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INFO MAGAZINE SEINE SCHELDT FLANDERS



**PÉTER BALÁZS IS COORDINATING,
FROM THE NORTH SEA TO THE
MEDITERRANEAN**

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**De Vlaamse
Waterweg** nv



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DEAR READER

In 2019, there were numerous new stimuli for the Seine-Scheldt project. There was a lot of movement at both a strategic and international levels, as well as concrete achievements on the ground. We will continue on this course in 2020, and we will invest maximum effort into the future of inland shipping. We will only be able to realize the economic stimuli and added social value of the Seine-Scheldt project by working in close collaboration with all the partners, cities and municipalities involved, and with you!

The [European Commission](#) has formally re-confirmed the grant amounts provided for the Seine-Scheldt project. In doing so, the Europe Union is saying that it is serious about working on a stronger inland shipping link in Flanders, Wallonia and France. In the new coalition agreement of the Flemish Government, these cross-border ties are also seen as [an example for international cooperation](#). Flanders will therefore continue to take up its commitments and the associated investments.

France has already issued the necessary permits for the works on the banks on the Grensleie (Part of the Leie running along France/Belgium border) in Wervicq-Sud, where the river follows the border between Flanders, Wallonia and France. That is the first result of the Grensleie Agreement between the three governments. More good news came from France at the end of 2019: President Emmanuel Macron and Prime Minister Edouard Philippe finally confirmed [commitment to construction of the Seine-Northern Europe canal](#), which should be completed in 2028 and will cost around five billion euros. They are giving the mandate for realization of this to the project company brought in by the Hauts-de-France region. Side by side with France and Wallonia, Flanders stands by this ambition and trend, both in terms of budget and timing, and with many projects in already progress.

And closer to home, we are putting every possible effort into cooperation with local partners, cities and municipalities. This ensures that we maximize the benefits from the [enormous social and economic added value](#) resulting from our investments.

In 2020, we will focus even more on the Seine-Scheldt project as [an important international link that will open up our Flemish seaports to Paris](#), and bring major benefits for our region. After all, there is still great potential for water-related logistics and economic development in West and East Flanders, and we want to offer every opportunity for that.

We will invest heavily in the coming year, in the Leie axis and the Roeselare-Leie canal in particular. [The Leie is currently carrying ten million tons](#) of freight per year, of which four million tonnes is shipped on the Roeselare-Leie canal. These traffic figures are increasing year after year. Construction in 2020 of a new transshipment terminal on the canal side in Roeselare will increase inland shipping even more.

We will happily continue this good cooperation, locally and internationally, in 2020!



Lieven Dejonckheere
Head of department

**WE WANT TO FOCUS ON THE ECONOMIC,
NATURAL AND RECREATIONAL FABRIC
OF OUR CITIES, MUNICIPALITIES AND THE
FLEMISH REGION, SO THAT EVERYONE
BENEFITS.**

IN A NUTSHELL

FIVE RESULTS WHERE EVERYONE BENEFITS

Let's start with something that few people know: as a major European inland shipping project, Seine Scheldt Flanders officially started on 1 January 2007. However, the idea of investing in a waterway network between Belgium and Paris has been one of De Vlaamse Waterweg nv's ambitions for much longer. Inland shipping is, after all, a cheap, reliable, sustainable and growing mode of transport. And when this flagship reaches the end of its passage in 2030, everyone will benefit from it.

1. TRAFFIC JAMS OVERBOARD

A 4,500-ton ship replaces 220 trucks on the road. But then we need these large vessels sailing on our inland waterways. To allow this, we are building or upgrading the necessary waterways infrastructure (locks, bridges, weirs, passing lanes, etc.), which guarantee passage and ensure the water level. Where necessary, we will expand the waterway dimensions. We are installing transshipment centres to facilitate more companies using the 'blue highway' to transport their freight. These are storage areas where cranes load and unload the goods. We will complete this by 2030. And then there will be a lot less trucks in the traffic!

2. ECONOMIC ABUNDANCE

Apart from all the direct employment created by the construction projects (for contractors, workers, electricians, etc.), the local economy is flourishing thanks to Seine Scheldt Flanders. Companies near a waterway or a terminal can count on and use inland shipping for freight. A renewed environment along the water is an ideal place for local catering establishments and other entrepreneurs to establish their businesses.

3. INTERNATIONAL TEAMWORK

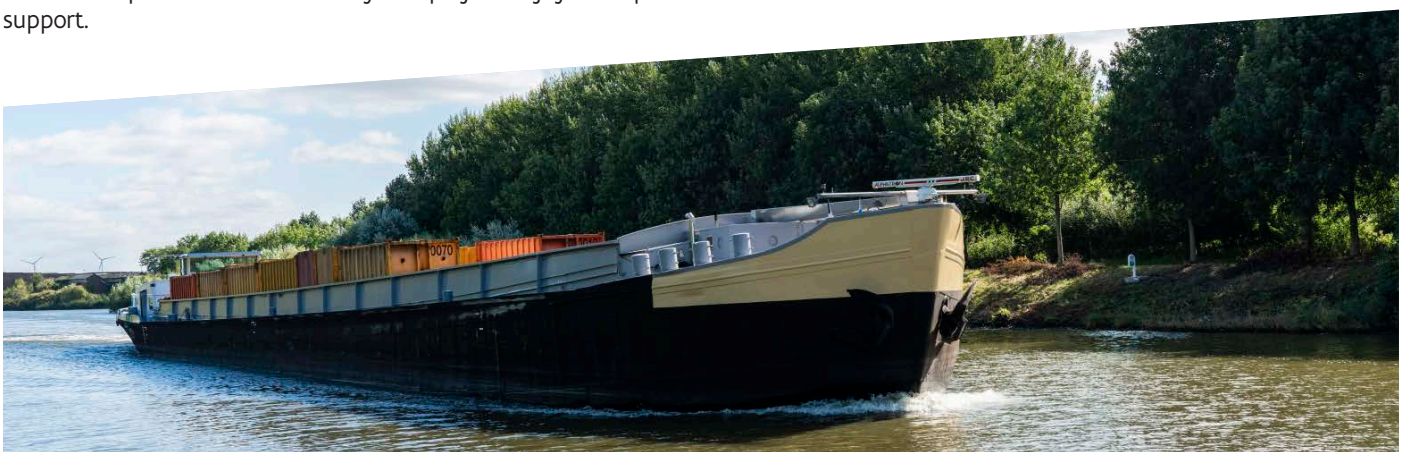
In Flanders, Seine-Scheldt Flanders focuses on seven waterways: the Ghent ring canal, the Leie diversion canal, the Leie, the Roeselare-Leie canal, the Bossuit-Kortrijk canal, the Ghent-Ostend canal and the Upper Scheldt. Thanks to good cooperation with Wallonia and France, the connected waterway network will reach much further. Using the Scheldt and the Western Scheldt, freight can be transported by water from the seaports in Rotterdam and Antwerp to Paris. That is why the project enjoys European support.

