

VOLUME 13 | EDITION 4 | DECEMBER 2018

# PortNews

## Leading food port

Nothing too heavy, nothing too high

Mission multimodal

Cross border collaboration



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# LIFTAL

**Vlissingen-Oost (NL)**  
P.O. Box 80  
NL-4450 AB Heinkenszand  
Groenlandweg 4, Port nr. 4056  
NL-4455 SN Vlissingen-Oost

Phone: +31 (0)118 488 450  
Fax: +31 (0)118 488 451  
E-mail: vlissingen@liftal.com

**Yerseke (NL)**  
P.O. Box 90  
NL-4400 AB Yerseke  
Kreeft 22  
NL-4401 NZ Yerseke

Phone: +31 (0)113 571 523  
Fax: +31 (0)113 573 793  
E-mail: yerseke@liftal.com

**Temse (Belgium)**  
Liftal NV  
Industriezone TTS  
Duitslandstraat 4  
B-9140 Temse

Phone: +32 (0)3 710 1182  
Fax: +32 (0)3 710 1184  
E-mail: temse@liftal.com



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Photo courtesy of North Sea Port

### ON THE COVER

North Sea Port belongs to the European top when it comes to grains, salt and juice.

## EVENTS

North Sea Port and the Zeeland 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.

<b>6-8</b> FEBRUARY 2019	<b>Fruit Logistica</b> Berlin	<b>19-21</b> MARCH 2019	<b>Intermodal South America</b> São Paulo	<b>26-28</b> MARCH 2019	<b>StocExpo Europe</b> Rotterdam
<b>2-4</b> APRIL 2019	<b>Wind Europe C&amp;E</b> Bilbao	<b>15-17</b> APRIL 2019	<b>TransRussia</b> Moscow	<b>7-9</b> MAY 2019	<b>Antwerp XL (Breakbulk)</b> Antwerp
<b>21-22</b> MAY 2019	<b>Windforce Conference</b> Bremerhaven	<b>21-23</b> MAY 2019	<b>Breakbulk Europe</b> Bremen	<b>4-7</b> JUNE 2019	<b>Transport Logistics</b> Munich
<b>4-6</b> JUNE 2019	<b>Provada</b> Amsterdam	<b>11-13</b> JUNE 2019	<b>TOC Europe</b> Rotterdam	<b>3-6</b> SEPTEMBER 2019	<b>Offshore Europe</b> Aberdeen
<b>7-9</b> OCTOBER 2019	<b>Offshore Energy 19</b> Amsterdam	<b>6-8</b> NOVEMBER 2019	<b>Intermodal Europe</b> Rotterdam	<b>26-28</b> NOVEMBER 2019	<b>Wind Europe Offshore</b> Copenhagen

# “ A lot of attention

Welcome

North Sea Port was launched less than twelve months ago, and a lot has happened since that telling moment. One of the lessons we knew we would experience is that a cross border entity has to deal not only with great opportunities but also with many challenges.

One of these issues is trans-frontier employment, which was also one of the topics at the fourth Vlaams-Nederlandse Top (Flemish-Dutch Top conference). Important steps on this subject were announced during this event, such as improving sustainability and infrastructure in our cross border region. One of the initiatives discussed was granting Zeeland and Oost-Vlaanderen the status as of 'experimental region'. The two provinces, with North Sea Port as cross border region, should act as a pilot project for all kinds of cross border challenges. The merger of North Sea Port was not only talk of the town at the top conference, it has also attracted ample attention in the international marketplace. Many see the Port as a fine example of successful cross border collaboration. The nominations for the ESPO 2018 Award and the IBJ 2018 Best Dry Bulk Port Award are just a few examples of this success and are considered true nods of acknowledgement.

Of course, a lot more has happened this year demonstrating the port's potential. Record traffic figures underline this. And investments in logistics and distribution are still increasing. Many offshore oil, gas and renewables projects were supported from our port in 2018 on both sides of the border. New windfarms nearby the Belgian and Dutch coastline provide plenty of near future opportunities for offshore-related companies.



JAN LAGASSE, CEO OF NORTH SEA PORT.

We should not forget that our port has a lot more to offer. With our food terminals in both countries, we are one of the most important logistics hubs for the import and export of agri, food and feed. This year's developments indicate that this will only improve.

I am sure that next year will be equally exiting for us, the industry and logistic partners, with lots of new opportunities. Let us hope that we will all be able to meet these challenges in good health and prosperity!



# Cross border collaboration

## North Sea Port calls for action

From its official start earlier this year, North Sea Port has been a unique example of a cross border merger. During the process before the official merger, many issues related to differences in Belgian and Dutch rules and regulations had to be overcome. The stakeholders are now working closely together, including on creating less complex regulations, in order to develop the cross border merger's full potential.



DUTCH AND FLEMISH PRIME MINISTERS RUTTE (R) AND BOURGEOIS (L), AT THE VLAAMS-NEDERLANDSE TOP IN MIDDELBURG.

Photo courtesy of Provincie Zeeland.

The merger has helped to start a movement within the region to improve cross border collaboration. It has become clear that there are, usually legal, issues in the field of infrastructure, sustainability, and employment that can complicate operating cross border. For many companies in the Zeeland part of North Sea Port for example, it would be highly convenient to employ workers from Belgium, and the other way around. But with different laws and regulations, this is easier said than done.

### A lot can be achieved

On 5 November, the fourth bi-annual Vlaams<sup>1</sup>-Nederlandse Top (Flemish-Dutch top conference) was held in Middelburg,

<sup>1</sup> Vlaanderen (Flanders), is the northern Dutch speaking federated state of Belgium. As a federated state, it has far-reaching autonomy. Around 60% of the Belgian people live in Flanders, and the federated state is responsible for 90% of Belgian trade.

the capital city of Zeeland. At this meeting between Dutch and Flemish Prime Ministers Mark Rutte and Geert Bourgeois, ample topics concerning cross border entrepreneurship were discussed. “The merger of North Sea Port has really acted as a driving force for this discussion on cross border issues. Not only at a local level, but also nationally. Everyone is aware of the fact that the merger proves that a lot can be achieved,” Jan Briers, Honorary Governor of the Province of East Flanders, states. “Holding the conference in Middelburg gave us the opportunity to help set the agenda of the day,” explains Han Polman, King’s Commissioner of the Province of Zeeland. “This way, we were able to attach the highest importance to North Sea Port and the opportunities and challenges that the port is faced with.”

### Boost decision making

Axel Buyse, (former) General Representative of the Government of Flanders in the Netherlands, sees the top as an important tool for bilateral projects. “Being one of each other’s most important trade partners, both the Netherlands and Flanders strive for a better collaboration in the field of economics, logistics, and culture. The Dutch and Flemish are no exceptions in this, as many national governments’ cross border thinking is not always logical because they see each other’s country as competitors. In contrast to this, borders do not exist on a regional and local scale, making it more logical to work together. The top conference discusses the problems that arise on a local scale and helps to change the perspective at national level. The agreements made during the top conference really help to boost decision making.” Mr Buyse gives an example. “First of all, the merger between the Port of Ghent and Zeeland Seaports was announced two years ago during the top conference in Ghent. And this year, the University of Ghent and Campus Zeeland signed a Letter of Intent to work together on maritime research. This collaboration is intended as the start of working together in this field with a large network of other Dutch and Belgium institutes.”

### Region for experiments

In anticipation of the 2019 Provincial Executive elections, the manifesto ‘Kansen Verzilveren’ (‘Capitalising Opportunities’) was recently handed out by VNC-NCW/Brabant-Zeeland, PORTIZ, and North Sea Port to all political parties in Zeeland. With this manifesto, the three organisations make a plea for measures to be taken by government in the upcoming years. It focuses on employment, sustainability, space, and mobility. As an important first step, it is suggested to grant the province, just like the province of Oost-Vlaanderen, an exception as a so-called experimenteerregio (region for experiments). This experimenteerregio was one of the topics mentioned by North Sea Port CEOs Jan Lagasse and Daan Schalck in their speech at the top conference. “The cross border region should be used as a laboratory for cross border projects in the field of rules and regulations on social security, labour, waste, environment, and identification.” The other two issues they mentioned were the improvement of rail connections to the port area and sustainability and energy transition. “Although North Sea Port is doing well, with an estimated growth of 20% we should deal with the ample opportunities we have to further boost this cross border region economically in a sustainable way.”

MR POLMAN, KING'S  
COMMISSIONER OF THE  
PROVINCE OF ZEELAND.



Photo courtesy of Mechteld Jansen.

Photo courtesy of Provincie Oost-Vlaanderen.

MR BRIERS,  
HONORARY GOVERNOR  
OF THE PROVINCE  
OOST-VLAANDEREN.



MR BUYSE, (FORMER) GENERAL  
REPRESENTATIVE OF THE  
GOVERNMENT OF FLANDERS  
IN THE NETHERLANDS.

Photo courtesy of Dick Holthuis.

## Cross-border@northseaport.com

North Sea Port, together with the provinces of Zeeland and Oost-Vlaanderen, and Euregio Scheldemond are actively working together to identify the obstacles in cross-border collaboration, and to get these issues on the agenda and find solutions.

The provinces have asked research institute ITEM to investigate the legal possibilities and exclusion clauses for approaches to establish rules in specific trans boundary projects. One example is the exclusion clause as laid down in the legislation for experiments. Companies located in North Sea Port can use a special E-mail address for submitting practical obstacles in cross-border entrepreneuring caused by law and legislation. Cases sent to [cross-border@northseaport.com](mailto:cross-border@northseaport.com) will be added to the ITEM survey.

Mr Bourgeois and Dutch Secretary of State Raymond Knops agreed to work on optimising the boundary conditions for cross border collaboration. They will initiate research on instruments to deal with legal restrictions toward cross border activities more effectively. They acknowledged that multimodal hinterland connections are crucial for a port. Because of economic development and the logistical role of both Flanders and the Netherlands, it is important to optimise infrastructure, including better railway connections from the port area and the strengthening of inland shipping.

## Circular economy

The top conference in Ghent two years ago, formed the stage for the official announcement of the merger between the Port of Ghent and Zeeland Seaports. Smart Delta Resources was also announced, which is a project in which Dutch and Belgium companies work together to reduce CO<sub>2</sub> emissions and improve the use of each other's waste materials. At the latest top, the Province of Oost-Vlaanderen announced it will join North Sea Port, the Province of Zeeland, and the Province of West-Vlaanderen in becoming a partner of this initiative for realising a circular economy. Mr Briers: "With eleven international companies located from Rotterdam to Ghent, Smart Delta Resources is a unique cross border example of companies working together for a more sustainable world by exchanging energy and feedstock. This project fits very well in the Province's objectives and because of this, it is logical to become a partner."

## The most significant issues

Smart Delta Resources is just one example of cross border projects that North Sea Port was involved in even before the merger, as the Port has always been fully aware of the strength of collaboration. Several projects on sustainability (Bio Base Europe), logistics (cross border pipeline system for reusing waste materials), and traffic control (Enigma) arose in the late 20th and early 21st century, with the Port playing an important role in the realisation of these projects. In the opinion of Mr Briers, mobility will be one of the most important issues to deal with. "North Sea Port lies in the heart of the frequently discussed Seine Nord project that connects Rotterdam with Paris. As an inland shipping hub, it could play a significant part in stimulating the change from road transport to inland shipping. On the other hand, it is very important to deal with the infrastructural



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

challenges concerning the ring road around Ghent, and the railway between Ghent and Terneuzen, not only to help the industry and the communities, but also to improve the environment.”

### Further support the industry

A recently conducted research on behalf of Euregio Scheldemond ('Grenzeloos Ondernemen' or 'Borderless Business') indicates that many companies experience problems in cross border collaboration. Euregio Scheldemond is a cross border corporation between the Belgian provinces of Oost-Vlaanderen and West-Vlaanderen and the Dutch province of Zeeland that focusses on improving cross border entrepreneurship in the region. During their meeting on 14 November 2018 in Knokke, Belgium, the organisation decided to take the outcome of the research on board, in order to further support the industry with their cross border activities. A new convention was also signed during this meeting, in which the Province of Zeeland and the Vlaamse Landmaatschappij (the Flemish Land Agency) agreed to improve the cross border exchange of land. Mr Polman comments, “In our region, cross border collaboration is not new. The Euregio Scheldemond is a fine example of an organisation dealing with the abundant cross border challenges. North Sea Port is a very important case in which the many pros and cons of acting as a cross border come together. Together with all parties concerned, we are now working on an inventory of the laws and regulations that hinder cross border collaboration in the joint Port's goals perspective. We can then discuss this inventory with the national governments to find proper solutions. This will certainly help our region, but it will ultimately help other regions all over Europe as well.”

1. [WWW.NORTHSEAPORT.COM](http://WWW.NORTHSEAPORT.COM)

Photo courtesy of Bio Base Europe Pilot Plant



SEVERAL PROJECTS ON SUSTAINABILITY SUCH AS BIO BASE EUROPE AROSE IN THE LATE 20TH AND EARLY 21TH CENTURY WITH THE PORT PLAYING AN IMPORTANT ROLE IN THE REALISATION OF THEM.



Photo courtesy of Euroports.

WITH AN ESTIMATED GROWTH OF 20%, NORTH SEA PORT IS DOING WELL.



Photo courtesy of maritimephoto.com



### A giant open-air warehouse

MHI Vestas has chosen North Sea Port (Bow Terminal) as location for its new marshalling yard for offshore windfarms. The first project entails the Norther offshore windfarm, off the Belgian coast. At the Westhofhaven, 20ha are available for the storage of WTG's towers sections, nacelles and blades. Due to today's storage and handling activities for the offshore wind project, it looks like a giant open-air warehouse.

95% OF DUTCH ONIONS ARE EXPORTED THROUGH NORTH SEA PORT TO MORE THAN 120 COUNTRIES WORLDWIDE.



# Leading food port

Located nearby fertile grounds, it is no surprise that over the last two decades North Sea Port took a bite of the cherry and gained experience in handling fresh products, such as fruit, beer, and meat. Today, North Sea Port is a leading food hub and provides the ideal base for companies looking to reach the largest number of customers as quickly and cost-effectively as possible.

There are plenty of ongoing food-related activities at North Sea Port, ranging from food-processing industries to companies specialising in food storage and logistics. Together, these companies form a flourishing food cluster with two million tonnes of cargo shipped annually.

## Flourishing food cluster

Zooming into the food industry, North Sea Port belongs to the European top when it comes to grains, salt, and juice. One of these companies is research lab Labojuce, which is involved in creating new blends of juices for a broad range of international customers. Spanish juice producer AMC has since 2014 been shipping juice concentrate and pulp to Vlissingen in

North Sea Port, where the final juice product is packed and distributed. Citrosuco is another juice company which produces 40% of the world's orange juice and delivers to more than hundred countries.

Fruit is overall a rising player in the food market and plenty of fruits – like bananas and citrus fruits – pass through the Port. This perhaps has something to do with the transition of Chiquita in early 2015 from the port of Antwerp to Kloosterboer's facility in Vlissingen to unload their bananas.

Other food sectors that North Sea Port thrives in include fish and meat. The Port is furthermore an export hub for fresh vegetables from the Netherlands, France, and Southern Europe.



CURRENTLY IN FOOD LOGISTICS, THE IMPORTANCE OF CONTAINERISED FOOD, FRUIT, AND JUICE IS INCREASING.

Photo courtesy of maritimephoto.com



NORTH SEA PORT BELONGS TO THE EUROPEAN TOP WHEN IT COMES TO GRAINS, SALT, AND JUICE.

“ Within North Sea Port, most of the food logistics still take place over water, especially for food products such as meat and fish.

Apart from these companies, several other internationally operating companies are established in and around the port area; Lamb Weston and McCain, for instance, who process potatoes into a wide variety of chips. Louis Dreyfus Company, a leading merchant and processor of agricultural goods, such as grain, wheat, rice and sugar, is found next to the Citrusuco terminal in Ghent. Doens Food Ingredients, one of the leading importers and exporters of organic food and feed ingredients, is located in Terneuzen in North Sea Port, which has been present in the port area for many decades. And more enterprises are still being established in North Sea Port, just last year Vlaeynatie built two giant sugar silos at the Autrichehaven in Terneuzen.

### Specialised service companies

Several specialised companies located in North Sea Port offer various complimentary services, in addition to the processing and storage of fresh produce. This includes the mixing, packaging, repackaging, reprocessing, clearance, forwarding, and distribution of fresh produce.

Logistics service provider Kloosterboer handles temperature-regulated food products, including fish, meat, fruit, fruit juices and concentrates, dairy, and potato products. Another logistics service provider on scene is SYMACH and ZZColdstores.

SYMACH, an agri specialist in palletising and wrapping onions, potatoes, carrots, nuts, beetroots, and other fresh produce, is located in Terneuzen in North Sea Port. ZZColdstores initially focused on onions, but nowadays imports seasonal fruits and bananas, mainly for the German supermarket chain Lidl.

These and other companies not only arrange the safe and swift discharge of goods, they also help customers with services such as quality control, blending, packing and repacking, temperature-controlled storage, as well as transport to and from the hinterland by truck, train, and barge.

### Logistics flow

To maintain a continuous logistics flow and keeping quality in mind, the food cluster employs skilled and flexible professionals



VLAEYNATIE BUILT A 80,000T SUGAR SILO JUST LAST YEAR.



