



# DEIF

CSR/Sustainability  
Report 2020

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# LETTER TO OUR STAKEHOLDERS

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**The world is facing difficult challenges. Among other things, we have to deal with the raging Covid-19 pandemic, while keeping a steadfast focus on some of the long-term threats like climate change, resource scarcity and inequality.**

As we all know, the challenges are not new. But it's new that the world has united to tackle the challenges and create sustainable development on a global scale guided by the UN Sustainable Development Goals.

At DEIF, we have made a strong commitment to play a role in supporting this sustainable development. We want to make a difference, and we can make a difference by the solutions we offer and by the way we do business. Our commitment to sustainable development is manifested in our DEIF 2030 strategy, which sets out our ambition to be a global trendsetter in climate-friendly products and solutions. We aim for sustainable growth towards 2030 with two thirds of our revenue coming from products and solutions that have a positive climate impact.

In the world around us, the green energy revolution has begun, the electrification of societies is running at full speed, and the demand for hybrid solutions is exploding. As specialists in power efficiency, this is our playing field – on land and at sea. We know that our solutions can make a genuine difference both in the long-term green transition and in the short-term green recovery after Covid-19.

The DEIF 2030 strategy will guide our decisions and actions throughout the business, and step by step we will work to succeed. In this way, we will continue to develop the company's long-term value based on business ethics and responsibility towards our employees, business partners, local communities and our planet.



**Toke Foss**  
Group CEO





## DEIF's Purpose

Our purpose is to supply the world's best and most reliable control solutions for a sustainable future.

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# ABOUT DEIF

It's all about power efficiency

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## OUR BUSINESS

DEIF develops and manufactures green, safe and reliable control solutions and products for decentralised power production – on land and at sea.

The fight against climate change drives the transition of the energy sector towards net-zero-emission systems. We follow this trend and offer control systems that improve energy efficiency for all types of fuels and applications. Furthermore, we specialise in control solutions for renewables, notably wind power and advanced hybrid systems that integrate different energy forms, including solar and batteries.

## OUR APPROACH

As a company with global activities, we need to navigate different cultures, practices, ethics and moral standards. We do this by operating as one company with shared values and based on the DEIF Code of Conduct across the world.

Since the foundation of the company in 1933, DEIF has been a family-owned, value-based company that takes a long-term approach to value creation. We protect this heritage and want to be recognised for our responsibility, honesty and integrity towards our employees, business partners and the society as a whole.

## OUR AMBITION

Knowing that our solutions make a genuine difference in the fight against climate change, it is our ambition to play a leading role in the transition towards cleaner and greener power management. We have set sail to develop new, climate-friendly technologies and aspire to be the go-to partner for products that boost energy efficiency and renewable energy.

At the same time, we want to reduce the carbon footprint of our activities and take responsibility for people and communities where we do business.



Founded in 1933  
and headquartered  
in Denmark



540  
employees



532 mDKK  
revenue  
(2020)



29.5 mDKK  
EBIT  
(2019)\*



\*EBIT 2020 not ready at the time of publication

# THE IMPACT OF COVID-19

Unforeseen challenges – New opportunities

## PRIORITIES: KEEP PEOPLE SAFE, KEEP BUSINESS RUNNING

2020 is a year, we will never forget, as Covid-19 swept across the planet, disrupting people's lives and turning the daily work upside down. This was also the case at DEIF, where Covid-19 demanded our full attention during the year.

When the pandemic broke out in March, we established a Covid-19 task force that has worked intensively with two clear priorities: to protect the health and safety of our employees and to keep the global business running with as few disturbances as possible, while adhering to local legislation and precautions

*“The outbreak of Covid-19 and subsequent lock-down of societies around the world, forced us to act fast and think out of the box to make sure that we kept the business running, while ensuring the safety of our people. It's been a great pleasure to feel the engagement of all colleagues, and how the spirit of being one DEIF family has helped solve the Covid-19 challenges together.”*



**Marjanne Grønhøj**  
SVP, HR & Communication

## NEW WAYS OF WORKING FOR EVERYBODY

Following lock-down instructions in the individual countries around the world, the majority of DEIF's employees worked from home for longer periods, while DEIF's production, laboratories and test facilities ran uninterrupted throughout the year with, following established, strict procedures for social distancing, hygiene and personal protective equipment.

Travel was restricted to only critical missions to perform service and repairs at customers' sites. To ensure maximum safety for our service engineers, all travel and on-site activities were governed by carefully prepared instructions.

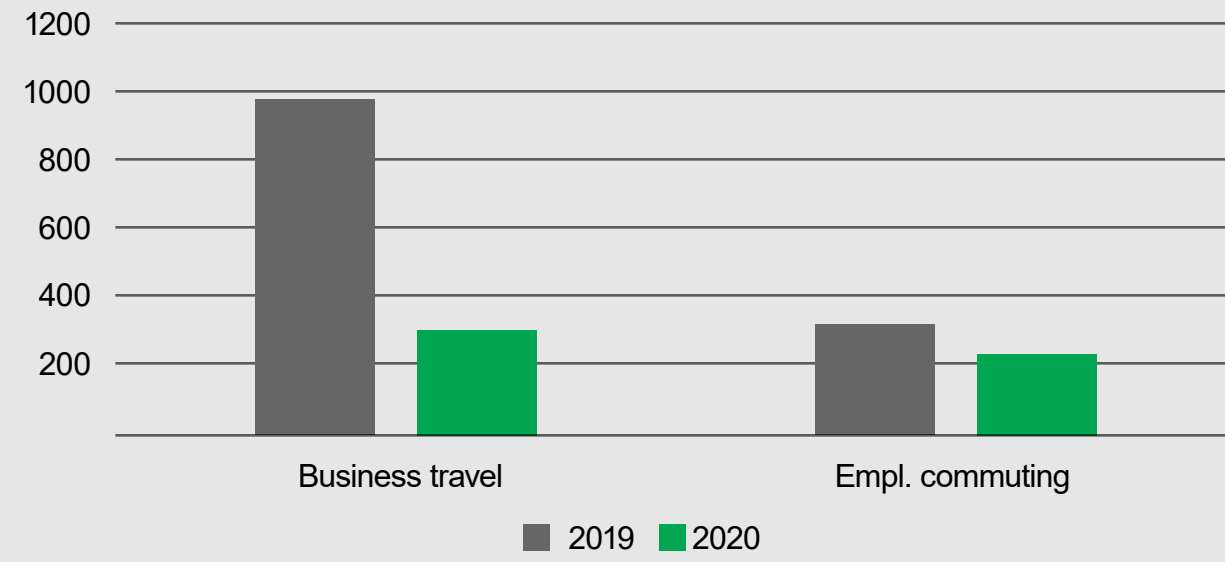
## KEEP UP THE GOOD HABITS

We have learned a lot from Covid-19, among other things the benefits of working from home. We introduced Friday as a general work-from-home day in Denmark. It is a win-win situation for company and employees in terms of high productivity and increased flexibility. Besides, we expect the weekly work-from-home Friday to provide estimated CO<sub>2</sub> savings of 60 tons per year due to less commuting by car.

