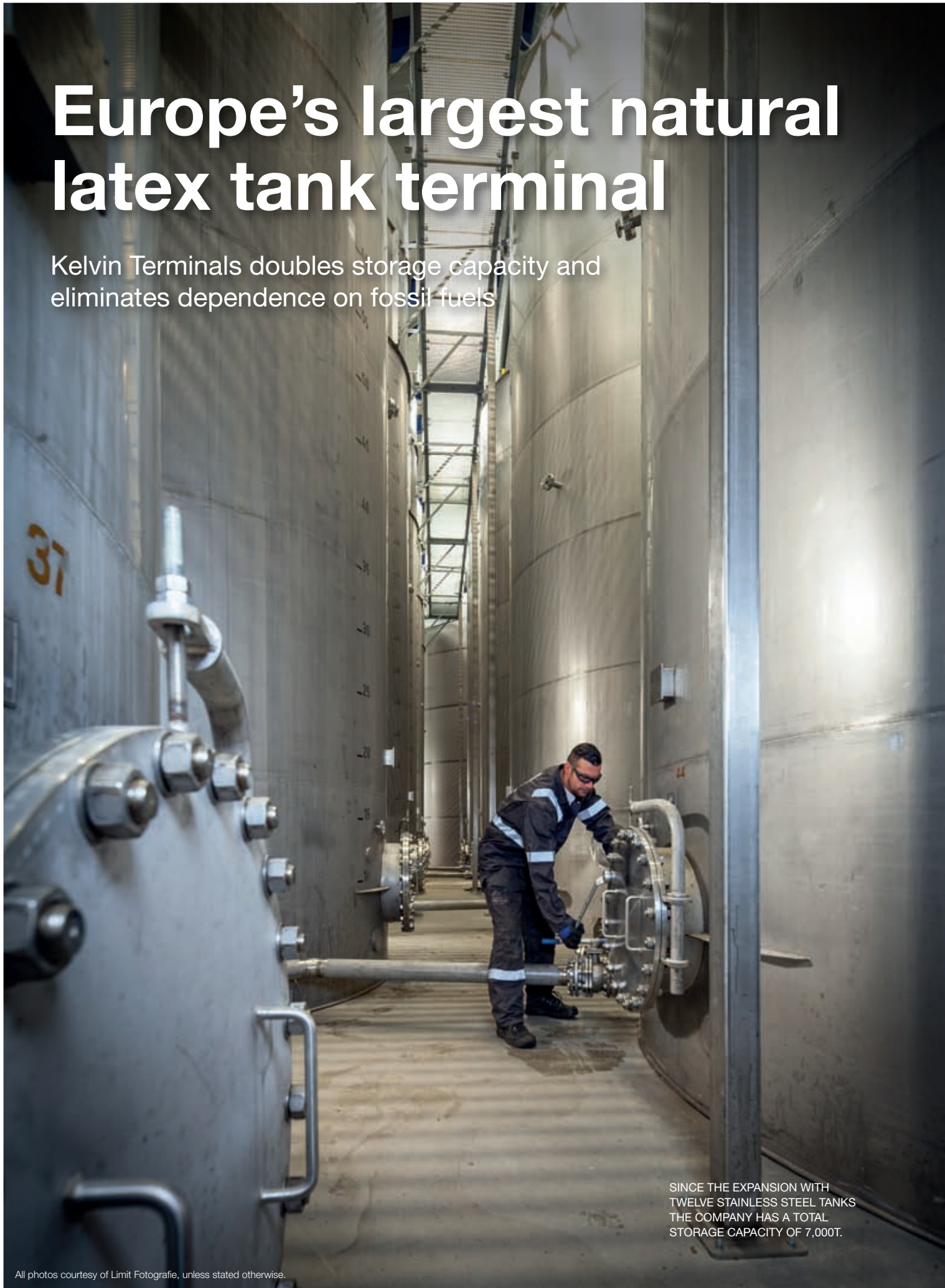


A rig tow

North Sea Port is a well-known location for ample offshore-related activities. This photo shows an oil rig that is moved towards the quay of Flushing Marine & Offshore for modification.

Europe's largest natural latex tank terminal

Kelvin Terminals doubles storage capacity and eliminates dependence on fossil fuels



SINCE THE EXPANSION WITH TWELVE STAINLESS STEEL TANKS THE COMPANY HAS A TOTAL STORAGE CAPACITY OF 7,000T.

North Sea Port plays a leading role in many industrial and logistic segments. With Kelvin Terminals, the port is home of Europe's largest storage facility for liquid latex. The company recently expanded its storage facilities. This expansion, together with the enlargement of the office and laboratory, shows the trust the terminal gets from its Singapore mother company.

Kelvin Terminals was established in Terneuzen in 1964 as a storage facility for oil products for Esso (ExxonMobil). In the early seventies, the company changed its scope towards the storage of synthetic rubber for the UK based International Synthetic Rubber Company (ISR). This company was looking for storage facilities in Europe, as until then it depended on the unreliable ferry services for the supply of products to Europe, and opted for Terneuzen. The company has since undergone some turbulent decades, with several changes in owners. Today, as a dedicated logistics service provider for natural rubber producer Corrie Maccoll (part of Halcyon Agri), Kelvin Terminals has reached a phase of stable development. Managing Director of Kelvin Terminals Pascal de Maat entered the company in 1987.

The Englishman

"Since I joined the company, I have seen a lot of things happen. Back in the Eighties, the company was part of Italian multinational Eni. In those days, this eventually gave us ample work, but this changed due to various circumstances and it was suggested to sell our terminal. We became part of the Zaandam-based company Wurfain in 2013. From that moment onwards, we started specialising in the storage and

handling of natural rubber latex only." Mr de Maat explains how this happened: "One day in 2012, an Englishman came to us looking for the possibility of renting some storage tanks for natural latex and when I told him that our terminal was for sale, it came to light that he was working for Wurfain. This company was interested in a takeover, which became effective a year later." One of Mr de Maat's aims was to further expand and modernise the enterprise. "For our expansion plans, we had an option on a piece of land next to our terminal, as well as an option on a number of storage tanks available on the market. Wurfain was hesitant to grant permission for the investment, but the opportunity to execute our plans arose in 2018 when Wurfain and Kelvin became part of Singapore-based rubber company Halcyon Agri. When I explained my plans to their management, they soon agreed."

High vulnerability

The expansion of the storage facility started in September 2018 and was finalised in 2019. Meanwhile, the offices were refurbished and the old, small laboratory was replaced by a new modern one that now fully meets today's requirements. "This laboratory is of great importance for us," Mr de Maat explains, "as the handling and storage of latex can be complicated due



Logo

When looking at Kelvin Terminal's logo, one will notice two birds. These birds are kingfishers. The birds refer to the name of mother company Halcyon Agri. Halcyon is a breed of kingfishers. The kingfisher in the past used to be considered as a symbol of unconditional loyalty, power, wealth, peace, and beauty. A fine symbol, that suits an involved company like Halcyon Agri.



FROM EVERY SHIPMENT KELVIN TAKES A SAMPLE FOR INVESTIGATION IN ITS LABORATORY. SO THE COMPANY KNOWS THE EXACT QUALITY OF THE INCOMING PRODUCTS.

to the high vulnerability of this natural product.” The Terneuzen laboratory is now number 3 in the world for testing in such detail the parameters of natural latex. Natural rubber is a product made from latex. Latex is tapped from rubber trees. Halcyon Agri buys the latex from independent farmers in Thailand, Malaysia, Guatemala, Vietnam, and Indonesia, and also owns plantations in Cameroon. A rubber tree needs to be seven years old before it starts producing latex and this production ends after approximately 25 years. Mr de Maat elaborates, “Each tree produces around 6kg of latex per year, so each tree produces approximately 150kg of rubber in its entire productive life. 30% of the latex tapped from the trees is rubber and after a process of centrifugation, 60% of rubber remains from each kilogramme of latex. This rubber, added with a certain amount of ammonia to protect the product from contamination, is stored for maturation for a period of four weeks. Only 10% of the total amount of rubber is liquid. The largest part is dry rubber, which is mainly used for the production of tyres. These figures demonstrate that liquid rubber truly is a small-scale specialty product.”

Impressive knowledge

“In 1964,” Mr de Maat continues, “our terminal was founded in Terneuzen because of the strategic location towards the North Sea and the hinterland, and today this is still an important plus. Apart from this, we have built up an impressive knowledge and experience in the careful handling of natural rubber latex. Rubber latex is a very stressful product, meaning that the slightest change in circumstances can influence the quality. With our skills and equipment, we are able to handle and store the product in the most ideal conditions. From every shipment we receive, we take a sample for investigation in our laboratory. So we know the exact quality of the incoming products. We also use the sample for traceability purposes in case a customer has questions about their product. In the process of loading and unloading, all operations are executed manually. This might sound a bit old-fashioned, but automated systems



Photo courtesy of Kelvin Terminal.

LATEX IS TAPPED FROM RUBBER TREES.

do not have the same sensitivity as human hands. A person can, for example, feel when the product is less fluid than it should be, and can swiftly respond to this. In an automated system, the pumping of the product would continue, no matter what.”

Dedicated storage

“At our terminal we store natural rubber latex for our sister companies Wurfbaun and Centrotrade (Eschborn), and a third party Synthomer (Marl). Since the expansion with twelve stainless steel tanks (2 of 500m³, 4 of 250m³, and 6 of 125m³), the company has a total storage capacity of 7,000t. Around 50,000t is handled annually, including 25,000t that arrive from our sisters and Synthomer and the same amount that leaves to producers of a broad range of products, such as mattresses, pillows, surgical gloves, bitumen/asphalt, bay toys, catheters, cork shoes, self-adhesive bandages, balloons, condoms, and even chewing



It is good to see that Halcyon puts ample trust in our terminal and that the company has also supported our desire to invest in sustainability and safety.

gum. For these products, natural rubber latex is superior to the synthetic alternative made from oil.” The expansion of Kelvin’s storage capacity also fits within Halcyon Agri’s sustainability goals. At the rooftop of the new tank hall, 126 solar panels are installed that can provide 51,000kWh per year. For controlling the tank hall’s temperature, air source heat pumps are installed, replacing a diesel oil-fuelled boiler. “The solar panels and air source heat pumps will completely eliminate our dependence on fossil fuels”, claims Mr de Maat. Kelvin Terminals can at present be considered the largest storage facility for liquid rubber latex in Europe. “When comparing our total storage capacity with that of, for example, Oil Tanking Terneuzen, we are just a modest tank terminal,” argues Mr de Maat, “but looking at the total annual worldwide production of natural rubber, it makes more sense. Although rubber is considered a commodity, when looking at total volumes one can honestly say that we are operating in a niche market.” Apart from storing the rubber, Kelvin also has facilities for blending and mixing to meet specific customer requirements. “For most customers, the 125m³ tanks are the perfect solution for storing their product, as one such tank equals the volume of one shipping batch. The larger tanks usually contain mixtures of shipments and varieties.”

