

Passion

06 **The Hague
Departure Station
for Erasmus line**

20 **Young Talent**



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PASSION

Smulders Magazine

Smulders

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**Proud of
your trust**

In this second edition of our new magazine 'Passion', we aim to give you a glimpse of our recent activities in the areas of Offshore Wind, Offshore Oil & Gas and Civil & Industry.

2015 was a super year for Smulders! Our results were excellent, much to our partners' delight. Not to mention our own of course. After all, a good relationship with our clients, based on professionalism and quality supplied on time is our constant goal. This is also extremely important for the future of our company.

Last year we successfully completed the extensive Gemini project and signed our 40th Offshore Wind contract. We also anticipate a well-filled order book over the coming years. As part of the FIGG consortium, consisting of Engie Fabricom, Iemants and CG, we have won the contract to design, supply and install the entire substation for the EnBW Hohe See offshore wind farm in the North Sea. Smulders has now completed a number of really innovative projects in the Offshore Oil & Gas market, including PLEM Gamba ESR, Stinger and the Living Quarter Aasta Hansteen.

For Civil & Industry we are in the final phase of the spectacular The Hague Departure Station for the Erasmus line, the Meppelerdiep Lock, the rugby stadium Arena 92 and De Krook in Gent. Projects anticipated in the coming years include the production of a steel

façade for the impressive apartment complex in London's former Battersea Power Station.

Internally we are always carrying out improvement programmes in the various departments, for example with regard to safety and the use of paint. The latter has to do with our goal to use paint perfectly and to reduce paint quantities where we can, in order to help protect the environment. Naturally our focus is permanently on optimising the collaboration between our departments. This is to your immediate benefit!

We are really proud of the faith our personnel hold in our company's future. This year over 70% participated in Eiffage's shareholders' plan. This means that we are nearly all shareholders in our parent company! I would like to conclude by thanking you for your trust in Smulders and promising you that you can continue to rely on us in the future. More than that: we will aim to beat your expectations. It just remains for me to wish you a well-earned holiday and all the best to you, your loved ones and your organisation.

Raf Iemants,
Managing Director Smulders

News

New contract for the expansion of Nippon Shokubai in Zwijndrecht



Iemants has signed a contract for the expansion of the factory belonging to the Japanese group Nippon Shokubai in Zwijndrecht. Iemants has been involved in this project before, building the first phase of this factory back in 1999 and the second phase in 2004. The scope of this NSE3 project covers both structural and architectural work to both the acrylic acid line and the two SAP lines, as well as building a connection to the existing factory. By 2018 the new production lines will be producing 100,000 tons of acrylic acid and 100,000 tons of super-absorbent polymers per year. SAPs are used in products such as nappies and sanitary towels. This extensive project should create around 70 new jobs. The Japanese chemicals group is investing no less than 350 million euros in its Antwerp site. With that Antwerp will become the company's largest production site outside Japan.

Stinger load-out



In Vlissingen, on 6 April, it was time to load out the Stinger for the Pioneering Spirit, the largest ship in the world. The frame weighs around 4,200 tons and is 150 metres long. The Stinger guides pipes going down to the seabed, to ensure that welded pipes are at the best possible angle during the installation phase.

Two extra pontoons were called in for the load-out operation, each measuring 100 metres in length and with 168 SPMT axes. It took more than a year to prepare this very complex operation. The operation itself was completed successfully on 17 April.

Iemants, Engie Fabricom and CG consortium wins EnBW Hohe See contract

The FICG consortium, consisting of Engie Fabricom, Iemants and CG, has won the contract for the EnBW Hohe See offshore wind farm in the North Sea. Within this consortium Iemants is in charge of the design and construction of steel structures for the topside and jacket. This is to be carried out entirely in-house across all Smulders facilities, meaning short production times and great flexibility.

Expansion of Smulders



Foundation work for the building of the new offices at our head office in Arendonk is to start very soon. Two extra floors will be added on top of the low part of the existing office building. The façades are to be made in 'Corten' steel. The new building will be able to accommodate around 80 employees. It will normally be completed by the beginning of 2017.

Smulders supports a good cause!

Managers and personnel at Smulders are doing their best for charity this year. In the run-up to the annual family day Smulders staff are organising a number of activities in aid of the Belgian cancer support charity 'Kom op tegen Kanker'. These activities have already raised € 4,740 so far!

