

# SUSTAINABILITY REPORT

2021-2022



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Some terms in this report are technical terms and abbreviations. See explanations on page 59.

## A CHANGE IS IN PROGRESS

### Early Adopter & a new approach to our sustainability work and reporting

This year we have accelerated our commitment to the Global Compact principles and how we work in terms of minimizing negative impact and maximizing our positive impact. We have signed up for the first year test phase of the Global Compact's new reporting system, the 'Early Adopter' programme, which has generated inspirational inhouse discussions about what we have achieved and where we are heading.



We are in the process of reformulating all our policies related to the four Global Compact categories: Anti-corruption, Environment, Human rights, and Labor rights. This is part of a journey where DEM's sustainability risks and opportunities more systematically will inspire our goals and actions, and the governance dimension has a greater focus. The 10 principles within human rights, labor rights, the environment, anti-corruption, and good governance are still our foundation to reduce negative impact, just as the SDGs are still our shining stars for achieving positive impact. This year, however, we have reconsidered DEM's core SDGs as the fast-moving sustainability agenda in the building sector has made it possible and necessary to take a more holistic approach to impact, which also encompasses other environmental, social, economic, and governance goals.

### ESG (Environment, Social and Governance)

One of the most important examples of the wider ESG approach is the Life Cycle Assessment (LCA) perspective on what we do. When the LCA comes into force next year through the updated Danish building code, we will during the design phase identify the CO<sub>2</sub> emissions from the building materials. But we will also look at the social impacts, where the materials are sourced, the conditions on the working sites, and the indoor climate for the end users.

“Earlier we had chosen four SDG goals for measurement, but as you can see in our case selection this year, we have worked intensively with a broader variety of SDG targets.”

### EU Taxonomy

The EU Taxonomy, introduced in 2020, is gaining momentum and will impact many companies. The EU Taxonomy is a classification system for economic activities providing clarity on which activities are sustainable and can attract financing from 3rd parties.

These new initiatives will give us more features in handling the SDGs in a more effective way. In DEM, we take a holistic and strategic sustainability approach when advising our customers – a broader perspective where new SDGs can come into play.

DEM is on a first-mover sustainability mission, highly motivated to take the next steps in the right direction. Action brings change.

Yours sincerely,

Jørn Lykø, CEO



## WHO WE ARE AND WHAT WE DO

DEM – Danish Energy Management A/S – is an engineering and consultancy company providing services in Denmark and worldwide. DEM is part of the DMG Holding Group from where administrative and financial services are provided. The average number of employees across our offices in Aarhus and Copenhagen is 35, including holding company service providers and external consultants the number is +50. DEM's reporting covers emissions calculated via the control based approach combined with financial control. The services are all related to strategic and technical sustainability advice provided to our customers within the energy and building sector comprising:

- **Technical design of new buildings**
- **Renovation of existing buildings**
- **Energy efficiency in buildings**
- **Energy management including IOT and AI, environmental management, asset management/action plans, feasibility studies, SDG/ESG transformation, EU Taxonomy, building certification, climate accounts, EPDs, LCA and LCC**
- **Monitoring and evaluations (OECD DAC criteria)**
- **Renewable energy**
- **Energy policy and energy regulation, feasibility studies, tariffs and capacity building**
- **ESCO-concepts**

### THE COMMISSIONING PROCESS:



The services span from overall strategic advice to detailed specifications of technical installations, tendering, contracting supervision and commissioning.

65 % of our revenue is generated domestically and for this reporting period from May 1st 2021 to April 30th 2022 almost all revenues can be attributed to projects integrating sustainable aspects.

Domestically, our customers include private property developers and private companies, real estate companies, pension funds, private foundations, institutions within the Danish state institutions, municipalities and regional authorities.

Internationally, our customers are typically the EU, the World Bank, Deutsche Gesellschaft für Internationale Zusammenarbeit GmbH (GIZ), the European Investment Bank, The Asian Development Bank (ADB) and Danida/Investment Fund for Developing Countries (IFU).

## SDGS REVISITED

This is our 7th sustainability report. Based on our own lessons learned and significant progress made, DEM is now providing advice to other companies on strategic sustainability within the building/real estate sector.

Global Compact's four categories and 10 principles are our foundation. The sustainable development goals are our aspiration. Time has come to revisit the SDGs on which we base our work and measure our impact. For example, expanding our expertise areas from SDG 7 energy consumption in buildings to SDG 8 and full life cycle analysis of all the phases of a building's life including embedded energy in materials. But also to incorporate the EU Taxonomy; which is the first collection of common and transparent sustainability criteria to date. Ultimately, the different frameworks are pointing towards the same desirable future.



Since 2017, when DEM produced its first sustainability report, we have defined four overall SDGs: 7, 11, 13 and 17, against which we would measure our activities. We have experienced that we impact a much wider range of SDGs. Going forward, we therefore need to expand the SDGs. The wider SDG impact is demonstrated through a selection of cases in this report.

Since our customers' emissions are not part of DEM's scope 3 CO<sub>2</sub> accounting, we will no longer measure the impact from all our projects. Instead, we have selected six cases where we describe what we have achieved. These projects can be seen as examples of how we work towards the SDGs together with our customers.







The inclusion of additional SDG-goals (see the actual targets on page 8-9) is in line with our vision of providing holistic advice to our customers and advice on sustainability in a strategic way. Handling investment plans, costings and savings and internal rate of return is not sufficient; we need to consider and include other environmentally focused SDGs such as resource utilisation, biodiversity, water consumption and wastewater. Similarly, we need to embrace the "leave no one behind" approach and include the more socially focused SDGs, too, when we carry out our projects. This is for example gender equality and diversity, health and well-being connected with indoor climate and the physical and psychological work environment at the building site.

- When we in DEM deal e.g. with off-grid RE in developing countries our projects are not just simple feasibility studies to show bankability but are also about job creation, empowerment of women, health and education.
- When we provide advice to real estate developers, pension funds or public building owners with scenarios showing the dependencies between the most economically advantageous solution versus the most environmentally advantageous solution, it is our customers' choice and their "books" that are impacted – not those of DEM.



TARGET	DEM Domestic	DEM Global	DEM INTERPRETATION
 3.9 Reduce the number of deaths and illnesses from hazardous chemicals and air, water and soil pollution and contamination	●	●	DK: Ventilation capacity, indoor climate and emissions from energy production Global: Kerosene lamps – poor indoor climate
 4.7 Ensure that all learners acquire the knowledge and skills needed to promote sustainable development	●	●	Where possible include learners in projects through cases and educational materials (see Happi case and Egedal case)
 5.A Undertake reforms to give women equal rights to economic resources, as well as access to ownership		●	In close alignment with 5.B address potential challenges for women in policy studies and feasibility studies
 5.B Enhance the use of enabling technology, in particular information and communications technology, to promote the empowerment of women		●	Address potential opportunities for women in policy studies and feasibility studies. Give preference to women in e.g. training programmes
 6.4 Substantially increase water-use efficiency across all sectors and ensure sustainable withdrawals and supply of freshwater	●		Treatment of all the surface water (LAR) and minimize the customers' water consumption
 8.4 Improve progressively global resource efficiency in consumption and production	●	●	Long durability of technical installations (part of the LCC) and focus on the LCA calculations for both installations and building materials
 9.1 Develop quality, reliable, sustainable and resilient infrastructure	●		Charging stations for vehicles in relation to new buildings and renovations
 9.A Facilitate sustainable and resilient infrastructure development in developing countries		●	Rural electrification
 12.2 Achieve the sustainable management and efficient use of natural resources	●	●	DK: CO <sub>2</sub> accounting, reuse of materials Global: Policy papers, regulatory schemes and feasibility studies
 12.6 Encourage companies, especially large and trans-national companies, to adopt sustainable practices	●	●	Provide advice on strategic sustainability and continuous yearly reporting
 12.7 Promote public procurement practices that are sustainable, in accordance with national policies and priorities	●	●	For customer tenders, to include the demands for sustainable products and related documentation
 12.8 Ensure that people have the relevant information and awareness for sustainable development and lifestyles	●	●	Provide advice on strategic sustainability on all service areas
 12A Support developing countries to strengthen their scientific and technological capacity	●	●	Secure knowledge transfer in policy papers, regulatory schemes and feasibility studies
 16.5 Substantially reduce corruption and bribery in all their forms	●	●	Be aware of and report irregularities or suspected corruption

DEM's expertise covers all the above sustainability elements related to buildings. However, sustainability covers a very wide range of themes, which we take into consideration and prioritize in our projects. The following targets are also very relevant in a building context. We bring these "to the table" for example when we undertake the sustainability management role in projects in order to ensure the right approach to successful implementation.

TARGET	DEM Domestic	DEM Global	DEM INTERPRETATION
 8.2 Achieve higher levels of economic productivity	●		Consider prefabricated solutions in new buildings and renovations
 8.5 Achieve full and productive employment and decent work for all	●		Tender material to include demand for marginalized people at the building site
 8.6 Substantially reduce the proportion of youth not in employment, education or training	●		Secure demand in tenders for interns and apprenticeships
 8.8 Protect labour rights and promote safe and secure working environments for all workers	●	●	Ensure a good physical and mental work environment e.g. when performing services as health and safety coordinator
 12.4 Achieve the environmentally sound management of chemicals and all wastes throughout their life cycle	●	●	Focus on avoiding chemicals and pollution in buildings
 15.5 Take urgent and significant action to reduce the degradation of natural habitats and halt the loss of biodiversity	●	●	Include when possible protection of biodiversity

When it comes to these targets, we often bring in relevant business partners to ensure that the selected goals are always implemented in the best possible way.

Internally, we will increase our focus on the materials that we recommend to our customers when we e.g. draft technical specifications for new buildings, renovation of buildings, renewable energy (RE) and energy efficiency (EE) projects. A new pump might create less CO<sub>2</sub> emission and create economic savings but when including the lifetime of the pump, the materials applied and embedded CO<sub>2</sub>, a better solution may be to renovate existing equipment.

Until the next reporting period our focus in DEM is to integrate the wider SDG approach into our projects and ways of working and getting all employees onboard.

During the reporting period DEM has managed 126 projects in Denmark and globally, where the international projects have covered a variety of countries like Mongolia, Malaysia, Vietnam, Indonesia, India, Burkina Faso, Sierra Leone, Ghana, Nigeria, and Peru.

In the following pages we have selected six distinct projects which showcase how we have handled projects within our four original SDGs. In these projects we also show that energy and climate related projects can benefit from including other SDGs.

*A new pump might create less CO<sub>2</sub> emission and create economic savings but when including the lifetime of the pump, the materials applied and embedded CO<sub>2</sub>, a better solution may be to renovate existing equipment.*



**CASE STUDIES**

3

ENSURE HEALTHY LIVES AND PROMOTE WELL-BEING FOR ALL AT ALL AGES



6

ENSURE ACCESS TO WATER AND SANITATION FOR ALL



7

ENSURE ACCESS TO AFFORDABLE, RELIABLE, SUSTAINABLE AND MODERN ENERGY FOR ALL



8

PROMOTE INCLUSIVE AND SUSTAINABLE ECONOMIC GROWTH, EMPLOYMENT AND DECENT WORK FOR ALL



MAKE CITIES INCLUSIVE, SAFE, RESILIENT AND SUSTAINABLE

11



ENSURE SUSTAINABLE CONSUMPTION AND PRODUCTION PATTERNS

12



TAKE URGENT ACTION TO COMBAT CLIMATE CHANGE AND ITS IMPACTS

13

# LARGE PENSION FUND

## Sustainability strategy for pension fund's building portfolio

DEM is assisting one of Denmark's largest pension funds with a sustainable turnaround for their real estate portfolio\*. The aim is to create an attractive building portfolio with a reduced environmental footprint and a socially responsible profile with a stable, long-term return.

Through a holistic approach, DEM and the pension fund's real estate division have developed a sustainability strategy that encompasses the above triple bottom line. The point of departure was the existing strategy and SDG work, DGNB, UN Global Compact, and the EU Taxonomy classifying sustainable economic activities.

