

# FEMERN A/S SUSTAINABILITY REPORT

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## A GREEN TRANSPORT CORRIDOR TAKES SHAPE

Construction of the Fehmarnbelt Fixed Link started in earnest in 2021. In Denmark and Germany, the look of the landscape is changing with the construction of the future tunnel element factory and work harbour in Rødbyhavn in Denmark and the establishment of the German construction site in Puttgarden.

The Fehmarnbelt Fixed Link is being built to connect Scandinavia with central Europe via a top-class traffic route for both road and rail. It will create fresh opportunities for businesses, tourists and commuters in the region, and bring Denmark and Germany closer together. In the construction phase, the link will provide opportunities for Danish companies and Danish workers, not to mention training the workforce of the future through apprenticeship clauses. Femern A/S intends the construction project itself to serve as an inspiration to other clients to show how they can build in a socially and environmentally sustainable way.

In 2021, Femern A/S stepped up its work on sustainability. A strategic framework was defined to replace the company's existing CSR policy. The concrete objectives and results can be found in this sustainability report, which we are proud to publish for the first time.

The Fehmarnbelt project has always treated sustainability as an integral part of the company's core business. In 2021, Femern A/S therefore decided, in the knowledge that construction activities were starting in earnest, to establish a number of clear ambition levels and success criteria within the focus areas that the company has chosen to prioritise.

We present this, and much more, in Femern A/S' first standalone sustainability report.

Best wishes,



Henrik Vincentsen,  
CEO, Femern A/S





## FEMERN A/S' BUSINESS MODEL

The new top-class link between Scandinavia and central Europe will give rise to significantly different traffic patterns and benefit businesses, tourists and commuters alike. It is therefore a key part of the EU's ambitions for a more closely connected transport system.

The link will help to enable a green transformation of the transport sector with a modern railway for freight and passenger transport, while offering drivers a high-speed shortcut with substantial time savings. Journey times will be 10 minutes by car and 7 minutes by train. The journey time by train between Copenhagen and Hamburg will come down to around 2½ hours from almost 5 hours today. Commuters on Zealand will also have better connections to Copenhagen and Hamburg with the Ringsted-Fehmarn project. Freight transport will also free up capacity over the Great Belt when shipments no longer have to make a CO<sub>2</sub>-intensive detour of 160 km.

The link will be paid for by users and will not cost Danish taxpayers anything. Those who use the tunnel will also pay for it. More than half of the users will come from our neighbouring countries, who will also help to finance the link. The profit from the tunnel will be used to develop the railway between Ringsted and Rødby, which would have otherwise been paid for from public construction budgets.

Right now, the Fehmarnbelt Fixed Link is headed for new shores. That is because construction work started in the summer of 2020, and because the official ground-breaking ceremonies took place in Denmark and Germany in 2021.

The construction project is the largest ever carried out in Denmark, and Femern A/S is the client.

In the construction phase, the project will create several thousand jobs on the site itself, plus the same number at the sub-contractors servicing the project. Apprenticeship clauses have been incorporated into the project contracts, under which the contractors will provide for 500 person-years of apprenticeships in the project period.

On the environmental side, there will be close collaboration with local authorities and organisations to get as much new nature as possible for the money and ensure that the changes in the landscape brought about by the project offer the greatest possible pleasure and benefit.

***“ The Fehmarnbelt Fixed Link is an investment in sustainable, reliable and robust high quality infrastructure, and all those elements make up Femern A/S’ core business.”***

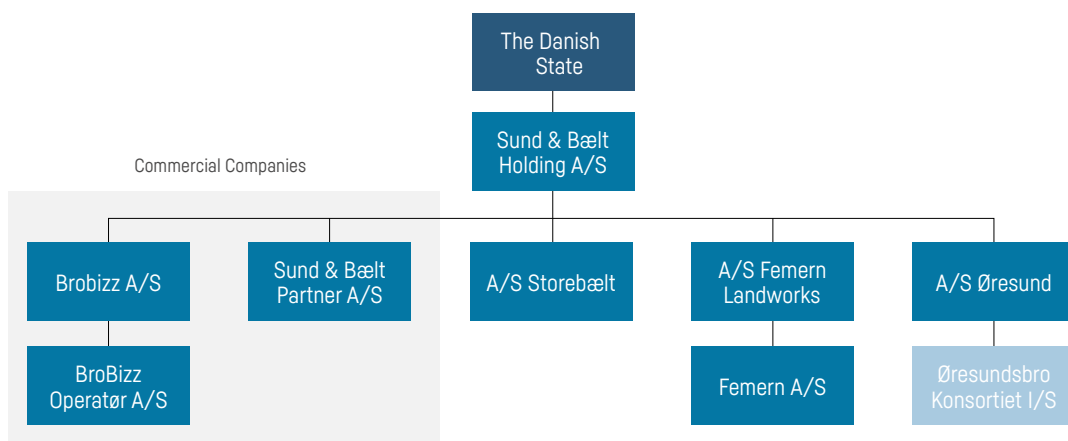
## FEMERN A/S’ ORGANISATIONAL CONTEXT

Femern A/S is 100% owned by Sund & Bælt Holding A/S, which is a state-owned enterprise with the Danish government as sole shareholder. The Danish Ministry for Transport has taken ownership of the Sund & Bælt Group on behalf of the Danish state. The Construction Act from 2015 gave Femern A/S the responsibility for the construction and operation of the Fehmarnbelt Fixed Link.



Here you can read about Sund & Bælts activities

**FIGURE 1: FEMERN A/S IS PART OF SUND & BÆLT HOLDING A/S**



### Share

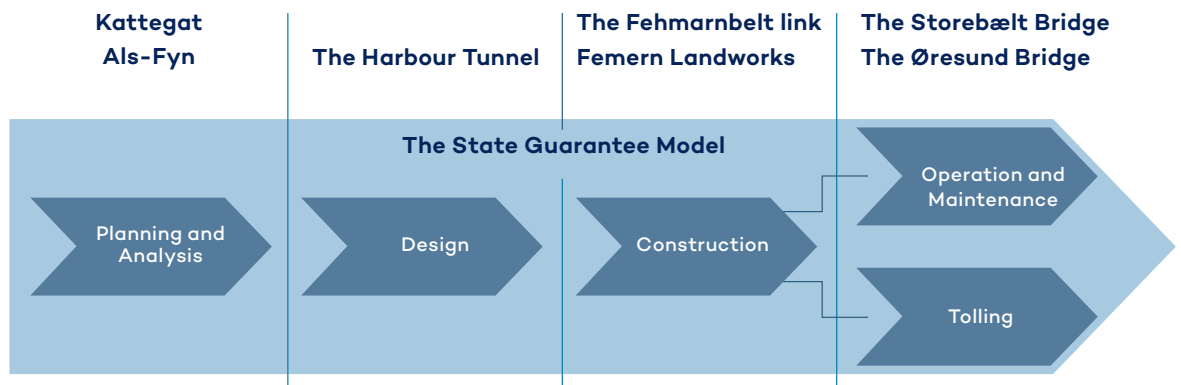
■ 100% ■ 50%

Femern A/S is part of Sund & Bælt Holding A/S, who is responsible for some of Denmark’s biggest infrastructure projects.



As an integral part of the Sund & Bælt Group, Femern A/S is part of the Group's value chain, which has been developed to ensure efficient use of experience and skills in all phases of the Group's projects, including sustainability.

**FIGURE 2: VALUE CHAIN FOR SUND & BÆLT HOLDING A/S**



Sund & Bælt Holding A/S is responsible for the entire value chain: the investment in sustainable, reliable and robust high quality infrastructure, and all those elements make up Femern A/S' core business.

With the start of the major construction contracts in 2021, Femern A/S moved from the design into the construction phase, but it still has significant activities in earlier phases in the railway and installation areas, for example. At the same time, work on planning the future operational and maintenance phase of the Fehmarnbelt Fixed Link is already in full swing, in close cooperation with operations experts from the fixed links across the Great Belt and Øresund. Similarly, Femern A/S brings experience and expertise to new projects in the Group which are still in the earliest phases of the value chain.