CSR efforts

With the recent investments, Kelvin Terminals is looking towards a bright future. Apart from doubling the storage capacity, high investments have furthermore been made in a larger office and new laboratory that now meets the highest requirements concerning health and safety. “It is good to see that Halcyon puts ample trust in our terminal and that the company has also supported our desire to invest in sustainability and safety”, voices Mr de Maat. He continues, “Sustainability, safety, and health are important issues for Halcyon, and therefore the company in many ways puts abundant effort into CSR. The company is aware of the fact that rubber is a product of nature. It is hence important to act as sustainably as possible to protect this nature. It is relevant for the continuation of the company. With more than 20,000 people working in factories and plantations worldwide, Halcyon constantly works on good labour conditions. Investments are made in education, quality childcare, healthcare, as well as in infrastructure in and around the local communities in which the company operates.”

Local suppliers

For the construction of the new facilities, Kelvin Terminal relied on local construction companies and for logistic support, the company also prefers to use nearby distributors like Verbrugge, 3MCT, Swagemakers, and Tieleman. Most of the rubber latex arrives at the terminal in 20ft containers. Each container has a PPE bag that can contain 23,000l of rubber. The containers are shipped to Terneuzen by truck, train or barge. For the transportation to customers, tank trucks, tank containers and IBC containers and drums are mostly used. “We have a



MOST OF THE RUBBER LATEX ARRIVES AT THE TERMINAL IN 20FT CONTAINERS. EACH CONTAINER HAS A PPE BAG THAT CAN CONTAIN 23,000L OF RUBBER.



MANAGING DIRECTOR OF KELVIN TERMINALS PASCAL DE MAAT: “SINCE I JOINED THE COMPANY, I HAVE SEEN A LOT OF THINGS HAPPEN.”

good partnership with our local logistic partners and they think along with us to find the right transport solution, whether this is by truck, barge or train. Whenever possible, we obviously prefer to use the most efficient and sustainable solution.” Kelvin Terminals is part of a large organisation, but still acts upon its origin. “Although we are Europe’s largest terminal for natural rubber latex, we are still a relatively small company, with a compact organisation. All employees know each other pretty well and we all know we can count on each other. This makes our organisation flexible, honest, and easy to reach thanks to the short communication lines. It is our aim to continue our business in this fashion, as it has enabled us to get this far. This is good for us, for Halcyon, and customers.”

I. CORRIE-MACCOLL.COM

I. HALCYONAGRI.COM

Service and safety are top priorities

Euroports Terminals Ghent



All photos courtesy of Euroports Terminals.



BULK MUSTIQUE DELIVERING
POTASH TO EUROPORTS
TERMINALS GHENT.

At Euroports Terminals Ghent, there are three things of vital importance: quality, health & safety, and services that are customised to the needs of the customers.

For a moment, it looks as if winter has finally arrived by blanketing the quay at Euroports Terminals Ghent in snow. In reality, it is a thin layer of potash from a recently arrived shipment that is being unloaded from a Canadian bulk carrier. With surprising speed, the enormous cargo holds are emptied of their contents. And while the quay floor is already being cleaned by a sweeper, the product is stored safely in the warehouses, awaiting transport to locations all over Europe and further afield. It is just one of many shipments to arrive at one of the company's terminals each month.

Euroports is one of the largest port-infrastructure companies in Europe and Asia. Each year, it handles more than 60 million tons of bulk, breakbulk, containerised goods, and liquids. To do so, it uses a network of port terminals in strategic locations across Europe and Asia. One of Euroports' main strengths is the company's ability to offer supply-chain solutions that are completely customised to the client's wishes and needs, voices Sam De Wilde, Managing Director Euroports Belgium & France, who started with the company at the start of January. "Although I have only just began, it hasn't taken me long to see that there is an enormous amount of experience and passion in this company", he says. "One of the things this company prides itself on is its close relationship with its customers. They feel at home at our company."

All-Weather Terminal

Euroports operates twenty deep-sea terminals and six inland river terminals in countries like Finland, Spain, Germany, China, and Belgium. It also carries out



EUROPORTS TERMINAL MANAGER
GHENT PETER VAN DEN BROECK.



MANAGING DIRECTOR
EUROPORTS BELGIUM & FRANCE
SAM DE WILDE.



EUROPORTS IS WORKING ALONG WITH ARCELORMITTAL, PARTICIPATION COMPANY FLANDERS (PMV), AND NORTH SEA PORT TO BUILD AN ALL-WEATHER TERMINAL.

customised supply chain solutions on customer locations. This can vary from operating a terminal facility on the customer's premises or providing equipment and manning to unload trains. One of the onsite operations in Ghent is at steel and mining company ArcelorMittal. It is also the location of an exciting new project: an All-Weather Terminal (AWT). Euroports is currently working along with ArcelorMittal, Participation Company Flanders (PMV), and North Sea Port to build this first covered loading dock and warehouse in Ghent. The new AWT is financed and owned by AWT Ghent, which was established by PMV and European Projects Investment Company EPICo. Euroports will be responsible for the operational implementation for flows from, to, and within the AWT. "The AWT is perfect for certain weather-sensitive shipments. ArcelorMittal receives certain types of steel that cannot be exposed to rain", comments Peter Van den Broeck, Euroports Terminal Manager Ghent. "This terminal allows us to safely unload the steel and other weather-sensitive cargo, without having to keep a close eye on the weather and stopping operations when it starts raining."

Value-Added Services

One of Euroports' secret weapons is the Value-Added Services it offers customers. These include an entire range of specialised, tailor-made solutions such as sieving, blending, bagging, packaging, sampling, washing and repair, quality control, container stuffing, and more. "It is a very effective way to add extra value for our customers. If a product is damaged or contaminated by something else, we can restore it to its original state or filter out the contamination", says Mr Van den Broeck. "For instance, we have a customer who sells fertiliser in South America, but the customers over there accept only fertiliser granules that are between 2-4mm. We can filter out the approved size and the smaller and larger granules can be sold to other customers. It takes real expertise to get this done in the proper way." In another example, Euroports also takes in waste products from a German company, which it then processes to filter out certain fertiliser components which, in turn, can be sold again as fertiliser. "For every 2,500t of waste we receive, we filter out 500t of good-quality, usable product", adds Mr Van den Broeck. "In 2008, during the economic crisis, we made the conscious decision to invest in our machinery, so that we could offer these services and this kind of quality to our customers to differentiate ourselves from other terminals. It



THE ALL-WEATHER TERMINAL IS THE FIRST OF ITS KIND IN GHENT AND ALLOWS WEATHER-SENSITIVE CARGO TO BE UNLOADED SAFELY.

“ If a product is damaged or contaminated by something else, we can restore it to its original state or filter out the contamination.

proved to be the right decision. Our customers frequently tell us that they choose to work with us because we are the only one that can solve any problem if and when it arises.”

Health and safety

Another way in which Euroports Terminals distinguishes itself is by its extensive health and safety programme. Both personnel and visitors at the terminals at all times have to wear safety boots, high visibility jackets, and helmets. Additionally, the company stimulates the use of safety glasses as part of the standard work uniform. "We want to make sure that everyone who works here gets to go home safely at the end of the day", says Mr De Wilde. "Our Lost Time Injury Frequency Rate has significantly decreased since 2013, and we would like to see a further reduction. Compared to other companies in this sector, we are doing well in terms of health and safety, but we believe there is further room for improvement. We are aiming for a



EUROPORTS OPERATES TWENTY DEEP-SEA TERMINALS AND SIX INLAND RIVER TERMINALS IN COUNTRIES LIKE FINLAND, SPAIN, GERMANY, CHINA, AND BELGIUM.



BULK CARGO IS UNLOADED AND STORED SAFELY IN THE WAREHOUSES, AWAITING TRANSPORT TO LOCATIONS ALL OVER EUROPE AND BEYOND.

similar safety culture to, for instance, chemical plants.” While Euroports Terminals meets multiple, internationally recognised standards and has earned the corresponding certifications, it also places great emphasis on training its staff and convincing them of the importance of the safety procedures. “It used to be that people wore a helmet, because their bosses ‘made them wear it’. We want to ensure that our employees understand the importance of good safety practices for their own sake”, comments Mr Van den Broeck. “They need to value it as much as we do, and it has to become part of their every-day routine.” In order to do so, Euroports has created a working environment in which people are able to hold each other accountable. Staff takes a collaborative approach to setting targets, monitoring performance, and determining how to best operate. “Every staff member has the duty and the right to stop operations if they feel it is unsafe, either for themselves, for others or, for instance, due to environmental reasons. If they feel it’s not safe, we won’t continue. We will investigate, discuss, and determine how to proceed”, states Mr De Wilde. “Our first priority is to avoid incidents from happening. However, if something does happen, we want to avoid it happening again. Each incident is discussed at all levels of the company, from management meetings to locally in the terminals, so that we can learn from the incident and where necessary, change our safety protocols.”

Looking to the future

The high standards that Euroports Terminals has set for the company and its staff are paying off, with more and more demand for their services, concludes Mr Van den Broeck. “While we obviously want to grow, we don’t want that growth to compromise the quality that we offer our customers. Our goal is not to be the biggest, but to be the number one company in offering quality services”, he explains. “We don’t want to become so big that we have to compromise on quality, health, and the safety of our staff and the environment, or that we are no longer able to roll out the red carpet for our customers. They feel at home with us and we want it to stay that way.”



North Sea Port,

**the 60 kilometres long cross-border port area stretching from
Vlissingen over Terneuzen in the Netherlands to Ghent in Belgium**



1,000 hectares of industrial sites available to investors.

Accessible from the North Sea for deepsea navigation until 32 km inland.

Directly linked with the European network for road transport, inland navigation, rail and pipelines.

Specialist in dry bulk, general cargo, offshore and food.

Europe's number 3 as for added value.

Europe's number 10 concerning seaborne cargo traffic.



northseaport.com

FIRST SPADE IN THE GROUND. FROM LEFT TO RIGHT, TOINE JANSSEN, POLYSTYRENELOOP PLANT MANAGER, SASKIA GOOLE, SITE-MANAGER ICL - IP TERNEUZEN AND LEIN TANGE, DIRECTOR POLYSTYRENELOOP COOPERATIVE.



First spade in the ground

A start was made with the new common entrance road for PolyStyreneLoop and ICL-IP.