## CHALLENGING FOR MANKIND – POSITIVE FOR THE CLIMATE

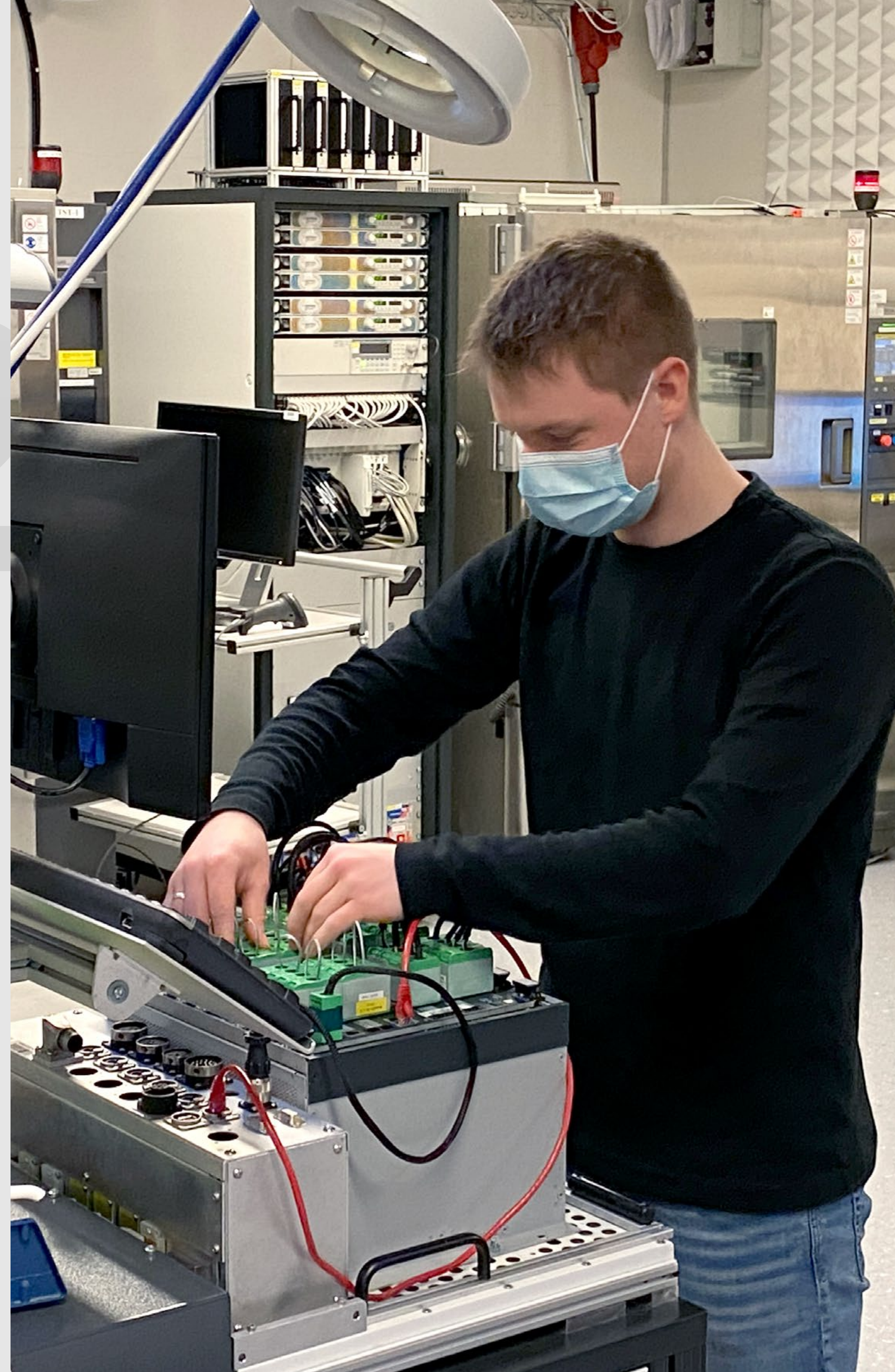
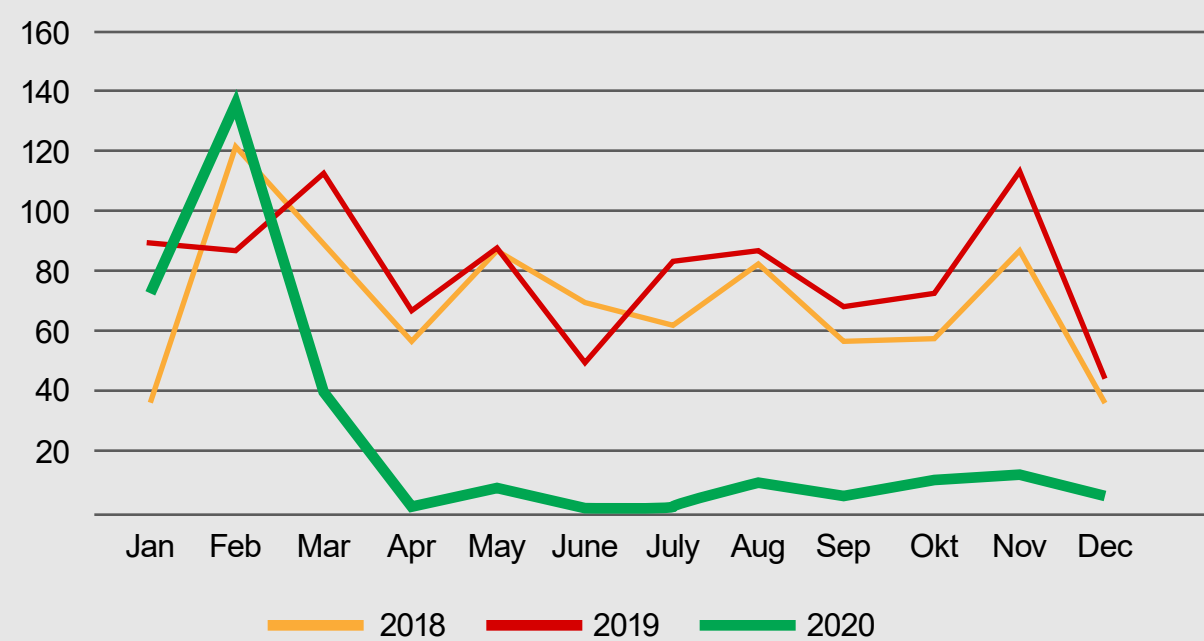
Covid-19 affected the way we work at DEIF. Travel - unless for critical customer assignments – was suspended, and the majority of employees worked from home. These changes in our ways of working led to a significant reduction in the CO<sub>2</sub> emissions from our daily business.

Examples of Corona impact  
DEIF HQ (TCO<sub>2</sub>e)



At the DEIF headquarters, where 62% of our people work – the CO<sub>2</sub> emissions from air travel and km in rented cars dropped by 67% compared to 2019. This equals a CO<sub>2</sub> reduction of 662 TCO<sub>2</sub>e. At our headquarters in Denmark, most employees worked from home 5.5 months in 2020. This saved about 25% of emissions from the daily commute by car, which equals about 86 TCO<sub>2</sub>e.

TCO<sub>2</sub>e  
DEIF airtavel



DEIF's production in Denmark operated uninterrupted throughout the year.

## HELPING EACH OTHER ACROSS THE GLOBE

The Covid-19 pandemic hit DEIF's companies in China, Singapore and Korea first. At the beginning of the pandemic, these countries had difficulties in securing supplies of masks and hand sanitizers. To help, protective aids were sent out from Denmark. Later on, when the pandemic hit Europe and Americas, the DEIF sites in Europe, Brazil, US and Mexico received aids from China.

A generous donation of masks from a specific DEIF customer in China was distributed to the Municipality of Skive to help in the local community, which experienced shortage of protective aids at care centers and hospitals at the beginning of the pandemic.



Donation of masks to Skive Municipality.

# OFF-GRID COMMUNITY IN AMAZONAS POWERED BY HYBRID POWER

CASE STUDY



Oiapoque  
Amazonas  
Northern Brazil



## ANNUAL DIESEL SAVINGS:



## LOCATION:

Off-grid town of Oiapoque, Brazil with 24,000 inhabitants

## SOLUTION:

Original diesel power plant extended with 5GW solar plant to provide cleaner and cheaper power. 15,840 solar panels, 132 inverters, covering 70,000 m<sup>2</sup>

## DEIF SOLUTION:

Power management system with 6 ASC controllers and 10 AGC-4 controllers

## NEXT STEP:

Integration of hydro-power plant so that 90% of energy supplies in 2023 come from renewable sources. DEIF controllers will be applied to integrate the hydro-power plant into the hybrid system.

“DEIF’s controllers were the only solution we could find on the market that could integrate both the thermal and solar plant. The controllers from both plants communicate together and provide us with good options for monitoring and supervision. I think it is a unique solution in the market,”

Leonardo Salgado, Power Plant Manager

# CSR AND SUSTAINABILITY AT DEIF

A long-term commitment to be a responsible company

DEIF



In 2020, the Executive Management Team prepared the long-term vision for a sustainable development of DEIF. The 2030 strategy aims to create profitable growth with a strong focus on clean and green solutions.



## HOW WE WORK WITH CSR AND SUSTAINABILITY

Since 2016, DEIF has been a member of the UN Global Compact, and we base our CSR work on the ten principles of the Global Compact.

The mainstay of our CSR activities is the DEIF Code of Conduct, which reflects the ten principles of the Global Compact and guides leaders and employees in daily decisions, actions and behaviour.

We expect suppliers and their sub-suppliers and other cooperation partners to live up to our principles of ethical business practices and to help us deliver sustainable solutions. Therefore, all suppliers sign the DEIF Code of Conduct.

## DEIF CODE OF CONDUCT

All employees have been introduced to the DEIF Code of Conduct. We conduct regular training sessions, where teams and individuals can practice how to handle difficult situations, covering topics like corruption, discrimination, safety and environmental issues. The DEIF Code of Conduct is part of the introduction for new employees in Denmark. This practice will be rolled out in a new global onboarding programme launched in 2021.

## OUR CONTRIBUTION TO THE UN SUSTAINABLE DEVELOPMENT GOALS

In 2020, the Executive Management Team of DEIF prepared the long-term vision for the development of DEIF towards 2030. During the process, we made a careful screening of the UN Sustainable Development Goals and how we can best support the goals. In the process, we decided to focus our effort on **Goal no. 7** (affordable and clean energy) and **Goal no. 13** (climate action).

## HUMAN & LABOUR RIGHTS

At DEIF, we believe in diversity and inclusion as a lever for high people engagement, innovation and excellent business results. We strive to create an open and trustful environment in which people treat each other with respect and dignity, allowing the individual to grow and unfold his/her potential regardless of gender, age, religion, culture, disability etc. Supporting and respecting internationally recognised human rights, we are committed to ensuring fair and equal treatment of all human beings. This is fundamental to how we treat our employees, work with business partners and interact with the surrounding communities.

### General Guidelines Concerning Human & Labour Rights:

- We will not accept any kind of discrimination at DEIF, and we expect you to treat all human beings (internally and externally) equally, regardless of gender, race, religion, age.
- We guarantee equal employment, training and/or promotion opportunities for our employees.
- We do not use child labour or any form of forced and compulsory labour.
- Harassment in all forms are not allowed/accepted.

