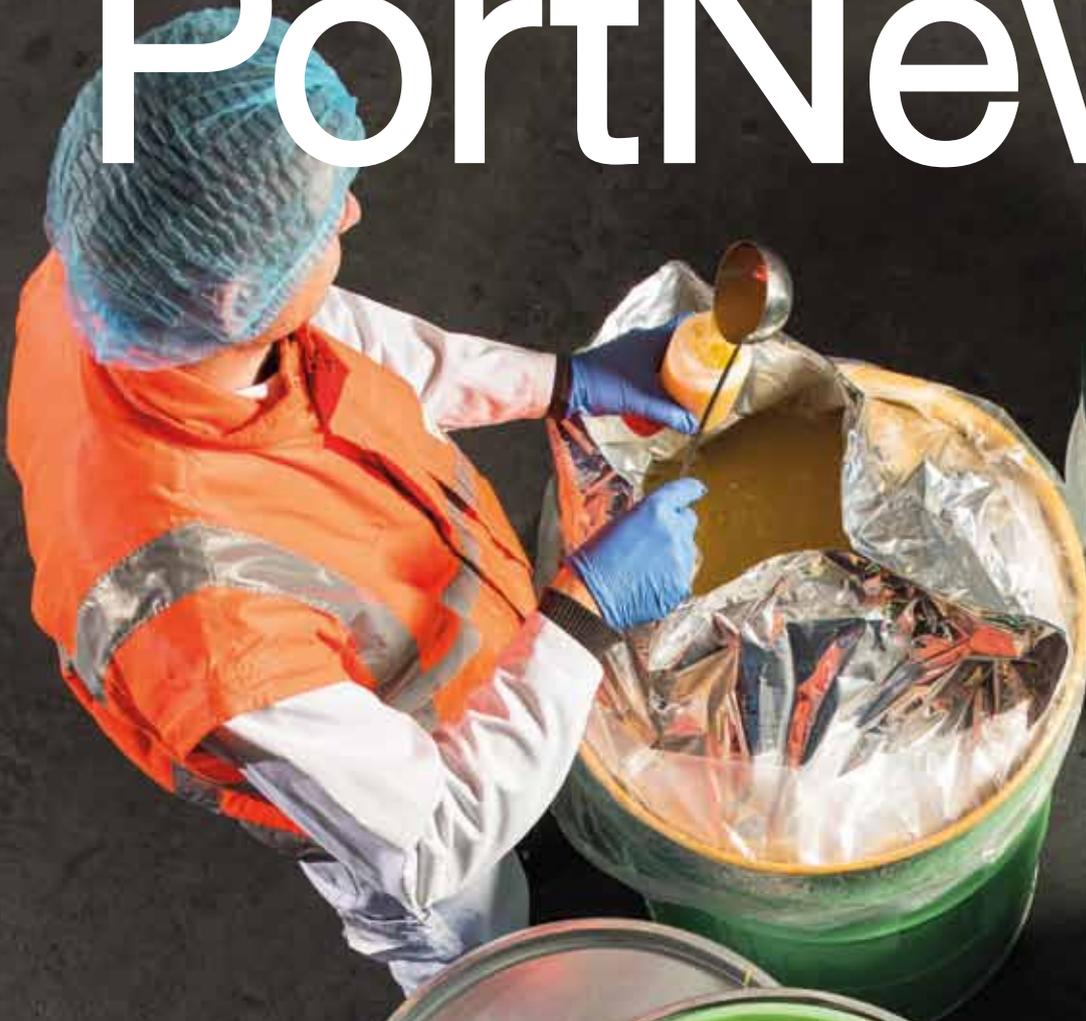


PortNews



The cream of the crop

Lineas adds rail connections

North Sea Port Promotion Council

Support is crucial



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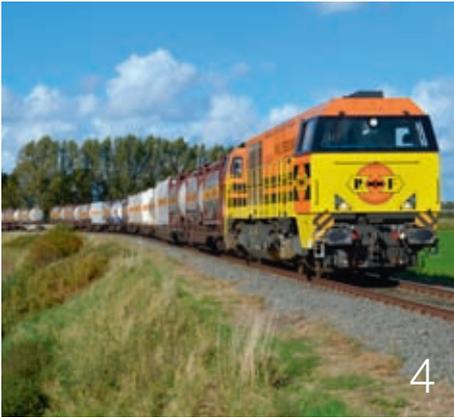
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IN THIS ISSUE



EMPLOYMENT

- 42 Havenwerk ensures flexibility and craftsmanship at port

FOOD

- 10 The cream of the crops
- 14 Labojuice; a true authority
- 18 Partner for the bakery

LOGISTICS

- 28 Lineas adds rail connections
- 34 A growing wall of Seatrade containers

INDUSTRY

- 24 Changing the game
- 38 Innovative chemistry
- 46 ATS Group embraces climate-neutral philosophy
- 50 Excellence along the chemical value chain

PORT PROMOTION

- 22 North Sea Port Promotion Council

TOGETHER. SMARTER.

- 04 Support is crucial

REGULARS

EVENTS

- 02 Calendar

WELCOME

- 03 Jan Lagasse, CEO of North Sea Port

BULLETINS

- 09 Bulletins

PORT MAPS

- 55 Vlissingen, Terneuzen and Ghent

PARTICIPANTS

- 58 New participants
- 60 Overview

PUBLISHERS

- 64 About PortNews



ON THE COVER

When it comes to storage, handling, and transport, food products require specialised knowledge. Knowledge that can be found in abundance in the North Sea Port cluster.

Photo courtesy of Jan de Carpentier.

EVENTS

North Sea Port and North Sea Port Promotion Council 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.

5-7 FEBRUARY 2020	Fruit Logistica Berlin	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	13-15 OCTOBER 2020	Cool Logistics Global Valencia	27-28 OCTOBER 2020	Offshore Energy 20 Amsterdam
					
29-30 OCTOBER 2020	European Commodities Exchange Berlin	4-5 NOVEMBER 2020	Top Transport Europe Marseille	6-8 NOVEMBER 2020	Intermodal Europe Rotterdam
					

“ Full steam ahead

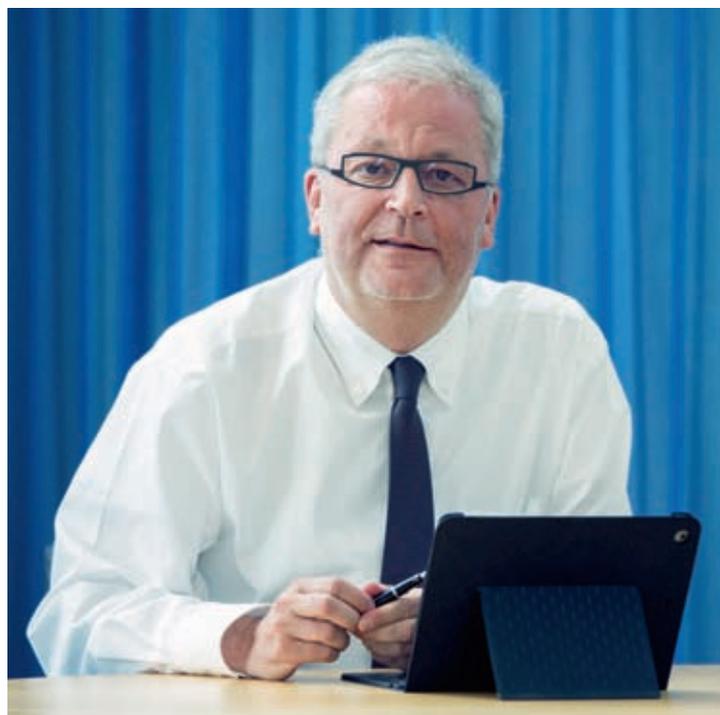
Welcome

North Sea Port has been playing a leading role in food for many years. This year, various developments show that we, together with many companies in our port area, have been able to further establish our position in this market segment.

Various companies are involved in the worldwide logistic process for a broad range of fresh products and food ingredients. Our port is home to a strong industrial food-related cluster. When looking at these logistic and industrial companies, one will notice that many of these are family-owned businesses with a long history in our port. Throughout the years, they have formed a stable basis for our growth and the position we are in today. The fine reputation of the companies certainly reflects on the port area as a whole. The effect of this is demonstrated by the fact that this year, several ship owners have once again decided to include our port in their regular liner services. These new additional lines contribute to the further containerisation and growth of our port.

With the extending volume of goods transported to and from North Sea Port, it is of extreme importance that the capacity of routes to the European market keeps up with this growth. Congestion-free hinterland connections are our priority and hence, the development of the infrastructure that surrounds our port area is high on our agenda. We are, for example, putting ample effort into communicating our concerns and demands regarding this topic to the authorities involved. North Sea Port is increasingly opting for transport by means of inland shipping, rail, and pipeline. This modal shift allows us to both reduce congestion on saturated motorways and take responsibility in conserving the environment.

The new lock in Terneuzen that is currently under construction will improve the inland waterway connection towards France and the southern part of Europe. It will in fact become the gateway for the new Canal Seine Nord-Europe scheduled for construction in the next decade. I am convinced that our efforts in realising a new railway



JAN LAGASSE, CEO OF NORTH SEA PORT.

connection between the Terneuzen and Ghent part of our port will eventually pay off, which will considerably extend the railway capacity to our hinterland.

Although the current year is not yet over, our throughput figures look promising so far, and North Sea Port may well end this year with a new record high. Of course, credits go to all companies in the port area, as they all put a lot of effort into this achievement. Despite the positive perspective for 2019, the current market does not allow us to be too optimistic for the upcoming year. Nevertheless, everyone at the +500 companies in the port area and at North Sea Port will once again work together to keep us going full steam ahead!

With kind regards,

Jan Lagasse
CEO of North Sea Port

Support is crucial



Photo courtesy of Scherpl Fotografie

RAILROAD TRANSPORT FORMS A VITAL FACTOR IN EUROPE'S POLICY.

Upon assuming her role as the new President of the European Commission, Ursula von der Leyen expressed the Transport policy's ambition. It is a given fact that as our economies and societies become more integrated, the demand for transport will increase. This creates new opportunities for innovation and investments, as well as a string of new challenges.

In order to become the first climate-neutral continent in the world, Europe will have to further reduce the exhaust of CO₂ more swiftly. According to Ms von der Leyen, the transport sector will have to significantly contribute to the decarbonisation, and thus to the realisation of a climate-neutral European continent. Transport will be a central part of the European Green Deal and the newly appointed Commissioner of Transport, Ms Adina-Iona Vălean, will have the task for the upcoming five years to make the European transport sustainable, safe, affordable, and accessible.

Important cross-border link

To realise a transport sector suitable for a clean, digital, and modern economy, we must develop an extensive strategy

for sustainable and smart mobility. The objective for this is that European policy will aim for enlarging the adaptation of sustainable, alternative fuels for road, waterborne, air and rail transport. At the same time, it is necessary to complete the missing infrastructural connections and the trans-European transport network (TEN-T) as soon as possible. Jan Lagasse, CEO of North Sea Port states, "North Sea Port is a logistics hub, located centrally in Europe. Because of its location at the crossroad of the European corridors, it is a true multimodal port. As one of the few deep-sea ports in the Hamburg – Le Havre range, right in the middle of Western Europe, it forms part of the important European corridors from the North Sea to the Mediterranean and Baltic Sea."

He continues, "North Sea Port recently also officially became part of the Rhine-Alpine rail freight corridor. For our port, this is one of the most relevant railroad connections, as it builds a bridge between the most important ports in Belgium and the Netherlands, and the North Italian ports on the other side. The route follows the so-called Blue Banana, which is the economic lung of the EU with first-rate production, distribution, and consumption centres. The corridor entails a rail connection of 3,900km, of which 2,400km of main lines. It connects seven seaports, including North Sea Port, ten inland ports and hundreds of rail terminals. With its modal shift ambitions, North Sea Port acts as an important cross-border link in the European goals for the economic development, European integration, and the European Green Deal."



As a multimodal port, North Sea Port divides cargos from all over the world through inland shipping, rail transport, pipelines, and motorways to the European hinterland and beyond.

Cornerstone

Transport is one of the cornerstones of European integration and of vital importance for free movement of persons, services, and goods. It contributes a total of 9% of the gross added value to the economy. In 2016, logistic services valued EUR 664 billion of gross added value, and offered jobs to approximately 11 million people. Sustainability and innovation in transport play an important role in the EU's energy and climate targets. Railroad transport forms a vital factor in Europe's policy. The efforts of the European Commission concentrate on three important areas, which are all crucial for the realisation of a strong and competitive rail freight sector. Firstly, open access to the market for competitors, followed by improvement of compatibility and safety of national networks, and finally, infrastructure.

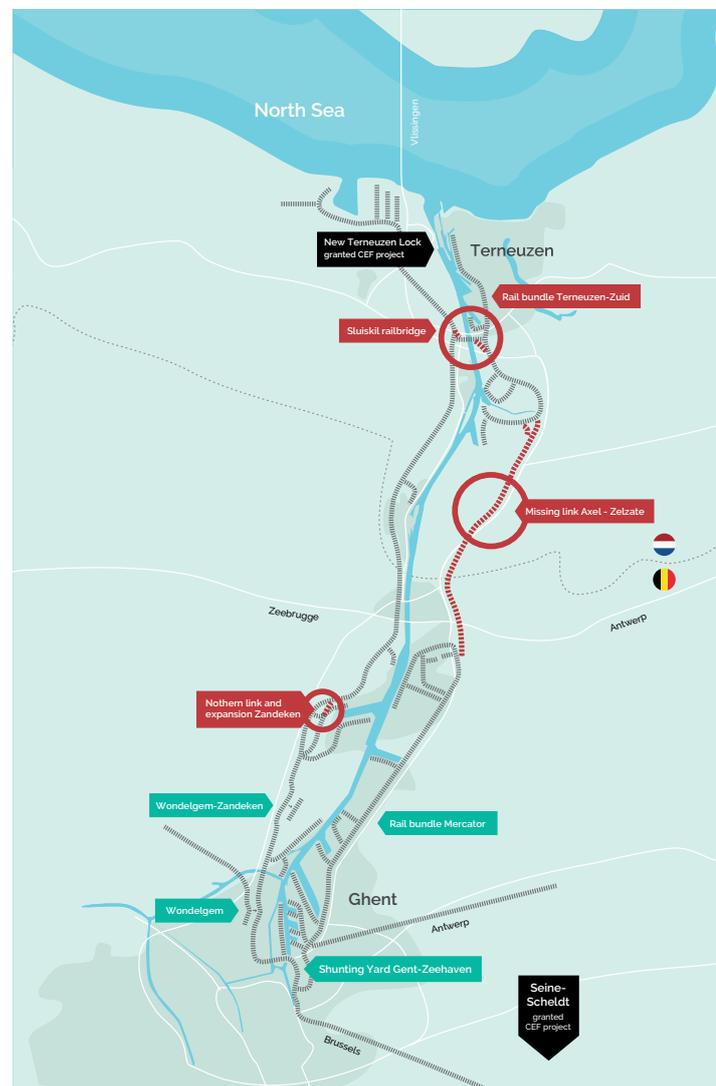
Ports like North Sea Port play a fundamental role in this. Proof of this is the recent addition of North Sea Port to the Rhine-Alpine corridor, the North Sea-Mediterranean corridor, and the North Sea-Baltic corridor. Or as Daan Schalck, CEO at North Sea Port states, "As a multimodal port, North Sea Port distributes cargos from all over the world through inland shipping, rail transport, pipelines, and motorways to the European hinterland and beyond. The longest rail freight connection even connects China. For companies, the connection to all of these transport systems and the ability to choose the best means of transport is genuinely an important proposition. As a multimodal deep-sea port, we can offer a large variety in liner services towards European ports and other destinations. North Sea Port and Lineas not long ago announced twelve new rail freight services towards the hinterland. This is only one example of the extensive rail freight services offered from our port area, and proof of the fact that we put our promise of investing in modal shift into practice every day." Around 7.7 million tons of good are currently transported by rail annually. This makes up approximately 10% of all goods transported to the hinterland. It is North Sea Port's goal to further increase this share and according to Mr Lagasse, the extension with twelve new services will contribute to this. He discloses, "We see the ambition of the President of the European Commission to fill in the missing infrastructural connections and to complete the TEN-T network as soon as possible as a support to our plea to invest in cross-border modalities, such as rail and pipelines. European initiatives that are presently being drawn to remove cross-border related legal and administrative barriers would also really help us to improve cross-border collaboration for, among other things, the construction of infrastructure."

High investments

Pipelines are of growing importance in the modal shift of transport. For the North Sea Port area, research was recently



DAAN SCHALCK (L) AND JAN LAGASSE (R), CEOs OF NORTH SEA PORT.



WITH ITS MODAL SHIFT AMBITIONS, NORTH SEA PORT ACTS AS AN IMPORTANT CROSS-BORDER LINK IN THE EUROPEAN GOALS FOR THE ECONOMIC DEVELOPMENT, EUROPEAN INTEGRATION, AND THE EUROPEAN GREEN DEAL.

