



SPECIAL EDITION
On the occasion of the production of our 1000th bridge

#1000bridges #gamechangers #creatinghistory



In 1995 Jan Peeters developed the first publicly accessible composite bridge in Europe in Harlingen (NL). He further develops his product into the revolutionary composite construction method: the InfraCore® technology. In 2008 he founded FiberCore Europe with Simon de Jong.

Where there was no demand in 2008, FiberCore created it. We recently sold our 1000th bridge.

#1000bridges #creatinghistory #proudmoment
FiberCore Europe. Building the future.



#1000bridges



JAN KROON
GENERAL
MANAGER
FIBERCORE
EUROPE

The world around us is changing rapidly. Many new products and techniques find their way into society. They bring things within reach that were previously unimaginable – electric driving, smartphones, medical technology – and thus affect our daily lives. We easily refer to these as 'innovations'. But the real innovations are not about improvements or modifications to a product. Real innovations only exist if they are groundbreaking and thus bring previously unattainable perspectives within reach.

Traditionally, a lot of steel, concrete and timber is being used in bridge construction. FiberCore Europe introduced fiber-reinforced plastic – composite or FRP – as a structural building material. The unique InfraCore® technology inside our bridges and bridge decks revolutionized bridge designing and building. Lightweight, robust and maintenance-free are just some of the special material properties. The complete prefabrication of bridges makes the construction efficient. Composite has added a completely new dimension to the design of bridges.

In the Western world, we are faced with an enormous construction task, in which bridges are essential for our accessibility. This is not limited to new constructions; the maintenance task for existing bridges is, if possible, even greater. Composite bridges offer a solution to that task. In case of new construction, where criteria such as sustainability, design, lifespan and circularity are paramount. Or for renovation, where replacement, or a hybrid construction with composite offers a solution that previously seemed impossible. Here asset management and nuisance limitation are the main priorities.

The first composite bridge was built in 1997. Since then, we produced more than 1000 bridges and lock gates. Convince yourself of the possibilities. I hope you enjoy this brochure.

#wearefibercore

We are FiberCore Europe. Over the past 10 years, we have put composite on the map as a construction material in infrastructure. With the construction of more than 1000 bridges worldwide, many hundreds of which in the Netherlands, the prefab composite bridge can no longer be ignored in today's scenery. Using its InfraCore® technology, FiberCore Europe builds bridges and lock gates with an eye to the future: lightweight, robust, solid and durable. With our own factory in Rotterdam (NL) and our team of skilled engineers and constructors, we build bridges that require little maintenance and last more than 100 years. And that doesn't have to be at one location; the bridges are easy to remove and replace.

With the innovative SUREbridge-method, FiberCore Europe now also offers a sustainable solution for strengthening and upgrading existing (concrete) bridge structures. And FiberCore continues to develop; from the worlds largest composite lock gates to longest bridge span in composite... we will not shy away from any challenge. Our mission? Worldwide composite # 1.

FiberCore Europe. Building the future.

- #webuiltbridges | 009
- #bicyclebridges | 010
- #trafficbridges&bridge decks | 012
- #lockgates | 014
- #golfbridges | 016
- #harbourbridges | 017
- #benefitsoffrp | 018
- #sustainable solution | 020
- #thefrprevolution | 023
- #inspiredbynature | 024
- #yourpartnerinbridgebuilding | 026
- #wedomore | 027
- #renovationandupgrading | 028
- #surebridge | 029
- #gamechangers | 030
- #creatinghistory | 032
- #factsfigures | 035
- #fromAtoZ | 036
- #qualityandsafety | 038
- #thinkbigger | 041
- #meetouragents | 042
- #infracorecompany | 044
- #contact | 047



#webuildbridges



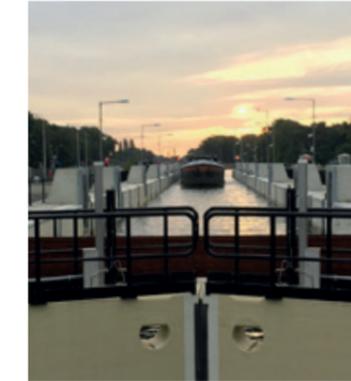
CUSTOM PREFAB COMPOSITE BRIDGES

For extremely heavy traffic, but also for cyclists and pedestrians. Fixed and movable. Repositionable and reusable. Straight and in creative forms. All extremely strong, durable and maintenance free. Thanks to the unique InfraCore® technology, our bridges will last more than 100 years.



STANDARDIZED PREFAB COMPOSITE BRIDGES

Due to their standard dimensions and standard engineering, FiberCore's standardized bridges can be produced quickly and economically. With the same advantageous properties as our custom composite bridges: strong, safe, durable and maintenance-free.



PREFAB COMPOSITE LOCK GATES

Composite lock gates do not rot or rust, making them a low-maintenance alternative. Due to their low weight, they are easy to transport, place and assemble.

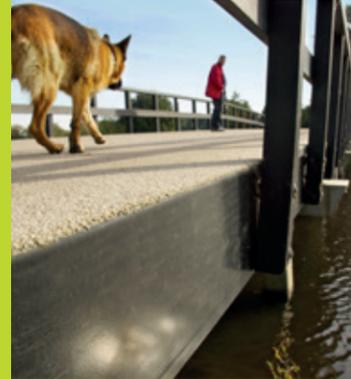


SPECIAL PROJECTS

The SUREbridge-method offers the solution for strengthening, widening and upgrading outdated concrete bridges and viaducts with composite panels with InfraCore® Inside.

Temporary composite bridges to be used in renovation projects (project HUGO) contribute to the reduction of nuisance caused by traffic jams during road works. Traffic is diverted over the work by means of quickly movable and relocated, modular and mobile bridge structures.

#bicyclebridges



CUSTOM BICYCLE BRIDGES

A prefab composite FiberCore bicycle bridge has a lifespan of more than a hundred years and is maintenance-free and vandal-proof.

Composite offers many possibilities and freedom in the design of bridges. The possibilities are endless due to the design-freedom of the material.

Achieve any desired appearance - from modern to classic - with countless options in finishing, (custom) railings, coatings and wear layers.

- Own engineering
- No size limitations
- Freedom of form
- Design freedom
- Wider choice of wear layers and colors
- Custom railings

STANDARDIZED BICYCLE BRIDGES

In addition to custom solutions, FiberCore also offers standardized bicycle bridges. By means of standardized engineering, precisely calculated by our constructors, and optimal planning in our factory, these *new standard* bridges are competitively priced and quickly available.

With the choices in color scheme, finishing of the deck and the execution of the railing, almost any appearance can be achieved. From ultra sleek and modern, to classic and rural.