During the process, we zoomed in on the SDGs on the previous page as these are essential to create the desired future in a building context. For each theme, specific goals are defined, putting the SDGs into a Danish context as well as pension fund's brand, existing conditions, and future ambitions.

From the outset, operationalization and practical implementation have been key. All the strategic goals have specific measures to track progress over time. A

recurring challenge when renovating existing buildings is that the investment cost is born by the owner while the savings (e.g. energy savings due to energy efficiency measures) are obtained by the tenants. Part of the strategic advice has been to develop a financial model where the pension fund and the tenants align their interest by sharing costs and subsequent savings.

Collaboration across the value chain and ongoing sustainability management are both key to reducing the pension fund's total environmental impact while enhancing social goals such as indoor climate, communality, physical and mental health. Currently, the strategy is in a pilot implementation phase, resulting in a wealth of learnings and adaptations to the original approach.

A major insight is that ambitious and holistic sustainability goals require new ways of thinking and new ways of working for all participants in the value chain: owner, administrator, consultants, asset managers, customers (tenants), contractors, suppliers etc. This takes time but is necessary to see lasting results, and to later increase and speed up collaboration and implementation across the entire building portfolio.



Client: A large pension fund

Product delivered: Sustainability strategy

Timeframe: March 2021-October 2021

\* Today, buildings in Denmark constitute around 30 % of the total CO<sub>2</sub> emission and about 35 % of the total production of garbage. In other words, this sector is a major contributor to global warming – and thereby also an important key to the solution. Source: Klimapartnerskabet for Byggeri og Anlæg.

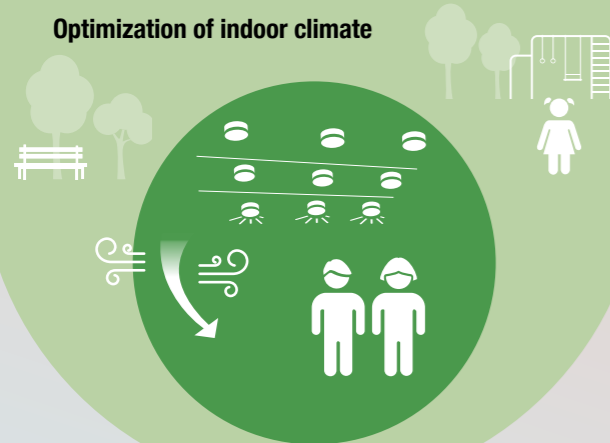
3  3.9

**REDUCE ILLNESSES AND DEATH FROM HAZARDOUS CHEMICALS AND POLLUTION**

**Services provided**

Sustainability targets to create the best conditions for learning and well-being by optimization of daylight, artificial light, acoustics, and ventilation while at the same time taking into consideration the total energy consumption and ensuring direct access to nature.

**Optimization of indoor climate**



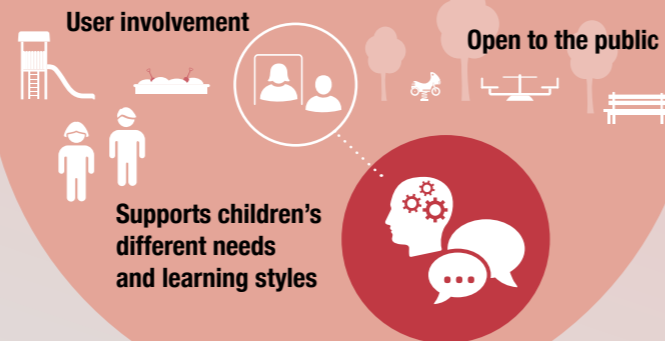
4  4.7

**EDUCATION FOR SUSTAINABLE DEVELOPMENT AND GLOBAL CITIZENSHIP**

**Services provided**

User involvement during the construction period ensures that sufficient attention is paid to the size and equipment of the teaching rooms and common areas that meet children's different needs and learning styles and that these are multi-functional and open to the public.

**User involvement**



**Open to the public**

**Supports children's different needs and learning styles**



6  6.4

**INCREASE WATER USE EFFICIENCY AND ENSURE FRESHWATER SUPPLIES**

**Rainwater collection**



**Services provided**

Rainwater is collected and used for irrigation.

12  12.4

**RESPONSIBLE MANAGEMENT OF CHEMICALS AND WASTE**

**Light wooden constructions and prefabricated wooden elements**

**Services provided**

Recycling of materials, focus on the consumption of resources at the construction site (water, energy, etc.). The new building will be made of light wooden constructions and prefabricated wooden elements.

**EGEDAL KOMMUNE**

**Strategic partnership in Egedal Municipality**



In 2018, Egedal City Council adopted a 10-year investment plan, in which funds were set aside for creating innovative learning environments for children and young people. One of these initiatives is the establishment of the strategic construction partnership L:Eg (Learning Partnership Egedal), with a view to creating learning environments that are both motivating, aesthetic, and at the same time comfortable.

DEM is a partner in the Egedal Municipality Partnership and our work includes, among other things, the renovation of four elementary schools and a new daycare center (in total 43,000 m<sup>2</sup>) with a total investment of 400 million DKK.

The vision for this partnership is to agree on a mutual understanding of the form of cooperation, objectives and processes supporting a culture which keeps a constant focus on the project. This is ensured by a continued, ongoing planning of the construction process as the buildings are in operation during the renovation process.

In this project, we are working strategically with sustainability within the following four main areas: indoor climate, energy optimization, circular economy, and social sustainability. Furthermore, sustainability management is highly prioritized in this project, and key aspects are being analyzed in terms of their impact on the total economy, environmental and social parameters.

One of the selected schools in the municipality is "Balsmoseskolen", where DEM is in charge of the operational management, technical project planning,

commissioning, plumbing, ventilation, electricity, CTS and technical construction management in line with our four core areas within the SDGs: 7, 11, 13 and 17. In addition, DEM is responsible for the sustainability management during the entire project period – another good example of how DEM continuously integrates several SDGs when advising our customers.


After the renovation, each room has been equipped with CO<sub>2</sub> and temperature sensors in the ventilation system, thermostat control of the heating system, and daylight and PIR-based occupancy sensor control of the artificial light. In addition, the Trias Energetica principle has been applied based on the below design priorities:


1. Minimization of energy requirements (building envelope, windows, cold bridges, and density)
2. Maximum use of renewable energy (use of daylight, passive and active solar energy, etc.)
3. Energy efficient installations (demand-controlled ventilation with heat recovery, low temperature heating systems, water-saving fittings etc.)

Construction is based on the BR18 Low Energy Class with an expected rate of energy efficiency of 20 %, and solar cells on the roof with a yearly capacity of 12,000 kWh, corresponding to a reduction of 1.6 tonnes of CO<sub>2</sub>.



Visualization: Rubow Architects

 **Client:** Egedal Municipality, Denmark

 **Product delivered:** Consulting services including technical installations, indoor climate and energy.

 **Timeframe:** November 2021–October 2024



3  3.9

**REDUCE ILLNESSES AND DEATH FROM HAZARDOUS CHEMICALS AND POLLUTION**

**Services provided**

*Ventilation projects have been implemented in approximately 10 housing associations i.e. 300 apartments.*

**Ventilation implemented**

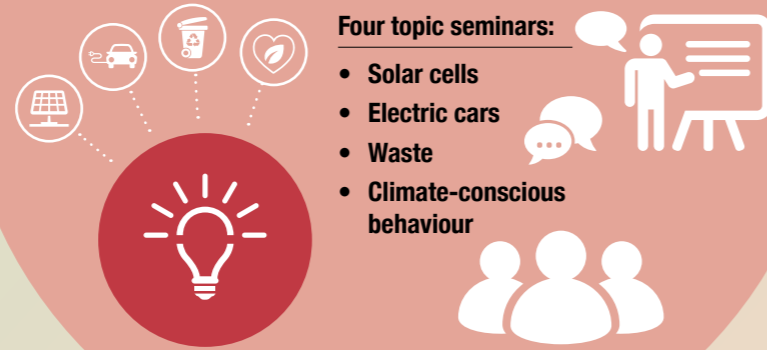


4  4.7

**EDUCATION FOR SUSTAINABLE DEVELOPMENT AND GLOBAL CITIZENSHIP**

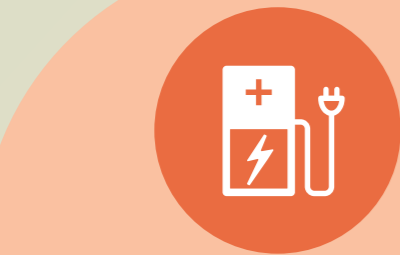
**Services provided**

*A series of four topic seminars on central HAPPI themes was held for residents and housing staff.*



**Four topic seminars:**

- Solar cells
- Electric cars
- Waste
- Climate-conscious behaviour



**Electric vehicle charging points**



**Services provided**

*Electric vehicle charging points. Three housing associations have already established electrical vehicle charging points.*

**DEVELOP SUSTAINABLE, RESILIENT AND INCLUSIVE INFRASTRUCTURES**

9  9.1



**Biodiversity**



**Services provided**

*Biodiversity was included in the strategies with an implementation period of four years.*

**PROTECT BIODIVERSITY AND NATURAL HABITATS**

15  15.5

**HAPPI**

**Innovation Partnerships Facilitate Energy Renovation**



The EU-funded project HAPPI "Social Housing Association's Energy Efficiency Process Planning and Investments" was implemented from 2018 to 2022. It has increased the energy renovation rate within the social housing sector via an exemplary action bringing together six housing associations (6,200 residents) to tackle the complex interplay of non-technological barriers (organisational, legal, financial) through process organisation and capacity building, leading ultimately to an aggregated 16.3 million Euro investment program for sustainable energy measures in their existing building stock.

With more than 160 feasibility studies/projects, the main activities have evolved around energy efficiency, renewable energy and energy management prioritizing energy saving measures, investment needs and savings in terms of energy and costs for the projects including tools for planning and executing energy optimization, sources of financial support, and training and workshops.

To ensure the sustainability and visibility of energy performance in the housing association buildings, procedures for determining baselines, monitoring procedures and performance indicators for the buildings' energy consumption were developed, and automatic data monitoring established. A major part of the project has furthermore been to build efficient partnerships between the housing associations through e.g. bundling of projects and joint tendering processes.

For the HAPPI project specifically, each housing association has developed an energy and sustainability strategy with goals that contribute to the Sonderborg


Municipality vision on CO<sub>2</sub> neutrality by 2029. Together with the energy renovations, this strategy has resulted in increased focus from residents' side, and the entire effort has contributed to making the Sonderborg region greener.


The HAPPI consortium consists of 9 innovative partners – six housing associations in Sonderborg Municipality, the educational institution EUC Syd, Sonderborg's Project Zero and DEM. DEM has been awarded the role of energy efficiency and energy management expert and has been in charge of the project management. During the process, DEM has furthermore included sustainability management which makes the HAPPI project a good example of how DEM includes several SDGs in client solutions.

**Within the core of the four SDGs (7, 11, 13 and 17), the projects have installed RE equipment like solar cells, batteries and heat pumps and obtained sizeable energy savings. For EE, the annual savings are 8.9 GWh heating and 2.0 GWh electricity corresponding to a yearly CO<sub>2</sub> reduction of 1,858 tonnes. 8,070 m<sup>2</sup> of solar panels with a capacity of 1.5 MW and with 1 MWh battery capacity have been installed resulting in yearly savings of up to 1.4 GWh, and a yearly CO<sub>2</sub> reduction of 69 tonnes. Heat pumps reduce the yearly gas consumption by 437 MWh corresponding to a CO<sub>2</sub> reduction of 65 tonnes.**



*Photo: ProjectZero*

 **Client:** EU Horizon 2020: HAPPI project with housing associations, DK

 **Product delivered:** Among other things: feasibility studies/projects, energy and sustainability strategies and innovative business models.