IN NORTH SEA PORT, AMC BLENDS AND PACKS FRESH JUICES FOR THE CONSUMER MARKET.

Photo courtesy of Michel Aerts/Vlaeynatie

Photo courtesy of AMC

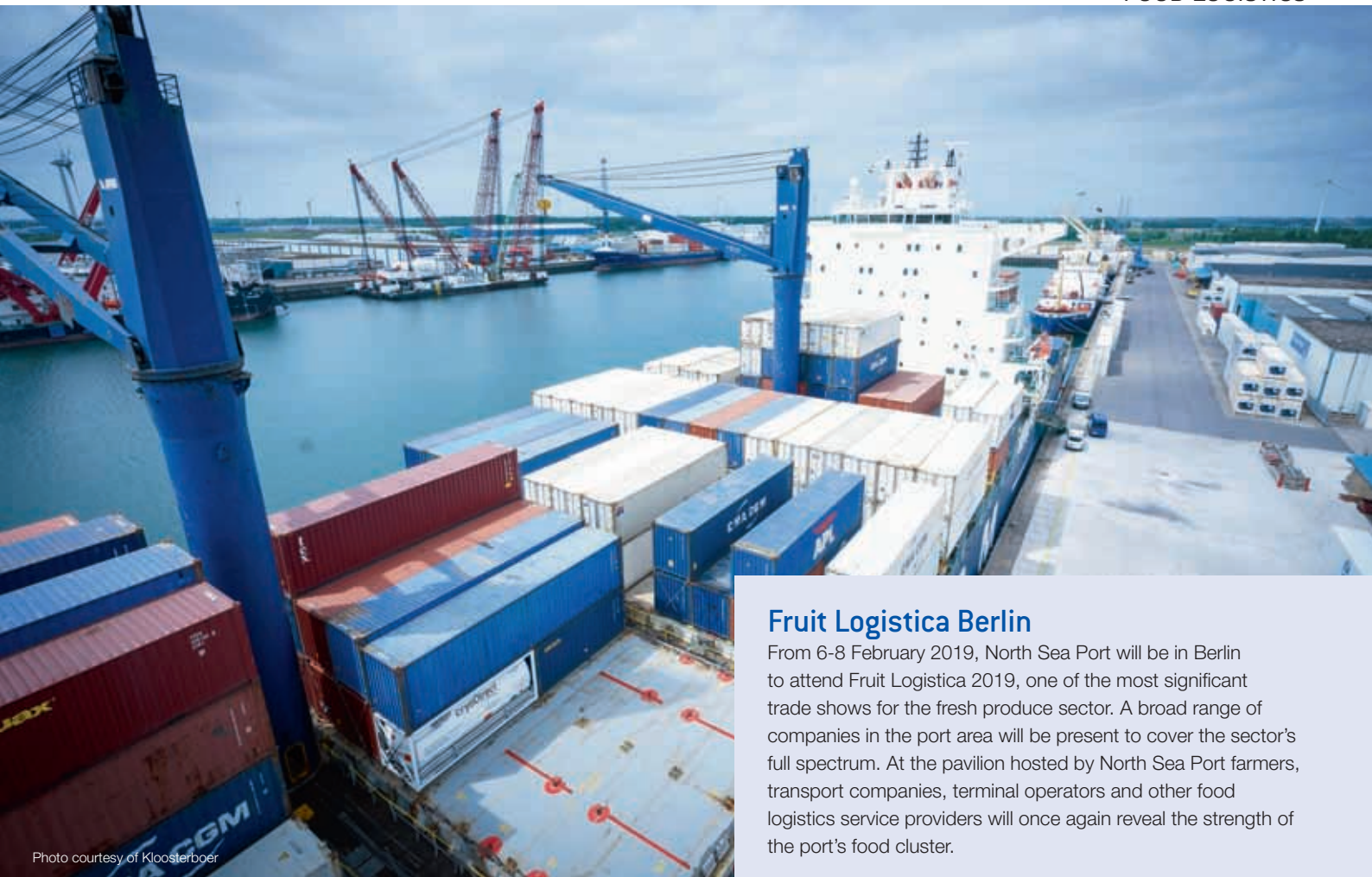


Photo courtesy of Kloosterboer

## Fruit Logistica Berlin

From 6-8 February 2019, North Sea Port will be in Berlin to attend Fruit Logistica 2019, one of the most significant trade shows for the fresh produce sector. A broad range of companies in the port area will be present to cover the sector's full spectrum. At the pavilion hosted by North Sea Port farmers, transport companies, terminal operators and other food logistics service providers will once again reveal the strength of the port's food cluster.

for handling food products and reefer containers. Transportation is swift, thanks to its strategic location, so many consumers from all over the world buy fresh products that have left North Sea Port only a few days before.

Apart from its strategic location, another important advantage of the port area, compared to nearby competitors Rotterdam and Antwerp, is the lack of long waiting times, thanks to the high level of efficiency and flexibility. To be concrete, it only takes a truck ten minutes to arrive, discharge, and depart with an empty container. This is crucial for the container business.

The empty containers can also stay in the port, as terminals like Kloosterboer have an empty container storage facility, so the expensive and unnecessary transportation of empty containers can be avoided. Each full container can thus be simultaneously traded in for an empty one.

## Changes ahead

Within North Sea Port, most of the food logistics still take place over water, especially for food products such as meat and fish. But food companies are also looking at other means of transportation, including the railways and the daily train between Ghent and Mortara. We also see a shift in transportation method. Palletised products were preferred in the past; today, however, the importance of containerised food, fruit, and juice is increasing. As a result of this, North Sea Port is witnessing a rising share in reefer containers in this segment.

CMA-CGM, one of the very first container operators, has now been using North Sea Port as a food hub for four years. CMA-CGM services a weekly rotation between Vlissingen, Dunkerque, and West-Africa. North Sea Port is, together with the logistics service providers, looking for other operators to follow CMA-CGM, as more

operators opting for North Sea Port will help to realise an even healthier container flow.

The logistics of food does pose a challenge, especially when it comes to fresh products. To maintain optimum freshness, speed is of vital importance. Food products are often fragile, too. Thanks to a skilled workforce and expertise of the companies in North Sea Port, the Port has an excellent reputation in the food sector.

### MORE INFORMATION

#### North Sea Port

Sandra De Mey

Commercial Manager

T. +32 479 914 817

E. [sandra.demey@northseaport.com](mailto:sandra.demey@northseaport.com)

I. [WWW.NORTHSEAPORT.COM](http://WWW.NORTHSEAPORT.COM)



### MORE INFORMATION

#### North Sea Port

Jean Ruinard

Commercial Manager

T. +31 6 40 72 33 46

E. [jean.ruinard@northseaport.com](mailto:jean.ruinard@northseaport.com)

I. [WWW.NORTHSEAPORT.COM](http://WWW.NORTHSEAPORT.COM)



# A bit like coming home



According to Steven Engels, Director Netherlands at Ørsted, offshore wind is an attractive story to be part of, with abundant potential worldwide, and with the Netherlands as largest growth market.



As per 1 November, Steven Engels replaces Jasper Vis as Director Netherlands at Ørsted. As General Manager West-Europe (Netherlands, Belgium and France), he is also responsible for Ørsted's market development in this region.

**Q: Mr Engels, can you tell our readers something about yourself?**

**A:** Well, I was born 37 years ago in Bruges (Belgium). I am married and the proud father of three children aged seven, four, and two. I studied Commercial Engineering at the University of Leuven and hold an Executive Master In Energy Management.

**Q: How long have you been working for Ørsted?**

**A:** I began working at Ørsted's strategic department at the head office in Copenhagen in 2012. I became involved in the energy market soon after graduating in 2005, when I joined ExxonMobil to work at some of their oil refineries in the UK and Belgium. After that, I was appointed at McKinsey as a core member of the company's Electric Power and Natural Gas Practice.

**Q: And now the Netherlands, can you explain?**

**A:** The Netherlands became an interesting market for Ørsted with the 2013 Agreement on Energy for Sustainable Growth. In that period I travelled a lot between Copenhagen and the Netherlands to keep up with the Dutch developments. In the end, I decided to move to the Netherlands as we wanted to establish a Dutch office in The Hague.

**Q: When did you first become involved in Borssele I&II?**

**A:** That was right at the beginning. I teamed up with Jasper Vis in the project team for the Borssele I&II tender. After winning the tender, the project team continued preparing the construction of the offshore windfarm.

**Q: What will your job as Director Netherlands entail?**

**A:** We will have three focal points for the upcoming years:

- The successful construction and commissioning of Borssele I&II.
- The expansion of Ørsted's organisation in The Hague and Vlissingen.
- The acquisition of new offshore wind projects in the Netherlands, Belgium, and France.

Our aim is to grow in offshore wind. There are no concrete projects so far, but we want to be fully prepared as soon as a new opportunity arises. A fine example of this is the fact that we visited Zeeland many times to talk with ample relevant stakeholders a year before the tender procedure of the Borssele windfarm began. With our new O&M base in Vlissingen, we now have a stepping stone towards the Belgian, Dutch, and French coastal waters and future offshore projects.

**Q: What is your current impression of Zeeland, now you have visited so many times?**

**A:** As a Flemish Belgian, working in the Netherlands feels a bit like coming home to me. Like many Belgians, I used to make a lot of bicycle trips in Zeeland. So it feels good to return to Zeeland with Ørsted. One thing that really appeals to me is the merger between Zeeland Seaports and the Port of Ghent into North Sea Port. This cross border project is a true example for others, and has already resulted in great dynamics within the port and ample interest from big companies. I also notice plenty of readiness in this province to collaborate. Government, educational institutes, the port authority, and many companies are working together to make offshore wind successful in this region.

**Q: What will the challenges in the Borssele project be?**

**A:** Although every offshore wind project is unique, we have learned a lot from previously constructed farms. Now we have concluded the main contracts, it is time to follow up the many tasks related to the construction, installation, and commissioning. We are aware of, and prepared for, the risks involved. Still, a lot of unexpected things can happen when working at sea. It is important to be ready, to be able to act rapidly and accurately whenever necessary.

**Q: What about people? There is ample demand for technicians from many industries.**

**A:** Finding the right people for the job can also be a challenge. But our luck is that Ørsted is considered as an interesting and attractive company to work for. We are a 'green' company, with lots of exiting and international jobs. Offshore wind is an attractive story to be part of, with abundant potential worldwide, and with the Netherlands as largest growth market. This is rather appealing to many youngsters. With offshore windfarms requiring maintenance for at least 25 years and construction plans at various locations in Europe, the United States, and Asia, we can offer wind technicians lots of challenges and stability in one job, which is quite unique nowadays.

**Q: What do you hope to achieve in the next five years?**

**A:** With our team, we should be ready for upcoming opportunities. To succeed, I hope to be able to positively motivate staff and build the best O&M team for our next offshore windfarms.

**I. ØRSTED.NL**

# A juicy hub



All photos courtesy of Citrusuco

TWO TO THREE TIMES A MONTH  
A CITROSUCO'S OWN DEDICATED  
BULKVESSEL FULL OF JUICE ARRIVES.



The orange is what lies at the core of Citrosuco, which is in its own way rather unique. The 100% Brazilian-owned closed-capital company is one of the largest orange juice suppliers in the world and is based on solid values and a clear vision: to provide food products derived from fruit to contribute to a healthier and more energetic life.

Citrosuco strives to bring to life all the potential offered by the orange. The vertical business model operates at all stages of the orange juice production chain: from cultivating fruit to the delivery of the products. The last stage of the chain commences at the terminals, like the one in Ghent in North Sea Port.

### Terminal in Ghent

The terminal in Ghent forms the logistics hub for Europe and has been operational since 1982. The location was the first bulk terminal for orange juice in Europe and with its total capacity of 60,000t, it still is the largest one of all Citrosuco's port terminals outside Brazil.

Katrien Van den Bossche, Managing Director at Citrosuco, explains that the choice for North Sea Port, and Ghent specifically, was the result of the constructive partnership between the Port authorities and Citrosuco, supported by a long trade history between Brazil and Belgium. North Sea Port contributed to the decision by offering a dock-side location, which is crucial for Citrosuco's sea-based transport.



90% OF THE PRODUCT IS SHIPPED IN BULK AND 10% IN DRUMS.



THROUGH A CLOSED CIRCUIT, THE JUICE IS PUMPED FROM THE VESSEL INTO THE 20M HIGH SILOS.

The strategic location of North Sea Port brings logistical benefits. The connection to the mayor European highways offers short delivery times to the customers in the neighbouring countries.

Nowadays, over 300,000t of product annually passes through the terminal in North Sea Port, which represents more than five billion glasses of orange juice.

### A cooled supply chain

90% of the product, whether it is Not-From-Concentrate Orange Juice (NFC) or Frozen Concentrated Orange Juice (FCOJ), arrives two to three times a month in bulk with Citrusuco's own dedicated vessels. These vessels have been specifically designed and purpose-built for the bulk transportation of juice. The remaining 10% is shipped in drums. Through a closed circuit, the juice is pumped from the vessel into the 20m high silos. Here the product is stored, checked and blended according to the requested customers specifications. For instance, some clients want the juice more bitter and others want it sweeter.

The juice is finally distributed – the majority in bulk and a minority in drums – in a B2B environment. Because of Citrusuco's 'just-in-time' protocol, delivery to the factories and distribution centres is fast and flexible. Transport by truck takes place within 48 hours.

As Citrusuco's products are food products, health and safety are key. To ensure the quality and food safety, the company has all the necessary certificates and different systems in place to protect the product against violations, traffic control, and for maintaining the right temperatures. The FCOJ has to be cooled at a temperature of -6°C, and the NFC between 0-2°C. These



temperatures are indeed maintained at the sites in Brazil, during transport to the port, on board the vessel, and also during the storage in the terminal in Ghent.

### Added value

Citrusuco has speed and efficiency throughout the entire production chain. The terminal in Ghent has further strengthened the company's logistics, enabling a fast and flexible delivery across Europe. The blending is another added value. Other added value is created by the product's outstanding quality, as well as by an intensive partnerships and collaborations.

### Caring for nature

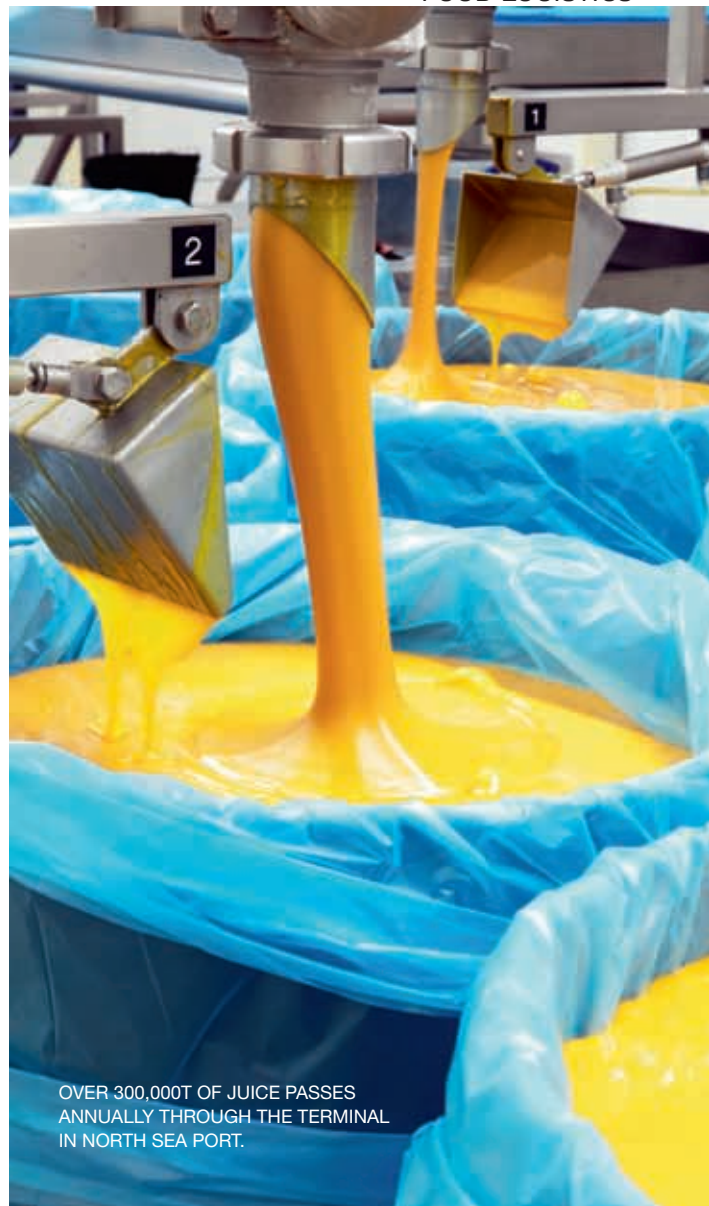
Nature is Citrusuco's source, so it is no wonder that sustainability is one of its core values. "In the entire chain, the same questions are asked: How do we handle our energy? What do we do with our waste? How can we further minimise our carbon footprint? And how can we contribute to a lower environmental impact?" Ms Van den Bossche specifies.

Actions are already being taking and sustainability is integrated into its entire corporate strategy. Citrusuco now transforms 100% of the oranges into juices and other products. The water extracted during FCOJ production is reused and the company is pioneering in renewable energy.