At Easter, everyone at the Belgian sites was offered chocolate Easter eggs. In doing so Smulders donated € 4,000 to 'Make a Wish'. Our Polish site Spomasz also organised an activity and donated € 1,700 to a local shelter for single mothers in need and to an organisation helping children from poor families. Personnel were also able to donate clothing, toys, cleaning products, make-up,... to these organisations just before Easter, following an extensive collection. We hope to be able to repeat this activity next year, with the help of all our colleagues!



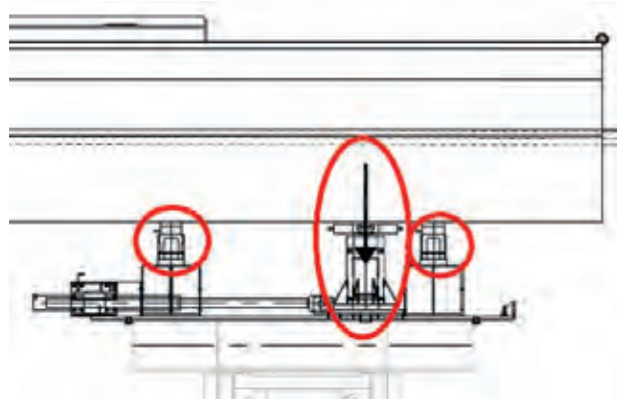
Manoeuvring and building in a space the size of a postage stamp

Actually there was hardly the room to build a new metro track and metro station in the centre of The Hague. It was not even possible to install a building crane safely. However, Iemants still managed to install a 12 metre high, 327 metre long metro track above one of the busiest roads and a busy pedestrian area and close to a bus platform, 12 train tracks and 2 high apartment blocks. You really won't believe it until you see it.

Topic

The Hague Departure Station for Erasmus line

Location
The Hague, The Netherlands
Client
Municipality of The Hague & ProRail
Main contractor
BAM



1. Roll-out of bridge parts using the 'push-pull' system



2. Roll-out deck A



3. Bottleneck deck B

“ Rolling out such a large and heavy bridge deck right across a city like The Hague is quite something. You'll only believe it when you see it. ”

High-level puzzling

As far as the new metro station and metro track connecting the Hague Departure Station for the Erasmus line (HSE) is concerned, it really is a matter of an impressive steel construction in a space the size of a 'postage stamp'. Everything was built at a height of 12 metres because there was simply no room. It is here that metro trains from RandstadRail (Rotterdam-Den Haag v.v.) are soon to stop and depart. The bridge profile that needed to be narrow, and the pillars that are even narrower, had to be made in steel, as concrete was not an option. During construction it was necessary to take just about everything into consideration. Safety came first of course. Not only for the many builders on-site, but also the thousands of car drivers crossing the Prins Bernhard viaduct (a four-lane road across the railway track) that had to be kept open, to avoid the city centre coming to a complete standstill. In addition, nearly 200,000 train

passengers and city visitors needed to be able to go about their business without any bother. Also, the local residents living extremely close by in their apartment blocks needed to be able to sleep peacefully. "The total working area between the railway tracks and one flat was approximately 30 metres. This is extremely tight for a viaduct, which already takes up 16 metres itself. A large, heavy crane or scaffolding were clearly out of the question. And where do you put the building material?", said project manager Geert-Jan van Nistelrooij from lemants.

This job required some unorthodox thinking and action. So, the steel bridge was put together on a large platform 140 metres from its destination and made from two large pieces measuring 88 metres (deck A) and 60 metres (deck B). These were then 'rolled out' one after the other to their final destination. "The entire railway bridge is made up of an enormous

building package containing 35 pieces, which were constructed in our Arendonk and Balen sites. I can tell you, it took an incredibly strong team and nerves of steel! Indeed, after being transported, all the puzzle pieces needed to fit together perfectly on the construction platform in The Hague. That's why we first did some 'practice' in Arendonk and Balen, putting together the whole puzzle making up deck A and B. Of course, all pieces were numbered and transported there at just the right time. The site supervisor Jan Keersmaekers' expertise was really important during the assembly process at The Hague. He is extremely experienced at finetuning the assembly of such enormous and heavy components. It is millimetre work that needs to be carried out to perfection in order to then weld it together properly." For the steel components to be transported by lorry over such a large distance (130 km), the bridge was 'chopped' into left and right halves

measuring around 40 x 6 metres, and each weighing 80 tons. These were then screwed into each other and welded in The Hague. This is how the bridge was then completed. Each exceptional load was transported (at night) under police escort. Many road facilities had to be removed first.