4. ENVIRONMENT AND NATURE BLOOMING IN THE WAKE

The emissions from 220 trucks is much higher than that of a single inland vessel. In that respect, we are already a good ally for the environment, but Seine Scheldt Flanders is also giving the fauna and flora that live in and around the water a special treat. We are providing fish passages near weirs and locks, so that the migrating fish can pass by to spawn or eat. We are laying a green shoreline, to offer a natural resting space for the numerous water birds on our waterways. These water-rich biotopes develop a true ecosystem, in which many species feel like just like a 'fish in the water'.

5. VIBRANT ATMOSPHERE AND CONVIVIALITY

People naturally enjoy being by the water. Cities and municipalities located on a river have understood this well and they are working with us to achieve vibrant waterfront zones that are nice meeting places. On the river and canal banks, athletes, hikers and cyclists enjoy the view while carrying out their activities on the towpaths. To help this 'soft traffic' in particular, we are renovating and/or connecting these, even putting in bridges if necessary. Anyone who wants to use the water with a boat can do so from safe jetties and marinas.



WHAT HAVE WE DONE IN 2019?

HARELBEKE REDISCOVERS THE LEIE

In Harelbeke, almost everything you could renew in and around a river has been renewed. The swing bridge named Bloemmolenbrug connects the city with Moleneiland. Cyclists and pedestrians using that swing bridge have an impressive view of the newly built energy-neutral weir and lock. A fish passage has been built on the tip of Moleneiland, to allow fish to migrate smoothly again. The historic water intake was restored at the Banmolens and the brand new Banmolenbrug was installed. On the other side of the water we have brought the Leie closer to the people of Harelbeke with lowered quay walls and a renewed environment.

THE NEW WEIR AND FISH PASSAGE IN KERKHOVE WILL BE COMPLETED IN 2020

The weir segments are in place and they are connected to the electromechanical installation in basement machine room. Before summer 2020, the contractor in Kerkhove (Avelgem) will complete all the remaining works: the weir, the fish passage and the surrounding environment. This is followed by clean-up work and then the exceptional duo-weir can start operating. Working with the ones in Asper and Oudenaarde, it will soon be regulating the water level of the Upper Scheldt.

THE SINT-BAAFS-VIJVE LOCK HEAD RISES ABOVE WATER

One of the total of three lock heads that will comprise the new lock at Sint-Baafs-Vijve (Wielsbeke) has been built. The concrete is reinforced and hardened, so that you can already see the contours in the construction pit. Lock heads two and three are also making good progress and, in the middle of 2020, the first Leie ship can sail through.

PATHWAY PAVED FOR NEW WERVICQ-SUD TOWPATH

A special pontoon-mounted crane removed the superfluous vegetation on the French bank on the Grensleie. This is necessary, because we are building a new towpath where there is now an unused industrial zone. But nature lovers can sleep peacefully, because our French colleagues are replanting the lost greenery elsewhere along the Leie. And besides that, you will be able to cycle a lot faster to the beautiful Balokken Island.

STUDY INTO THE IDEAL ROUTE FOR THE BOSSUIT-KORTRIJK CANAL

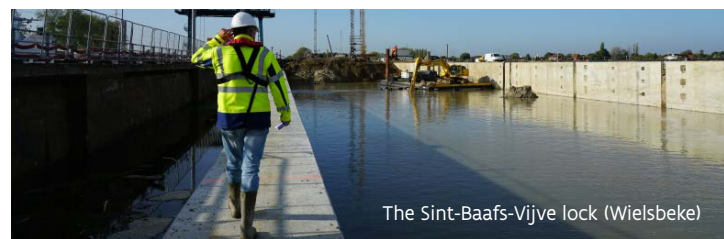
For the future link between the Bossuit-Kortrijk canal and the Leie, we are currently looking into three routes: a straight one, a bypass and a ring route. We are investigating these three scenarios based on six themes. A draft preferential decision will follow from that study in 2020, and it will be put before the Flemish Government. If it approves, a public inquiry will follow. We will then move towards a definitive preference decision and know the final route.



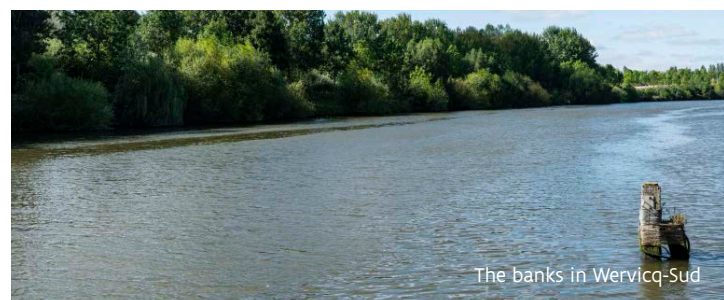
New Harelbeke lock



Fish passage, weir (new + old) and the Kerkhove lock (Avelgem)



The Sint-Baafs-Vijve lock (Wielsbeke)



The banks in Wervicq-Sud



Leie crossing and Bossuit-Kortrijk canal

DESTINATION: EUROPE

Professor Péter Balázs is coordinator for the North Sea-Mediterranean Corridor within the European subsidy program for transport TEN-T. In other words, he is the specialist in regard to the bigger picture behind the Seine-Scheldt project! In the past he has already gained experience as a Hungarian ambassador, foreign minister, professor at the Central European University and member of the European Commission. So, there is enough conversation material for us to subject this expert from Hungary to a round of questions...

HELLO PÉTER. AS A EUROPEAN COORDINATOR YOU PROBABLY GET THIS QUESTION OFTEN, BUT WHAT IS THE CURRENT STATE OF THE CORRIDOR?

PÉTER: “The end of the first realization phase has now been reached. To achieve this, we have travelled a long route, which began in 2014, when the European Commission divided the European transport system into nine major transport corridors. One of them is the North Sea-Mediterranean connection, for which I am responsible.”

WHAT SHOULD OUR CONCEPTION BE OF ‘YOUR’ CORRIDOR?

PÉTER: “This corridor is the first major North-South connection in Europe. It starts in Scotland and runs through the United Kingdom, Ireland and the Benelux to Marseille in France. There are also side links to Switzerland and Germany. This makes it a major transport route in the most densely populated region of Europe, where, in addition to numerous residents, you also have many industrial sites, ports and urban hubs. A smooth inland shipping connection is therefore a must in this region.”

WHAT FUNCTION DOES THE CORRIDOR HAVE IN TERMS OF POLICY?

PÉTER: “The corridor forms the policy framework for the planning, implementation, coordination and financing of our projects. This is necessary, because this is the first time in Europe’s transport history that we have brought together various types of transport under the same umbrella: rail transport, inland waterways, seaports, airports, bridges, pipelines, etc. Given that we are invested in the concept of [modal shift](#), every transport type is indispensable in the puzzle.”

MODAL SHIFT

We refer to use of different transport options as ‘modal shift’. This must ensure that more goods are transported in a sustainable and economically responsible manner. For example, you can just as easily transport a truckload by ship or train.

EUROPE SUPPORTS THE SEINE-SCHELDT PROJECT WITH THE IMPLEMENTING ACT. WHY DOES EUROPE CONSIDER THIS PROJECT IMPORTANT?