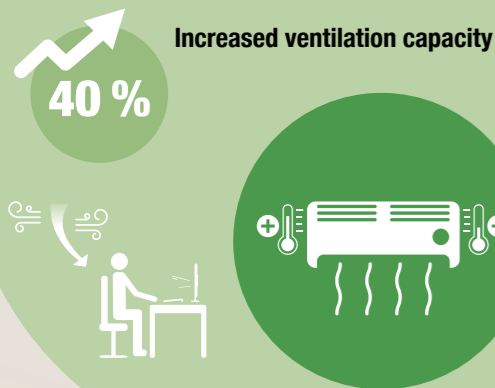
 **Timeframe:** 2018-2022

3  3.9

**REDUCE ILLNESSES AND DEATH FROM HAZARDOUS CHEMICALS AND POLLUTION**

**Services provided**

The ventilation capacity is increased by approximately 40 % corresponding to a standard reference of an office building.

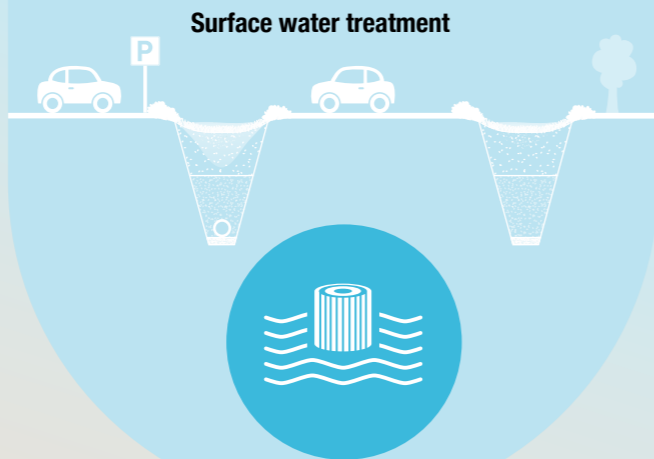


6  6.4

**INCREASE WATER USE EFFICIENCY AND ENSURE FRESHWATER SUPPLIES**

**Services provided**

Treatment of all the surface water takes place via a drainage system with open channels and two open basins. One of these basins functions as a cleaning basin, filtering larger impurities, if any, from the water coming from the parking areas.



**GRIBSKOV MUNICIPALITY**  
**Administration and Healthcare Center**



In 2021, Gribskov Municipality began the construction of a new 7,700 m<sup>2</sup> administration and health care center. The focal point for the construction was to create a welcoming environment, where the municipality's work and functions are visible and where the acoustic and atmospheric indoor climate is a high priority in all aspects of the project. The administration has the necessary office space for 220 employees and common areas (functions) for citizens and staff. The healthcare center includes dental care, healthcare, rehabilitation center and is the center for home and nursing care in the municipality. The vision is a modern, innovative, and sustainable center, that embraces the citizens in the municipality and creates a safe and future-proof environment.

The project is implemented as a turnkey contract between Hoffmann, Vilhelm Lauritzen Architects, AB Clausen, and STED, and is expected to be finalized by 2023.

DEM executes all design work in relation to the technical installations and optimization of the energy consumption and indoor climate. As the construction is getting closer to completion, DEM will also be responsible for the commissioning. The technical installations pay attention to both aesthetics and functionality. The technical design includes large air exchanges via diffused ceilings, while heat pumps supplied via electricity from the solar cells contribute to low, efficient energy consumption. To ensure a fully functional and optimized building from day one after handing-over the project, a value-based commissioning process is

carried out for thorough testing of the functionality and the interaction between the technical installations.

Within DEM's core areas of sustainability i.e. SDGs 7, 11, 13 and 17, this project has specifically generated the following noticeable results:


- installation of solar cells for the supply of sustainable power to achieve a self-sufficient building
- planning with a view to obtaining DGNB gold-certification
- inclusion of a large area for local drainage of rainwater from the building.


**In relation to the reduction of CO<sub>2</sub> emissions from space heating, the measures implemented to ensure a high energy efficiency are of utmost importance to this project as the emission, according to the latest environmental declaration from Helsingør District Heating Company, is 175.5 g of CO<sub>2</sub> equivalents/kWh. This is five times higher than for instance the CO<sub>2</sub> emission measured in Copenhagen when HOFOR supplies the space heating.**

**The solar cells can produce up to 35,000 kWh/year, and with a CO<sub>2</sub> emission factor of 143 g/kWh, this will result in a reduction of 5 tonnes/year.**



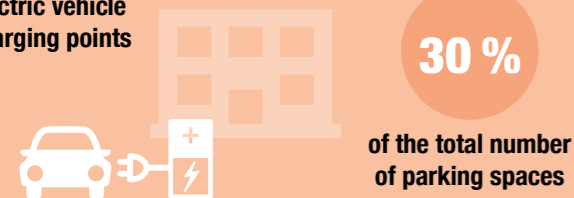
Visualization: Vilhelm Lauritzen Architects

 **Client:** Gribskov Municipality, Denmark

 **Product delivered:** Consulting services including technical installations, indoor climate and energy

 **Timeframe:** 2021-2023

**Electric vehicle charging points**



**Services provided**

Preparation of electric vehicle charging points for approximately 30 % of the total number of parking spaces (i.e. approximately 80 parking spaces will be available for electric vehicle charging).

**DEVELOP SUSTAINABLE, RESILIENT AND INCLUSIVE INFRASTRUCTURES**

9  9.1

**Waste sorting on the construction site**



**Services provided**

Chemicals and waste will be sorted and handled on the construction site according to a strategy agreed upon.

**RESPONSIBLE MANAGEMENT OF CHEMICALS AND WASTE**

12  12.4



# NIGERIA – BUILDING ENERGY EFFICIENCY CODES (BEEC)

## Contributions to state adoption and implementation of the BEEC

The objective of the assignment was to support the Nigerian Ministry of Power, Works and Housing (Housing Sector) in developing Building Energy Efficiency Codes (BEEC) for three selected states in Nigeria and assisting these states with the formulation of implementation strategies. The project was implemented over a period of three years and was completed in October 2021. The project was part of a National Energy Support Program (NESP) supported by GIZ – Deutsche Gesellschaft für Internationale Zusammenarbeit – and with DEM leading a consortium with Canadian Econoler as partner.

efficiency by up to 30 % as a direct impact of the new Building Energy Efficiency Code. Within Sustainable Cities and Communities (SDG 11), the code should also ensure access to affordable housing and reduce CO<sub>2</sub> emission. Finally, the new code will result in future buildings being more sustainable and robust which can be seen as support to political decisions that are aligned within Climate Actions (SDG 13). The implementation of the project has been carried out in collaboration with several stakeholders and these have also engaged with each other to achieve the project objectives and thereby supporting Partnerships for the Goals (SDG 17).

DEM was responsible for the development of a draft Building Energy Efficiency Code at state level, which included technical analysis of common building design and practices as well as for the development of an adoption process, capacity building on the practical implementation of BEEC as well as comprehensive training in performing building energy audits. Over 35 trainees were eventually certified as Professional Energy Auditors (PEAs). DEM conducted several energy audits in public buildings at federal and state level and provided support to 10 private housing developers through reviews of initial building designs to take into consideration the BEEC requirements. All these activities were to be disseminated through a communication strategy for which DEM was also responsible.

Further to these impacts, the project has strived to support other SDGs such as Good Health and Well-being (SDG 3) potentially by improving the indoor climate in new buildings and thereby also reducing sickness among the households. Under Quality Education (SDG 4), the project has provided training for national practitioners that in turn will contribute to a sustainable development in terms of a reduction in energy consumption and consequently reduce CO<sub>2</sub> emissions. The training provided has also increased job opportunities and income thereby supporting Decent Work and Economic Growth (SDG 8). Finally, through this project, awareness has been increased in relation to production and demand for sustainable products thereby leading to Responsible Consumption and Production (SDG 12).

Within the four DEM core SDGs (7, 11, 13 and 17), the project has potentially resulted in an increased share of renewable energy and increased energy



**Client:** Deutsches Gesellschaft für Internationale Zusammenarbeit (GIZ) GmbH

**Service delivered:** Building design recommendation, capacity development, draft building codes and awareness promotion

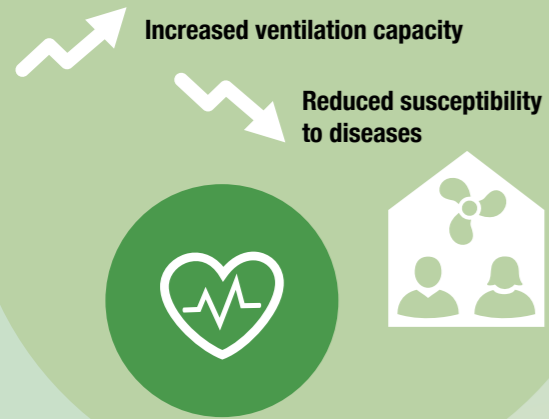
**Timeframe:** November 2018-September 2021

3 3.9

### REDUCE ILLNESSES AND DEATH FROM HAZARDOUS CHEMICALS AND POLLUTION

#### Services provided

Requirements for indoor climate may reduce diseases.

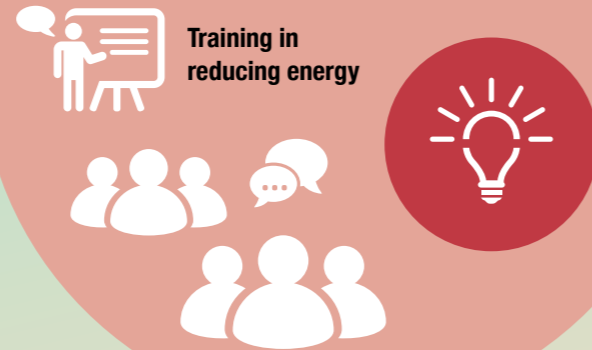


4 4.7

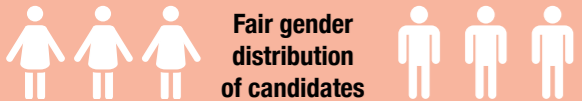
### EDUCATION FOR SUSTAINABLE DEVELOPMENT AND GLOBAL CITIZENSHIP

#### Services provided

Training, that potentially can contribute to a sustainable development in terms of reduced energy consumption, and consequently also reduced CO<sub>2</sub> emissions.



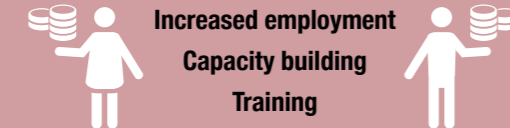
### Fair gender distribution of candidates



#### Services provided

In connection with the selection of candidates for the training program, priority was given to a fair gender distribution.

Capacity building



#### Services provided

One of the main purposes of the implemented training was to increase the employment through capacity building.

### Increased awareness and a code for sustainable products



#### Services provided

A new code will ensure an increase in production and demand for sustainable products.

5 5.B

### PROMOTE EMPOWERMENT OF WOMEN THROUGH TECHNOLOGY

8 8.5

### FULL EMPLOYMENT AND DECENT WORK WITH EQUAL PAY

12 12.2

### RESPONSIBLE MANAGEMENT OF CHEMICALS AND WASTE

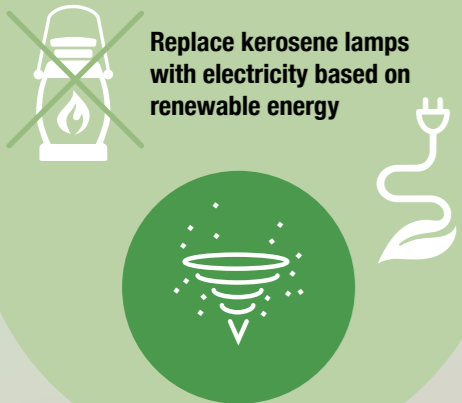
3  3.9

**REDUCE ILLNESSES AND DEATH FROM HAZARDOUS CHEMICALS AND POLLUTION**

**Services provided**

*Kerosene lamps, creating a poor indoor climate, are often the only light source in the villages.*

**Replace kerosene lamps with electricity based on renewable energy**



5  5.B

**PROMOTE EMPOWERMENT OF WOMEN THROUGH TECHNOLOGY**

**Services provided**

*The project enhances the possibilities for women to create local production.*

**Local production by women**



**INDONESIA**

**Exit study of renewable energy project in Indonesia**



The multi-donor program, Energising Development (EnDev\*), has supported the Indonesian Government in creating access to electricity for communities using hydro-powered and solar-powered mini-grids. The project was implemented by the German International Cooperation Agency (GIZ) in partnership with the Government of Indonesia. EnDev's activities included:

- Technical assistance and policy advice
- Capacity building through training, mentoring, and workshops
- Encouraging entrepreneurial skills for rural business owners and mini-grid managers
- Promoting a sustainable monitoring approach

DEM conducted an independent exit study two years after finalization of the project and presented two main conclusions:

- 1) EnDev left a distinct mark on the sector, and the approaches promoted in EnDev are currently used in other international programs and by EnDev's direct beneficiaries.