## FEMERN A/S' BUSINESS MODEL FOR SUSTAINABILITY

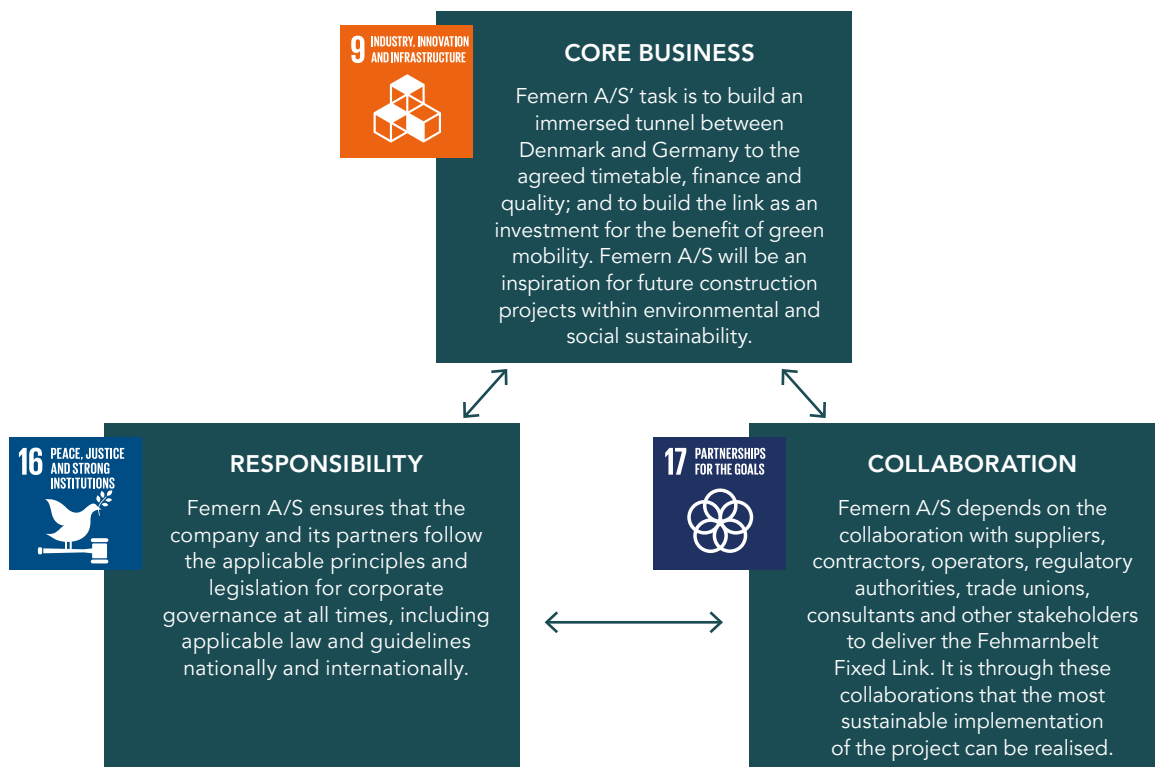
Sund & Bælt Holding A/S signed up to the UN Global Compact, the world's largest voluntary initiative for sustainable businesses, in 2009. As a subsidiary of Sund & Bælt Holding A/S, Femern A/S is committed to work on the ten principles in the Global Compact and to report to the UN on the company's progress within sustainability each year. The UN Sustainable Development Goals (SDGs) are another vital concern for the company's core business. Femern A/S therefore refers also to the UN SDGs in this sustainability report and in the company's general communication on sustainability.



As part of the work of implementing the UN Sustainable Development Goals, Sund & Bælt Holding A/S has developed a sustainability policy which provides a framework for the company's work on environmental and social sustainability and sustainable business management. Based on this policy, Femern A/S has drawn up a sustainability strategy to ensure that the sustainability policy becomes an integral part of the company's work to build and operate the Fehmarnbelt Fixed Link.

The core of the new sustainability strategy is Femern A/S' business model for sustainability, which provides the overall structure and principles behind the company's work on sustainability (see Figure 3).

**FIGURE 3: FEMERN A/S' BUSINESS MODEL FOR SUSTAINABILITY**



Note: Femern A/S' business model for sustainability forms the overall structure and principles for how the company works with sustainability. All activities planned and carried out by Femern A/S must be based on the company's business model for sustainability.





## CORE TASK

### – INDUSTRY, INNOVATION AND INFRASTRUCTURE

The basic aims of the Fehmarnbelt Fixed Link support UN Sustainable Development Goal no 9 (Industry, Innovation and Infrastructure) by creating a reliable, sustainable and robust infrastructure of high quality.

The Fehmarnbelt Fixed Link will establish an efficient green transport corridor between Scandinavia and central and southern Europe, which will form part of the Trans-European rail network in the 'Scan-Med corridor' linking Helsinki in Finland with Valletta in Malta.

The link will shorten the journey between Copenhagen and Hamburg by road and rail by approx. 160 km compared with a route via the Great Belt Link, Funen and South Jutland. That means that a train journey between the two destinations will be reduced from around 5 hours to 2½ hours, making the railway more competitive against other forms of transport.

The more direct rail link between Scandinavia and central Europe will also create new opportunities for green freight transport on the rail network, moving goods from rubber tyres to steel rails.

With a projected lifetime of 120 years, the Fehmarnbelt Fixed Link will provide a piece of robust and high-class infrastructure which can contribute to the green transformation of the transport sector.

As the client for the project, Femern A/S aims to display technical and professional integrity and respect for individuals and the environment in which they work. The company is therefore anxious to incorporate sustainability into all phases of the project and into all of the company's activities and decisionmaking processes.



## RESPONSIBILITY

If it is to be a responsible enterprise, Femern A/S must ensure that the company itself, its suppliers and partners comply with the applicable rules and guidelines covering all of its activities.

Femern A/S therefore aims to determine which laws and regulations govern its activities. These may be national rules, EU regulations and international guidelines, as the company's activities are not limited only to Danish territory. Furthermore, Femern A/S plans, organises and prepares internal guidelines defining how the company can comply with these various rules and draws up internal procedures for planning, organising and doing the work.

Femern A/S monitors changes in the law and governing guidelines closely and aims to be in the forefront of legal practice wherever possible. When the company is operating within a set of rules where the legal basis is uncertain, Femern A/S seeks to clarify the legal position as far as possible.

Femern A/S reports each year on corporate social responsibility in accordance with Section 99a of the Danish Financial Statements Act and the reporting obligation placed on Sund & Bælt by its accession to the UN Global Compact. That is why Femern A/S has also incorporated the ten principles in the UN Global Compact relating to human rights, labour rights, the environment and anti-corruption into the company's business processes. Femern A/S has also incorporated the 17 Sustainable Development Goals into the company's business model for sustainability, in line with the UN's recommended interpretation of the Global Compact for 2015-2030, and thus also reports on the SDGs.

***“ Femern A/S is a responsible and transparent project owner, and Femern A/S prioritises good cooperation with all project partners.”***

**17** PARTNERSHIPS  
FOR THE GOALS



## COOPERATION

Femern A/S exchanges experience throughout Sund & Bælt Holding A/S' value chain – both through construction projects and through operating activities. As the client company, Femern A/S depends on effective cooperation between all project partners to fulfil the company's core tasks. Here, it is clear that good cooperation between Femern A/S and its suppliers, contractors, operators, public authorities, unions, consultants and stakeholders is a crucial factor in how innovative and well-informed Femern A/S can be in its approach to the task. Femern A/S also seeks to share knowledge and draw inspiration on sustainability from other flagship companies within the same or other industries.

Femern A/S' core business demands specialist knowledge in order for the company to be a knowledge-heavy organisation with great technical expertise. Cooperation within the organisation and with other stakeholders is essential to its ability to realise its high ambitions with regard to sustainability.

Femern A/S wishes to contribute to research and development in the construction sector through knowledge-sharing and cooperation, as the company believes that this can help significantly to accelerate sustainable development. That is why Femern A/S also works with a large number of subject-specific stakeholders.

## FEMERN A/S' SUSTAINABILITY STRATEGY

Femern A/S drew up a sustainability strategy in 2021. The company's new sustainability strategy contains three main elements. First, Femern A/S' business model for sustainability, which provides the overall structure and principles behind the company's work on sustainability. Secondly, ten strategic priorities within environmental and social sustainability and sustainable management, with underlying SDGs. Thirdly, the sustainability strategy includes a defined ambition level and success criterion for each of the prioritised Sustainable Development Goals.



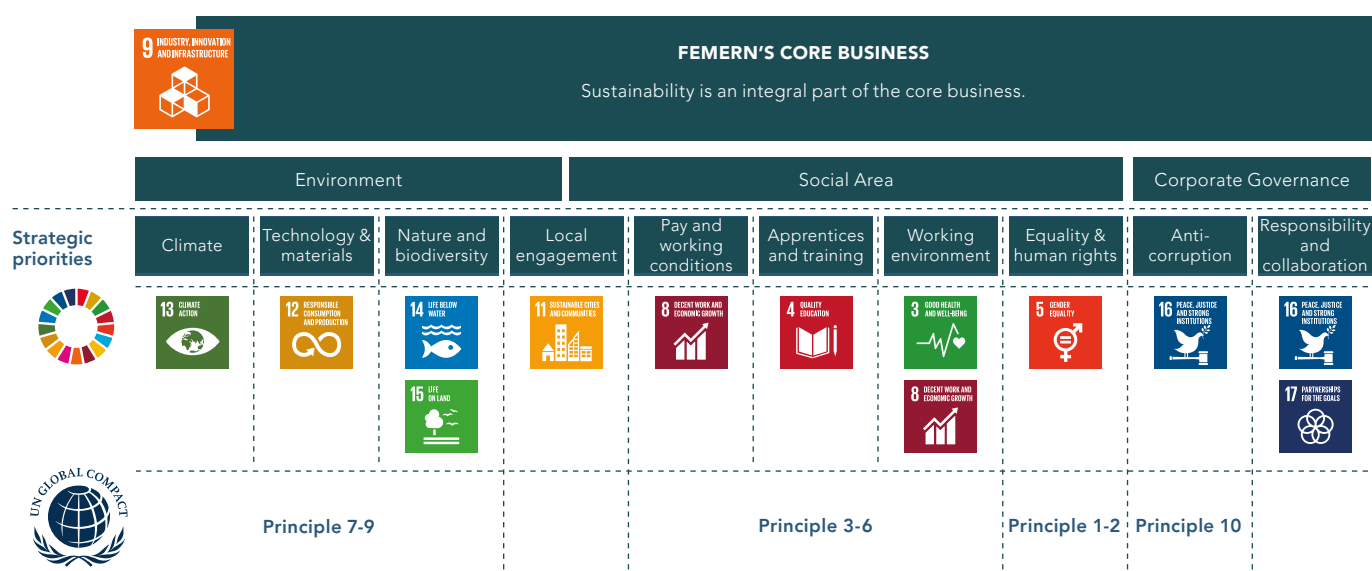
Here you can read  
Femern A/S'  
Sustainability  
Strategy

The strategy includes a prioritised list of UN Sustainable Development Goals which expands on the list of priorities that the company produced in 2020 and included in its annual report for that year.