- Standardized engineering
- Fast delivery
- Competitive pricing
- Spans of up to 16 meters
- Width up to 4.5 meters

THAT IS WHY: A FIBERCORE EUROPE BICYCLE BRIDGE

- Extremely strong with InfraCore® Inside
- Sustainable and low maintenance
- Resistant to weather influences
- Lifespan of > 100 years
- Delivered prefab on site
- Light weight
- Quick and easy to install
- Repositionable
- Only need a light foundation
- Designed according to Eurocode / CUR96
- Circular

#trafficbridges&bridgedecks



TRAFFIC BRIDGES

FiberCore traffic bridges are a sustainable solution. They are lightweight and therefore easy to install; quickly and with minimal disruption. Due to their low-maintenance nature, they are worry-free. Only the wearing surface – depending on the circumstances – needs to be replaced or updated after a while.

Our prefab composite bridges are dimensionally stable and extremely strong. They are designed according to Eurocodes and CUR 96 and are suitable for the heaviest traffic.

BRIDGE DECKS

Because they are lightweight, FiberCore bridge decks are less demanding for the underlying construction. This makes them suitable not only for new construction, but also – especially – for renovation of existing (outdated) bridges. The deck is resistant to all external influences – such as deicing salts – and immediately protects the underlying (steel) construction.

FiberCore offers solutions for both fixed and movable bridges. Thanks to the light weight of the deck, a smaller (or none) counterweight and ballast cellar is required.

PARCEL BRIDGES

FiberCore parcel bridges are characterized by a widened entrance, making it easier to drive up the bridge with a car or truck. This significantly reduces the risk of damage to railings and vehicles! One of the greatest design advantages of our bridges is the freedom of form of the material. Each bridge mold is built according to customer requirements and that offers many possibilities, such as a widened entrance.

If you need several bridges, we can stack them and deliver multiple bridges on one transport, with minimal disruption to traffic and the environment.

- With widened impact angle
- Standard sizes or customization
- Multiple bridges in one transport movement

THAT IS WHY: A FIBERCORE EUROPE TRAFFIC BRIDGE

- Extremely strong with InfraCore® Inside
- Low maintenance & sustainable
- Ready for the circular economy
- Light weight
- Short assembly time
- Load-bearing capacity in all directions
- Impose lower loads and reduce stresses in the underlying construction
- 50-year guarantee on the technical construction
- 10-year warranty on the wearing layer
- Low CO₂ footprint
- Designed according to Eurocode / CUR96

#lockgates



NO RUST NO ROT

The biggest concern in traditional lock gates is that they can rust or rot. Therefore they require a lot of maintenance, with as a result: blockages. FiberCore Europe is the inventor of composite lock gates. Extremely strong, practically maintenance-free and highly sustainable. More and more governments and construction companies are therefore opting for composite lock gates. We supplied, among other projects, the largest lock gates in the world, for a lock complex of Rijkswaterstaat in the Wilhelmina Canal in Tilburg (NL), measuring more than 13 by 6.2 meters.

SUSTAINABLE SOLUTION

Composite is the material for the future. Our lock gates have InfraCore® Inside. This ensures an extremely long service life of more than 100 years. Thanks to its light weight, the door can be opened and closed with less force. The lock gates have almost the same weight as water. This produces minimal friction for the hinges and ensures less wear. Partly because of this, they last three times longer than conventional lock gates. Composite lock gates also require hardly any maintenance and cannot rust or rot. They are stronger than timber or steel. And therefore safer.

VERY FAVORABLE LCC SCORE

Lock gates are calculated on strength instead of stiffness. This saves a lot of money. Our lock gates are therefore competitive with doors made of timber and steel. Our lock gates have proven themselves as a successful construction material with a very favorable LCC score. Of course our constructions comply with the Eurocodes.

PREFAB PRODUCTION, EASY ASSEMBLY

We produce the lock gates in our factory in Rotterdam (NL). We then transport the prefab doors directly to the location where we install them. Thanks to the low weight, this is done quickly and easily, with as little disruption for water traffic as possible. As a result of their long lifespan, the lock gates can also easily be relocated.

THAT IS WHY: FIBERCORE EUROPE LOCK GATES

- Extremely strong with InfraCore® Inside
- Prefabricated and ultra-light
- Low in maintenance
- Stronger than steel, timber and concrete
- Light pivots
- Very favorable MEAT score
- Safe and fire resistant
- Competitive price
- 50 year guarantee
- Low CO₂ footprint
- Circular

#golfbridges



FiberCore has supplied golf bridges to golf courses around the world. Our lightweight bridges are ideal for installation on any golf course, in any climate. Due to the low weight, the expensive golf course is hardly affected during the installation of the bridge. Due to the low weight, only a minimal foundation is required.

Do you have specific ideas about the shape and color of the bridge? We supply the FiberCore golf bridge according to customer specifications. In any length and width, with any desired handrail. Also with the logo of your golf course or of a sponsor. If required, we can supply the bridge with a barrier. The deck finish is permanently non-slip.

THAT IS WHY: A FIBERCORE EUROPE GOLF BRIDGE

- Extremely strong with InfraCore® Inside
- Practically maintenance-free
- Delivery according to specification
- Any shape and color
- Very long lifespan
- Non-slip forever
- Low total costs of ownership
- Low CO₂ footprint
- Circular



#harborbridges



Do you want a harbor bridge that requires virtually no maintenance? Then choose FiberCore's slim composite truss bridges.

A FiberCore harbor bridge is practically maintenance-free. The bridge construction is resistant to corrosion, salt, UV, bird droppings, diesel oil and chemicals. Extreme temperatures have no influence on the construction. Stray currents due to static electricity are a thing of the past with the use of composite.

The bridges are also vandal-proof. Graffiti is easy to remove, just like burn marks.

THAT IS WHY: A FIBERCORE EUROPE HARBOR BRIDGE

- Extremely strong
- Low maintenance: never conserve again
- Very long lifespan of more than 100 years
- Up to 36 meters in one piece
- Customer-specific in any length
- Also suitable as a pipe bridge or escape bridge
- Burning properties according to customer request
- Low CO₂ footprint
- Circular



The benefits of composite

Composite is the material of the future. It is used as a construction material for the construction of airplanes, Formula 1 cars and wind-mills. More and more bridges are also made of composite. The material is highly sustainable and practically maintenance-free. And thanks to the invention of the InfraCore® technology, FiberCore bridges, lock gates and bridge decks are also extremely strong.

What is composite?

Composite is fiber-reinforced polymer (FRP). It consists of a combination of glass and/or carbon fibers and thermosetting resin. Composite has quite a few advantages as a construction material:



#benefitsoffrp



SUSTAINABLE & CIRCULAR

We only have one Earth. And we have to treat it carefully. With our constructions, we therefore want to contribute to making the infrastructure market more sustainable. FiberCore Europe's composite constructions last a very long time: more than 100 years. Thanks to the smart prefab construction and light weight, the bridge is easy to reposition and can be given a second life.