- 2) EnDev's support has been a relevant supplement to the sector and there are many qualitative indications of EnDev's positive impacts on the sector. Successful engagement of local communities and engagement of central and provincial governments have been key factors.


The project contributes to a range of SDGs, most notably SDG 7 about affordable and clean energy. Indonesia's geography with many small islands makes hydro-powered and solar-powered mini-grids a relevant contribution to the national policy of access to electricity to all primarily based on renewable energy.

In addition to electricity access, mini-grids also improve conditions for local production and the local economy in general, and this has also been the case in Indonesia. The main challenge for the vast majority of renewable (RE) mini-grids in Indonesia is, however, to generate enough revenue to cover long-term operation and maintenance costs, and it will require public support to ensure their long-term sustainability. These two findings are in line with DEM findings in previous mini-grid studies in developing countries, and we will build on the Indonesian findings in our future work.



Photo: EnDev / GIZ

 **Client:** RVO – Netherland's Enterprise Agency

 **Product delivered:** Study report and executive summary

 **Timeframe:** March 2021-August 2021

8  8.2

**DIVERSIFY, INNOVATE AND UPGRADE FOR ECONOMIC PRODUCTIVITY**

**Workshops Mentoring Training**

**Capacity building**



**Services provided**

*Training of mini-grid managers and technical operators in managing and operating mini-grids and end user training in using electricity to increase revenues.*

8  8.5

**FULL EMPLOYMENT AND DECENT WORK WITH EQUAL PAY**

**Solar-driven fishing boat**

**Rural electrification**



**Services provided**

*Supported different demand-based technology development.*

9  9.B

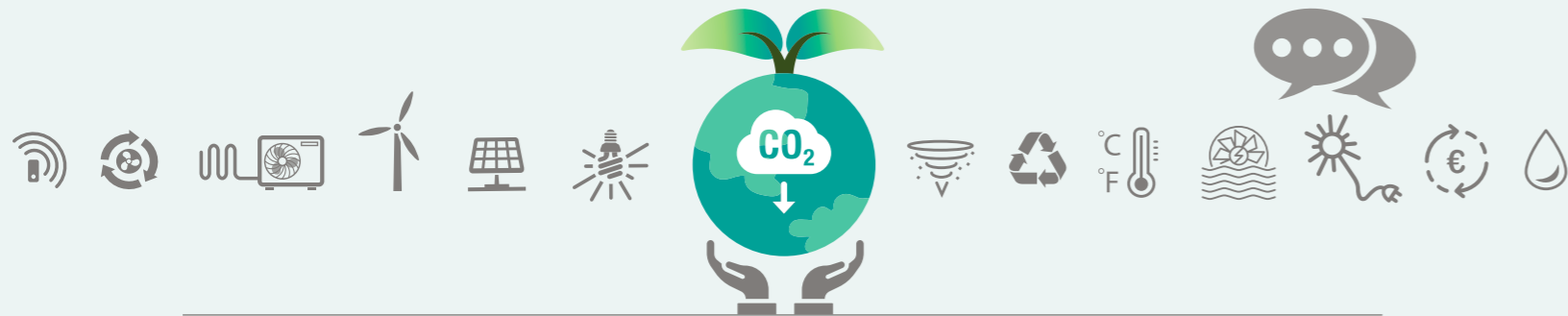
**SUPPORT DOMESTIC TECHNOLOGY DEVELOPMENT AND INDUSTRIAL DIVERSIFICATION**

\* EnDev is a strategic partnership of like-minded donors and partners to support access to modern energy. Access to modern energy is a prerequisite for social and economic development. EnDev works in more than 20 countries around the globe.

# ENVIRONMENT

Our ambition is to contribute to making the world environmentally sustainable in close collaboration with our customers and partners. To obtain CO<sub>2</sub> reduction and contribute to the achievement of the 2030 objectives, we continuously focus on environmental actions that can reduce greenhouse emission caused by internal and external activities.

Our consulting services are tailored to make a considerable impact on the carbon footprint. We offer advice within sustainable behaviour and help our customers find ways to reduce energy consumption and diminish CO<sub>2</sub> emissions. We are continuously working to develop our innovative consulting methods and tools to improve the sustainability of our customers.



Internally, we focus on our carbon footprint in relation to our resource and energy consumption. We are constantly working on developing our methodological approach to our CO<sub>2</sub> accounting with the aim of improving the calculations.

To make sure we are moving in the right direction, we are planning to sign up for the Science Based Targets (SBT). In this way, it is possible to set boundaries for our greenhouse emissions and identify possible savings.



## MATERIALITY ASSESSMENT – ENVIRONMENT



RISK DESCRIPTION	RISK before mitigating actions	MITIGATION ACTIONS TO REDUCE THE RISK	RESIDUAL RISK after mitigating actions
Contributing to greenwash activities when working with companies in relation to energy efficiency measures for production facilities where their main product is harmful.	●	DEM's work is used for misleading marketing. Hypothetical example: DEM helps to increase energy efficiency of a production facility, which is then misused to market an environmental harmful product as "green".	●
Internal measures may not be enough to keep global temperature rises below 1.5/2 degrees.	●	We are a service-based SME with a low footprint. We may prioritize internal measures lower than external ones.	●
Our customers do not implement our recommendations on energy efficiency, renewables, new building constructions, and renovations.	●	The customers we work with have the potential to make a positive difference. For many customers economy still weighs higher than the environment.	●
Methodological uncertainties.	●	Unclear and inconsistent measures might lead to reduced efforts to make a difference.	●

## OUR BUSINESS – ACHIEVED INITIATIVES

In this report, we have chosen to illustrate our achieved environmental impact through the client cases shown earlier. Rather than communicating the sum of our customers' potential CO<sub>2</sub> reduction if implementing our advice, we have chosen to deep dive into how our projects affect a wide range of SDGs.

## OUR BUSINESS – FUTURE INITIATIVES

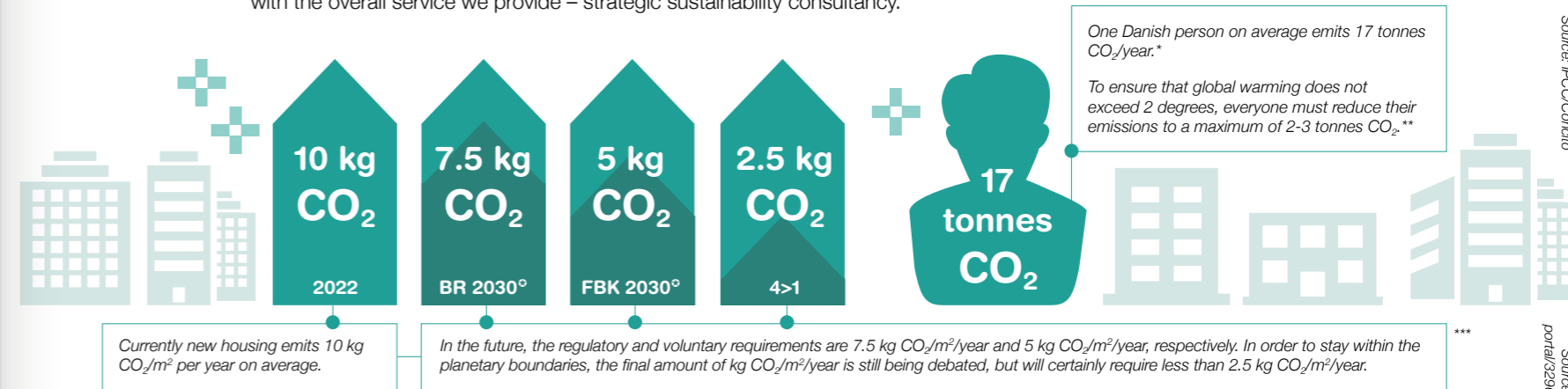
Currently, we are strengthening our capacity within Life Cycle Assessment (LCA) as the building code is setting higher standards for new buildings.

Our advisory services must ensure a good balance between the environmental and social aspects. Attempting to find technical solutions for a 100 % healthy indoor environment will not be sustainable if it will lead to an extremely high CO<sub>2</sub> bill on materials. A poor indoor environment is however not an option either. DEM offers solutions that maintain balance between both social and environmental outcomes.

To meet the upcoming new requirements for LCA, we have strengthened our focus on retraining our employees, as to the importance and possibilities of LCA and we can advise our customers in the most sustainable direction. In addition to participation in courses, an internal knowledge sharing group has been set up in DEM and we jointly raise the level of knowledge towards an even more sustainable consultancy in DEM.

This is in alignment with our business strategies within the Danish market for new buildings and renovation of buildings and also in alignment with the business strategies for energy efficiency projects in Denmark and globally. Domestically, we will focus on building certification through DGNB for new buildings and DGNB Buildings in Use and we will further develop our consultancy within Internet of Things (IoT) and Artificial Intelligence (AI) for e.g. digital energy screening leading to more impact from domestic and global projects. IOT will reduce the working load for data gathering and data sorting and leave time and money for analytical work. AI will reduce the time for certain analytical work and leave time and money for deeper analysis.

We have extracted learning from the cases shown earlier, and all employees will get a printed version of relevant SDGs to focus not only on the four obvious SDGs (7, 11, 13, 17) but also to integrate other SDGs when possible. This is further in line with the overall service we provide – strategic sustainability consultancy.



## OUR WORKPLACE – CO<sub>2</sub> ACCOUNTING

As mentioned already, DEM's material impact is provided through sustainability advice to our customers. However, we must of course practice what we preach and therefore you can see the carbon footprint caused by DEM activities in the reporting year in the table below.

Figures provided follow the Green House Gas (GHG) principles.