Photo courtesy of PolyStyreneLoop Cooperative

PolyStyreneLoop Cooperative will build the plant as PolyStyreneLoop in Terneuzen, Netherlands. The company aims to set up a demonstration plant for recycling polystyrene foam construction waste (both EPS and XPS) containing the legacy chemical HBCD and (H)CFC's. It will separate and destruct the obtained HBCD and will recycle and sell polystyrene beads (PS) compliant to the POP regulation described in the Basel Convention. The separated HBCD, will be destroyed and the bromine recovered in the Bromine recovery unit (BRU) based at ICL, Terneuzen. This phase 1 initiative is about demonstrating the viability of recycling this construction waste and when successful, a roll-out to different locations in Europe is foreseen.

Upcycling

The flame retardant HBCD, used in foam insulation boards for decades, is now considered a contaminant. This means that millions of tons of PS foam waste can no longer be regularly recycled. A best practice for the handling of this waste is needed. With the CreaSolv Process used by PolyStyreneLoop, an industry-scale recycling process for PS foam demolition waste containing HBCD will be developed. This technology has been accepted by the UNEP Basel Convention as a best available recycling technology to handle HBCD waste.

The PolyStyreneLoop Cooperative now has more than 70 members and supporters from 18 EU countries, representing the entire polystyrene foam value chain. It is a new model for value chain cooperation in recycling. EPS and XPS demolition waste coming from buildings that were insulated with EPS/XPS before August 2015 all contain a now banned POP substance, rendering all this EPS unrecyclable. Members of the cooperative from the recycling and demolition sector collect and pre-treat the material before it is treated by PolyStyreneLoop, while members from the raw material supply branch will take the 100% recycled PS and will use it again in construction applications, as feedstock for extrusion of EPS beads, or via continuous XPS foaming. It is the first time in Europe that a two-step solvent upcycling factory is realised. The process is a solvent-based purification and therefore physical recycling.

Pre-treatment technology

Plastic wastes are selectively dissolved using a specific proprietary solvent formulation. This dissolution is a physical

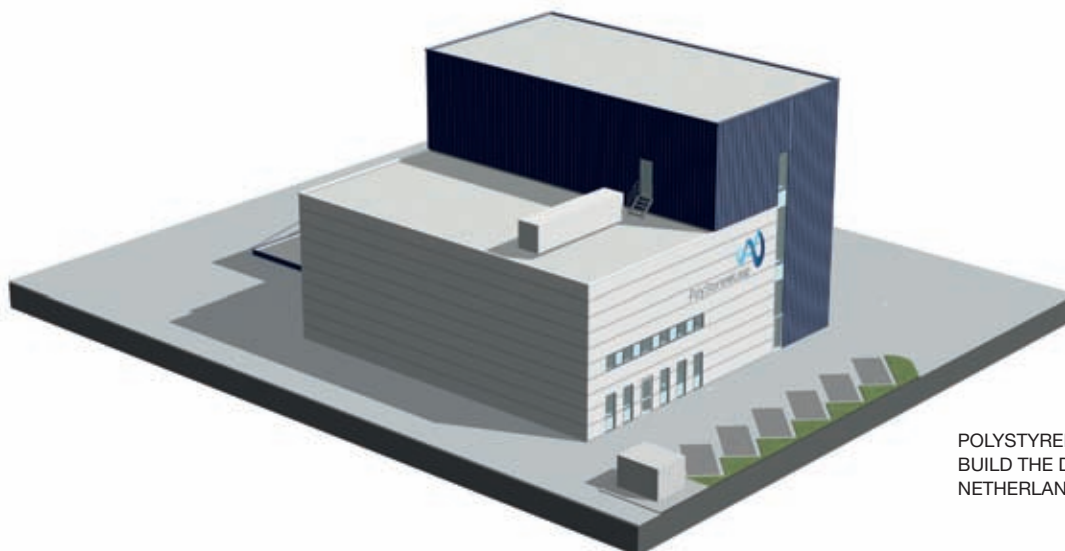


UPCYLING TO HANDLE WASTE.

separation process. It is a pre-treatment technology, which has the potential to recover polystyrene and separate them from legislated additives (like HBCD). The process consists of three steps. Steps 1 and 2 are pre-treatment for step 3. First, the PS foam waste is dissolved in tanks containing a PS-specific liquid. The solid impurities (like adhesives, dirt and cement) are separated through filtration and then incinerated. Next, another liquid is added, which transforms the PS into a gel, while the additive (HBCD) stays in the remaining liquid. The PS gel is then separated from the process liquids. Once cleaned, this gel is transferred via a devolatiser and extruder into granulated polymer polystyrene. The liquid, still containing the additive, is distilled and re-used in a closed loop while the additive (HBCD) remains as sludge. This process is followed by the destruction of the HBCD additive within the sludge in a high temperature waste incineration at 1,100°C. During the last step, the elemental bromine, used for modern flame retardants, is recovered and can be reused to produce new products, thus closing the bromine loop.

The applied technology turns PS foam waste into new high-quality raw material. During the recycling process, all impurities, such as cement or other construction residues, as well as the flame retardant HBCD are safely removed and destroyed, while the valuable polystyrene and bromine are recovered.

I. POLYSTYRENELOOP.ORG



POLYSTYRENELOOP COOPERATIVE WILL BUILD THE DEMO PLANT IN TERNEUZEN, NETHERLANDS.

Ready for future challenges



All photos courtesy of Limit Fotografie

Pfauth Logistics celebrates its 45th anniversary this year. With the acquisition of an additional 15,000m² large terrain, the family-owned company has made an important step in facilitating the growth of existing and new customers. Managing Director Hans Pfauth will soon hand over the helm to his son Robbert.

Part of the North Sea Port area that many know as Vlissingen-Oost originates from the end of the Sixties. In those days it was created as a large industrial complex meant to lower the high figures of unemployment in the region. Starting with the Sloehaven as the first port basin, the area started to expand to its current size. In doing so, the port enclosed all surrounding activities. Founded by Jan Pfauth in 1975, one of the companies that saw the port getting closer each year was Pfauth Logistics. His decision to start the company was based on the experience he built as freight forwarder and the opportunities he saw in serving the newly founded process industry in Vlissingen-Oost, with companies such as Hoechst, Pechiney, Billiton (the current company Arkema) and Total Refinery (currently Zeeland Refinery). He also expected that the growing sea trade would require extra storage and transport facilities.

Expanded client base

Today, Pfauth Logistics is managed by Hans Pfauth and his son Robbert. Through the years, Hans, who joined the company in 1980, saw Vlissingen-Oost change from an industrial complex into a logistics hub. Looking back, he states, "A lot of the industrial companies were not able to survive the fierce foreign competition and had to close down. Some of them could reorganise as a smaller entity with new activities, others were

ROBBERT PFAUTH (L) WILL SOON TAKE OVER THE HELM OF HIS FATHER HANS PFAUTH (R) AS MANAGING DIRECTOR OF PFAUTH LOGISTICS.



EVERYONE KNOWS WHAT A TRUCK DRIVER DOES, BUT A LOT IS GOING ON BEHIND THE SCENES AS WELL.



WITH A NEW WAREHOUSE SOON TO BE COMMISSIONED, COVERED STORAGE EXPANDS FROM 7,000M² TO 11,500M².

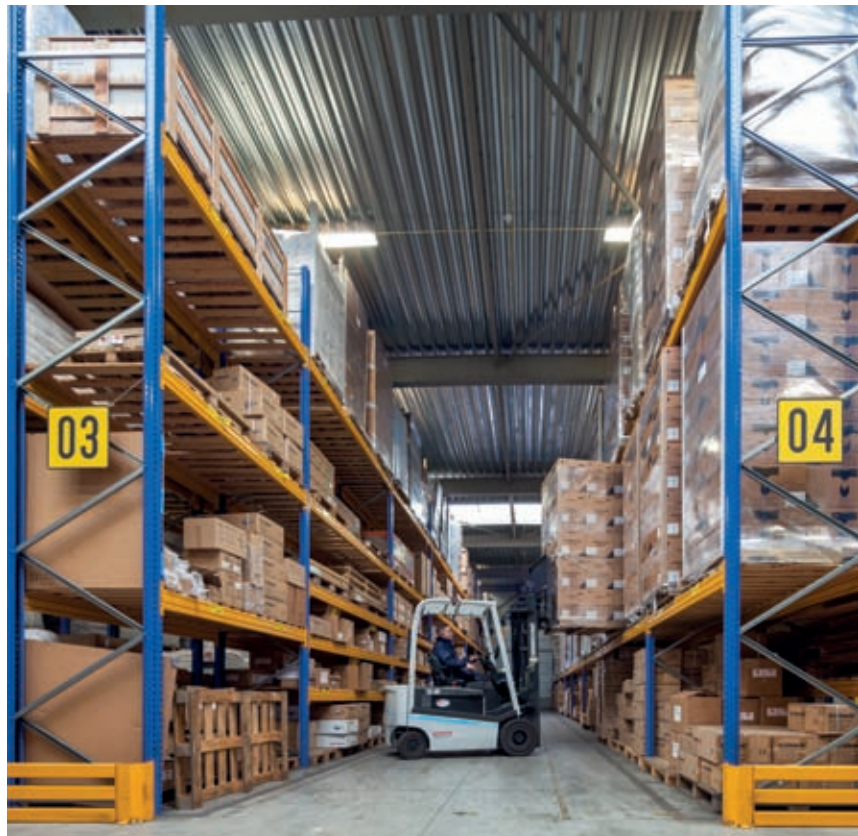
able to successfully continue business. Throughout these years, a lot changed for our company as well. I joined the company in 1980, with the aim to follow in my father's footsteps. In the early days our customers were mainly local customers, but over the years we have expanded our customer base towards the port of Rotterdam and Antwerp. We have kept our focus on the petrochemical industry and the storage of dangerous goods related to this industry but apart from this, our growth is also a result of business from other segments. In 2009, because of the reduced industrial activities in the port area, we made a move towards business from international trade companies and today the largest part of the goods that we take care of is imported, with the port of Antwerp as main hub."

We always find a way

Robbert Pfauth started to work at the company in 2011 as third generation and as proposed predecessor. He tells, "We have over the years grown into a full-service logistics service provider, offering storage and transshipment facilities, transport, and expedition services and we also act as independent customs broker. For the latter activity, we have a partnership with customs service provider Gaston Schul who has two employees housed at our office." "In a way, we can be considered as rather unique", his father adds. "Though located in a port area, our activities are not water related. We are not aiming for large cargo packages, but are acting on a container size level. Although our company might have grown in volume and capacity throughout the years, our strength still lies in a high level of flexibility, acting through short communication lines and with a highly responsive attitude." There is a reason behind Pfauth's credo of 'We always find a way'. "In our daily practice, giving advise to our customers is the common thread", says Robbert. "By talking with and listening to our customers, we try to find a suitable solution. When we are not capable ourselves, we do not fear to search for a third party to find answers to our customers' challenges. For them, it is good to know that with us, they have one point of contact they can rely on. Making use of third party specialists gives us the possibility to offer services such as the handling and storage of tank containers, project cargo, and the arrangement of air and sea freight shipping. Even repackaging services can be offered."