STRONG

Our bridge and lock constructions are extremely strong. Composite is stronger than steel. The InfraCore® technology prevents delamination and cracking.



ROBUST & SAFE

Our constructions are very robust and safe. This thanks to our InfraCore® technology. Research shows that composite structures with InfraCore® Inside are stronger than structures made of concrete, timber or steel. Without risk of fatigue or corrosion. All our constructions comply with CUR 96 and Eurocodes.



LIGHTWEIGHT

Composite is lightweight. We produce the construction prefab in our own factory in Rotterdam (NL) and then transport it to the construction site. Here we place the construction in a very short time. If the work is well prepared, we can install a bridge within an hour, with minimal disruption to the surrounding area. Thanks to the light weight, a light foundation is sufficient.



MAINTENANCE FREE

Composite is insensitive to mold and moisture. And therefore cannot rot or rust. UV rays and temperature changes also have no effect on composite. The material is resistant to all forms of vandalism. Such as graffiti and fire. Repair costs are very low.



LONG LIFESPAN

Our bridges, lock gates and bridge decks are designed for a very long service life of more than 100 years. By using the InfraCore® technology, our products retain their strength and robustness.

#sustainable solution



WE ONLY HAVE ONE EARTH. AND WE HAVE TO TAKE CARE OF IT. WITH OUR CONSTRUCTIONS WE THEREFORE WANT TO CONTRIBUTE TO THE SUSTAINABILITY GOALS OF THE UN.

ECONOMICAL WITH RESOURCES, LOW CO₂ EMISSIONS

Our products are very light (and yet extremely strong). This is due to the use of composite. We therefore use very few raw materials, and our products therefore also have low CO₂ emissions. Our prefabricated bridges even contribute to the highest achievable project-related ambition level on the CO₂ Performance Ladder.

LESS TRANSPORT MOVEMENTS

We build each product in our own factory in Rotterdam (NL). From there we transport the prefabricated bridge directly to the construction site. This saves transport movements compared to conventional construction methods. And because our constructions are so lightweight, this also saves CO₂ emissions during transport. Placing the bridge can be done quickly and easily, with only a light crane, with minimal traffic disruption and noise pollution.

VERY LONG LIFESPAN

Our bridges, lock gates and bridge decks are designed for a very long service life of more than 100 years. This is partly due to our patented InfraCore® technology. Our products therefore retain their strength and sturdiness. Extensive studies by TU Delft (NL) and WMC (NL) into our class 60 traffic deck provides proof. We give a 50-year warranty on our bridges, lock gates and bridge decks.

PRACTICALLY MAINTENANCE-FREE

Our solutions are practically maintenance-free (apart from cleaning once in a while) and timely maintenance of the wear layer. The construction is resistant to corrosion, salt, UV, bird droppings, diesel oil and chemicals. Extreme temperatures also have no influence on the construction. Graffiti is easy to remove, just like burn marks. Life-extending measures are not necessary.

THE ENTIRE PRODUCT CAN BE RELOCATED

Thanks to the smart prefabricated construction and the light weight, a FiberCore bridge is easy to relocate. Again with minimal traffic and noise pollution. A circular solution.

PREVENT DEMOLITION WITH SUREBRIDGE

Our groundbreaking SUREbridge-method prevents the demolition and rebuilding of concrete bridges. We can technically upgrade the bridge while retaining the construction. We do this in a short time, with minimal traffic disruption and noise pollution.

WE KEEP DEVELOPING

And then this: we are constantly looking for solutions that contribute to even more sustainability. Like, for example, environmentally friendly resins. In short, we are constantly on the move, also when it comes to sustainability.



#decomposietrevolutie



DR. IR. MARKO PAVLOVIC
DEPARTMENT OF ENGINEERING
STRUCTURES
FACULTY OF CIVIL ENGINEERING
AND GEO SCIENCES
TU DELFT (NL)

“ Proven to be lightweight, fatigue and environmentally resistant FRP decks are perfect candidate for reusable modular deck components and for renovation projects of steel bridges. The next big step is application of FRP decks in heavy duty highway bridges where interaction with steel substructure is inevitable. FiberCore Europe and TU Delft group of Steel and Composite Structures are collaborating on research on feasible connection for FRP decks in steel bridges. The goal is to develop knowledge on existing and new types of hybrid connections that will be able to match excellent fatigue and durability performance of the FRP decks and unlock their huge potential in highway bridges. ”



LIESBETH TROMP
CONSULTANT FIBER REINFORCED
POLYMERS,
INFRASTRUCTURE
ROYAL HASKONING (NL)

“ With more than 1000 composite bridges, we can really speak of clear acceptance and growth, in the Netherlands and Europe! Large, light, prefabricated composite decks simplify the construction process and allow for longer life extensions of perhaps decades. By using our existing infrastructure for longer, we save enormous costs for society and on negative impact on the environment! Our materials are getting better and more sustainable. I am convinced that by bundling our creativity and expertise, we can develop many more innovative solutions with composite for dry and wet infrastructure. And through further industrialization and automation of composite engineering and production processes, we are strengthening the leading position of the Netherlands in future-proof infrastructure!! ”



JAN HIDDINGH
SPECIALIST MECHANICAL
ENGINEERING,
PROVINCE OF GRONINGEN (NL)

“ In 2012, the Province of Groningen, in collaboration with the Province of Drenthe, designed and commissioned the so-called *Spaarsluis*. In the context of innovation, it has been decided to use composite lock gates. The doors have been developed and designed in close collaboration with FiberCore. After a series of projects, we are now working with FiberCore on a composite bridge deck to replace a timber bridge deck for the Ulsder bridge in Klein Ulsda (NL). A new connection technology is also being applied and subjected to a long-term test in close collaboration with TU Delft. In particular, the collaboration and the innovative approach are a plus. The combination of knowledge and cooperation in the field of (movable) bridges and locks from the Province of Groningen and composite from FiberCore means that great projects have been realized. ”

#inspiredbynature

Virtually every bridge, lock gate and bridge deck that we construct and install has InfraCore® Inside; a patented technology that makes it possible to industrially produce composite panels that can bear extremely heavy loads. With the invention of the InfraCore® technology, FiberCore Europe paved the way in 2008 for fiber-reinforced polymer constructions in construction & infrastructure.

No delamination or cracking

The InfraCore® technology prevents delamination and cracking, a known problem with composite supporting structures. The solution was found in a continuous structural connection of glass fibers (or carbon fibers) between the top and bottom of the structure. The fiber-glass mats run from the top skin through web plates to

the bottom skin. And by placing the fibers in all directions, resin-dominated fracture surfaces are avoided. The construction does not contain any internal glues or bolt connections. The strength comes entirely from the fibers in combination with resin.