The company recently launched a new vessel to transport juice



AS CITROSUCO'S PRODUCTS ARE FOOD PRODUCTS, HEALTH AND SAFETY ARE KEY.



OVER 300,000T OF JUICE PASSES ANNUALLY THROUGH THE TERMINAL IN NORTH SEA PORT.

from Brazil to its terminals across the world, that has been built with a lot of attention to reduce emission. At the North Sea Port location, Citrosuco's employees also cycle to work instead of taking the car.

For transportation, Citrosuco is always investigating alternative ways of transportation with a lower environmental impact, such as the use of barges. But railway is not yet an option for the company today, largely due to its 'just-in-time' protocol in which delivery must take place within 48 hours. "This is just not possible using railways," says Ms Van den Bossche. "And cooled transportation by train also remains a remote possibility."

### Challenges up ahead

A worldwide company like Citrosuco faces challenges from all kind of different angles: It all starts with mother nature and what nature produces. Business sectors based on agricultural activities are frequently impacted by variations in climatic conditions. A second challenge is the evolution of the beverage industry, such as changes in customers behaviour and preferences. "And of course, challenges arise from the world economy," adds Ms Van den Bossche. "Stock exchange, currencies, and the general investment climate are factors that the company watches closely. Political environments and trade agreements also play a big part. And we deliver to the United Kingdom. So who knows which impact the Brexit might have?"

### Preparing for the future

Whatever crosses Citrosuco's future path, the most important thing is that the company is at all times prepared for a quickly changing world. "This is why the enterprise is always investing, innovating and building a base to overcome future challenges. Several projects are presently being developed, which will positively affect the North Sea Port terminal, too," Ms Van den Bossche concludes. "We are all looking forward to the future!"

1. [WWW.CITROSUCO.COM](http://WWW.CITROSUCO.COM)



MS VAN DEN BOSSCHE, MANAGING DIRECTOR AT CITROSUCO.



All photos courtesy of MSP Onions

# Growing against the grain

## Worldwide first for MSP Onions

Located less than one kilometre from North Sea Port's Vlissingen, it will come as no surprise that MSP Onions exports at least 95% via North Sea Port. And with its expansion plans, this figure is not likely to decrease. Time for an update with Lindert Moerdijk, MSP Onions' Sales Director.

Together with Kloosterboer and North Sea Port, MSP Onions was one of the initiators of the Vlissingen barge concept. In this concept, containers with onions are transported by barge from Vlissingen to the port of Rotterdam and Antwerp for further shipment. This concept considerably reduced the need for transport by truck. Soon after this, container services at Kloosterboer were expanded with a weekly CMA/CGM liner service from Vlissingen to West Africa. Mr Moerdijk explains, "We were the first producer of onions to step into the barge concept and CMA/CGM liner service, so together with Kloosterboer and CMA/CGM, the risk of failure was on our side. The success of both the barge concept and the weekly reefer service depends on volume, but more parties soon saw the advantages of exporting their produce through Vlissingen, and thus followed our example."

### Challenging, but fun

As a company that specialises in sorting and packing red and yellow onions, export is essential for MSP Onions. The



LOCATED LESS THAN ONE KILOMETRE FROM NORTH SEA PORT'S VLISSINGEN, MSP ONIONS EXPORTS AT LEAST 95% VIA NORTH SEA PORT.



We sail the same seas as our competitors, but we always choose a different vessel.



A FINE OVERVIEW FROM THE CONTROL ROOM. INSTEAD OF A LOT OF MANUAL WORK, MSP ONIONS WILL NOW OFFER HIGHER EDUCATED JOBS FOR PROCESS OPERATORS.



A NEW 7,000M<sup>2</sup> LARGE FACILITY, NEXT TO THE CURRENT LOCATION OF MSP ONIONS.

company focuses on Africa, Asia, and Central America. In months when no local onions are available, they are imported by these regions. "The production of onions in the Netherlands is much higher than the domestic demand. Most of the product is exported to fill the gaps in production of other regions." So far, Mr Moerdijk has mixed feelings about the season. "The yield of onions is 44% lower than usual this year, resulting in lower export volumes. On the other hand, we do see a growing amount of exported containers, which is more profitable for

us compared with traditional transport in reefer vessels. The season has been truly extraordinary for onions. We have not seen anything like this in the past 30 years. This is certainly quite challenging, but also fun."

### Unique for industry

2018 has been an extraordinary year for MSP Onions from another point of view as well. Next to their facilities in Nieuwdorp, the company is building a hyper modern sorting and packaging plant. This new plant should be ready by mid-2019 and can be considered unique. "A few years ago, we decided to develop and build a new production hall," Mr Moerdijk comments. "We are constantly looking for new ways to stay ahead of competition, and when the idea for new facilities came up, we decided to do things differently." This resulted in a 7,000m<sup>2</sup> large facility with a fully automated sorting, weighing, and packaging process. "We decided to think out of the box, and for this we visited companies like Amazon to learn from their processes. We can now implement certain innovations that are unique for our industry.

### A fluently running process

The heart of the plant is the fully automated sorting line with an underlying technique based on the neural network used by Tesla for its autonomous vehicles. "Infrared cameras take six



THE PROCESS IS FULLY ELECTRIFIED AND READY TO USE GREEN ENERGY.

pictures per onion, also from the inside, and can capture ten onions per second. Hence, ample information is collected on onion quality. This may sound easy enough, but we crashed a few computers before everything worked well,” says Mr Moerdijk with a smile. Another aspect of quality is that the machines are able to handle the onions with utmost care. This gentle touch results in less waste. Apart from this, all machines are connected via the software and are more or less self-thinking. Whenever the process is at some point delayed, the machines consequently slow down as well, in order to maintain a fluent running process. This new way of working will of course impact employment, but it does not necessarily mean that fewer people will be needed. “Instead of a lot of manual work, we will now offer higher educated jobs for process operators, and the demand for logistics staff will also increase.”

### Retail market

Even after taking these impressive steps, the Moerdijk family was not yet satisfied. Mr Moerdijk continues, “Today, most of our products are sold to wholesalers in the various countries that we export to. As a supplier, we are also searching for possibilities to supply the retail market. Sustainability is of growing importance in this market, as consumers are increasingly demanding with regard to ‘green’ products. This is why we decided to go ‘green’ all the way. Our process is fully electrified and ready to use green energy. We are going to say goodbye to natural gas for heating by using electricity generated by solar panels instead, combined with residual heat from the compressors used in our process. For drying onions, we will use an electric condense drying system. Working as

sustainably as possible is something that might appeal to the retail, but it is also something that fits MSP Onions well. “With the new container barge line and liner services, we have already taken one step in acting more sustainable, as we have on a weekly base reduced CO<sub>2</sub> exhaust from trucks by 8,000kg.”

### The longer run

The new MSP Onions factory will be the first of its kind worldwide. “This project is something for the longer run, and some people may think it is unwise to take such a high risk. Within this small margin market, it has always been our philosophy to do things differently, growing against the grain. Or to keep it closer to North Sea Port, we sail the same seas as our competitors, but we always choose a different vessel. This will ultimately result in higher profits.” When talking about profit, Mr Moerdijk acknowledges the opportunities of this year’s merger of North Sea Port. “A port growing in size will attract larger ship owners and vessels, as it will make larger volumes feasible for them. This certainly offers additional opportunities for us to further improve our logistics.”

I. [WWW.MSP-ONIONS.COM](http://WWW.MSP-ONIONS.COM)





# Brand-new again

## Water Wind Steel refurbishes wind turbines

North Sea Port has been an established name in the offshore industry for many years now. Various companies are involved in the engineering, construction, installation, and decommissioning of offshore assets and the port acts as an important logistics hub for the preparation, storage, and transport of all kinds of offshore tools, equipment, parts, and constructions.

Just recently, Water Wind Steel, a new company, initiated a business in refurbishing wind turbines, adding a new type of service to the already impressive portfolio of North Sea Port. PortNews speaks with Marcel Geschiere of the young firm about their plans.

### Chance of a lifetime

“Catching up with me for a meeting is a bit difficult now.” Mr Geschiere apologises whilst getting out of his car, with a mobile phone in his hand. “I recently became the owner of Roompot Marina Yacht Service. As a true water sports enthusiast, I could not withstand the chance of a lifetime to take over this company, so now I am travelling a lot between the both locations. But for now, let us talk about windmills.” “Wind turbines are constructed for an operational lifetime of 15-20 years,” Mr Geschiere continues. “But this does not mean that after this period, these turbines go to the shredder. The actual turbine, the part of the windmill that houses inside of the nacelle on top of the mast, consists of four main components: the gearbox, generator, transformer, and the rotor. In order to extend the machine’s lifespan, these components can also be overhauled or renewed. This life extension is financially profitable for buyers and sellers, but also fits well with the sustainable character of windfarms.”

### Sometimes even better

This refurbishing extends the life of a turbine by another 15-20 years. And like with cars and mobile devices, this creates an entirely new market, with many opportunities for companies like Water Wind Steel, which acknowledges the potential. “After we have taken care of the turbines, they are brand-new again, and sometimes even better than that. The eleven 3MW turbines we are currently working on are from Finland. After refurbishing,



MR GESCHIERE OF WATER WIND STEEL: “AFTER WE HAVE TAKEN CARE OF THE TURBINES, THEY ARE BRAND-NEW AGAIN, AND SOMETIMES EVEN BETTER THAN THAT.”

they will be transported to Morocco for a new to construct onshore windfarm. Because of the higher African temperatures, the original fans for cooling the inside electronics have been replaced by larger ones.” The first gearboxes for the turbines recently arrived via a special transport. “Each 50t gearbox is completely overhauled in Germany,” adds Mr Geschiere. “The gearwheels and the bearings have also been renewed.” Apart from the bigger components, other parts of the turbines are taken care of as well, such as the yaw gears, electric wiring, and even the fire extinguishers, in order to make the turbines safe and sound again.

### Complicated process

Masts and even parts of the foundations can also be given a second chance. “For this African onshore project, used

WITH A LENGTH OF 14.5M, A WIDTH OF 5.5M AND A HEIGHT OF 4.5M, THE NACELLES DRAW A LOT OF ATTENTION ON THE COMPANY'S TERRAIN.



All photos courtesy of Water Wind Steel

AFTER REFURBISHING, THE ELEVEN TURBINES WILL BE TRANSPORTED TO MOROCCO FOR A NEW TO CONSTRUCT ONSHORE WINDFARM.



foundations are installed that have first been checked and serviced by our technicians, so most wind turbines that are taken out of service can potentially be given a new life."

When the economic life of a turbine ends, they are usually replaced by new ones. "The permit process for windfarm locations is very complicated and can take years. Once a permit is granted, the operator will not easily give up a windfarm and replace deprecated windmills for new ones. Operators are often subsidised for replacing turbines with ones with higher outputs, resulting in a market for used, but not depreciated, wind installations."

### Training wind technicians

With a length of 14.5m, a width of 5.5m and a height of 4.5m, the nacelles draw a lot of attention on the company's terrain. They have a total weight of 125t upon completion. The nacelles have also caught the interest from schools. "In our region, there is a lot going on for training wind technicians. We were recently contacted by one of the educational institutes, asking us for permission for the students to check out one of the nacelles. So they can see how everything works in practice, instead of via images and movies. We can certainly facilitate this visit. Visiting one of our nacelles is far easier than seeing it on a working turbine."

### More transparent

After this first ongoing project, hopefully others will follow soon. "Onshore turbines are currently most relevant for

us, but with the recent decommissioning of the first offshore windfarm, we expect the offshore market to follow soon.” In the world of refurbishing, market knowledge and an extensive network are essential. “We learn a lot from listening to the market. The O&M companies, for example, are well aware of whether a turbine is worth refurbishing or not, and getting information from them helps us in taking the right steps towards new assignments. The market for turbines today is quite diverse, but I think this will change within a few years. Only a few main suppliers of turbines will remain, and the market will become a lot more transparent for us.”

### Construction management services

If everything goes according to plan, the Finnish turbines should be ready for transport in February 2019. By that time, it will have taken approximately six months to give them a second life. Water Wind Steel at present has a staff consisting of eight people and when necessary, this number can be increased by a temporary workforce. The company has a workshop of 120m<sup>2</sup> in Vlissingen, equipped with two 8t and one 5t overhead travelling cranes. Apart from the refurbishing business, Water Wind Steel is also involved in steel construction, welding, and demobilisation projects. Within this business, Mr Geschiere, in close collaboration with Gould, also performs construction management services and provides organisational advice.

“ Most wind turbines that are taken out of service can potentially be given a new life.

### At a steady pace

One new service is the supply and installation of solar panels. “Every now and then, something unexpected comes on your path. In this case it was a new type of solar panel, which produces the same amount of power as traditional panels but with a much lower weight. What makes the panels unique is that they can be placed horizontally thanks to the special inner prisms. Another plus is that unlike conventional panels, they can be fixed with bolts and even glue.” Within the next five years, Mr Geschiere hopes to grow the company at a steady pace. “I have been working in the maritime and offshore business for quite some time now. A good challenge gives me so much pleasure and I have conquered a lot of challenges in this industry. Doing honest business is very important for me. I guess this is where my Zeeland roots appear,” concludes Mr Geschiere with a twinkle in his eye.

I. [WWW.WATERWINDSTEEL.COM](http://WWW.WATERWINDSTEEL.COM)

THE REFURBISHING EXTENDS THE LIFE OF A TURBINE BY ANOTHER 15-20 YEARS.



MASTS AND EVEN PARTS OF THE FOUNDATIONS CAN ALSO BE GIVEN A SECOND CHANCE.



# Investing in the future

DSV Solutions



All photos courtesy of DSV

To keep up with the growth, DSV recently opened a new facility at the Eddastraat in Ghent in North Sea Port. At this location, the company focusses solely on healthcare. From toothpaste to synthetic skin, products arrive, are packed and transported. A great reason for PortNews to pay a visit.

In 1989, when it was still known as Miro Logistics, the very first cross dock facility was built and later extended at the Edda site. That cross dock has now made place for a new, fully temperature-controlled building with a capacity of 10,500m<sup>2</sup> and 13m high.

“We were chockfull and just had to make room for growth,” explains Albert-Derk Bruin, Managing Director of DSV Solutions Belgium. “And we are currently planning more expansions, like a bigger freezing cell.”

## Healthcare only

Since 2016, the Edda site only focusses on healthcare products. With the expansions, DSV Solutions can seamlessly adapt to the increasingly stricter rules and new demands of the market, while taking into account the concern for sustainable and efficient use of space.

In the new wholly isolated facility, the temperature can be maintained between 15 and 25°C. In addition to this, the new warehouse has a freezing cell where it is -20°C, and a ‘cold chain zone’ where the temperature is maintained between 2 and 8°C. The hygiene conditions and the fully temperature-



THE NEW FULLY TEMPERATURE-CONTROLLED BUILDING HAS A CAPACITY OF 10,500M<sup>2</sup> AND IS 13M HIGH.

controlled environment are optimal for the storage and distribution of medical products.

Alongside the new facility, DSV Solutions also has two other halls on this site and now offers a total of 36,000m<sup>2</sup> in storage space. From here, the products leave in condition-controlled trucks or in passively refrigerated packaging. "Our location in Ghent make our facilities ideally situated for the distribution of health products within the Benelux and the rest of Europe," Mr Bruin points out. The company works with all kinds of carriers for the distribution, although it is part of DSV. "It depends on what is best for our customer."

### Logistical challenges

The transport of healthcare products can be quite challenging. Some products require a cold chain, for which special trucks with cooling systems are needed. "To deliver a total cold chain throughout all of Europe is a difficult task, since there are just a few carriers that offer this." In some cases, they use an isolated box with dry ice to keep the products cool. "But this is not so great for the environment, and we are therefore seeking other solutions," Mr Bruin continues.



THE NEW DSV FACILITY AT THE EDDASTRAAT IN NORTH SEA PORT.

The developments in e-commerce have also impacted the logistics flows. "Today, when you buy a product online, you will receive an e-mail for every step in the logistics progress, such as when you make the payment, when it is packaged, what day and between which hours it will be delivered. And if our customers can track their private e-commerce packages, then why not track a pallet of toothpaste to all the stores in Europe? Our goal is to gain an even more pro-active attitude and truly narrate every step of the chain to our customers."

MR BRUIN, MANAGING DIRECTOR OF DSV SOLUTIONS BELGIUM.



With specific services, such as displays and decontamination, we really want to deliver customer excellency.

## More than just logistics

When walking through the warehouse, it soon becomes evident that DSV Solutions does more than just receiving and sending packages. “We position ourselves as a supply chain partner and offer our customers several Value Added Services.” Mr Bruin adds, “We always want to go at least one step further for our customers. In collaboration with the sheltered workplace of Ghent, entire displays are built and filled at the facility, which are shipped off to stores.”

Another unique aspect is the company’s decontamination service. Surgical kits are collected from the hospital after use, decontaminated, checked, tested, and reassembled, after which they are sent to new hospitals. Hospitals all over Europe are supplied from Ghent, as well as private practices, pharmacies, technicians, distributors, and retail companies. These added values ensure that DSV has great relationships with its clients. “It is more like a partnership,” states Mr Bruin. “With specific services, such as displays and decontamination, we really want to deliver customer excellency.”

## Great service, great people

Next to the new warehouse, a 1,200m<sup>2</sup> office building has been built to host the headquarters of DSV Solutions Belgium. It accommodates central services, including HR, IT, engineering, transport, customs, and financial services.