Reassuring

The process industry is still very important for Pfauth. As Robbert explains, "We are able to store raw materials, as well as end products for the process industry. We have grown into



THE LARGEST PART OF THE GOODS IS IMPORTED NOWADAYS.

a valuable service partner, as we have build up a tremendous amount of knowledge and experience in the field of storage, handling, and transport of delicate and dangerous goods. This way, we not only know how to deal with these products ourselves, we can also advise our customers on this matter.



PFAUTH LOGISTICS, LOCATED IN NORTH SEA PORT SINCE 1975, IS CELEBRATING ITS 45TH ANNIVERSARY THIS YEAR.

Apart from this, working with dangerous goods has made our working methods very structural and efficient, which is also highly reassuring for customers from other markets. Our structural way of working is embedded in ISO and AEO certifications. In fact, we were one of the first companies that was granted the AEO (Authorised Economic Operator) certificate by Dutch Customs as a proof of our company meeting various safety criteria. For keeping up-to-date with the ever-changing rules and regulations on safety, it is very important for us to constantly have our people in the loop through, for example, training and education. We put ample effort into keeping our facilities in line with the most recent requirements.”

Dedicated to its role

According to Hans, this way of working has resulted in a broad range of loyal customers. “Our customers,” he states, “are loyal to us because of our 24/7 service and the way we help them to deal with their challenges. Our team, which currently consists of thirteen people, is very dedicated to its role and has a high sense of responsibility. Although everyone is a specialist in his or her field, everyone will step in whenever a colleague needs help. For me, it is good to mention that this sense of community is also a reflection of a great employer loyalty. All team members are doing their utmost to make our company a success. For the outsider, the actual logistic activities such as loading, transporting, and storing is visible. Everyone knows what a truck driver does, but a lot goes on behind the scenes as well and this should not be forgotten, as this is just as important as the other parts of the job.”



PFAUTH LOGISTICS HAS BUILT UP A TREMENDOUS AMOUNT OF KNOWLEDGE AND EXPERIENCE IN THE FIELD OF STORAGE, HANDLING, AND TRANSPORT OF DELICATE AND DANGEROUS GOODS.

Next generation

Pfauth recently took large steps to enlarge its storage facilities. With the expansion, the company’s facilities grew from 10 to 25 hectares. Covered storage expanded from 7,000m² to 11,500m². Hans explains, “In order to meet growing demand from the market, we had three priorities. First, we wanted to acquire extra terrain for expansion. When this was a fact, we wanted to raise a new warehouse, enabling us to enlarge our covered storage. This warehouse will soon be ready for use. Therefore, two out of the three priorities have been accomplished. Our third and last priority in this matter was, and still is, to seek ways to fill the additional storage capacity. What we will do with, for example, the remaining open space highly depends on the opportunities in, and demand from, the market.” With an enthusiastic team and a modern and extensive storage facility, Pfauth Logistics is future-proof and the next generation will soon be ready to take over the helm from Hans. “Since 2011,” Robbert states, “I have been working in various roles, which gave me the opportunity to learn all aspects of our business. I witnessed various matters change in line with a modern organisation, such as a further digitalisation of processes. As the natural successor of my father and grandfather, it is my intention to continue what they have founded: a family-owned company that can only be successful with the efforts of the entire team. Just like Hans and his father, it is my goal to be in, and not above, the team and to work as one to keep our company healthy and capable in coping with future challenges.”



“A port needs to grow. It has to be dynamic. Standing still is the same as deteriorating”, says Sandra De Mey, Promotion Council North Sea Port Board Member.

Sandra De Mey: “It is my job to build bridges and link people”

For pretty much her whole life, Sandra De Mey has explored every corner of the port of Ghent. She has in recent years expanded her terrain to the entirety of North Sea Port. This is why she is so excited about her newest challenge: Board Member of the Promotion Council North Sea Port.

According to Sandra De Mey, Einstein said it best when he stated: “It is not the strongest of the species that survives, nor the most intelligent; it is the one most adaptable to change.” This statement is certainly true when it comes to the future of North Sea Port, says the newest Promotion Council North Sea Port Board Member. Following the merger two years ago, great strides have been taken to unify the ports of Ghent, Terneuzen, and Vlissingen, but more work needs to be done. “I always compare North Sea Port to a book on a bookshelf. It has a title and a beautiful cover, but half the pages are empty because the story is still being written”, explains Ms De Mey. “The merger into North Sea Port was the right decision, even though it was a big change. A port needs to grow. It has to be dynamic. Standing still is the same as deteriorating, both for the port as a whole and for the companies and people working in it.”

Walking the streets

For more than 27 years, Ms De Mey worked for the Port of Ghent. Following the merger into North Sea Port two years ago, she is now Commercial Manager, responsible for Agri & Biofuel, Chemical, Oil & Petroleum, and Non-Containerised Food. In all, this amounts to almost thirty years of port experience. But her love for all things port-related started much earlier than that. “I grew up in the small port town of Oostakker, which is a borough of Ghent. We were always playing in the port and I was just fascinated by it”, she shares. “We had to do an internship at school, and I wanted to do mine at the Port of Ghent. As soon as I started, I knew I wanted to work there.” Upon landing her coveted job, she was thrown straight into the proverbial deep end. “When I started, my boss told me that I would spend every day of my first year in the port, meeting every ship that had just arrived and handing them a welcome pack”, recalls Mr De Mey.

“I was a shy 21-year-old girl who knew what a ship looked like, but knew nothing of port life. But I learnt quickly. I would visit eight to ten ships a day and meet all these different nationalities, including other port professionals. I had so many adventures and have so many good stories, including the one about a Chinese sailor who tried to lock me into his cabin.” It proved to be the perfect introduction into port life. “I have never stopped ‘walking the streets’, as I like to call it. As a result, I have a fairly good idea what is going on in the port.”

Bigger playing field

It is this knowledge of the port that led to her appointment to Board Member of the Promotion Council North Sea Port. She was recommended by North Sea Port CEO Daan Schalck. “I am relishing this opportunity”, states Ms De Mey. “My playing field has just become even bigger. I am really looking forward to it, as I realise there is still a lot of work that needs to be done.” She says people should see the Promotion Council as a valuable instrument for the entire port area. “It gives people access to all companies operating in the port. Most companies don’t know what their neighbours do, which is a real shame. It is understandable, because each company is working hard on its core business and that doesn’t leave much time to see what others are up to.” But that is exactly where the Promotion Council can play such an important part. “I see it as my job to listen to what is going on and to link people. I am always placing people together because I think they can benefit from one another. That is when magical things happen. I joined the Promotion Council to do the same: to build bridges and link people.”

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STORA ENSO'S LANGERBRUGGE MILL IN GHENT.



All photos courtesy of Stora Enso

Converting sugar into plastic at Stora Enso

Stora Enso is investing EUR 9 million to build a pilot facility for enabling the production of bio-based plastics as barrier in transparent packaging.



The pilot plant will convert plant-based sugars into the renewable building block required to make PEF, a bio-based plastic, mainly targeting the food and beverage industry. The pilot plant will be located at Stora Enso's Langerbrugge Mill in Belgium.

The investment in bio-based chemistry further strengthens Stora Enso's opportunities to replace fossil-based materials with renewable and recyclable materials. The pilot plant will focus on developing a cost-competitive process for manufacturing FDCA (furan dicarboxylic acid) from sugars. FDCA is a key component of the bio-based barrier material PEF (polyethylene furanoate). In addition to its renewable nature, PEF's attractive barrier, mechanical, and thermal properties open up new packaging opportunities, such as small liquid containers for soft drinks, juices, and other beverages.



FDCA CRYSTALS ARE A KEY COMPONENT OF THE BIO-BASED BARRIER MATERIAL PEF.



DIRK DEN OUDEN, VICE PRESIDENT, EMERGING BUSINESS IN DIVISION BIOMATERIALS, STORA ENSO.

Bio-based materials are of rapidly growing interest in the packaging world, as companies look for sustainable packaging materials with high performance. With the pilot, Stora Enso continues to build on its long-term R&D work while targeting new markets with innovative, renewable materials that replace fossil-based materials. Because the company believes in synergy, it is looking forward to expanding its cooperation within the field of bio-based chemicals.

Running on sugar

Stora Enso's pilot aims to validate the chemical process and provide sample material to gain further insight into market need and product demand. The pilot facility will initially use industrially available fructose to produce high-value chemicals and materials for application testing. In the future, the intention is to run the process on sugars extracted from wood and other non-food biomasses.

The new pilot project will be run by Stora Enso's Biomaterials division. The Langerbrugge paper mill provides space and infrastructure for hosting the facility. The Ghent area in Belgium is also home to a large number of chemical production sites. The design and engineering of the pilot facility have started and construction will begin in the second half of 2020. The plant is estimated to be ready in the first quarter of 2021. Decisions about commercialisation will follow after evaluating the results of the pilot-scale production.

Stora Enso's Langerbrugge Mill is one of the largest paper mills in Europe, producing 540,000t of recycled newsprint and magazine papers annually. The production is exclusively based on paper for recycling. The pilot plant investment will not impact the mill's paper production.

I. STORAENSO.COM

Interview with Dirk Den Ouden, Vice President of Emerging Business in Division Biomaterials at Stora Enso

Q: What are the results that Stora Enso's Biomaterials division hopes to achieve with the pilot project in Ghent?

A: "We at Stora Enso believe that everything that is made out of fossil-based materials can be made out of renewable materials tomorrow, and this pilot facility is yet another proof point of our innovation work. With the pilot facility we are building on our long-term R&D work in bio-based chemicals. By running pilot efforts like this one, we will be able to explore new markets, new customers, new products, and new processes for the company. The FDCA pilot in particular allows us to prove the process we have developed and to create sample materials for future customers."

Q: If the pilot works out well, what are the plans for the future?

A: "The global packaging market is growing and rapidly changing, especially due to the demands of the eco-conscious consumers, the growth of the middle class, and the mobile lifestyle. Brand owners in today's circular bioeconomy are furthermore increasingly searching for more sustainable materials. Our innovation has already gained a lot of interest from the market and we will continue R&D cooperation with customers during the pilot phase. The way in which we have designed the pilot allows for

a direct scaling to industrial production, if so decided. Decisions about commercialisation will follow after evaluating the results of the pilot-scale production."

Q: What are Ghent's strong points as a location for the company?