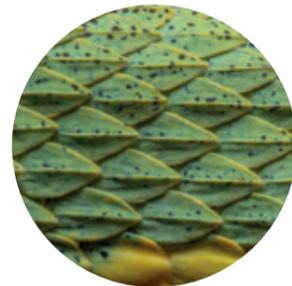
Tested for load, damage and fatigue

The InfraCore® technology has been tested for a combination of load, impact damage and fatigue. This shows that no delamination can occur as a result of fatigue in a damaged plate. Think of impact load, an accident or a fault in the construction. All constructions with InfraCore® Inside comply with CUR 96 and Eurocodes.

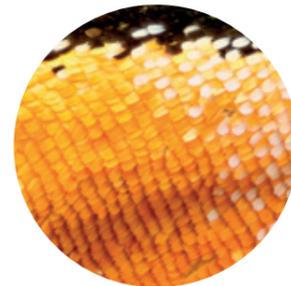
Certified manufacturer

FiberCore Europe is licensee and therefore Certified manufacturer of InfraCore® Inside and uses it to construct prefab composite bridges and lock gates for the world market outside the United States. There 'our' bridges are built by our licensed partner Orenco Composites.

WE FIND LAYERED STRUCTURES EVERYWHERE IN NATURE. IN ANIMAL SKINS, PLANTS, TREES AND ROCKS... IT PROVIDES STRENGTH, ARMOR, SECURITY. AND INSPIRED THE DEVELOPMENT OF THE INFRACORE® TECHNOLOGY.



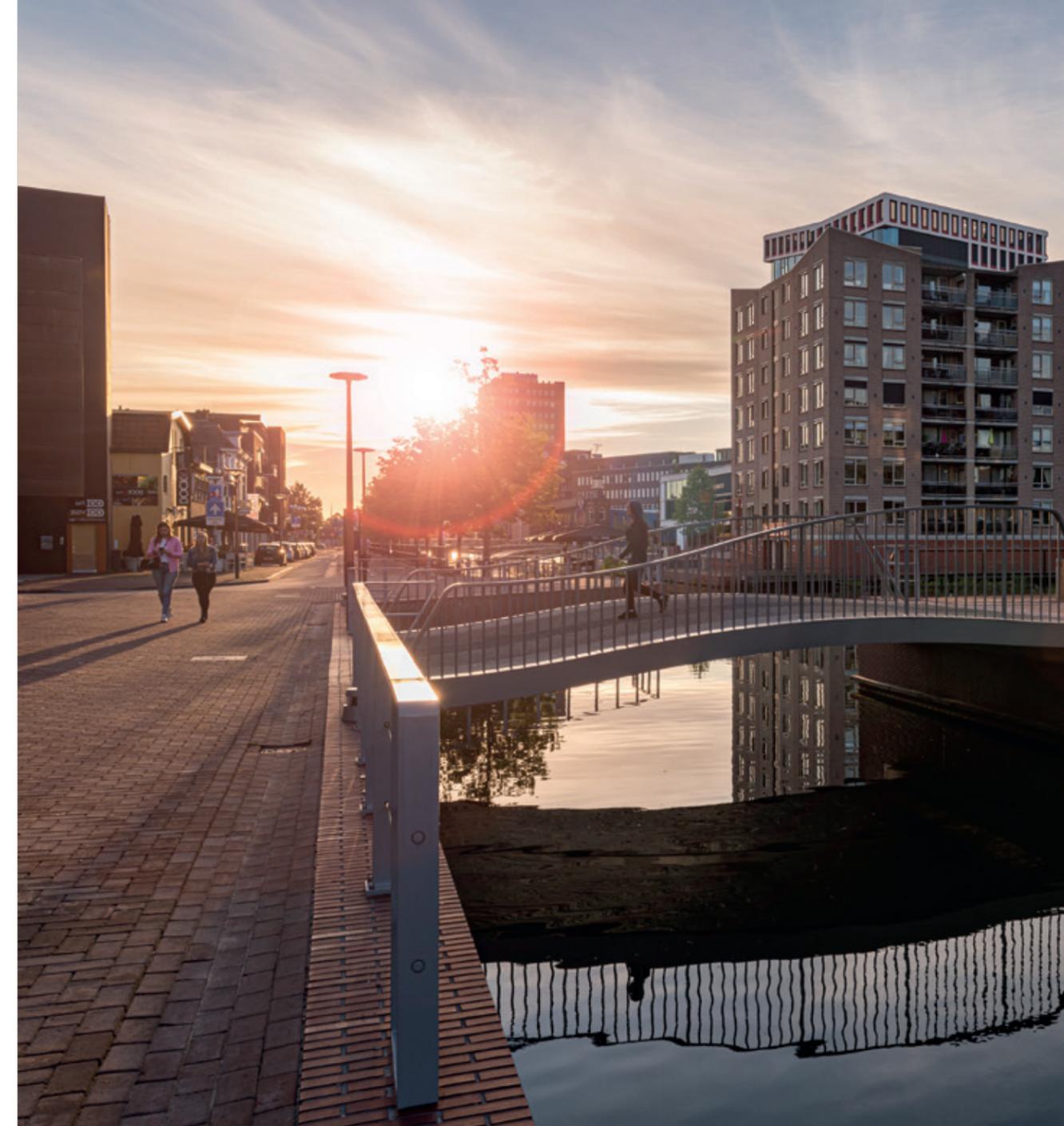
Snake (green viper)



Butterfly



Bird



INNOVATION IS KEY: INFRACORE COMPANY

The development of the InfraCore® technology started at FiberCore Europe. The technology is now being further developed for other markets by our sister company InfraCore Company.

InfraCore Company is a high-tech engineering firm specialized in finding, developing and creating new cross-sectoral product-market combinations for its globally patented InfraCore® technology. This technology offers the solutions for the cost-effective production of composite structures that are scalable, lightweight, sustainable, maintenance-free, damage-tolerant and heavy-duty.

The InfraCore® technology is already widely used in the infrastructure sector, like in the production of many hundreds of lightweight prefabricated composite bridges and lock gates by sister company and certified manufacturer FiberCore Europe. Based on this convincing track record in infrastructure, InfraCore Company is concentrating on new applications with the InfraCore® technology in offshore, utility construction, shipbuilding and aerospace. To this end, InfraCore Company operates in partnerships with reliable, certified, independent institutions and essential expertise holders in complementary areas of expertise.

InfraCore Company's primary strategy is therefore: "Do what we are best at & cooperate with similar kinds".

#yourpartnerinbridgebuilding

Your partner from A to Z

Whether it concerns the production of a single bridge deck, or the realization of a complete project: FiberCore Europe is your partner from A to Z.