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conducted, investigating the feasibility of a large-scale cross-border pipeline infrastructure for the transport of CO₂, hydrogen, synthetic naphtha, and residual heat. The pipelines will be relevant for the reduction of the annual exhaust of CO₂ in the port area by almost 22t million in the next five to thirty years. This will contribute to the port area's realisation of a climate-neutral industry, in accordance with the Paris Climate Agreement targets. Mr Schalck comments, "Completing the TEN-T network and meanwhile working towards a true green, climate-neutral, integrated, and digital transport system requires high investments. Which is why the Connecting Europe Facility financial instruments

(CEF) are essential in our cross-border ambitions. The CEF instrument has proven to be a valuable tool with a high added value, and it will be of great relevance for decarbonising Europe's logistics industry. A study, executed upon request from the European Sea Ports Organisation (ESPO), estimates that the ports will have to deal with investments of around EUR 48 billion for the 2018-2027 period. The study also shows that in the past four years, the port authorities were only granted 4% of the total available amount of funding (the so-called funding envelope). Support is crucial. Therefore, we explicitly plea for Europe to increase its investments."

SUPPORT FROM DIFFERENT ANGLES

To reach its sustainability goals and meanwhile stay in a competitive position as multimodal logistics hub, North Sea Port needs support from different angles. For this support, the Port Authority puts ample effort into keeping the lines with its local, regional, national, and international stakeholders short. PortNews spoke with two representatives from the European Parliament. How do they look at the European sustainability goals and their impact on North Sea Port's strategy for the near future?



CAROLINE NAGTEGAAL-VAN DOORN, MEMBER OF THE EUROPEAN PARLIAMENT.

"We need to reward innovative ports"

Caroline Nagtegaal-van Doorn is a Dutch politician. She has been a member of the European Parliament for the VVD since November 2017. She is also part of the Renew Europe group.

"The transport sector is still running into barriers, such as permits for road transport, the common airspace for aviation, and congested inland shipping routes. We must create one internal transport market that will benefit the transport sector and thus, all Dutch people. In the next five years, I really want to have taken strides in this area.

“ The maritime sector and ports are facing a sustainability challenge. In my opinion, we have to find the solution together, hand-in-hand with the industry.

The maritime sector and ports are facing a sustainability challenge. In my opinion, we have to find the solution together, hand-in-hand with the industry. Regulations also have to be effective and global, because the maritime sector is global. I refuse to adopt an Emission Trading System where carbon leakage arises and ships start sailing under a non-EU flag. If that happens, we fail at achieving decarbonisation in shipping while simultaneously, jobs are disappearing from Europe. I need all ports, including North Sea Port, to stand together for two very important common goals: a level playing field and reciprocity. Creating a level playing field is of utmost importance. It cannot be the case that we put our own companies and ports at a disadvantage and that it suddenly pays to operate in countries that do not care about following rules and regulations."

An example to other European ports

"I believe that the ports in the Netherlands and Belgium are early movers. These are ports that have their affairs in order. They are an example to other ports. In any potential Green Deal by the European Commission, I hope notice is taken of early adopters – ports that have already taken significant steps towards sustainability and thus have incurred costs. I want to see them compensated, so that we can stimulate innovation. I do not want us to reward 'lazy' ports for waiting and doing nothing. European money is tax money, so it must always be spent efficiently. For us, it is not about the amount of money, but rather about how and where we spend the available funds.

I want us to reward the leading ports for the good work they have done with regard to sustainability and digitisation. That way, we get the biggest return of investment. I do not think we always need more money. We just need to spend it efficiently. However, if we need to spend a bit more in order to achieve greater success and a greater return on investment, then we should have the courage to do so.”

Spending of TEN-T money

“I hope that the transport sector knows to sound the alarm if it thought that things were not going well and the money was

not reaching our ports and border regions. There is not a single European that does not use products which have become available through the ports and transport sector. Think, for instance, of medicines, French cheese, wine, mobile phones or cars. We are so used to having these products, but they can only reach us thanks to our enormous transport network. This network is perhaps our biggest achievement to date, and TEN-T helps to maintain and improve it. And so, as part of my transport role, I will be on top of things when reviewing the TEN-T spending.”



KATHLEEN VAN BREMPT, MEMBER OF THE EUROPEAN PARLIAMENT.

“It is my goal to see our ports flourish in the future”

Kathleen Van Brempt is a Belgian social-democratic politician (SPA) and member of the progressive alliance of Socialists and Democrats in the European Parliament.

“During my entire political career, I have focused on how we can make our economic model more sustainable. The ports are the engines of our economy, impressive pools of employment, and also present us with exceptional ecological challenges. If we succeed in having our large seaports develop in a sustainable way, then this is also possible for the rest of our economy.”

Eliminating barriers

“The challenges are great. With a predicted further increase in transport and globalisation, emissions will further increase if we do not take the necessary measures. This means that the transport sector requires an urgent transformation towards sustainable fuels, electrification, and improved and smarter infrastructure. Also of crucial importance is the creation of

“ Only a pan-European transport landscape can successfully help in making sustainability of our economy and society happen.

an ambitious and enforceable policy. The transformation of the transport sector must occur by means of stimulation and compulsory objectives. By optimising affordability, supply, and availability of sustainable alternatives, barriers that stand in the way of an automatic shift are eliminated.”

4.0 Ports

“Additional investments in research and development, both by governments and the private sector, are thus needed. In addition to support and stimulation, a tougher approach with clear, ambitious, and enforceable goals for the sector and its subsectors is also required. The objectives for 2030 should be raised if we want to achieve climate neutrality in 2050. This will also have serious, though necessary, consequences for the transport sector. An inclusion, for example, in the Emission Trading System (ETS) would be the right choice for the shipping industry. This would yield 3.6 billion euros, which can then be sustainably invested. Operational standards for CO₂ in the shipping sector must also be drawn up. These can be achieved by efficiency improvements, innovative sustainable technologies, a shift towards sustainable fuels, and by speed restrictions and a smart approach in ports and at the docks, whether or not powered by artificial intelligence. Investing in the so-called 4.0 Ports is in this regard essential.”

Seamlessly interconnected

“When it comes to infrastructure, we need to focus on optimised and seamlessly interconnected intermodal transport. Improving connections of rail and inland waterways to the hinterland are indispensable. Where road transport is necessary, it must be executed more sustainably and efficiently. It is important that we create the necessary infrastructure to eliminate the missing links in the crucial connections. Most importantly, we need to smartly invest and use the existing infrastructure more innovatively. A lot is possible, for example, by optimising data management and communication systems with respect to the 4.0 Ports development. A fine example is



Photo courtesy of Tom d'Haenens

NORTH SEA PORT IS AN INTERMODAL CHAMPION.

the smart shipping initiative on our inland waterways, in which Belgium plays a pioneering role. In the Albertkanaal, on top of smart communication and automation, an innovative operation of locks is combined with the generation of renewable energy, alongside with maintaining or recovering fauna and flora. We should be really proud on this type of win-win projects, and they demonstrate that Europe and CEF should pay more attention to these kinds of initiatives. Instead of concentrating too much on the size of the funding envelope (which should, of course, be sufficient), the available financial means should be correctly allocated.”

Pan-European transport landscape

“Looking at transport, we should forget the notion that each European member state should have its own infrastructure and ports for handling all types of cargo and services in an isolated manner. Only a pan-European transport landscape can successfully help in making sustainability of our economy and society happen. Cross-border and inter-domain thinking are essential for this. The merger of North Sea Port is an excellent example that shows how we can move forward in Europe. Because of the bilateral aspects of the merger, collaboration of involved governments, authorities and regions are inevitable. This provides challenges, but also yields ample opportunities. North Sea Port can capitalise on the characteristics of the

various parts of the port and its regions. It can arrange the handling of cargo and services on the most appropriate locations, and it can rely on people with the right expertise. Apart from this, the port is an intermodal champion that is able to further extend this advantage. Working towards a climate-neutral 2050, the 1,000ha available should now be used for realising sustainable industries. North Sea Port should therefore fully use its status as experimental region, and lead the way for comparable projects throughout Europe.”

Necessary support

“North Sea Port deserves the necessary support. New legislation and related funding should also focus on North Sea Port and on the concept of merger ports and cross-border collaboration. All support should go to missing links and to innovative, smart, sustainable, and socially-just investments in the transport sector. I will ensure that this legislation will be covered, both in the commission international trade and in commission transport, which I work for.”

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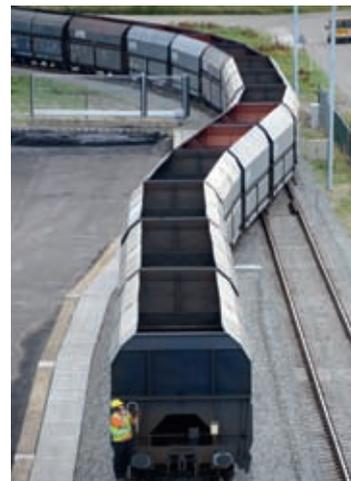
200 million



The construction of a possible rollout of a large-scale pipeline infrastructure for transporting CO₂, hydrogen, synthetic naphtha, and heat in the North Sea Port management area will cost at least EUR 200 million. This is apparent from a study commissioned by the cross-border Port Authority. The research was presented at the North Sea Port Havencongres (Port Congress) in Terneuzen. These pipelines will be important for reducing annual CO₂ emissions in the port area by almost 22t million over the next 5 to 30 years, and for making the transition to climate-neutral industry by 2050, in line with the objectives of the Paris climate agreement. The study sets out a number of recommendations to achieve this.

Rail connectivity in the ports

Experts from both sea and inland ports have been assessing the European railway legislation from a port perspective. This has resulted in a position paper adopted by the European Sea Ports Organisation (ESPO) and the European Federation of Inland Ports (EFIP). The joint position paper "Ports in the European Rail System" comes to five main conclusions: the set-up of rail systems in European ports varies considerably, which makes a one-size-fits-all approach unfit, efficient rail operations are essential to maximise the use of rail as a sustainable transport mode, a special focus should be placed on last-mile connections, port managing bodies should remain free to choose an integrated or separate rail charging model, and the allocation of high-quality freight train paths to and from European ports has to be increased.



Sloecentrale celebrates 10 year anniversary

On December 14, Sloecentrale celebrated its 10 year anniversary (it became commercially operational in 2009). As the energy market has changed substantially in the last few years, an increase in renewables such as wind and solar is expected in the upcoming years. The Sloecentrale can operate flexibly, and so it is a perfect match for this development. A technical improvement was recently implemented, ensuring that the plant can run on maximum capacity within half an hour (an improvement of 20%). Sloecentrale is also looking for opportunities to store and use waste heat. The team at Sloecentrale is confident about the future and sees an important role for themselves in the Dutch energy transition.

Project of the Year Award

Eastman Chemical Company – Stukwerkers Havenbedrijf Gent/Interface Terminal Gent wins Project of the Year Award 2019. Eastman-Stukwerkers/ITG has been awarded the prestigious Project of the Year Award 2019 at this year's Supply Chain Awards by VIB and PICS. The SCA Awards, which took place on 19 November, acknowledges best practices in supply chain projects integrating aspects of procurement, as well as warehousing, production, and distribution logistics. The award is in recognition for Eastman's journey towards sustainable logistics and a smart supply chain, together with Stukwerkers/ITG's support. The successful partnership made it possible – through the creation of an own developed digital platform – to organise a multimodal road-inland shipping option for Eastman's containerised export goods. By implementing this change, Eastman was able to drastically reduce its pre-carriage emissions whilst also achieving both financial and operational efficiency gains. The Eastman-Stukwerkers win is a great achievement and confirmation of the efforts by all involved.





The cream of the crops

Growing food flows in North Sea Port

Photo courtesy of Scherp! Fotografie.

Having gained experience in the field for over two decades, North Sea Port holds a strong position as European food hub. Handling food is one of North Sea Port's main specialisations, with food representing 17.5 million tonnes, or 13.5% of the total goods flow within North Sea Port on seagoing and inland shipping vessels.

High rise in container handling

Since its merger, North Sea Port has strengthened its focus on food. The first nine months of 2019 saw a staggering 51% growth in the transshipment of containers in North Sea Port, which can be partially attributed to exponential growth in the containerised food business. Established names in the food industry have started new container liner services, or have increased the frequency of their regular liners.

The increase in containers transporting food products is directly linked to the widespread transition from palletised food transport to (reefer) containers. To facilitate this growth, a fully automated container terminal is being constructed at one of the logistics service providers in North Sea Port.

THE FIRST NINE MONTHS OF 2019 SAW A STAGGERING 51% GROWTH IN THE TRANSHIPMENT OF CONTAINERS IN NORTH SEA PORT, WHICH CAN BE PARTIALLY ATTRIBUTED TO EXPONENTIAL GROWTH IN THE CONTAINERISED FOOD BUSINESS.



2019 also saw new food-related businesses settle down in the port. The most recent addition to the cluster is Oatly, a Swedish oat drink concern that has opened a new production facility in Vlissingen.

Juicy and fruity

North Sea Port functions as a European distribution centre for various fruit products, such as bananas. The port also has a very prominent position on the juice market. Orange juice, for example, comes through the port in two different forms: as 'not from concentrate' (NFC) and 'frozen concentrated orange juice' (FCOJ). Both varieties are imported from the port of Santos, Brazil. Approximately half of all orange juice for the European market passes through the port.



Photo courtesy of Tom d'Haenens.

FOOD-RELATED ACTIVITIES IN NORTH SEA PORT RANGE FROM MIXING, BLENDING, PACKAGING AND REPROCESSING, TO FORWARDING AND DISTRIBUTING.

Two out of three world market leaders for the stockage, processing, and transshipment of juices are located in North Sea Port, but juice is also packaged, distributed, and processed into smoothies here.

Moreover, research lab Labojuce in Vlissingen is involved in quality control and the creation of new blends of juices for a broad range of international customers. (Read more about their activities on page 14).

Keeping it fresh

Lots of temperature-regulated food products, including fish, meat, vegetables, fruit, fruit juices and concentrates, dairy, and potato products make their way through the port. For food products that need to remain fresh and dry during transport, a swift and careful handling approach is essential. The food cluster employs skilled and flexible professionals for handling food products and reefer containers.

Grains, oilseeds and derivatives

Agricultural products such as grains, oilseeds, and derivatives have a strong representation at North Sea Port. Almost 10 million tonnes of these types of products were handled in the port by seagoing and inland vessels in 2018. These vast amounts are stored in massive flat bottom or vertical silos. The port does not carry the title 'Europe's granary' for nothing: if you combine the capacities of the various terminals in the entire port area, North Sea Port can store approximately 2,2 million tonnes of these products.



Photo courtesy of Tom d'Haenens.



Photo courtesy of Tom d'Haenens.

IN 2018, ALMOST 10 MILLION TONNES OF AGRICULTURAL PRODUCTS SUCH AS GRAINS, OILSEEDS, AND DERIVATES WERE TRANSPORTED BY SEAGOING AND INLAND VESSELS IN NORTH SEA PORT.

Highly specialised

The port area hosts a vast amount of specialised food processors. From meat processing businesses, producing toppings for pizzas and other snacks, to potato factories that create a wide variety of chips, to chocolate and confectionary manufacturing companies, which process their raw materials both in dry bulk or in liquid form.

Wine, beer, olive oil, and palm oil are some of the other liquid products that are imported via North Sea Port. And so is fish oil, which is not merely processed into pills or capsules

for its healthy omega-3 fatty acids, but is also used in other applications, such as the leather tanning process.

Large quantities of sugar, grains, salt, rice, wheat, and animal feed such as beet pulp pellets (an easy-to-handle, dosable form) also move through the port.

Directly related to sugar is a rather unknown product in the goods spectrum of North Sea Port; molasses, or treacle.

The syrup-like by-product that remains after sugar is refined serves as a base for the production of various types of yeast, a necessity for every baker (read more about yeast production in the article about Algist Bruggeman on page 18).

Having all of these facilities within one port allows for fruitful synergies, which makes North Sea Port particularly attractive for companies in the food sector. The fact that the port offers room for development is yet another unique asset.

Handle with care

Food products require specialised knowledge when it comes to storage, handling, and transport. The food cluster in North Sea Port, with activities ranging from mixing, blending, packaging, repackaging, and reprocessing to forwarding and distributing, has that knowledge.

They also arrange the safe and swift discharge of goods, and help customers with services such as quality control, temperature-controlled storage, as well as transport to and from the hinterland by truck, train, and barge.

Most food transports in North Sea Port are carried out over water. However, the increase in railway connections, such as the recent connections to the European rail network and the Chinese corridor, is bound to have an impact on this segment as well.

“ The food sector represents 17.5 million tonnes, or 13.5% of the total goods flow within North Sea Port on seagoing and inland shipping vessels.

North Sea Port is ambitious in realising further growth in the segment. On land, the congestion-free hinterland connections are another important advantage of North Sea Port's location. A truck can arrive, discharge, and depart with an empty container within ten minutes, which is crucial in the container business.

Powered by food

The import of rapeseed oil, corn, and soybeans from Ukraine, France, and Australia is a major trade in this sector. These three products, which are processed in countless food products, also act as a base for fuel additives.

While society is making a slow, yet steady, transition towards hybrid and electrical cars, most vehicles on the roads are at present still powered by bio-ethanol and bio-diesel fuels. 'Bio' refers to the origins of the additives that are mixed into the fuel, usually rapeseed or corn. North Sea Port has since the early days been a frontrunner in the production of biofuels. Almost one million litres of biofuels are annually produced in North Sea Port.

Border inspection

The facilities in North Sea Port comply with food safety laws and customs regulations for the import of veterinary products from outside the European Union. On the Dutch side of the port, inspections take place at the Border Inspection Point (BIP). On the Belgian side, a new border inspection point ('Grens Controle Post' in Dutch, or GCP) is scheduled to become operational in the Ghent port area in early April 2020.

This allows the port authority to provide additional services to customers, facilitate transshipment growth in container and inland vessel transport, and make even better use of its multi-modal hinterland connections.

MORE INFORMATION

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Photo courtesy of Fruit Logistica.