Roll-out

When the first bridge component measuring 88 metres and weighing 800 tons was assembled, it could be moved centimetre by centimetre to its final destination using a 'push-pull' system (figure 1). "We had seen this once before in a film from our subcontractor Mammoet, who applied the same method to a bridge in Nottingham. After lots of prior research and risk assessments we managed, together with Mammoet, to convince the clients, the Municipality of The Hague and ProRail, and the main contractor BAM, that this was the best way in terms of safety, quality, cost and efficiency to move the

bridge this distance and under these particularly challenging circumstances. What also helped was that lemants were managing the substructure themselves, so we knew we could rely on it. You need this certainty, because this kind of job needs to be right the first time." The bridge component rested on 8 cylinders that were monitored and could be adjusted even if it went just 1 cm off course. Because clearly it needed to stay right on track and end up exactly on top of the next pillar as it moved. Besides the pull cylinders for the forward movement there were also push cylinders exerting an upward pressure on the deck. In this way the whole thing advanced in short distances of 30 cm at a speed of about 6 metres per hour. A Kamag was brought in to support the free-hanging bridge deck used to span a 40 metre hole across the Bernhard Viaduct. (figure 2) "After a trial run the day before we began the roll-out on the Friday evening, and by Sunday afternoon the first

bridge deck had been installed in the right place. On the Monday we immediately began the construction of deck B (60 metres) with its so-called bottleneck (figure 3). Finally deck C could be mounted onto the platform. This was its permanent home right from day one. The entire process went amazingly smoothly and everything was right on track, including the timing. Everyone was very much involved and this was a key reason for success", remembers van Nistelrooij.

Craftsmanship

It is not only the 'work of art' involved in this special roll-out that stands out, but also the technical craftsmanship of the construction itself. The second part of the bridge (deck B) has a stylish, slender shape. The steel was bent in 3D by subcontractor Centraal Staal (C.I.G.). The bending was quite a challenge because of the fact that the plates were 18 mm thick. The welding work in The Hague also required a special plan of attack, explains project manager

Corporate Social Responsibility



CO₂ reduction

Last year, in close collaboration with a team of external experts, we investigated the entire steel and coating chain in terms of CO₂ emissions. Steel constructions are made by Smulders and transported to their final destination and then used and maintained for decades. In the end they are dismantled and reused or recycled into new raw materials.

All these steps require energy, thus creating CO₂ emissions (from Cradle to Grave). The best way to limit these emissions is to take action at the source, and therefore use less steel and coating to obtain the same end result. Hence our ECO objective encouraging the engineering department on each site to consider how steel and/or paint can be reduced in the design and implementation phase.

The first results are encouraging. 450 tons less steel were used in the project JBF Geel. This equates to 625 tons of CO₂, equivalent to an amazing 4,000,000 km with a modern diesel vehicle (5L/100km). We have also achieved a significant reduction in aluminium in the project Tour D2 and 18% coating was saved in the The Hague Departure Station for Erasmus line project in The Hague. By first extorting the bridge to make it airtight, the inside no longer required coating. ECO-design has also become a feature of our promotional campaigns.

We are also working on our own CO₂ emissions. This means that LED lighting will be used in a number of our offices and in the new hall behind the Titan hall in Hoboken. Where possible, it is also planned for existing lighting in other locations to be replaced with LED lighting. ■



Panorama southside



Site crew lemants



Hammer piece and deck A



Track with points on the bridge deck

van Nistelrooij. "The welders needed to crawl through 60 cm holes to be able to weld the parts on both sides from the inside. This was tremendous work under very hot conditions. We had a whole pallet of water bottles at the ready." To cope with the expansion and shrinking of the steel the bridge deck is fixed to a concrete abutment on just one side. 327 metres further on, the deck is free to move according to the temperature outside. A sliding panel can be found above the expansion/shrinking joint, which measures

around 20 cm. Iemants also built the 10 steel pillars. This too is really specialised craftsmanship, because the unusual circumstances called for a very compact design, namely a mere 2 metres. The architect agency insisted on it. To allow the wide bridge deck to remain perfectly balanced over such a distance with a heavy load an inventive tensile anchor was added at the head of the pillars. Also attached to the heads are 'sliding cushions' making it possible for the steel bridge to expand and shrink. "All in all the HSE project is a

fantastic example of team work between Iemants, BAM and ProRail. The preparatory phase (well thought through in the tender phase!), purchase, design, engineering, construction, roll-out, logistics, assembly, safety, location management and planning went extremely well. Staff and departments at Iemants and Willem's really pulled out all the stops in this project." ■

“The Hague Departure Station for the Erasmus line is really a matter of an impressive steel construction in a space of the size of a ‘postage stamp’.”