Own factory

We develop and build every bridge and lock gate in our own factory in Rotterdam (NL). We do this according to customer specifications. We build the construction completely prefabricated, after which we transport it to the construction site. By land or – thanks to our location on the Nieuwe Maas – by water.

Own engineering office

We have our own in-house engineering office with constructors, engineers and planners. And with that we do not shy away from a challenge. From the development of our *new standard* bridges concept, to complex constructions and innovative solutions such as the groundbreaking SUREbridge-

method. You can count on well thought-out, reliable and safe constructions that last a very long time. You benefit from our 20 years of experience in the development and production of composite bridges, lock gates and bridge decks.

Service from A to Z

Whether it concerns the production of a single bridge deck, or the realization of a complete project: FiberCore Europe is your partner from A to Z. From sketch design to final drawings. From permit application to foundation work, transport and assembly. No bridge is too far for us.

#wedomore



FROM PERMIT TO INSTALLATION

If desired, we can take over the entire process from design to installation of the bridge. We will apply for the permits for you and prepare the building site (with one of our partners) for installation. We transport the prefab bridge to the location in one movement, where it can be installed quickly and easily and is ready for use immediately.

TEMPORARY (RENTAL) BRIDGES

Our prefab bridges are fully and easily relocated, which makes them extremely suitable as a temporary (rental) bridge. For example, as temporary relief for an existing bridge, as an alternative route during work or for events such as an outdoor exhibition.

After the period of use, these bridges can be reused by the owner, or we give them a new life by offering them on the *Bruggenbank*. In this way these bridges get a second (or third, or fourth) life. In this way we contribute optimally to a circular economy.

KNOWLEDGE EXCHANGE

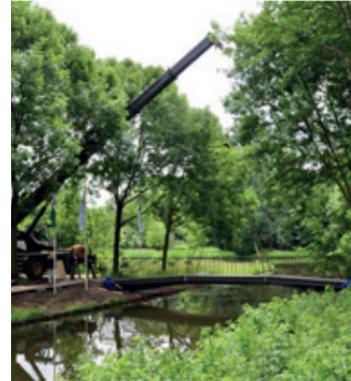
FiberCore Europe is actively committed to increasing the exchange of knowledge regarding the possibilities and application of composite. We do this by offering internships and graduation programs for HBO and university students, but also by offering free knowledge meetings.

We also regularly receive students from primary or secondary education to introduce them to Technic; bridge construction in particular.

INDUSTRY CONTRIBUTION

When it comes to knowledge transfer in *working groups*, FiberCore Europe plays an active role. Whether it concerns contributing to the development of new guidelines, Eurocodes, or making engineering and production capacity available for test materials; we contribute to the further expansion of the application of composite in infrastructure.

#renovationandupgrading



RENOVATION OF EXISTING BRIDGES

We not only supply bridges for new construction situations, but also renovate existing bridges. We replace the old bridge deck while retaining the underlying steel construction. Thanks to its low weight, a FiberCore bridge deck is lighter than the old timber or steel deck. As a result, the underlying construction does not need to be adjusted. Water can not get through the composite bridge deck, which means less maintenance on the steel construction.

HYBRID CONSTRUCTIONS

Composite can be easily connected to steel and thus form a hybrid construction. This can be a driving deck as part of a truss construction, a deck on a steel construction or, for example, steel stiffening beams in a lock gate. Composite can be easily combined and can thus offer precisely the solution in special situations in which all material characteristics are optimally used.

REPLACE (TIMBER) BRIDGES

In many cases it is more sustainable and cheaper to replace the entire bridge with a FiberCore bridge. Due to the light weight, this can often be done on the existing foundation or abutments, and the intermediate supports can be omitted. The bridge is quickly and easily installed with minimal disruption to the environment and requires hardly any maintenance after installation.

UPGRADING AND BROADENING

When a concrete bridge construction no longer meets today's requirements, we can strengthen and upgrade it with the SUREbridge method. With this, the bridge deck can also be widened, without demolishing the existing construction (see box).

We also simply widen existing bridges by mounting an extra composite deck (for example for a bicycle path) to the bridge with a steel construction.

#SUREbridge

The circular solution for strengthening outdated bridge structures

More and more bridges and viaducts no longer meet the wishes and requirements of our time. Stronger structures are required due to more and heavier traffic. The obsolete constructions require expensive maintenance and must be demolished or rebuilt. Not a sustainable solution. In collaboration with a number of European parties, FiberCore Europe developed SUREbridge, the circular solution in which a composite deck is placed on an existing concrete bridge. This makes the bridge stronger.

A shorter construction time means less nuisance for road users and local residents. The bridge will have a longer lifespan, requiring hardly any maintenance. Existing bottlenecks can be resolved through upgrading and broadening. The bridge will again meet current standards for heavier traffic.

THAT IS WHY: RENOVATE WITH SUREBRIDGE

- Renovation without demolition of existing construction
- Upgrading to contemporary standards
- Shorter construction time, so less inconvenience to the environment
- More strength and stiffness, so more load-bearing capacity
- Light in weight: savings on foundations
- Widening of the road surface possible
- Lifespan of up to 100 years
- Practically maintenance-free
- Lower construction costs
- No fatigue or corrosion
- Low CO₂ footprint
- Circular

#gamechangers



**JAN PEETERS &
SIMON DE JONG**
FOUNDERS
& BOARD
INFRACORE
HOLDING

Today we have reached an important milestone: InfraCore® bridge number 1000. This brochure illustrates this great achievement with this groundbreaking technology.

We founded our company InfraCore® in 2008 because we could offer an adequate solution to the biggest technical problem with heavily loaded composite structures: delamination. When we started our company, we formulated a 'dot on the horizon' for ourselves. InfraCore® Inside was to become the most important technology for heavy-duty composite structures worldwide. Around the world, companies and factories would sell and manufacture our InfraCore® technology for a variety of products in different markets.

Nobody believed us in 2008. Far too ambitious, we were told time and again... We have now acquired a strong market position with InfraCore® Inside and have proven our technology in various

countries. Bridge number 1000 is convincing proof of this. We now sell our InfraCore® products in Poland, Norway, Sweden, England, Belgium, Germany and Latvia. And we have started production of InfraCore® Inside in the US, Canada and Australia. Moreover, our technology is now used in structural shipbuilding and offshore.

But we are not there yet, we are still in a growth phase and there is still a lot to be done, but the future is more than promising. Of course because of the disruptive technical invention InfraCore® Inside, but mainly because we were lucky enough to find the right people around us: our loyal and knowledgeable employees, our patient investors, our active and reliable agents and licensing partners, and – last but not least – our customers who gave this innovative technology a serious chance.

Many thanks!