A: "Stora Enso's Langerbrugge Mill already comprehends a large paper mill. The mill is able to host adequate space and capacity for the pilot plant, and also for an industrial scale plant if that were to materialise in the future. The mill's existing infrastructure (operations, engineering support, safety networks, utilities, and facilities) is a great asset."

Q: Is synergy with the other chemical production sites in the area important?

A: "Yes, that's one of the other drivers for selecting Ghent as the location, as the Ghent/Antwerp area is home to a large number of chemical and petrochemical production sites and thus a relevant area for the expertise required to successfully run such chemical pilot operations. We also expect to work closely with companies, research centres, and academia in the region, all possessing great expertise relevant to our project."



Photo courtesy of Scherp! Fotografie

Ready for the job!

Ørsted's first Dutch O&M base becomes operational

The Danish renewable energy developer Ørsted is working hard on realising its first Dutch offshore windfarm Borssele 1&2. The Operations & Maintenance Centre for the windfarm was recently inaugurated in North Sea Port's Buitenhaven, also marking the official start of construction works of this 752MW offshore project.

Construction of the base started in 2018 and concludes a total floor area of 2,100m². This space will be used for offices, a workshop, and warehouse facilities. The centre will act as a base for the inspection and maintenance of the windfarm that is presently under construction and lies 23km from Westkapelle (Zeeland). It will furthermore operate as a 24/7 control and monitoring centre.

Self-reliant

Ørsted tried to rely as much as possible on the local industry for the construction of the O&M base, with Cordeel acting as main contractor. As a provider of renewable energy, Ørsted put ample effort into making the centre as sustainable as possible. The building has solar panels. No natural gas will be used for heating the complex and residual heat from the servers will be used for heating the warehouse. High rate isolation material is



NORTH SEA PORT WAS RESPONSIBLE FOR THE MARINE INFRASTRUCTURE AND THE REALISATION OF THE JETTY, WHICH WILL PROVIDE SPACE FOR FOUR VESSELS.

All images courtesy of Ørsted unless states otherwise.



Photo courtesy of Scherpl! Fotografie

STEEN CARSTEN LARSEN, HEAD OF OPERATION FOR THE BORSSELE 1&2 OFFSHORE WINDFARM AT ØRSTED (LEFT) SYMBOLICALLY RECEIVES THE KEY OF THE NEW O&M BASE FROM HENRIK EGHOLM, EPC DIRECTOR FOR BORSSELE 1&2 (RIGHT) AT THE INAUGURATION OF THE O&M BASE IN VLISSINGEN.

used and shore power for the vessels will also come from solar panels. The entire facility will hence be completely self-reliant for power. North Sea Port was responsible for the marine infrastructure and the realisation of the jetty, which will provide space for four vessels. Ørsted plans to standardly have two vessels ready for operation. Around 40 technicians will operate from the O&M base and their work will be facilitated by a 10-20 office staff, a 15-20 vessel crew, and a helicopter team. The technicians will in most cases be taken to the offshore windfarm by vessel and sometimes, for instance when wave conditions are bad, people will be transported by helicopter from Zeeland Airport, which is located only a fifteen minute drive from the location in the Buitenhaven.

Training at other windfarms

Steen Carsten Larsen is Head of Operations for the Borssele 1&2 Offshore Windfarm. He was closely involved in the

realisation of the O&M base, as well as in the preparations for the start of the windfarm's construction. Now that the O&M base is ready, this does not mean that work for Mr Larsen and his team has now been put on hold until the first power is produced from the windfarm. "First of all, the construction of the windfarm will be partly managed and coordinated from our base", he explains. "And of course, we already started to train the people for their future job on the Borssele windfarm. Recruiting the people began in 2018 with the assistance of Oceanwide, and we are now training the technicians at one of our existing offshore windfarms in UK and Germany, so they will be ready for their job as soon as Borssele 1&2 becomes operational." And according to Mr Larsen, there is a lot more to do. "We are currently preparing our base for the actual work, for example by filling the warehouse with spare parts and necessary tools. We also help Siemens Gamesa with their preparations, as they will also make use of our facilities. The turbines for our windfarm are provided by them and they will be responsible for maintenance in the first two operational years of the windfarm."

Lots of preparation

Mr Larsen has been working at Ørsted for seventeen years in various roles in the oil & gas industry, as well as in offshore wind. With this experience, he is very capable of explaining the difference between working offshore in both industries. "Working in the oil & gas industry cannot be compared with working in the offshore wind industry. In both situations you obviously have to deal with the harsh circumstances at sea, but this is more or less the only resemblance. Working offshore in oil & gas means you are away for weeks. There are various roles you can fulfil on a platform. As a matter of fact, you are working in a factory at sea. In the offshore wind industry, things are different. Once operational, work on the wind turbines is mainly executed by maintenance technicians. They inspect the turbine, they maintain and, when necessary, carry out repairs. They usually work at sea for eight hours on average, and return to their home and family every day. On the other hand, every time you leave the O&M base for your job

“ When Borssele 1&2 becomes operational by the end of this year, we will all be ready for our job!

on the turbines, it requires lots of preparation. Once you are at sea, you cannot afford to forget a certain piece of equipment or spare part, as space inside the turbine for keeping parts on stock is limited. And it would of course take too much time to return to the base to collect your missing items.”

Fishing in the same waters

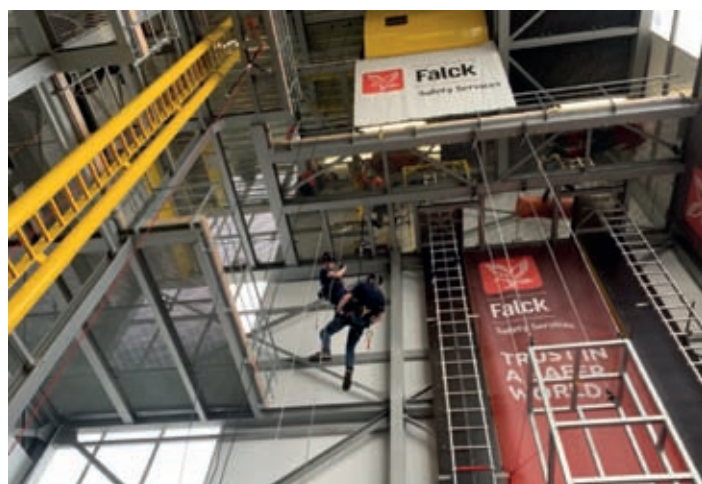
By working in Vlissingen, Mr Larsen has learnt to appreciate the Dutch people. “From my point of view and looking at things that are relevant to us, there is a lot of similarity between the Danish and Dutch people. Due to Denmark’s long history in offshore wind, there is obviously a lot more knowledge and experience. The educational level and skills of the Dutch are however excellent, both on secondary vocational level (the Dutch mbo) and higher professional educational level (the Dutch hbo). The educational institutes in Zeeland, such as Scalda and HZ University of Applied Sciences, offer first-class courses for everyone who wants to work in the offshore wind industry. Being closely involved with the recruitment, there is one difference with his experience at other offshore wind projects that truly stands out for Mr Larsen. “When we were recruiting people for our UK windfarms, people were lining up by the dozens. This is surely not the case today, as many industries are fishing in the same waters for scarce technicians. But with the enthusiastic efforts from our partners Oceanwide, Scalda, and HZ, we are currently working towards a skilled and reliable workforce. So when Borssele 1&2 becomes operational by the end of this year, we will all be ready for our job!”

I. ORSTED.NL

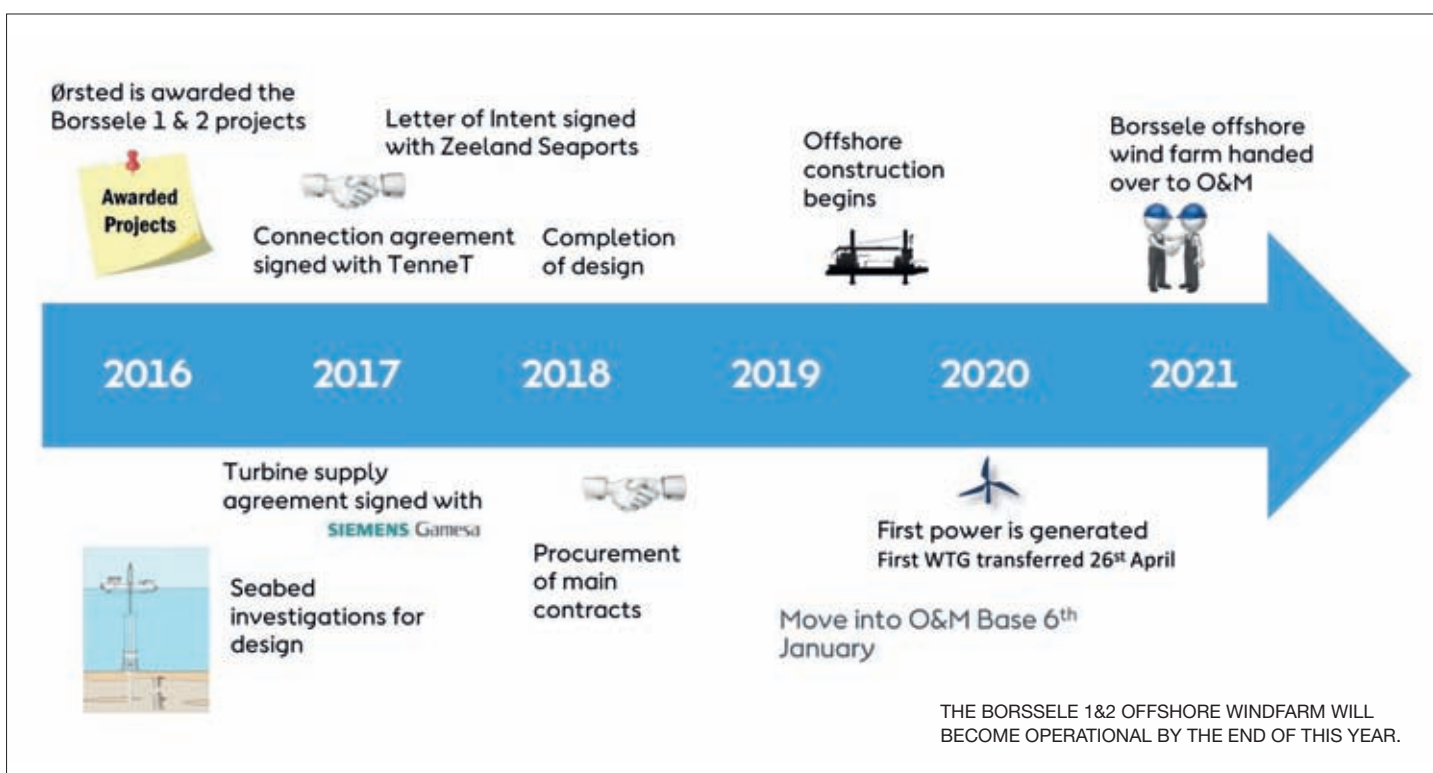


Photo courtesy of Ørsted/Sky Pictures.