Fruit Logistica 2020

From 5-7 February 2020, North Sea Port will join approximately 3,200 exhibitors and 78,000 trade visitors from all over the world at Fruit Logistica in Berlin, one of the most important trade shows for the fresh produce sector.

A broad range of companies from the port's food cluster will be present at the North Sea Port pavilion. Together, they will cover the sector's full spectrum: from farmers to transport companies, and from terminal operators to other food logistics service providers.

Fruit Logistica covers each sector of the fresh fruit and vegetable industry, and provides a full picture of the latest innovations, products, and services in the international supply chain.

When & where

5-7 February 2020

Wednesday / Thursday from 9.00 – 18.00hrs

Friday from 9.00 – 16.00hrs

Berlin ExpoCenter City and CityCube Berlin

Messe Berlin GmbH

Messedamm 22

14055 Berlin, Germany

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Apart from Fruit Logistica, North Sea Port will also visit the following food-related conferences and exhibitions:

- Seafood Expo Global (next edition: 21-23 April 2020, Brussels, Belgium)
- Cool Logistics Global Conference & Exhibition (next edition: 13-15 October 2020, Valencia, Spain)
- SIAL Paris (next edition: 18-22 October 2020, Paris)
- Anuga Food Fair (next edition: 9-13 October 2021, Cologne, Germany)

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Labojuice, a true authority

Production control, analytical control, and R&D for fruit and vegetable juices



All photos courtesy of Jan de Carpentier.

When looking at the trends in the market of fruit and vegetable juices, producers are constantly searching for new tastes and blends to catch up with the consumer demand for variety. Whatever tastes are preferred, health safety and hygiene always play an important role.

For about twenty years, Labojuice has been helping producers in their development of new products and to keep product quality and hygiene at a high level. Labojuice was founded in 1999, based on an idea from a number of food logistics companies in the North Sea Port area that were also involved in the customer-based blending of juices. The aim of this laboratory was to help the companies in designing new fruit-based drinks.

100% independent

According to Henk van Hoven, General Manager of Labojuice, a lot has happened since the start of the company, and not just in the industry, but in the laboratory itself as well.

He explains, "Although founded as an initiative of several companies, of which Kloosterboer and Medibel are today still



THE EXPERIENCE IN PRODUCT DEVELOPMENT AND QUALITY CONTROL HAS MADE LABOJUICE A TRUE AUTHORITY IN THE MARKET.

operational in our port, our laboratory have since become an organisation that is completely independent from the processing facilities.” He continues, “Today, Labojuice specialises in two activities. First of all, we develop recipes for fruit and vegetable-based juice drinks and secondly, our laboratory is used by customers for the quality control of the ingredients for drinks and the outgoing semi-finished and final products.”

Complexity of products

Throughout the years, the industry has witnessed a growing complexity of products. “In our early days, the number of varieties was rather limited. Of course, taste differed per country and it still does, but overall the market was quite comprehensive. However, things are different nowadays, with many blends consisting of numerous kinds of fruits and

vegetables. More and more of our customers also ask for unique recipes, by which they can distinguish themselves from competition.”

Gerben Paauwe, General Manager of Kloosterboer Vlissingen, adds, “Apart from these changes, we have also seen a move in the industry from the use of direct juices and purees towards concentrates. An increasing number of consumers however prefers the direct juices, as these have a healthier and purer image. There is no real difference considering quality and pureness though, as a concentrate is in fact just juice without the water.”

Surprising recipes

Health plays an important role in the constant changing taste of consumers. Today, sugar is considered a less healthy part



HENK VAN HOVEN, GENERAL MANAGER OF LABOJUICE (L), AND GERBEN PAAUWE, GENERAL MANAGER OF KLOOSTERBOER (R).



LABOJUICE ALSO BUILT UP AN IMPRESSIVE TRACK RECORD IN THE AREA OF QUALITY CONTROL.

of fruit, and product developers are aware of this. “Of course,” Mr van Hoven says, “fruit and vegetables contain more than just sugar, and many of the other ingredients contribute to the daily intake of valuable nutrients. Because of this, juices will remain an important part of a healthy lifestyle and together with our customers, it is our goal to find attractive combinations to make consumers enjoy their juice drinks. A recent development in this is the addition of non-juice related ingredients, such as spices and herbs. Some qualities of ingredients only come to the surface after pressing, which is certainly an interesting feature for us, enabling us to come up with ample surprising recipes.”

Market knowledge

Labojuice aims at creating products that are as close to nature as possible. Sometimes this process is driven by customer's demand, but the company's developers often come up with their own ideas. “For creating new recipes, we often organise innovation meetings together with our partners. Many ideas are suggested during these meetings. Some of the ideas are put into practice or presented to the market at trade shows, such as the Anuga. Showcasing ideas at exhibitions gives us a good idea of what people think of our new creations”, Mr van Hoven states. So far, many of Labojuice's recipes are supplied to countries all over the world. “Being an international player requires a lot of knowledge of the various markets”, Mr van Hoven comments. “Of course, we need to know about taste preferences, but other aspects play a role as well like rules and regulations, as well as seasonal circumstances, as these

“ We take care of quality control for many worldwide producers of fruit and vegetable juices, concentrates, and smoothies.

can affect the stability of the products. So one product may have several compositions, depending on the various countries it is exported to.”

Extensive control protocol

Apart from creating juice drink recipes, Labojuce has also built up an impressive track record in the area of quality control. Mr Van Hoven states, “We take care of quality control for many worldwide producers of fruit and vegetable juices, concentrates, and smoothies. For this, we have developed a control protocol based on international guidelines. This protocol can be tailored for each client to meet its specific quality requirements. For most of our customers, quality control especially focusses on taste, appearance, and microbiological stability. For the latter, we are able to already show results within half an hour, which is rather unique as normally it takes days to receive results from microbiology checks. This is a great advantage for our customers. Imagine a bulk truck waiting for the release of a fresh product so he can drive to the packing station. With our method, he can leave with confidence in the product quality, without hardly any delay.” The control of quality can be conducted throughout the entire supply chain, from the

incoming base products to the ready-to-pack juices. “Our quality checks enable our customers to make the next step in the supply chain”, Mr van Hoven explains.

Reassuring thought

As a long-lasting Labojuce customer, Kloosterboer is highly satisfied with the services offered. Mr Paauwe says, “It is of course for us very convenient to have a laboratory close at hand, with Labojuce just around the corner. Labojuce really helps us to keep quality control at a high level. For this purpose, it sure helps that Labojuce, through their extensive expertise in product development, brings in a lot of knowledge for proper quality control. When looking at competition, we are one of the few companies in the industry that does not execute quality controls themselves, but via an independent organisation. So we can truly say that quality control of our production and logistics process is conducted 100% objectively, which is a reassuring thought for our customers.”

At the forefront

The experience in product development and quality control has made Labojuce a true authority in the market. As a member of the International Fruit and Vegetable Juice Association (IFU), the company is able to be part of the development of new rules and regulations. “Within the IFU, we are involved in various commissions that set the international standards that keep the products both safe and authentic. Leveraging our experience, we help the industry in reaching the highest possible level of quality and food safety”, Mr van Hoven concludes.

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LABOJUICE STRIVES TO CREATE PRODUCTS THAT ARE AS CLOSE TO NATURE AS POSSIBLE.



Partner for the bakery

All photos courtesy of Algist Bruggeman.

North Sea Port is one of the leading ports in food. First of all, the port area plays an important role as logistics hub for both the import and export of a broad range of food and food ingredients. A cluster of companies produces lots of food-related products. One of these enterprises is Algist Bruggeman.

Alongside the Ghent-Terneuzen Canal, Algist Bruggeman has been producing yeast for about 70 years. However, the enterprise was founded in 1884 with De Noordpool company in the town of Ghent. CEO at Algist Bruggeman Geert Van Renterghem gives a short summary of the company's long history. "In 1884, Pieter Bruggeman started with the import of wine and the production of spirits in downtown Ghent. As production rose, it was decided to build a new and larger distillery alongside the Ghent-Terneuzen Canal. Construction began in 1938 but due to World War II, the new facilities only became operational in 1949. For visitors of the town of Ghent, it is nice to know that the original Noordpool factory still exists. Today, it houses a restaurant."



GEERT VAN RENTERGHEM,
CEO OF ALGIST BRUGGEMAN.



MARNIC MARGO, SALES DIRECTOR
AT ALGIST BRUGGEMAN.

Lesaffre

At the new location, production was extended with bakers yeast, and the company NV Gist- en Spiritusfabrieken Bruggeman became a fact. The company was partly taken over in 1988 by French company Lesaffre, one of the largest family-owned businesses in France. The part acquired by Lesaffre continued to produce alcohol and yeast and was named Algist Bruggeman. Algist is short for Alcohol and Gist (gist is the Dutch word for yeast). The spirits part continued as a distillery under the name Etn. Pieter Bruggeman. In 1989, Algist Bruggeman decided to stop the production of alcohol and the company has since focussed on yeast production.

ALONGSIDE THE GHENT-TERNEUZEN CANAL, ALGIST BRUGGEMAN HAS BEEN PRODUCING YEAST FOR ABOUT 70 YEARS.



ALGIST BRUGGEMAN ALSO HAS VARIOUS TYPES OF INSTANT YEAST FOR USERS THAT PREFER A LONG PRODUCT SHELF LIFE.



FRESH YEAST IN COMPRESSED SHAPE. BY DEVELOPING DIFFERENT TYPES OF YEAST, ALGIST BRUGGEMAN CAN HELP CUSTOMERS TO BAKE THE TYPES OF BREAD THEY NEED.

Living entity

Yeast is a very delicate product and ever since the company started to produce the product, Algist Bruggeman has concentrated on improving the product and extending the product range for different applications in the bakery. "Yeast," explains Mr Van Renterghem, "are single-cell organisms that can live with or without oxygen. When oxygen and sufficient nutrition are available, the cells will replicate and for us, this mechanism is key in our production process. The characteristics of yeast will differ, depending on the available amount of oxygen and nutrition. With this, we can produce several qualities of yeast, for example for baking several types of bread." One of the challenges that a yeast producer has to deal with is the fact that yeast is a living entity that gets 'older' during its existence. This means that the characteristics of the product change. "Yeast is used for several purposes in the bakery industry", continues Mr Van Renterghem. "Most people know yeast for use in the leavening process of dough, but it is also an important instrument to effect the taste and smell of bread. Because of its unpredictability, one of our efforts lies in being able to repetitively produce the desired characteristics of a certain type of yeast."

Various quantities and qualities

His colleague Marnic Margo, Sales Director at Algist Bruggeman, explains more about the various solutions offered

by the company. "By developing different types of yeast, we can help our customers to bake the types of bread they need. For this, we supply yeast in various quantities and qualities. Looking at the appearance of our product, we have fresh yeast in compressed and liquid shape and for users that prefer a long product shelf life, we also provide various types of instant yeast. This instant yeast is also for customers in countries further than approximately 1,000km from our plant, as we consider this distance the maximum transport distance for our fresh products. Further destinations will take too long, with the risk of products reaching a very short remaining shelf life upon arrival at the customer. When looking at volumes, we deliver our products in various quantities, from 10kg boxes up to 1,000l transported by tank trucks. Our main market is the professional baker, but we also supply tiny 11g sachets for the consumer market. Apart from yeast, we also provide our professional customers with storage solutions such as dispensers, containers, and tanks."

Developments in the market

According to Mr Margo, the current market reveals a number of developments. "In general terms, bread is considered as a product that fits in a healthy lifestyle, and the total demand for bread is stable. Low-priced bread and the more luxury breads are both popular, while the middle segment of the market is suffering. Within the consumer market, current trends are



WHEN CONSIDERING VOLUMES, ALGIST BRUGGEMAN DELIVERS THE PRODUCT IN VARIOUS QUANTITIES UP TO 1,000L, TRANSPORTED BY TANK TRUCKS.

taste, variety, convenience, and freshness, which leads to an increasing number of bread varieties. Being able to provide the various segments with a suitable yeast is certainly challenging. When looking at the baker's side, the production methods have been changing throughout the years, with several innovations making his work more efficient and easier. The modern baker no longer wants to start work in the middle of the night and several solutions have hence been provided, also for the leavening process. Mixes and premixes make the baker's life more comfortable as well. It goes without saying that in industrial bakeries, the search for efficiency has also led to a growing demand for improvements."

Tailor-made

The broad range of yeast-related products perfectly fits within Algist Bruggeman's mission to be the partner for the baker, and the company therefore has a lot more to offer. Mr Van Renterghem explains, "We provide a broad range of standard yeast products, but in the current market it is very important for a baker to differentiate from competition. Based on the baker's specific demands, we create tailor-made products. As part of Lesaffre, we have been able to supplement our yeast range with a large variety of bread mixes, premixes, bread improvers, and sourdough. We can thus truly assist our customers in developing a diverse and distinguishing assortment. Developing from a producer of yeast into a supplier of a total package for the bakery industry definitely required an organisational change, as our bakery advisors had to acquire sufficient knowledge of all products and applications to be able to be a serious partner for our customers."

Logistical jigsaw puzzle

As the market demands diversification, the assortment of Algist Bruggeman is increasing, which every now and then makes logistics a jigsaw puzzle. "Being located next to the



AS PART OF LESAFFRE, ALGIST BRUGGEMAN HAS BEEN ABLE TO SUPPLEMENT THE YEAST RANGE WITH A LARGE VARIETY OF BREAD MIXES, PREMIXES, BREAD IMPROVERS, AND SOURDOUGH.

Canal Ghent-Terneuzen is highly convenient for us, as the molasse that we use as base material for our production is brought in by barge. Much of the residual products leave our plant by barge as well", comments Mr Van Renterghem. "Looking at the Benelux and surrounding countries, most of our products are of course transported by truck. We use container services from Antwerp for overseas shipments of our instant products. It would be very convenient if we directly could ship containers overseas from the North Sea Port area but so far, we have not been able to find an answer to this."

Circular process

Algist Bruggeman's production process can be considered as fully circular. "The production of yeast is rather unique, when considering environmental efficiency", discloses



WITH KASTALIA, SMALLER AND MEDIUM-SIZED BAKERIES ARE OFFERED A SOLUTION TO STORE AND USE LIQUID YEAST IN VOLUMES UP TO 22L.

Mr Margo. “For the cultivation of yeast we use beet and cane molasse, which is a residual product from the sugar industry. The production of yeast results in a number of residual products that can be used to provide added value to bakery ingredients. The final remainder of the molasse is sold as feed. This way, no waste is left.” Mr Van Renterghem adds, “Apart from the need of molasse and the use of water, our production is completely self-supporting and environmentally-friendly. We purify the process water at our own treatment station for reuse. The sludge from this treatment is sold for composting. As our production is highly energy-intensive, alongside extensive investments to reduce energy reduction, we also have our own cogeneration plant for the production of electricity and steam. This plant was a valuable investment for the company, in order to reduce costs and power supply from the grid.”

Kastalia

Meanwhile, the company keeps on improving and innovating. One of the contributions to raising convenience for the bakery is the Kastalia concept. “Liquid yeast has a lot of advantages for the bakery, as it is much easier to use compared with compressed yeast. Liquid yeast can also be mixed through the dough much faster. On the other hand, when looking at shelf life and hygiene, it is more difficult to store. That is why in general terms, liquid yeast in higher volumes is only used by larger-scale industrial bakeries. With Kastalia, we offer the smaller and medium-sized bakeries a solution to store and use liquid yeast in volumes up to 22l, which is quite an improvement compared with the small packages of liquid yeast they are used to. Kastalia consists of a refrigerated dispenser for storing and dosing bag-in-box packed liquid yeast. With this combination, the yeast is stored under HACCP-guaranteed conditions.

“The yeast that can be used with our Kastalia dispenser is



AS THE MARKET DEMANDS DIVERSIFICATION, THE ASSORTMENT OF ALGIST BRUGGEMAN IS INCREASING, WHICH MAKES LOGISTICS A JIGSAW PUZZLE EVERY NOW AND THEN.

suitable for a broad range of applications. It can therefore be widely deployed in the bakery”, says Mr Margo.

Other purposes

The Kastalia concept is only one of the many innovations that make Algist Bruggeman a leading producer of yeast, and with mother company Lesaffre it has a good back-up to stay ahead in business. “Not many of us know Lesaffre,” comments Mr Van Renterghem, “but on a worldwide scale, 30% of sold yeast comes from Lesaffre and its subsidiaries. Although our focus in the Benelux lies on bakery yeast, we also produce yeast for other purposes, such as for the production of alcohol and for the pharmaceutical industry. Our yeast is also used in biotechnological applications, for example to protect plants and vegetables against mould infections. We sell a lot of these yeast types to and through our Lesaffre affiliates on a worldwide scale. Lesaffre’s mission statement says ‘Working together to better nourish and protect the planet’. Looking at this, we can say that through our efforts we certainly pay an important contribution to this statement for many years now. Which is not bad for a modest Ghent family business, I would say.”

North Sea Port Promotion Council

New name to include new participants from Ghent

Following the merger of Zeeland Seaports and the Port of Ghent into North Sea Port, it was only a matter of time before the Zeeland Port Promotion Council changed its name so that it could officially welcome Belgian participants. The new name is North Sea Port Promotion Council. Chairman Henk de Haas reveals the plans for the future.