## STRATEGIC PRIORITIES

Sund & Bælt Holding A/S has chosen ten strategic priorities within environmental and social sustainability and sustainable management, which all projects within the Group have to apply. Femern A/S has identified the company's ambition levels and success criteria within each of the ten areas, which are described in more detail in the company's sustainability strategy.

FIGURE 4: FEMERN A/S' STRATEGIC PRIORITIES FOR SUSTAINABILITY



The priority areas have been chosen on the basis of Sund & Bælt's sustainability strategy and represent the issues on which the company is actively working in relation to sustainability.





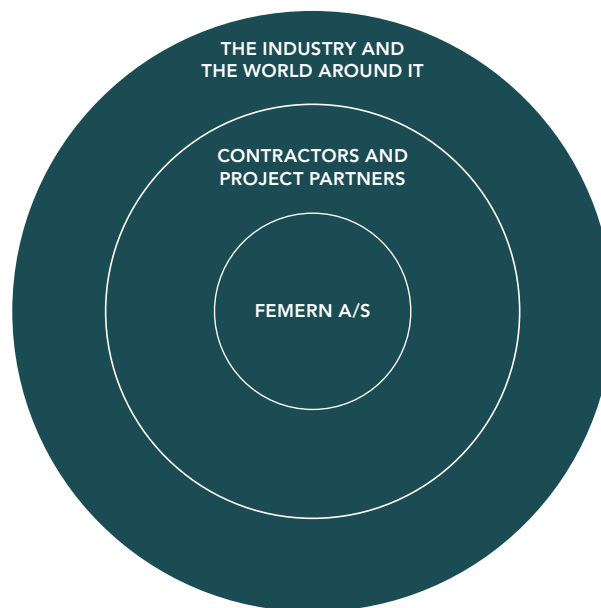
Femern A/S uses the priority areas to focus the strategic work in the organisation where it can produce the greatest output. For 2022 the company has chosen four focus areas within the ten priority areas which the company aims to develop detailed strategic paths for. These four focus areas are presented at the end of this report under 'Goals for 2022'. The company will then regularly select special focus areas within these ten priority areas to work on over the next few years, in such a way that the concrete strategic paths will be defined within all ten areas over time.

## FEMERN A/S' SCOPE FOR ACTION

Femern A/S is the client and has contracts with contractors, consultants and other suppliers and stakeholders involved in completing the project. Femern A/S has therefore identified three spheres of influence within which the company operates. The spheres of influence describe the company's ambition level and success criteria for Femern A/S itself, for the contractors and project partners, and for the industry and the wider community. Femern A/S only sets goals for corporate social responsibility where the company has an influence over the outcome.

**FIGURE 5: FEMERN A/S' SPHERES OF INFLUENCE**

Femern A/S has various opportunities to handle and control the various sustainability initiatives in each sphere.



### **FEMERN A/S' SPHERE**

Femern A/S has full responsibility and full control over all sustainability-related matters within its own organisation.



### **CONTRACTORS' AND PROJECT PARTNERS' SPHERE**

Femern A/S' responsibility is to ensure that contractors, suppliers and other project partners – through contracts and collaborations – promote the sustainable construction of the Fehmarnbelt Fixed Link.



### **THE INDUSTRY AND THE WORLD AROUND IT**

Femern A/S' responsibility is to ensure that it contributes positively to industry and society – by setting high standards for sustainability in the project's implementation: to inspire future projects; and by sharing knowledge and experiences in the field.

The three spheres of influence are reflected in all of the company's activities. The spheres of influence offer varying scope to act and manage the company's sustainability efforts. For this reason, Femern A/S has defined an ambition level and success criterion for each of the ten priority areas in relation to each level in the company's three spheres of influence. The company's ambition levels and success criteria can be found in its sustainability strategy, which can be accessed from femern.dk.

## Code of conduct for responsible supplier management

Femern A/S has produced a code of conduct for responsible supplier management, which requires the company's suppliers to comply with the ten principles in the Global Compact. The suppliers must draw up policies and guidelines focusing on the topics that are particularly relevant to their specific industry. The suppliers must also make systematic efforts to continuously improve their social engagement. The suppliers must be able to demonstrate, when asked to do so by Femern A/S that the requirements in the code of conduct have been met, and the company may audit the supplier if the documentation provided is considered insufficient.



Here you can read the code of conduct for responsible supplier management

Femern A/S' work on the code of conduct for responsible supplier management is under constant development, in collaboration with the contractors, as the construction works grow in complexity, and Femern A/S will continue to build on its earlier experience from the supervisory work.



## Risk mitigation

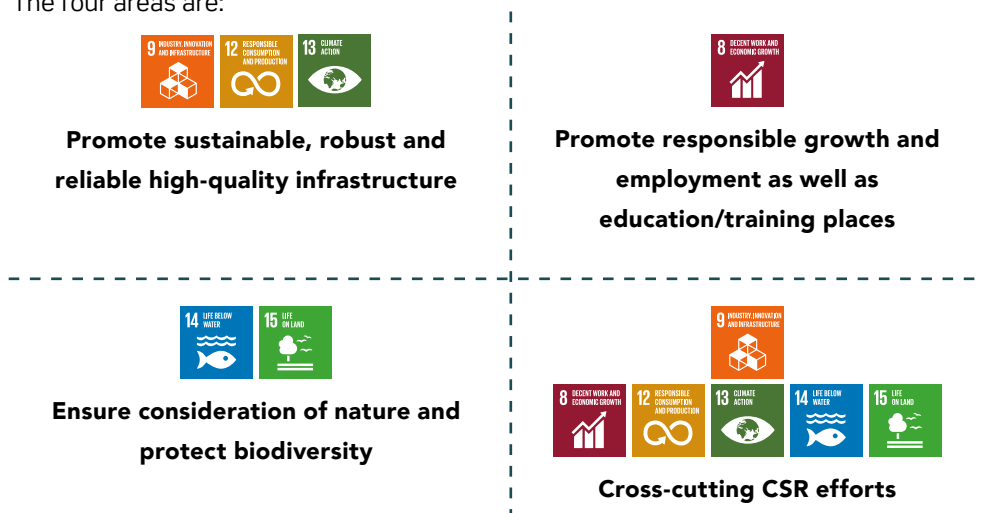
Femern A/S does not tolerate any form of corruption and complies with the provisions in the UN Convention against Corruption. Femern A/S also takes active steps to avoid being complicit in corruption.

To handle the internal risk, Femern A/S has implemented a number of guidelines on the use of company funds, a gift policy and travel policies etc, and has established an anonymous whistleblower scheme. To handle the external risk, Femern A/S follows the applicable procurement rules, and all suppliers have to sign the company's code of conduct for responsible supplier management when they enter into a contract.

# FEMERN A/S' SUSTAINABILITY ACTIVITIES IN 2021

In 2021, Femern A/S focused on goal attainment within the four areas in which the company planned to work in the course of the year, as described in the annual report for 2020.

The four areas are:



These areas were addressed through a number of sub-activities, with goal attainment summarised:





## PROMOTE SUSTAINABLE, ROBUST AND RELIABLE HIGH-QUALITY INFRASTRUCTURE

Femern A/S is constructing the world's longest immersed tunnel, which is designed to last for at least 120 years. At the same time, Femern A/S aims to make the link as climate-friendly as possible. That means that the tunnel will be constructed using the best available technology, focusing on optimising resource utilisation when it comes to building materials, to minimise the impact on the climate and the environment throughout the lifetime of the infrastructure.

When the tunnel is finished and open to traffic, the new infrastructure will make a major contribution to the sustainable European transport network of the future. Femern A/S also aims to contribute to research and knowledge-sharing on climate-friendly solutions for future infrastructure projects with a view to accelerating the green transformation of the industry.