PÉTER: “Seine Scheldt is the largest project in the corridor. Within this corridor, France, Flanders and Wallonia are working together to connect their inland waterways, to create a strong waterway network. This huge project needed a lot of financing, including co-financing from the European Union. In order to stabilize the project in the long term throughout all democratic formations of government in the participating countries, regions and cities, the four parties involved (France, Flanders, Wallonia and the EU, ed.) have set up a new instrument, the [Implementing Act](#).”

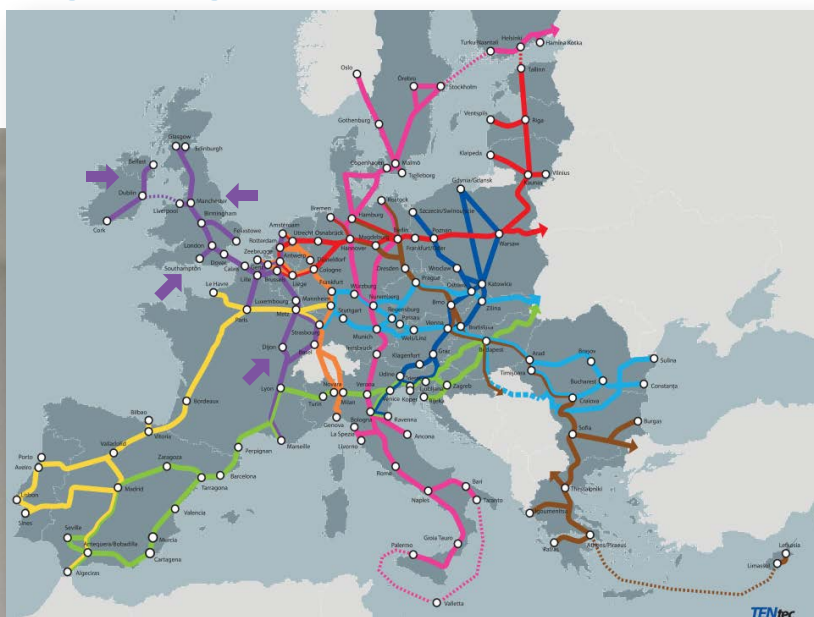
IMPLEMENTING ACT

With an Implementing Act, the European Union provides more financial and political security for projects in which several member states are involved. The political and legal commitment of the Implementing Act bridges several governmental terms of office. The Implementing Act for the Seine-Scheldt project states that a waterway network of 1,100 km between Flanders and Paris must be ready for modern inland navigation by 2030.

WHAT DOES THE IMPLEMENTING ACT ENTAIL? AND WHY IS IT SO IMPORTANT FOR THE SEINE-SCHELDT PROJECT?

PÉTER: “The Implementing Act consists of three parts: the list of future projects, their timing and their approach. The intention is to ensure that the project is realized, regardless of political changes that could occur in the meantime. It guarantees that investments to increase capacity will be made in the coming years. This guarantee is essential because the project is very important for 40 million European citizens. The region in question comprises three metropolises (Paris, Lille and Brussels, ed.) and six international core regions. So, we leave nothing to chance.”

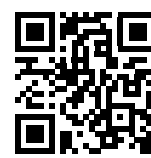
European transport corridors

**HOW DO YOU SEE THE FUTURE CHALLENGES FOR INLAND NAVIGATION IN EUROPE?**

PÉTER: “Climate change is one of the biggest challenges for European policy. To cope with this, we must make the transport sector more environmentally friendly as quickly as possible. We will do this through using modal shift. Everyone knows that the motorways in Europe are too busy, so we are trying to offer alternatives to road transport. Shifting as much as possible to inland waterways and rail is our mission. This is the only way we can improve our capabilities and achieve our goals!”

Use your smartphone

and scan the code to
see the interview
and get to know Péter.



EVERYONE ON BOARD

Everyone on board means that every voice is heard. And we organize numerous events, to get local residents, associations, companies and others engaged in our projects. On one hand we do that to engage their participation and on the other to thank them for their patience during the works.



DESIGN OF A NEW OOIGEM (WIELSBEKE)-DESSELGEM (WAREGEM) BRIDGE

In February 2019, with interest from 350 curious people, we presented the design of the new bridge to be built between Ooigem and Desselgem. It will be a steel arch bridge and will be installed at the same location as the current Leie bridge. That means that valuable nature can remain untouched in Ooigem and land acquisition is not necessary.



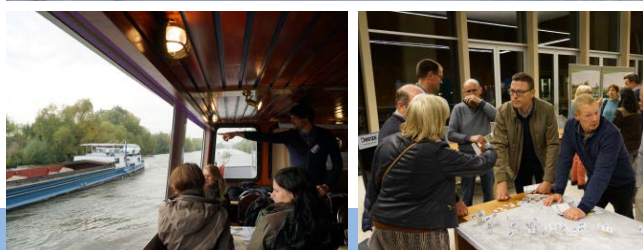
THE DESIGN SHOWS THAT THE METAMORPHOSIS IN MENEN IS A SERIOUS BUSINESS.

It is important to take the environment into account in every design; and that applies to Menen too. In June 2019, we presented our plans to a lot of enthusiastic residents. The Menen touch lies in the brick abutments, which refer to the fortress walls. The new bridge will provide an open view of the surroundings. You will be able to enjoy that view from a super-safe cycle path and from a square. The design also shows a new bicycle and pedestrian bridge that connects Menen with the Komen-Deinze cycle highway.



PRELIMINARY DESIGN FOR THE NEW STEENBRUGGE BRIDGE

In October 2019, the local residents were given a premiere look into what happened with their input into the preliminary draft. At their request, two new Steenbrugge bridges will be built: a high, fixed bridge for road traffic and a flat movable bridge for cyclists and pedestrians. In addition, the design eliminates the sharp S-bend in the Ghent-Ostend canal at that location. All of this is aimed at achieving smoother shipping and road traffic. The future view of Steenbrugge must also enhance the canal view experiences in Bruges and Oostkamp.



NATURE AND SHIPPING BOTH BENEFIT FROM THE LEIE BETWEEN DEINZE AND SINT-BAAFS-VIJVE (WIELSBEKE)

In October 2019, no fewer than 180 interested people came to see what modifications we will make in and around the Leie between Deinze and Sint-Baafs-Vijve in the coming years. Firstly, we will transform the banks into natural oases. Secondly, we will dredge the river to a depth of 4.5 meters. The design has already received a positive response. However, it is still a matter of waiting a while, because the first groundwork will not begin until 2021.



ENTREPRENEURS ARE PARTICIPATING – FUTURE-ORIENTED TRANSPORT BY WATER

Many companies came to Ghent on 21 March 2019 to hear about the strengths that inland shipping has to offer. The Vlaamse Waterweg nv, Waterwegen & Zeekanaal vzw, POM East Flanders, Voka East Flanders and North Sea Port treated current and future entrepreneurs to fascinating presentations and testimonials.



MASSIVE INTEREST IN THE INGELMUNSTER BRIDGE

On Open Sites Day on Sunday 19 May 2019, De Vlaamse Waterweg nv, the municipality of Ingelmunster and contractor Artes Group organized an instructive walk on the bridge under construction. We were able to welcome around 2,250 visitors to take a look at the longest bridge of Seine Scheldt Flanders!