Interview

Peter van Hoogstraten Project manager of main contractor BAM

Over the last two years the Municipality of The Hague and ProRail, together with contractors BAM and Iemants, were closely involved each day in the construction of the The Hague Departure Station for the Erasmus line (HSE), including its 327 metre long steel railway bridge.

“For me, the key to success was the enormous amount of professionalism and the combined will to achieve this task in a very short period and in very tight surroundings”, explains project manager **Peter van Hoogstraten** of main contractor BAM.



“The key to the success of this project is perfect and professional collaboration”

Deck C: The tail of the bridge

Joint responsibility

“In this project Iemants acted as BAM’s ‘building partner’. This meant that we shared the responsibility for the quality of the construction. ProRail had already agreed with the agency Swartz & Jansma Architects up front that it should be a steel bridge with decorative curves on extremely slender pillars. There are only a limited number of companies able to do this. We were sure that Iemants would be able to supply everything to the right quality, sustainably and on time. The preparatory stage was extremely short, from May until November 2014. This was because the ‘out of service’ period had already been fixed, during which trains would not be using neighbouring tracks 11 and 12.

With such limited space to work and the obligation to avoid hindrance in the area as much as possible it was also essential to construct as much as possible of the bridge off-site, at the factory. Iemants had the capacity to do this. We also knew how good they were from working together on a previous project at Rotterdam Central Station.”

Joint design

“This project was a real puzzle because of the limited space to build and the entire design, which was rather complicated. It

involves a concrete abutment to which a steel viaduct is fixed, and upon which stands a steel and glass hood. How do these different materials interact when expanding and shrinking, how does everything cope with a metro train braking, and what kind of movement should you expect from these materials? It is an amazing feat of engineering by BAM Infraconsult and Iemants. This was necessary too, because we needed to align the movement and forces, structural rigidity and connections extremely well. Not to mention under enormous temperature fluctuations from -20 to + 40°C! We also needed to consider fatigue, because a moving train puts strain on the bolts time and time again. And finally, what happens to such an enormous piece of metal if you transport it over 100 metres. Does everything still fit accurately when it reaches its final destination? How will such slender pillars manage? How should we absorb the variable strain and keep everything balanced? This requires skilled and experienced people and fortunately we have all those in-house.”

“An extra challenge was to fix the rails, and especially the points, directly onto the steel deck. Iemants built the deck using a tolerance of +5 and -20 mm, which is quite an achievement given its size and knowing that these were built in Belgium, far away from the construction site itself. When all the bridge components

fall into place so beautifully, within such strict tolerances, during assembly in The Hague, then you really can be called a true master. Furthermore, the client ProRail insisted on just a few millimetres of tolerance to avoid any differences in heights in the rails. This could cause problems when changing track. We tackled this with some additional measures, including some shims.”

High-speed performance

“Alongside Iemants, BAM Infra built the non-expanding plate, the station building and the foundations for the pillars. On these Iemants was able to mount its steel pillars and then place the steel bridge deck. The first teamwork between BAM and Iemants was to construct the building platform on which the bridge components were to be mounted. When making the foundations for the temporary supports we knew that we needed to build over one of the city’s large heating pipes. Moreover, when digging test channels earlier on, we found a few cables used to regulate train signals between The Hague and Utrecht. We also needed to work in close proximity to overhead electric cables from track 12 with our large steel bridge components. You need to find a way around all these different obstacles. And we managed perfectly. In fact, even if you only consider the time available to achieve this feat it was an incredible task.

In May 2014 we signed the contract and in November we were already working on the foundations and we had the necessary environmental permit. In July the final design was already ready. In short, the preparation went like lightning, but with no impact whatsoever on the quality of the end result. On the contrary, it just forced all those involved to pull together and keep it up.