Goals for 2021	Result
<b>Follow-up on the climate strategy with climate dialogue meetings</b>	<b>✓ Fulfilled</b> Femern A/S held two well-attended climate dialogue meetings in 2021 with a wide cross-section of relevant stakeholders on e-highways and support for green vehicles
<b>Prepare the Fehmarn tunnel for the green vehicles of the future</b>	<b>✓ Fulfilled</b> Femern A/S held dialogue meetings on e-highways and the most appropriate way to incorporate charging points into the design of the toll stations on the Danish and German sides. Femern A/S has also advertised for a transformer station with substantial excess capacity to provide electricity for charging.
<b>Identify the market's green solutions in the call for tender for installation contracts</b>	<b>✓ Fulfilled</b> Femern A/S' installation contract includes energy optimisation solutions among the tender award criteria.

## Environmental product declarations on all essential building materials

Femern A/S worked actively with the contractors right through 2021 to improve the climate footprint of the construction works.

The Fehmarnbelt Fixed Link is to be made as climate-friendly as possible. In 2021, Femern A/S, together with its contractors, was constantly looking for possible improvements in detailed design and organisation of the works and in the implementation.

This covers the whole process from design through construction to operation and maintenance of the tunnel:

- Production of building materials – from cradle to grave.
- Transport to the project area – from factory gate to construction site.
- Installation and incorporation of materials on the construction site.

The company has climate-mapped the project in the EIA report, and its climate accounts focus on the major product groups, concrete and steel, which account for more than 95% of the climate footprint from the materials used in the construction works.



[Here you can read Femern A/S' EIA report](#)

Specific environmental product declarations (EPDs) documenting the climate footprint are therefore a requirement that the company and its contractors have placed on all producers of major product groups of building materials. Femern A/S obtains EPDs for 95% of all materials.

It is necessary to make green and climate-friendly purchases of building materials, and to be able to lay down functional climate requirements in future construction contracts. The climate footprint from building material products will thus be a competitive parameter and an incentive to promote the green transformation in the building material industry.



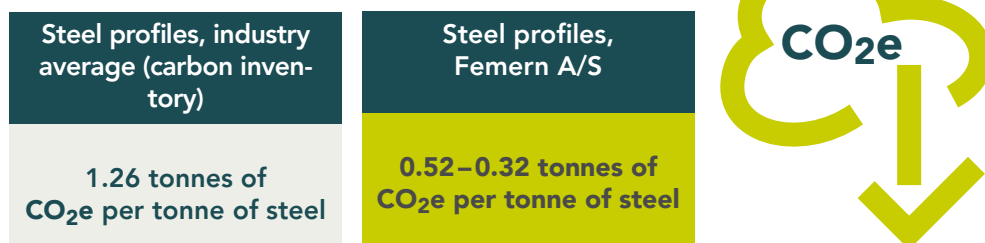
Construction of the tunnel element factory in Rødbyhavn in Denmark

## Materials and technology that contribute to a smaller climate footprint

Femern A/S works within different areas to identify energy and emission savings in the construction phase. This applies to the use of materials with the smallest possible climate footprint and to the implementation of sustainable technology and technological solutions. The transport distances, too, are a major factor in managing the climate footprint.

With regard to the use of more climate-friendly materials, Femern A/S uses steel sheet-pile walls for the tunnel portals, work harbours and basins from which to launch the tunnel elements, for example. The steel profiles of the sheet-pile walls are made from 100% recycled scrap. The profiles have the smallest climate footprint of any building material of this type on the market. Some of the steel profiles will be recovered directly from other construction sites where they have been used on a temporary basis. The climate footprint from Femern A/S' steel profiles is 70% lower than assumed in the climate mapping in the EIA, which is based on an average for the industry.

**FIGURE 6: CO<sub>2</sub>E REDUCTION DUE TO THE CHOICE OF STEEL**



Femern A/S' choice of steel profiles has resulted in a CO<sub>2</sub>e reduction which is expected to be further reduced from 0.52 to 0.32 tonnes of CO<sub>2</sub>e per tonne of steel during the construction period.

With regard to technology, the contractors' machinery at sea and on land is a focus area in relation to reducing our climate footprint. In choosing working methods and machinery to do the work, the company's contractors must take account of the climate footprint and choose machines that are energy- and fuel-efficient.

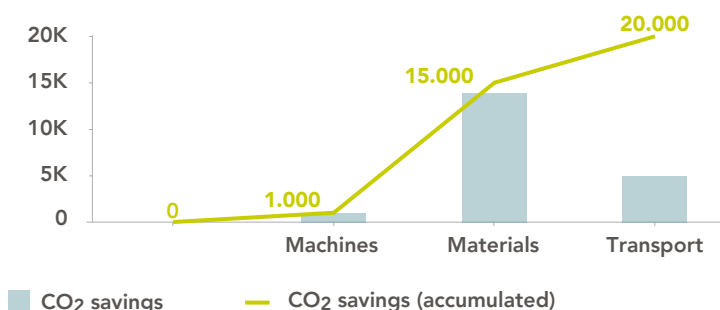
Femern A/S also addresses climate optimisation through innovative technology. Among other things, the contractor FBC has implemented a completely new technological solution to dredging the tunnel trench, which will be tried for the first time on the Fehmarnbelt project. The dredgers used on the project are designed to generate energy for their own use. When the dredgers lower the bucket to dig into the seabed, energy is generated. This energy can then be used when the bucket is pulled up from the seabed again. This reduces fuel consumption and the associated emissions.

In the project planning and in the requirements placed on the contractors, heavy cargos will be carried mainly by ship, which is also the most efficient option with the smallest climate footprint. Shorter transport routes are another way of reducing the footprint in comparison with the expected level forecast in the EIA climate mapping.

Transporting particularly heavy materials such as stone, gravel and sand uses a lot of energy and has a significant climate footprint from the consumption of fuels. Green alternatives have not been developed to the point where they can be used right away.

Sand to construct the work harbours and for land reclamation on Lolland has been taken from an area around 60 km from the construction site on the German Baltic coast. This has reduced emissions of CO<sub>2</sub> from transport by around 10,000 tonnes of CO<sub>2</sub> over the whole construction period compared to the EIA calculations.

**FIGURE 7: CO<sub>2</sub> SAVINGS IN 2021**



Femern A/S works on optimising the project's climate footprint and once a year calculates the CO<sub>2</sub> savings coming from technology, materials and transport





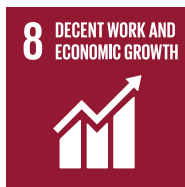
## Femern A/S has organised climate discussions

The climate impact from the Fehmarnbelt tunnel is a key element in planning the design and operation of the fixed link between Germany and Denmark. To ensure that the best technical solutions and fresh possibilities offered by legislation and societal development can be incorporated and help to minimise the climate footprint, Femern A/S is holding a series of climate dialogue meetings. These meetings provide a setting for a dialogue-based approach to matters that could contribute to good and sustainable solutions.

The participants in each meeting will be selected to cover a broad cross-section of stakeholders, including providers of technical solutions, research institutions, stakeholder organisations and relevant local and national authorities.

In 2021, two separate meetings were held on the subject of “e-Highways” and “Green Mobility”, where existing and future technical solutions for transport based on green energy were discussed and reviewed. They identified what needed to be done to bring the different solutions into play both in relation to the Fehmarnbelt tunnel and for Danish and European transport as a whole. The meetings produced a number of practical findings and recommendations, including the provision of sufficient excess capacity from the main transformer to enable it to supply electricity to charge electric cars and supply the electric roads of the future via catenary systems. The recommendations made have been implemented in the ongoing work of building and operating the Fehmarnbelt tunnel.

*“ Femern A/S makes sure that all people  
working on the Fehmarnbelt project  
work under healthy and safe work conditions”*



## PROMOTE RESPONSIBLE GROWTH AND EMPLOYMENT AS WELL AS EDUCATION/TRAINING PLACES

Femern A/S is the client for the largest construction project ever carried out in Denmark, which will employ up to 2,500 people a year on the construction itself up to the planned opening in 2029. If it is to be a responsible client organisation, Femern A/S believes it is vital to have proper pay and employment conditions on the Fehmarnbelt project, so the company supports the Danish labour market model for construction works based in Denmark and the German labour market model for construction works based in Germany.

The construction of the Fehmarnbelt Fixed Link calls for employees with a high level of technical expertise in many different disciplines, particularly within the craft trades. Femern A/S therefore aims to help increase the numbers of qualified people in society, and help to provide high-quality training for the apprentices attached to the project. On the Fehmarnbelt Fixed Link project, everyone should feel secure at work and get home safely every day. All employees should therefore have the same professional approach to safety in the workplace. Femern A/S is working for a safe and healthy work culture under the heading “Target Zero – A State of Mind”.