Use your
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and scan
the code
to see the
atmospheric report.



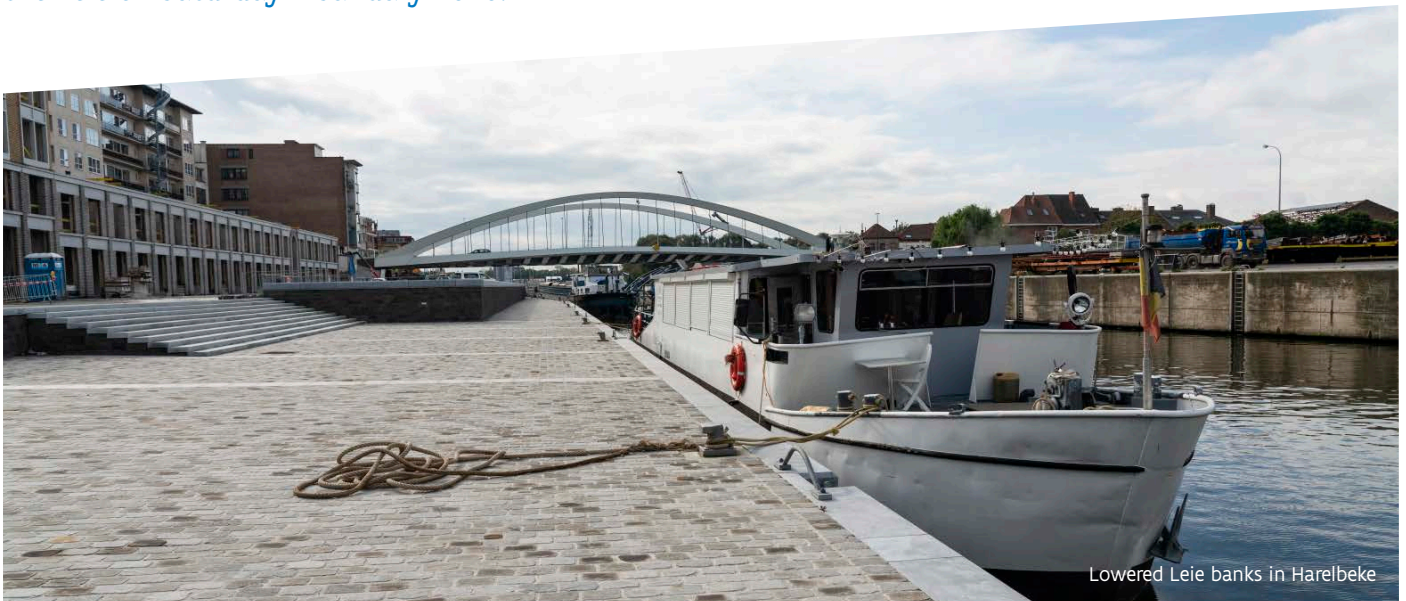
THE TOEKOMSTBOS (FUTURE FOREST) COMPENSATES FOR CONSTRUCTION OF NEW OOIGEM (WIELSBEKE)-DESSELGEM (WAREGEM) ROAD BRIDGE.

In the ancient valley of the Oude Kale in Lievegem, volunteers from Natuurpunt and local residents, together with De Vlaamse Waterweg nv, planted a new forest on 23 November 2019. The Toekomstbos (Future Forest) consists of 1,500 trees and 1,200 shrubs, spread over an area of 2 ha. The forest compensates for the trees that we have to clear for construction of the new road bridge between Ooigem (Wielsbeke) and Desselgem (Waregem).

WATER AS AN ASSET

PARTY IN HARELBEKE!

After five years of intensive cooperation, De Vlaamse Waterweg nv, the city of Harelbeke and all the parties involved have completed the Leie works. Everyone is proud of the result of this, the largest sub-project of Seine Scheldt Flanders. This was celebrated during the LeieLeute, the festive reopening of the Leie on Saturday 11 January 2020.



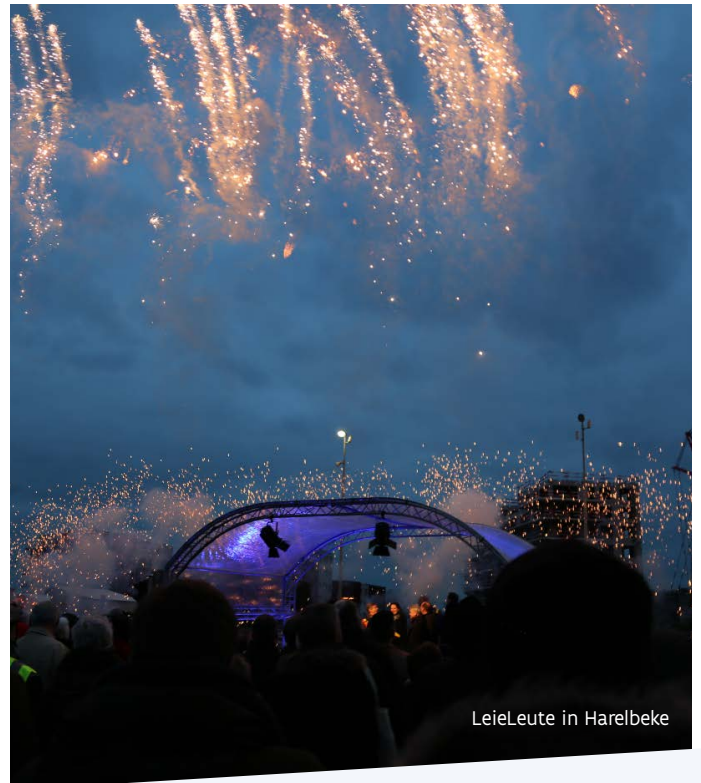
Lowered Leie banks in Harelbeke

FIVE YEARS IN THE PIPELINE

After five years of renovations, the Leie area in Harelbeke is now ready for the future. This involved a great deal of construction work. The Hogebrug opened in 2016 and the new lock began operation in 2018. The new weir and fish passage were finally finished and the Moleneiland was refurbished. So, that meant high time for a party: Harelbeke was transformed with an experiential walk immersed in a light, sound and fire spectacle. This allowed local residents and visitors to discover the new Leie environment for the first time.

NO FEAR OF COLD WATER FOR THE PEOPLE OF HARELBEKE

Harelbeke and her residents are clearly satisfied with the result. That is crystal clear. They came en masse to take a look. Naturally, there were disturbances and disruptions for most people in the neighbourhood during work. The problem of mud and silt was mentioned in particular. But the result was certainly worth everyone soldiering through during the works. Local businesses also said that there were temporarily fewer free parking spaces and that there was some noise and vibration nuisance. But now, according to the traders, the result is clear. They are of the opinion that the beautiful appearance of the new Leie environment is an additional asset for businesses nearby!



LeieLeute in Harelbeke



"The festive opening of the Leie works was very successful. The sound and light show and all those little flames... Brilliant! A few days later I started exploring the area again. In my opinion, this is by far the most beautiful place in Harelbeke."