“We invested in a new office to further improve the working atmosphere. Our staff is very important to us. The only way to achieve customer excellency is to invest in our employees. The workplace is designed to achieve an optimal work environment. “We also started a Customer Service Academy, in which new employees are trained in our progresses and our values. Since the Academy, we really see a difference and are looking forward to rolling out these training opportunities for our employees in the future.”

## Strong roots

The enterprise was originally a SME business and even though it is now part of an international company, the local feel is still present. “Many of our employees are from this area and even though our total workforce in Ghent has increased to 245, it still feels small.”

With the new facility, the DSV Group has further strengthened its roots in Ghent and the role of North Sea Port as a logistics hub, as well as creating added value and jobs for the port. In that respect, the expansion was widely supported by North Sea Port, demonstrating the Port company as an ideal stimulator of entrepreneurship.

## Future innovations

More investments in Ghent are yet to come, and DSV Solutions is also looking at further innovations. DSV is now exploring the possibilities of 3D printing. Perhaps in the future, certain healthcare products will no longer have to be on stock, as they can be printed on the fly. This will free up more storage space for other items.

A more eco-friendly way for the passive cooling transport is another innovation on Mr Bruin’s list. As the aforementioned refrigerated packaging is not good for the environment and cannot be reused, DSV Solutions is working on a more sustainable refrigerated box. The enterprise is also looking at active cooling. Both options are hard to realise, but are necessary innovations when looking towards the future.



DSV SOLUTIONS HAS A TOTAL OF 36,000M<sup>2</sup> IN STORAGE SPACE.



HOSPITALS ALL OVER EUROPE ARE SUPPLIED FROM GHENT, AS WELL AS PRIVATE PRACTICES, PHARMACIES, TECHNICIANS, DISTRIBUTORS, AND RETAIL COMPANIES.

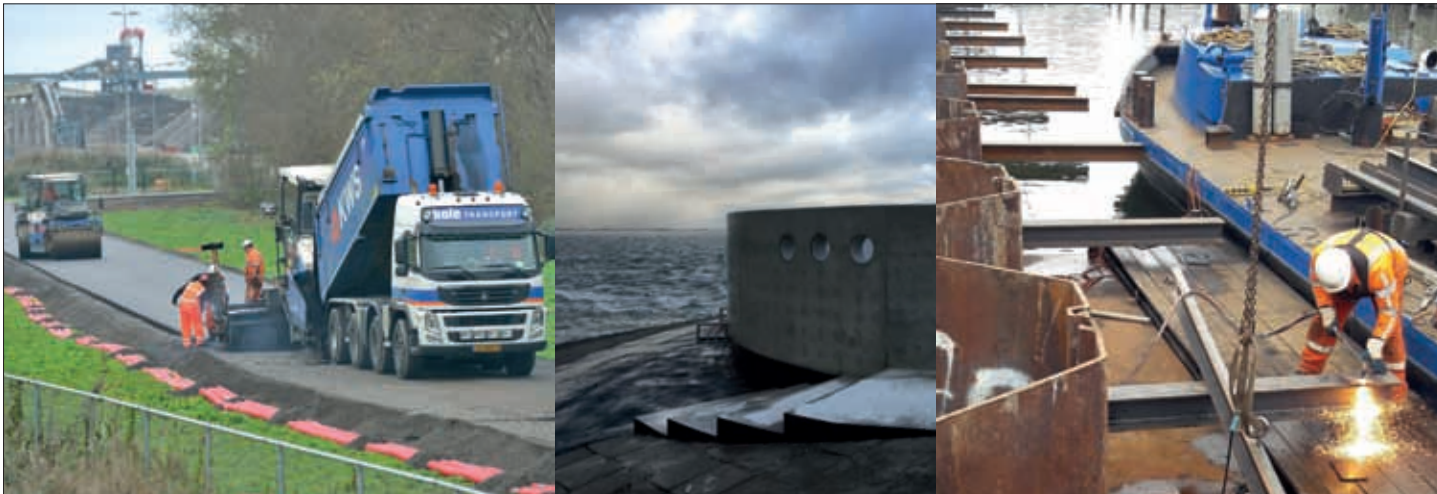


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HIRING CREW AND OFFSHORE WORKERS IS ANOTHER WORLD WITH ITS OWN DEMANDS AND REQUIREMENTS.



All photos courtesy of Prior Group.

# A new offshoot

## Prior Marine & Offshore

The core business of a seaport like North Sea Port lies in production and logistics, but these activities are supported by a large network of service providers. One such company is ZPPC participant Prior Group, an enterprise that recently launched its latest offshoot, Prior Marine & Offshore.

Prior Group is a group of companies that started business in 1999 as a management consultant. One of the activities was, and still is, consultancy on quality management. “In the nineties, quality management was in its infancy and many companies were looking for support in this matter,” explains Bram van Stel, Owner of Prior Group. Throughout the years that followed, Prior expanded its range of consultancy services to management & organisation advice, subsidy advice, mergers & acquisitions, legal advice & mediation, and HR advice. “Apart from this, through a range of acquisitions we also became involved in mechanical and electrical engineering, mechanical construction,

and recruiting. “For the latter, we noticed that many of our customers had problems finding skilled workforce, and as we already had an impressive pool of flexible staff working for several Prior companies, we decided to help them with this additional service,” Mr van Stel continues.

### Meet the requirements

Mark de Koeijer, Sales and Account Manager at Prior, adds, “This way, we have recruited and employed many people in a broad range of jobs in ample sectors.” As the Prior Group has a lot of clients active in the maritime and offshore business, it is obvious that the company also hires staff for these industries. “We started with onshore staff for these companies, but we noticed a rising demand for seagoing and offshore workers as well,” says Mr de Koeijer. For this purpose, Prior Marine & Offshore (Prior M&O) was established in early 2018. Mr de Koeijer, with his background in marine and offshore joined the company to unroll this new business for the Group. “It was mandatory to comply with the requirements of the MLC, 2006 convention before we could start recruiting and hiring maritime crew,” Mr de Koeijer states. “This convention aims at improving the working conditions for seafarers. So first we had to prove that Prior M&O could work according to this convention.”





MR VAN STEL, OWNER OF PRIOR.



MR DE KOEIJER, SALES AND ACCOUNTMANAGER AT PRIOR.

continues Mr de Koeijer. "As I was already familiar with this subject, we were able to arrange things fast and after two months of hard work and a final inspection by Bureau Veritas, we received approval for hiring a crew."

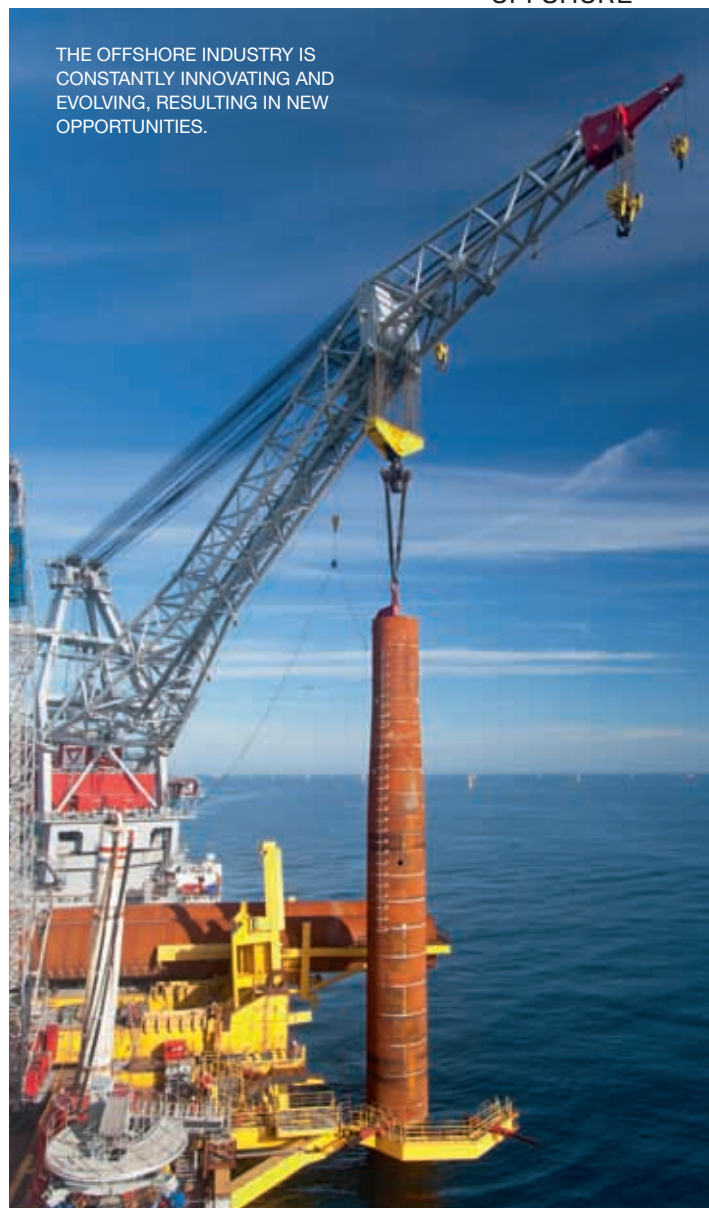
### Things look positive

Following this approval in June of this year, Prior M&O was officially in business and now offers its services to the industry. Mr de Koeijer: "For us as a new company in the maritime and offshore market, the first steps may be small ones, but with a number of projects finalised in Eemshaven (Groningen Seaports), Rotterdam, and in North Sea Port, we are not complaining. Things are looking positive. Through the years, Prior Group has built ample experience and a large network in the offshore and maritime industry thanks to the many onshore projects we have completed. Of course this helps, although we have to admit that hiring crew and offshore workers is another world with its own demands and requirements from our customers, as well as from the people we recruit and employ." Prior M&O recently participated in the North Sea Port Pavilion during Offshore Energy. According to Mr de Koeijer, this was an excellent occasion for promoting the new company. "Most contacts in our business take place through E-mail and phone, and at the exhibition we were able to meet a lot of customers and prospects face to face. The exhibition furthermore revealed the many new ongoing developments in this market. The offshore industry is constantly innovating and evolving, resulting in new opportunities."

### Future-proof

One of the challenges Prior M&O is confronted with, is finding the right people for the job. In order to meet customer demand, the company not just focusses on Dutch staff. "When looking at the maintenance of offshore wind turbines, other countries are ahead of the Netherlands as they have already been building offshore windfarms years before we started. The same applies to construction works. The potential of skilled and experienced workers for this industry abroad is high, so it is logical for us to not only recruit in the Netherlands," Mr de Koeijer explains. Mr van Stel adds, "With the industry constantly developing, and rules and regulations changing rapidly, it is very important that our people stay up to date in their field of expertise. Of course we help them find the right training or education for this purpose, as it is also in our own interest to keep our staff future-proof."

I. WWW.PRIORMO.NL



THE OFFSHORE INDUSTRY IS CONSTANTLY INNOVATING AND EVOLVING, RESULTING IN NEW OPPORTUNITIES.

“ It is also in our own interest to keep our staff future-proof.



PRIOR NOTICED A RISING DEMAND FOR SEAGOING AND OFFSHORE WORKERS.

THE SGC-250 HAS A MAXIMUM LOAD MOMENT OF 250,000TM, ALLOWING IT TO LIFT 5,000T. EVEN AT A LARGER RADIUS OF 100M, IT CAN STILL LIFT 2,000T.



All photos courtesy of Sarens



# Nothing too heavy, nothing too high

How Sarens came to build the largest crane in the world

On Friday 9 November, Sarens invited a select audience of journalists and key Sarens contacts to the Kluizendok in Ghent for the introduction of their latest mega crane: the Sarens Giant Crane-250, or SGC-250 – the largest crane worldwide. On Saturday 10 November, Sarens celebrated the construction of the SGC-250 with its employees, and on Sunday, members of the public could visit for free.

## A short history of Sarens

Sarens has always been, and continues to be, a family business. Its origins lie in Wolvertem, Belgium, where in the 1930s, a farmer called Frans Sarens lived with twelve children. During the Second World War, his farmland proved too small to feed his entire family, so he used his horses for the transport of heavy loads (big trees in particular) on the side. One thing led to another, and the Sarens company was founded in 1955.

Nowadays, Sarens is a global provider of crane rental services, heavy lifting, and engineered transport. The company has 100 entities in 65 countries and over 1,600 cranes worldwide.

The fourth Sarens generation has now taken over the wheel, and they bring a strong entrepreneurial spirit to the company. The Sarens family members together still hold 79% of the shares.

Sarens has multiple places of business, both in Belgium and in the Netherlands. Within North Sea Port, Sarens is based at the Langerbruggekaai in Ghent. They have already had a depot in Ghent for decades. North Sea Port provides the company with an excellent place of business, due to the depot's location directly on the waterside and the vicinity of a steel construction company (ArcelorMittal, previously SIDMAR, which has been around since the 1960s). A steel company's presence is very useful for a crane builder. Another benefit of the Ghent location is the vicinity of the group's headquarters in Brussels. During complex projects, the development team commutes from the headquarters to

THE SGC-250, READY FOR ITS LAUNCH AT THE KLUIZENDOK IN GHENT.



the Langebruggerkaai on a daily basis.

Within North Sea Port, Sarens is mainly active in what they call 'taxi service': the rental of small cranes for daily operations in and around the port. Sarens also supplies big cranes and SPMTs to companies like Verbrugge and BOW Terminal to assist in offshore wind projects.

### Ambitious design

The first design for the SGC-250 was made by Benny Sarens (third generation). When he suddenly passed away last year, the fourth generation finished the design and construction, in particular Carl Sarens, Director Technical Solutions, Projects and Engineering at Sarens.

The design for the SGC-250 had already been on the drawing board for a while, but the crane company waited with the production until the first customer contract had been signed. Before that, Sarens had already invested EUR 2 million in the inhouse engineering of the SGC-250.

The SGC-250 is a statement in all respects. The mega crane boasts 6,000hp, has over 20km of 50mm steel cables, a 9,000l diesel tank, and the lifting hook alone weighs 105t.

Some construction specifics of the SGC-250:

- The SGC-250 has 5,200t of counterweight, comprised of reinforced containers that are filled on site with the available local material of choice, i.e. sand. One filled container weighs

100t, so a total of 52 containers is stacked on the back of the crane. Moreover, the empty counterweight containers can be used to transport crane components.

- While regular cranes rotate on a slewing bearing, SGC-250 sits on a ring; it moves over a circular rail on the ground, allowing for more compact movements.
- The SGC-250 is completely containerised; all components can be transported in containers. Mega cranes are generally transported by ship, but the final metres often need to be done by truck. Thanks to the containerised design, this is now also possible with the immense SGC-250.

### Meeting capacity standards

Sarens has now entered a two-month period of testing and homologation in order to obtain the required EU-certificates.

The crane is also tested in configurations in which, according to European guidelines, it is overloaded, as a crane still needs to function properly – and safely – at 100% of its capacity.

According to European standards, a crane can be utilised using up to 75% of its capacity. This percentage is not the same worldwide. In the United States, for example, a crane can be used using up to 80% of its capacity. This means that if Sarens would want to deploy the SGC-250 in the United States in the future, it would require additional testing to homologate the crane according to American procedures. The difference

## A quick lesson in crane ratings

Cranes consist of a main boom that can be adjusted to varying lengths, and a luffing fly jib that can also cover a large variety of lengths. Depending on the combination used, the capacity of the crane shifts.

The SGC-250 currently has a main boom of 118m and a 52m luffing fly jib, but the main boom has a maximum height of 160m, and the luffing fly jib can measure up to 100m. In the largest possible combination, this amounts to 260m. However, as the crane does not reach up perpendicularly, the SGC-250 has a maximum height of 250m.

The maximum capacity of the SGC-250 is a staggering 5,000t. This capacity can only be achieved with a small radius: using a short main boom over a short distance. The radius is measured from the centre of the crane to the center of gravity (COG) of the load.

To calculate the capacity of a crane, a 'load moment' is often applied. This is a mathematically correct way to compare crane capacities. By this standard, the SGC-250 has a maximum load moment of 250,000 tonne-meters.

Even at a larger radius of 100m, the SGC-250 can lift 2,000t. As a comparison, Sarens' former largest crane under the same circumstances had a capacity of 1,000t – only half that of the SGC-250.

There are two risks in calculating a crane's load. When using a short main boom, the counterweight may not be heavy enough. When using a long main boom, it could potentially break if it is not strong enough.

“ Sarens experiences a quantum leap in crane construction dimensions more or less every decade.

between these percentages also commonly leads to confusion: it means that a 500t crane in the EU counts as a 550t crane in the States.

After the homologation period, the SGC-250 will be shipped to Somerset in early 2019 where it will be deployed for the construction of a nuclear reactor. One of the main lifts will be putting the roof panels in place; they are of such a large scale that smaller cranes cannot handle them.

### Moving with the market

All 1,600 of Sarens' cranes are mobile; they can be geographically moved to where there is market demand. But they can also move through different sectors. During the oil crisis, due to the lack of demand, Sarens took a lot of their cranes out of the oil industry and deployed them in other markets.