The aim of a promotion council is to promote the entire port region and you cannot really do that when your name excludes part of the territory. It is for this reason that the former Zeeland Port Promotion Council has now changed its name to North Sea Port Promotion Council. "We want to connect and unite all the stakeholders of the port and to do so, we have to open up the promotion council to companies and organisations from the Ghent part of North Sea Port", says Henk de Haas, Chairman of the newly-minted North Sea Port Promotion Council. The North Sea Port Promotion Council currently has nearly 150 participating members. The vast majority of these participants is from the port area of Vlissingen and Terneuzen,

but Mr de Haas is confident that companies and organisations from Ghent's port area will follow suit. "Ghent did not have its own equivalent of the Zeeland Port Promotion Council, but we know from discussions with Ghent-based companies that there is enough interest to join the North Sea Port Promotion Council", he explains. "Stukwerkers Havenbedrijf has already joined, and we expect others will follow in the coming year. We have in the past year invited several companies from Ghent to our events and we always publish at least 20 pages about Ghent-based companies in PortNews. As a result, we see there is a curiosity regarding what the North Sea Port Promotion Council has to offer."

Active and sustainable community

The goal of the North Sea Port Promotion Council is twofold: to raise the international profile of the port and its companies, and to bring the port community together by connecting participants with neighbouring companies. "It is our mission to form an active and sustainable community of port stakeholders, in order to strengthen the national and international position and promote the use of the port and all its companies", explains Mr de Haas. "We do this by offering a platform for participants and other port stakeholders to meet, exchange information, and do business. We want to create an expansive network that contributes to the success of everyone in the port."



All photos courtesy of Scherpl Fotografie

The council organises a variety of networking events throughout the year, including participant meetings, port lunches, company visits, and seasonal events like the end-of-year Havenpalaver and the annual golf tournament. This year, participants were given the opportunity to visit forklift and industrial services provider Feyter Group and superyacht builder Amels. Furthermore, the first event of the coming year has already been planned: a scheduled visit to Ørsted's new operations and maintenance base on 6 February 2020. "There have been occasions where a company has no idea what their neighbouring companies do and have to offer. It is useful for our participants to regularly come together to exchange information and ideas. We have seen it lead to worthwhile co-operations and connections", says Mr de Haas.

Representing participants

In addition to the networking events for participants, the North Sea Port Promotion Council publishes international promotional magazine PortNews four times a year, carries out trade missions, and represents the port participants at various international trade fairs. In the past year, the council was present at Breakbulk Europe in Bremen, Transport Logistic in München, Offshore Energy Exhibition and Conference in Amsterdam, and WindEurope Offshore in Copenhagen. "We want to be a good ambassador for our fantastic port with its unique location and many unique selling points", discloses Mr de Haas. "We share a stand with North Sea Port, because together we can achieve more. The council represents participants who do not have their own stand. Visiting participants can also use the stand or space as anchorage and they can use the network activities organised for the fair and event visitors."

Another important tool for the North Sea Promotion Council is the harbour days in Zeeland and, in the future in Ghent, too. "These port days are important for gathering and strengthening community support for the port, and everything that happens in and around it", comments Mr de Haas. "It is also an important

event to promote working in the port, aimed at people looking for a job or a career change, as well as students. The emphasis lies on information and education through experience. Together with North Sea Port, we are constantly looking for ways to further optimise the port day formula."

Working together

According to Mr de Haas, one of North Sea Port's biggest strengths is its location. Historically, there is a lot of industry and assembly, so it has always been a supply port. Following assembly, the products travel from the port to their final destination. "As a result, there are excellent hinterland connections", he adds. "If one looks at Rotterdam and Antwerp, those ports are just too busy and ample time is lost on getting to and from those ports and waiting in port. North Sea Port does not have this problem. There is also land still available for companies looking to establish a base. All good reasons to opt for North Sea Port."

Another strength lies in the port's companies and their tightly-formed community, says Mr de Haas. "Our port community is smaller, people know each other and they know how to find one another. There is more connection and a lot of collaboration. Furthermore, newcomers are welcomed with enthusiasm. We organise at least ten events a year, providing plenty of opportunity for networking."

While there may be differences between the Dutch and Belgian people, Mr de Haas is not worried that these may affect the promotional activities of the council. "We were very much in favour of the merger between Zeeland Seaports and the Port of Ghent, because together we can stand stronger. In my opinion, we should cherish our differences and strengthen our similarities. This way, we can all benefit. Working together can only enhance our position, and I am sure future participants will see the value in that."

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Changing the game

One giant project at a time



All photos courtesy of Zeeland Refinery.

WHEN THE REACTOR WAS HOISTED ONTO THE SUPPORTING STEEL STRUCTURE, ZEELAND REFINERY EMPLOYEES FROM ALL DEPARTMENTS WATCHED THE SPECTACLE FROM THE TRIBUNE THAT HAD BEEN ERECTED FOR THE OCCASION.



A project so extensive, that its key part was named and even got its own logo and slogan. When 'R3actor', the new reactor for the Zeeland Refinery hydrocracker, arrived on the scene on 18 July this year, it was the culmination of an ambitious plan that had been four years in the making.

The reactor arrived from Italy on board of the Calypso, a SAL heavy-lift vessel. It was unloaded at the neighbouring Verbrugge terminal in Vlissingen, and loaded onto an exceptional load transport which needed 56 axles and 112 tires for the job.

Team effort

This was not the only time in recent years that a project at Zeeland Refinery made headlines. The installation just last year of Zeeland Refinery's massive 11ha solar park, Zeeland Solar, was no small feat either. Neither are its results: the 28,000 solar panels now provide around 25% of the oil refinery's power. However, adding a 30m high, super heavy reactor to your factory is a whole different ballgame – especially for the people involved. When the plans from the drawing board finally materialised and R3actor slowly moved towards its final destination on a heavy cargo truck in the middle of the night, many of the people that had been working on the project drove out to greet it, happily sacrificing a good night's sleep to witness the spectacular transport.

It took four months of preparations in cooperation with Mammoet and an enormous crane to ensure the 600t reactor was smoothly and safely moved from the truck to its final destination. When R3actor was hoisted into the supporting steel structure, Zeeland Refinery employees from all departments watched the spectacle from the tribune that had been erected for the occasion.

Next up: tie-ins

Work on the installation is not quite finished yet. With the reactor in place, piping systems and other instrumentation need to be connected. "We already started working on the tie-ins that connect the reactor to the factory back in October 2017", says Chris Jansen, Project Manager of the R3actor project. "Now that the reactor is in place, a specialised company is working on the piping systems within the reactor, the so-called process internals. A reactor is not an empty barrel; there are a lot of intermediate layers. Instrumentation is the biggest job at this stage, connecting all the dots."

Mr Jansen became involved in the project in 2017. Various studies had already been carried out by that time, he joined in the engineering phase. First came the preparations, then the ordering and commissioning. The implementation phase commenced in 2018. The foundations were up first, then the piping systems and the actual construction of the reactor, which took 16 months. The different parts (rings) of the reactor was built at ATB Riva Calzoni in Brescia, Italy. The rings were then transported to Porto Marghera near Venice, where the reactor was assembled and hoisted onto



CHRIS JANSEN, PROJECT MANAGER AT ZEELAND REFINERY.



R3ACTOR ON BOARD HEAVY-LIFT VESSEL CALYPSO IN THE SCALDIAHAVEN.

the Calypso for transportation to North Sea Port. To withstand the high pressure and temperatures (up to 450°C), the reactor's walls are 21cm thick – which explains the heavy weight.

Nearly there

According to Mr Jansen, 98% of the physical work on the project will be completed this year, followed by the final touches in January and February 2020.

A turnaround is scheduled for June 2020, allowing Mr Jansen's team to make final adjustments and carry out the final commissioning step, inspecting all safety systems from a to z. When things go as planned, R3actor can be taken into service immediately afterwards.

Eliminating stops

Zeeland Refinery has in recent years executed several debottlenecking projects. The latest one increased the



A GIANT CRANE HOISTS THE 600T REACTOR INTO AN UPRIGHT POSITION. IN THE FOREGROUND: CUSTOMISED BANNERS WITH THE REACTOR'S NAME AND SLOGAN.

throughput of the refinery from 470 to 500m³. And while the throughput was immensely increased by these debottlenecking projects, the catalyst capacity remained the same. When the catalyst is exhausted, a shutdown needs to be implemented, which is very energy-inefficient; all pressure in the entire unit must be released, causing flaring and exhaust gas emissions. Then the reactors need to be restarted, which also requires a lot of energy.

“By adding the third reactor, Zeeland Refinery can return to its previous set-up; the reactors can run for fifteen months before the catalysts become exhausted”, explains Mr Jansen. “From turnaround to turnaround, this will save us almost two shutdowns per six-year period.”

The actual changing of a catalyst is an eleven day job, including starting and stopping – which means emptying out all the oil and getting the oil back on throughput. A catalyst stop takes three weeks, which is a lot of wasted time, energy, and money.

Vote of confidence

Being part of a large multinational group means that there are funds available for investments. It also means that in order to receive these funds, Zeeland Refinery must first convince its shareholders (Total with 55%, and Lukoil with 45%) of the significance and profitability of an investment.

Competition in the refinery business is fierce. Getting the green light on an investment like the new reactor is a vote of confidence from the shareholders in Zeeland Refinery, guaranteeing operability of the factory for years to come.



NATHALIE DE MUYNCK, MANAGING DIRECTOR OF ZEELAND REFINERY.

A familiar face

After a three-year sidestep to Total's marketing division, Nathalie De Muynck returned as Managing Director of Zeeland Refinery. Ms De Muynck has been working for the Total Group for nearly 30 years, holding various positions, including as managing director at Zeeland Refinery from 2012 to 2015.

Her return was both personally and professionally motivated.

On a personal level, Ms De Muynck wanted to be closer to her home ground. "I call myself border-Flemish", she explains. "I am Flemish, but Zeeland is close enough to Flanders to allow me to strengthen my family ties."

"That was my personal motive to return, but my reasons were twofold. The other motivation was the job itself. When I left in 2015, I already felt that there was so much left to do, and that this job is never finished. I am very excited to pick up where my predecessor left off, and add another layer to it."

The company that Ms De Muynck has come back to finds itself in a different situation. There is a large topic in Dutch politics that will bring about drastic changes in the petrochemical

industry branch: the climate plan, with all its potential consequences for regulations regarding industry and emissions. "To me, the climate plan presents a fantastic challenge", voices Ms De Muynck. "Not an easy one, but a great challenge nevertheless."

"Zeeland Refinery is one of the top refineries in Europe, both in capacity and energy efficiency. This means that our credibility to persist in a sector that is being reorganised and will face further reorganisations, is very strong. And even though we already excel in energy efficiency, we still see opportunities", states Ms De Muynck.

During the turnaround in the summer of 2020, Zeeland Refinery will implement several additional energy-saving projects.

Ms De Muynck continues, "These measures will result in a CO₂ emission reduction, but will not have the game changing effect that the government is striving for."

"We are lucky to have some big brains working at Zeeland Refinery. They continue to research innovation possibilities, thus further strengthening our position", she adds.

Apart from the improvements that Zeeland Refinery plans to implement in the short term, the broader focus of the company lies on fundamental, large-scale adaptations that the company can realise to further reduce its CO₂ footprint.

"We have been conducting various studies, and results reveal very interesting possibilities on a technical level. These plans are being further developed. But in order to put the pieces of the puzzle together, we need more input and clarity from the government. What exactly will the government's policy concerning the energy transition entail? What measures will be subsidised, which tools and resources will become available, what are the possibilities regarding electricity infrastructure and pipeline systems? To change the game, we need to know the rules. Once we manage to match all these elements, we can start taking action towards the '2030 Climate and Energy Framework' objectives.

It is a most exciting time for our company, and I am very happy to be a part of it."

“By adding the third reactor, Zeeland Refinery can return to its previous set-up; the reactors can run for fifteen months before the catalysts become exhausted.

Frontrunning

In the meantime, the search for further energy efficiency continues. It is clear that the regulations for CO₂ and other emissions will become increasingly strict, so in the petrochemical industry especially, staying ahead of both the competition and newly implemented regulations is essential for survival.

Zeeland Refinery was one of the first companies in the region to realise a solar park. "The fact that we managed to get our

shareholders' approval for Zeeland Solar was an important step in the right direction. R3actor is yet another: it annually reduces our CO₂ exhaust by 10,000t. But we will not stop here. We will continue our research to further increase energy efficiency", says Mr Jansen.

One of the possibilities Mr Jansen and his team are looking into is tapping into offshore wind parks. "Like solar power, wind energy comes in peaks. We are investigating whether we could manage those energy peaks, and how. There are no concrete plans, but I definitely think there is something there. We are becoming more and more inventive."

"While we strive to be as environmentally-friendly as possible, we are also realistic; we know that society at present still heavily relies on petrochemical products. In my opinion, the best thing we can do is to try and make the refining process as efficient and clean as possible", concludes Mr Jansen.

Lineas adds rail connections

North Sea Port connectivity boosted by new European railway destinations



THE ARRIVAL OF THE FIRST GHENT-ANTWERP XPRESS TRAIN AT INTERFACE TERMINAL GHENT AT THE KLUIZENDOK.

Photo courtesy of Scherpl Fotografie.

One of the main requirements for making a port successful is its connections with the hinterland. Private rail freight operator Lineas has made North Sea Port an even more attractive and competitive destination by adding twelve new rail connections to major European destinations.

A new rail connection between Interface Terminal Ghent and the Lineas Main Hub in Antwerp has been opened to allow goods to be shipped via the international Lineas rail network. The Ghent-Antwerp Xpress helps to connect North Sea Port to twelve new destinations in the European hinterland.

There are fifteen round trips each week between Ghent and Antwerp and three round trips from Terneuzen to Antwerp. In Antwerp, the loads connect to Lineas' Main Hub and can continue on the company's Green Xpress Network (GXN) to international destinations in France, Germany, Spain, Austria, Sweden, and further afield.

"This is a joint project with North Sea Port to increase the international competitiveness of the region", says Jan Elfenhorst, Director International Sales and Business Development at Lineas. "We are proud to be a strategic partner of a thriving Port Authority that is increasingly focusing on rail development. The connection between Ghent and Antwerp provides an opportunity for companies to transfer more volumes by rail to the European hinterland every day."

According to Mr Elfenhorst, the whole world is in the middle of a globalisation process and it is important that North Sea Port asserts its competitiveness. "A port is only as attractive as its logistic options and its connections to the hinterland", he comments. "Countries looking to export or import products look at the different ports and make the decision to use them based

on whether they can travel to them with big, medium or small vessels, and what those ports can do with the freight once it has arrived. These rail connections make North Sea Port even more attractive. "

Multimodal port

Multimodality is one of the most important assets that North Sea Port offers companies setting up business in the cross-border port area. Its strategic location on the North Sea up to 32km inland makes the port accessible via rail and via coastal shipping, sea shipping, inland shipping, pipeline, and by road.

With the new Ghent-Antwerp connection, goods are unloaded and loaded at the Interface Terminal Ghent at the Kluizendok. This four-modal container terminal (sea shipping, inland shipping, rail, and road transport) has 750m triple rail lines for receiving trains. A number of logistics and distribution companies operate

Photo courtesy of Lineas.

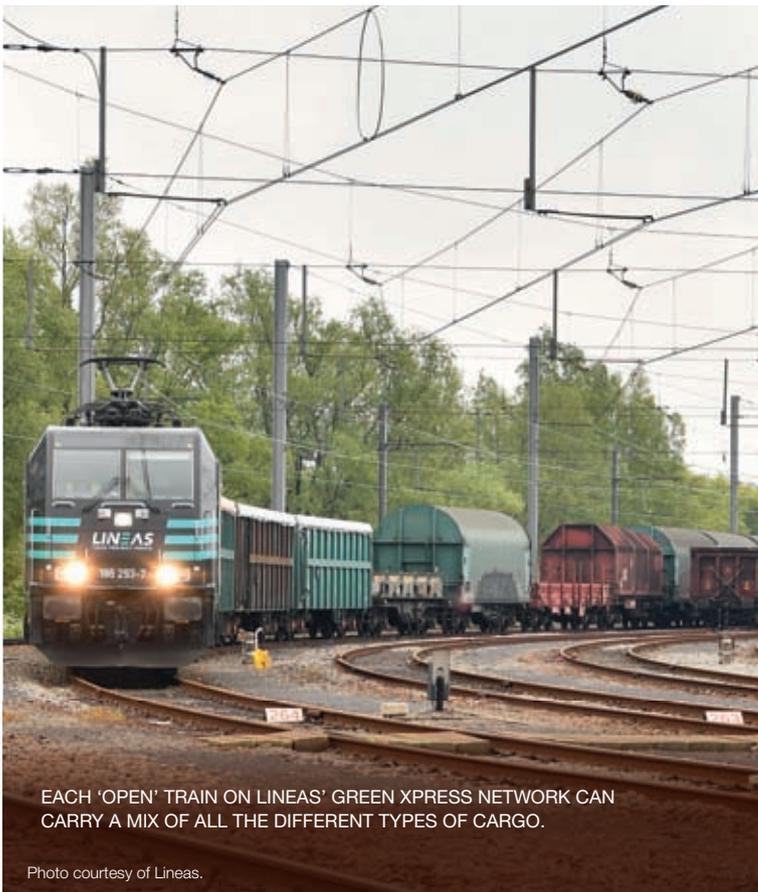


LINEAS RECENTLY LAUNCHED A MODAL SHIFT LOCOMOTIVE TO ILLUSTRATE THE COMPANY'S MISSION TO SHIFT THE TRANSPORT OF GOODS FROM ROAD TO RAIL.



Photo courtesy of Lineas.

JAN ELFENHORST, DIRECTOR INTERNATIONAL SALES AND BUSINESS DEVELOPMENT AT LINEAS.