Rita Allegaert



"As a citizen of Harelbeke, I am very proud of the new Leie environment. The fish passage and the lock, in particular, surprised me enormously. The result also makes it clear why the Leie works required such a long time. I have to admit that I am glad that the works are over now but it was all definitely worth it!"

Patrick Verstraeten



"The residents of Harelbeke can be proud of the result. I work here, and now I often go for a walk along the Leie during my lunch break."

Sted De Bruyne



"To people looking at it from a distance, it seems that it will take forever to finish a project like this. Ten years ago, the first ideas took shape and now we can say that our city has actually been completely transformed during that period. Even after the infrastructure works, there was still a lot of work left on the list for our municipal services. There was all the administration to put in order, finishing smaller things, etc., but above all to ensure that Harelbeke's residents can have a lot of fun on the banks of the Leie."

Cindy Deprez

environmental officer, Harelbeke

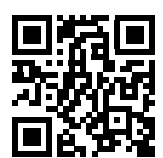


"I live nearby, and I can assure you that I will be here much more now. The result is beautiful. This is a huge step in a good direction for the centre of Harelbeke. My compliments to the city and De Vlaamse Waterweg nv They provided very good communication during the works."

Ozzy Van Dendriesen

Use your smartphone

and scan the code to watch the atmospheric report about the LeieLeute and feel as if you were there yourself.



WORK TO BE DONE

TWO WOMEN, THREE CONSTRUCTIONS

Charlotte Beels is project manager at De Vlaamse Waterweg nv. She has followed the works on the lock, weir and fish passage in Sint-Baafs-Vijve (Wielsbeke) from day one. As the preparations became more detailed, the team expanded. In 2018, Daphne De Groote was brought in as project engineer. She also monitors preparations for the weir renovation and the fish passage. We are curious what work the ladies (and their colleagues!) still have to do on the Leie.



From left to right: Daphne De Groote and Charlotte Beels

HELLO CHARLOTTE AND DAPHNE. WHICH WORKS ARE YOU PERFORMING HERE IN SINT-BAAFS-VIJVE?

CHARLOTTE: "We are working on three important constructions here: the construction of a new lock and a fish passage, as well as renovating the existing weir. The new lock is located on the Leie, the main axis of the connection between Seine and Scheldt. Considering the fact that construction of the lock would take longer than the other constructions, we already started building the outports in 2017, the part in front of the lock where ships can wait to enter the lock. The construction of the actual lock began in the autumn of 2018."

DAPHNE: "The weir and the fish passage are on the side branch of the Leie. These projects are close to each other and are considered as one, each with its own points of attention. The design inherently seeks optimum phasing so that both constructions can be successfully realized. Works will start on this in 2020."

DO VESSEL SKIPPERS EXPERIENCE MUCH DISRUPTION FROM THE WORKS?

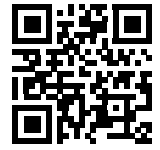
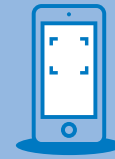
CHARLOTTE: "The nuisance for the skippers is not insignificant. However, we try to limit it as much as possible. The new lock will be built next to the existing one so that ships can still pass through during the works. The works make waiting times for entry to the existing lock somewhat longer and there is a limited number of waiting places. That is inevitable, but fortunately temporary."

WHAT MAKES THIS PROJECT SPECIAL COMPARED TO OTHER HYDRAULIC ENGINEERING WORKS?

CHARLOTTE: "The implementation phase of the new lock is unique: normally a construction pit with temporary sheet piles is made first, in which the new construction is built 'in the dry'. In this project, the sheet piles of the construction pit are also the



Use your smartphone
and scan the code to watch the
time-lapse presentation, from
bare site to construction pit



definitive walls of the new lock. This means that the new lock is partly constructed 'in the wet'. This means less space required during the works, which is necessary to ensure continued access to the existing lock. And that is a special advantage of our project!"

DAPHNE: "Another unique point is that the portico, the structure on top of the weir, is also being completely renovated. This is done in two phases, in which each part of the structure is completely demolished and rebuilt, first the right bank, then the left. It is important here that the other part of the weir remains in operation continuously. Naturally, that has also been included in the design."

WHAT IS THE BIGGEST CHALLENGE IN THIS PROJECT?

CHARLOTTE: "The implementation period is very tight. That is not only a challenge for the contractor, but also for us as the commissioning client. Well-thought-out planning and strict follow-up are essential for realization of all the works on time."



The Sint-Baafs-Vijve lock (Wielsbeke)

IT SOUNDS AS IF YOU STILL HAVE A LOT OF WORK TO DO. IS IT THE CHALLENGE IN THIS THAT MAKES YOUR JOB SO EXCITING?

DAPHNE: "The great thing about our job is that we are involved in a project from the very beginning up to and including realization. So we work on it during the concept and design phases and through to implementation. Engineering offices and contractors, on the other hand, are often only involved in one component. It is nice to see the design finally realized. During the follow-up of such a large project you always come across things that were not known or foreseen in advance. That indeed always keeps it interesting!"

DO YOU OFTEN WORK TOGETHER TO COORDINATE THINGS?

CHARLOTTE: "With this project, it is necessary to coordinate matters constantly. After all, the intention is to have links between the various subprojects. For example: the look of the portico above the weir is attuned to the material use in the new control building, which will be built next to the new lock."

YOU ARE BOTH WOMEN WORKING IN SHIPPING AND CONSTRUCTION, WHICH ARE STILL MAINLY MALE BASTIONS. DO YOU NOTICE ANY EFFECT OF THAT?

DAPHNE: "In my entire career as a female engineer in construction, I have never experienced working in what is called a 'male bastion' as negative. I also never felt that I had to prove myself more than others. The male/female ratio is relatively similar with indoor functions. When you are on site, you notice that the proportion of women is significantly lower. So more female colleagues are always welcome!"

WHAT ARE THE NEXT MILESTONES TO LOOK FORWARD TO?

CHARLOTTE: "The first concerns the new lock. Its doors will be installed in the spring of 2020 and it will be commissioned in mid-2020. Regarding the weir and the fish passage, the biggest milestone is the start of the works in autumn 2020. And of course, there is 2022, when all works will be completed. Naturally, there will be a nice inauguration planned for that."

FROM PAST TO THE FUTURE ON THE UPPER SCHELDT IN KERKHOVE

Rome was not built in one day, as the saying goes. The construction of a new weir and fish passage also involved a lot of feet on the ground. And that is literally so, because before the works, De Vlaamse Waterweg nv sent a large team of archaeologists, soil scientists and biologists to check up to eight meters deep into the field. The history of Kerkhove (Avelgem) along the Upper Scheldt is just as rich as that of Rome!