Personally I feel that this project is a real example of fabulous teamwork, based on respect for each other’s expertise. These types of processes are not only about lots of money and tons of steel and concrete, they are also about having a good relationship. You need to demonstrate to each other that you are giving all you’ve got and that you can do what you say. People were clearly impressed by what we all achieved. This type of work is about quality, as the bridge needs to last at least 50 years, and had to be delivered on time, as there is generally little room for manoeuvre. If you then come, as Iemants did, with such a special launch plan, then you really score some brownie points. It creates a whole new perspective for future collaboration.” ■

At work

Expertise



Men of steel

'Handling large and heavy components is no problem'

Our Willems site in Balen (Belgium) has over 60 years of experience in the engineering, production, delivery and assembly of steel constructions, and particularly heavy, technically complex and architectonic structures.

We have an industrial site in Balen covering more than 14 hectares and a production area of 30,000 square metres, equipped with the latest machinery, including its own blast cabinets and spray room. Thanks to an abundance of space and a hoisting capacity of up to 150 tons, handling large and heavy components is never a problem.



- ① Steel constructions are blasted and sprayed in our own workshops. A number of certified in-house Nace coating inspectors provide the necessary quality assurance at all times.
- ② Willems recently invested in a new plasma cutting machine.
- ③ Our in-house engineering department employs more than 15 experienced engineers. These prepare the designs and calculations for all the necessary parts according to the applicable quality standards.
- ④ Willems has direct access to the Port of Antwerp along the Albert Canal, and from here it is possible to transport steel constructions measuring up to 22 x 77 metres all across the world.

Expertise

Employee on site

David Kaminski Supervisor Final Assembly Smulders Projects

Smulders Projects in Hoboken currently completes 6 transition pieces (TPs) per week. After welding and coating each TP is fitted with all the necessary mechanical and electrical components making it entirely ready for offshore installation. This requires meticulous planning - both in terms of organisation and quality. All activities are carried out under the watchful eye of the many customer inspectors, who will not tolerate a single error, neither in terms of quality nor when it comes to safety. "Delivering top quality at all times and on time" - that is Supervisor Final Assembly **David Kaminski's** most important focus at Smulders Projects in Hoboken (B).



"'About right' is no good.
Only 'perfection' is good enough."

"As Supervisor Final Assembly I am one of the last links in the chain in the production process of each transition piece. My team is responsible for assembling the main platform together with all equipment on the inside and outside.

Final assembly is carried out in several stages: we try to install as much as possible while the TP is still horizontal, as this is much safer and easier. However, some parts have to be added or attached in a vertical position and then it's necessary to work at heights of around 24 metres. There are all kinds of platforms, ventilation pipes, electrical cables and many other details that I need to watch out for. 'The

devil is in the detail', we say here. And as we usually work to such tight deadlines you need to be alert and keep an eye on everything in my position. Errors are not accepted by the client and that's why we always work to the highest standards. 'About right' is no good. Only 'perfection' is good enough.

In final assembly all the details come together and these determine whether offshore activity will run smoothly. The job brings you in contact with lots of different people. Both the client and the project team are very involved with our activities and often ask you to make some modifications. When the client has a problem then we are often able to use

our experience from other TP projects to help them find a solution. As all our TPs are destined offshore, we always watch out for corrosion. Our activities are always carried out once all the components have been coated. There's an art to assembling things with as little paint damage as possible. We keep a very close eye on the various materials that can corrode.

After inspecting the final assembly work I report back to the quality department that a TP is 'finished'. Once the internal inspection has taken place the client still carries out one or a number of final checks. Only then is the release note approved with a signature. When

everything goes well I feel really proud. This is what I love so much about my job. I judge whether the job has been done to perfection and am also really involved in the planning. The deadline for a load-out and sail-away is fixed way ahead. All links in the chain work around it. Being late is never an option, as it costs a fortune. So I just have to make sure that the e.g. 20 TPs are ready to go offshore. The closer you get to the deadline, the more stress there is to get everything finished and on time.

I originally come from Poland. I started working for Smulders Projects in Hoboken in 2001 via a subcontractor. In the end I decided

to build a life in Belgium and then began as a permanent employee at Smulders. This has allowed me to work my way up the ladder and I have been the supervisor final assembly for 3 years now. Personally I think it's an advantage that I was a fitter for so long, as it means I know how things are done on the shop floor. This experience is important as it helps you to coach staff and offer solutions. I really love it here. Each project is a new challenge for me, both in terms of technical construction and timing. Each morning I get here ahead of the others to give me time to prepare the day's operations properly. Before we start there is always a briefing to determine how the day's

work is to be done or by whom. I also do an inspection at the end of the day.