Sarens currently has four cranes in the giant crane category,



THE SGC-250 HAS 5,200T OF COUNTERWEIGHT, COMPRISED OF REINFORCED CONTAINERS THAT ARE FILLED ON SITE WITH THE AVAILABLE LOCAL MATERIAL OF CHOICE, I.E. SAND.

and as far as the company is concerned, this is where the future of crane construction lies. The first Sarens mega crane was built in 2011 for the construction of nuclear reactors and buildings of comparable scale. Back then, these were the building projects that required transportation of the largest components.

But the market has proven to keep up with the crane growth: that very first Sarens mega crane is presently deployed in the United Kingdom for the construction of jacket foundations for offshore wind turbines. Since cranes of these dimensions became available, the producers of wind turbine foundations have also started upscaling their components.

The current trend of building ever-larger cranes is fostered for a large part by this market demand for upscaling, both in the wind industry and other sectors. Upscaling cuts down the largest expense in any construction business: working hours.

Sarens experiences a quantum leap in crane construction dimensions more or less every decade. First, a crane builder builds a larger crane; customers then adapt their designs and construct larger components that no previous crane could have managed or transported. The crane builders that do not follow this trend see a part of their market share disappear in thin air. At present, Sarens is content with the SGC-250 and has no concrete ambitions towards an even larger version.

# From one-man business to multinational

Feyter Group widens its scope of business

In May next year, Feyter Group celebrates its 60<sup>th</sup> anniversary. The Terneuzen-based company has over time grown exponentially; from a one-man business in 1959 to the present-day multinational: a group of companies with subsidiaries in the Netherlands, Belgium, Germany and Spain.

At present, the Group employs around 200 people. The current Feyter name and house style were introduced about fifteen years ago to make the company's various divisions more uniform and internationally appealing. Within the larger Feyter Group, the different companies amalgamated in three divisions: Feyter Forklift Services, Feyter Industrial Services, and Faktor Civil Engineering.

## Family matters

Even though it is a multinational on paper, Feyter Group is still very much a family business. The daughter of founder Marinus de Feijter, Ingrid de Feijter, is the owner of Feyter Industrial Services and Faktor Civil Engineering. Eric van 't Westeinde is Advisor to the entire Group and Founder and Owner of Feyter Forklift Services in the Netherlands, Belgium, Germany and Spain. The third generation is following suit: three sons also work in the family business. Alex van 't Westeinde is Managing Director at Feyter Forklift Services, his brother Robert is in charge of the company's German subsidiary, Feyter Gabelstapler GmbH in Emsdetten, and their younger brother Flemming works at Thermosan Engineering, a subsidiary of Feyter Industrial Services in Middelburg.

According to Alex van 't Westeinde, the company's ambitions do not end here. The Terneuzen family business is full of plans for the future – and is set on executing them, too.

## Opening of new Rijswijk office

Feyter Forklift Services has three business locations in the Netherlands: its headquarters in Terneuzen, a branch in Vlissingen-Oost and, since 1 December, a third office in Rijswijk. The Rijswijk office will serve a





The Terneuzen family business is full of plans for the future – and is set on executing them, too.



THE FEYTER GROUP HAS A TOTAL MACHINE FLEET OF 1,000 RENTAL UNITS.

Photo courtesy of Feyter Group

## PORT EQUIPMENT

THE FEYTER GROUP'S HEADQUARTERS IN TERNEUZEN.



Photo courtesy of Feyter Group

commercial function, in order to further facilitate growth. Mr van 't Westeinde explains, "We want to be able to demonstrate our facilities to our customers and at times, the distance between Amsterdam or Rotterdam and Zeeland has proven too great. For that reason, we have signed an agreement with Unicarriers, one of the brands we work with, to rent a part of their Rijswijk office.

Apart from hosting Randstad-based customers, Mr van 't Westeinde also hopes the Rijswijk office will help Feyter attract engineers in the area. "When we employ someone in Rotterdam, they also want to know what kind of company they are working for. In the long run, I want the Rijswijk office to become a small version of our Zeeland establishments. It should provide the engineers that are stationed there with a solid base to meet up with colleagues and have a beer together on a Friday afternoon."

### Employment opportunities

Finding qualified engineers has proven difficult in recent years, also in Zeeland. But at least Feyter Group is well-known in Zeeland, which means potential employees know where to find the company. Feyter often needs qualified engineers, to which end they also provide training and education within the company. In order to facilitate proper mentoring and focus, they offer schooling to a maximum of three students at a time. When they do well, students are guaranteed of a job at Feyter once they finish their education.

### A massive machine fleet

Feyter Group has a total machine fleet of 1,000 rental units, ranging from electric stackers to reach stackers. However, the company maintains a total of around 3,000 units, as it also repairs and maintains 2,000 of its customers' machines. About 30% of the rental fleet is short term rental, the other 70% is long-term rentals and leases, varying between 4-10 years. Throughout Feyter Forklift Services, machines are regularly interchanged – both within the Netherlands and internationally. Between 30-40 machines from Terneuzen are deployed in Germany at any given time, as they are currently in high demand there. Additionally, several transports with port equipment head out to Spain every month.

### Soon to come: a specialised forklift web shop

Feyter Forklift Services will at the end of January 2019 launch a web shop for its own product line, which is comprised of smaller machines. The product range of mostly warehouse trucks is made at a Feyter subsidiary called Condal Trade Barcelona (CTB). Feyter has been producing these machines for years, but did not previously sell them in the Netherlands. The CTB office produces mainly for the South-American and Central-American markets, and have the certification to go with it. Now that the CTB products are also CE-certified, Feyter has decided to introduce them on the European markets.

The full CTB range, with prices ranging between EUR 800-5,000, will be available online. Distribution will take place from Feyter's German distribution centre in Emsdetten. Customers will receive their orders within two days.



MR VAN 'T WESTEINDE,  
MANAGING DIRECTOR AT  
FEYTER FORKLIFT SERVICES.

Photo courtesy of Feyter Group



THROUGHOUT FEYTER FORKLIFT SERVICES, MACHINES ARE REGULARLY INTERCHANGED – BOTH WITHIN THE NETHERLANDS AND INTERNATIONALLY.



Photo courtesy of Feyter Group

## Adjusting the company mission

Feyter Group's mission has always been to be a leading player in its fields on a regional scale. This mission remains unchanged, but the 'regional' part no longer seems fitting since the company has become a multinational. Apart from the Feyter subsidiaries, there are other companies worldwide that do not carry the Feyter name, but which are also managed by Feyter. Another focus that has been added is sustainability. Last year, Feyter replaced all lighting in its offices and workshops with LED lighting systems. The company is also constantly renewing its machine fleet, ensuring it has the latest engines and lowest possible emissions. Several years ago, the average machine age at Feyter was nine years – it is presently a mere 3-4 years. This is a large step in emission control.

Feyter Forklift Services is looking into expanding its office in Vlissingen. If that comes to be, its ambition is for the entire building to be solar-powered.

## Meclift

Apart from the company's geographical and market expansions, there is also renewal within the commodities offered by Feyter. One of the most recent additions to Feyter's machine fleet – and one that Mr van 't Westeinde is particularly enthusiastic about – is the Meclift, built in Tampere, Finland. The Meclift ML1812R is a unique multipurpose forklift truck, as it is the only telehandler that can lift 18t, but can also be operated inside containers. Its compactness makes it ideal for use in confined spaces, such as warehouses and cargo vessels. Various kinds of attachments ensure that one machine can be used for diverse purposes. "Take a container terminal, for instance," Mr van 't Westeinde explains. "When a container filled with steel coils arrives, several 5t or 8t forklifts are needed to unload the coils. In addition, the terminal needs 16t forklifts and forklifts with paper clamps, to be able to handle different cargo loads. Thanks to all the different attachments



Photo courtesy of Meclift

THE MECLIFT ML1812R CAN MOVE INTO A CONTAINER CARRYING 18T OF CARGO, OR TELESCOPE, REACHING HALFWAY INTO THE CONTAINER.



THE BYD FORKLIFT USES A LITHIUM IRON PHOSPHATE BATTERY SYSTEM.

Photo courtesy of Feyter Group



Photo courtesy of Feyter Group

that can be used on a Meclift and due to its compact design, one Meclift can replace all of those machines.”

The Meclift can move 20ft containers from fork pockets and stack them up to three units high. The ML1812R is the smallest version of the machine; the range goes up to 50t lifting capacity. To ensure good visibility, the cabin is hydraulically movable. The Meclift ML1812R can move into the container carrying 18t of cargo, or telescope – where the machine remains in front of the container and moves its arms forward, reaching halfway into the container. With common forklifts, residual capacity decreases while telescoping, but the Meclift has small wheels under its arm, allowing the arm to roll over the ground, losing virtually no capacity. The machine can lift cargo as heavy as 18t up to 4m high when fully retracted, and up to 6m when extended. Equipped with a heavy-duty coil ram, the Meclift forklift can handle steel coils with a weight of up to 18t. Equipped with a lifting beam, it can handle extra-long loads like steel plates, tubes or beams. With a c-hook, the Meclift can rotate coils 360° and tilt them 64°, and when equipped with double forks system, multiple pallets can be handled at once. Then there’s a coil ram, coil clamps, lifting beams, and many other attachments. Feyter has everything in storage, except for the c-hook.

Mr van 't Westeinde has noticed that businesses in the Netherlands are slow to pick up on the Meclift’s unique capabilities. There are at present just four Meclifts in the Netherlands: two at Tata Steel, one at Outokompu in Westdorpe, and one at Feyter Forklift Services in Vlissingen. Feyter purchased its Meclift in May 2018 and has since been demonstrating its capacities as often as possible. The enterprise organised a demo day at its Vlissingen site, and also showed the versatility and compactness of the ‘blue and orange beast’ to visitors during the Open Port Days 2018. For anyone who missed those events, another opportunity is coming up: Feyter will also be showcasing the Meclift at the TOC Europe exhibition in Rotterdam in June 2019.

### BYD lithium forklifts

Another interesting development within the forklift segment is the introduction of BYD forklifts at Feyter. BYD is a battery producer from China that has come up with a revolutionary lithium iron phosphate battery system. Lithium batteries have various advantages over common, lead-acid batteries. With lead-acid batteries, maintenance costs are relatively high, spare batteries are often required, and since flammable gases are emitted during charging, a separate, well-ventilated charging space is required.

Contrary to the lead-acid version, a lithium battery can be charged for a small amount of time, also when it is not (almost) empty. After an hour of charging, the BYD forklift can be put to work again for several hours. The battery has a closed circuit, so no gases or fumes are released during charging – which means it does not require a separate charging area. BYD lithium batteries have a lifespan of ten years minimum, and come with an eight-year guarantee. Of the capacity that the battery starts out with, 85-90% remains after eight or nine years. This means the battery outlives the forklift, instead of the other way around.

BYD has found a way to make a battery similar to that of a smartphone suitable for forklifts. But a smartphone battery is as lightweight as possible, whereas in electric forklifts the batteries normally function as counterweight. With a battery that weighs around 600kg, instead of 1,500kg which is required as counterweight, BYD needed to approach the counterweight issue differently. They decided to reinforce the forklift instead, replacing all plastics with steel.

- I. [WWW.FEYTER.COM](http://WWW.FEYTER.COM)
- I. [WWW.HEFTRUCK.SHOP](http://WWW.HEFTRUCK.SHOP) (FROM JANUARY 2019)
- I. [WWW.MECLIFT.FI](http://WWW.MECLIFT.FI)
- I. [WWW.FORKLIFTSTOCK.COM](http://WWW.FORKLIFTSTOCK.COM)



PASSENGERS CAN ENJOY A FREE CRUISE FROM GHENT TO TERNEUZEN AND VICE VERSA ON THE JACOB VAN ARTEVELDE.

## Free cruises Ghent-Terneuzen in 2019

Starting next year, North Sea Port will offer free cruises between Ghent and Terneuzen and vice versa. Together with a guide, up to 80 passengers will experience a unique view of the port while sailing over the 32km long canal.

Cruises have already been offered in Ghent and Vlissingen for years. With the fusion of the port areas, it only seems fitting that the cruises will also cross the border. There will thus be a new cruise from Ghent to Terneuzen, and the other way around, every Saturday, almost all year round, starting 9 February 2019. During the cruise, there will be a guide on board to explain more about North Sea Port, the importance of the port, and which companies are situated in the port area. Passengers also will learn about the passing vessels and the realisation of the new lock in Terneuzen.

At 10 AM, the Jacob van Artevelde vessel will set sail towards Terneuzen from the Rigakaai in Ghent, which is next to the visitors Centre of North Sea Port. She will arrive in Terneuzen two and a half hours later, and from here passengers will return to Ghent by bus.

From Terneuzen, passengers can board the vessel at the Beurtvaartkade and cruise along to Ghent. Jacob van Artevelde

will arrive back in Ghent at approximately 4 PM. Passengers will be back in Terneuzen at 5 PM.

The cruise is free, but registration is obligatory. The entire trip will take about three and a half hours, which includes a tour guide on water and the bus trip back. Seats can be reserved via the North Sea Port website.

I. [WWW.NORTHSEAPORT.COM](http://WWW.NORTHSEAPORT.COM)

### Programme

#### Ghent – Terneuzen

10:00	Boarding at Rigakaai in Ghent
12:30	Arrival in Terneuzen
13:00	Bus leaves for Ghent
13:30	Arrival at Rigakaai

#### Terneuzen – Ghent

13:30	Boarding at Beurtvaartkade in Terneuzen
16:00	Arrival in Ghent
16:30	Bus leaves for Terneuzen
17:00	Arrival at Beurtvaartkade

# The complex logistics of sea salt

& the sustainable company behind it



Family company Zoutman is a sea salt refinery that specialises in processing different types of sea salt that are also used for food applications. The Belgian company annually ships 300,000t of sea salt in small packages, sacks or bulk to over 60 countries, which is quite a logistical challenge.

All photos courtesy of Zoutman

Bert Lamote comments, "We may not be a logistics company, but logistics does play a big part in our business. In fact, the logistic cost defines in some cases 70% of the sales price. This makes salt a logistic-sensitive product."

"And our logistics is also rather complex," adds Logistic Director at Zoutman, Wouter Lambert. "We deliver worldwide to all kinds of markets, all types of transport and packages."

"To really understand this," Mr Lamote continues, "you must realise that salt is a cheap and widely available product. We deliver road salt no further than 300 kilometres, as the costs are just too high. Not for us of course, but for our customers."

### Automated logistics

Other logistical challenges lie in the entire production chain, as Lambert explains, "It begins with the shipment of raw materials, for which we use large vessels that can ship over 50,000 to 75,000t. We store all of the raw materials at our terminal in Ghent. Some of these will be transported by inland waterway vessels to our refinery in Roeselare and others – such as the salt for technical use, de-icing and agricultural applications – will be processed on site and transported by truck."

Automating the internal logistics is key in this production chain. "Since we work with products that differ in terms of purity, grain size, moisture content, and packaging, automation ensures that everything is as our client requires."

### Sustainable logistics

Thanks to a well-designed production flow, Zoutman has a zero-discharge status. "Everything is filtered and reused," says Mr Lamote. The use of a photovoltaic system in the Roeselare and Ghent branches means that they can meet more than 60% of their own energy requirements. Alongside solar panels, Zoutman also finds energy-saving resources in terms of infrastructure, such as frequency-controlled engines and heat conductors. For drying the sea salt, Zoutman uses a gas-powered dryer that is pre-heated with steam recovered from a neighbouring company. To produce the brine, Zoutman produces its own drinking water.

### Sustainable transport

When it comes to transport sustainability is once again important for Zoutman. By using sea transport, for instance, CO<sub>2</sub> emissions are minimised due to the huge volume shipped in one shipment. Materials are also transported by water from the site in Ghent to Roeselare, even though road transport would be more economical. Nevertheless, this decision keeps more than 4,500 trucks off the road each year.

Another sustainability project was digitalising the enterprise's overall logistics. "For example, we have digitalised our paper consignment note this year. After delivery, we now immediately know how much salt has been delivered, and our client receives all shipment documents directly in their inbox. No more paper or lost tickets," clarifies Mr Lambert.

AT THE TERMINAL IN NORTH SEA PORT ZOUTMAN STORES AROUND 300,000T A YEAR.



UNLOADING THE RAW MATERIALS AT ZOUTMAN'S DOCK IN NORTH SEA PORT.

Zoutman has already been using Paperless Customs and Excise (PLDA) since 2007, and has been digitalising invoices for several years. "With the newly implemented e-CMR, we have even less administration and save a huge mountain of paper," adds Mr Lamote. "This allows us to keep on growing without having the excessive amount of paperwork. In this kind of low value business these are critical savings."

### Logistical challenges

Digitising also brings some logistical challenges since there are a lot of parties involved. "The logistics sector still has to accelerate in this new digital age. It is not like the big packaging companies that are already used to digitalisation. Transporters are often small companies that are widespread," comments Mr Lambert. "And even though they all have a smartphone, they seem to want to stick to pen and paper."

Zoutman nevertheless has to depend on this fragmented sector. Mr Lambert says, "To find the cheapest and right transporter for the right destination is challenging, but

something that we always need to strive for with our cheap product."

Mr Lamote states that changing policies and taxes make things quite challenging as well. "For instance, bulk transport has become much more expensive since the new road tax. It has even resulted in a 10% increase in our sales costs for some products. This is why we are always looking for ways to decrease cost in other segments, such as by digitalising our paperwork."