Goals for 2021	Result
<b>Monitoring the contractors' construction of the 'tunnel village' on Lolland</b>	<p>✅ <b>Fulfilled</b></p> <p>Femern A/S has been in close contact with the contractor consortia on the construction of the tunnel village and is represented on the 'village council'. Femern A/S has also supervised the construction of the 'tunnel village' and entered into an agreement with the contractor to provide an ensuite shower and toilet in every room.</p>
<b>Monitoring of apprenticeship schemes for all construction contracts</b>	<p>✅ <b>Fulfilled</b></p> <p>Femern A/S has reviewed and approved the apprenticeship plans for the two large contractors who are responsible for almost all apprentice positions.</p>
<b>Activities and cooperation concerning recruitment and retention of apprentices and trainees</b>	<p>✅ <b>Fulfilled</b></p> <p>Femern A/S has entered into dialogue with all relevant stakeholders and has drawn up an action plan to provide a good youth environment for the apprentices in Rødbyhavn. Femern A/S has also started negotiations with the "social network" with a view to efficient recruitment of apprentices.</p>
<b>Implementation of the Target Zero campaign</b>	<p>✅ <b>Fulfilled</b></p> <p>Femern A/S has run two 'Target Zero' campaigns to address particular safety issues on the construction site.</p>

## Orderly conditions for everyone working on the project

Femern A/S requires its contractors to provide for orderly conditions during the construction of the Fehmarnbelt Fixed Link. This applies to pay and employment conditions, where Femern A/S applies the principles laid down in the Danish and German labour market models in close cooperation with the contractors, trade unions and authorities in Denmark and Germany.

The Fehmarnbelt Fixed Link will be a large workplace, especially in the construction phase, and over time, when the activity level is at its highest, there will be up to 2,500 people employed on the project. The employees who have so far to travel between home and work that they cannot reasonably be expected to commute will be offered spacious and affordable accommodation by the contractors. Femern A/S has laid down very detailed requirements in the contracts on what it regards as proper living conditions, and these very detailed requirements set new standards in the industry for itinerant workers' living conditions. In 2021, Femern A/S inspected over 80% of the accommodation units in use, to ensure that the actual living conditions met the company's high standards.

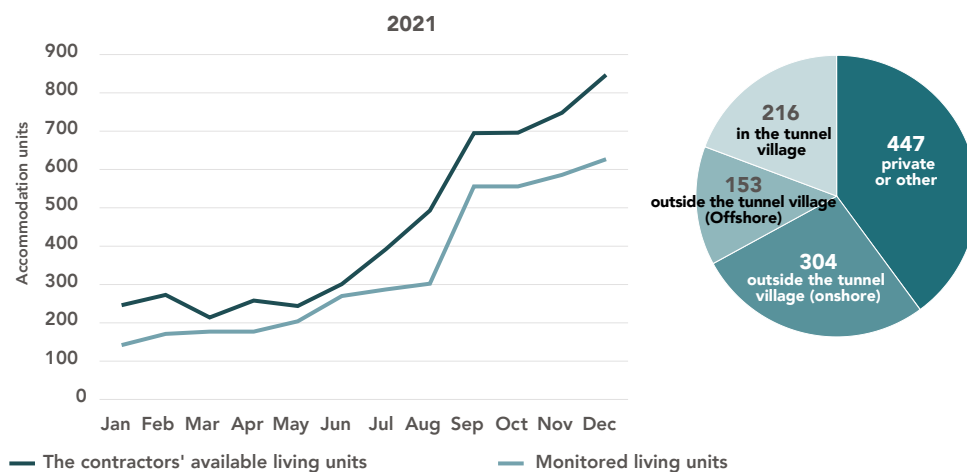


FLC Village in Rødbyhavn.

Femern A/S has stipulated that a separate residential area should be established close to the construction site which, when fully developed, will extend to 30,000 square metres of flexible housing and recreational facilities. The residential area, called the FLC Village, will eventually house 1,344 living units, a fitness centre, minimarket, hairdresser and social meeting places with leisure activities such as games and pool. There are also changing rooms and a professional kitchen serving three healthy meals a day of high nutritional quality.

The units will be at least 8.6 m<sup>2</sup> and include a private bedroom with its own shower and toilet, wi-fi, and access to recreational facilities and outdoor terraces on both floors. FLC Village opened in 2021, and at the end of the year there were 216 people living there.

**FIGURE 8: FEMERN A/S SETS NEW STANDARDS FOR THE LIVING CONDITIONS OF MIGRANT WORKERS**



The contractors have to fulfill Femern A/S' detailed requirements for the housing of the workers who cannot reasonably be expected to commute between home and work. Femern A/S monitors the conditions of housing on a regular basis.



## Centre for authorities in Rødbyhavn

In August 2021 the Danish Ministry of Transport decided, at the instigation of Femern A/S, to set up a centre for authorities in the area by Rødbyhavn, to provide for an even better collaboration between relevant authorities and the contractors and thereby ensure secure and orderly working conditions for Danish and foreign workers.

The centre for authorities opened its doors in November 2021 and houses a total of five agencies: the Danish Agency for International Recruitment and Integration (SIRI) under the Ministry for Immigration and Integration, the Danish Working Environment Authority, the Danish Maritime Authority, the Danish Police and the Danish Tax Agency.

The centre for authorities is intended, through the physical presence of these agencies on the site, to provide for even closer cooperation between the contractors and the authorities. The parties held a kick-off meeting on 7 December 2021, and there are expected to be four yearly coordination meetings in the centre for authorities and various ad hoc cooperation meetings. The hope is also that the centre for authorities can facilitate and strengthen cooperation between the five agencies.



### Risk mitigation

With regard to social sustainability, the greatest risk for Femern A/S is that the rights of suppliers' employees to proper pay and working conditions might not be respected. Femern A/S will therefore continue with and make greater use of tighter social clauses in the contracts and step up monitoring of compliance with these social clauses by the contractors.

Femern A/S focuses especially on:

- not engaging in or tolerating the use of child labour
- avoiding complicity in forced labour
- providing a safe and healthy working environment
- respecting employees' right to form and join unions as they choose
- taking active steps to avoid breaches of employees' rights.



## Fully trained apprentices on the Fehmarnbelt project

Femern A/S aims to contribute to the employment of apprentices within the practical/craft trades, along with interns and office trainees. That is why the company has placed requirements on the contractors in the major construction contracts to provide a minimum of 500 person-years of apprenticeships over the whole of the construction period.

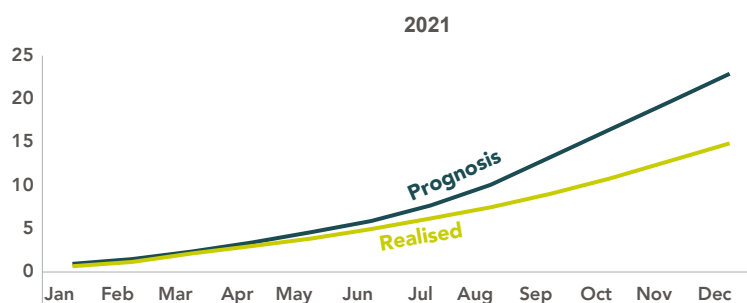
This requirement is implemented in the form of targets for apprentice-years in all relevant procurement procedures and contracts and reflects the importance of providing quality training for the individuals concerned. Femern A/S is helping the contractors to meet the internship requirement and is participating in networks and working with local and regional vocational schools, clients on other large Danish infrastructure projects and employers and unions. The construction works started in earnest in 2021, and the two large contract consortia FBC and FLC both recruited their first apprentices, so 15 of the 500 apprentice-years on the Fehmarnbelt project were already completed in 2021.



Here you can read more about the Danish Transport Minister congratulating Yahya Abdelhady

One of the first to complete their training on the Fehmarnbelt project is the electrical engineer Yahya Abdelhady, who worked for DHI on the buoys that monitor the marine environment in the Fehmarnbelt. When Yahya finished his apprenticeship in August 2021, the Danish Transport Minister Benny Engelbrecht was there to congratulate him and present him with his training certificate.

**FIGURE 9: APPRENTICE-YEARS**



The Fehmarnbelt project contributes to employing apprentices of the practical and craft trades and trainees. The major construction contracts require a total of 500 person-years of apprenticeships.



## Campaigns for a safer working environment

As the client, Femern A/S has the overall responsibility for safety and health in the Fehmarnbelt project. Femern A/S aims to ensure that everyone feels secure at work and gets home safely every day. That is why Femern A/S has produced the safety concept “Target Zero – A State of Mind”, which the company has also pledged its contractors to follow, with specific working environment clauses in their contracts.

Target Zero is all about creating a firmly established safety culture throughout the project and ensuring that the same safety culture is observed from the management floor to the construction site, which should be reflected in the accident figures over time.

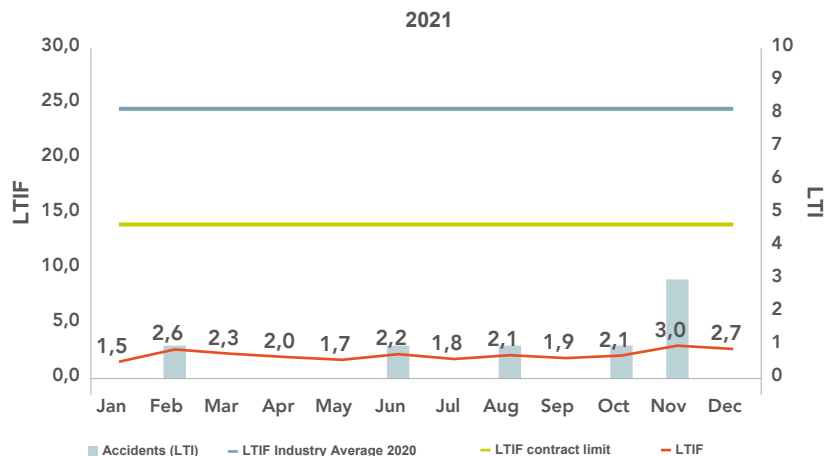
In 2021 there were 7 accidents on the construction project that resulted in time off work, and the total accident rate was 2.7 at the end of the year. Femern A/S also collects ‘safe handling of chemicals’ (SHOC) reports, which may be observations that call for improvements or instances of good working practice to be followed. There were 1,256 SHOC reports in 2021.