Of course, I have to keep track of the full planning and also make sure that the relevant components are delivered on time. Or whether extra people or equipment are required to get everything done in time. I therefore keep my finger on the pulse during each project and let my superiors know exactly where we've got to. Indeed, that is also an important part of my job: knowing your position in the chain." ■

Offshore Wind

Burbo Bank



The **Burbo Bank offshore wind farm** is located in Liverpool Bay on the west coast of England. In 2009 plans got started to expand the existing wind farm, with the addition of 40 km² to the west, which should increase capacity by 258 MW. In February lemants and Engie Fabricom began production of 1 topside and 1 jacket for this expansion project. The jacket was loaded out last May. The jacket was taken from the dry dock at our site in Hoboken using the Matador 3 and loaded onto a transportation barge at our JV partner's, Engie Fabricom. The sail-away took place in June. The client expects it to be generating electricity by the fourth quarter of this year.

Client	Dong Energy	
Weight	Topside	1,180 tons (total topside: 2,190 tons)
	Jacket	985 tons
	Piles	706 tons

Walney 03 & 04



The **Walney offshore wind farm** located 19 km from the Cumbrian coast in the Irish Sea consists of 87 turbines with a total capacity of 660MW. That equates to the clean energy required to service around 460,000 British households.

For this wind farm lemants, together with their JV partner Engie Fabricom, produced the 2 topsides and 2 jackets. The production started this year. Load-out and sail-away of both topsides and jackets is anticipated in March 2017. The offshore installation is planned for April 2017.

Client	Dong Energy	
Weight	Topsides	1,260 tons each
	Jacket 03	1,294 tons
	Jacket 04	1,479 tons
	Piles 03	911 tons
	Piles 04	704 tons

Race Bank 02 & 01



lemants, together with their JV partner Engie Fabricom, is currently building 2 topsides and 2 jackets for the **Race Bank offshore wind farm**. Race Bank is over 20 km from the North Norfolk coast and will have the capacity to supply 580 MW, enough for around 400,000 homes. Not only that, it will also reduce CO₂ emissions by an annual rate of over 830,000 tons. The load-out and sail-away of Race Bank 02 topside and jacket occurred in June and will be installed offshore in July.

The load-out of Race Bank 01 is planned for February 2017. Race Bank 01 is a copy of Race Bank 02. This means we can learn from all the improvements throughout the process to ensure that the construction of Race Bank 01 goes even more smoothly.

Client	Dong Energy	
Weight	Topsides	1,350 tons each
	Jacket 02	1,130 tons
	Jacket 01	1,365 tons
	Piles 02	520 tons
	Piles 01	1,280 tons

Veja Mate



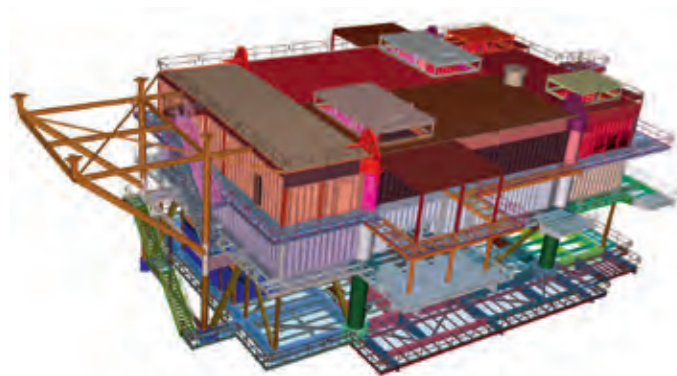
At the **Veja Mate offshore wind farm** (about 100 km off the German North Sea coast) lemants is working in a consortium with CG and Engie Fabricom on the design, production, transport, installation and commissioning of an offshore topside and jacket. The manufacture of the steel construction began in May 2015 at lemants, Willems and Spomasz.

The load-out of the topside in Hoboken and the load-out of the jacket in Vlissingen is planned in August this year. Both the topside and jacket will leave for their final destination in the German North Sea in August, where they are to be installed in the wind farm in early September. The projects is expected to be complete by February 2017.

Client	Veja Mate Offshore Projects	
Weight	Topside	1,150 tons (total topside: 2,250 tons)
	Jacket	1,850 tons
	Piles	1,000 tons

Offshore Oil & Gas

Merkur



For **Merkur offshore wind farm** in the German North Sea we are building 1 topside and its jacket in JV with Fabricom and Tractebel (Engie). Production is still planned to start this year. The load-out of the topside and jacket is anticipated by the end of 2017 – early 2018.