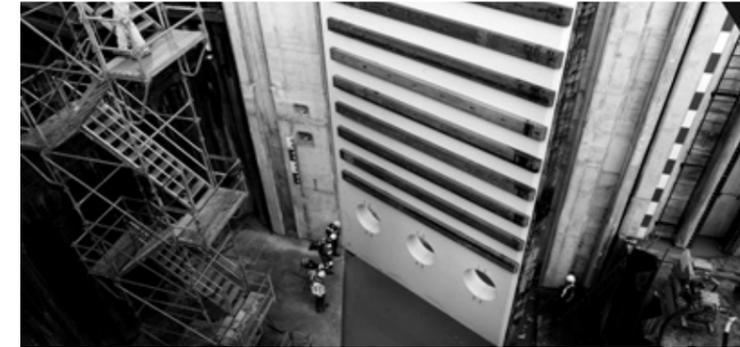


#creatinghistory

In the 1990s, hundreds of composite bridges and bridge decks were built in a short space of time in the United States. But these constructions presented serious problems within a few years. The main constructional problems: delamination, detachment and cracking. These problems are revealed by fatigue after impact.

Jan Peeters – co-founder of FiberCore Europe – did not accept this. He would find the solution. He resigned from TNO's Plastics and Rubber Institute and concentrated fully on developing a revolutionary construction method with composite. Because Jan recognized that composite is a superior material compared to concrete, timber and steel. But also that the application of this fantastic material in heavy-duty structures required extra attention.

It took nearly 10 years before Jan Peeters' innovation was ready to be applied in infrastructure. In 2008 he presented the solution: InfraCore® technology. In the same year he founded FiberCore Europe together with Simon de Jong.



1995

Jan Peeters starts Composites Team BV and starts developing the InfraCore® technology.

1997

Jan Peeters designs the first publicly accessible composite bridge in Europe for *Rijkswaterstaat*, the Dutch ministry of infrastructure (Harlingen/NL). The bridge was produced by PolyProducts.

2008

Foundation of FiberCore Europe. In 2008 FiberCore Europe moved into its first building in the Rotterdam Waalhaven.

2012

Installation of the world's largest hybrid steel/composite Eurocode road bridge over the highway A27.

2014

In 2014 FiberCore moved to its current building on the Oostdijk in Rotterdam. A factory was set up here in which approximately five bridges per week can be built.

A full-scale study at TNO shows that the InfraCore® technology shows no fatigue or other structural failure after impact for a hundred years.

2015

THE BIG BREAKTHROUGH

After that FiberCore Europe grows fast. The company took numerous patent positions, both in technology and in production method. 2015 was the year of the big breakthrough, with more than 140% growth. After years of investing, the acceptance of the InfraCore® technology in civil infrastructure is a fact.

LARGEST COMPOSITE LOCK GATES

In the same year FiberCore Europe produced the world's largest composite lock gates in the Wilhelmina Canal in Tilburg (NL). #282

2018

SUREBRIDGE

FiberCore Europe develops the SUREbridge method in collaboration with a number of leading European parties; a revolutionary construction method for upgrading and strengthening existing bridges and viaducts.

2019

OUR LONGEST COMPOSITE BRIDGE

At the beginning of 2019, FiberCore Europe will deliver its longest composite bridges in Bruges, Belgium. With a length of 42 meters (the length of an average Boeing 737) they can just be transported by road. #718

2020

TEMPORARY BRIDGES: LESS NUISANCE

This year FiberCore launched a new groundbreaking concept in collaboration with KWS and *Rijkswaterstaat*, the use of composite auxiliary bridges for road works, where traffic drives over the works, greatly reducing the nuisance.

#1000BRIDGES

Where there was no demand in 2008, FiberCore created it. This year we delivered our 1000th bridge.



#factsfigures



50+ STAFF MEMBERS
An average of 4 graduates per year



12 YEARS OF EXPERIENCE



OWN FACTORY & ENGINEERING
Rotterdam | The Netherlands



LONGEST COMPOSITE BRIDGE(S)
#718 | Belgium | Bruges | Canada bridges



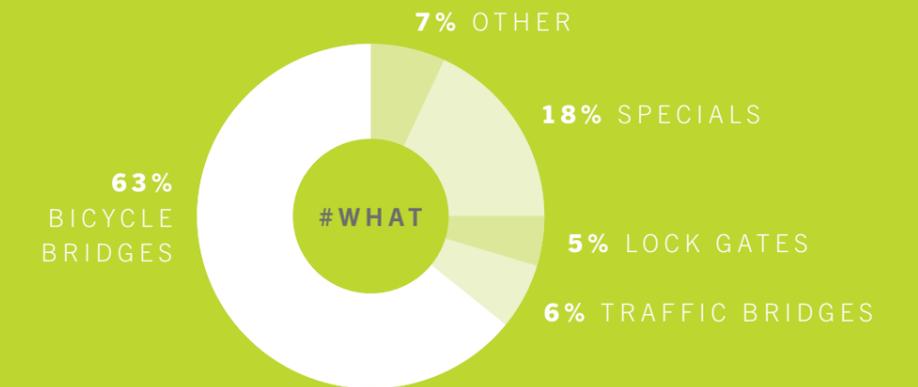
THE WORLD'S LARGEST COMPOSITE LOCK GATES
#282 | The Netherlands | Tilburg | Wilhelminakanaal



6 AGENTS
Belgium | Germany | United Kingdom | Norway | Poland

100% INNOVATIVE

FIBERCORE EUROPE IS A CERTIFIED MANUFACTURER OF INFRACORE® INSIDE



#fromAtoZ

In-house engineering

We have our own in-house engineering office with engineers, draftsmen and work planners. And with that we do not shy away from a challenge. From the development of our *new standard* bridge concept to complex structures and innovative innovations, such as the groundbreaking SUREbridge method.



Service from A to Z

Whether it concerns the production of a single bridge deck or the realization of a complete project: we are your partner in bridge construction from A to Z. From sketch design to final drawings. From permit application to foundation work, transport and assembly. No bridge is too far for us.



Bruggenbank

Give bridges a second life

Our prefab composite bridges have a particularly long service life. This is by no means always fully utilized during the period of use. For example, FiberCore offers temporary or auxiliary bridges that are only used for a limited time. We give these bridges a new life by offering them on Bruggenbank.nl. In this way these bridges get a second (or third, or fourth) life. The bridges can be delivered quickly and inexpensively and make an optimal contribution to the circular economy.

WWW.BRUGGENBANK.NL

REPOSITIONABLE

ORDER INTAKE / CUSTOMER DEMAND

- Direct (quotation) request
- (Quotation) request via a tender
- A customer question or problem

QUICK SCAN

- Feasibility assessment
- Drawings and calculations
- Consult with calculation
- View alternatives and options for optimization

SALES & CALCULATION

- Processing the request and obtaining additional information if necessary
- Consult with departments about feasibility, planning and costs

QUOTATION

- Quotation is sent to the customer, or;
- Quotation is submitted for tender

TENDER

WORK PREPARATION & PROJECT MANAGEMENT

- Preparation production
- Planning of purchasing and deliveries

PRODUCTION

- Cutting fiberglass mats in correct dimensions and quantities
- Build-up on the mold
- Vacuum injection
- Mounting of handrails

TRANSPORT

- The prefab bridges can be delivered in one transport movement
- By road or water (did you know that our bridges even float?)