EACH 'OPEN' TRAIN ON LINEAS' GREEN XPRESS NETWORK CAN CARRY A MIX OF ALL THE DIFFERENT TYPES OF CARGO.

Photo courtesy of Lineas.

In brief

Lineas is the largest private rail freight operator in Europe, with headquarters in Belgium and sites in France, Germany, the Netherlands, Italy, and Spain. The company employs 2,100 people and has a fleet of 250 locomotives and 7,000 wagons. Its mission is to offer high-quality rail products and services to help customers shift the transport of their goods from road to rail in order to improve their supply chain and reduce the negative impact of their activities on mobility, climate, and air pollution. Lineas' flagship product is the Green Xpress Network which provides daily, fast, and reliable rail connections between Belgium and major European hubs, combining different types of cargo into one train. The Ghent-Antwerp connection opens up North Sea Port to twelve new destinations: Madrid, Granollers (Barcelona) and Tarragona (Spain), Hendaye (France), Schkopau (Germany), Lovosice (Czech Republic), Curtici (Romania), Malmö (Sweden), Milan (Italy), Wels and Vienna (Austria), and Basel (Switzerland).

THE GHENT-ANTWERP XPRESS HELPS TO CONNECT NORTH SEA PORT TO TWELVE NEW DESTINATIONS IN THE EUROPEAN HINTERLAND.



Photo courtesy of Scherp! Fotografie.

in the area of the terminal and the Kluizendok. Interface Terminal Ghent also has a short-sea connection to the United Kingdom: I-Motion Shipping sails to Hull three times a week.

“For many companies, these twelve extra destinations provide opportunities to transport goods to the hinterland by rail. Many quays and business parks in North Sea Port include rail tracks and track bundles,” says Daan Schalck, North Sea Port CEO. Some 7.7 million of goods are currently brought in and out of North Sea Port by rail each year. This accounts for nearly 10% of transport to and from the hinterland. “It is our aim to further increase rail transport. These new destinations are a good contribution.”

Green network

Lineas’ Green Xpress Network is a European network that consists of ‘open’ trains running between major logistics hubs daily at regular intervals. Carriers can put their cargo – which may consist of as little as a single container – on the train. Lineas’ main aim is to stimulate the shift from road to railway. According to Mr Elfenhorst, roads are becoming too congested and an increase of rail freight could be the solution. For that reason, Lineas has increased the capacity of its trains in and out of Antwerp.

“We want to create a modal shift from road to rail, but to do so first requires a mental shift. There is already ample interest and we believe the volumes will follow. We just need to show that rail is a more attractive option than road. Whatever the cargo and

whatever the volume, we can add it to our network.”

Mr Elfenhorst feels that one of the main strengths of the Lineas network is the ability to mix all the different types of cargo on one train. “Our Green Xpress trains are a unique concept, because we transport a combination of conventional freight, intermodal blocks or wagons for smaller volumes. By bundling these volumes, we have been able to establish new corridors. Our GXN is an end-to-end solution, as we also take care of the first and last miles of a customer’s traffic.”

Future expansion

While there are at present fifteen round trips from Ghent to Antwerp, the aim is to further increase the capacity. Plans even include direct connections from Ghent to other parts of Europe. “We have only just started up the regular connection between Ghent and Antwerp, but the volumes are already growing gradually”, says Mr Elfenhorst. “We are already looking at establishing a direct connection to Scandinavia in the near future.” Lineas also has plans to further develop the rail connection to and from Vlissingen. “We are already connected to Vlissingen, but it is not a regular connection. Our aim is to further develop this, so that there is a direct connection between Vlissingen and Rotterdam and Antwerp. It is a work in progress, but we are committed to the future development of the rail network in the region”, adds Mr Elfenhorst.



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

A growing wall of Seatrade containers

Seatrade is putting itself more visibly on the map in North Sea Port. Whereas the Port of Rotterdam used to be the company's main port of call, it has now made a major shift towards North Sea Port.



In a recent interview, Seatrade Rotterdam Director Menno van Gorcum explains, “North Sea Port has great added value for Seatrade and our customers. This is mostly due to the needs of our specialised refrigerated cargo vessels, better known as reefer vessels, and the dedicated services of the terminals and cold-store companies in the port of Vlissingen.”

Seatrade transports and imports tropical fruits like bananas, pineapples, melons, and mangos from Central and South America to the Netherlands. It is a midsize-range shipping company, meaning it occupies with its reefer vessels a specialised niche amidst the big global containership carriers on one side, and the more exclusive and expensive airfreight on the other. Mr Van Gorcum discloses, “Our concept at Seatrade

THE SURINAM SERVICE PROVIDES A DEDICATED MULTIPURPOSE SERVICE FOR SEATRADE AND ITS CLIENTS.

Photo courtesy of Seatrade.



is fast, direct, and dedicated (FDD). We are specialists in this market segment. Not only do we apply our FDD concept to our customers that want their fruit as quickly and directly as possible, but we also apply it to ourselves. We give our freight the full 100% dedication that the client expects from us."

Seatrade exports mostly containers, conventional cargo, break bulk, RoRo, and refrigerated products to Surinam, the Caribbean, and to Central and South America. Its break bulk consists of steel, cement, flour, and barrels with oil or chemicals (IMO). The RoRo cargo includes everything that rolls and can move independently, such as trucks, tractors, excavators, cars, and vans. Then there are the pallets with, among other things, foodstuffs, (soft) drinks, potatoes, onions, and garlic,

which if necessary, can be transported in refrigerated holds. The scheduled services to Surinam, Antilles, and Central and South America are fast (between ten and fourteen days), direct, and on time. These countries have an extended network of Seatrade offices and dedicated port agents ensuring that the cargo arrives at the right place.

Efficiency at North Sea Port

Seatrade has found its most efficient partners in North Sea Port when it comes to handling their vessels. Mr Van Gorcum comments, "Our dedication also means that we like to oversee the full process, so we can guarantee excellent service to our customers. In North Sea Port we have strong partners ensuring that our pallets can be directly unloaded into the cold stores of



Photo courtesy of Seatrade.



Photo courtesy of Scherp! Fotografie.

MENNO VAN GORCUM, DIRECTOR OF SEATRADE ROTTERDAM.

the terminal operator. When it comes to a quick and efficient discharge of reefer vessels into cold stores, North Sea Port comes out on top. Mr Van Gorcum clarifies, “With big players like ZZColdstores (ZZC), Verbrugge Terminals, Kloosterboer, and Supermaritime Group, it makes for an extremely efficient port call.” He laughs and continues, “Every time I drive from Rotterdam to Vlissingen, I see Seatrade containers along the way, and I know I’ve reached North Sea Port when I encounter a wall of them.”

Strategic hub

Seatrade has five scheduled services to the Netherlands. Four of these are destined for North Sea Port, and one calls at the port of Rotterdam. Mr Van Gorcum says, “To us, North Sea Port has become a strategic hub. We are in the port of Vlissingen most days of the week, on Monday, Tuesday, Wednesday, and Thursday.” Seatrade has also moved much of its export to North Sea Port. It owns a share in the Flushing Shipping Agencies (FSA) port agency, strengthening its position within the port and ensuring an efficient handling of their vessels. Mr Van Gorcum adds, “That way, we control quality and can oversee and guarantee professional and timely port operations.”



NORTH SEA PORT HAS BECOME A STRATEGIC HUB FOR SEATRADE.

“ The North Sea Port terminals are well-connected to the hinterland via tri-modality by truck, train, and barge.

Recent development

Its most recent development involves the shift of its existing Surinam Service from the port of Rotterdam to the port of Vlissingen. The service operates at Verbrugge Scaldia terminal, providing a dedicated multipurpose service for Seatrade and its clients. The North Sea Port terminals are well-connected to the hinterland via tri-modality by truck, train, and barge. Mr Van Gorcum continues, “This makes it really easy for us to connect to barge hubs and other ports.”

Like a taxi

The market for specialised reefer vessels has changed in the past decade. Mr Van Gorcum explains, “Before 2008, we used to dominate the market with our reefer vessels. But today,



Photo courtesy of Seatrade.

THREE SEATRADE VESSELS DISCHARGING AT ZCCOLDSTORES (ZCC).



Photo courtesy of Seatrade.

THIS BARGE TRANSPORTS SEATRADE CONTAINERS FROM AN INLAND TERMINAL IN THE NETHERLANDS TO VERBRUGGE AT NORTH SEA PORT.

the market is dominated by container vessels that also carry refrigerated containers (or reefer containers), but not as their main freight. These vessels transport much more besides fruit.” This means that these global carriers make more stops along the way and have to connect East-West trades to North-South trades via transshipment hubs. Mr Van Gorcum highlights, “Of course, we have a healthy competition in the market but at the same time, many customers still prefer their products shipped by our reefer vessels as it is much faster and more direct, without any transshipment. If you can imagine a global carrier as a bus service, then we are the taxi.”

Rise of containerisation

Does the reefer vessel have a bright future? Mr Van Gorcum answers, “You know, we are keeping ahead of the game and looking to the future to see what is happening in our niche business. We do see a further switch to container vessels in the next five to ten years. For now, we will do well to keep the reefer vessels in service, but we cannot deny that we will also have to face the rise of containerisation. We have already invested in eight new-builds, each with a capacity for 700 reefer containers. All our reefer vessels have container slots on-deck. We have extended some of our reefer vessels by cutting them in half and adding a container hatch, and we are chartering fully-containerised vessels in specific trades. Switching from reefer vessels to cooled containers does not mean we will change our concept. We will stick to our unique selling point; our fast, direct, and dedicated service.”

Innovative chemistry

Current state of affairs at Arkema



All photos courtesy of Jan de Carpentier.

Arkema's site in North Sea Port has a long, diverse history. After the Vlissingen-Oost port area was raised from the Western Scheldt in the 1960s, the plant on the current Arkema site was one of the first businesses that started there.

When the factory was opened by Prince Bernhard of the Netherlands in 1967, it was a production facility for tin compounds, owned by Billiton and M&T Chemicals. Throughout the years, the site frequently changed hands and names, as did the handled product scope. The production of impact modifiers (IMs) commenced in 1989. Back then, only transparent (MBS) IMs were produced. A factory for the production of non-transparent (D&P) IMs was built ten years later.

After a regrouping process within Total's chemicals activities in 2004, the industrial site changed its name for the last time, from Atofina to Arkema. Not much has changed in the production process since then, although ample aspects have been automated and new products have been developed. The production site presently no longer has anything to do with tin compounds or glass. All activities in the former tin compound factory were terminated in 2018, which caused a restructuring. Only R&D activities are still onsite, but these report to another business unit.

Key plant characteristics

Arkema Vlissingen

Employees: 64
 Production in 5 shift system
 24/7 production
 Batch and continuous operation
 MBS started in 1990
 D&P started in December 1999

Capacity
 MBS: 11,000t/year
 D&P: 30,000t/year
 Total: 41,000t/year
 Area: 12ha



THE RAIL GOES ALL THE WAY INTO THE TANK FARM, SO ARKEMA CAN UNLOAD FROM EITHER RAIL WAGONS OR BULK TRUCKS.



THE LATEX IS CREATED IN BATCHES AND INTERMEDIATELY STORED IN TANKS.

Impact modifiers

Arkema Vlissingen is a business-to-business producer. Its customers add a small percentage of one of Arkema's products to their own production flow.

Arkema's site in North Sea Port manufactures additives to improve the PVC production process or to improve the characteristics of a final product. Take PVC or plastic window frames, for example. Without Arkema's impact modifiers, you could easily punch a hole in them with a hammer. The IMs ensure an optimal binding.

Arkema produces two different types of impact modifiers in two separate factories at its Vlissingen production facility. One processes IMs for applications in transparent products (like plastic sandwich bags), the other manufactures IMs for non-transparent products (such as window frames). The production processes are different, but both are based on the creation of polymers from monomers.

Production process

The creation of impact modifiers starts with the purification of raw materials. A latex is created by inducing a rubber reaction. Similarly to for example, the grafting process of a tree, the polymer is subsequently grafted; a substance is added as a shell to an existing rubber core. The two do not match but by grafting, they can be intertwined to form a single entity. The latex is created in batches in a continual, silo-based process. The transparent MBS Clearstrength products are coagulated to solidify them. Then they are dried, classified to the right particle size, and packaged in small or big bags. Salts and surfactants are removed through coagulation impurities, thus making the MBS products transparent.

Arkema's non-transparent D&Ps, Durastrength and Plastistrength, are manufactured in the same way. A similar latex is created but instead of coagulating it, the fluid latex is pumped into a dry sprayer under high pressure. Latex droplets fly through a very hot air flow, causing the water to evaporate so that a powder remains. The powder is further dried and strained



ARKEMA'S PRODUCT IS DRIED UNTIL IT REACHES ITS FINAL FORM: A VERY FINE POWDER, WHICH IS PACKAGED IN SMALL BAGS OR BIG BAGS.



THE FINAL PRODUCT IS PACKAGED IN SMALL BAGS (PICTURED) OR BIG BAGS.

until the product reaches its final form: a very fine powder, which is packaged in small (20kg) bags or big bags (500-1,000kg). Arkema annually produces 41,000t, of which 30,000t includes D&P products, and the remaining 11,000t MBS.

Product transport

Some raw materials, monomers, that are processed at the plant arrive from another Arkema facility per train. The rail goes all the way into the tank farm, so Arkema has a choice to unload from either rail wagons or bulk trucks.

Products leave the North Sea Port site on trucks. The transparent MBS application Clearstrength is packaged and stored onsite in Vlissingen and loaded onto trucks. Arkema only has limited warehousing capacity for its D&P product, so a truck shuttle service drives up and down to a storage and package facility in Antwerp. This facility has dedicated silos for Arkema and also packages the products for them. From there, it is exported worldwide via containers on vessels, trucks or trains.

New business

A considerable part of Arkema's North Sea Port site and installations are currently unused. Plans to demolish the idled equipment and buildings are in an advanced stage. The chemical manufacturer aims to focus on attracting new business in the near future.

Global player in coatings industry

Arkema, a Total split-off, is a large group of companies with 20,000 employees worldwide, which focuses on specialty chemicals. The group spends a substantial amount of its funds on R&D and holds thousands of patents. Due to the very specific characteristics of the products manufactured by Arkema Vlissingen, it draws on the expertise of two different R&D centres in France, one in Lyon and one in Pau. On the one hand, these centres continually seek new product applications; on the other, they focus on process optimisation.

Q&A with Frank Kloek, Plant Manager Vlissingen and Brummen



FRANK KLOEK, PLANT MANAGER OF ARKEMA VLISSINGEN AND BRUMMEN.

Since February this year, Frank Kloek is the new plant manager of both Arkema Vlissingen and Arkema Brummen. Both facilities are part of the Arkema Coating Resins business unit. He works from Vlissingen four days a week, while spending one day a week at the Brummen plant.

Mr Kloek joined Arkema at a challenging time, shortly after a restructuring. PortNews sat down with Mr Kloek for a quick Q&A.

Q: What did you bring to the table at Arkema?

A: I think what I bring is stability: a different style of managing, based on structure, calmness, and a straightforward 'a deal's a deal' mentality. Especially in a chemical plant, I think that attitude is fundamental. All stakeholders such as our own employees, customers, the environment and our neighbours are key. Therefore my number one priority is making sure that, at the end of the day, everyone goes home safely. Another keyword for me is transparency. Involving everyone in the decision-making process early on, letting them know what is going on, and making them aware of their personal contribution. That is very important to me and I think it is why I was recruited for this position. There was a restructuring, a part of the company was shut down. This situation required a new approach. First, you need things to settle down, and then you need to determine what is going to happen next, together. The goal is to have a team of 64 people unitedly striving for the same goals; a team that is willing to change and continuously improve.

Q: How do you reflect on these first nine months at Arkema?

A: These months have been great. The people that work in Vlissingen and in Brummen are highly committed, they work hard, have a very positive attitude and a great team spirit. For

me, that is a great atmosphere to work in. I think we have already achieved several objectives, and we continue to do so. Moreover, the coating resins business unit within Arkema feels like one big team. The plants share best practices and strive for the best solutions together.

Q: What would you say is your main focus?

A: Keeping the company's strong commitment to safety, health, and environment is my top priority. Arkema is one of around 400 companies in the Netherlands that are subjective to the Directive on Risks and Severe Accidents, SEVESO (Besluit Risico Zware Ongevallen, or BRZO in Dutch); so-called high-risk companies that need to comply to stringent safety requirements. This serves as our license to operate. We continuously invest in process safety and occupational safety; it is simply part of the job.

And Arkema's strong focus on safety is not without results. Arkema Vlissingen recently celebrated seven years without recordable accidents, and we have not had any lost-time injury for nearly a decade.

Q: What are your ambitions for the future?

A: My aim is to increase our volumes and develop new business. I also think continuing our product development is of vital importance. To differentiate ourselves within the market, and choose niche sectors over commodities.

I want to maximise our output with minimal investments, while simultaneously realising CAPEX financing from our head office in France to invest in expansion and automation. We have recently invested EUR 600,000 in a fully automated packaging line to automatically fill, stack and transport small bags of 20kg each. The installation start-up is scheduled for 9 December 2019. This shows us that the Arkema head office has enough confidence in our facility's capabilities. The confidence is there, but we need to continue to prove ourselves. In safety, health, environment and quality, but also in financial results.

In society, plastics are under scrutiny. And even though we do not yet see that criticism reflected in the market, there is a good chance that we will in the future. We are hence keen to develop, together with the industry, innovative plastic replacements. We also see that the focus on recycling continues to grow, which is another focus area for our R&D centres. There is a real focus within Arkema globally to minimise our waste footprint. Our vision is: reduce, recycle and reuse.