BORSSELE 1&2 OFFSHORE WINDFARM IS PRESENTLY UNDER CONSTRUCTION AND LIES 23KM FROM WESTKAPPELLE (ZEELAND).



ØRSTED ALREADY STARTED TO TRAIN THE PEOPLE FOR THEIR FUTURE JOB ON THE BORSSELE WINDFARM.





TH49 DURING THE VAN LOON HARDZEILDAG, AN ANNUAL RACE FOR HISTORICAL WOODEN SHIPS SUCH AS HOOGAARS AND HENGST.

All photos courtesy of Stichting Behoud Hoogaars

Stichting Behoud Hoogaars

Sailing heritage of the Scheldt delta

In 1900, over 1,000 fishing vessels sailed around the estuary of the Western Scheldt and the broader Scheldt delta. They were wooden, flat-bottom ships, well-suited for shallow waters.

One of the most common types was the 'hoogaars', which literally translates to high-arse – aptly named after the vessel's remarkable high stern.

There were several varieties of the hoogaars, including the 'hengst', or stallion; a sturdier, broader type of ship with a steeper bow and stern that was generally built in Flanders.

As steel ships and steam engines became more and more common, wooden sailboats such as hoogaars and hengst went out of service. Over time, their numbers decimated until they virtually disappeared.

Starting small

Three passionate friends in the Vlissingen region decided to try and save this sailing heritage from oblivion in 1990. They founded the Stichting Behoud Hoogaars (SBH), the foundation for the preservation of the hoogaars, to document everything that was still known about them.

During those first years, SBH's main goal was to gain publicity, both for the foundation and for the term hoogaars, which had faded from collective memory. They were not actually intent on owning a ship. When the owner of the Yerseke-based mussel fishing vessel Andries Jacob, or YE36, heard about the SBH, he asked them to buy his

ship. Hesitant at first, the founders of SBH eventually decided to purchase the YE36 to prevent it from being scrapped.

A growing fleet

The SBH grew quickly – and the ships kept coming, too. In 1995, the foundation acquired the TH49, a hengst, followed in 1997 by the Alcyon. Alcyon is a hoogaars, but built in yacht-style, as a leisure craft. Together, the three ships can be seen as a cross section of the types of vessels that used to frequent the waters of the Scheldt delta. Since then, five more vessels have been added to the foundation's fleet. Botje, Brutus, and Twee Gebroeders are traditional wooden sailing dinghies. Then there is Luctor et Emergo, which is not technically a hoogaars either. Yet since this so-called Zeeuwse schouw used to serve as a sounding boat for the regional water authority and was used to evacuate people during the great 1953 inundation of Zeeland, SBH still recognised her historical significance. The latest addition is Boreas, a so-called steekhengst. This type of fishing vessel was commonly used for salmon fishing on the rivers that flow into the Scheldt delta.

Woodwork

All eight ships are wooden vessels, requiring (nearly) infinite maintenance and care. Most were in extremely poor condition when the foundation acquired them, so they made for great, yet challenging, woodworking projects. They were restored to their former glory by the numerous volunteers that have committed themselves to the foundation over the years. The volunteers (130, at present) also sail the ships during the summer season, organise events, take care of publicity, and carry out maintenance, especially in the winter.

BUILDING PLANS FOR THE NEW BOATYARD IN VLISSINGEN.



Since the maintenance work on the hulls and rigging provides a wonderful opportunity to keep ship carpentry craftsmanship alive, SBH is cooperating with local education institutes to facilitate a ship carpentry education programme.

Permanent location

The Stichting Behoud Hoogaars used to keep their boats at the historical shipyard Meerman in Arnhemuiden. However, as the fleet grew, they ran out of space. During the last years, the foundation did not have a fixed location to get its ships out of the water for maintenance work and winter storage. Instead, they worked from temporary bases, the last one being the Machinefabriek in Vlissingen. Last year, it became clear that 2020 would be the final year the SBH can use the Machinefabriek. To the foundation's management, it was clear that they needed to find a permanent solution.

In summer, the sailboats have fixed berths next to the locks in Veere, so something in that vicinity seemed ideal for a dedicated boatyard. The foundation seemed close to a solution when the municipal council of Veere came up with a development plan for Veere's waterfront, including a small harbour for historical ships where the desired boatyard could be built. The plan's realisation became uncertain, however, when new aldermen were installed following elections. It is not off the table, but getting the green light could take another five to ten years.

SBH Loods

Stichting Behoud Hoogaars could not wait that long. Instead, they found a suitable plot of land available in the Binnenhaven in Vlissingen. After receiving the municipal council's approval, a contract was signed in 2019 for the construction of a boatyard there. Thanks to SBH's conservative approach to donation use, they have managed to build up enough savings to pay for the building's construction. Construction commenced in January 2020. The building, called 'SBH Loods', should be completed this summer. It provides enough space

Raising funds

The Stichting Behoud Hoogaars relies on the generosity of sponsors to facilitate its existence and activities. Due to the construction of the SBH Loods, the foundation is in dire need of sponsoring. Amenities such as toilet units, racks for wood storage, exhaust systems for the woodworking machines, shelves, and a paint locker all need to be purchased, as well as regular furnishing.

Various types of sponsoring are possible:

- Ship rental: All ships of the foundation can be rented for (half) day sails during summer season (mid-April to mid-October), including crew and (if requested) catering. Vessels can be rented for a wide range of events, such as staff parties, family trips, and networking and teambuilding events.
- Financial donations: One of the options is donating (the funds for) specific amenities that SBH needs for their new boatyard. Another is to symbolically purchase a square metre of the land the SBH Loods is situated on, for EUR 125 per m². In return, the donors' name will be included on the 'Wall of Fame' in the SBH Loods.
- Regular donors: Anyone that annually donates EUR 24 or more receives SBH's magazine twice a year, as well as Consent, a magazine on the history of fishery and ships in the Scheldt delta region once a year. Regular donors are also invited to sail on board of one of the foundation's vessels during one of the annual donor days.
- General sponsor: Stichting Behoud Hoogaars is also looking for a general sponsor.

for the maintenance of all ships, in turns (three at a time). The upper level will feature a canteen and storage space for rigging supplies, sails, tools, and equipment.

The foundation also plans to offer boat storage to third parties, preferably other wooden ships.

The SBH Loods will not merely provide a place for the storage and maintenance work of ships. SBH plans to host trainings, meetings, and social events for its volunteers in the building, too. Their ambition is to open the yard to the public, so that tourists and locals alike can become familiar with the region's sailing heritage and traditional craftsmanship.

I. HOOGAARS.NL



MAINTENANCE ON ONE OF THE SHIPS AT THE MACHINEFABRIEK.



SOME OF THE FOUNDATION'S SHIPS DURING A RE-ENACTMENT OF THE ENGLISH INVASION OF 1809 IN VEERE.

A smooth port visit

The shipping agent's role

Anyone working on cargo ships knows that there is a lot more to a port visit than simply coming alongside, unloading and/or loading, and departing again.

The procedures already start while the vessel is still at sea, off the coast. The port authority needs to be notified of the ship's arrival, pilot and tugboat services need to be arranged. The terminal needs to be ready with a berth available and linemen standing by on the quayside. Ship and cargo need to be cleared by customs, while crew and potential passengers need to be reported to immigration. Loading or unloading can then commence, which often occurs simultaneously with bunkering,

stores or other supply deliveries in order to make the visit as short as possible. Then there are things to be arranged for the crew; perhaps there is a crew change or a crew member needs to see a doctor or dentist.

All in all, the hours or days spent alongside are filled with ample formalities. Luckily for shipping companies (and vessel crews), that is where shipping agents come in. Shipping agents serve as a local partner for shipping companies, and they arrange and plan all the tasks listed above. With their broad knowledge of port formalities and large local network, shipping agents assist a ship's crew with virtually everything when in port.

Flushing Shipping Agencies

In North Sea Port, one of those agencies is Flushing Shipping Agencies (FSA). Based in the Bijleveldhaven in Vlissingen, FSA was founded in 2006. Between 2006 and 2016, the company merely experienced growth. What started as a two-person enterprise soon required another hand, and then another. FSA presently employs seven people.

With fruit as its core sector, FSA's location in the Bijleveldhaven is ideal. "When you look at the container and reefer vessels that currently frequent Vlissingen, we are exactly where we need to be," explains Dennis de Groot, General Manager at FSA. "We also have offshore-related customers, such as ships carrying wind turbine parts. That is a completely different business but due to our location, it naturally grew as our neighbours are active in that segment." When the company just started out, a large percentage of the vessels it performed services for sailed from Vlissingen to Saint Petersburg. When the Russian Federation issued its ban on fruit import from the European Union in 2014, FSA shifted its focus towards tankers and offshore supply vessels, among others.

The shipping agency has meanwhile returned to its original core business of fruit. The increased fruit-related activity of Seatrade in the Bijleveldhaven is one of the factors that enables the company to do so.

FSA has always had various loyal customers and has been providing its services to the same vessels for years. Like the Russian fruit import ban demonstrated, it is of vital importance for a shipping agent to draw on different pillars. While the focus for FSA remains on Vlissingen, Mr de Groot does see the benefits of the port merger. "North Sea Port can benefit from a strong international clout. The merged port has convincing figures to present to potential customers," he says.



All photos courtesy of Scherpl Fotografie

DENNIS DE GROOT, GENERAL MANAGER AT FLUSHING SHIPPING AGENCIES.

THE TEAM AT FSA. FROM LEFT, DENNIS DE GROOT, GENERAL MANAGER, GIJSBERT KOENS, BOARDING CLERK/WATER CLERK, WESSEL MARTENS, OPERATOR, MYRON DE WIT, BOARDING CLERK/WATER CLERK, MICHAEL LIPLIJN, TRAINEE, AND DYLAN VENNEMAN, OPERATOR.



“ In the maritime industry, something unexpected can always happen. When it does, it is essential to get to the terminal in no time.

Taking care of the crew

According to Mr de Groot, digitalisation has immensely changed the way shipping agencies work. In the past, a shipping agent would be physically present on the quay, waiting for the ship to come in. Now all he needs to do is check his laptop to know the exact minute the vessel arrives. “We used to frequent the customs post and the Marechaussee. I don’t think the young guys in our team can even imagine visiting those posts all the time. We now handle everything through Enigma+, the port’s digital management system. If any of the input is incorrect, we get an automatic notification. Simple as that.”