In 2008 and 2009, following the construction of the new weir, Ghent University carried out drilling on the left bank of the Upper Scheldt. Buried under thick layers of clay and peat they encountered and catalogued in detail an elongated **levee**, a natural ridge of sediment along a river, and a fossil trench. Between May 2015 and October 2016, Gate Archaeology, Ghent University and Jan De Nul joined forces **to collect data** in two large work pits. Part of the Roman road between Bavay and Aardenburg was recorded in the upper clay and peat layers. The underlying, sandier layers were sieved and contained flint tools, burned bone fragments, charcoal and charred hazelnut shells, irrefutable proof of the presence of prehistoric man! Living with the rhythm of the seasons, they lived on what nature had to offer them: they hunted game, collected plants and fruits and fished in the 'Scheldt'.

THE BUSTLING UPPER SCHELDT

The excavation confirms that the location has been a human population hotspot for more than 10,000 years. Water has been attracting people from 10,000 years ago right through to 2020. The construction of the weir and fish passage are in fact part of the **European inland shipping programme known as Seine Scheldt Flanders**. With this project, we are improving the link between the Seine and the Scheldt. This will ensure economic growth and employment in the heart of Europe.





Installing weir segments



Working on the weir



New weir under construction, old weir and lock



Fish passage

A TECHNICAL FEAT

After completion of the concrete construction and earthworks for the new weir, waterway manager De Vlaamse Waterweg nv installed, in the summer of 2019, the **weir segments**, that control the water level. This had to be done with large cranes, because a single segment weighs at least 40 tons. Thanks to this large size, they can each discharge 300 cubic meters of water per second, and **that equals seven Olympic swimming pools per minute.**

The new weir becomes a **duplicated example** with two identical weir segments. If one segment is defective during an emergency situation, the other can still discharge or hold sufficient water. This ensures that skippers can continue working with their vessels during dry or wet periods and it helps prevent flooding.

SPACE FOR NATURE

A new **fish passage** will be installed next to the weir. This consists of a succession of thresholds that gradually bridge the height difference between the upstream and downstream part of the river. And this allows **fish to swim past the weir** on their quest for a spawning place or feed. Protecting and helping nature is one of the pillars of Seine Scheldt Flanders.

MORE THAN INLAND SHIPPING

SAILING QUESTION TIME: CAPTAIN BART SPEAKS

Bart Ghillemyn has been providing boat trips with his motor yacht Figaro on the Touristic Leie and Leie since 2006. He usually has a dozen passengers on board, tourists but also family and groups of friends, and even teambuilders. On the Leie he regularly passes the jetty in Machelen (Zulte), which was refurbished in the colourful style of artist Roger Raveel.

HELLO BART. WHAT DO YOU THINK OF THE NEW JETTY AND HOW DOES IT DIFFER FROM OTHERS?

BART: "The jetty in Machelen is a beautiful achievement that is very well built for mooring with smaller vessels. This jetty is of course ideal if you want to visit the Roger Raveel Museum, which is within walking distance. After all, the jetty is a tribute to him. I am regularly asked, when passing it, what exactly the work of art represents, because the bright colours inspire many people's curiosity. I have great pleasure answering their queries."



The Roger Raveel mooring jetty in Machelen (Zulte)

"THE NUMBER OF PUBLIC JETTIES COULD HAPPILY INCREASE!"

WHAT DO YOU THINK COULD BE IMPROVED ON THE WATERWAY OR INFRASTRUCTURE?

BART: "What I would like to see for myself are anchor buoys in the zones where the Leie is wide and the edges are less deep. It would be wonderful to be able to dine in the middle of nature or spend the night with the vessel safely secured! And as far as I am concerned, more stringent action could be taken against larger ships passing at high speeds and causing big wakes. Respect is very important on the water."

WHAT HAS ACTUALLY BEEN IMPROVED IN RECENT YEARS?

BART: "It strikes me that our waterways are cleaner every year. I remember well having at least three bicycles caught in my screws during the first six years of my activities. That is quite exceptional now."

DOES YOUR JOB SOMETIMES BECOME A ROUTINE? WHAT MAKES IT SO PLEASANT FOR YOU?

BART: "Like in any job – even a seasonal job like mine – it's a bit of routine. But the fact that new people are always sailing with me keeps it fascinating and often leads to spontaneous new friendships. That motivates me every day."

WHICH IS YOUR FAVOURITE SPOT ALONG THE LEIE?

BART: "The jetty of Sint-Martens-Latem is my favourite place. On sunny days you see a nice mix of cyclists, walkers and boats mooring at the beautiful jetty, which is always well maintained. And when the sun is out, Ronny is ready with his ice cream truck. That makes it extra pleasant."



© Bart Ghillemyn



/ More than inland shipping /

Use your smartphone
and scan the code to
watch the interview
with Sandra.



FROM CAPTAIN'S DAUGHTER TO SKIPPER'S WIFE

On 26 September 2019 – the Day of Inland Shipping – we went looking for female skippers with a heart for inland navigation in Flanders. This is how we crossed paths with Sandra Goedgezelschap. Sandra has been sailing with her husband since she was eighteen. But even before she found love on the water, this female skipper was already bound to a life away from the shore.

HELLO SANDRA. HOW DID YOU END UP IN THE WORLD OF SHIP SKIPPERS?

SANDRA: "I got the skipper virus from home and have been working on the water for about thirty years. My parents are retired skippers, my in-laws are skippers... I grew up in this world and I got to know my husband in it too. They sometimes say that this is a real man's world but that is not actually true. You do the job together as husband and wife or as a family."

WHAT DOES YOUR WORKING DAY LOOK LIKE?

SANDRA: "The alarm clock rings every day at half past five. We start at six o'clock. Around noon I usually do a bit of maintenance work on the ship or I take over from my husband while he is busy doing some. That way we alternate between sailing and all the other tasks that come with life operating a barge."

WHAT IS THE BIGGEST ADVANTAGE OF YOUR LIFE AS A BARGE SKIPPER?

SANDRA: "I live at work, so I don't have any commuter traffic to worry about. Every day is different and we are always in a different 'decor'. And that ensures that we never get bored on the water."

ARE THERE ANY DISADVANTAGES?

SANDRA: "The biggest disadvantage is that making appointments is sometimes a bit more difficult. Meeting with friends or going to the doctor is not such a simple matter for us. But I would not trade the skipper's life for all the money in the world. You have to go for it completely, because it is a completely different existence from that of people ashore. We have to work hard but it's a beautiful, free life!"

THE OTHER SIDE

MEDIEVAL ARCHES OF THE PONT DES TROUS IN DOORNIK TO BE REBUILT IN 2021

In 2019, our Walloon colleagues dismantled the Pont des Troues in Doornik. Demolition of this medieval 'Waterpoortbrug' (water-gate bridge) aroused a lot of emotion among residents and historians. Fortunately, within two years, the recognizable Gothic arches will again proudly span the Scheldt. The central arch will be higher and wider than originally, so that modern inland vessels can sail underneath it. The rest of the bridge will be rebuilt as it was, including the original shape of the stones.

No matter how dramatic the falling stones and battered arches looked, 25% of the stones were recovered intact. For the other stones that will be used in the reconstruction, the Agence Walonne du Patrimoine have sought and found a type of stone with exactly the same composition as the medieval stones. Archaeological research taught us that the bridge was rebuilt in 1946 from the same type of stone from the same quarry. Craftsmen will carve and chisel the new stones in such a way that they are identical to the old stones.