INSTALLATION

- Due to its light weight, the bridge can (in many cases) be placed with a simple crane
- Only light foundation required

NEW STANDARD BRIDGE CONCEPT

The *new standard* in bicycle bridges

Do you want a bicycle bridge that can be delivered quickly, without a lengthy design process? Then choose a *new standard* bridge from FiberCore Europe. Standard engineering, standard dimensions and manufactured from the new standard material: composite. Extremely strong, very durable and practically maintenance-free.



Own factory

We develop and build every bridge and lock gate in our own factory in Rotterdam. We build the construction completely prefab, after which we transport it to the construction site. By land or – thanks to its location on the river *Nieuwe Maas* – over water.

#qualityandsafety

AT FIBERCORE EUROPE WE WORK TOGETHER: TOGETHER AS COLLEAGUES, TOGETHER WITH OUR CUSTOMERS, PARTNERS AND SUPPLIERS AND TOGETHER WITH OTHER STAKEHOLDERS.

WE WORK TOGETHER ON SAFETY, QUALITY, INNOVATION AND SOCIAL IMPORTANCE.

WE ARE FIBERCORE EUROPE.



Safety

WE manufacture and (in some cases) install our own products. The basic principle is that all work is carried out safely. In doing so, we not only meet the legal requirements, but also:

- prevent any form of personal injury and damage to human health;
- prevent adverse effects on the environment and damage to property of ourselves or others;
- ensures that business processes run in a controlled manner and are continuously improved.

**IN SHORT:
WE WORK SAFELY
OR WE DON'T WORK.**

CSR: Corporate Social Responsibility

WE deal responsibly with people and the environment. We offer opportunities for employees from outside the Netherlands. We work closely with research institutions, offer internship and graduation opportunities and organize knowledge meetings for various educational levels.

In addition, our products contribute - among other things - to their simple transport and assembly method, long lifespan and low CO₂ emissions to the livability of our environment and accessibility of the cities. In this way, our products fit perfectly within the current frameworks with regard to circularity.

Innovation

WE have put fiber-reinforced plastic (FRP or composite) on the map, with our innovative technology. Innovation is in the DNA of our company. Composite has thus become a mature construction material in the civil sector, in addition to concrete, steel and timber. Innovation is not only evident in our InfraCore® technology, but also in the solutions that we are able to present to the market time and again. Our contribution to the SUREbridge method is a striking example of this.

To this end, we work together with renowned partners in both the private and public sector, particularly educational institutions (KU Leuven, Chalmers in Gothenburg, Windesheim academy in Zwolle and TU Delft).

Quality

WE have quality on top of our priority-list. This is not only reflected in high-quality products that last a lifetime. There is continuous process improvement in the company, based on good internal quality and process control.

WE communicate transparently with stakeholders about these processes and fulfill agreements and contractual obligations in such a way that we meet their expectations.

WE have the quality and safety of our processes audited by external parties, as evidenced by our ISO 9001 and VCA** certification.

ISO 9001:2015

WE meet the requirements of ISO 9001: 2015 – an international standard aimed at controlling processes and setting up an effective management system – and can call ourselves ISO certified. The ISO 9001 standard is aimed at delivering high quality throughout the organization. The processes at FiberCore Europe are tested twice a year by means of audits. This is how we ensure that we always meet the highest standards.