### TOTAL CO<sub>2</sub> EMISSIONS DURING THE LAST SIX YEARS

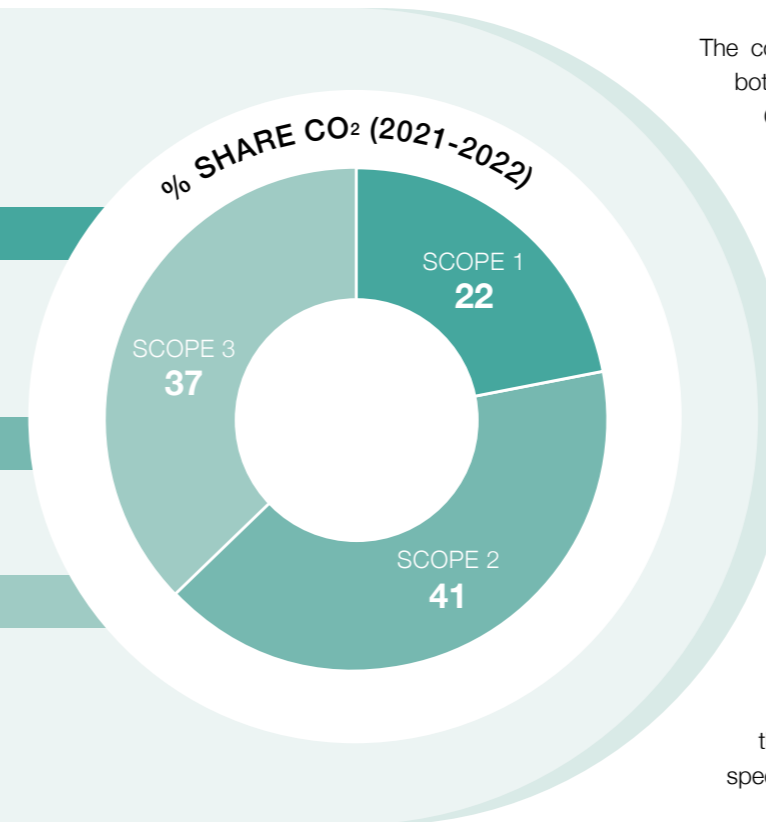
YEAR	2016/2017	2017/2018	2018/2019	2019/2020*	2020/2021	2021/2022	Change from 2020/2021 -2021/2022
EMPLOYEES**	56	57	50	37	30	35	17 %
ACTIVITIES	CO <sub>2</sub> [t]						%
SCOPE 1							
Use of company cars for business purposes – managers	3.7	3.0	6.5	5.8	4.2	6.0	42
Use of company cars for business purposes – employees	6.5	8.1	5.8	5.9	2.4	2.5	4
SCOPE 2							
Electricity use in offices	36.5	29.6	25.0	16.2	14.2	12.5	-12
District heating use in offices	27.3	23.2	18.4	10.0	2.8	3.1	9
SCOPE 3							
Use of employee cars for business purposes	18.9	17.1	9.4	8.1	6.5	7.1	10
Transportation by train	1.5	1.5	4.1	1.9	0.5	0.1	-76
Transportation by bus	0.4	0.1	0.5	0.3	0	0.1	-
Transportation by ferry	0.7	1.5	2.7	1.6	0.7	3.0	332
Transportation by taxi	-	0.3	1.4	1.1	0	0.5	-
Domestic air transport	10.6	2.4	2.6	1.8	0	0.2	-
International air transport	104.8	74.9	124.5	101.2	0	3.0	-
<b>Total</b>	<b>210.8</b>	<b>161.9</b>	<b>200.9</b>	<b>153.7</b>	<b>31.4</b>	<b>38.2</b>	<b>22</b>
<b>CO<sub>2</sub> per employee**</b>	<b>3.8</b>	<b>2.8</b>	<b>4.0</b>	<b>4.2</b>	<b>1.0</b>	<b>1.1</b>	<b>10</b>

\*The difference in the average number of employees from 2019-2020 is due to DEM employees being separated from DMG organisationally.

\*\*Average number of employees

During this reporting year, we have managed to keep almost the same very low CO<sub>2</sub> emission both in terms of total emission and per employee. However, the carbon footprint fluctuates from year to year. This is primarily caused by:

- societal aspects due to the COVID pandemic
- change in the methodological approach



The corona crisis has led to reduced CO<sub>2</sub> emissions affecting both domestic and international travelling. A large part of the CO<sub>2</sub> emissions is related to international air transport which means that over the years our carbon footprint has been reduced significantly due to travel restrictions. Furthermore, the corona crisis has increased the possibilities for working from home, minimizing the energy consumption in the offices and the carbon footprint caused by transport.

The fluctuations in the CO<sub>2</sub> accounts reflect the development of the corona crisis. As COVID restrictions and shutdowns have ended, CO<sub>2</sub> emissions have increased again, but to a significantly lower level.

When determining the CO<sub>2</sub> footprint, we constantly strive to develop our methodological approach with the aim of improving our estimates. In every reporting period, we reassess the used emission factors to obtain the most correct results, e.g. using emission factor for the specific car model.

**FOLLOWING THE GHG PROTOCOL CORPORATE STANDARD, THE DIRECT AND INDIRECT EMISSIONS ARE DIVIDED INTO THREE SCOPES:**

**SCOPE 1 – Use of company cars for business purposes:**

Scope 1, direct emissions are those that are directly caused by a source that the company owns or controls. At DEM, there are no boilers etc. in buildings that could contribute to own oil/gas use. For this reason, our Scope 1 consists of “use of company cars for business purposes – managers” and “use of company cars for business purposes – employees”.



**SCOPE 2 – Use of energy in offices:**

Scope 2, indirect emissions are derived from the company’s consumption of energy products and services, where the company does not own or control the emissions source.



**SCOPE 3 – Use of other transportation forms for business purposes:**

The Scope 3 emissions have increased compared to the last year’s report as the COVID travel restrictions have been lifted. We continue to limit our travelling by holding on to virtual meetings whenever possible.

We are aware that emissions from home offices (heating, lighting and equipment as computer, phone etc.) are part of our carbon footprint since the emissions displaced from the office to the employees’ homes lead to an increased energy use in the household. The overall impact from home offices is limited and therefore we have chosen not to calculate the emissions. Employees are allowed to work from home two days a week.

In next year’s report, we strive to incorporate resource consumptions such as water as well as further sorting of waste.



**For further information about the method used, see appendix from p. 49.**



**AVOIDED EMISSIONS**

DEM has invested in renewable energy production from Middelgrunden Wind Farm.

We own 300 shares corresponding to a share of the production of 248,000 kWh during the reporting period. Through conventional, non-renewable methods, these kWh would emit 52.6 tonnes of CO<sub>2</sub>, 14.5 tonnes of CO<sub>2</sub> more than our totally emitted CO<sub>2</sub> during the reporting period.





OUR WORKPLACE – ACHIEVED INITIATIVES



INITIATIVE	WHAT WE DO	WHAT WE HAVE ACHIEVED
"We Bike To Work" initiative	Event every year where employees compete in walking/biking the most kilometres.	CO <sub>2</sub> reduction and employee health and well-being. 13 of DEM's employees participated and as a team they biked in total 905 km thereby saving 226 kg CO <sub>2</sub> .
From fuel to hybrid car	One of our company cars for managers has been replaced by a hybrid car.	The replacement car emits less CO <sub>2</sub> per km driven than the previous car.
Paper and glass recycling	Paper and glass are being separated from general waste in our Aarhus office. Our Copenhagen office is currently not separating waste due to change in office location.	CO <sub>2</sub> reduction and contribution to the achievement of the 2030 objectives. The exact CO <sub>2</sub> emissions are not known as we do not measure the amount of glass and paper waste.
Water saving	Water saving taps, dishwashers, etc.	Environmental sustainability.
Methodology	Describe our methodology in appendix.	Higher degree of transparency and possibility to engage in dialogue with stakeholders about methods.
Organic fruit and milk	Organic fruit and milk are delivered on a regular basis every week.	Environmental sustainability.

OUR WORKPLACE – FUTURE INITIATIVES

INITIATIVE	WHAT WE DO	WHAT WE PLAN TO ACHIEVE
Science Based Targets	Throughout 2022-23, we will participate in the UNGC Climate Accelerator Programme to learn more. We plan to sign DEM up for the SBT initiative.	Setting targets for our CO <sub>2</sub> reduction that are in line with internationally agreed values to ensure that our measures are truly sustainable.
Travel policy	Guidance for environmentally responsible business travel with the aim of reducing the total carbon footprint.	CO <sub>2</sub> reduction and contribution to the achievement of the 2030 objectives. The introduction of new travel policies is expected to save a large amount of CO <sub>2</sub> . When the policy has been implemented, the CO <sub>2</sub> emissions will be compared to the previous years to demonstrate the saved amount of CO <sub>2</sub> .
Lighting	LED lighting in the offices and motion sensors. This was achieved in the Copenhagen office, but after moving premises, this is currently not installed. Delayed implementation in Aarhus due to landlord.	Environmental sustainability and energy savings. The implementation of LED lighting will result in a large energy saving. It is expected that it will reduce the energy consumption by 50-75 % and thereby significantly reducing the CO <sub>2</sub> emissions.
Optimized temperature regulation	Intelligent thermostats for temperature control and optimization were installed in the Copenhagen office, but after moving to new premises, this has not yet taken place. Delayed implementation in Aarhus.	Environmental sustainability, energy savings and employee health and well-being. Optimized temperature regulation will reduce the power consumption significantly. When the initiative has been implemented, the CO <sub>2</sub> emissions will be compared to the previous years to demonstrate the saved amount of CO <sub>2</sub> .



OUR WORKPLACE – FUTURE INITIATIVES – CONTINUED



INITIATIVE	WHAT WE DO	WHAT WE PLAN TO ACHIEVE
Shutting down of servers	In this period, six servers have been shut down bringing the total number down to 10. An attempt to shut down even more is planned but some of the servers are for internal exchange of e.g. design drawings between Aarhus and Copenhagen and difficult to shut down with the current set-up.	Environmental sustainability and energy savings. Shutting down of servers will reduce the power consumption significantly. When the initiative has been implemented, the CO <sub>2</sub> emissions will be compared to the previous years to demonstrate the saved amount of CO <sub>2</sub> .
Ventilation	Regulation of the existing ventilation and installation where needed, improving energy savings and employee health. IC-Meters were installed in the Copenhagen office to measure and improve the indoor climate.	Environmental sustainability and employee health and safety. Regulation of the ventilation will reduce the power consumption and thereby reduce the CO <sub>2</sub> emissions a little bit. When implementing the ventilation initiatives, the indoor climate will continuously be measured to demonstrate the improvement.
Waste sorting	Waste sort into different fractions, including food, paper, glass, metal and plastic. This initiative has partly been implemented in the Aarhus office.	Environmental sustainability. When the municipal garbage collection is ready, we will sort in all the possible fractions. The exact CO <sub>2</sub> emissions are not known as we do not measure the amount of waste.
Recycling of IT equipment	We have engaged with 'Huset Venture' who in the future will receive our used IT equipment.	Ensure that as high a percentage as possible is recycled.
Print/paper use	Measuring print and paper use.	Environmental sustainability, energy savings and consumption reduction. From now on, paper consumption will be measured.
Water use data	In the next reporting periods, we will measure the water consumption. In agreement with the landlord to set up sub-meters in the Copenhagen office in near future.	Continuous improvement.

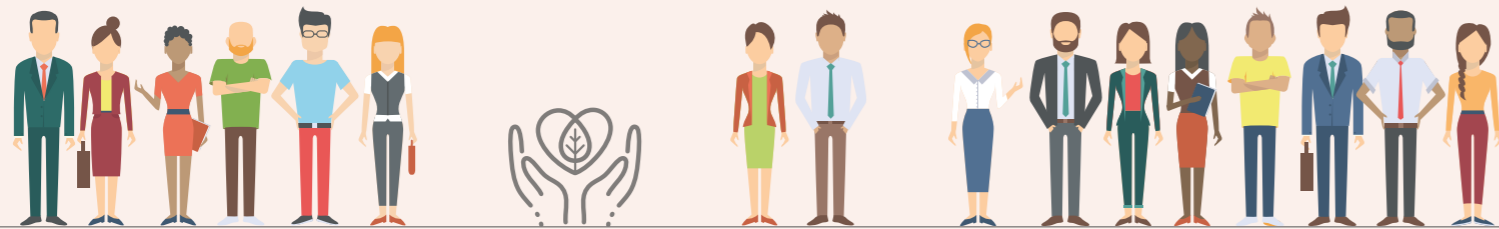
THE FOLLOWING INITIATIVES ARE EXPECTED TO BE ACHIEVED WITHIN 2-3 YEARS

Biodiversity	Preserve biodiversity in the outdoor areas for our office in Aarhus.	Environmental sustainability.
Hybrid or electric car	For our offices in Denmark to replace company cars with electric or hybrid cars. In Viby, we have 3 company cars for employee travel. In Copenhagen, we have one car for employee travel (not counting company cars used by managers).	CO <sub>2</sub> reduction and contribution to the achievement of the 2030 objectives. By replacing the fuel driven cars with hybrid/electric cars, it is expected that the CO <sub>2</sub> emissions will be reduced by 50 %. The exact CO <sub>2</sub> emissions will be measured as the cars will be replaced.