### Acceptable prices

Today, about 70% of Zoutman's sea salt is used in food products or water-treatment products. For these high-demanding sectors, food especially, the refinery can offer a flexibility in purity, size, additives, packaging and so on, all on short notice. This added value makes the cost price more acceptable, even if it has to be shipped to countries with a high transport cost, such as the United States or Canada.

"The costs in logistics are fair as we produce a high-quality



## Facts & Figures

Area	73.000m <sup>2</sup>
Hangar surface	38.000m <sup>2</sup>
Storage volume	> 300.000 metric mt
Loading and unloading capacity	15.000 metric mt in bulk/day



HALF OF ALL CONSIGNMENT NOTES ARE ALREADY BEING GENERATED DIGITALLY.



MR LAMBERT, LOGISTICS DIRECTOR AT ZOUTMAN, AND MR LAMOTE, COO AT ZOUTMAN.

product,” continues Mr Lamote. “Furthermore, sea salt is the only salt that can be extracted in an ecological manner using sun and wind. Most of the West European salt market is however dominated by mine salt, which is not sustainable and causes irrevocable damage to the earth. Thankfully we see more and more companies changing from mine salt to sea salt.”

### Logistical opportunities

Zoutman would like to decrease the number of truck loads. To do so, they are looking at inland shipping or railways. “But this goes very slowly, usually due to all the different parties and countries involved,” says Mr Lamote. “When there is an initiative, we wish to jump in to make it happen. Because we certainly believe in the potential of other means of transportation.”



AT THE REFINERY IN ROESLARE, ZOUTMAN PRODUCES SEA SALT FOR THE FOOD INDUSTRY, INCLUDING THEIR OWN BRAND.

WWW.ZOUTMAN.COM



# Mission multimodal

More than 200 companies met up on Thursday 22 November to speak and learn about the mission multimodal, and how North Sea Port can work ‘together smarter’ to realise a more sustainable transport network across the world.



AFTERWARDS, THERE WAS A NETWORK RECEPTION WITH FOOD AND DRINKS.

The event, organised by North Sea Port and Multimodaal Vlaanderen (VL), was well visited and revealed a great interest in multimodality by the port companies.

## In our DNA

As the first speaker at the event, Daan Schalck, CEO of North Sea Port, explains how multimodality is in North Sea Port’s DNA. The port already has all kinds of transportation options available. North Sea Port is also connected to the Rhine-Alpine corridor and North Sea – Mediterranean corridor.

Even with all the logistical benefits of the port’s central location, the transportation network can always improve further. This largely has to do with sustainability and the traffic problems in Belgium. One of the main solutions is to reduce road traffic. “This is something that North Sea Port will truly realise,” states Mr Schalck. “Over the years, we have already seen an increase in trains and inland shipment. With the New Lock, the inland transportation will also receive a capacity boost that will increase these numbers even more.” North Sea Port has set aside EUR 40 million to further invest in the port’s multimodality. Just recently, French president Emmanuel Macron visited North Sea Port, and the possibility of the Seine – Schelde connection is in sight.

One issue he also addresses is container transport. Only 2% is transported in containers in North Sea Port. With a container



**“** We must not forget short sea and the pipelines. Multimodality is not only by sea, land, or rail.

terminal, there will be a definite increase in options and efficiency.

Mr Schalck points out that an optimal infrastructure, one without any missing links, is required to be truly multimodal. The government also has to stand behind the idea of a multimodal port.

But Mr Schalck strongly believes that united, the port is smarter and by working together as partners, sustainable transportation is possible. “And here we must not forget short sea and the pipelines. Multimodality is not only by sea, land, or rail.”

### Working together

Vlaeynatie's CEO Paul Van den Broeck confirms that collaborating is important for their logistic activities. As a 'new' company in North Sea Port that settled here in 2015, collaboration with partners was necessary to realise regular transport lines, like the regular train connection between Westdorpe and Antwerp that starts in February 2019. Frank Adins, Chairman of Transuniverse, sought a partner as well, which worked out positively for both parties. The result was more RoRo vessels, and more containers by tracks and block trains. To further strengthen its multimodality, Transuniverse is currently building a new cross dock terminal at the Kluizendok in North Sea Port, to be even closer to the railways and the sea.

### Synchro-modality

Pascal Vranken, CCO at H.Essers, states that we must look beyond multimodality. According to him, it is not enough to just realise an optimal transportation network, we must also look at how we can use this network in the most optimal, flexible, and sustainable manner possible.

He points out that even with a multimodal service, for instance towards China, it is not yet feasible to transport every product that way. Logistics Supervisor at EOC Marnic de Cubber



MR SCHALCK, CEO OF NORTH SEA PORT, SPEAKS ABOUT NORTH SEA PORT'S MULTIMODAL DNA.

agrees, as he runs into holdbacks himself. “We want to ship inland from Evergem to Ghent, but our flexibags need special containers, which are apparently a problem.” Mr Vranken calls out to think about solutions together, so as to truly achieve synchro-modality when it comes to logistics.

### A mental shift

Peter Lagey, Manager at Multimodaal.Vlaanderen, also calls out for people to wake up. The mobility in Belgium is a problem and will, according to the numbers, only worsen if road traffic does not decrease.

During the panel discussion, Managing Director at VIL Liesbeth Geysels feels that a mental shift is necessary. Regional Port Commissioner Jan Blomme thinks that a mental shift has already occurred, and that the port companies prove this by the event's high attendance number.

Chris Danckaerts, Managing Director of De Vlaamse Waterweg, points out that “the mental shift needs to transform into a multimodal shift”. And for this to happen, Mr Vranken believes we just need to make some changes. “We perhaps started too slowly, but now is the time to really go for it!”



MR VAN DEN BROECK, CEO AT VLAEYNATIE, STATES THAT COLLABORATING IS IMPORTANT.



MR DANCKAERTS, MANAGING DIRECTOR OF DE VLAAMSE WATERWEG, REGIONAL PORT COMMISSIONER MR BLOMME, AND, MANAGING DIRECTOR AT VIL MS GEYSELS TOOK PART IN THE PANEL DISCUSSION.



MR LAGEY, MANAGER AT MULTIMODAAAL.VLAANDEREN, CALLS OUT TO WAKE UP.

MR VAN DER MAAS, PROVINCE ZEELAND DELEGATE, AND MR VRIJDAG, DIRECTOR TRACTAATWEG BV, OPENED THE TRACTAATWEG ON 31 OCTOBER.



Photo courtesy of Mark Neelemans

# Road works

## Improving the N62

With a total road network of 210km, it is no secret that North Sea Port is highly accessible by road. By improving these hinterland connections, the port is further optimising the accessibility and strengthening its position.

One of these connections is the N62. The 41km long N62 connects north with south, and is an important transport shaft between Ghent, Terneuzen, and Vlissingen. Traffic on the N62 has notably increased since the advent of the Western Scheldt Tunnel, and with new companies settling in the area. To improve accessibility and road safety, the province of Zeeland has invested in several projects to double the lanes between the Belgian border all the way to Goes.

### Tractaatweg

The Tractaatweg has been expanded with two times two lanes. The road between Terneuzen and the Belgium border was

opened on 31 October. Finishing work will continue until the beginning of 2019. This should not cause any inconvenience for road users, although one lane might be closed sometimes.

### Sloeweg

Another project is the improvement of the junction connecting the Sloeweg (N62), the Bernhardweg, and the Westerscheldetunnelweg. The junction, which will carry the name Drie Klauwen ('Three Claws'), was regulated by traffic lights, but this caused traffic stops and inconvenience. Three viaducts are currently being built to achieve a more fluent traffic flow.

The Sloeweg project is divided into two parts. The first part was completed in June 2016. Contractor Boskalis is presently working on the viaducts, where traffic can continue thanks to a temporary roundabout. There is thus no hinder from the construction for road transport to and from North Sea Port. The roundabout will be used until the new junction with the three viaducts is finished in mid-2019.

I. SLOEWEG.NL

I. TRACTAATWEG.NL



DURING THE WORKS AT THE SLOEWEG, TRAFFIC CAN CONTINUE THANKS TO A TEMPORARY ROUNDABOUT.

Photo courtesy of Sky Pictures



THE TRACTAATWEG HAS BEEN EXPANDED WITH TWO TIMES TWO LANES.

Photo courtesy of Sky Pictures



PAVEMENT WORKS.

Photo courtesy of Ton Stanowicki



CONTRACTOR BOSKALIS IS PRESENTLY WORKING ON THE VIADUCTS.

Photo courtesy of Ton Stanowicki

# The New Lock in Terneuzen

ARTIST IMPRESSION OF THE NEW LOCK

The construction of the New Lock (Nieuwe Sluis) in Terneuzen is underway. This new lock is of great importance for both seagoing and inland waterway vessels that will enhance accessibility for large vessels and barges, and support economic growth in the region.

Image courtesy of Nieuwe Sluis Terneuzen

The new lock will be one of the largest in the world with a length of 427m, a width of 55m, and a 15m draught, and will be much larger than the existing locks in Terneuzen. The construction of the new lock therefore involves a complete reconstruction of the central complex.

### Challenging project

Constructing a new lock within an existing lock complex forms quite the challenge. Construction space is limited, the lock has to be built in the water, and shipping and transportation must continue as usual.

Project Director at the New Lock Terneuzen Eric Marteiin comments, "We remain alert to the need of building it as well as possible, without disrupting existing features. The damming function must remain intact, rainwater must be drained off from the hinterland, vessels must continue to lock, and car and bicycle traffic must pass over the bridges. A challenge of which we are highly aware."

The joint venture Sassevaart, consisting of BAM, DEME, and Van Laere, will use both existing and proven methods to complete this grand five-year project.

### Lock construction

The new larger lock will be built within the current lock complex, between the Western and Eastern locks. The existing middle lock will be removed – in addition to a number of companies that has to be relocated.

Where possible, in-the-wet construction will take place and

the lock chamber will be entirely built under water. This type of construction has several environmental advantages. For instance, the water does not have to be pumped away, which means the groundwater level remains unchanged and subsidence is avoided.

Dry construction will be required for the lock heads. The complex systems for the gates and bridges will be constructed in a watertight cofferdam. This is done by installing sheet piles and raising the area with sand, after which the lock heads are constructed by sinking diaphragm walls deep into the soil. Once the lock walls are built, the lock will be dredged and the lock floor will be constructed using underwater cement.

### Three wall types

The construction of the new lock consists of three kinds of walls. Sheet pile walls are used for the construction of the cofferdam, which are made out of interlocking metal sections that are sunken into the ground to retain water or soil. The lock chamber consists of very deep diaphragm walls that can withstand the forces generated by the water inside the lock. The long side walls, the eastern side wall, and the north-western head wall are equipped with combi walls, providing protection against the sea.

### Progress update

The preparatory work has been going well. The construction of the logistics centre is finalised and the north-western head wall has been completed. Preparations for a new service port and

SEVERAL TEMPORARY MOORING POSTS WILL BE REALISED FOR INLAND VESSELS AT THE ZEEVAARTWEG.



Photo courtesy of Patrick Vanhopplinus

THE NORTH-WESTERN HEAD WALL DURING CONSTRUCTION.



Photo courtesy of Patrick Vanhopplinus

**Lock complex in figures:**

The lock complex at Terneuzen connects the Ghent-Terneuzen Canal to the Western Scheldt River. The Ghent-Terneuzen Canal is the main waterway to and from the port area of Ghent, and is part of the Rotterdam-Paris inland waterway route.

**East Lock**

- 280m long
- 23m wide
- 6.5m deep

**West Lock**

- 290m long
- 40m wide
- 13m deep

**New Lock**

- 427m long
- 55m wide
- 16.44m deep

**Middle Lock (will be superseded by the new lock in 2021)**

- 110m long
- 18m wide
- 7.5m deep



A LOT HAS BEEN DONE IN A YEAR, BUT MUCH WORK STILL LIES AHEAD.

Photo courtesy of Patrick Vanhopplinus

alterations to the current port facilities have also been made. At the Schependijk the companies have been relocated and demolition of the dry dock has begun. By the end of 2018, several temporary mooring post will be realised for inland vessels at the Zeevaartweg and the redecoration of the Goessekade will start.

The construction of the cofferdam will begin next year. Tests are currently being carried out to make sure that the cement is of the correct quality and strength.

Last but not least, the temporary canal has been given a new name. The ‘Kapitein Rooiboskanaal’ is currently being constructed and 10,000m<sup>3</sup> of dry sand has already been dug up and drained. By early 2019, another 40,000m<sup>3</sup> of wet sand will follow.

**Disruption for port area**

Looking at the progress, a lot has been done in a year and much work still lies ahead. Four more years are planned, which will certainly not go by unnoticed. But the contractor has said that it will keep enabling both shipping and road traffic to continue passing through as smoothly as possible.

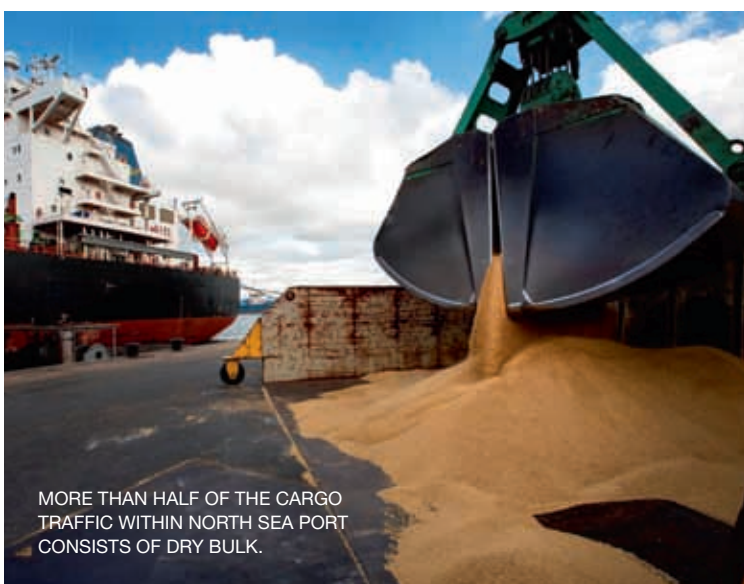
This will be realised by several detours and temporary diversions. The Kapitein Rooiboskanaal, for instance, will function as a unique diversion for inland waterway traffic. In the first quarter of 2019, the connecting road past Terneuzen will be diverted along the new north-western head wall, so there should be no traffic problems during the construction of the New Lock.

## ArcelorMittal inaugurates state-of-the-art blast furnace

An ultra-modern blast furnace was officially inaugurated in the Sidgal 3 hot dip galvanising line at ArcelorMittal Ghent on 8 November. The new furnace represents an investment amount of EUR 65 million. ArcelorMittal organised a 'Customer Day' on the same day to introduce the new line to its customers. Over the past five years, ArcelorMittal Belgium has run an ambitious investment programme of EUR 250 million, in which ArcelorMittal Ghent and Liège play a leading role. Both factories have been selected as pilot sites for the development of Fortiform, a new high-tech steel product. Car parts made with Fortiform steel are 10-20% lighter, more economical, and therefore better for the environment.



ARCELOMITTAL EMPLOYEES DURING THE OPENING OF THE NEW BLAST FURNACE.



MORE THAN HALF OF THE CARGO TRAFFIC WITHIN NORTH SEA PORT CONSISTS OF DRY BULK.

## North Sea Port hosts European bulk sector

On 19 November, North Sea Port hosted around 650 guests from the European bulk sector for the annual International Bulk Journal (IBJ) awards. After earlier editions of the event in cities such as London and Amsterdam, this year's conference took place in the Eskimofabriek in Ghent, a former nineteenth century textile factory.

Hosting the awards night provided North Sea Port with an excellent opportunity to further strengthen its position within the European bulk sector, since more than half of the cargo traffic within North Sea Port consists of dry bulk such as grains, iron ore, and coal. In addition, almost one-fifth of the transshipment in North Sea Port consists of liquid bulk like chemicals, bio fuels, and orange pulp.

Apart from hosting the conference, North Sea Port was also among the nominees in the 'Best Dry Bulk Port' category. The winners of the IBJ awards 2018 included Cargill (Bulk Ship Operator of the Year) and Euroports (Environmental Protection Award in Cargo Handling).

## Multiraship and Novatug scoop KVNR award for CRT design

Towage and salvage specialist Multiraship and its innovation arm Novatug have won the prestigious Maritime KVNR Shipping Award 2018 for their innovative Carousel Rave Tug (CRT) design. The award was presented to Leendert Muller, Managing Director at Multiraship, on 12 November in Amsterdam during the Maritime Awards Gala. The award recognises 'a combination of successful realisation and implementation with a vision for the future'. The CRT is a revolutionary design that makes it easier, safer, and more environmentally-friendly to work with seagoing vessels at much higher speeds than those achieved by conventional tugs, and without the risk of capsizing.



HOST JORT KELDER PRESENTS MR MULLER, MANAGING DIRECTOR AT MULTIRASHIP, WITH THE MARITIME KVNR SHIPPING AWARD 2018.