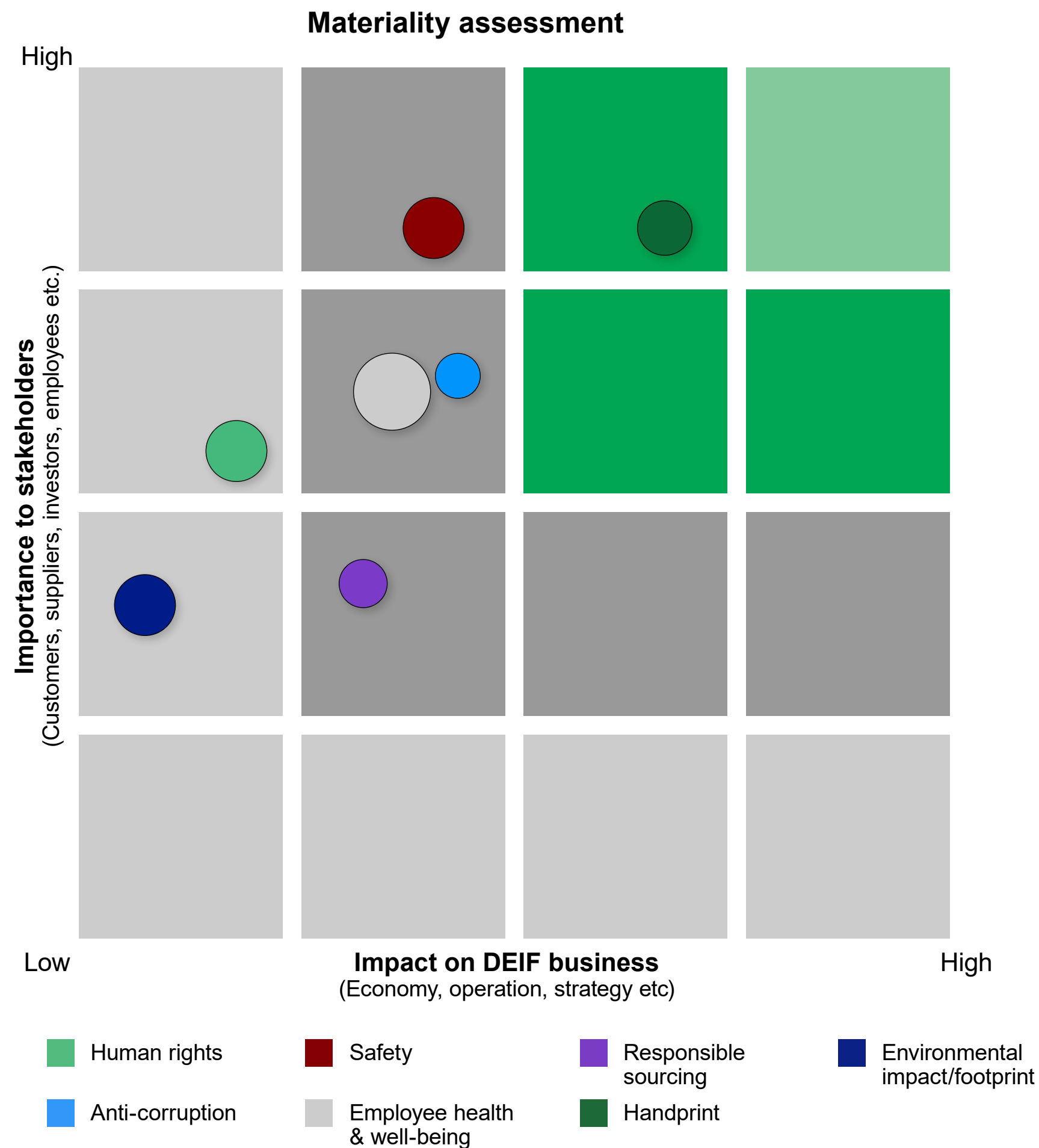


- Q** I applied for an internal position and believe that someone less qualified was chosen. I suspect I was not chosen due to my gender. What can I do?
- A** *Employment decisions must be made based on skills, experience and abilities – not gender or other discriminatory factors. If you are concerned that your gender played a role in the decision, you could talk directly to the hiring manager and express your concern, or you can consult HR.*
- Q** Recently, I came across information on the internet about one of our suppliers. The information indicated that the supplier employs children below the age of 12. Apparently, this has been the case for years and is not uncommon in the industry. Should I react on the information and if yes, what am I expected to do?
- A** *Information on the internet can be misleading – first of all the information should be substantiated. If your further investigation reveals that our supplier indeed employs children below the age of 12, you should consult your manager. Your manager will ensure that DEIF contributes positively to the working conditions of the supplier.*
- Q** One of my colleagues' political conviction deviates from everyone else's in the team, including mine. He often makes racist and vulgar jokes about colleagues with another political standpoint. It is causing a lot of turbulence and bad atmosphere for everyone. What should I do?
- A** *We do not accept this kind of behavior. Discuss the matter with the colleague not "accepting" people with another political conviction and tell him, how you perceive his behavior. If you feel uncomfortable in doing so, contact your manager.*
- Q** I have recently noticed that one of my colleagues feels sad and frustrated. When I talked to her about it, she said that her manager constantly makes rude, degrading or offensive remarks to her – even when other colleagues are around. She doesn't know why but feels very uncomfortable and is considering to resign from her job. I know that my colleague can sometimes joke about things and make friendly fun of others, but is it OK for her manager to act like this?
- A** *No, absolutely not. We all have a right to work in an environment free from harassment and violence, and at DEIF we will not tolerate harassment in any form. Your colleague should report this to her next level manager or to HR. If you would like to help, you can also report it for her.*



## MATERIALITY ANALYSIS

In order to discover and reduce possible CSR related risks and to support a sustainable development of the company, we conducted a materiality analysis in 2020. We want to make a difference, where it matters most, and the analysis helps us prioritize social and environmental activities in the coming years. The analysis was carried out among internal stakeholders.

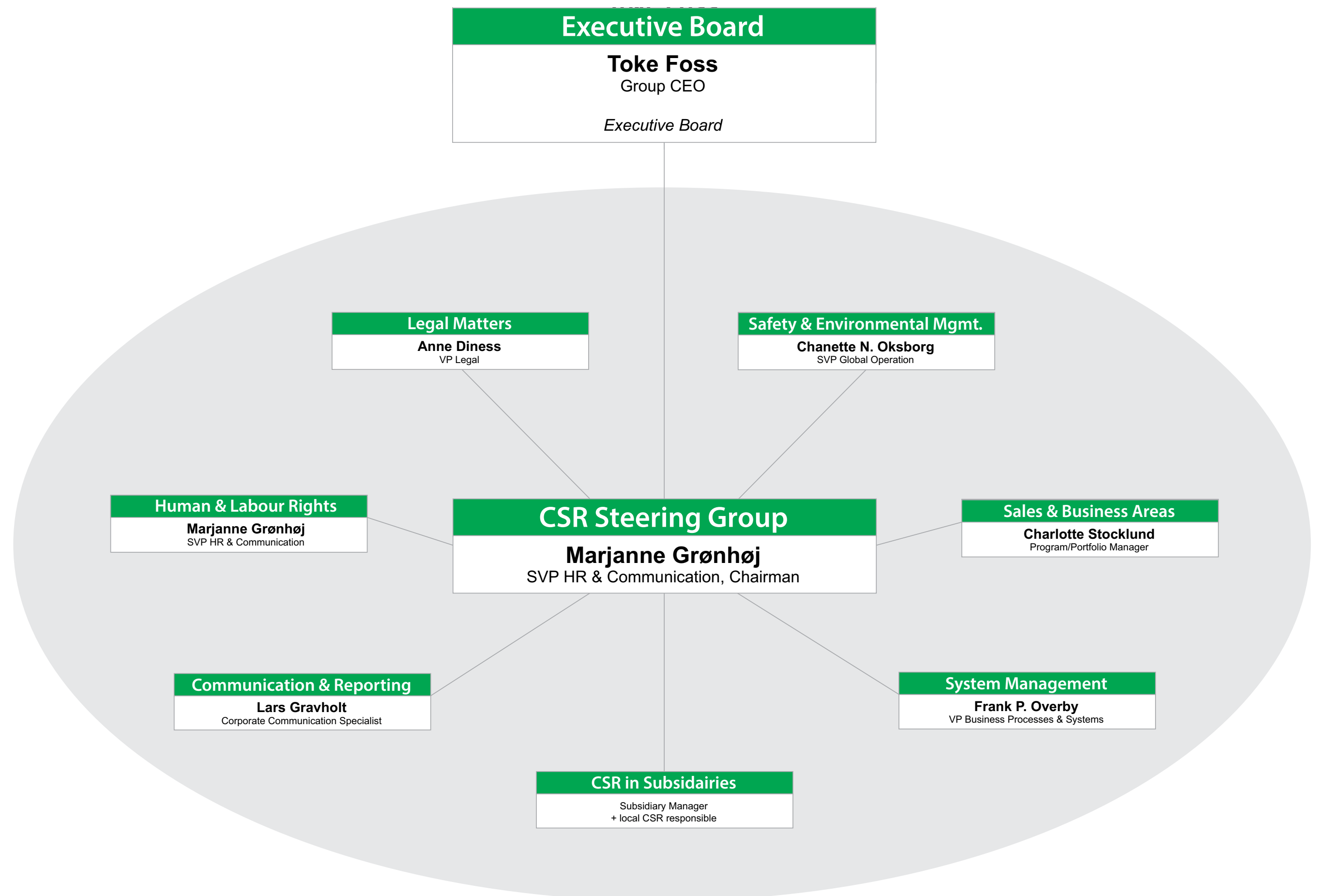


The size of the circles indicate the probability that the risks will occur

## ORGANISATION OF THE CSR WORK

The CSR work at DEIF is governed by the CEO, while a cross-functional CSR Steering Committee advises on ambitions, coordinates activities and follows up on progress. The Health, Safety, Environment (HSE) organisation is deeply involved in the work, and ad hoc work groups are set up for specific tasks.

All managers are responsible for continuous follow-up and improvements within their areas of responsibility to make sure that the CSR mindset is embedded and kept alive in all parts of the organisation.



# STRONG COMMITMENT TO SUSTAINABLE DEVELOPMENT

## CSR/Sustainability management

In 2020, the CSR/Sustainability work at DEIF was centered on creating a vision for the long-term, sustainable development of DEIF towards 2030. At the same time, a lot of focus was put into the management of the Covid-19 pandemic, while securing momentum on the CSR targets and initiatives planned for the year.

*“I was happy to be able to contribute to the Climate Partnership for a sustainable development of the industrial sector in Denmark. I think that Danish companies have a unique opportunity to transfer know-how and climate-friendly solutions that can make a genuine difference in the global fight against climate change. Our government has set up a target to reduce the carbon footprint in Denmark by 70% in 2030. I find the ambition inspiring, and at DEIF we are definitely ready to do our part.”*



**Toke Foss**  
CEO at DEIF

Vice chairman of the Climate Partnership for Production Companies.

## ACTIVITIES AND RESULTS IN 2020 INCLUDE:

### Long-term sustainable development of the company

Preparation of the ‘DEIF 2030 Strategy’, which was approved by the Board of Directors in December 2020. The DEIF 2030 Strategy is a long-term vision for a sustainable development of the company, aiming for profitable growth with a strong focus on clean and green solutions.



**PROFITABLE GROWTH**  
1 BDKK in 2030 and EBIT ratio of minimum 10%



**POSITIVE CLIMATE IMPACT**  
2/3 of turnover from solutions with a positive climate impact



**REDUCE CLIMATE FOOTPRINT OF DEIF'S ACTIVITIES**  
2/3 reduction in carbon footprint by 2030. DEIF's scope 1 and 2 activities are carbon-neutral within five years

### Green society

DEIF supports an initiative to make responsible and climate-friendly development part of the Danish Constitution. The so-called ‘Green Constitution’ is a joint initiative between NGOs, political parties and several large, Danish companies.