Client Geosea (DEME)

Weight Topside 1,200 tons
Jacket and piles 2,600 tons

Dudgeon

Together with SIF, Smulders Projects is in charge of producing 67 transition pieces for the **Dudgeon offshore wind farm**. This is to be built on the Norfolk coast, in south-east England. The farm of windmills consists of 67 monopile foundations upon which 6 MW turbines are to rest. This high capacity turbine means that the TPs will be the biggest ever produced in our facilities.

The load-out of the first TPs took place last 29 February. The last TPs are now being assembled at our site in Hoboken. These will be shipped to their final destination at the beginning of July.

Client Statoil

Weight 435 tons each

Number of transition pieces 67

Yamal LNG



Iemants is currently hard at work producing the various steel structures required at Yamal LNG. Yamal LNG is an important project involving the construction of a liquid natural gas production installation on the Jamal peninsula in the north of Russia. It is one of the biggest industrial projects in the North Pole area.

Iemants is providing the grillage and sea fastening for 80 modules. The first deliveries of the grillage and sea fastening in the 1st load-out operation took place at the beginning of June. These were manufactured at Iemants, Willems and Spomasz.

Iemants also produced around 1,900 tons of supporting structures to allow the modules to be stored temporarily in Zeebrugge.

The first shipment from Zeebrugge to Sabetta (Jamal peninsula) is planned in the summer.

In this project Iemants is working in a Joint Venture with ALE and ICO.

Client YAMGAZ, JV consisting of Technip (50%), Chiyoda (25%) and JGC (25%)

Weight Supporting structures 1,900 tons
Grillage & sea fastening 5,000 tons

Civil & Industry

De Krook



Since March 2014 we have been actively involved in the construction of **De Krook** in Ghent. This includes a new city library, research centre for media and information, art and culture, and meeting places, such as cafés, restaurants, parks and squares. Iemants produced and installed the visible steel construction weighing no less than 2,000 tons, and complete with a transparent nano-coating. The project was completed in June this year. The library is expected to open at the end of this year.

Client Antwerpse Bouwwerken

Weight 2,000 tons

Bridge Cadzand

As part of the renovation work at the boulevard in Cadzand-bad we supplied a steel pedestrian bridge measuring 80 metres in length. The bridge is very narrow and just 60 cm high in the middle. The bridge and pillars were preassembled at Willems in Balen and were taken from there to Cadzand. The bridge deck was installed in Cadzand in June with the help of a sheerleg.

Client BAM Utiliteitsbouw

Weight 150 tons

Bridge Zolder



Iemants is making a temporary steel arched bridge, in order to raise the bridges over the E314 motorway above the Albertkanaal by 1.60 metres. After it has been raised and modified the temporary bridge will be dismantled and reused for a bridge in Zolder (Westlaan). The arches measuring 22.5 metres high consist of 9 parts. The road deck is made up of 2 parts measuring 62.25 metres in length, 20 metres wide and each weighing around 335 tons. The bridge components are to be taken to their final destination by pontoon. Production will be carried out at Iemants, Willems and Spomasz.

Principal NV De Scheepvaart

Client Deckx AO

Weight 1,040 tons

Start of project April 2016

Completion September 2016

Young Talent

Adam has only been working at Spomasz for a year and a half, but is already considered as a 'young talent'. In this short time he has already changed job three times. He has a master's degree in Management & Production Engineering, specialising in Logistics. Adam began working in an administrative role. He worked so hard and learned so fast that his managers asked him to move to another department on two occasions. He is currently in purchasing.

"Personally I found the changes really motivating. I felt quite at home in each job so was keen to stay there. However, my managers advised me to move to another position and then another. I do like security and familiarity, but change is the name of the game in a big company. First I was working mainly on documentation in the Data Management Department. I then got to work in the purchasing and calculation department. I was offered a position as assistant project manager at the same time. For a few weeks I actually did both jobs at once!

I am now working as a full-time purchaser. To start with it was challenging to get to know all the materials and products. My colleagues gave me a hand at the beginning, but I soon had to manage on my own. It was quite an experience, but I learned fast. This job is much more complex than my first job at Spomasz.

As a purchaser I have to purchase all kinds of different materials that are needed for production. That includes just about everything that is required in one project. Each day I create the orders. Sometimes I need to do ten things at once, but that's fun. One of the best parts of my job is the discussions and negotiations with suppliers.