In 2021, Femern A/S also took the first steps towards designing and running a safety academy, which is intended to train both the contractors’ and Femern A/S’ own employees in a responsible safety culture.

Femern A/S also started work in 2021 to organise and run specialised safety campaigns addressing particularly topical safety issues observed on the construction site. Among other things, Femern A/S and the contractors together ran a campaign to raise awareness of hazards and risks to people moving on foot on the construction sites from the perspective of heavy vehicles and blind corners.

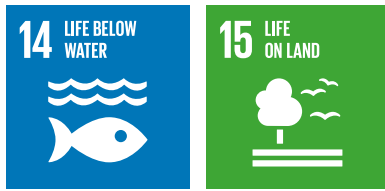
These campaigns are a flexible measure to address very specific problems which can either be observed in the accident figures or pose an actual risk to safety in the project area. Femern A/S designs the subject-specific campaigns to be interactive, to generate the maximum learning and experience for the participants.

**FIGURE 10: WORKING ENVIRONMENT AND NUMBER OF ACCIDENTS**



Femern A/S has set the ambitious goal of being one of Europe's safest construction sites.





## ENSURE CONSIDERATION OF NATURE AND PROTECT BIODIVERSITY

Femern A/S has a deep respect for nature and the environment and its ambition is that the Fehmarnbelt Fixed Link should have the least possible impact on plants and animals and their habitats, both in the construction phase and when the tunnel is finished. Femern A/S makes all of its environmental data available on the company's environmental portal, Ægir, which has been open to anyone interested in this data ever since work started on the Fehmarnbelt Fixed Link.

Goals for 2021	Result
Monitoring of local environmental impacts from the construction works	<b>✓ Fulfilled</b> Femern A/S is constantly monitoring compliance by the contractors with environmental requirements. Monitoring takes place on shore and at sea in both Denmark and Germany
Development of the Environmental portal Ægir with data from the construction works	<b>✓ Fulfilled</b> Femern A/S is running the Ægir environmental portal, which contains live data from marine sensors in the Fehmarnbelt. These measure the impact of the project on bottom-living fauna and flora, birds and harbour porpoises, and compliance with sediment spill requirements and airborne noise limits
Monitoring and care of newly created nature areas	<b>✓ Fulfilled</b> Femern A/S has established replacement areas to offset the environmental impact of the project. The replacement areas are constantly monitored, and their development is supported to keep up a good ecological status, with maintenance plans.





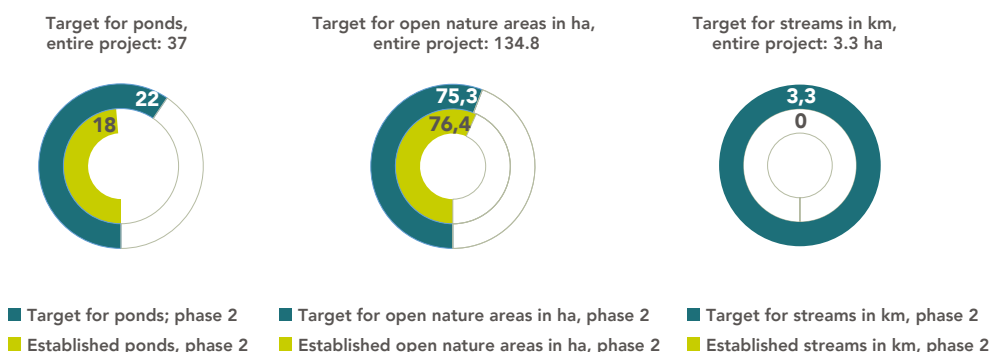
Lungholm lake in construction phase.

## Establishment of Lungholm lake

Femern A/S finished work to establish the eight-hectare Lungholm lake to the east of Rødbyhavn in winter 2020/2021, to compensate for the loss of Strandholm lake, which was the same size. Monitoring of the flora and fauna has shown that the lake is already a great success and has helped to bring about a significant increase in biodiversity in the area compared to the earlier conditions in the original lake. The lake attracts a lot of aquatic birds all year round and has developed into an ornithological hotspot. The three islands in the eight-hectare lake provide protected nesting places for birds. Colonies of black-headed gulls have settled there, and large flocks of avocets, sandwich terns, curlews and whimbrels, dunlins etc. have also been seen. The soil dug out to form the 1.5 metre deep lake has been piled around it to form its banks, where vegetation typical of a salt marsh is now growing well. Ringed plovers are found here, but the rarer Kentish plover has also been spotted, together with larks and meadow pipits. Birds of prey such as white-tailed eagles, red kites and marsh harriers also regularly forage in the area. As one of the few brackish lakes in Denmark, Lungholm lake adds a further dimension to the Saxfjed Inddæmning conservation area.



- Data from monitoring stations, the Fehmarnbelt and on land are transmitted to Aegir.
- Biologists and other environmental experts can follow developments minute by minute.
- Live data is analysed along with vast amount of historical data from environmental surveys stored on Aegir.

**FIGURE 11: STATUS FOR THE ESTABLISHMENT OF REPLACEMENT NATURE**

Femern A/S specifically establishes replacement nature areas and monitors these new areas.

## Ponds

Eight new ponds were also established in the autumn of 2021, so the company has now provided 18 out of the 43 new ponds that were planned as part of Femern A/S' environmental programme. The ponds are there to assure the continued survival of amphibians, many of which are protected species. The ponds are placed in a ring around Rødbyhavn, to connect the amphibian populations east and west of the town which are divided by the motorway and railway line. Several fauna passages will be established under roads and railway lines, where not only amphibians but also other animals can cross the traffic corridor in safety. The development of nature and ponds is being closely monitored by the company and a group of NGOs and public authorities. On their last visit in September 2021, the NGOs suggested providing shelters for the amphibians. Stones have been tried out as shelters in some of the ponds.

On the Femern A/S web portal [aegir.femern.com](http://aegir.femern.com), people can follow the progress of the company's preventive and compensatory measures on Lolland. There are details of conservation areas, ponds, the new Lungholm lake and wetland areas.



## Risk mitigation

In terms of environmental sustainability, the biggest risk for Femern A/S is damage to nature and biodiversity. Femern A/S will therefore place increasing requirements on the contractors for contingency plans to deal with environmental accidents and step up monitoring of compliance with good environmental practice in this area.

Sund & Bælt is also making systematic efforts to prevent, minimise and remedy any negative environmental impact from its own activities, products and services.



## CROSS-CUTTING CSR EFFORTS

As client on behalf of the Danish state, Femern A/S has a social responsibility, and aims to manage the future link as an infrastructure project with a particular emphasis on environmental and social sustainability. The ambition is for the project to be seen as an inspiration for future infrastructure projects. That is why Femern A/S also aims to be a transparent client, sharing its experience by taking an active part in industry associations and events, and the company is always available to anyone who wants to get in touch.

Goals for 2021	Result
<b>Opening of Femern A/S' new exhibition centre at Rødbyhavn</b>	<b>✓ Fulfilled</b> Femern A/S has opened a new and well-attended exhibition centre inside the Owner's Office in Rødbyhavn, which attracted some 24,200 visitors in 2021.
<b>Establishment of additional exhibition facilities near the project's construction sites</b>	<b>✓ Partly fulfilled</b> Femern A/S has started work on a public viewing tower close to the construction site.
<b>Dissemination of the company's CSR activities on its website, social media, information meetings, etc.</b>	<b>✓ Fulfilled</b> Femern A/S takes every opportunity to share the message about the company's work on sustainability, and has posted regular bulletins on its website through 2021.



## Exhibition centres in Rødby and Burg

Femern A/S has exhibition centres on the Danish and German sides, in Rødbyhavn and Burg respectively. The exhibitions give a thorough insight into all aspects of the project, with illustrations, films, models and displays, and are staffed with guides. The large model of the future tunnel factory has been studied by visitors from Denmark and abroad. The exhibitions in both Rødbyhavn and Burg were updated in 2021, so they no longer focus on plan approval but rather on the actual construction activities.