### CSR risk analysis

The annual CSR risk analysis did not reveal any serious CSR risks in 2020. 578 projects were screened for CSR risks with a special focus on risk of corruption throughout the global value chain. No major project risks were identified.

### Systematic CSR assessments

In-depth review of CSR compliance following the guidelines set up by the UN in the Global Compact Self-Assessment Tool allow us to monitor compliance and progress as well as to identify areas of improvement in our CSR work. In 2020, assessments were carried out in Denmark, China, Singapore, Brazil, India and Korea. The assessments show a strong commitment and compliance to the principles laid out and that CSR is an integrated part of the business.

The 2020 audit of compliance with the DEIF Code of Conduct among 40 dealers, service partners and other DEIF partners showed compliance with the DEIF Code of Conduct.

## NEXT STEPS IN SUSTAINABILITY MANAGEMENT 2021

### Covid-19

Continue the effort to ensure the health and safety of the employees, while keeping the business running.

### Long-term development vision

Communicate and implement the DEIF 2030 Strategy in the global organization and prepare strategies for all business units and functions that support the vision.

### Monitor climate impact

Prepare for implementation of a system to monitor the climate footprint and handprint of DEIF's activities as the basis for continuous improvement.

### CSR risk management

Continue the annual CSR assessments and risk screening of projects in the global organization.

## ZERO TOLERANCE FOR CORRUPTION

DEIF has zero tolerance for corruption, bribery, extortion and use of other methods that may create conflicts of interest related to our business.

DEIF employees are only allowed to accept minor gifts and attend meetings or events within the scope of normal business practice. Any decisions, actions or behaviour compromising DEIF's stance on anti-corruption will have consequences for the employee(s) involved.

Our contracts are always prepared in accordance with existing laws and regulation, and we take care to make sure that our contracts with suppliers, consultants and other cooperation partners include sections on anti-corruption.

## ACTIVITIES AND RESULTS IN 2020

### Anti-corruption Compliance Guideline

All employees received the new 'DEIF Anti-corruption Compliance Guideline'.

### Anti-corruption training

Anti-corruption training was carried out for managers and key specialists in all business units globally.

### Whistleblower

No whistleblower reports were received in 2020.

## NEXT STEPS IN 2021:

### Anti-corruption training

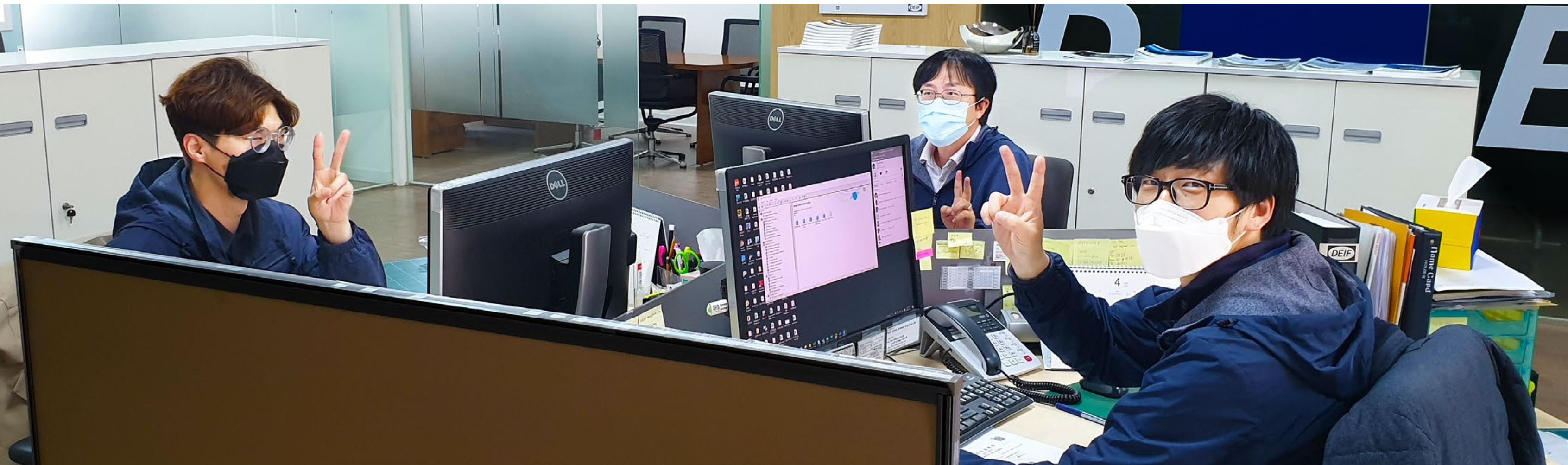
Carry out anti-corruption training for all managers in HQ.

### Compliance review

Perform compliance review of anti-corruption policies in all DEIF subsidiaries.

### Transparency International

Seek membership of Transparency International.



# NEW LIFE TO OLD WIND TURBINES

## OPERATOR:

ERG

## LOCATION:

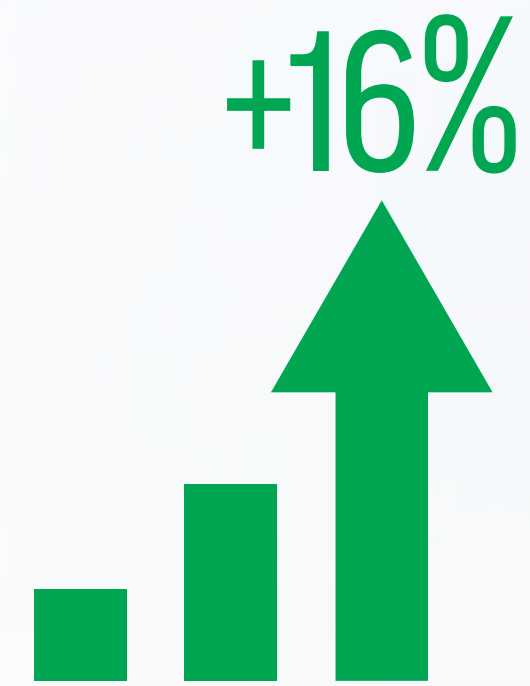
Avigliano, Italy

## SOLUTION:

Extending blade length by 1m to increase productivity

## DEIF SOLUTION:

New control system to optimize pitch and yaw alignment after reblading



## PRODUCTIVITY GAINS:

+16% by reblading and new control system

CASE STUDY



Avigliano  
Italy



“With DEIF’s solution, we now have a modern solution based on a plug and play installation meaning minimum downtime, optimised O&M and full data access. DEIF’s control solution is an effective way of upgrading Vestas\* V47 control platform to modern standards.”

Daniele Baldan, Production Optimization Manager, ERG

\*) “Vestas” is a trademark of Vestas Wind Systems A/S.

The trademark owner is not associated with our products or services

# OUR PEOPLE, OUR CULTURE

A motivating and inclusive place to work

We support and respect the protection of internationally proclaimed human rights and make sure that we do not in any way contribute to the violation of these rights.

We strive to secure equal rights and commit to group-wide targets to increase the number of women at all management levels and to provide job opportunities for marginalised groups and people with reduced ability to work. We want to offer a safe and inspiring work environment with opportunities for personal and professional development to all our employees.

## ACTIVITIES AND RESULTS IN 2020

### Employee Engagement Survey 2020

We carry out regular employee engagement surveys. The survey in 2020 had a response rate of 97%, which is exceptionally high and testify to the strong commitment of our employees. The general score for almost all topics in the survey was 'top in class' compared to a global benchmark of companies of the same size as DEIF. All departments have discussed the results and prepared action plans for further improvements.

### Employee involvement

Top management carried our virtual roundtable meetings with 55 employees in order to get feedback and input to three focus areas: management of Covid-19, execution of organizational changes, focus on value creation in the daily work.

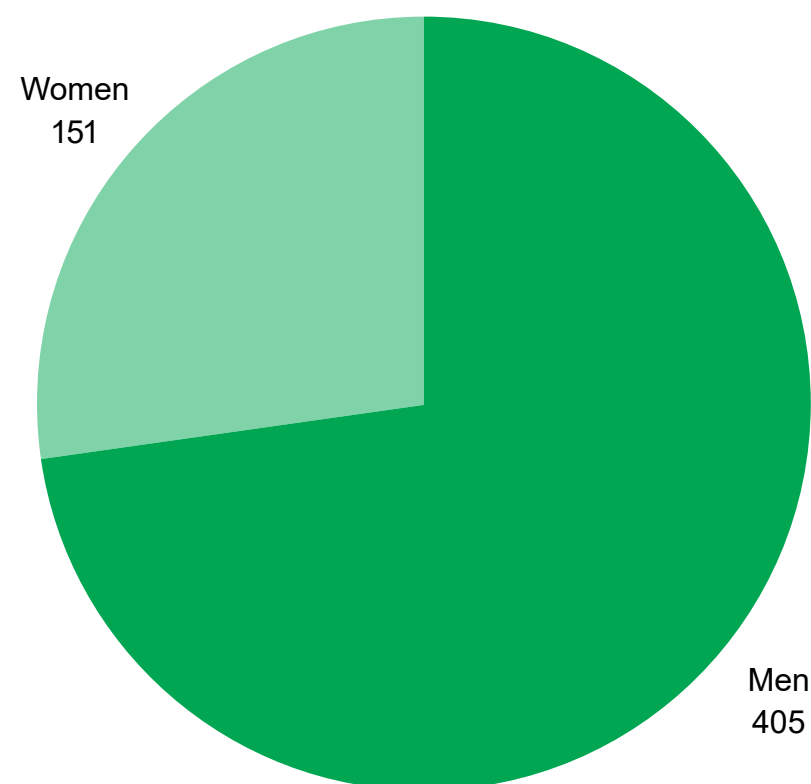
### Employee development

We conduct annual development dialogues with all employees to encourage continuous professional and personal development.