## **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.

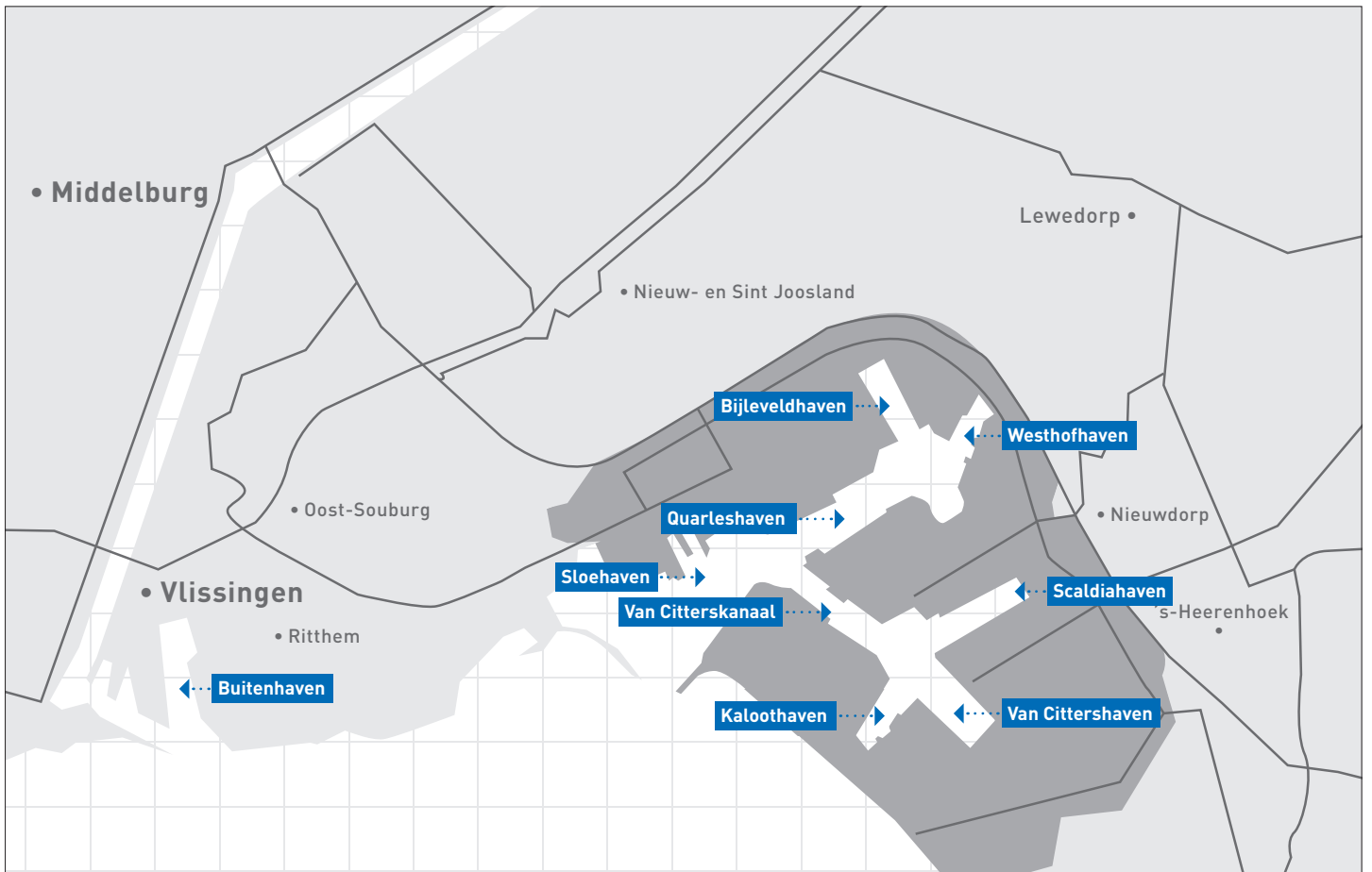
Specialist in dry bulk, general cargo, offshore and food.

Europe's number 3 as for added value.

Europe's number 10 concerning seaborne cargo traffic.

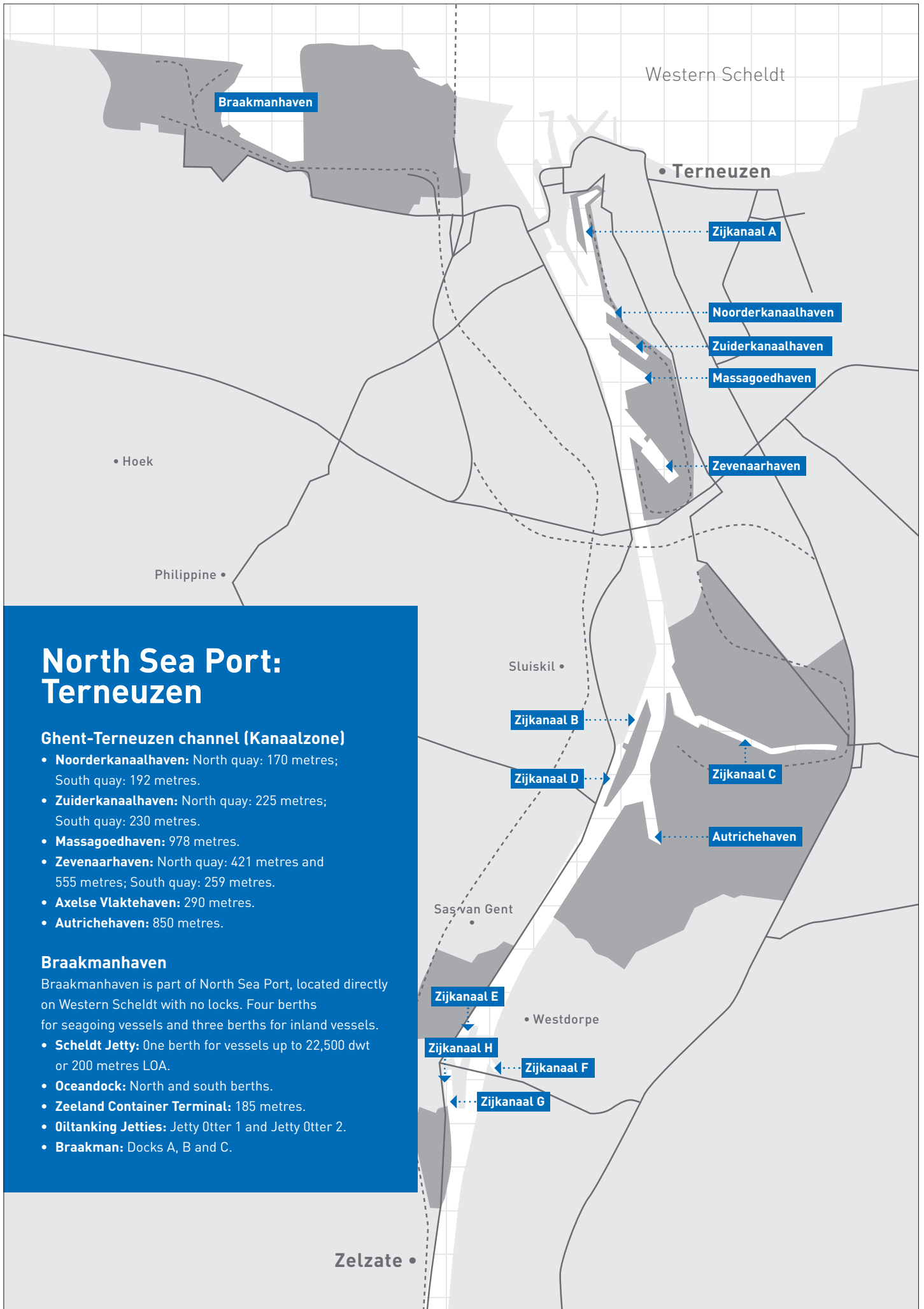


[northseaport.com](http://northseaport.com)



## North Sea Port: Vlissingen

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



## North Sea Port: Terneuzen

### Ghent-Terneuzen channel (Kanaalzone)

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

### Braakmanhaven

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

- **Scheldt Jetty:** One berth for vessels up to 22,500 dwt or 200 metres LOA.
- **Oceandock:** North and south berths.
- **Zeeland Container Terminal:** 185 metres.
- **Oiltanking Jetties:** Jetty Otter 1 and Jetty Otter 2.
- **Braakman:** Docks A, B and C.

# North Sea Port: Ghent

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

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



The Zeeland Port Promotion Council is pleased to welcome new participants. Founded in 1993, the Zeeland 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 61 - 63 for a complete list of participants.

## → AANZET CONSULTANCY



We are the change management professionals of Aanzet Consultancy. We offer support throughout the entire lifecycle of change, and can help you shape your strategy and implement sustainable change. Each client's unique challenges and opportunities are tackled with a clean slate.

As we focus on the people aspect of change, you can expect us to truly connect with your people and integrate into your business, as we work with you to realise your goals.

We provide solutions for both short-term troubleshooting issues that require immediate action, and longer-term projects in which we become part of the client's business and act as sparring partner.

Your specific business culture and challenges are central to everything we do, as we collaborate with you to lead, manage, and deliver change to elevate your team to the next level.

**I. AANZET.EU**

## → DEMACQ RECYCLING INTERNATIONAL



Demacq recycles thermoset composite to a new and directly useable resource. Small objects can be delivered at our port address in Ritthem, for larger objects such as rotor blades, we have developed a specialised mobile pre-cutting 'cold water cutting' process and a mobile recycling machine, so we can process and recycle on location. The cutting technique requires only tap water and sand. There is hence no damage to the environment and we can carry out the process at almost every location. The

transports movements are limited to a minimum and the costs are at a normal rate. The total costs of our process are limited as much as possible, so we can offer a competitive price.

Processing from composite to raw material is an essential part of the process, which requires both a sufficient supply and a combination of qualities to enable the various applications.

**I. WWW.DEMACQ.NL/EN**

## → ØRSTED



Ørsted has a vision of creating a world that runs entirely on green energy. The company develops, constructs, and operates offshore windfarms, bioenergy plants, and innovative waste-to-energy solutions, and also provides smart energy products.

Ørsted has built more offshore windfarms than any other developer in the world. By 2020, the company will expand offshore wind capacity to 7.45GW, and will have offshore windfarms across Europe in Denmark,

Germany, the UK, and the Netherlands. Borssele 1+2 is our first Dutch offshore windfarm. The Netherlands has firm green energy ambitions. Ørsted is very happy to contribute to the Dutch energy transition. This year saw the beginning of the construction of an operations and maintenance base in Vlissingen. The construction of Borssele 1+2 is scheduled for 2020.

**I. ØRSTED.COM**

The Zeeland Port Promotion Council is pleased to welcome new participants. Founded in 1993, the Zeeland 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 61 - 63 for a complete list of participants.

### → ZTZ SERVICES



ZTZ Services is a service provider specialised in logistics for all earthmoving and mining machinery, including:

- Storage
- Assembly and disassembly of equipment and structures
- Painting of equipment
- Technical intervention
- P.D.I. inspections
- Cleaning of equipment
- Maintenance

ZTZ Services can store, clean, maintain, paint, adjust and modify your equipment

as you wish. Regardless of whether the equipment is new or second hand, we handle all our goods with utmost care.

Together with our sister company Zwaar Transport Zeeland, we provide shipping and transportation of these goods. We can offer the complete chain.

ZTZ Services works with experienced mechanics that are fully aware of the latest technologies. Our paint shop is state of the art. We have at our disposal several overhead cranes with a capacity of up to 50t.

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

### → ZWAAR TRANSPORT ZEELAND



Zwaar Transport Zeeland (ZTZ) specialises in:

- Shipping
- Exceptional transports (up to 125t)
- Storage

For all RoRo equipment and static loads.

We offer shipping services to any destination worldwide. Together with our transportation services, we provide customers with a total solution:

Transportation to Port – Shipping – Documentation, everything is arranged by ZTZ.

If your equipment needs to be stored for just a few days or for a longer period, ZTZ is the

solution for both indoor and outdoor storage. Our secured location in Vlissingen in North Sea Port is a bonded free zone, which enables us to effectively serve our customers. ZTZ is AEO certified.

ZTZ is an organisation with short communication lines, so we can maximise our services to customers by acting swiftly, accurately, and flexibly.

We are your one stop shop for handling all your logistic needs.

I. [WWW.ZWAARTRANSPORTZEELAND.NL](http://WWW.ZWAARTRANSPORTZEELAND.NL)



## Join Zeeland Port Promotion Council !

Become a ZPPC participant to broaden your network and enhance your visibility.

We will gladly inform you about what the ZPPC can mean to you. Feel free to contact us via: [info@zppc.nl](mailto:info@zppc.nl) for more information or to make an appointment.



## Participants of Zeeland Port Promotion Council

		INDUSTRY	MARITIME	OFFSHORE	LOGISTICS SERVICES	OTHER SERVICES	EDUCATION AND GOVERNMENT
A	Aanzet Consultancy B.V.	<a href="http://www.aanzet.eu">www.aanzet.eu</a>				■	
	ABN AMRO	<a href="http://www.abnamro.nl">www.abnamro.nl</a>				■	
	Access World (Missingen) B.V.	<a href="http://www.accessworld.com">www.accessworld.com</a>			■	■	
	Adriaanse & van der Weel Advocaten	<a href="http://www.avdw.nl">www.avdw.nl</a>				■	
	Aerssens & Partners	<a href="http://www.aenpmakelaars.nl">www.aenpmakelaars.nl</a>				■	
	Amadore Hotels & Restaurants	<a href="http://www.amadore.nl">www.amadore.nl</a>				■	
	Aquadrant B.V.	<a href="http://www.aquadrant.com">www.aquadrant.com</a>				■	
B	Beeldmerk	<a href="http://www.beeldmerk.org">www.beeldmerk.org</a>				■	
	Boogaard Advocaten	<a href="http://www.boogaardadvocaten.nl">www.boogaardadvocaten.nl</a>				■	
	Bouwgroep Peters B.V.	<a href="http://www.bouwgroep-peters.nl">www.bouwgroep-peters.nl</a>				■	
	BOW Terminal	<a href="http://www.bowterminal.nl">www.bowterminal.nl</a>		■	■		
	Bulk Terminal Zeeland Services B.V.	<a href="http://www.btzeeland.nl">www.btzeeland.nl</a>	■	■	■		
C	C.T.O.B. Transport & Logistics	<a href="http://www.ctob-logistics.com">www.ctob-logistics.com</a>			■		
	CdMR/ Cobelfret B.V.	<a href="http://www.cobelfret.com">www.cobelfret.com</a>			■		
	Century Aluminum Vlissingen B.V.	<a href="http://www.centuryvlissingen.nl">www.centuryvlissingen.nl</a>	■				
	Cordeel Nederland B.V.	<a href="http://www.cordeel.nl">www.cordeel.nl</a>	■		■		
	C-Port B.V.	<a href="http://www.c-port.nl">www.c-port.nl</a>				■	
D	Damen Shiprepair Vlissingen	<a href="http://www.damen.com">www.damen.com</a>	■	■	■		
	DB Schenker	<a href="http://www.dbschenker.com">www.dbschenker.com</a>			■		
	De Pooter Personeelsdiensten	<a href="http://www.depooter.nl">www.depooter.nl</a>				■	
	De Ruyter Training & Consultancy	<a href="http://www.drct.nl">www.drct.nl</a>					■
	De Zeeuwse Alliantie Notarissen	<a href="http://www.dezeeuwsealliantie.nl">www.dezeeuwsealliantie.nl</a>				■	
	Delta Coastal Services B.V.	<a href="http://www.deltacoastalservices.nl">www.deltacoastalservices.nl</a>		■		■	
	Delta Safe Security Services B.V.	<a href="http://www.delta-safe.nl">www.delta-safe.nl</a>				■	
	Demacq Recycling International	<a href="http://www.demacq.nl">www.demacq.nl</a>		■		■	
	dNM	<a href="http://www.dnm.nl">www.dnm.nl</a>				■	
	DOC-Swan Hunter B.V.	<a href="http://www.dutchcontractors.com">www.dutchcontractors.com</a>		■	■	■	
	DOW Benelux B.V.	<a href="http://www.dow.com">www.dow.com</a>	■				
	Draftec B.V.	<a href="http://www.draftec.nl">www.draftec.nl</a>	■	■		■	
	DRV Accountants & Adviseurs	<a href="http://www.driv.nl">www.driv.nl</a>				■	
	Dutch Marine B.V.	<a href="http://www.dutchmarinebv.com">www.dutchmarinebv.com</a>		■		■	
	Elloro	<a href="http://www.elloro.nl">www.elloro.nl</a>				■	
E	Embedded Coaching & Consultancy	<a href="http://www.ecc-coach.nl">www.ecc-coach.nl</a>				■	
	Euro-Mit Staal B.V.	<a href="http://www.euro-mit-staal.com">www.euro-mit-staal.com</a>	■				
	Fabricom B.V.	<a href="http://www.fabricom-gdfsuez.nl">www.fabricom-gdfsuez.nl</a>	■			■	
F	Firma Klouwers Terneuzen	<a href="http://www.klouwers.nl">www.klouwers.nl</a>			■		
	Feyter Group	<a href="http://www.feyter.com">www.feyter.com</a>	■			■	
	Flexibility Zeeland	<a href="http://www.flexibility.nl">www.flexibility.nl</a>				■	
	Flushing Shipping Agencies	<a href="http://www.fsagencies.com">www.fsagencies.com</a>			■	■	
	FMJ E & I Zeeland B.V.	<a href="http://www.fmj.nl">www.fmj.nl</a>				■	
G	Golden Tulip L'Escaut	<a href="http://www.hotel-lescaut.nl">www.hotel-lescaut.nl</a>				■	
	H4A	<a href="http://www.h4a.nl">www.h4a.nl</a>				■	
H	Haskoning DHV Nederland B.V.	<a href="http://www.royalhaskoningdhv.com">www.royalhaskoningdhv.com</a>				■	
	Havenwerk B.V.	<a href="http://www.havenwerk.nl">www.havenwerk.nl</a>				■	
	Henk Kramer Communicatie	<a href="http://www.henkramer.nl">www.henkramer.nl</a>				■	