Q: Is there a specific product you manufacture here that you are particularly excited about?

A: A new Clearstrength product has just been released. XT100 is currently being put in the market, and Arkema expects a lot from it. It is an advanced product in terms of dispersibility. Most chemical products that we manufacture have one or two qualities in which they excel, while XT100 ticks all the boxes. Whether it is dispersion, elongation, adhesion or impact strength: it stands out in all of these. I think it has great potential for applications in airplane interiors, among others.

Havenwerk ensures flexibility and craftsmanship at port

Port activities take place around the clock. That means specialised port personnel is required 24/7 – quite the challenge most days. But not for Havenwerk.



COLLEAGUE DANITSIA ON THE REACH STACKER.

Photo courtesy of Havenwerk.



ALWAYS CLEARLY VISIBLE IN THE RIGHT PERSONAL PROTECTIVE EQUIPMENT.



Photo courtesy of Havenwerk.

Havenwerk is a specialised service provider for ports and industrial logistics. With a pool of flexibly deployable professionals, Havenwerk works throughout the Netherlands; from Zeeland to Groningen. With about 70 flexible employees stationed at North Sea Port, Havenwerk is well-established in its home port. At North Sea Port, Havenwerk collaborates with various transshipment companies and industrial logistics companies. Think of Verbrugge, Kloosterboer, Ovet, Supermaritime Group, Acces World, Euro-Mit Staal, Damen Shipyards, and Shipyard Reimerswaal, to name just a few.

Safety awareness

Safety is Havenwerk's number one priority. All its employees are professionally trained. The enterprise has a valid VCA safety certificate, as well as other certificates required for the work. Employees keep up with regular toolbox meetings, good PPE, and advanced certified safety management. In an interview with Ton Veraart, Director at Havenwerk and Stéfanie Vermeulen, Communication Manager at Havenwerk, both stipulate, "Safety is our main concern and our employees are well aware of whether or not a company strictly follows safety rules. This is why we only send our people to work at companies within the port that adhere to the highest safety standards. As a lot of our employees operate industrial machinery, competence is a must." Mr Veraart elucidates, "That is why we decided to start up Havenwerk, and offer a different concept for the ports. If you use an employment agency, you will never be able to guarantee safety in a port. But with flexible professionals, you



HAVENWERK'S BAS-JAN ON THE JOB.



Photo courtesy of Danny Cornelissen.

can. Our people are heavily certified and can work in a great variety of roles, which also makes them more aware of what goes on around them." Mrs Vermeulen adds, "At Havenwerk, you receive a good education and we ensure training on the job. This works well for our people, and also for our partners. Together, we look at what is needed on the work floor and we make a plan to ensure that the flex workers are properly trained

to do the required tasks. In this way we guarantee the best all-round craftsmen.”

Flexinuity

Havenwerk has created a flexible pool of professionals with different qualities, so it can realise optimum staffing at various clients throughout the port. What sets the company apart is its striving for long-term and productive cooperation with customers and colleagues. A term that typifies Havenwerk is flexinuity. Flexinuity stands for flexibility, continuity, and quality. Mr Veraart explains, “Flexinuity is important for our economy. Continuity and growth are indispensable for the competitive strength of companies in the ports and logistics sector. With flexinuity, Havenwerk meets the increasing need for both flexibility and craftsmanship.” With the Balanced Labour Market Act coming into force on 1 January 2020, Havenwerk sees supported its mission of offering flex workers long-term contracts. Mr Veraart highlights, “We offer our people a permanent contract, even though they work flexibly. We believe that flex workers deserve better. Not only should they receive good pay and all the extras that a steady contract provides, the expertly trained and skilled professionals that work flexibly also need an improved status. Without them, the activities in the port will grind to a halt.”

Best of both worlds

Flexinuity does not only work well for employees, but also for Havenwerk’s partners in the port. Mr Veraart discloses, “Most companies require a minimum of employees to keep business going and on top of that, they need a maximum number of staff in peak season. These companies hence employ more people to ensure capacity when it is busy, but at peak times they still need to hire additional personnel and there are too many workers during quieter times. What we propose is that you employ a basic work team and let us take care of the rest. We will ensure that you have the people you need and supply you with a flexible stream of professionals throughout the year. So that companies can save money, and we can still guarantee our own employees fulltime working contracts. It is the best of both worlds.” “Yes,” nods Mrs Vermeulen. “Our people can work flexibly, receive good pay, a proper pension, education and training on the job, and a company car. Our clients get flexible craftsmen who know exactly what they are doing on the work floor.”

Across the border

Havenwerk has been active in North Sea Port for the past 20 years. It opened up a subsidiary in Rotterdam in 2008, and another in Amsterdam in 2015, and has just recently opened a new office in Delfzijl. The next step? Mr Veraart explains, “We want to expand along the canal towards Ghent. We will commence Havenwerk Belgium in 2020. It is a logical next step for us to move towards Belgium. We wanted to cross the border years ago, but had to bide our time due to divergent rules and regulation. This upcoming year, we are ready to jump to the other side. We will mainly focus on the industry and logistics behind the port, as regulations within the Belgium ports are distinctive. North Sea Port has helped us make the right contacts and connections. The fusion of the ports has been a catalyser for cross-border thinking and handling.”

Synergy

Havenwerk looks for synergy with its partners in the port and will advise them, if needed. The company’s goal is a long-term



Photo courtesy of Jan Nass.

TON VERAART, DIRECTOR OF HAVENWERK.



Photo courtesy of Havenwerk.

HAVENWERK’S TRAINER AND SAFETY EXPERT, XANDER.

relationship with both employees and partners in the port. Mr Veraart emphasises, “We are not an employment agency. We do not work with just anybody. We visit the companies we work with first and look at safety, the possibility of education and training on the job, developing a lasting partnership, and we should also agree on market prices. We look for partners with whom we can do business for a longer period of time.”



All Photos courtesy of ATS Group.

ATS Group embraces climate-neutral philosophy

With sustainable building and green transport fleet



ATS GROUP'S ENERGY-NEUTRAL BUILDING
IN THE PORT OF GHENT.

The ATS (Advices for Technical Systems) Group is a multidisciplinary technology group. The group specialises in creating a sustainable, innovative, and efficient production and working environment by realising turnkey installation projects in electrical, mechanical, and HVAC (Heating, Ventilation, Air-conditioning) activities. It is also a reliable partner in wholesale activities.

ATS Group offers a full range of high-quality products and services in almost all sectors of industry, service, and public sectors. It consists of a team of more than 800 highly-specialised technicians and engineers working in various sectors of electrical engineering, mechanical engineering, and other disciplines. The group was founded in 1984 by current CEO René Schepens. The headquarters of ATS Group are located in Merelbeke. There are sixteen other ATS Group sites in Belgium, mainly situated in Flanders. In 2018, consolidated sales reached over 167 million euro. With over 80% of the businesses in the port as its client, the group is a major player in the port of Ghent. Mr Schepens comments, "With various sites located all over Belgium, we are closely situated to our clients and that means we can act quickly. Our clients appreciate this proximity, and so do we."

Energy-neutral building acts as demo-site

The group has recently started operations in a new business establishment at the Langerbruggekaai in the port of Ghent. The new location ensures that all its machine building activities are now located under one roof. This is the group's second biggest edifice with a surface area of 10.000m². The building also serves as a demo-site and as an example of the possibilities available at ATS Group when it comes to HVAC, energy solutions, and efficiency. Guy Persyn, Division Manager Mechatronics at ATS Group, explains, "How do you manage energy? It actually pays to invest. This building has been optimally HVAC-equipped."

With this building, the company has created the ultimate energy-neutral model. The isolation is ideal. The battery systems perform at their best possible output. There are enough installed solar panels to save energy and potentially feed it back into the system. All of these HVAC innovations are controlled by a software system. Mr Persyn clarifies, "This site functions as a showcase for our clients. Instead of showing them a PowerPoint presentation, we guide them around our own site and explain how we have optimised this building and how happy we are with the results."

The building was originally used by a transshipment company. Mr Persyn says, "We stripped the building entirely, and kept only the outside structure. We then filled the inside of the structure with new technology and new isolation,



NEW GREEN TRANSPORT FLEET,
POWERED BY NATURAL GAS.



RENÉ SCHEPENS, CEO OF ATS GROUP.

ensuring that we create a completely energy-neutral building. Soon we will have our own windmill on the yard providing us with energy. Our smart building management system even monitors the weather forecasts and adjusts the energy output accordingly. It ensures extremely comfortable surroundings.”

This building is much like the precursor of a ‘smart’ building. The gates open automatically, the heating is adjusted to the activity within the building, as is the control of the lighting system. The safety aspects of the building, like the fire alarm, have been created in-house. Mr Persyn proudly mentions, “It has been wholly built by ATS Group; nothing has been outsourced. Our clients can see that we have made the investment ourselves. This means that we are the best example of our own product.”

Inside this building, the company hosts all of its mechatronics activities, projects, and services. The entire value chain i.e. internal supply chain, laser cutting, folding and machining, surface treatment, steel activities and stainless-steel activities, is covered. Mr Persyn adds, “We also include automation, with or without robotics. You see, ATS Group streamlines the entire process together with the client. We can create custom-made machinery for the client. That is what sets us apart from the rest.”

Green transport fleet

The group recently acquired twenty new trucks and twenty new vans powered by Compressed Natural Gas (CNG.) Mr Schepens says, “At ATS Group, being green is part of our business philosophy. We distinguish ourselves with a climate-neutral philosophy. We have to look at our use of energy. Each and every one of us. Saving the climate is important for everyone on this planet, which is why we decided to acquire new trucks and vans that can drive on natural gas.”



BATTERY STORAGE SYSTEM AT THE LANGERBRUGGEKAAL.

Turnkey projects

ATS Group covers many specialisations and divisions. When two or more divisions work together on a project, it is referred to as a turnkey project. The obvious advantage is that you can limit your suppliers and reduce the lines of communication considerably. The group makes sure that the



ELECTRIC VEHICLE CHARGING STATION
AT THE LANGERBRUGGEKAAI.

tasks of the various divisions are optimally coordinated under the supervision of one project manager. Mr Schepens explains, "Our business concept is to have a broad profile. It has always been in the interest of company growth to have a varied client target group. This also ensures that ATS Group can keep on developing and evolving. If one sector is weakening, we still have other sectors that we can rely on."

In 2015, ATS Group became a daughter company of energy group Luminus, an energy provider in Belgium. Luminus can now keep on growing by offering clients in-house energy services. Today, this sector amounts to at least 20% of ATS Group's revenue. Mr Schepens comments, "Of course that is good business, but we do not focus on big projects only. We also keep up with smaller individual business requests. They are extremely important to our business. Another one of our major strengths is the fact that we always have our own personnel representing ATS Group allocated to each project. Even if we use a subcontractor, an ATS team will visit the client together with the subcontractor. To us, it is of utmost importance that the client knows we are always on location and accessible. Our proximity and flexibility are unique in technical service provision. We are available 24/7, throughout the whole year."

Technical education

ATS Group also has its very own ATS Academy. At this academy, the group educates its own people and wants to



TRANSFER OF KEYS TO SITE MANAGERS.



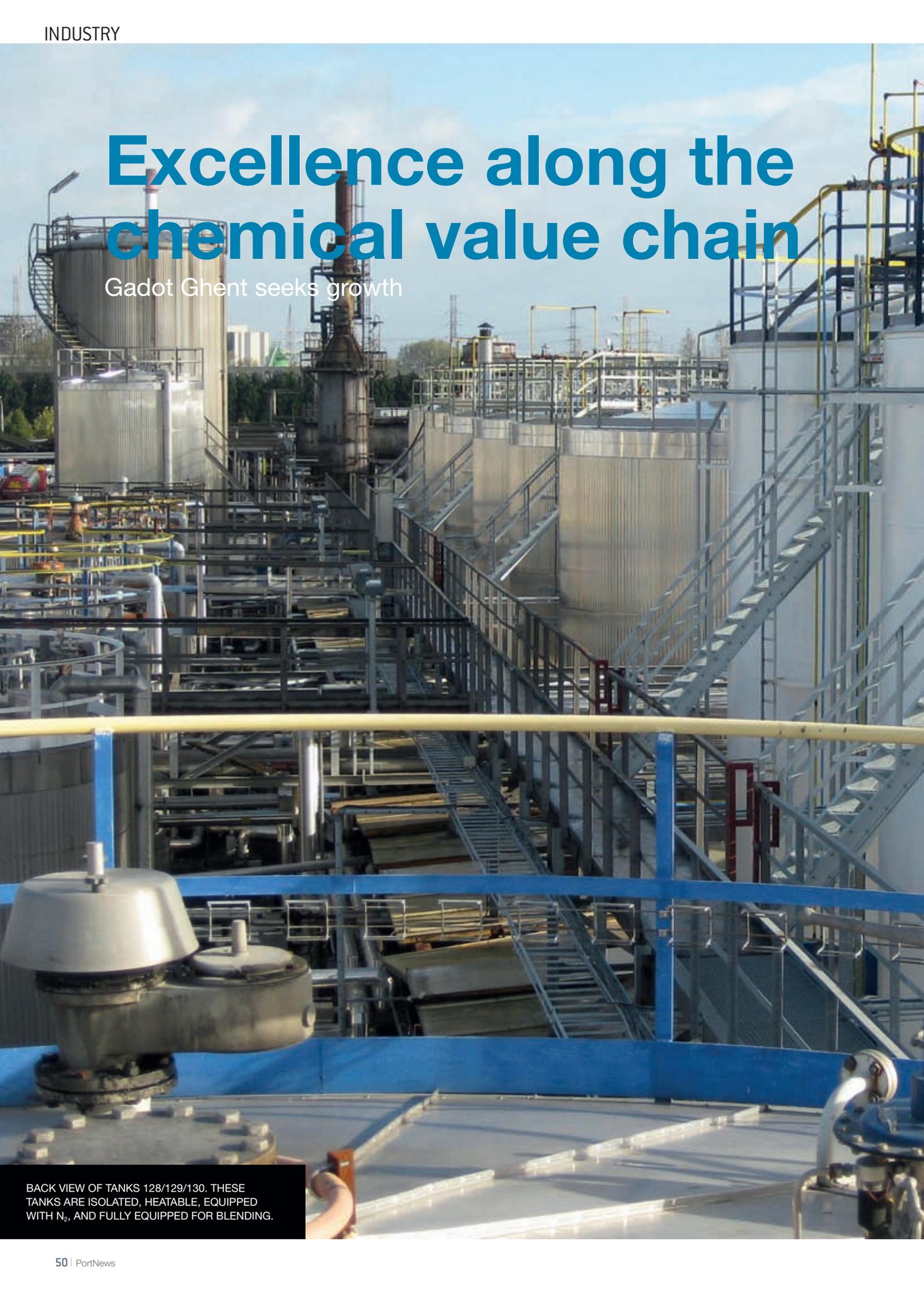
GUY PERSYN, DIVISION MANAGER MECHATRONICS AT ATS GROUP.

excite the youth about a future in electronics. Mr Schepens, "You need to have patience and invest for the long run. There are not enough technical employees today and many are needed in the future, so we need to interest the youth. Right now, we focus on the pool of students that have finished secondary school and are looking for a technical education." There is since 2012 a partnership with schools in Ghent enabling youth to visit the work floor and even participate for an hour, creating a control cabinet with ATS technicians. These students often return for an internship at ATS Group. The group also offers a week-long internship to teachers, so they can experience the technical field and enthuse their students.

I. ATSGROEP.BE

Excellence along the chemical value chain

Gadot Ghent seeks growth



BACK VIEW OF TANKS 128/129/130. THESE TANKS ARE ISOLATED, HEATABLE, EQUIPPED WITH N₂, AND FULLY EQUIPPED FOR BLENDING.



All photos courtesy of Gadot Ghent.

A lot is happening at Gadot Belgium, formerly known as VLS-Group Ghent. Apart from the recent name change – as part of a larger rebranding and restructuring of the Gadot Group’s setup of facilities and activities in Europe – a new management team was installed in July 2019, led by newly appointed CEO Wim De Windt.

Let us start off by refreshing the collective memory. Back in 1999, Vopak Logistics Services (VLS) Group was Vopak’s logistical branch. A management buy-out took place in 2003, as Vopak wanted to shift its worldwide focus to tank storage and divest its logistics activities.

Meanwhile, Israeli chemical distributor Gadot was looking for growth in Europe. In 2007, the company bought VLS-Group, with logistical entities such as those in the Netherlands, Belgium and Germany. Under the Gadot umbrella, VLS-Group kept its own name.

To further develop its growth strategy in Europe, Gadot went on to buy the ADPO Ghent terminal (originally Texaco Additive Terminal) in 2010. Because Gadot had already acquired several VLS offices in Europe by that time, and the VLS name was better known here, the terminal in Ghent became part of VLS.

Gadot has in recent years strengthened its focus strategy further along the chemical value chain and has divested part of its warehousing activities in the Benelux. The VLS warehousing sites in Belgium and the Netherlands were sold to Broekman Logistics in 2018. The next step in the growth strategy was to expand Gadot’s core focus activities in Europe, including in Ghent, possibly followed by further acquisitions in the future.

Rebranding of Gadot Ghent

To exude that renewed focus, Gadot announced in June 2019 that it was rebranding the VLS business entities that had remained within the group. The VLS sites in Germany and Belgium would now also carry the name Gadot. As of 1 July 2019, the VLS terminal in Ghent is officially registered as Gadot Ghent.