# SOCIAL

## THE IMPORTANCE OF THE SOCIAL DIMENSION FOR SUSTAINABILITY

DEM has a long tradition of offering a holistic approach to consulting services within the building and energy sector: High performance in kWh and CO<sub>2</sub> can only be achieved in the long run, if solutions are manageable and designed to fit the given context and environment. Since the beginning, this is how DEM has strived to make a sustainable impact and why we have embraced the Sustainable Development Goals as an integrated part of our company management and the services we deliver.



The sustainability agenda is constantly pushing companies and organisations to widen the perspective on how their activities are generating greater impacts; and they are increasingly expected to take responsibility for these impacts. This development is also pushing DEM to constantly renew and develop our services.

Globally, this agenda is not new to DEM. DEM has performed analysis, studies and evaluations for interventions and programmes in developing countries for the last 25 years where it is standard

practice to assess social impacts – both negative and positive – alongside with economic and environmental effects. In Denmark, we have a long track record of working with municipalities, schools, and community housing organisations (den almene boligsektor in Danish) where social sustainability is also important and is increasingly considered an integral dimension of all new projects and investments.

Please find our policies on human rights and labour rights at our website: [dem.dk/about-us/vision](http://dem.dk/about-us/vision)

## MATERIALITY ASSESSMENT – SOCIAL



RISK DESCRIPTION	RISK before mitigating actions	MITIGATION ACTIONS TO REDUCE THE RISK	RESIDUAL RISK after mitigating actions
Sensitive information is exposed due to a breach on security.	● (Yellow)	Use recognised cloud services for file storage and file sharing; Install intelligent protection on employee PCs and two-factor security. Monitoring of incidents that vary in scope and nature.	● (Green)
Discrimination based on gender, ethnicity, religion, sexual preference etc.	● (Green)	Non-discrimination description in company policy can help employees and management to handle issues that might come up.	● (Green)
External consultants working for DEM may not have adequate travel insurance which leaves them uncovered in vulnerable situations.	● (Green)	Documentation of insurances are added as a condition in the standard contract template for external consultants. In cases where external consultants are travelling in relation to work carried out for DEM and have their own insurance, DEM will ask for documentation.	● (Green)
Employees suffer serious physical and/or psychological damage on the job.	● (Green)	Carry out APV and follow up on any issues relating to this risk.	● (Green)



## OUR BUSINESS – ACHIEVED AND FUTURE INITIATIVES



In this report, we have chosen to showcase our achievements through some of the projects, we have worked on during the reporting year. In six different cases, pages 12-23, we have tried to explain how we have integrated social issues by applying the relevant and socially defined SDGs.

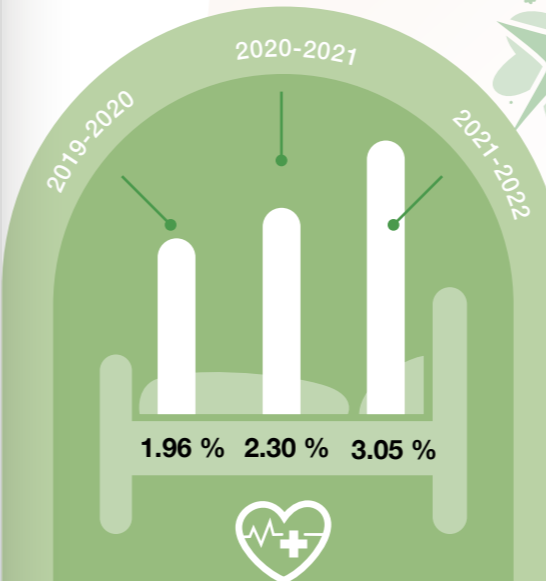
INITIATIVE	WHAT WE DO	WHAT WE HAVE ACHIEVED
Data security	Cloud services for file storage and file sharing; Intelligent protection on employee PCs and two-factor security. Monitoring of incidents.	No data security incidents during the reporting year.
Non-discrimination policy	We have formulated our stand towards inclusion, which can be found on our website <a href="https://dem.dk/about-us/vision">dem.dk/about-us/vision</a>	No cases of discrimination. DEM highly values diversity within our company.
Insurance for external consultants	We have specified that all external consultants must have a valid travel insurance when working on our global projects. If the consultant is not part of DEM's company insurance scheme, a valid insurance must be documented prior to missions.	All external consultants are covered if any incidents should happen.



## OUR WORKPLACE – SOCIAL DATA

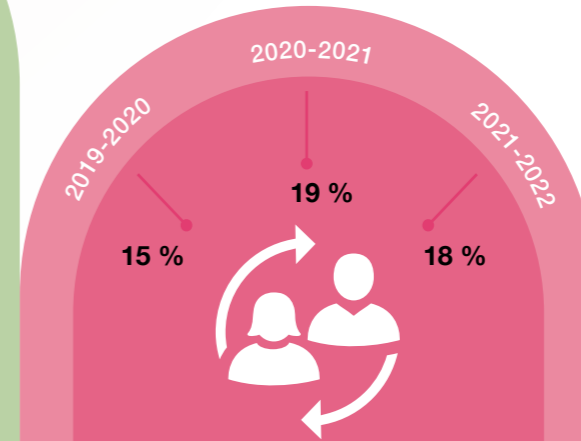


We have had one minor work related accident and one minor injury during a company social event.



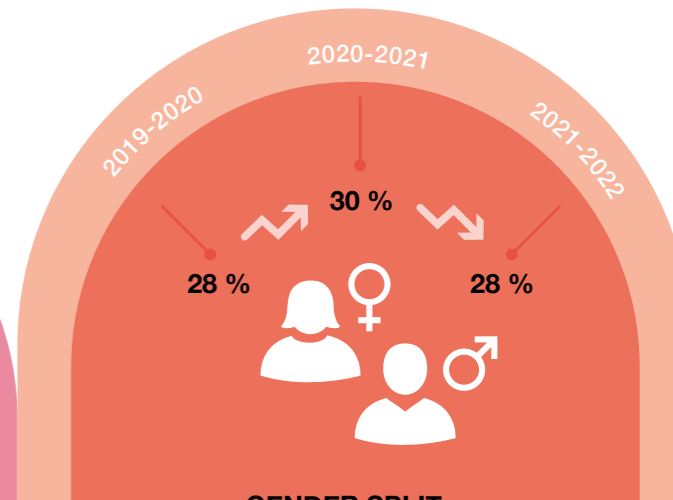
### SICKNESS ABSENCE

DEM was in 2020 well below the official 2.83 % sickness absence rate published in 2020 by Statistics Denmark (in the "corporations and organisations" category). Statistics are not yet available for 2021, but it is possible that the reopening of society during the still ongoing COVID-19 pandemic has led to a nationwide increase.



### EMPLOYEE TURNOVER

The employment turnover is rather stable, but we notice that the supply and demand in the engineering sector is distorted due to a boom in the sector. Dansk Arbejdsgiverforening (Confederation of Danish Employers) has in 2021 recorded that the employee turnover was 40 % within its members.



### GENDER SPLIT

The gender diversity has decreased by 2 percent points. The actual percentage should also be compared to the actual supply for the sector and IDA (The Danish Society of Engineers with 140,000 members) has in 2022 recorded that 27 % of its members are women.

In DEM we do not monitor gender pay ratio due to the small number of people employed which would be difficult without jeopardizing confidentiality and GDPR.



## OUR WORKPLACE – ACHIEVED INITIATIVES



In this period, the following initiatives were taken in DEM to improve employee health and well-being:

INITIATIVE	WHAT WE DO	WHAT WE HAVE ACHIEVED
"We bike to work" initiative	Starting May 1st of each year, employees create teams and compete to see which team has biked the most kilometres during the month.	Approximately half of the employees participated in the event in May 2021, which is less than normal. The initiative was also launched in September with less participation.
Knowledge sharing	A project in connection with the Danish Innovation Fund was completed in 2019. DEM is following the knowledge sharing initiatives developed in the project.	The initiative "Torsdagsviden" has become a tradition in DEM, where an employee makes an online presentation on a relevant topic. "Torsdagsviden" is organised every second week for all employees.
Sustainable working culture group	A group was established with a focus on work/life balance and working with sustainable projects, teams and processes. Company-wide initiatives are continually being initiated.	The group has organised a Mental Health Day in October 2021 that focused on collaboration and how to be best prepared for work after corona lockdown.
Company social events	DEM organises social events from time to time to support employee well-being, collaboration and knowledge sharing.	In this period, DEM had a summer party, Christmas get-together, Newyear's celebration (in March), and smaller celebrations throughout the year.
Employee association	An association that arranges activities like fishing, game nights, etc. financed and managed by the employees themselves. DEM supports the association financially.	COVID-19 still puts a lid on the extent of social activities implemented in DEM. In addition, the employee association organised an online competition where the two offices in Copenhagen and Aarhus, respectively, duelled.
Work/life balance	Allowing employees to work remotely up to two days a week as well as for two weeks a year from abroad.	A more flexible everyday life for our employees.



## OUR WORKPLACE – FUTURE INITIATIVES



INITIATIVE	WHAT WE DO	WHAT WE PLAN TO ACHIEVE
"We Bike To Work" initiative	Starting May 1st of each year, employees create teams and compete to see which team has biked the most kilometres during the month.	In May 2022, DEM did not participate in this national event, but instead launched our own walking/biking competition where almost all employees participated.
Knowledge sharing	A project in connection with the Danish Innovation Fund was completed in 2019. DEM is following the knowledge sharing initiatives developed in the project.	The biweekly knowledge sharing activities are ongoing activities.
Sustainable working culture group	A group was established with a focus on work/life balance and working with sustainable projects, teams and processes. Company-wide initiatives are continually being initiated.	The group is currently focussing on initiatives that improve internal and external communication in relation to collaboration.
Company social events	DEM organises social events from time to time to support employee well-being, collaboration and knowledge sharing.	Company social events are an ongoing activity.
Employee association	An association that arranges activities like fishing, game nights, etc. financed and managed by the employees themselves. DEM supports the association financially.	The association is continuing organising social events: Many in the friendly competition form that has proved to work well in DEM.
Workplace risk assessment (APV)	Screening to evaluate work environment and improvement areas, mandatory every three years.	APV is being implemented in 3rd quarter 2022.
Sickness	Monitor more closely the development at the monthly management meetings.	Try to achieve the 19/20 level.
Staff turnover rate	An open dialogue about the state of well-being, workplace culture, recognition of and follow-up on issues.	Have a staff turnover rate of max. 20 %
Gender balance	With the size of the company, DEM has to select the best candidate" for the job whether it be a man or a woman. If two candidates are equally qualified, we will select the woman.	Over the years try to achieve a women ratio of +35 % and preferably higher once the number of suitable candidates available within DEM's business areas increases.



# GOVERNANCE

In order to become more environmentally and socially responsible, appropriate organisational processes need to be implemented and the sustainability objectives to be anchored within the board. This applies both for internal topics as well as for external services.

In DEM, we are constantly increasing our awareness on how to integrate sustainability in all our projects and work processes as well as finetuning our approaches and methodologies.



Widening our scope for accountability and involvement has been a focus area in the past year. We have implemented board approval of the sustainability report in connection with approval of the annual report. A focus area for the coming year is increased internal sustainability communication and dialogue in order to create stronger synergy between DEM's environmental and social aspirations and daily tasks – to create a positive impact through our work.

Being effective is one thing. Working on the right measures another. Therefore, we have embarked on a journey to base our sustainability goals on a materiality analysis. This has sparked some very relevant and good internal discussions about ambition levels and how to implement sometimes theoretical aspirations in practice. We have not found the perfect method yet, but we are on the way. On the next page, you can see our first take on a materiality analysis regarding governance issues.