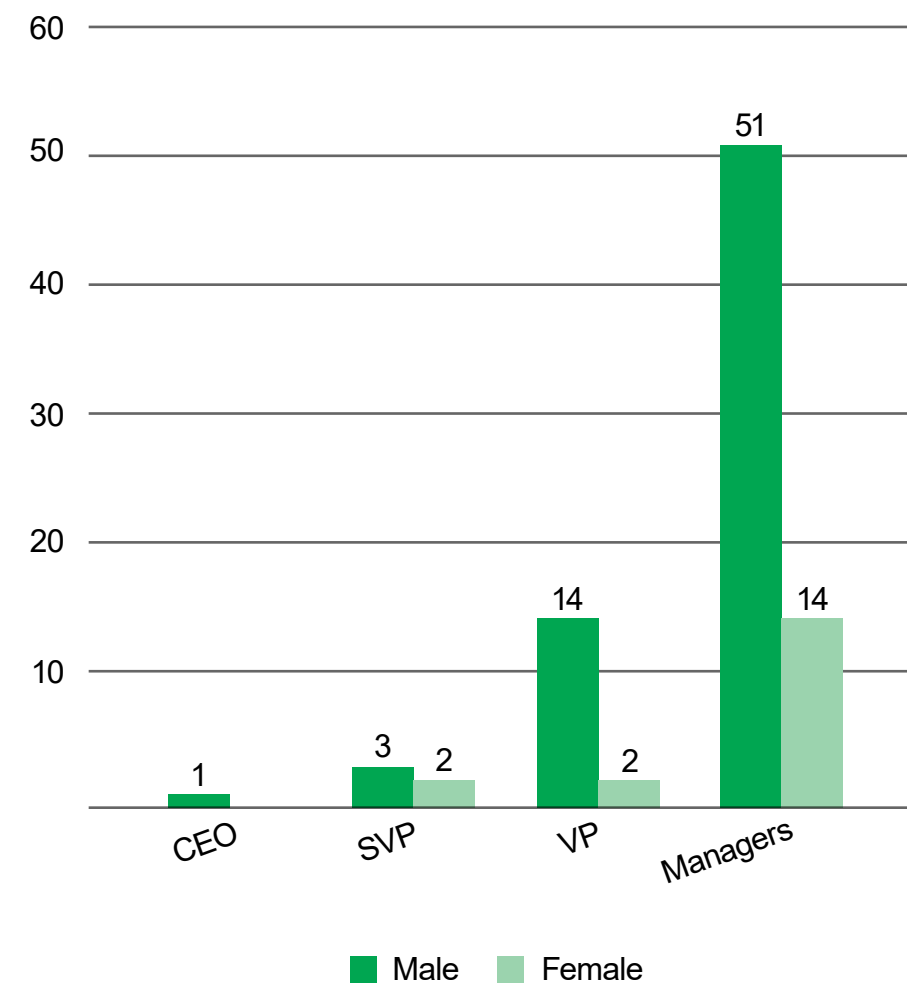
### Social responsibility

DEIF in Denmark employs six people in so-called 'flex-jobs', and 7% of the employees in Denmark are employed in training positions, i.e. internships, apprentices and trainees.

Distribution of gender

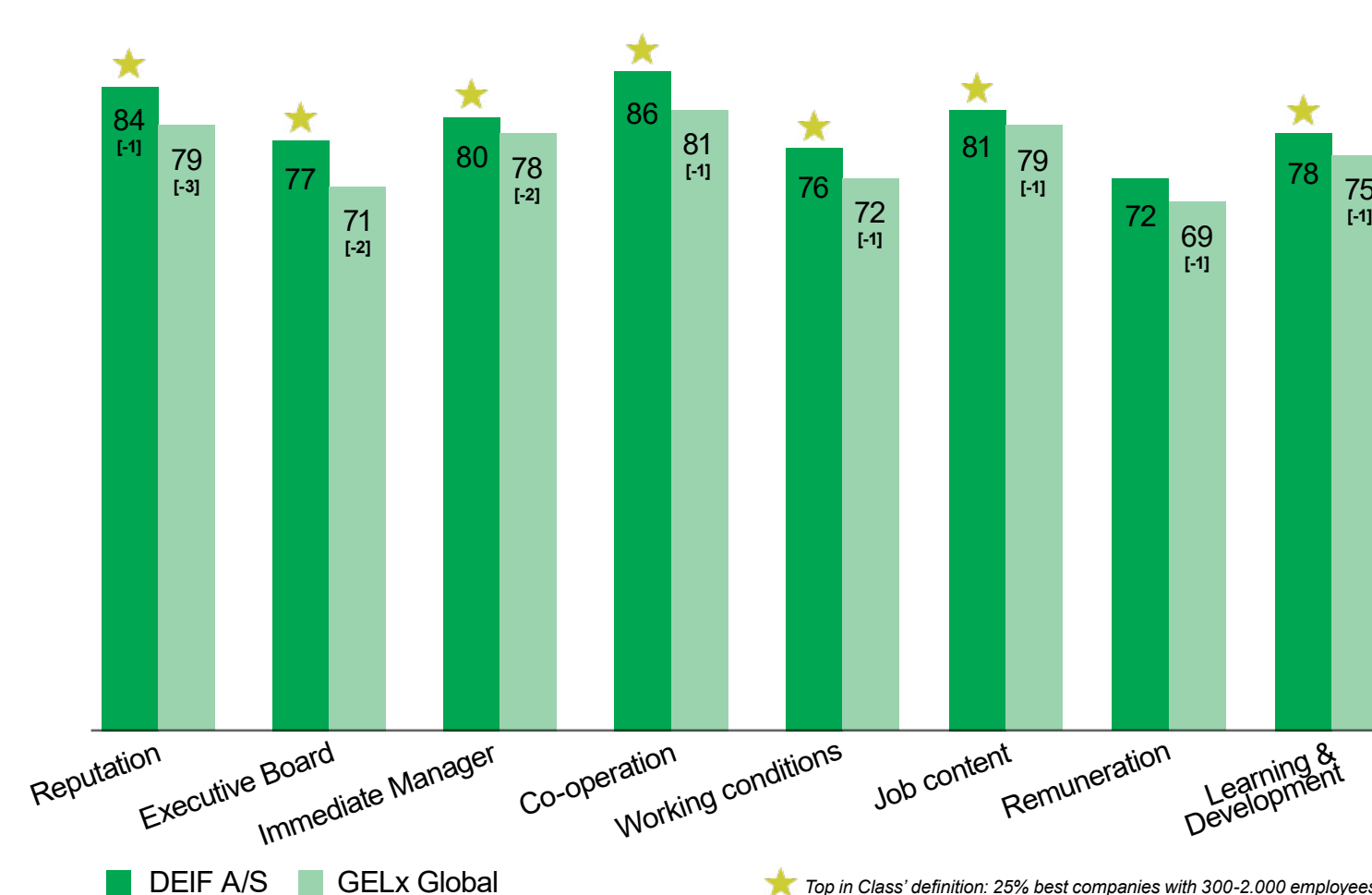


Distribution of gender in leadership



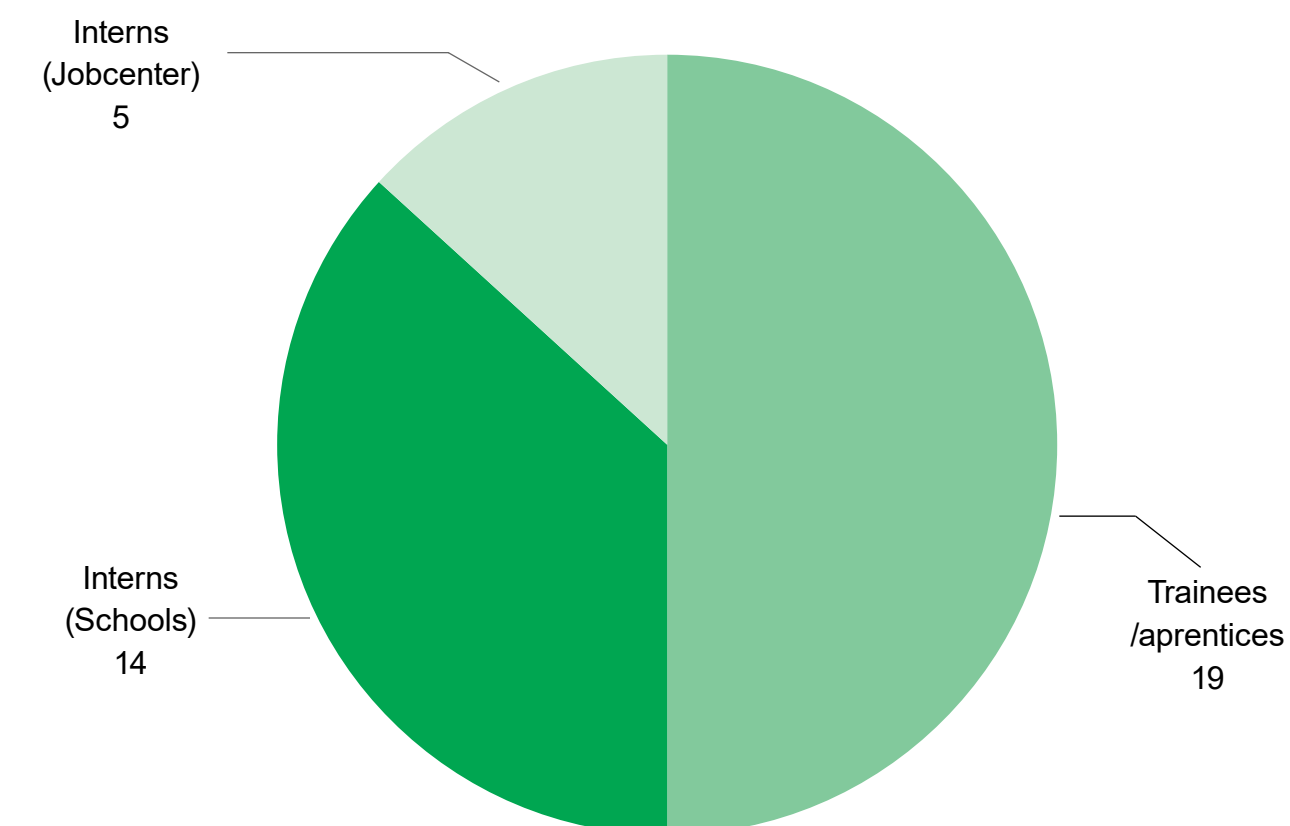
International employee engagement benchmark

DEIF scores top-in-class on seven out of eight parameters



★ Top in Class' definition: 25% best companies with 300-2,000 employees.