Simultaneously with the rebranding, the Ghent management was renewed. This was no coincidence, as Gadot wanted to make a clear statement about its ambition to grow and invest in Europe.

PortNews spoke to Wim De Windt, the new CEO of Gadot Belgium and Gadot Germany, about Gadot’s activities, plans, and ambitions within North Sea Port.

Q: What made the VLS terminal in Ghent so attractive to Gadot back in 2010?

A: Firstly, it has access to all modalities: seagoing vessels, coasters, inland vessels, trucks, isotainers, flexi-bag containers, box containers; in or out, anything is possible.



GADOT'S TERMINAL AT THE MERCATOR DOK IN GHEENT.

Optimising transport is a hot topic for many customers, especially with just-in-time projects or certain lead-times. How quickly a product can reach a tolling site, and be dispatched again, is a major factor. The vicinity of other companies in the port area is a definite strategic surplus. And the port merger has really put North Sea Port on the map.

Secondly, there aren't a lot of sites in Europe that have the expertise and possibilities that Gadot has at the former VLS terminal in Ghent. If you would try and greenfield reconstruct what we have here, you would lack the collective memory, the decades of process knowledge that we have on site. Our long-time experience is what gives us credibility in the market. All those factors together make our terminal in Ghent a unique facility.

And our expertise has evolved. Nowadays, we are mostly contacted for higher added value blends. We take on complex projects, and that is what we are valued for. The same goes for terminalling: we use many of our tanks to facilitate tolling and blending activities. This is very complementary to our terminalling activity.

Q: How do Gadot and VLS relate to one another, both in activities and in company structure?

A: The VLS terminal in Ghent has a great fit with Gadot's activities in Israel. We have many similar activities. However, Gadot Israel is mainly active in chemical distribution. The (former) VLS sites in Germany, meanwhile, specialise in logistics services and warehousing. One of the reasons why Gadot acquired VLS was because having these different aspects in-house allows for far greater synergies within the group.



Gadot Ghent holds a top-five position as independent producer in the lubricants and additive industry.

Q: Could you elaborate on the intended goal of the rebranding?

A: The Gadot name was not very well-known in Europe, and the fact that VLS Ghent was part of a larger group was also relatively unknown. By rebranding, Gadot wanted to increase brand awareness in Europe. This was also part of the reason for appointing a new management. Our current team is very open in its cooperation with other Gadot divisions in Germany and Israel. We have joined forces and are working on overarching projects together.

Q: Have Gadot's activities in Ghent shifted since the rebranding?

A: The focus in Ghent at present remains on tolling, blending, and filling. We do not release our own blends or final products that would compete with customers using our tolling facilities; our expertise is that of an independent service provider.

Q: What are the main products that you process in Ghent?

A: Our product portfolio mainly includes diesel-fuel additives, lubricants, marine lubricants, coolants, specialty chemicals, and viscosity modifiers. Viscosity modifiers are a unique niche market, for which we have a considerable production capacity in Ghent.

It is a broad range, far broader than just lubricants. We also produce components for motor oils, hydraulic oils, and fuel additives.

Gadot Ghent holds a top-five position as independent producer in the lubricants and additive industry. Our site is equipped with over 200 tanks for stockage and blends, blending cauldrons, and reactors. We do not merely blend, we also let chemical components react. Moreover, we provide the warehouse space required to store both raw materials – whether in tanks or packaged – and intermediate or finished products. Having all these links in-house gives us the flexibility to handle the supply chain and logistical part of the project.

Q: What does a typical project process look like?

A: All our projects are tailor-made, which makes each project design a lengthy process. In consultation with the customer and experts in the supply chain, we decide what tanks are the best fit in terms of blend size and temperature range, how to optimise the flow in the production process, as well as in logistics. We furthermore offer the possibility to package the final product. Many of our tanks have direct lines to our filling lines, and we utilise our own transport shuttles for the tanks that do not. We operate as a one-stop-shop and strive to fully unburden our customers. We are also open to the possibility of investing on site to enable specific projects. The terminal in Ghent provides us with the necessary space to allow for such investments, either by retrofitting existing facilities or by installing new ones.

Focus on growth and safety

Q: You mentioned earlier that Gadot has a growth strategy in Europe. What does that translate to for the terminal in Ghent?

A: This year and in early 2020, we are investing several million euros in two of our main focuses: safety and growth. There is a concrete multi-year investment plan for safety aspects in the company, such as fall prevention. Apart from that, we are investing in additional tank capacity, as well as in new high-performance filling lines. Five new tanks are being constructed, which should be operational in Q2 2020. Stability testing is currently underway, after which construction will commence. The new tanks are a step towards chemical distribution of certain complementary chemical products in the future.

Q: What is the added value of these new high-performance filling lines?

A: Before, we mainly used our filling lines as an element within the one-stop-shop deal, to handle third-party filling activities for customers that also used our other facilities. Anything from 11 packaging to 200l drums and even 1,000l IBCs, we can fill it on site in Ghent. There needs to be product compatibility of course, but the high-performance filling lines allow us to approach filling as a focus activity. Our drumming lines have a total capacity of 90,000m³ per year.

Q: Will the incorporation of the new filling lines change operations on site?

A: Yes, they will bring several changes at our terminal. The filling lines are integrated into a new warehouse setup, thus strongly reducing forklift traffic. Whenever possible, transfers will be done by conveyor system and a new automated transfer shuttle that is programmed to move drums from one location to another. This robotic transport system has its own data storage that registers what product it is transporting and is linked to our ERP system. The filling lines come with a new palletiser that automatically handles various pallet types. Additional weighing checks will also be installed, as well as a drum turning device and an integrated wrapping system.



A REACTOR WITH DEDICATED EQUIPMENT, HORIZONTALLY POSITIONED. THIS TYPE OF INSTALLATION IS USED TO PERFORM CHEMICAL REACTIONS.



WIM DE WINDT, CEO OF GADOT BELGIUM AND GADOT GERMANY.

FRONT VIEW OF TANKS 128/129/130, WITH THE TANK PARK IN THE BACKGROUND.



FORKLIFT ON ITS WAY TO LOAD A FINISHED PRODUCT ONTO A TRAILER. SEVERAL HUNDREDS OF THOUSANDS OF DRUMS ARE PRODUCED, STORED, AND HANDLED AT GADOT EVERY YEAR.

Q: When do you expect the filling lines to be ready for operation?

A: By the time this magazine is released, installation will have commenced. The machines were built in Germany, and our operators have been running factory acceptance tests this November. Once the machines are tested and approved, they will be transported to Ghent. In the meantime, we are freeing up the required space at our terminal and training our personnel on how to operate them. The go-live is scheduled for 1 January 2020.

Land swap deal with North Sea Port

A new gas station for trucks is currently under construction near the Gadot entrance way. The patch of land next to it has been given to Gadot by North Sea Port, in exchange for a piece of land including a railway connection at the Mercatordok, on the other side of the Gadot site. The land swap comes as part of a large package deal between Gadot, North Sea Port, Volvo, DFDS, SealInvest, and InfraBel.

That railway was the main stake in the land swap, as it has great value for Volvo's strategic rail connection to China. A letter of intent was signed in June 2019, and formalities are now in the final phase.

Q: The gain for Volvo and strategic partner DFDS in this deal is clear. For North Sea Port, it is a next step in its aspired modal shift. What's in it for Gadot?

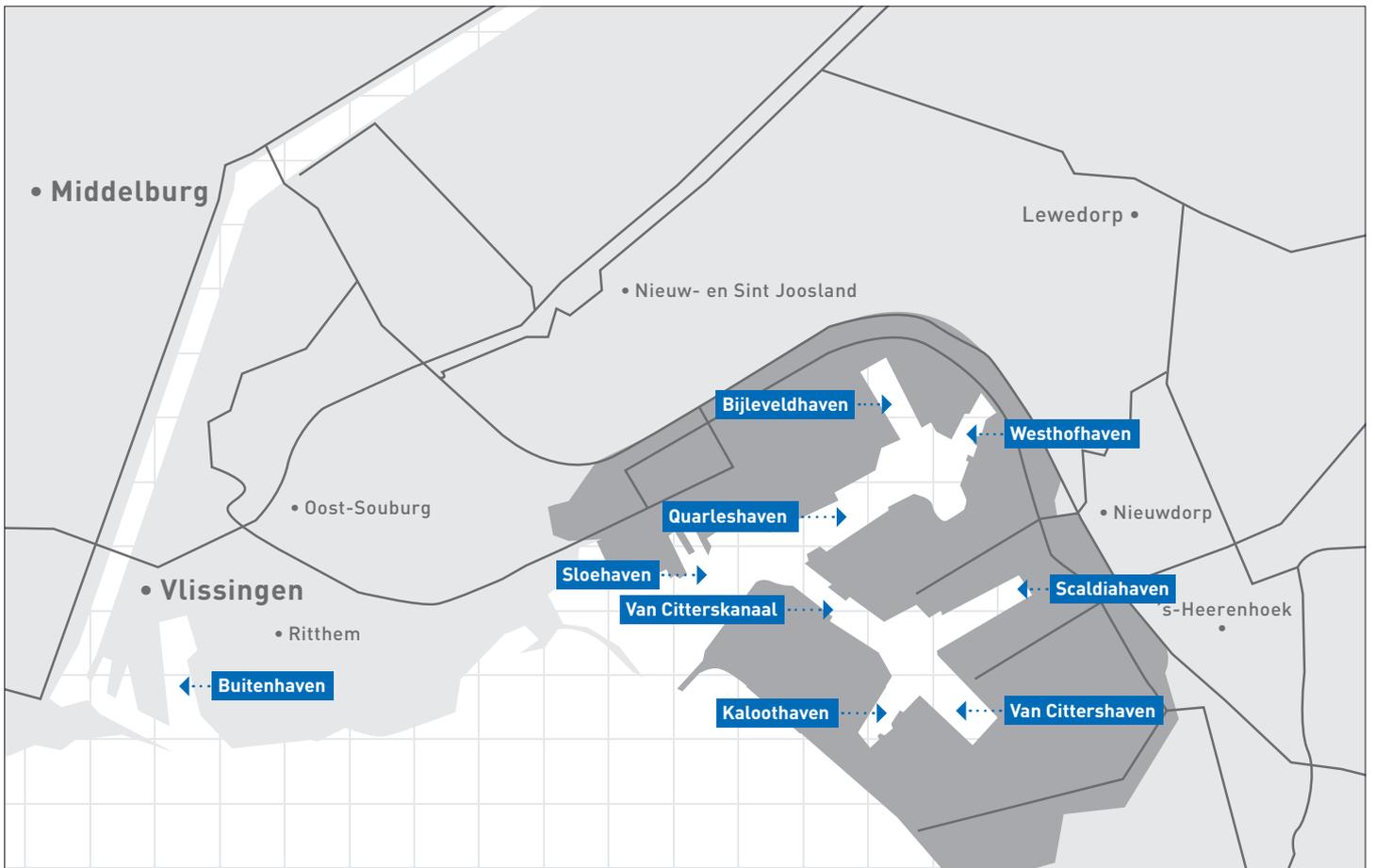
A: We lose the direct access to the railway connection, but we will still benefit from the railway functionality. As part of the deal, another letter of intent was signed for the construction of a pipe load rack to connect to the Mercator bundle. That will allow us to pump the contents of isotainers that are loaded and unloaded via DFDS directly into Gadot's tank park, or vice versa through the pipe load rack.

Transport rates of the various modalities are shifting. Transporting by railroad from China is nowadays more profitable than by ship. And like North Sea Port, we are also noticing a modal shift away from road traffic. We need to go along with those dynamics. The load rack option that we have with DFDS, is a trump card that we plan on utilising frequently in the future.

Q: Do you have any concrete plans for the newly acquired plot of land?

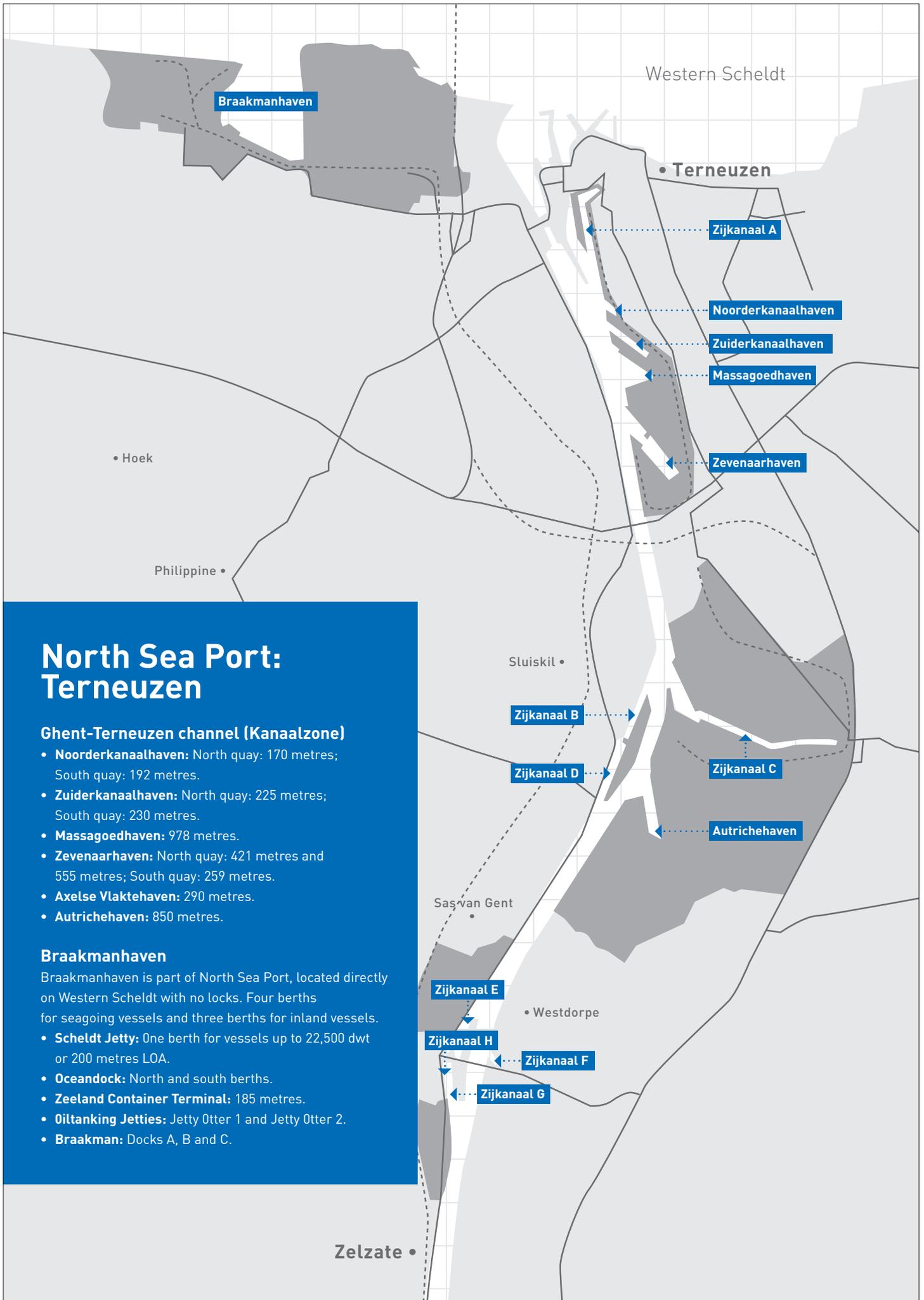
A: The piece of land that we swapped has a strategic location. Over time, we plan to move our entrance gate forward, in front of the truck parking lot. We also want to realise a second entrance on the other side of the terminal, so trucks can also access the site from there. North Sea Port has granted us permission to do so.

Another part of the package deal was an overturn agreement with our neighbours, which allows us to make work of installing a wind turbine on the new plot. That would significantly reduce the terminal's power consumption. The permit application for the turbine's construction has been submitted. If permission is granted, we hope to complete the installation in March 2021.