## MATERIALITY ASSESSMENT – GOVERNANCE




RISK DESCRIPTION	RISK before mitigating actions	MITIGATION ACTIVITY TO REDUCE THE RISK	RESIDUAL RISK after mitigating actions
Engagement and responsibility from the board of directors are key to ensure top priority to the sustainability work.	● The likelihood that our internal and external sustainability goals will not be prioritized is low, thus avoiding a potentially high, negative impact.	DEM board of directors approves the sustainability report in connection with the annual report.	● Only external factors such as recession and economy that could cause low prioritization.
That we are not working on the right/most important sustainability issues because we have not established the processes to assess risks/material issues.	● The likelihood that we fail to identify material issues is low, but possible, and if so, the impact could be significant.	Perform materiality assessments on which we base our sustainability goals.	● It will take some time and practice before we find the right method.
That employees will not raise concerns about the company's conduct related to human rights, labour rights, environment, anticorruption, and governance.	● Although DEM lacks guidelines regarding how to raise concerns, we have a culture where employees are encouraged to speak up. Despite these informal rules, some employees might refrain from sharing difficult issues negatively impacting our positive intentions.	Company policies define to whom concerns should be addressed.	● By introducing clear guidelines, we expect that all concerns will be raised.
Incorrect information/calculations in DEM's sustainability report.	● The likelihood of applying incorrect data or conducting incorrect calculations is low but could essentially lead to wrong conclusions and prioritization of future actions.	DEM is working on having "limited assurance" on the coming sustainability report for the 2022-2023 accounting period.	● 3rd party limited assurance should identify possible mistakes as well as help to ensure prioritization of this internal project.

## ANTI-CORRUPTION AND BRIBERY

DEM has a policy in place for anti-corruption and bribery in order to ensure that we always work to minimize corruption in the countries in which we operate. You can read the full version at [dem.dk/about-us/vision](https://dem.dk/about-us/vision). The policy at DEM is to carry out healthy and responsible business practices where bribery and other related forms of corruption that create unfair competition do not take place. DEM is an international company, and we operate in markets where bribery or facilitation payment can occur. That does not change the fact that DEM views both methods as highly unacceptable and unethical ways for businesses to get an unlawful advantageous position, e.g. by giving a customer money under the table or return commission.

On the next page we have zoomed in on corruption risks and solutions both in our global and Danish markets.

MATERIALITY ASSESSMENT – ANTI-CORRUPTION AND BRIBERY



RISK DESCRIPTION	RISK before mitigating actions	MITIGATION ACTIVITY TO REDUCE THE RISK	RESIDUAL RISK after mitigating actions
Unclear anti-corruption policies and recommendations to employees may cause unintended corrupt behaviour.	● Employees may unintentionally widen the accepted limits for corrupt behaviour (e.g. by accepting gifts). This is unlikely, since our employees are well established and there is an incorruptible culture at DEM.	A clear definition of what DEM considers or does not consider as corrupt behaviour has been published in the employee handbook. All new employees are required to read the employee handbook as part of their introduction programme.	●
Unclear anti-corruption policies and recommendations to employees may prevent them from acting on suspicious corrupt behaviour in relation to our business environment.	● If e.g. a tender has been won due to corrupt behaviour, it can lead to a general doubt about fair competition. However, it is very seldom that we suspect corrupt behaviour from our competitors and the party inviting tenders.	Assess evaluation reports and take action if corruption seems likely and report to the management and relevant authorities.	●
When we as consultants assess offers submitted to our clients, overlook a cartel, i.e. an illegal agreement between competing companies, that restricts competition.	● It creates uncertainty about fair competition for the suppliers but rarely occurs in Denmark.	We will provide training for our employees to make them aware of what to assess and how to act if unfair competition is suspected: report to management and possibly relevant authorities.	●



## OUR BUSINESS – ACHIEVED INITIATIVES



INITIATIVE	WHAT WE DO	WHAT WE HAVE ACHIEVED
<b>GOVERNANCE</b>		
Governance policy	We have formulated our governance policy. Please find it at <a href="http://www.dem.dk/about-us/vision">www.dem.dk/about-us/vision</a>	Structured sustainability work and transparency towards stakeholders about our approach.
<b>ANTICORRUPTION</b>		
Updated anticorruption and bribery policy	The policy has been updated, expanded, and explained in further detail – to employees as well as business partners.	Greater awareness and increased transparency in DEM policies on anticorruption and bribery.

## OUR BUSINESS – FUTURE INITIATIVES

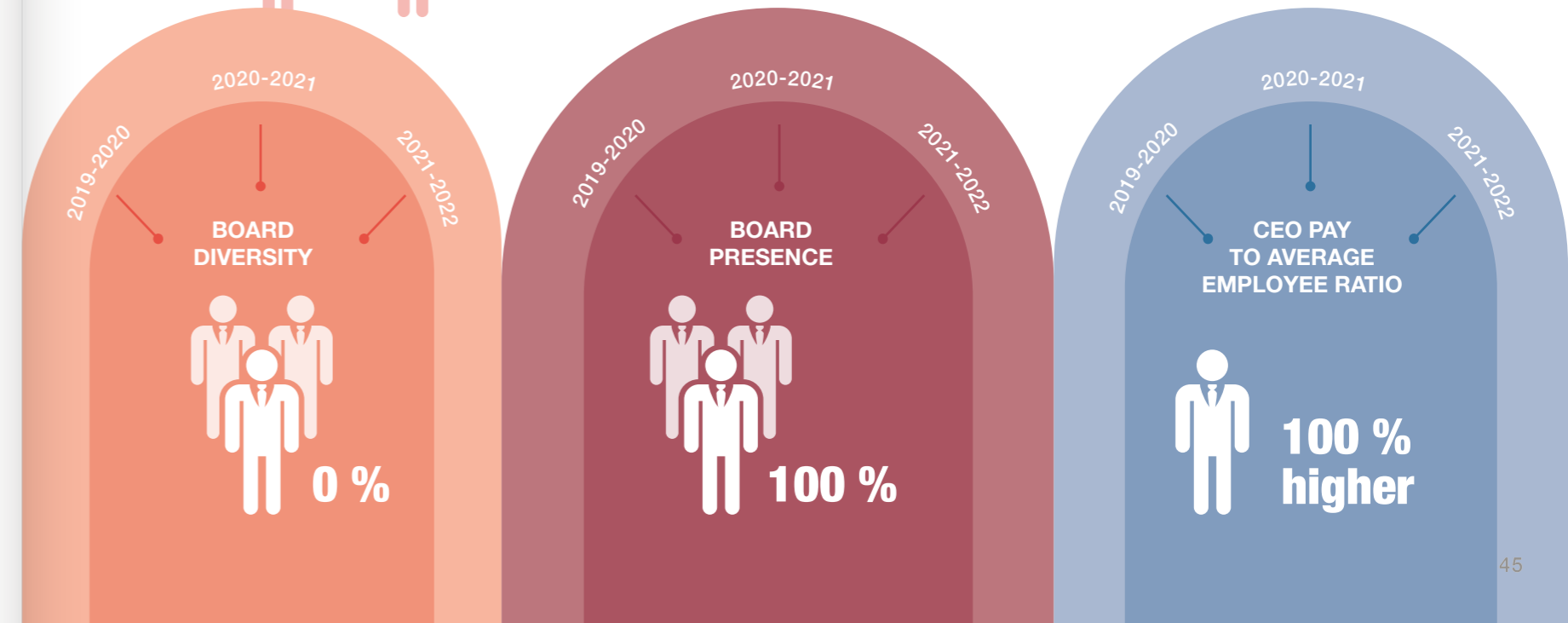
INITIATIVE	WHAT WE DO	WHAT WE PLAN TO ACHIEVE
<b>GOVERNANCE</b>		
Communication of policies	We will enhance external and internal communication of our sustainability policies and SDG targets.	That employees and business contacts are aware of our foundations and aspirations in DEM.
3rd party verification of sustainability work	DEM is working on having so-called "limited assurance" on the coming sustainability report for the 2022-2023 accounting period.	Ensure quality and reliable information.
<b>ANTICORRUPTION</b>		
Systematic assessment of tender evaluation reports	Establish a checklist for the tender teams to assess signs of corruption.	System in place for all tenders with a value of above € 200,000.
Warning system to avoid potential corruption	Establish a blacklist of organisations and individuals.	System in place for all tenders and offers including precautions on how to avoid being connected with corrupt partners.
Due diligence check of new partners	When engaging in cooperation with new business partners, DEM will introduce a checklist based on e.g. self-declarations forms if the customers do not already apply signed declarations.	Secure a sound business environment and avoid that DEM is associated with corruption.



## OUR WORKPLACE – GOVERNANCE DATA



The management group in DEM consists of four men.





OUR WORKPLACE – ACHIEVED INITIATIVES



INITIATIVE	WHAT WE DO	WHAT WE HAVE ACHIEVED
<b>GOVERNANCE</b>		
Good governance regarding sustainability issues	DEM board of directors approves the sustainability report in connection with the annual report.	Top management responsibility for sustainability agenda.
Work on the right/ most significant agenda and thus reducing sustainability risks	Perform materiality assessments on which we base our sustainability goals.	We have started the journey – still to be perfected.
Consistency between and merging of SDGs and ESG approaches	We have changed the structure of this sustainability report. The overall frame is ESG combined with the four Global Compact categories. How we specifically work to achieve the SDGs in collaboration with our customers is described in the cases p. 12-23.	New structure. We will continue to work with the dilemma of presenting results and impacts based on clear and concise information. We will be data driven and acknowledge that the social and environmental and governmental SDGs are interrelated and mutually dependent.
SDG internal dialogue	Dialogue meeting with all employees about current and future SDGs in scope for our work.	SDG integration with core tasks and strategy.
Ensure continuous improvement based on experiences	We have developed a structured procedure for capturing lessons learned in order to base future goals on these.	Systematic learning from experiences.
Systematic and clear organisational set-up and policy	Integrate and clarify in company policies to whom concerns should be communicated.	Guidelines on how to raise concerns have been implemented in company policies.



OUR WORKPLACE – FUTURE INITIATIVES



INITIATIVE	WHAT WE DO	WHAT WE PLAN TO ACHIEVE
<b>GOVERNANCE</b>		
Board diversity	Strive for a better balance.	25 % board diversity reflecting the gender balance in the work force.
Internal sustainability communication	Communication and dialogue about our strategic sustainability work in one of our 'Thursday knowledge sharing' sessions.	Increased awareness and knowledge about how we work with sustainability and integration between strategy and everyday tasks and projects.
Sustainability introduction to new employees	Getting familiarized with company policies and including the handbook as an obligatory part of our introductory programme.	Well-defined approach and guidelines on how to work with the Global Compact principles.
Learning from experience	Work on a more structured procedure for capturing and communicating lessons learned – and build on the solutions we have already implemented when relevant in our work with future goals.	Ensure continuous improvement based on experience.
<b>ANTICORRUPTION</b>		
Training of employees	Create awareness of what to assess and how to act if unfair competition is suspected: report to management and possibly relevant authorities.	Combat and report on unfair competition.







**APPENDIX**

## METHOD DESCRIPTION MATERIALITY ANALYSIS

In connection with our new reporting structure at DEM, we have embarked on the journey of basing our sustainability work and goals on materiality analysis. The purpose is to direct the highest effort to areas where it is needed the most.

In the environmental, social, and governance sections of our report, you can see a simplified result of our materiality analysis for each of the areas (in the report we have only communicated the combined risk). We have carried out an analysis for each of the four Global Compact categories. Both internal and external risks are considered using the matrix below to define severity of the various issues.

IMPACT ON SOCIETY (CONSEQUENCE)				
RISK MATRIX		1. IMPACT/ CONSEQUENCES (INSIGNIFICANT)	2. THREAT TO BIGGER GROUPS (MODERATE)	3. THREAT TO BASIC PRINCIPLES (SEVERE)
Likelihood	3. Once a year maximum	● Medium	● High	● High
	2. Once every five years maximum	● Low	● Medium	● High
	1. Never	● Low	● Low	● Medium

After having identified risks associated with each of the four Global Compact categories (Anti-corruption, Environment, Human rights, Labor rights) as well as the governance dimension, we continued by defining the impact on society and likelihood, respectively, as you can see in the illustration below. The “risk before mitigating actions” is the sum of impact and likelihood. Depending on our result for each risk, we have defined mitigating activities that will leave us with an acceptable residual risk. Mitigating activities are repeated in “achieved goals” and/or “future goals” for each Global Compact category.