Trainees/apprentices and interns



### Organizational diversity and women in management

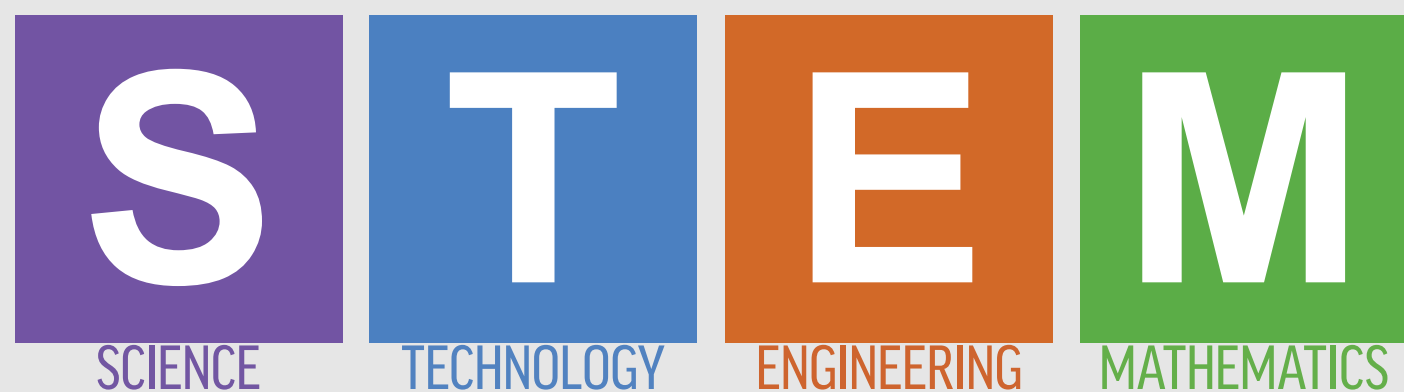
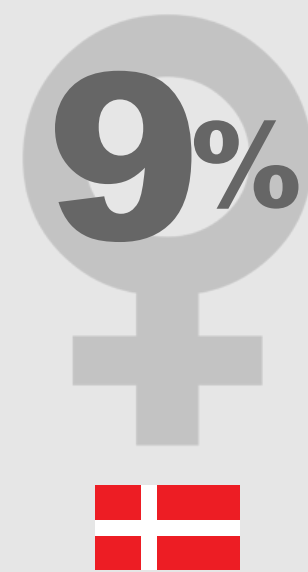
Preparation of new recruitment strategy, which aims to secure a diverse workforce at DEIF, among other things to increase the share of women in management. The recruitment strategy supports the DEIF 2030 Strategy, based on a strong belief that diversity is the key to innovation and business success.

### A MINDFUL ORGANIZATION

70 employees participated in 4 training sessions in mindfulness at DEIF. The first sessions were carried out at DEIF's site in Denmark, while the last sessions were carried out online due to the corona.

### STEM

In Denmark, only 9% of graduates in electronic sciences are women. In order to fulfil the ambitions of organizational diversity, DEIF has an important task in encouraging women to enter the STEM professions, i.e. Science, Technology, Engineering and Mathematics.



### NEXT STEPS IN PEOPLE AND DIVERSITY 2021

#### Organizational diversity

Implement the new recruitment strategy and ensure an increasing percentage of women in management positions towards 2025. In the long-term perspective, we take part in initiatives that promote the interest of women in STEM careers.

#### Talent development to support the long-term strategic development of DEIF

To reach our ambitions expressed in DEIF 2030 Strategy, we need to set the bar even higher when it comes to retaining and attracting talented and highly qualified people. We also realize that great people require great managers. Therefore, we will focus on leadership as a key lever to creating a culture of execution power, speed, passion and willingness to change.

#### Socially marginalized people

We will continue to offer socially marginalized people a chance to enter the labour market in the local communities we are part of, for instance by offering mentor training or part-time jobs.

### WOMEN IN MANAGEMENT

The number of female managers reflect the general gender mix at DEIF. In 2020, female managers make up 20% of the total number of managers. We have doubled the number of female Vice Presidents from 6.5% in 2019 to 12.5% in 2020, while the number of female managers remains stable at 22%.

During the last five years, we have employed/appointed 11 women to manager positions. This corresponds to 14.9% of all recruited or appointed managers in the period.



At senior management level, two out of six members of the Executive Management Team are women.

# SAFETY FIRST

A safe place to work – also during Covid-19

At DEIF, we put our people's safety first, and we aim for zero work-related accidents. We demand the same from our suppliers and other cooperation partners. When working at project sites, we work together with our customers to provide a safe work environment that prevents accidents and does not expose our employees to health and safety risks.

We provide safety training, instruction and supervision for all colleagues and we only allow people who have been instructed in safety measures to carry out the work. All DEIF service engineers are trained to make on-site health & safety assessments, and it is the duty of every employee to refuse any work that may compromise safety. We carry out annual audits to make sure that we comply with our safety policy at all times.



## ACTIVITIES AND RESULTS IN 2020

### Covid-19

2020 saw a lot of effort put into ensuring the health and safety of our employees during the various phases of the pandemic. In line with national legislation and recommendations from health authorities, employees have worked from home during lock-down periods. For people in production and on-site service jobs, we have introduced new ways of working, ensuring social distancing, good hand hygiene and the use of masks.

### Safety and health

Our safety vision is zero work-related accidents. In 2020, we had one minor accident which required time off. Besides, three near-miss incidents were reported. We have prepared and implemented a global safety instruction for our service engineers who work at customer sites. The total sick leave in 2020 was 2.4% compared to 2.9% in 2019.

### Safe management of chemicals

We have carried out a risk screening of all chemical substances used in the production and offices of DEIF to ensure the health and safety of our people.

## STAY SAFE DURING COVID-19

The Health and Safety team held six meetings during 2020. Most of the meetings were held as virtual meetings due to Covid-19.





## NEXT STEPS IN OUR SAFETY WORK 2021

### Safety on-site

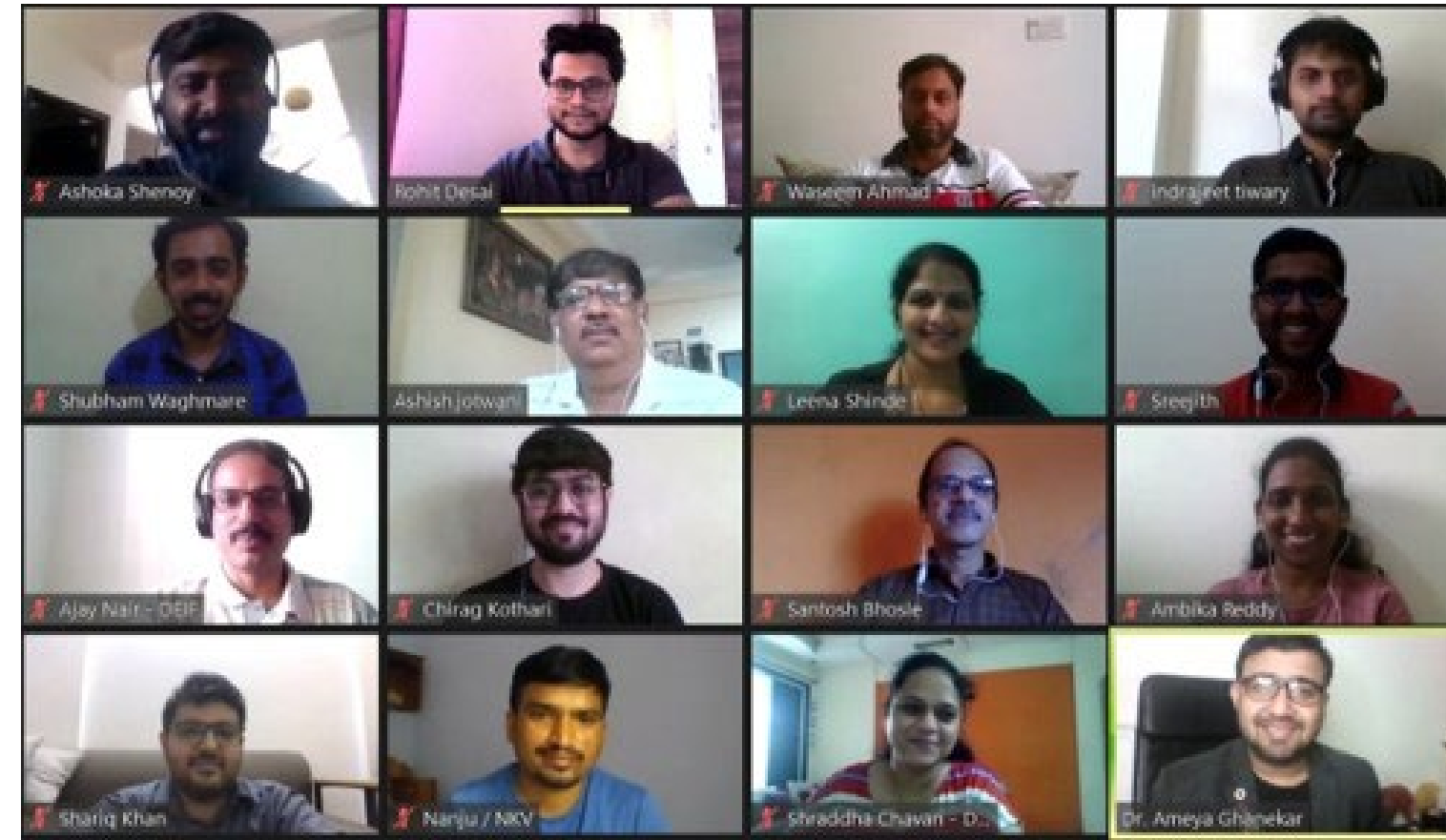
We continue to have special focus on safety in connection with on-site service assignments. We will carry out workshops for our on-site service engineers with special focus on specific risks associated with travelling and working on-site. The training will be conducted as 'train-the-trainer', and the training will be continued locally in the DEIF business units in 2021.