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

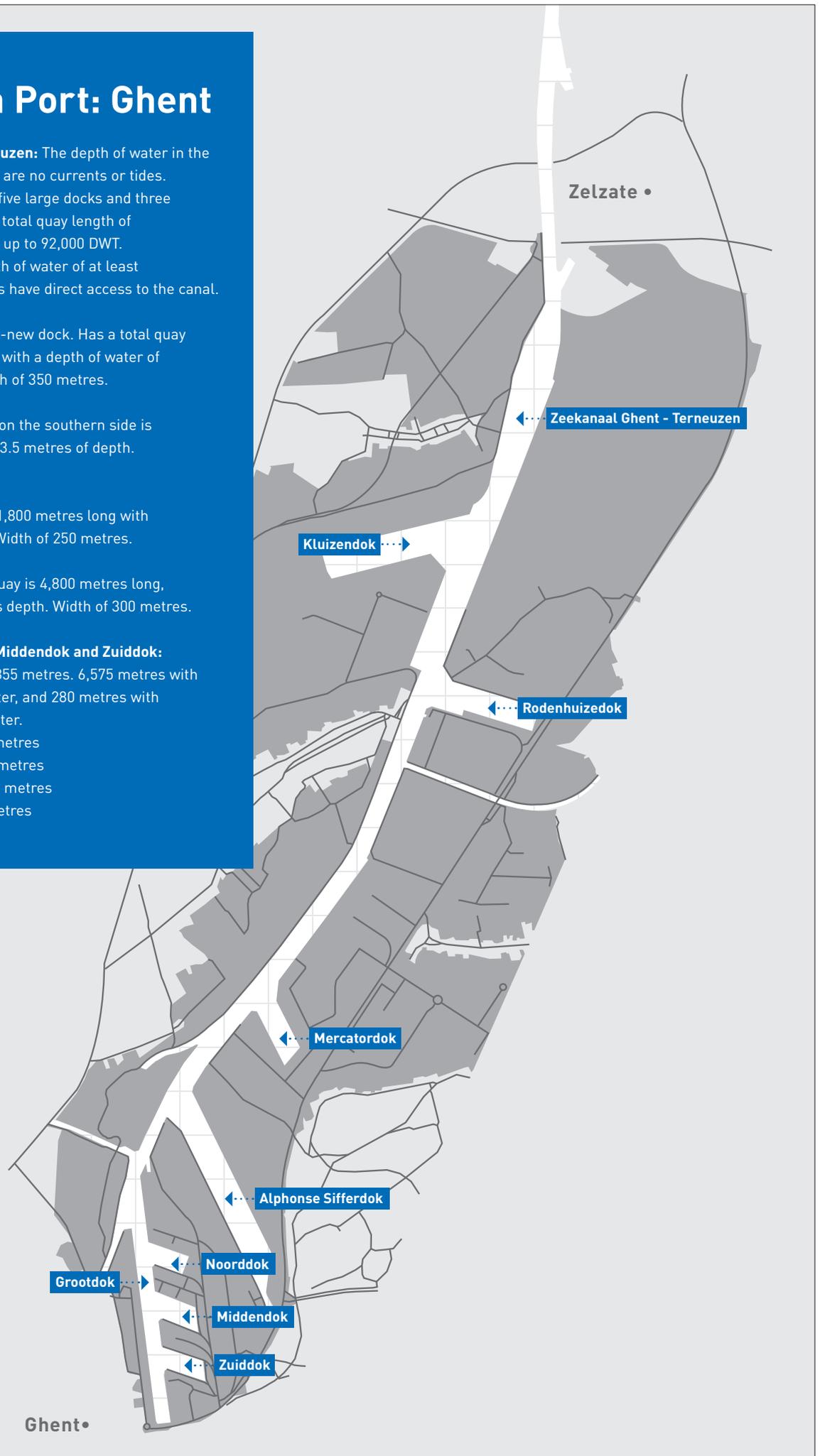
Braakmanhaven is part of North Sea Port, located directly on Western Scheldt with no locks. Four berths for seagoing vessels and three berths for inland vessels.

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



The North Sea Port Promotion Council is pleased to welcome new participants. Founded in 1993, the North Sea Port Promotion Council 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.

→ A.C. RIJNBERG TRANSPORT SERVICE



A.C. Rijnberg Transport Service is a genuine family business. Its history goes back to 1914, when grandfather Rijnberg started as an agent in the shipping industry with regular sailings from Terneuzen-Ghent to London. At the beginning of the 21st century, the company focused entirely on international road transport and the associated freight forwarding and storage activities. It specialised in transports to and from France, including groupage shipments, part loads, and full loads. A.C. Rijnberg Transport

Service has flexible storage facilities in Terneuzen. It has more than 30,000m² storage available. Approximately 20,500m² is permanently leased out. As with many family businesses, this business is based on passion and loyalty and is firmly committed to continuity. The enterprise strives for long-term relationships with customers and employees.

[I. RIJNBERG.COM](http://I.RIJNBERG.COM)

→ INTERFACE TERMINAL GENT (ITG)



Interface Terminal Gent (ITG) is a young container and trailer terminal (2015) created by the Stukwerkers Group en Masterbulk. It is strategically located at the Kluizendok in North Sea Port. This four-modal terminal was established as a congestion-free solution for both local and international companies to sustainably transport containerised goods. ITG assists and provides in transforming its customers logistics and supply chain into a more sustainable and smarter chain, using multimodal transport solutions – via

rail, inland, and short sea shipping with first/last mile truck possibilities – as well as digital real-time applications. Its ambition is to become the container hub and terminal operator of choice within North Sea Port. A company known for its international, excellent multi-modal services, and driven by continuous attention to customer satisfaction, sustainability, safety, flexibility, and (digital) innovation.

[I. STUKWERKERS.COM](http://I.STUKWERKERS.COM)

→ JB NAUTIC SAFETY



JB Nautic Safety is a service company that focuses on sea-going vessels. For the past 20 years, it has specialised in survival equipment, life-saving appliances, and safety equipment. The company is ideally located in the beautiful province of Zeeland, nearby the port. In this port, JB Nautic Safety mostly provide 24/7 Fire Fighting Service (FFE) and Lifesaving Service (LSA), as the enterprise is

approved for all major Classification Societies. In addition to delivering products from a wide range of articles, it also takes care of inspections, maintenance, and sales. To JB Nautic Safety, it is of utmost importance to ensure that the situation is as safe as possible both on land, and at sea.

[I. JBNAUTICSAFETY.NL](http://I.JBNAUTICSAFETY.NL)

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→ MUNICIPALITY OF BORSELE



The municipality of Borsele consists of fifteen villages and has a population of 23,000. It contains a diverse range of landscapes, hence the nickname a 'municipality of contrasts'. In Borsele you can find idyllic small villages, meandering streams, ponds, and green dykes, as well as areas in which ports and industrial activity are key features. Borsele produces more fruit than any other

local government area in the Netherlands. Apples, pears, and black currants are the main harvests. The municipality is furthermore home to ample small and medium-sized businesses in various sectors. All in all, Borsele is an economically diverse municipality, and a great place to live and enjoy leisure activities.

I. BORSELE.NL

→ SLOECENTRALE



The Sloecentrale is a modern gas-fired power plant with a power capacity of 870MW. This output equals the electricity consumption of two million households. Its production is highly flexible, which allows the plant to easily adapt to the ever-changing energy demands. It can reach its maximum capacity in just 35 minutes and is therefore ideally featured to back-up the power required when wind and solar energy fall short. The Sloecentrale plays an important role in the energy

market, providing a total of 5% of the Dutch electricity supply. It relies on sophisticated technology and committed staff, and is certified in accordance with the latest requirements concerning quality, safety, and the environment. The Sloecentrale continues to challenge itself to confirm its position as an innovative and competitive actor in the energy transition.

I. SLOECENTRALE.NL

→ STUKWERKERS GROUP



Stukwerkers Group was founded in 1338 and is considered one of the oldest stevedoring companies in Belgium. As a private terminal operator, Stukwerkers offers stevedoring and terminal services to customers such as carriers, manufacturers, traders, and cargo-owners. Its major activities include the handling of steel, forest products (paper, pulp & timber), dry bulk (fertilisers), general cargo, and containers (dry, reefer & tank). In addition, Stukwerkers can provide storage (600,000m²) and intermodal transport solutions. As a member of the Stukwerkers

Group, De Baerdemacker provides the full range of maritime and logistic services, tailored to the needs and requirements of customers, with daily activities covering port agency (liner agency, tramping), cargo handling (customs-certified warehouse storage and stock control), custom clearance (fiscal representative), and forwarding. De Baerdemacker is likely one of the oldest names known in shipping and forwarding at North Sea Port.

I. STUKWERKERS.COM



Participants of North Sea Port Promotion Council

		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 (Misingen) 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					■		
	Boluda Towage	www.kotugsmiteu.com		■					
	Boogaard Advocaten	www.boogaardadvocaten.nl					■		
	Bouwgroep Peters B.V.	www.bouwgroep-peters.nl					■		
	BOW Terminal	www.bowterminal.nl			■	■			
	Bulk Terminal Zeeland Services B.V.	www.btzeeland.nl		■	■	■			
	C	C.T.O.B. Transport & Logistics	www.ctob-logistics.com				■		
		CdMR/ Cobelfret B.V.	www.cobelfret.com				■		
		Century Aluminum Vlissingen B.V.	www.centuryvlissingen.nl	■					
		Cordeel Nederland B.V.	www.cordeel.nl	■			■		
C-Port B.V.		www.c-port.nl					■		
D		Damen Shiprepair Vlissingen	www.damen.com	■	■	■			
		DB Cargo Nederland N.V.	www.nl.db.cargo.com				■		
		De Baerdemacker NV	www.stukwerkers.com				■		
		De Pooter Personeelsdiensten	www.depooter.nl					■	
		De Ruyter Training & Consultancy	www.drte.nl						■
	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					■		
	Dex Premium Lubricants	www.dex-oil.com	■			■	■		
	DNM	www.dnm.nl					■		
E	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.dr.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			■	■			
	Euro-Mit Staal B.V.	www.euro-mit-staal.com	■						
	F	Fabricom B.V.	www.fabricom-gdfsuez.nl	■				■	
Firma Klouwers Terneuzen		www.klouwers.nl				■			
Feyter Group		www.feyter.com	■				■		
Flexibility Zeeland		www.flexibility.nl					■		



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	Flushing Marine & Offshore B.V.		■	■				
	Flushing Shipping Agencies				■		■	
	FMJ E & I Zeeland B.V.						■	
	Golden Tulip L'Escaut						■	
G	Green Bleu Offshore Terminal		■	■				
	H4A						■	
H	Haskoning DHV Nederland B.V.						■	
	Havenwerk B.V.						■	
	Henk Kramer Communicatie						■	
	Heros Sluiskil B.V.	■						
	HR Expat Services						■	
	Huis van de Techniek							■
I	I.B.S. B.V.	■					■	
	ICL-IP Terneuzen B.V.	■						
	ING Business Banking						■	
	Interface Terminal Gent (ITG)				■		■	
	Interlashing B.V.				■		■	
	Istimewa Elektro	■					■	
J	JB Nautic Safety B.V.						■	
	Justion Advocaten						■	
K	Katoen Natie Westerschelde B.V.				■		■	
	Kloosterboer Vlissingen B.V.				■			
	Koch adviesgroep Ingenieurs & Architecten						■	
	Koolwijk Shipstores B.V.				■		■	
	KVA International	■	■	■				
	KWS Infra/Aquavia						■	
	Labojuce B.V.	■					■	
L	Legrant Freight Management B.V.				■			
	Liftal Hijstechniek						■	
	Loodswezen Regio Scheldemonden		■		■		■	
	Luctor Belting Nederland B.V.	■					■	
	Mammoet Nederland B.V.	■	■	■	■		■	
M	Maritiem & Logistiek College de Ruyter						■	
	Maritime Support Vlissingen		■				■	
	Mourik Vlissingen B.V.				■			
	Multtraship Towage & Salvage	■	■	■				
	Municipality of Borsele							■
	Municipality of Middelburg							■
	Municipality of Terneuzen							■
	Municipality of Vlissingen							■
	Montagebedrijf Terneuzen	■	■					
N	Nelis BV		■		■		■	
	North Sea Port	■	■	■			■	
	Nouvall Engineering Services						■	



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		INDUSTRY	MARITIME	OFFSHORE	LOGISTICS SERVICES	SUSTAINABLE INDUSTRY	OTHER SERVICES	EDUCATION AND GOVERNMENT
	N.V. Economische Impuls Zeeland	www.impulszeeland.nl					■	
	N.V. Westerscheldetunnel	www.westerscheldetunnel.nl			■		■	
	Oceanwide Personnel Services B.V.	www.oceanwidecrew.com					■	
	Oiltanking Terneuzen B.V.	www.oiltanking.com	■		■		■	
	Ørsted Nederland	www.orsted.nl		■	■	■		
	Outokumpu Stainless B.V.	www.outokumpu.com	■		■			
	Ovet B.V.	www.ovet.nl			■		■	
	Ovet Shipping B.V.	www.ovetshipping.com		■	■			
	Pfauth Logistics B.V.	www.pfauth.nl			■		■	
	Prior Group	www.priorgroup.nl		■			■	
	PTC B.A.	www.ptcba.nl		■	■			
	Rabobank Oosterschelde	www.rabobank.nl/oosterschelde					■	
	Rabobank Walcheren-Noord Beveland	www.rabobank.nl/wnb					■	
	Rabobank Zeeuws-Vlaanderen	www.rabobank.nl					■	
	Sagro Aannemingsmij. Zeeland B.V.	www.sagro.nl		■	■	■		
	Saybolt Nederland B.V.	www.corelab.com/rd/saybolt			■		■	
	Schipper Groep	www.schippergroep.nl					■	
	SDW Shipping	www.sdwshipping.com			■			
	Seatrade Rotterdam B.V.	www.seatraderotterdam.nl		■	■			
	Secil Cement	www.secil.pt	■		■			
	SGS Nederland B.V.	www.sgs.com			■		■	
	Shipyards Reimerswaal	www.shipyardreimerswaal.com		■				
	Shutdown Control	www.shutdowncontrol.nl		■				
	Sloentrale	www.sloentrale.nl				■		
	Sorteerbedrijf Vlissingen B.V.	www.sorteerbedrijfvlissingen.nl			■		■	
	SPIE Nederland B.V.	www.spie-nl.com					■	
	Stukwerkers Havenbedrijf N.V.	www.stukwerkers.com			■		■	
	S.T.T. B.V.	www.agency-stt.com	■	■	■	■		
	Suez Recycling & Recovery Netherlands	www.suez.nl					■	
	Supermaritime Nederland B.V.	www.supermaritime.com		■	■		■	
	Swagemakers Intermodaal Transport B.V.	www.swagemakers.nl			■			
	Sweco Nederland B.V.	www.sweco.nl					■	
	Tanido B.V. Sworn Marine Surveyors	www.tanido.com			■		■	
	Terneuzen Powder Technologies B.V.	www.tpt.nl	■		■		■	
	The Wind Technicians	www.thewindtechnicians.com		■			■	
	Timmerman Industrial Repairs	www.itimmerman.nl		■			■	
	TMS Terneuzen B.V.	www.tmsnl.com	■				■	
	Try-Act EWIV	www.try-act.eu					■	
	United Metals	www.united-metals.nl					■	
	Van Ameyde Marine Vlissingen	www.ameydemarine.com		■	■		■	
	Van Keulen Transport B.V.	www.vankeulentransport.nl			■			
	Verbrugge Internationale Wegtransporten B.V.	www.verbruggeinternational.com			■			
	Verbrugge Marine B.V.	www.verbruggeinternational.com		■	■		■	



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Verbrugge Terminals B.V.	www.verbruggeinternational.com		■	■	■		
Verenigde Bootlieden B.V.	www.bootlieden.nl		■		■		■
Verex Douane Service	www.verexdemeijer.nl				■		■
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Vesta Terminal Flushing B.V.	www.vestaterminals.com				■		■
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Vopak Agencies Terneuzen B.V.	www.vopakagencies.com				■		■
Wielemaker B.V.	www.wielemaker.nl				■		■
Yellow & Finch Publishers	www.ynfpublishers.com			■			■
Zeeland Bunkering	www.zeelandbunkering.nl		■				
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Zeeland Maritime Cleaning	www.zmcleaning.nl	■	■	■	■		
Zeeland Refinery	www.zeelandrefinery.nl	■					
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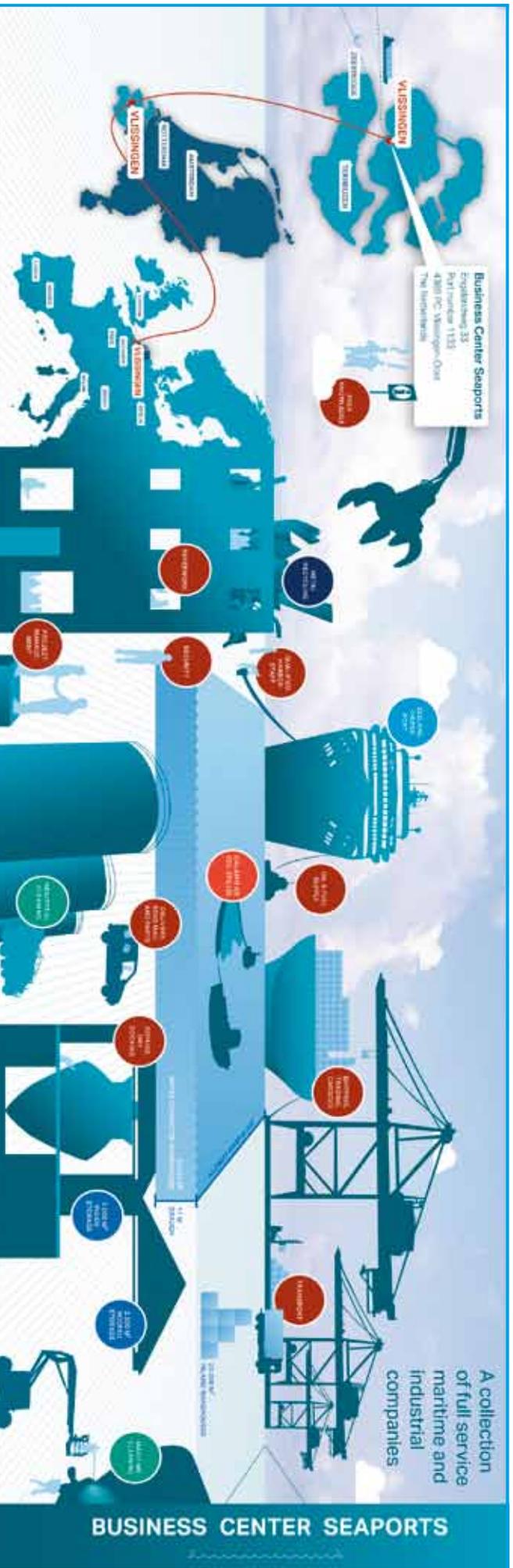


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