Once a vessel is moored, a FSA member always stops by, even when all preparations have already been digitally made. One of the reasons for this is, according to Mr de Groot, that while the general focus in port lies on the ship’s cargo and (un)loading procedures, the ship itself and its crew should also be taken care of. If they need ship supplies, such as spare parts, nautical charts, or small personal items for the crew such as sim cards, FSA arranges that, too. “We are currently organising a network of preferred FSA suppliers,” comments Mr de Groot. “Whenever possible, we try and keep our procurement local.”

Connecting link

Perhaps in the future, being in the port’s vicinity will no longer be vital for a shipping agency. At present, however, Mr de Groot deems physical proximity a necessary requirement for the job. “Many of our tasks can be done from a distance. But the whole purpose of a shipping agent is to be the contact person in port, to represent the ship and its shipping company, and unburden them,” voices Mr de Groot. “In the maritime industry, something unexpected can always happen. When it does, it is essential to get to the terminal in no time.”

While shipping agents have gained access to more real-time information about vessel traffic, digitalisation has also changed the role they play in port. “These days, we serve more as a logistics service provider than as a shipping agent in the traditional sense. We are the connecting link between shipping company, terminal, and port authority,” states Mr de Groot.

Liner service

Apart from its regular activities, FSA also has a liner service between Vlissingen and Congo, for which it acts as both booking and shipping agent. Cargo on the liner service can be anything from personal goods for the owner’s family to containerised food product shipments.

The liner service sails directly from Vlissingen to Congo. FSA thus offers a short and direct transit and can provide customers with the full package, including pre-shipment transport to the terminal in Vlissingen.

OPERATORS WESSEL MARTENS AND DYLAN VENNEMAN ON THE QUAYSIDE.



Team strength

Mr de Groot started working at FSA as a water clerk when it was founded. He went on to become operational manager. After working at FSA for ten years, he made a side-step to another company in 2017, working as a sales manager for two years. Mr de Groot thoroughly enjoyed the experience, yet always kept an eye on what was happening at FSA. After FSA's director left the company in 2017, Mr de Groot was approached for the role. He started as General Manager in July 2019. For Mr de Groot, FSA's strength lies in its enthusiastic, young team. "FSA delivers a team performance. As a shipping agent, you need to be willing to work hard, during nightshifts, weekends, rain or shine, so good personnel truly is key," he states. For that reason, FSA has strengthened its ties with Scalda, who offer a logistics education programme. Working with young people provides, according to Mr de Groot, a wonderful work environment. "They are eager to learn and open to new ideas. They provide our team with the flexibility that this line of work requires."

I. WWW.FSAGENCIES.COM



> hoisting equipment > wire ropes > cranes > rigging > fall arrest equipment > hydraulic jacks
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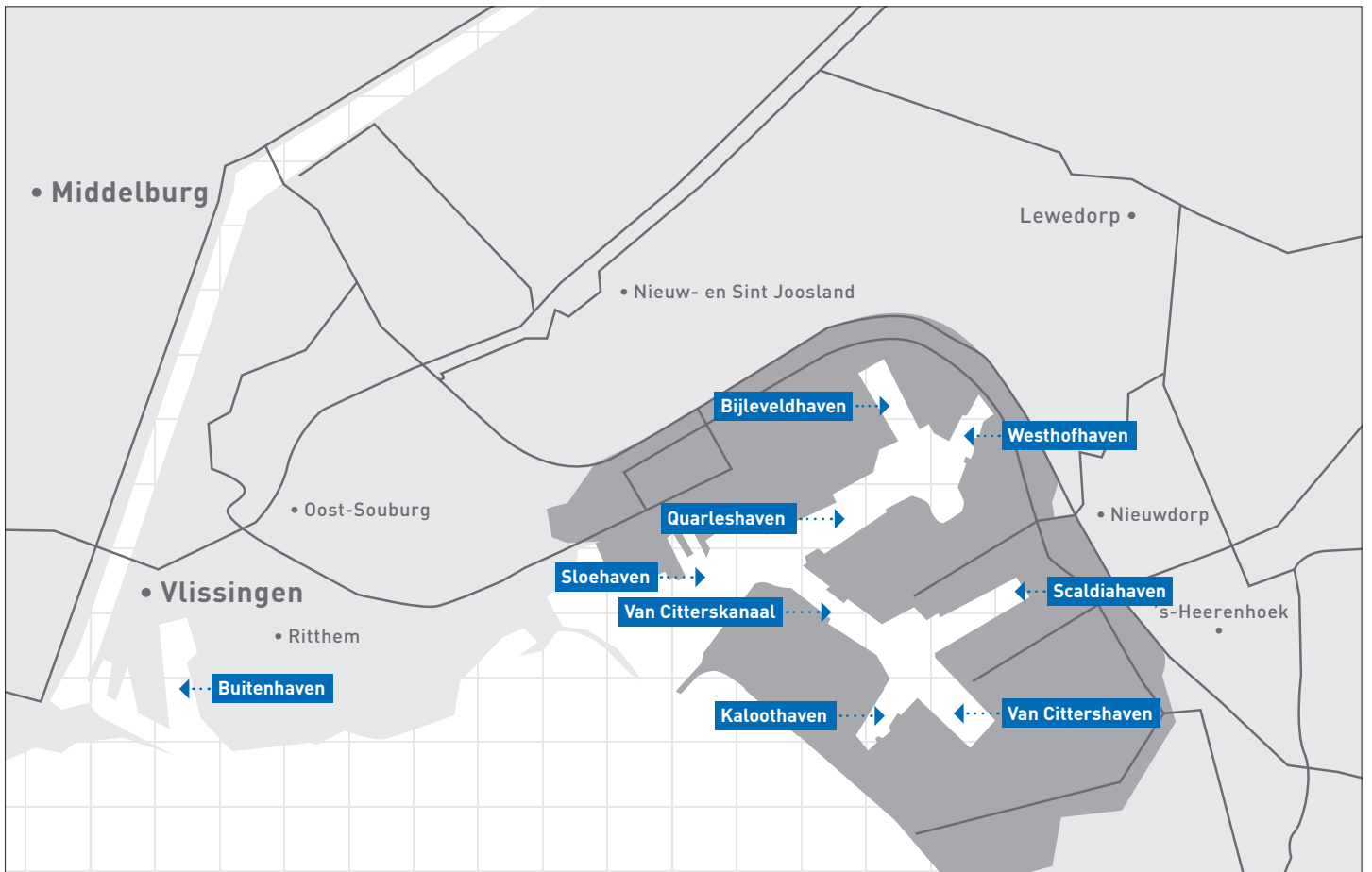
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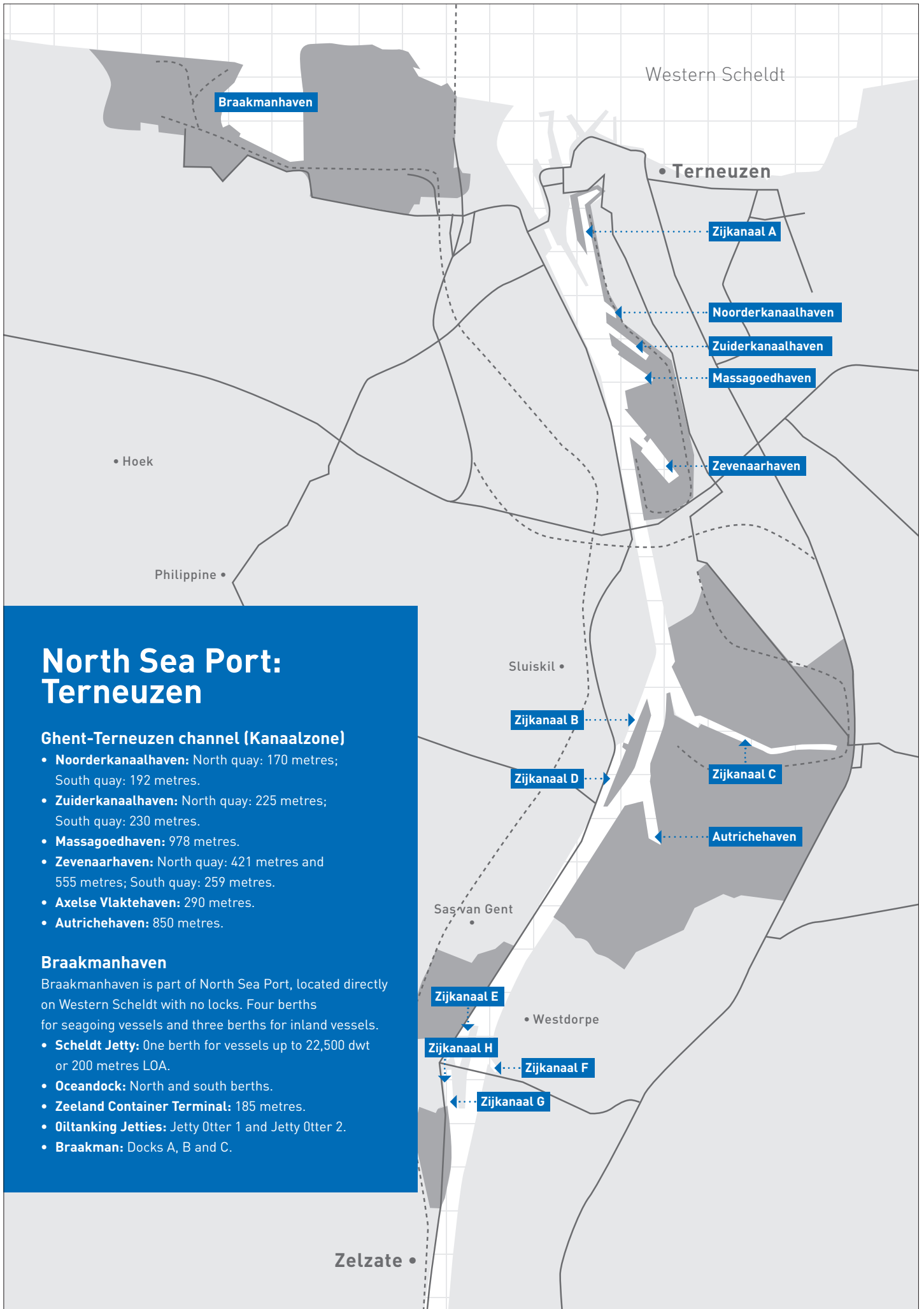


TIDI Media / 26370



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.
- **Westhofhaven:** 475 metres of quay. Can accommodate largest reefer vessels. East side jetty for discharging peat and general cargo quay.
- **Kaloothaven:** 1,130 metres of quay. Two jetties on south bank, one for inland barges.
- **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. On south bank, 275 metres. On 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.