### Travel policy

We plan to prepare a new travel policy reflecting a dual focus on safety and the climate impact of travelling.

### Work environment

We focus on continuing the good practices that have been implemented as part of the Covid-19 safety programme. On a test basis, we will introduce a work-from-home day once a week for office workers in Denmark. Besides, we will continue our focus on ergonomics and the benefits of physical exercise during the workday – both in the office and when working from home.



Online team building in India



Stocking up on masks and other protective items in Singapore



Christmas bingo online to keep up spirit in Denmark during the corona



Checking body temperature every day in Korea

# GREEN AT HEART

Clean and green solutions with a positive climate impact

**As a leading provider of power management solutions, DEIF has made a strong commitment to making a difference in the fight against climate change. For decades, DEIF has offered products and solutions that enhance energy efficiency in onshore and off-shore applications. At the same time, we support the uptake of renewable energy sources by providing advanced power management systems for wind, solar and hybrid installations and microgrids.**

**We call it Green at Heart. This implies an unrelenting focus on products that increase energy efficiency, reduce fuel consumption, cut emissions and extend lifetime of our customers' installations.**

*“COVID-19 was a challenge in 2020, but we increased our momentum in order to create solutions that make a positive climate impact. It is our ambition to become a world-leading go-to partner for products that boost energy efficiency and enable renewable energy as a source.”*



**Christian Nielsen**  
SVP Sales and Business Areas

In 2020, 43% of DEIF's turnover came from clean/green energy, i.e. solutions that improve energy efficiency and solutions for renewable energy systems. The remaining part of the turnover was related to diesel or gas AC systems that will continue to play a major role in the next decade and offer high potential for optimization.

The DEIF 2030 Strategy introduces an unrelenting focus on clean and green solutions in our portfolio with the ambition that two thirds of our solutions provide a positive climate impact in 2030.

## RETROFIT AND UPGRADE OF WIND TURBINES

Wind turbines designed back in the late 1990s typically have a mechanical lifetime up to 40 years, whereas the control system may be outdated even today. An upgrade of the control system can improve the turbine efficiency significantly and enhance the lifetime of the plant. In 2020, DEIF carried out several projects to upgrade wind turbines



### Terra-Gen, US

We continued the cooperation with Terra-Gen in the US and delivered upgrades of additional 15 wind turbines. Every V47 turbine that is upgraded with a DEIF controller offsets 8 tons of CO<sub>2</sub>e per year.

### ERG, Italy

In partnership with Italian ERG and other partners, DEIF contributes with an advanced control system to a re-blading project, where up to 125 old V47 turbines are upgraded with higher towers and longer blades. The upgrade increases the production of each turbine by 10%.

### Demonstration project

DEIF has developed and tested upgrade programmes that will enhance the yearly production of old 2MW turbines by 1.5%. For a 2 MW turbine, the CO<sub>2</sub> savings amount to 25 tons CO<sub>2</sub>e every year. The potential for CO<sub>2</sub> savings through retrofit is huge, since thousands of these wind turbines were installed worldwide from 2000 to 2010.

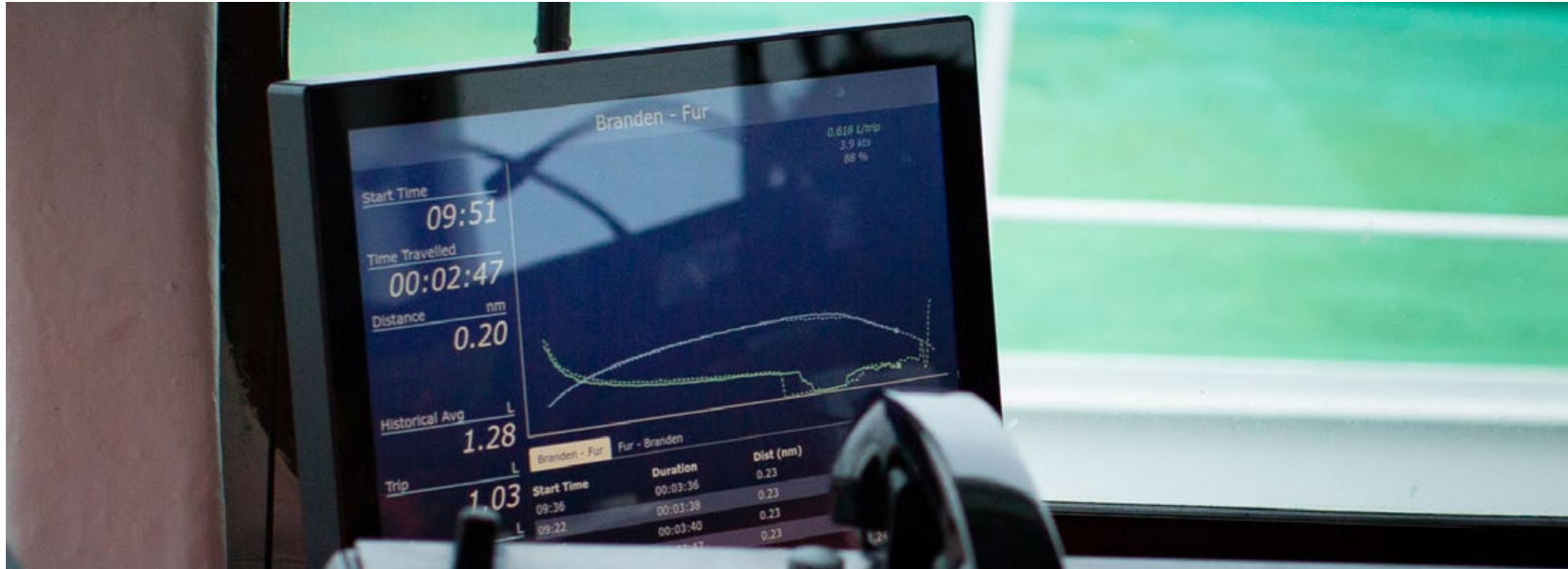
# ACTIVITIES AND RESULTS 2020

## Marine hybrid systems

DEIF is the global front runner in upgrade of existing ships to hybrid energy solutions by adding storage technology. In 2020, several demonstration projects were carried out with a view to creating standard solutions to provide wide and affordable access to hybrid solutions.

## Blueflow energy management

In 2020, DEIF installed 15 Blueflow systems for best fuel economy in daily operation of vessels of any kind.



*“We look into a future, where power generation will be dominated by renewables and hybrid systems with a mix of different sources. We are ready to support this transformation of the energy sector with advanced control systems.”*



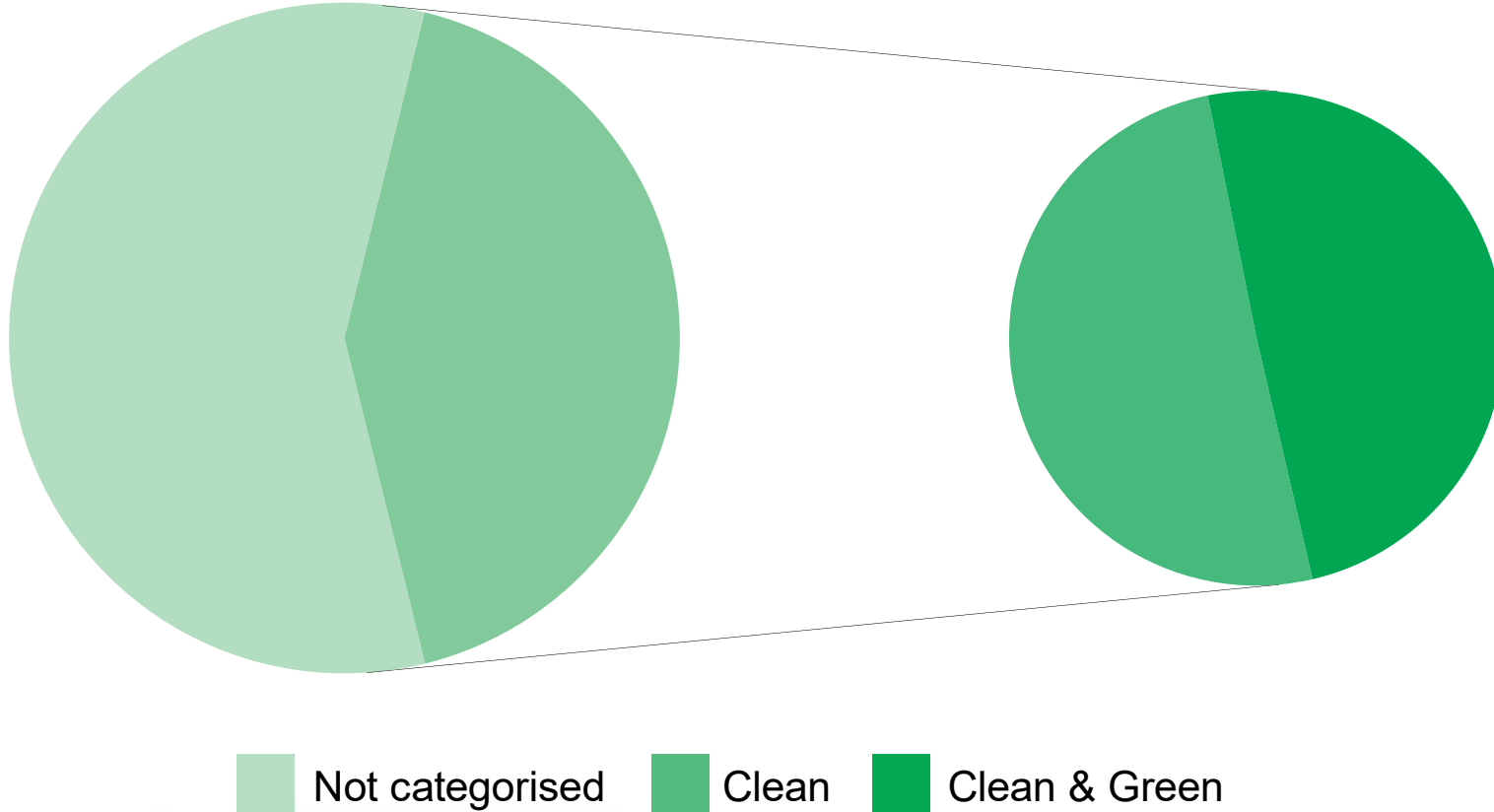
**Jan H. Gliemann**  
SVP Development and Solutions

## Clean/green revenue 2020

Based on the Corporate Knights' methodology used to classify corporate sustainability performance, we made an in-house calculation of DEIF's sustainability performance in 2020. The calculation showed that 43% of DEIF's revenue come from so-called clean/green products, i.e. products that improve energy efficiency and products for renewable energy systems.