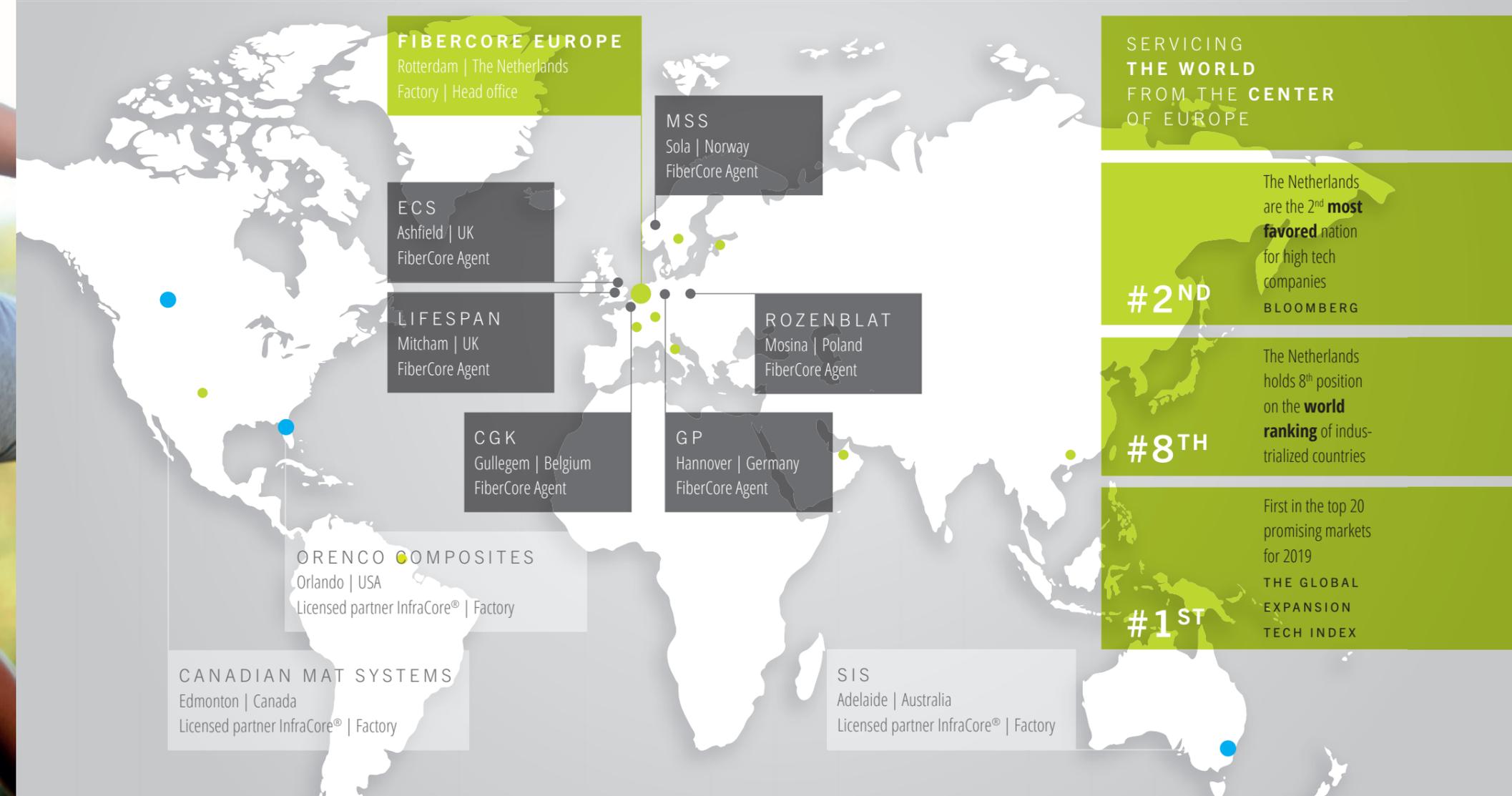
VCA**

WE believe that safe, healthy and sustainable work is important and that is why we have invested in VCA. With VCA we validate our safe working method and care for our employees. FiberCore Europe is a VCA ** certified company. VCA stands for Safety, Health and Environment Checklist Contractors. The VCA certificate forms the basis for us to work safely and healthily every day.



#thinkbigger

● Other countries where a FiberCore bridge has been supplied



#meetouragents



BELGIUM
CGK MARITIME

The Infra & Maritime Constructions department of our Belgian agent CGK specializes in solutions for infrastructure and hydraulic engineering. The focus lays on durable and safe constructions made of fiber reinforced plastic.



GERMANY
GP PAPANBURG

GP's construction projects in the field of civil engineering extend as bridge structures, trough and culvert structures, as railway viaducts, high water reservoirs, locks and dunnage installations throughout Germany.



NORWAY
MSS

MSS specializes in the design and manufacture of all types of modules in walkways and access solutions made of composites. The systems they provide are future-oriented, environmentally friendly, tailor-made and based on the best available technology.



POLAND
ROZENBLAT

Rozenblat is specialized in implementing innovative solutions in the construction sector on the Polish market. Their focus is on the use of fiberglass and other raw materials in construction and prefabrication. That is why FiberCore bridges with InfraCore® Inside were a perfect addition to Rozenblat's portfolio of products on offer.



UNITED KINGDOM
ECS

ECS Engineering Services has over 30 years of experience in providing high quality, reliable and cost-effective engineering solutions. ECS specializes in custom design and construction of water, energy and environmental treatment and management projects.



UNITED KINGDOM
LIFESPAN

Lifespan Structures designs and supplies composite bridge decks; a strong, lightweight and cost effective alternative to traditional pedestrian bridges. 'Our' bridge bridges the gap for clients between choosing low capital costs and low lifetime costs.



#infracorecompany

1000 BRIDGES WITH INFRACORE® INSIDE IS AN IMPRESSIVE ACHIEVEMENT. BUT ALL THINGS CONSIDERED, THIS IS JUST THE BEGINNING...

IN ADDITION TO ACHIEVING THIS CONVINCING TRACK RECORD, INFRACORE® COMPANY (THE SISTER COMPANY OF FIBERCORE EUROPE) IS NOW APPLYING THE INFRACORE® TECHNOLOGY IN MANY OTHER PRODUCTS AND MARKETS. OUR GLOBALLY PATENTED TECHNOLOGY HAS QUICKLY GAINED A STRONG POSITION IN THE STRUCTURAL SHIP-BUILDING, OFFSHORE AND ENERGY SECTOR.

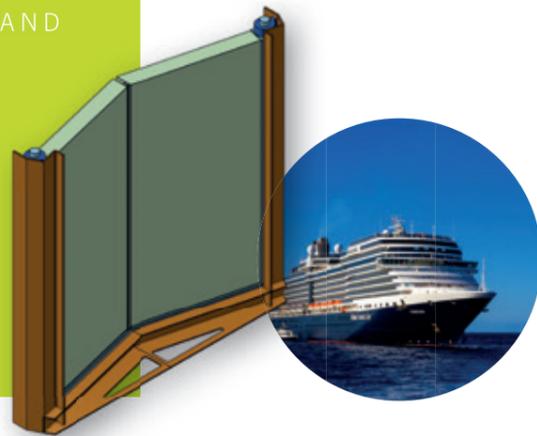
InfraCore® projects

Since 2017, InfraCore® Company has been working with strong international partners on the following projects:

- InfraCore® decks and hulls for structural shipbuilding with Damen Shipyards
- InfraCore® rudders for seagoing vessels with Becker Marine
- InfraCore® cabin walls for cruise ships with Meyer Werft
- InfraCore® structural ship walls for dredgers with Van Oord
- InfraCore® inspection platforms for offshore wind turbines
- InfraCore® prefab lock door systems with hinges and jambs
- InfraCore® drone wings (60 & 80 m) for wind energy

International certification and patents

Part of each of these projects is short-term international certification by bodies such as DNV.GL or Lloyds Register. In order to both share and protect this certified knowledge, InfraCore® Company has patented its knowledge worldwide. These patents and know-how are managed by InfraCore® Company. The company licenses the InfraCore® technology to partners in new sectors and markets. InfraCore® Company is also responsible for an efficient, adequate technology transfer to our partners.



OUR LICENSED PARTNERS



FIBERCORE EUROPE
THE NETHERLANDS
Bridges, bridge decks and lock gates with InfraCore® Inside.



CANADIAN MAT SYSTEMS | CANADA
Temporary infrastructure with InfraCore® Inside for Oil & Gas. Bridges with InfraCore® Inside in Canada.



ORENCO COMPOSITES USA
Bridges with InfraCore® Inside in the USA.



SIS AUSTRALIA AUSTRALIA
Bridges with InfraCore® Inside in Oceania.



AMPYX POWER NEDERLAND
Drone wings with InfraCore® Inside for wind energy.



InfraCore® matting by Canadian Mat Systems



#contact

Contact

Interested in our sustainable bridges or lock gates, or would you like more information? Please feel free to contact us. Our sales team will be happy to help you.

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3077 CP Rotterdam
The Netherlands

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DISCLAIMER

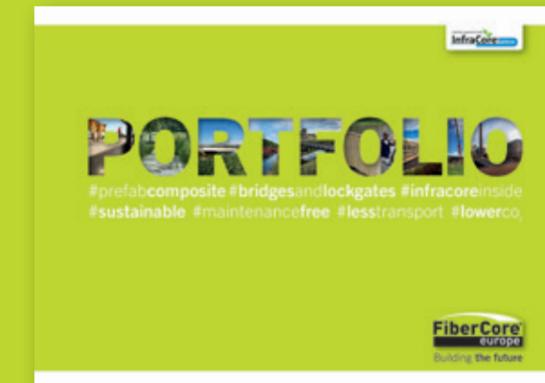
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Download our portfolio at
www.fibercore-europe.com/downloads



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