- **Scheldt Jetty:** One berth for vessels up to 22,500 dwt or 200 metres LOA.
- **Oceandock:** North and south berths.
- **Zeeland Container Terminal:** 185 metres.
- **Oiltanking Jetties:** Jetty Otter 1 and Jetty Otter 2.
- **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.
- **Rodenhuedok:** 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 participants. Founded in 1993, the Promotion Council North Sea Port represents the majority of companies located in the port of Vlissingen and Terneuzen. Together they offer a complete range of the best possible port facilities and all the logistics solutions you need. See pages 60 - 63 for a complete list of participants.

→ ATLAS PROFESSIONALS



Atlas Professionals is an international leading recruitment company. Since 1982, Atlas has played a major role in providing professionals to the energy, marine, and renewables industries worldwide. If quality and reliability are key for your business, Atlas Professionals is the partner you need to deliver highly qualified personnel. They have more than 12 years of experience in the wind industry and create custom-made, comprehensive

HR packages that allow you to focus on the project, without any concerns about manpower. The Atlas office in Vlissingen, established in 2018, combines international experience with local knowledge. As such, they easily connect the right professional with renewable energy companies.

I. [ATLASPROFESSIONALS.COM](https://www.atlasprofessionals.com)

→ SEATRADE



Seatrade Rotterdam is a modern port, ship, and booking agent, and all-round logistic service provider. As part of the Seatrade Group, Seatrade Rotterdam is a dynamic and ambitious international shipping company with over sixty years of experience in the transport of perishables and other sensitive cargoes. Seatrade is the leading specialised reefer operator with a diverse fleet of specialised reefer and container vessels. They provide fast, direct, and dedicated transport

of dry and reefer containers, project, RoRo, and pallet cargo. With its liner services, it connects Europe with the Caribbean, South & Central America, USA, and South Africa. At Seatrade, they understand that keeping a schedule and delivering cargo on time are instrumental in keeping your business successful.

I. [SEATRADEROTTERDAM.NL](https://www.seatrad Rotterdam.nl)

→ TRANSUNIVERSE FORWARDING



Transuniverse Forwarding provides groupage services throughout Europe, North Africa, and the Near East with high-frequency, often daily, connections. The company was founded in 1983 and is at present one of the biggest players in Belgium. Transuniverse is market leader in groupage transport to Spain, Portugal, Turkey, and Greece. The company has a central cross-docking installation in Wondelgem (Ghent) and a network of 30 distribution platforms, both in-house

and via agents. In addition to groupage consignments, Transuniverse also handles full loads. These international services are linked with the national distribution system of its subsidiary Intercargo Logistics and logistics services, such as warehousing and order picking. Transuniverse Forwarding has subsidiaries in Romania, France (Paris and Lyon), and Morocco.

I. [TRANSUNIVERSE.BE](https://www.transuniverse.be)

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→ TRI-MODAL CONTAINERTERMINAL TERNEUZEN



Tri-Modal Containerterminal Terneuzen is located in Westdorpe along the Ghent-Terneuzen Canal. Besides the handling of containers for the local industry, Tri-Modal Containerterminal Terneuzen also offers container transport via truck, barge or rail to the ports of Antwerp and Rotterdam, or to the final receiver. The staff is in daily contact

with the main export terminals in Antwerp and Rotterdam. The latest software is used to guarantee customers an excellent service. Tri-Modal Containerterminal Terneuzen furthermore offers rates for container transport.

I. VLAEYNATIE.EU

→ VLAEYNATIE



Packaging of bulk products is Vlaeynatie's core business. Several ultra-modern bagging lines, located in Westdorpe, are accessible via vessel, container, barge, truck or rail. Over 50,000m² of brand-new warehouses are available for the storage of bulk or bagged products. The experienced staff in close contact with the customers provides the optimal solution for the bagging of bulk

products. The enterprise supports its long-term partners via a strong transportation network in being industry leaders. Innovation, in combination with a strong focus on safety and quality of the operation, is key in its partnerships. The company's operations are GMP+ and BRZO certified.

I. VLAEYNATIE.EU

→ ZEELAND SUGAR TERMINAL



Although Zeeland Sugar Terminal (ZST) was only founded in 2017, it has a long history of serving the sugar industry. In the 1980s, ZST shareholders created a leading sugar terminal in the port of Antwerp. This operation was sold in 2009. The liberalisation of the sugar market motivated the industry to increase sugar production, creating a demand for additional storage and export capacity. ZST was launched in 2017 to fill this gap.

Today, ZST is a state-of-the-art sugar export terminal in western Europe. It combines over 130,000MT of storage capacity with accurate and reliable bagging lines. In close collaboration with loyal customers and suppliers, it consistently focuses on innovation and strong partnerships.

I. VLAEYNATIE.EU



Participants of Promotion Council North Sea Port

		INDUSTRY	MARITIME	OFFSHORE	LOGISTICS SERVICES	SUSTAINABLE INDUSTRY	OTHER SERVICES	EDUCATION AND GOVERNMENT	
A	Aanzet Consultancy B.V.	www.aanzet.eu					■		
	Aben Green Energy B.V.	www.abenbv.nl				■			
	ABN AMRO	www.abnamro.nl					■		
	Access World (Vlissingen) B.V.	www.accessworld.com				■	■		
	A.C. Rijnberg Transport Service B.V.	www.rijnberg.com				■			
	Adriaanse & van der Weel Advocaten	www.avdw.nl					■		
	Aerssens & Partners	www.aenpmakelaars.nl					■		
	ALLNRG	www.allnrg.com			■				
	Alpha Terminals B.V.	www.psba.ch	■						
	Amadore Hotels & Restaurants	www.amadore.nl						■	
B	Aquadrant B.V.	www.aquadrant.com					■		
	Atlas Professionals	www.atlasprofessionals.com					■		
	Boluda Towage Europe	www.boluda.eu		■					
	Boogaard Advocaten	www.boogaardadvocaten.nl					■		
	Bouwgroep Peters B.V.	www.bouwgroep-peters.nl					■		
	BOW Terminal	www.bowterminal.nl			■	■			
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		Cordeel Nederland B.V.	www.cordeel.nl	■			■		
C-Port B.V.		www.c-port.nl					■		
C.T.O.B. Transport & Logistics		www.ctob-logistics.com				■			
D		Damen Shiprepair Vlissingen	www.damen.com	■	■	■			
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	De Zeeuwse Alliantie Notarissen	www.dezeeuwsealliantie.nl					■		
	Delta Coastal Services B.V.	www.deltacoastalservices.nl		■			■		
	Delta Safe Security Services B.V.	www.delta-safe.nl					■		
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	DOC-Swan Hunter B.V.	www.dutchcontractors.com		■	■	■			
	DOW Benelux B.V.	www.dow.com	■						
	Draftec B.V.	www.draftec.nl	■		■		■		
	DRV Accountants & Adviseurs	www.driv.nl					■		
	Dutch Marine B.V.	www.dutchmarinebv.com		■			■		
	Elloro	www.elloro.nl					■		
	Embedded Coaching & Consultancy	www.ecc-coach.nl					■		
	Energy Port Zeeland	www.energyportzeeland.com			■	■			
	Engie-Fabricom B.V.	www.engie-fabricom.com	■				■		
F	Euro-Mit Staal B.V.	www.euro-mit-staal.com	■						
	Feyter Group	www.feyter.com	■				■		
	Firma Klouwers Terneuzen	www.klouwers.nl			■				



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		INDUSTRY	MARITIME	OFFSHORE	LOGISTICS SERVICES	SUSTAINABLE INDUSTRY	OTHER SERVICES	EDUCATION AND GOVERNMENT
	Flexibility Zeeland	www.flexibility.nl					■	
	Flushing Marine & Offshore B.V.	www.flushingmo.com	■	■				
	Flushing Shipping Agencies	www.fsagencies.com			■		■	
	FMJ E & I Zeeland B.V.	www.fmj.nl					■	
G	Golden Tulip L'Escaut	www.hotel-lescaut.nl					■	
	Green Blue Offshore Terminal	www.greenblueot.nl	■	■				
H	H4A	www.h4a.nl					■	
	Haskoning DHV Nederland B.V.	www.royalhaskoningdhv.com					■	
	Havenwerk B.V.	www.havenwerk.nl					■	
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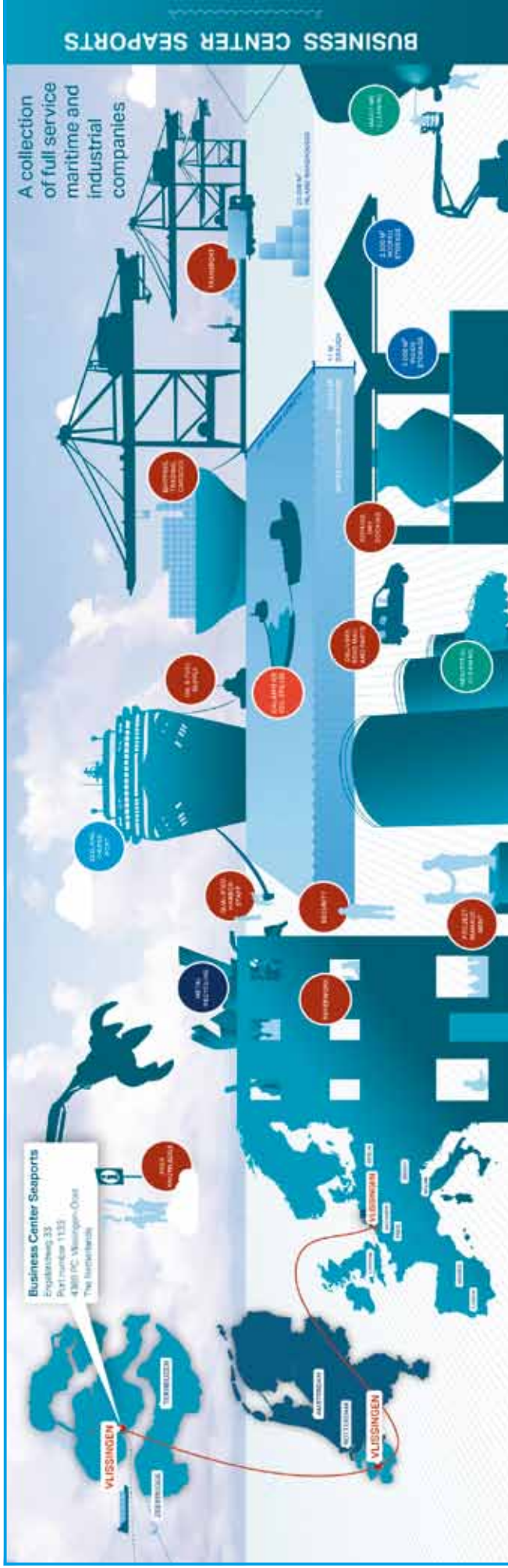
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