Just like the bridge, the quay walls and the immediate surroundings retain their medieval look. The city authorities are making use of this necessary modernization of the Scheldt to renew the waterfront zone. History will still be visible and in the atmosphere in this pleasant inner city. People crossing the new bridge will have the same beautiful view of the Scheldt as they did from the old one. With the shooting holes and artisan-made stones you can easily imagine yourself in the role of a medieval city guard.

MILITARY BUILDING FROM THE 13TH CENTURY

This is a legal requirement, because the Pont des Troues is a protected monument. The original 'Waterpoortbrug' dates from the 13th century. At the time, the bridge functioned as a military structure. Soldiers guarded the city entrances and publicans (tax gatherers of the time) also used them to levy tolls. In 1940 retreating Englishmen blew the arches up during WWII. The majority of the original medieval stones were already lost during the reconstruction in 1946.

TO DO IN DOORNIK

1. Scheldt bank widening along 250 metres
2. Building a bridge with a higher and wider middle arch
3. Reconstruction of 2.7 km of quay wall



Visualization Pont des Troues in Doornik - © Bureau Greish



French Prime Minister Edouard Philippe - © Hugo Clarence Janody for the magazine Libération

FRENCH PRESIDENT AND PRIME MINISTER CONFIRM SUPPORT FOR THE SEINE-NORTHERN EUROPE CANAL

During a didactic visit to the future departure point of the Seine-Northern Europe canal in November 2019, French Prime Minister Edouard Philippe confirmed that France will start building the new canal. That same month President Emmanuel Macron gave the green light for financing this monumental building project. It involves a waterway between Cambrai and Compiègne to connect the network in Northern France with the Oise. Modern inland vessels may be able to sail between the Seine and Scheldt basins by as early as 2028.

Prime Minister Philippe confirms that the French state will honour its commitments and release 1.1 billion euro for the construction of the canal. In addition, an additional loan is taken out of 0.8 billion euro. The regions and departments involved are also putting 1.1 billion euro in the kitty. The EU is raising that to a total of five billion euro. With that money, our French colleagues will construct the 107-kilometre canal and build six brand new locks and four logistics platforms.

A GREEN TRANSPORT SOLUTION

"I am hopeful that the Seine-Northern Europe canal will bring wealth and economic strength to French ports, the logistics sector and farmers. They will be able to use a greener transport solution", explains the prime minister, who listened attentively to the explanation of the Hauts-de-France region's president Xavier Bertrand during the trip. Currently, only 700-ton ships can navigate here. The new canal allows vessels of 4,500 tons in its navigation channel, each one replacing 220 road trucks. "They halve the transport costs and make this transport mode competitive", Bertrand explained to the delegation.

Bertrand has been a champion of the Seine-Scheldt Project for many years. Edouard Philippe was sceptical for a long time. When he was still mayor of the port city of Le Havre, he felt that the project benefited the competing port of Dunkirk too strongly. "I think that our prime minister is showing class by now releasing that restraint from the past. Finally, the state has crossed the bridge with financing. This solid political decision

will create tens of thousands of jobs. And there is more, because it also benefits the whole country", praises Xavier Bertrand.

COMPLETED IN 2028

Representatives from the transport sector are also looking forward to using this ecological alternative within ten years. "We expect freight by water to double in five years, once the canal is open", we hear from that end. "Currently, that has increased by 30% compared to ten years ago. We mainly transport grain by water."

PRESIDENTIAL ENTHUSIASM

President Emmanuel Macron later helped his prime minister at a meeting in Nesle about the Seine-Northern Europe canal. "This is an important step toward meeting today's industrial challenges", said a determined head of state after signing the financial agreement for the construction of the canal. In total, the newly excavated key point in the link between the Seine and the Scheldt will be 107 km long. The canal will keep 500,000 truckloads of freight off the A1 motorway every year.

"This is the project of the century", Xavier Bertrand exulted. The works themselves will create 5,000 jobs and afterwards 30,000 will be added at terminals, in companies and in agriculture. The preparation will be completed in 2020, after which the first works sites will open in 2021. The new Seine-Northern Europe canal will be inaugurated in 2028 at the earliest.

AT THE HELM

INNOVATION FROM THE TOP WITH OPERATIONAL DIRECTOR KRISTA MAES



HELLO KRISTA. HOW FAMILIAR WERE YOU WITH DE VLAAMSE WATERWEG NV WHEN YOU TOOK CHARGE OF THE OPERATIONAL DEPARTMENTS?

KRISTA: “I worked for De Vlaamse Waterweg nv until 2014, and then Waterwegen en Zeekanaal nv as head of Coordination & Support. In that position I got a very good insight into the ins and outs of this organization’s work and its projects, including Seine Scheldt Flanders. The intensive collaboration with the various departments and with colleagues from what was then nv De Scheepvaart was also a bonus. When I became operational director at De Vlaamse Waterweg nv – the merger of the two entities – in February 2018, I found myself in an environment I was familiar with.”

WHAT INNOVATIONS HAVE YOU SEEN SINCE THEN?

KRISTA: “In terms of infrastructure, I am thinking in particular of the Albert Canal where, in the context of water management, we have pump installations with ingenious [Archimedean screws](#) installed. And they offer the bonus of providing electricity for families. The new weir in Harelbeke, built under the framework of Seine Scheldt Flanders, is based on the same technology: in the event of water shortage, water is pumped back and electricity is generated when there is sufficient water. In this case, the energy is sufficient to provide electrical power for operation of the lock and weir. An energy-neutral lock like this should count in terms of innovation, in my opinion.”

**“WITH SEINE SCHELDT FLANDERS
WE WANT TO WORK ON DIGITAL
APPLICATIONS TO OFFER INTEGRATED,
EFFICIENT SERVICES FOR HIGH-QUALITY
TRANSPORT MANAGEMENT.”**

WHAT ARE ARCHIMEDEAN SCREWS?

Archimedean screws run purely on hydropower using the principle of an ancient screw mechanism. They use naturally occurring height difference on the waterway to move water and generate electricity.

DO YOU THINK SUCH COMBINATIONS OF INNOVATION AND SUSTAINABILITY ARE STILL POSSIBLE?

KRISTA: “Most definitely. Under the framework of the Sigma plan, sludge from maintenance dredging works was recovered

for the construction of a dike in the flood catchment area in Vlassenbroek. The supply was delivered by ship, so that the area around Vlassenbroek was saved from disturbance by thousands of truck trips. In the meantime, this technique is being used in other places too.

HOW DOES NATURE FIT INTO THIS INNOVATIVE POLICY?

KRISTA: “We always take account of the fauna and flora in and along the water. With Seine Scheldt Flanders we are paying a lot of attention to this, and river restoration on the Leie is a fully-fledged part of the project. The Archimedes screws that we use are also designed so that fish can swim in and out of the turbines in a fish-friendly way. In terms of the environment, we have joined forces with a number of entrepreneurs who will install plastic-collection traps on the Scheldt to remove small particles from the water. After all, the vast majority of plastic particles in the Scheldt do not drift on the surface, but float in the water at a greater depth.”



electronic navigation maps, shipping notifications and systems for electronic information exchange between vessels and the authority, and the authorities themselves. VisuRIS is actually the project of which I am currently most proud. Certainly, in view of the fact that this system will now be used in all inland shipping countries in Europe. That is definitely something we Flemings can be very proud of!”