I am really happy in my current job. I hope to develop and get better at it over the coming years, but the work really fascinates me. You maintain contacts with lots of different people, not only suppliers, but also fellow employees. I have a good relationship with other departments, including manufacturing and the preparation department. It is really important to have everything available on time.

I can usually make it clear what is required in a friendly manner, and sometimes it requires a little more pressure. That's the nature of the game. I believe that the top priorities in this job are creating long-term relationships with clients, plus the timing and quality.

I feel very involved in what I do. That's why it's not always easy to change roles, but when I go elsewhere I go for it, 200%. It seems that my managers have noticed and that gives me great confidence in the future." ■

Adam Faryna
29 jaar



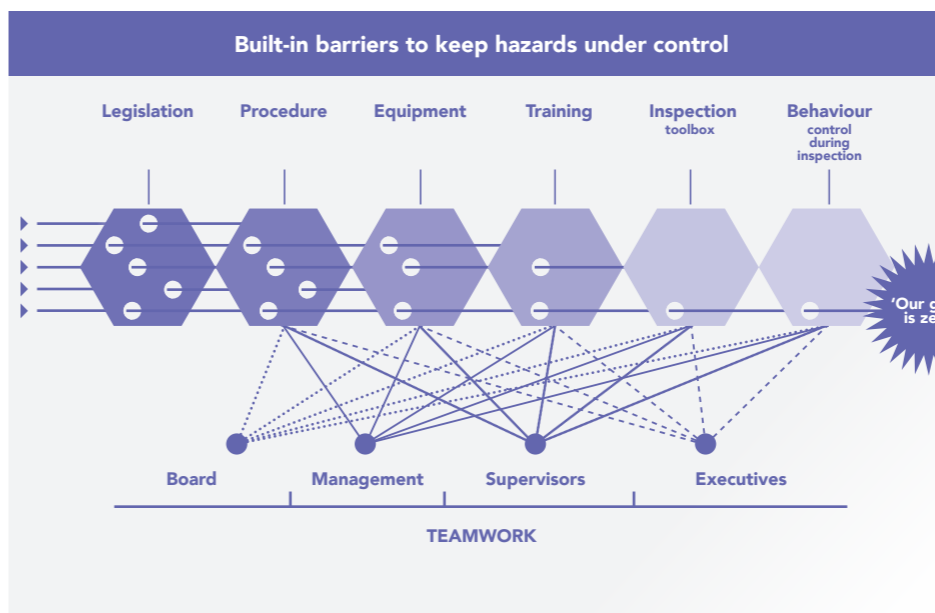
Culture

Health, safety & environment

Preventing accidents is more than just down to 'luck'

All staff deserve a feather in their cap for our exceptionally good safety record in 2015 (and also for the first 6 months in 2016). Indeed, accident prevention requires good preparation and perfect teamwork. In fact, good preparation is in the hands of all those concerned in the process chain, in each project that we undertake. Managers and project management provide the necessary equipment (protection equipment, staff, etc.) and

monitor the entire process right down to the shop floor. The prevention team and managers offer the necessary training and help guide the process (including toolbox meetings and inspection rounds e.g. for correct work methods and safety). And, last but not least, the many staff involved have the important task of behaving appropriately everywhere and at all times, in order to help avoid incidents. Together we are the perfect safety net!



Extraction of welding gas at Smulders Projects in Hoboken

Extraction of welding fumes

Welders and assemblers are exposed to unhealthy welding fumes every day. Over the last two years much data has been recorded. The results are positive, but depend a lot on the correct use of welding helmets and filter systems available. It is indeed extremely important to wear these at all times and to change the filters regularly. Smulders is also working to improve the general working environment. At the end of 2015 we teamed up with a research agency to set up a trial for removing welding fumes in the hall. Final adjustments are still being made to improve this. We set up some specifications in 2016 showing what an installation at each site should achieve. By the end of 2016 there will be (a) trial(s) in Arendonk and/or Balen. If the results prove positive further investments will be made in this system as from 2017.

Safety milestone

On 23 May 2016 Willems reached a milestone in the area of business safety. Nearly 150 employees, who are exposed to all kinds of risks on a daily basis, managed to work for two consecutive years without a single accident causing absence! We are naturally absolutely delighted about this. However, this is no reason to sit back and relax. On the contrary!

Culture



**We wish
you all a
great holiday!**