### Sustainability performance 2020

Total revenue: 543 MDKK



# NEXT STEPS IN CLEAN/GREEN SOLUTIONS 2021

## Clean and green solutions

Implement strategies for product development to ensure that we achieve the target that two thirds of DEIF's revenue come from climate-friendly products and solutions by 2030.

## Solutions for efficiency upgrades

Continue development of upgrade/retrofit solutions that offer clean technology, fuel savings and life-time extensions, especially for wind turbines, critical power and marine/offshore.

## Shore connections

Shore connections in harbours limit fuel consumptions and pollution. In 2021, we will focus even more on developing marine power management solutions that enable seamless switch to shore connection.

## Micro-grid solutions

In 2021, we will strengthen development of DC solutions that enable uptake of renewable energy sources and energy storage in local, sustainable micro grids.



# CLIMATE-FRIENDLY SOLUTIONS FOR DANISH FERRIES

CASE STUDY



Fur  
Limfjorden  
Denmark



The Fur ferry that connects the island of Fur to the mainland has implemented Blueflow to reduce fuel consumption. Next up are preliminary investigations of future use of hydrogen, where data from Blueflow can be used to calculate the consumption of hydrogen.

The future holds great potential for all-electrical ferries serving short distance routes. In 2021, brand new electrical ferries that connect the island of Fanø to the mainland will start operation. The new ferries operate with a complete control solution from DEIF.

*“We have used the Blueflow system for almost a year now, and we can see that it has paid off. Many of our employees are very dedicated to fuel optimisation, and Blueflow is a great tool to tune fuel consumption. I have recommended the system to my colleagues on some of the other Danish ferry crossings.”*

**Anne-Marie Mortensen, Traffic Manager**

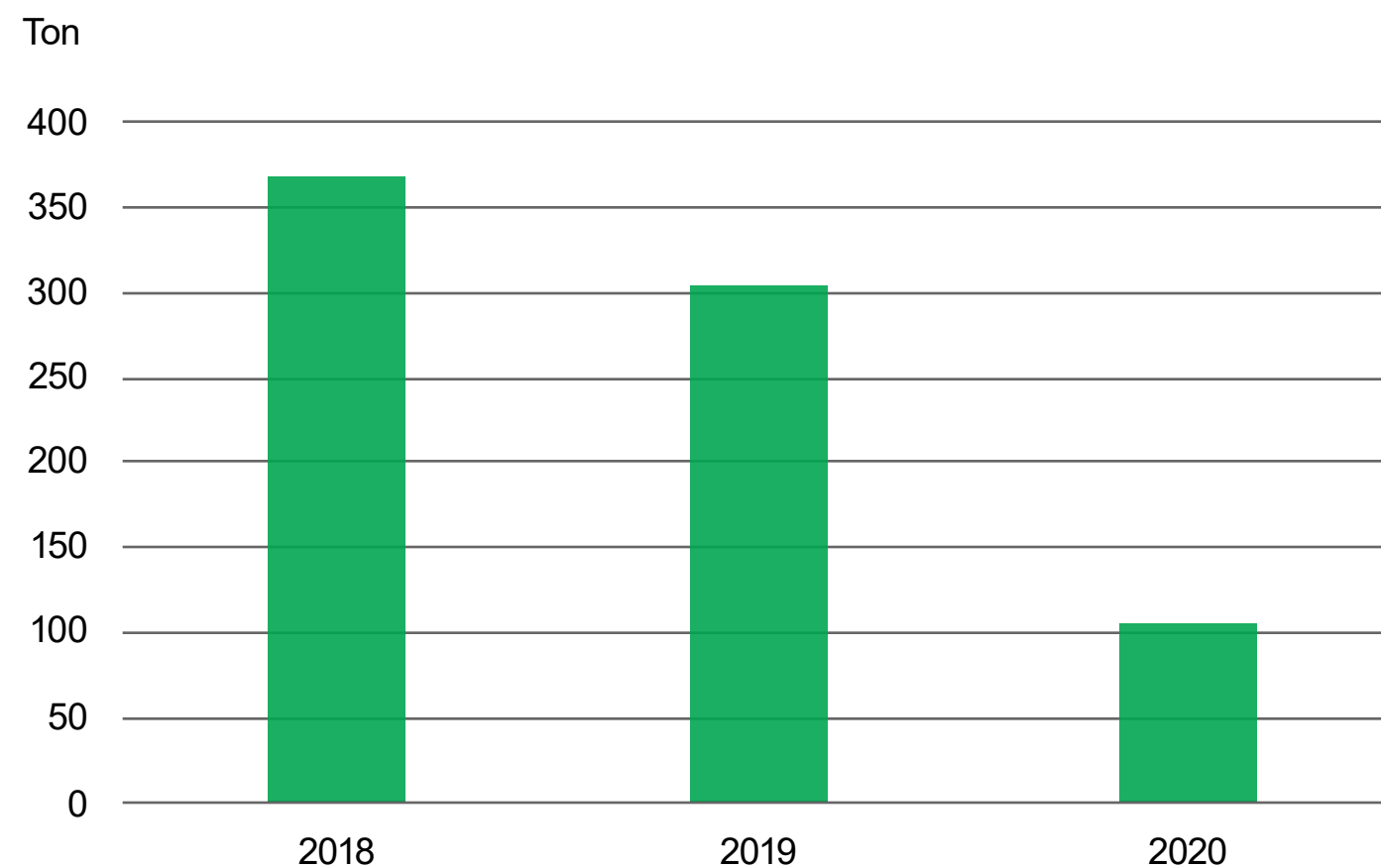
# GREEN AT HOME

Reduce carbon footprint and protect the environment

*“We want to be a global trendsetter in clean and green solutions. Therefore, we are obliged to ensure that the carbon footprint of our own activities is as low as possible. With our DEIF 2030 Strategy, we have committed to significantly reducing our footprint, and we are well underway.”*



Chanette Oksborg  
SVP Global Operations



CO2 emissions were more than halved from 2019 to 2020 at DEIF's headquarters and production facilities in Skive, Denmark.

At DEIF, we are committed to protecting the local as well as the global environment and to reducing the energy consumption and carbon footprint of our own activities.

It is our ambition that DEIF's scope 1 and 2 activities are carbon-neutral within five years and that our total footprint is reduced by two thirds in 2030.

Through systematic energy and environmental management, we continuously work to reduce the footprint in our own operations, i.e. save on energy and other resources, recycle waste and protect the environment. Our ISO 14001 certified management systems and our high ambitions help us ensure a keen focus on these aspects of running a responsible business.

*“DEIF's environmental management system is mature. There is a good environmental awareness among all employees and the environmental system is well implemented. Furthermore, the policy and intensions are well communicated to the entire organisation.”*

From Lloyds' auditor report

MADE IN DENMARK  
CERTIFIED GREEN ENERGY



Company  
**DEIF A/S**

Address  
Frisenborgvej 33, 7700 Skive

CVR  
15798416

This certificate covers the following usage point(s).

571313113150228678  
571313113150312674  
571313113150312780  
571313113161044229

Product: Kimo EI  
Expected consumption/year: 850.000 kWh  
Period of validity: 01.01.2020 - 31.12.2023

Jysk Energi purchases certificates equivalent to the actual consumption every year.



We support climate friendly energy production, less CO2 emissions and a cleaner environment



We support the UN Global Goals



*Lars Nour*  
Issued by CEO Lars Nour

Jysk Energi Skivevej 120 7500 Holstebro jyskenergi.dk



## ACTIVITIES AND RESULTS IN 2020

### CO<sub>2</sub> emissions

The known CO<sub>2</sub> emissions from DEIF's activities (scopes 1 and 2) at the site in Denmark have been halved in 2020 compared to 2019. The reduction has been achieved by purchasing green, certified power and by a significant reduction in the natural gas consumption thanks to the installation of heat pumps to heat the premises in Skive.

### Recycling of waste

In 2020, we sent 69.5% of our waste for recycling, well above the target of 64% for recycling.

### Use of chemicals

Chemical Risk Assessment is implemented in approval procedures for new chemical products.

## NEXT STEPS IN REDUCING CLIMATE/ENVIRONMENTAL IMPACT 2021

### Energy consumption and CO<sub>2</sub> emissions

Analyze requirements and ambitions to an annual account of CO<sub>2</sub> emissions (scopes 1 and 2) covering the global DEIF activities. The tool will be used to create a baseline for the reduction of energy consumption and carbon footprint of DEIF's activities globally.

### Energy savings, Denmark

Investigate how we can implement variable capacity heat pumps to further reduce energy consumption.

### Recycling of waste

Focus on reducing waste generation by recycling, prevention, reduction and reuse. It is our goal to increase the rate of recycling from 69% last year to 75% in 2021.



In 2020, DEIF's office in Brazil was fitted with PV solar cells.



Improving the sorting of waste at DEIF's headquarters in Denmark.



## DEIF A/S

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[DEIF.com/About/Corporate-Social-Responsibility](https://www.deif.com/About/Corporate-Social-Responsibility)