HOW DOES SMART SHIPPING IMPROVE INLAND SHIPPING?

KRISTA: “Smart vessels in combination with smart communication and smart waterway infrastructure will make the inland shipping sector more competitive and attractive in the coming years and offer a solution for challenges regarding mobility and road transport. In addition, unmanned and automated sailing makes inland shipping more attractive for the labour market. Smart vessels will also be better for the environment, safety, people and society in general.”

YOU ARE ALSO INNOVATING DIGITALLY. WHAT SHOULD WE PICTURE WHEN WE THINK OF THIS?

KRISTA: “De Vlaamse Waterweg nv wants to play a leading role in digital innovation. Unmanned sailing is an essential innovation here and as a Flemish waterway manager, we play a prominent and leading role in this. To achieve this, we have opened up the entire scope of our working area as a pilot project. Of course, we have not done it just like that but with proper agreements. To be specific, a pilot project has recently been launched on the Plassendale-Nieuwpoort canal in West Flanders, which involves test voyages with ‘unmanned’ Watertruck+ vessels. In addition, we have set up an ambitious project on automation and remote control, with the aim of controlling all movable engineering works from three large control stations spread across Flanders.”

HOW DO YOU SEE DIGITIZATION CONTRIBUTING TO A SMOOTH LINK BETWEEN THE SEINE AND THE SCHELDT?

KRISTA: “With the Seine-Scheldt project, we want to work on digital applications to offer integrated, efficient services for high-quality transport management between regions.” The application of RIS data, and especially our industry-leading development of VisuRIS, plays a major role in making traffic and freight movement data easily accessible. We are also charting the evolution of vessel movements for the Leie axis, in order to ensure optimum traffic management in the future. Finally, we are rolling out remote control for the Leie-axis, with which we can control all bridges, locks, weirs, etc. from one location. To achieve this, we are working on a ‘digital twin’, i.e. a digital copy of our infrastructure. We are certainly not resting on our laurels!”

WHICH INNOVATION ARE YOU MOST ENTHUSIASTIC ABOUT?

KRISTA: “Unmanned sailing is of course a ‘hot’ concept now, but it is only made possible thanks to the underlying information system RIS (River Information Services, ed.), and VisuRIS with which we visualize this RIS information. To be specific, VisuRIS gives inland navigation entrepreneurs and logistics players access to RIS and inland navigation information services that optimize the traffic and transport process based on factors such as

SMART SHIPPING IN THREE PILLARS

Smart Shipping ensures that inland shipping benefits maximally from automation and digitization through the following:

1. Smart vessels – automated systems on board, e.g. for navigation.
2. Smart infrastructure – automated and remotely controlled.
3. Smart communication – a digital communication process between the government and waterway users.

HOW WILL ALL THESE NEW TECHNOLOGIES CHANGE THE JOBS OF INLAND NAVIGATION SUPERVISORS?

KRISTA: “In the first place, inland navigation supervisors (bridge and lock operators, ed.) are given more digital information to help them perform their work. Their job will evolve in the future to that of a shipping operator. They will operate the locks or bridges from completely different locations, using computer terminals and cameras. Skippers also receive more digital information for optimizing their routes. In this way, companies can also use their logistics resources and people better. Investing in technology is therefore not only a major plus for shipping employees but for all logistics players too.”

AND FINALLY, DO YOU HAVE A SPECIAL BOND WITH A PARTICULAR PIECE OF ENGINEERING WORK ON THE WATERWAYS?

KRISTA: “As a person born and raised in Wetteren, a city divided by the Scheldt, I have a special bond with the bicycle and pedestrian bridge there. If you are looking from the centre, I lived on the other side of the water during my childhood. So I had to cycle over that bridge to school every day, but you should be aware that it was somewhat outdated some 30 to 35 years ago. So it was a very special and unique experience for me when I had the opportunity to inaugurate the new bicycle and pedestrian bridge. A nostalgic moment and a new start for Wetteren!”

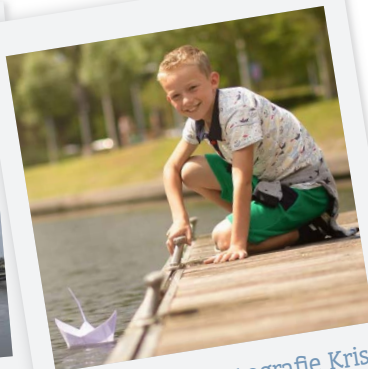
WATER SNAPSHOTS



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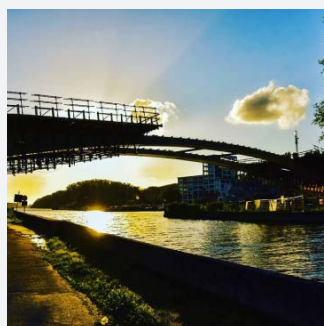
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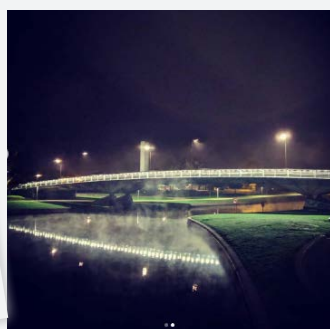
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Do you also have a **'smashing' snapshot** taken on or along a waterway? **Share your photo** on **Instagram, Facebook or Twitter** with **#seinescheldt**. And who knows? Maybe you will discover your masterpiece in the next edition of this magazine!



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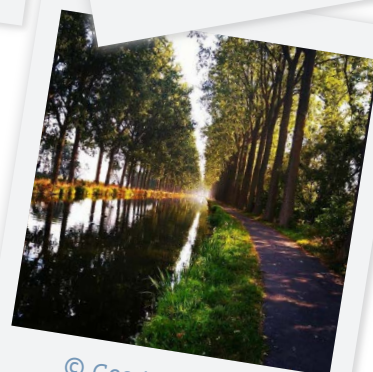
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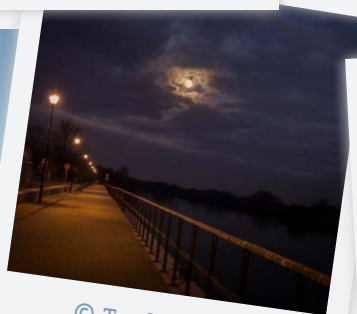
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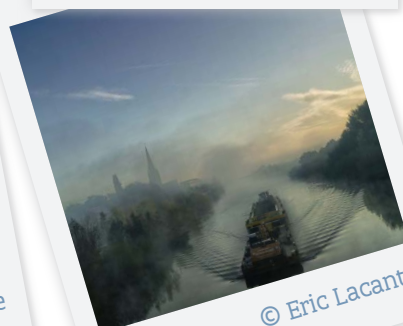
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ALL ABOARD

SEINE SCHELDT FLANDERS
EVERY LOAD CAN FIND ITS WAY ON THE WATER



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