Here you can read about Femern A/S exhibition centres

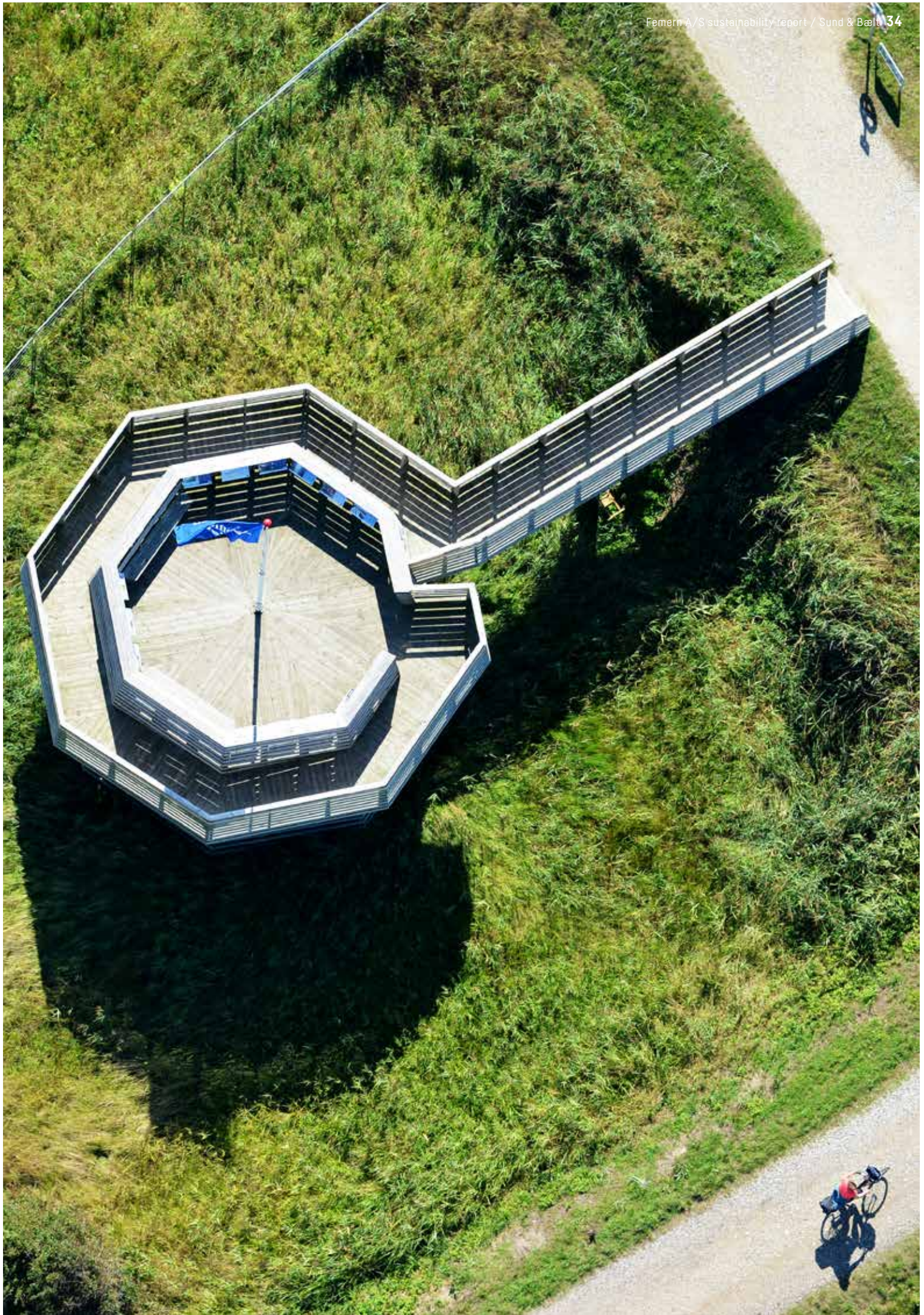
The exhibition in Rødbyhavn opened in April 2021 in the new owner's office, and has since had 24,200 visitors. An outdoor play area has also been created, telling visitors about the many opportunities the link will provide on the Danish and German sides. As an extension to the exhibition, companies and larger groups can also book a talk on the project, and there was a partnership with Lalandia to run guided tours of the project area in the summer of 2021. The exhibition is being constantly updated as the nature of the construction work changes. There were 3,600 visitors to the exhibition centre in Burg in 2021, an increase of 20% from 2020.

## Viewpoints

The great interest in the project prompted Femern A/S to supplement the existing viewing tower on Gammel Badevej with a mobile exhibition at Hyldtofte Østersøbad in the summer months.

In 2021, Femern A/S also improved the parking facilities by the viewing tower on Gammel Badevej in partnership with Lolland municipality. Because of the size of the project, a telescope has also been provided to enable visitors to zoom in on the many activities taking place in the portal area for the future tunnel, in the factory area and on the reclaimed land to the east of Rødbyhavn.



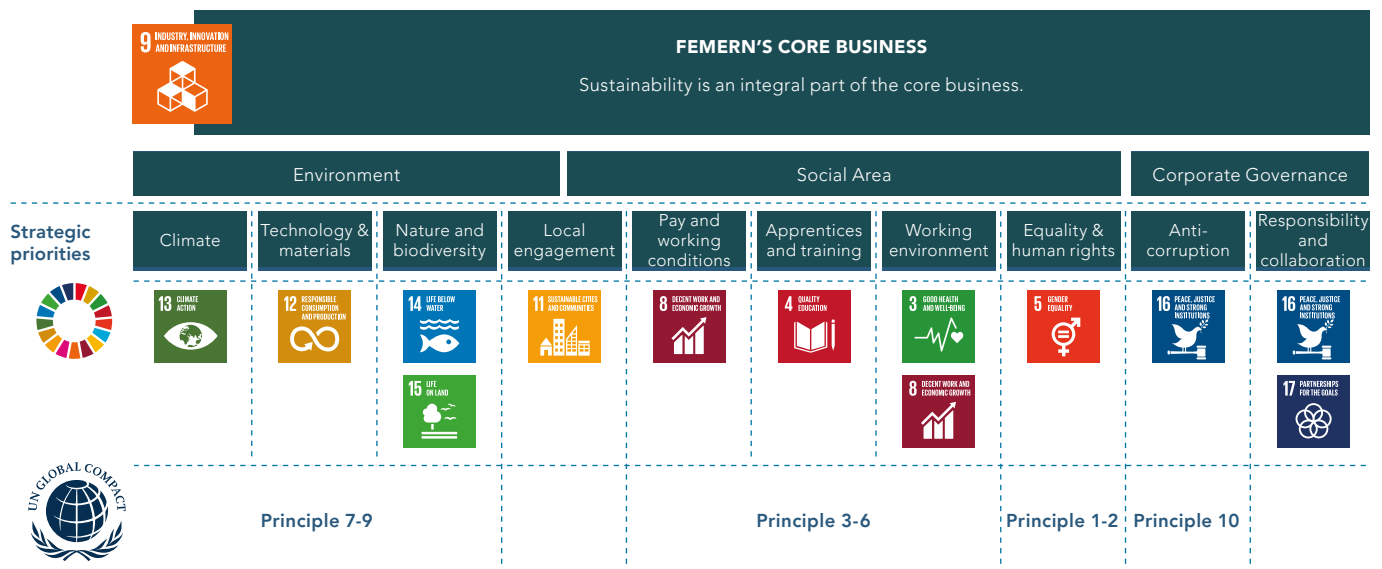




# FOCUS AREAS AND GOALS FOR 2022

Following the definition of Femern A/S' sustainability strategy with its ten priority areas, four focus areas have been selected for the company to work on in more depth in the year ahead.

**FIGURE 12: FEMERN A/S' STRATEGIC PRIORITIES FOR SUSTAINABILITY**



The priority areas have been chosen on the basis of Sund & Bælt's sustainability strategy and represent the issues on which the company is actively working in relation to sustainability.

The focus areas encompass actions that the company will give particular attention to according to the progress of the project in the construction phase. So it is natural for the focus areas to centre around the establishment of good business processes and practice relating to social sustainability, as the company needs to provide orderly conditions for everyone working on and around the construction of the Fehmarnbelt Fixed Link during the construction phase. However, Femern A/S means to go on working on sustainability in all ten priority areas in parallel with the focused action on social sustainability and climate.



The four focus areas are:



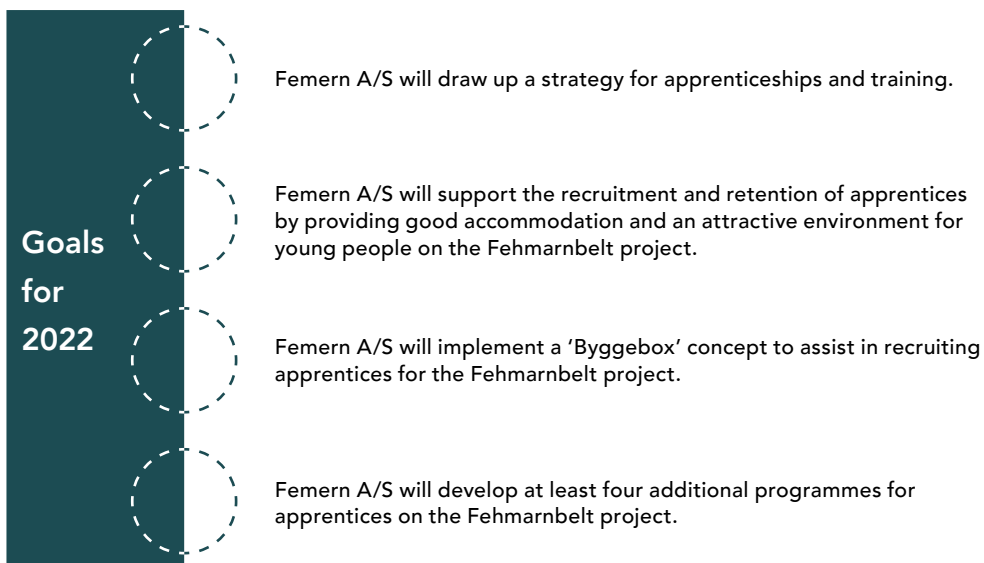
The target for 2022 for each of the four focus areas is for Femern A/S to develop specific strategic paths containing concrete actions in the selected areas, to ensure that the company's ambition level and success criteria are met. Within each of the four specific strategy paths, objectives will therefore be set and an action plan, a budget and a communication plan produced.