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	Heros Sluiskil B.V.	<a href="http://www.heros.nl">www.heros.nl</a>	■					
	HR Expat Services	<a href="http://www.hrxpats.com">www.hrxpats.com</a>					■	
I	I.B.S. B.V.	<a href="http://www.ibs-hallenbouw.nl">www.ibs-hallenbouw.nl</a>	■				■	
	ICL-IP Terneuzen B.V.	<a href="http://www.iclip-terneuzen.nl">www.iclip-terneuzen.nl</a>	■					
	ING Business Banking	<a href="http://www.ing.nl/zakelijk">www.ing.nl/zakelijk</a>					■	
	Interlashing B.V.	<a href="http://www.interlashing.com">www.interlashing.com</a>				■	■	
	Istimewa Elektro	<a href="http://www.istimewa.nl">www.istimewa.nl</a>	■				■	
J	Justion Advocaten	<a href="http://www.justionadvocaten.nl">www.justionadvocaten.nl</a>					■	
K	Katoen Natie Westerschelde B.V.	<a href="http://www.katoennatie.com">www.katoennatie.com</a>				■	■	
	Kloosterboer Vlissingen B.V.	<a href="http://www.kloosterboer.nl">www.kloosterboer.nl</a>				■		
	Koch adviesgroep Ingenieurs & Architecten	<a href="http://www.kochadviesgroep.nl">www.kochadviesgroep.nl</a>					■	
	Koolwijk Shipstores B.V.	<a href="http://www.shipstores.nl">www.shipstores.nl</a>				■	■	
	Kotug Smit Towage	<a href="http://www.kotugsmit.eu">www.kotugsmit.eu</a>		■				
	KVA International	<a href="http://www.kva-international.com">www.kva-international.com</a>	■	■	■			
	KWS Infra/Aquavia	<a href="http://www.kws.nl">www.kws.nl</a>					■	
L	Labojuce B.V.	<a href="http://www.labojuce.nl">www.labojuce.nl</a>	■				■	
	Legrant Freight Management B.V.	<a href="http://www.legrant.eu">www.legrant.eu</a>				■		
	Liftal Hijstechniek	<a href="http://www.liftal.com">www.liftal.com</a>					■	
	Loodswezen Regio Scheldemonden	<a href="http://www.loodswezen.nl">www.loodswezen.nl</a>		■		■	■	
	Luctor Belting Nederland B.V.	<a href="http://www.luctorbelting.com">www.luctorbelting.com</a>	■				■	
M	Mammoet Nederland B.V.	<a href="http://www.mammoet.com">www.mammoet.com</a>	■	■	■	■	■	
	Maritiem & Logistiek College de Ruyter	<a href="http://www.scalda.nl">www.scalda.nl</a>					■	
	Maritime Support Vlissingen	<a href="http://www.msvlissingen.nl">www.msvlissingen.nl</a>		■			■	
	Mourik Vlissingen B.V.	<a href="http://www.mourik.com">www.mourik.com</a>				■		
	Multtraship Towage & Salvage	<a href="http://www.multtraship.com">www.multtraship.com</a>	■	■	■			
	Municipality of Middelburg	<a href="http://www.middelburg.nl">www.middelburg.nl</a>						■
	Municipality of Terneuzen	<a href="http://www.terneuzen.nl">www.terneuzen.nl</a>						■
	Municipality of Vlissingen	<a href="http://www.vlissingen.nl">www.vlissingen.nl</a>						■
	Montagebedrijf Terneuzen	<a href="http://www.mbterneuzen.nl">www.mbterneuzen.nl</a>	■	■				
N	Nelis BV	<a href="http://www.nelisbv.com">www.nelisbv.com</a>		■		■	■	
	North Sea Port	<a href="http://www.northseaport.com">www.northseaport.com</a>	■	■	■		■	
	Nouvall Engineering Services	<a href="http://www.nouvall.com">www.nouvall.com</a>					■	
	N.V. Economische Impuls Zeeland	<a href="http://www.impulszeeland.nl">www.impulszeeland.nl</a>					■	
	N.V. Westerscheldetunnel	<a href="http://www.westerscheldetunnel.nl">www.westerscheldetunnel.nl</a>				■	■	
O	Oceanwide Personnel Services B.V.	<a href="http://www.oceanwidecrew.com">www.oceanwidecrew.com</a>					■	
	Oiltanking Terneuzen B.V.	<a href="http://www.oiltanking.com">www.oiltanking.com</a>	■			■	■	
	Ørsted Nederland	<a href="http://www.orsted.nl">www.orsted.nl</a>		■	■	■		
	Outokumpu Stainless B.V.	<a href="http://www.outokumpu.com">www.outokumpu.com</a>	■			■		
	Ovet B.V.	<a href="http://www.ovet.nl">www.ovet.nl</a>				■	■	
P	Pfauth Logistics B.V.	<a href="http://www.pfauth.nl">www.pfauth.nl</a>				■	■	
	Prior Group	<a href="http://www.priorgroup.nl">www.priorgroup.nl</a>					■	
	PTC B.A.	<a href="http://www.ptcba.nl">www.ptcba.nl</a>		■		■		
R	Rabobank Oosterschelde	<a href="http://www.rabobank.nl/oosterschelde">www.rabobank.nl/oosterschelde</a>					■	
	Rabobank Walcheren-Noord Beveland	<a href="http://www.rabobank.nl/wnb">www.rabobank.nl/wnb</a>					■	
	Rabobank Zeeuws-Vlaanderen	<a href="http://www.rabobank.nl">www.rabobank.nl</a>					■	





## Participants of Zeeland Port Promotion Council

		INDUSTRY	MARITIME	OFFSHORE	LOGISTICS SERVICES	OTHER SERVICES	EDUCATION AND GOVERNMENT	
S	S5 Agency World	<a href="http://www.s-5.org">www.s-5.org</a>			■	■		
	Sagro Aannemingsmij. Zeeland B.V.	<a href="http://www.sagro.nl">www.sagro.nl</a>		■	■	■		
	Saybolt Nederland B.V.	<a href="http://www.corelab.com/rd/saybolt">www.corelab.com/rd/saybolt</a>				■	■	
	Schipper Groep	<a href="http://www.schippergroep.nl">www.schippergroep.nl</a>					■	
	SDW Shipping	<a href="http://www.sdwshipping.com">www.sdwshipping.com</a>				■		
	Seacontractors	<a href="http://www.seacontractors.com">www.seacontractors.com</a>		■	■	■	■	
	Sealake Terminal B.V.	<a href="http://www.sealaketerminal.com">www.sealaketerminal.com</a>		■	■	■	■	
	Secil Cement	<a href="http://www.secil.pt">www.secil.pt</a>	■			■		
	SGS Nederland B.V.	<a href="http://www.sgs.com">www.sgs.com</a>				■	■	
	Shipyards Reimerswaal	<a href="http://www.shipyardsreimerswaal.com">www.shipyardsreimerswaal.com</a>		■				
	Shutdown Control	<a href="http://www.shutdowncontrol.nl">www.shutdowncontrol.nl</a>		■				
	Suez Recycling & Recovery Netherlands	<a href="http://www.suez.nl">www.suez.nl</a>					■	
	Sweco Nederland B.V.	<a href="http://www.sweco.nl">www.sweco.nl</a>					■	
	S.T.T. B.V.	<a href="http://www.agency-stt.com">www.agency-stt.com</a>	■	■	■	■		
	Sorteerbedrijf Vlissingen B.V.	<a href="http://www.sorteerbedrijfvlissingen.nl">www.sorteerbedrijfvlissingen.nl</a>				■	■	
	T	SPIE Nederland B.V.	<a href="http://www.spie-nl.com">www.spie-nl.com</a>				■	
Supermaritime Nederland B.V.		<a href="http://www.supermaritime.com">www.supermaritime.com</a>			■	■	■	
Swagemakers Intermodaal Transport B.V.		<a href="http://www.rswagemakers.nl">www.rswagemakers.nl</a>				■		
Tanido B.V. Sworn Marine Surveyors		<a href="http://www.tanido.com">www.tanido.com</a>				■	■	
Tempo-Team Uitzendbureau B.V.		<a href="http://www.tempo-team.nl">www.tempo-team.nl</a>					■	
Terneuzen Powder Technologies B.V.		<a href="http://www.tpt.nl">www.tpt.nl</a>	■			■	■	
The Wind Technicians		<a href="http://www.thewindtechnicians.com">www.thewindtechnicians.com</a>			■		■	
TMS Terneuzen B.V.		<a href="http://www.tmsnl.com">www.tmsnl.com</a>	■				■	
Try-Act EWIV		<a href="http://www.try-act.eu">www.try-act.eu</a>					■	
V		Van Ameyde Marine Vlissingen	<a href="http://www.ameydemarine.com">www.ameydemarine.com</a>		■		■	■
		Van Keulen Transport B.V.	<a href="http://www.vankeulentransport.nl">www.vankeulentransport.nl</a>				■	
		Verbrugge Internationale Wegtransporten B.V.	<a href="http://www.verbruggeinternational.com">www.verbruggeinternational.com</a>				■	
		Verbrugge Marine B.V.	<a href="http://www.verbruggeinternational.com">www.verbruggeinternational.com</a>		■		■	■
		Verbrugge Terminals B.V.	<a href="http://www.verbruggeinternational.com">www.verbruggeinternational.com</a>		■	■	■	
		Verenigde Bootlieden B.V.	<a href="http://www.bootlieden.nl">www.bootlieden.nl</a>		■		■	■
		Verex Douane Service	<a href="http://www.verexdemeijer.nl">www.verexdemeijer.nl</a>				■	■
	Verschelling Assurantiën	<a href="http://www.verschelling.nl">www.verschelling.nl</a>					■	
	Vesta Terminal Flushing B.V.	<a href="http://www.vestaterminals.com">www.vestaterminals.com</a>				■	■	
	Vlissingse Bootliedenwacht B.V.	<a href="http://www.vlb.vlissingen.nl">www.vlb.vlissingen.nl</a>		■		■	■	
	Vopak Agencies Terneuzen B.V.	<a href="http://www.vopakagencies.com">www.vopakagencies.com</a>				■	■	
	W	Wielemaker B.V.	<a href="http://www.wielemaker.nl">www.wielemaker.nl</a>				■	■
		Yellow & Finch Publishers	<a href="http://www.ynfpublishers.com">www.ynfpublishers.com</a>					■
	Z	Zeeland Bunkering	<a href="http://www.zeelandbunkering.nl">www.zeelandbunkering.nl</a>		■			
		Zeeland Cruise Port	<a href="http://www.zeelandcruiseport.com">www.zeelandcruiseport.com</a>					■
		Zeeland Maritime Cleaning	<a href="http://www.zmcleaning.nl">www.zmcleaning.nl</a>	■	■	■	■	
Zeeland Refinery		<a href="http://www.zeelandrefinery.nl">www.zeelandrefinery.nl</a>	■					
Zéfranco Communicatieservice Frans		<a href="http://www.zefranco.com">www.zefranco.com</a>					■	
ZTZ Services		<a href="http://www.ztzservices.nl">www.ztzservices.nl</a>				■		
Zuidgeest Uitzendbureau		<a href="http://www.zuidgeest.nl">www.zuidgeest.nl</a>					■	
Zwaar Transport Zeeland		<a href="http://www.zwaartransportzeeland.nl">www.zwaartransportzeeland.nl</a>				■		

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**Covering the port area of North Sea Port, PortNews is the official publication of the Zeeland Port Promotion Council (ZPPC) and port company North Sea Port.**

### Circulation and subscriptions

Distributed to a wide international audience, the high quality quarterly magazine promotes the activities of companies active in the ports to key customers, business partners, stakeholders, as well as at major international trade events. PortNews is available in hard copy as well as a digital version. Each issue has approximately 10,000 readers.

### Editorial Committee

The content of PortNews is the responsibility of the Editorial Committee.

Contact:

- Henk de Haas, Chairman ZPPC
- Johan Bresseleers, Communicatiemanager, North Sea Port

Special thanks to everyone who kindly contributed their time and expertise to put together this issue of PortNews.

Find out more about contributing to future issues of PortNews by contacting Charles van den Oosterkamp, charles@ynfpublishers.com, tel. +31 (0)6-10979655.

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P.O. Box 5130  
4380 KC Vlissingen  
The Netherlands  
T +31 (0)118-491320  
E info@zppc.nl, I www.zppc.nl  
Follow us on:   



P.O. Box 132  
4530 AC Terneuzen  
The Netherlands  
T +31 (0)115-647400

John Kennedylaan 32,  
Harbour 3000A  
9042 Ghent, Belgium  
T +32 (0)9-2510550  
E contacteer@northseaport.com

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PortNews is a production of maritime publishing & promotion company Yellow & Finch Publishers on behalf of the Zeeland Port Promotion Council and North Sea Port.

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Charles van den Oosterkamp, MD  
Arno Dirkzwager, Editor  
Yara Rood, Editor  
Grace Schouteren, Editor  
Nathalie Putman, Art Director

President Rooseveltlaan 739  
4383 NG Vlissingen  
The Netherlands  
T +31 118 473 398

E charles@ynfpublishers.com  
I www.ynfpublishers.com



## Next issue PortNews

The next issue of PortNews is available from april 2019.

Editorial Programme:

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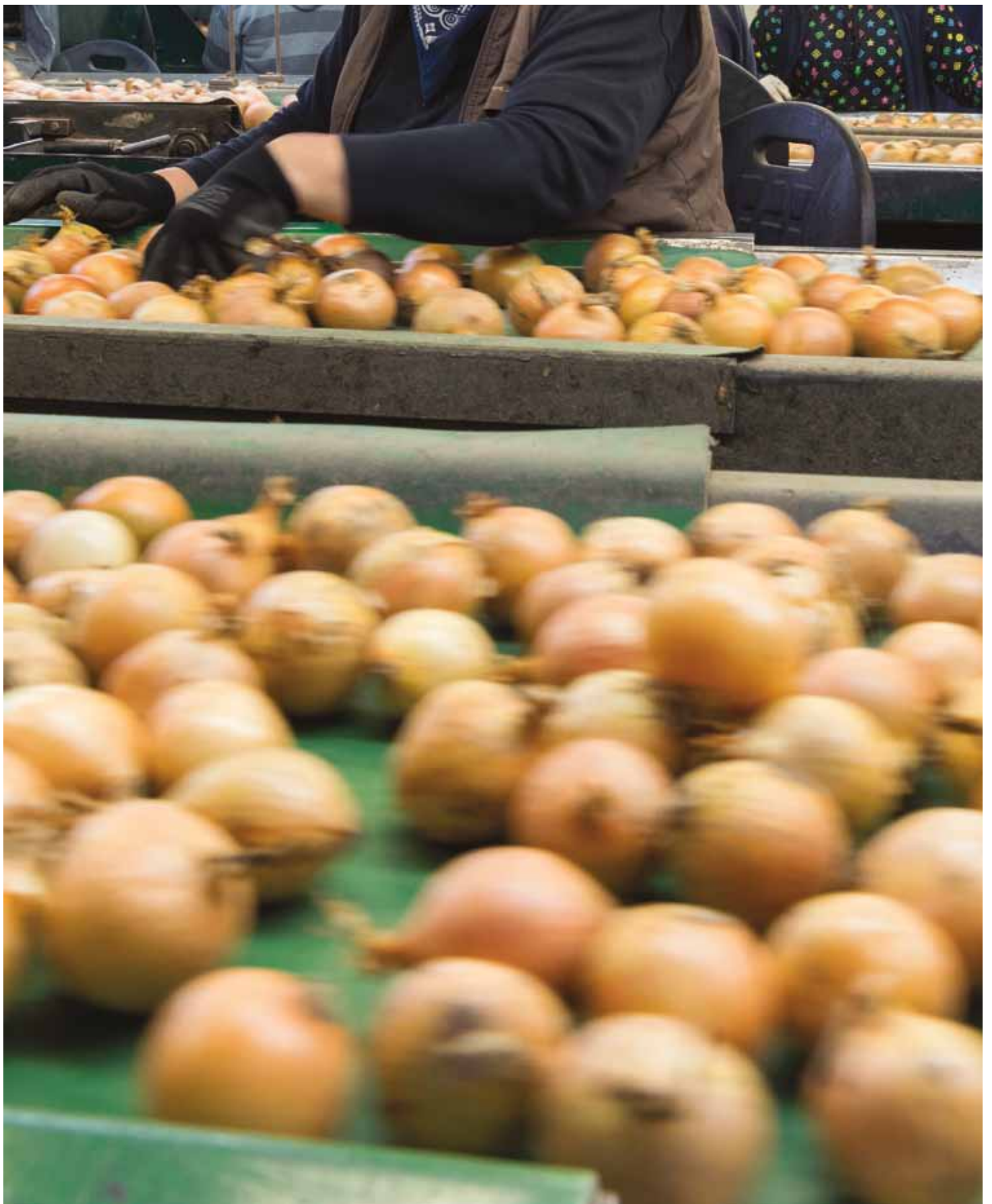
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