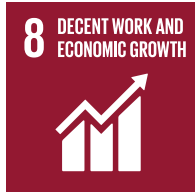


## THE WORKFORCE OF THE FUTURE

The Economic Council of the Labour Movement has produced a projection of the imbalances in the labour market which shows that Denmark will have a shortage of 99,000 skilled workers in 2030. There will also be a surplus of 59,000 unskilled workers. This imbalance could produce bottlenecks, higher unemployment and lower pay for some groups while damaging growth and development prospects for businesses.

Femern A/S aims to contribute to the employment of apprentices within the practical/craft trades, and of interns and office trainees. For the large construction contracts, Femern A/S has laid down a requirement to provide at least 500 person-years of apprenticeship in the construction period on the Fehmarnbelt Fixed Link. Femern A/S is helping the contractors to meet the internship requirement and is participating in networks and working with local and regional vocational schools, client organisations on other large Danish infrastructure projects and employers and unions.

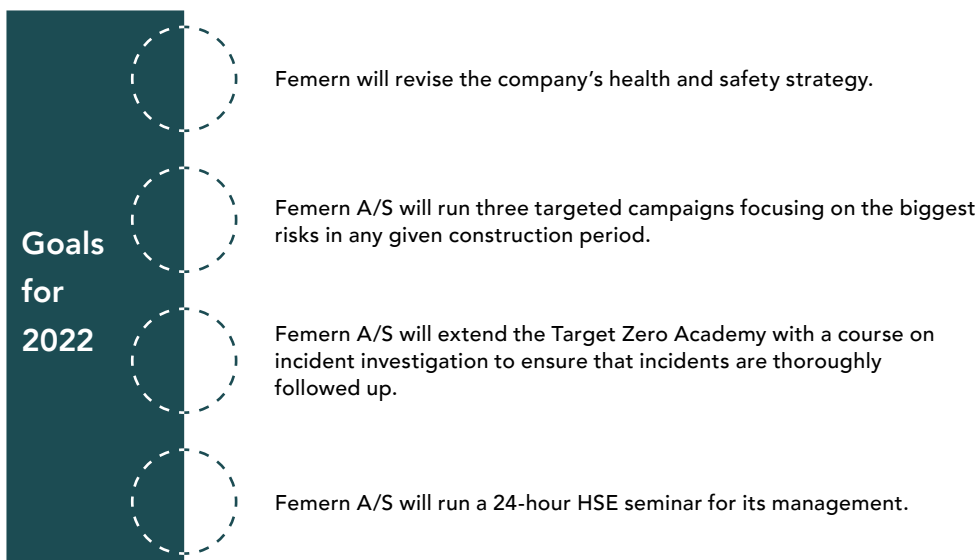




## A SAFE WORKPLACE

The building and construction industry is a sector with a high risk of occupational accidents, so there is a great need to focus on health and safety at work. Figures from the Danish Working Environment Authority show that 13% of reported occupational accidents in Denmark happen in the building and construction industry, although this sector accounts for just 6% of the workforce. On top of this, the risk of physical overload and attrition is more than double the level in other industries.

As the client organisation, Femern A/S bears the overall responsibility for health and safety on the Fehmarnbelt project, and monitors the contractors on the construction site to ensure that the workplace and processes are run so that the working environment and safety are paramount. Femern A/S has placed a contractual obligation on its contractors to train their workers in health and safety and has also established a follow-up and sanction system to reduce improper conduct on the site.

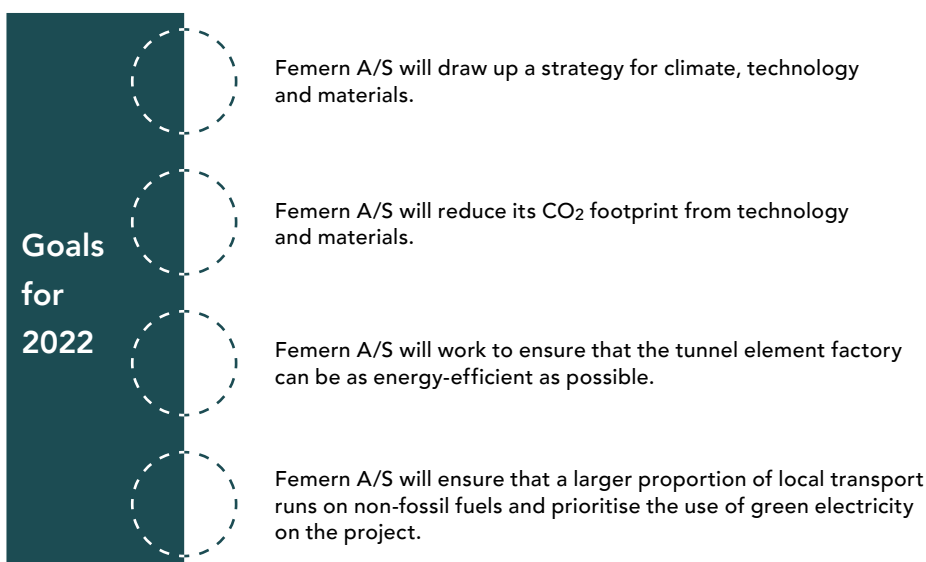




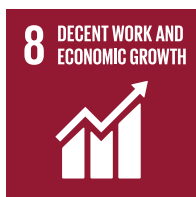
## RESPONSIBLE RESOURCE UTILISATION

Anthropogenic climate change has made its mark, not least in the growing emissions of greenhouse gases, and everyone has a responsibility to help reduce these emissions. The building and construction sector accounts for around 40% of the country's resource and energy consumption and for a third of the total volume of waste produced in Denmark, so there is great potential to make the best possible use of the resources and avoid wasting materials.

Femern A/S monitors the contractors to ensure that they are constantly striving to minimise CO<sub>2</sub> emissions, and the company also calculates all CO<sub>2</sub>-equivalent emissions from the project. Femern A/S is an active sparring partner and instigator to the contractors to ensure that they cover the market when it comes to choosing the most climate-friendly materials, and that all of the materials used have an Environmental Product Declaration (EPD). Apart from raising awareness in the contractors, the requirement for EPDs has the advantage of developing the market to the great benefit of society well beyond the scope of the Fehmarnbelt Fixed Link project, which supports the green transformation in the building and construction industry. Femern A/S also aims to support future infrastructure projects by enabling them to choose more climate-friendly materials because Femern A/S has contributed to research in this area. Femern A/S will help to ensure that the construction of the Fehmarnbelt Fixed Link supports research into new materials with a smaller climate and environmental footprint. Concrete and steel, which account for a large part of the construction materials in the tunnel, are among those with the biggest footprint, which Femern A/S is especially concerned with. Femern A/S has also designed the tunnel to last for 120 years, which will reduce the pressure on resources in terms of maintenance and the use of new components in the maintenance work. Efforts are also being made to ensure that the tunnel element factory at Rødbyhavn can be retained for use on other future construction projects.







## ORDERLY WORKING CONDITIONS

There are big differences in pay and employment conditions in the world, and Denmark is one of the countries with the highest minimum wage and the best conditions. The Danish labour market is defined by the Danish model which is based on three-way collaboration, collective agreements and a high level of union membership. The State interferes as little as possible in the regulation of pay and employment conditions, provided that employers and unions are in a position to resolve issues themselves in an acceptable manner.

All work done on the project must conform to national pay and working conditions. Femern A/S will not accept social dumping and monitors its contractors to ensure that they provide orderly conditions for their employees on the project. Femern A/S has therefore incorporated clauses on pay and working conditions applicable to work in both Denmark and Germany, covering minimum wages, overtime pay, holiday pay and pensions. Femern A/S also requires its contractors to provide proper accommodation for the employees who cannot reasonably be expected to commute from their homes to the workplace.

### Goals for 2022

Femern A/S will draw up a strategy for pay and employment conditions.

On behalf of Femern A/S, an external consultancy will carry out at least four additional spot-checks on pay.

Femern A/S will revise the company's model for monitoring pay.

Femern A/S will regularly inspect at least 90% of all accommodation units.

# Femern *Sund ≈ Bælt*

Femern A/S is tasked with the planning, building and operating the fixed link between Denmark and Germany across the Fehmarnbelt. Information and communication developed in the course of the planning process should be considered as work in progress and not representing a final position or determination unless otherwise has been explicitly stated. Femern A/S is a subsidiary of the Danish, state-owned Sund & Bælt holding A/S, which has experience from the construction of the fixed links across the Great Belt and Øresund.