RISK DESCRIPTION	IMPACT ON SOCIETY	LIKELIHOOD	RISK (BEFORE MITIGATING ACTIONS)	MITIGATION ACTION TO REDUCE THE RISK	RESIDUAL RISK AFTER MITIGATING ACTIONS

For now we have decided to leave out the “opportunities” part of the analysis. This is to a certain extent covered by our work with the SDGs together with our clients. The basis for our work is exclusively an “inside-out” perspective i.e. our own global impact. In future, it would be relevant also to include an “outside-in” or the so-called “double-materiality perspective” which is connected to our risks and opportunities as consultants in a rapidly changing world. This could for example be the increasing challenge of attracting and retaining the right employees.

This process has sometimes raised more questions than answers! Such as “are we responsible for the products, e.g. solar panels, our clients choose to purchase?” “Is our impact on human rights relevant when we are a Danish SME – when are issues important and what are they compared to?” “Is it our culture that drives change – or to what extent do we need processes and targets, responsible individuals and structure?”.

In other words, we might not have obtained perfect results, and we keep continuing our efforts. But we have had many good and relevant discussions, from which we have learned, pushing us forward towards becoming better at what we are doing. Sharing experience and knowledge is key and we are open and transparent about our methods and processes and we invite any feedback that you may have.

## METHOD DESCRIPTION ENVIRONMENTAL DATA

Following the GHG Protocol corporate standard, the direct and indirect emissions are divided into three scopes:

<b>SCOPE 1:</b>	<i>All direct emissions caused by the company, e.g. emissions from company owned cars, or combustion of fossil fuels such as natural gas in company-owned equipment</i>	<ul style="list-style-type: none"> <li>• Use of company cars for business purposes – managers</li> <li>• Use of company cars for business purposes – employees</li> </ul>
<b>SCOPE 2:</b>	<i>All indirect emissions caused by the company's purchase of energy</i>	<ul style="list-style-type: none"> <li>• Electricity consumption in offices</li> <li>• District heating used in offices</li> </ul>
<b>SCOPE 3:</b>	<i>Other indirect emissions caused by the consumption of products and services</i>	<ul style="list-style-type: none"> <li>• Use of employee cars for business purposes (car allowance)</li> <li>• Transportation by train</li> <li>• Transportation by bus</li> <li>• Transportation by ferry</li> <li>• Transportation by taxi</li> <li>• Domestic air transport</li> <li>• International air transport</li> </ul>

## CO<sub>2</sub> ACCOUNTING

In the table below, we have chosen to show DEM's CO<sub>2</sub> accounting including non-CO<sub>2</sub> data.

Year	2016/2017			2017/2018			2018/2019			2019/2020			2020/2021			2021/2022			2021/2022 compared to 2020/2021
Average number of employees	56			57			50			37			30			35			
Activities	Unit	CO <sub>2</sub> [Tonne]	CO <sub>2</sub> share [%]	Unit	CO <sub>2</sub> [Tonne]	CO <sub>2</sub> share [%]	Unit	CO <sub>2</sub> [Tonne]	CO <sub>2</sub> share [%]	Unit	CO <sub>2</sub> [Tonne]	CO <sub>2</sub> share [%]	Unit	CO <sub>2</sub> [Tonne]	CO <sub>2</sub> share [%]	Unit	CO <sub>2</sub> [Tonne]	CO <sub>2</sub> share [%]	Increase/decrease in CO <sub>2</sub> emission [%]
<b>SCOPE 1:</b>																			
<b>Use of company cars for business purposes – managers</b>	Km			Km			Km			Km			Km			Km			
	13,080	3.7	1.7	11,818	3.0	1.9	31,173	6.5	3.3	26,891	5.8	3.8	19,522	4.2	13.5	36,150	6.0	15.8	42
<b>Use of company cars for business purposes – employees</b>	45,249	6.5	3.1	54,131	8.1	5.0	49,269	5.8	2.9	50,656	5.8	3.8	19,852	2.4	7.7	17,636	2.5	6.6	4
<b>Subtotal</b>	58,329	10.2	4.8	65,949	11.1	6.9	80,442	12.3	6.1	77,547	11.6	7.6	39,374	6.6	21.2	53,786	8.5	22.4	
<b>SCOPE 2:</b>																			
<b>Electricity use in offices</b>	kWh			kWh			kWh			kWh			kWh			kWh			
	113,259	36.5	17.3	101,447	29.6	18.3	95,439	25.0	12.4	76,029	16.1	10.5	59,610	14.2	45.3	58,948	12.5	32.8	-12
<b>District heating use in offices</b>	158,814	27.3	13.0	147,887	23.2	14.3	129,517	18.4	9.1	87,811	10.0	6.5	59,578	2.8	9.0	74,167	3.1	8.1	9
<b>Subtotal</b>	272,073	63.8	30.3	249,334	52.8	32.6	224,956	43.4	21.6	163,840	26.1	17.0	119,188	17.0	54.3	133,115	15.6	40.9	
<b>SCOPE 3:</b>																			
<b>Use of employee cars for business purpose</b>	Km			Km			Km			Km			Km			Km			
	103,810	18.9	9.0	118,633	17.1	10.6	53,246	9.4	4.7	45,593	8.1	5.3	36,935	6.5	20.7	51,307	7.1	18.7	10
<b>Transportation by train</b>	31,403	1.4	0.7	30,373	1.5	0.9	81,725	4.1	2.0	37,057	1.9	1.2	9,575	0.5	1.6	1,880	0.1	0.3	-76
<b>Transportation by bus</b>	4,012	0.4	0.2	1,408	0.1	0.1	4,312	0.5	0.2	2,938	0.3	0.2	298	0.0	0.0	616	0.1	0.3	
<b>Transportation by ferry</b>	5,002	0.7	0.3	12,160	1.5	1.0	11,033	2.7	1.3	12,597	1.6	1.0	5,309	0.7	2.2	3,732	3.0	7.9	332
<b>Transportation by taxi</b>	-	-	-	1,854	0.3	0.2	9,305	1.4	0.7	7,008	1.1	0.7	141	0.0	0.0	77	0.5	1.3	
<b>Domestic air transport</b>	*	10.6	5.0	*	2.4	1.5	*	2.6	1.3	*	1.8	1.1	*	0.0	0.0	*	0.2	0.6	
<b>International air transport</b>	*	104.8	49.7	*	74.9	46.3	*	124.5	62.0	*	101.2	65.9	*	0.0	0.0	*	3.0	7.8	
<b>Subtotal</b>	144,227	136.8	64.9	164,428	97.8	60.6	159,621	145.2	72.3	105,193	116.0	75.4	52,258	7.7	24.5	57,612	14.0	36.9	
<b>Total</b>		<b>210.8</b>	<b>100</b>		<b>161.9</b>	<b>100</b>		<b>200.9</b>	<b>100</b>		<b>153.7</b>	<b>100</b>		<b>31.4</b>	<b>100</b>		<b>38.2</b>	<b>100</b>	

\* Number of kilometres flown is not provided because our calculation methodology takes point of departure in take-off and landing destinations.

## SCOPE 1:

Direct, Scope 1 emissions are those that are directly caused by a source that the company owns or controls. At DEM, there are no boilers etc. in buildings that could contribute to own oil/gas use. For this reason, our Scope 1 consists of “use of company cars for business purposes – managers” and “use of company cars for business purposes – employees”.

CO<sub>2</sub> emissions are based on specific car models. For company cars used by managers, it is estimated that 50 % of the driving is for business purposes and 50 % private.

## SCOPE 2:

Indirect, Scope 2 emissions are derived from the company's consumption of energy products and services, where the company does not own or control the emissions source.

### ELECTRICITY

The CO<sub>2</sub> emissions from the use of electricity in the offices are calculated using the consumption data (kWh) from our economy system. It has not been possible to get information about the electricity consumption at the offices in Copenhagen which means the emissions are estimated using the consumption at the office in Aarhus and the number of employees. The emissions are based on a national average emission factor for electricity. The emission factor for 2022 is 0.2124 kg CO<sub>2</sub>/kWh where the emission factor in 2021 was 0.2382 kg CO<sub>2</sub>/kWh.

The avoided emissions from electricity generated from DEM's shares in renewable energy (Middelgrunden) are also calculated using the national average emission factor for electricity.

From next year's report, we expect to use a specific emission factor for electricity for Eastern and Western regions of Denmark.

### DISTRICT HEATING

Previously, the national average emissions were applied while we in this report have used specific emissions. The CO<sub>2</sub> emissions from district heating are based on the specific environmental declaration for the district heating plants in Aarhus (46.8 g/kWh) and in Copenhagen (34.5 g/kWh), respectively. Last year, the specific environmental declaration was 45.8 g/kWh in Aarhus and 51.0 g/kWh in Copenhagen.

The heat consumption in the Aarhus office is calculated using the statement from the provider, including the consumption account for heat in 2020-2021 (as the consumption for 2021-2022 has not been calculated yet). The used statement is from the period 1/10 to 30/9 but is assessed as representative of the reporting period.

## SCOPE 3:

The Scope 3 emissions are all indirect emissions (not included in scope 2) that occur in the value chain of the reporting company, including both upstream and downstream emissions.

### WATER

The water consumption has not been calculated as it has not been possible to obtain consumption figures for our cold-water consumption. It is intended to be included in future reports to compare the annual consumptions.

### CARS

The CO<sub>2</sub> emissions from company-owned cars are calculated using kilometres travelled which have been converted to kg CO<sub>2</sub> using specific emission factors for each car model. The emission factors are given in the EU car database (carbonfootprint.com).

This year we changed the methodology for employee-owned cars with the aim of getting a more accurate result. Previous years the CO<sub>2</sub> emissions from employee-owned cars were calculated using an average emission factor. In this report the CO<sub>2</sub> emissions are based on each individual car model.

For cars owned by employees who no longer work at DEM, we have used a generic emission factor of 0.17048 kg CO<sub>2</sub>/km cf. carbonfootprint.com.

The kilometres travelled and subsequent CO<sub>2</sub> from external consultants' driving abroad have not been included in the calculations as it is outside the defined organisational boundaries. The kilometres travelled and subsequent CO<sub>2</sub> from our employees' driving abroad have not been included in the calculations as driving abroad typically takes place by taxi and a method to calculate this has not been developed yet.

### FLIGHTS

When calculating the CO<sub>2</sub> emission from air travel, we used unit consumption from the calculation in 19/20, which showed that 10 kg CO<sub>2</sub>/DKK was emitted for domestic flights and 29 kg CO<sub>2</sub>/DKK for international flights.

### TRAIN

The CO<sub>2</sub> emissions from train transportation in Denmark are calculated using the kilometres travelled. Previously, an average emission factor was utilized, while in this report, we have used specific CO<sub>2</sub> emission factors.

DSB has specified emission factors for each type of train. For most of the routes, it has not been possible to determine the exact type of train in operation, but it is assumed that 50 % are InterCity trains, and the other 50 % are regional trains. However, it has been possible to identify the S-trains.

The used emission factor for regional trains is 0.079 kg CO<sub>2</sub>/km, 0.047 for InterCity trains and 0.017 for S-trains.

The specific emission factors for regional trains are twice as high compared to the average emission factor used in last year's report given by 0.0505 kg CO<sub>2</sub>/km. This means the total CO<sub>2</sub> emissions per km are a bit higher compared to the calculations in last year's report.

#### **FERRY**

The CO<sub>2</sub> emissions from transportation by ferry (primarily between Aarhus and Odden) are calculated from the actual cost. "Molslinjen" has informed that the CO<sub>2</sub> emission factor is 70.7 kg CO<sub>2</sub> per one-way trip with the ferry in which the weight of an average person (80 kg) and an average car (1,400 kg) are included.

In last year's report we used an average emission factor of 35 kg CO<sub>2</sub> per one-way trip with the ferry which means the CO<sub>2</sub> emissions are significantly higher in this report.

The CO<sub>2</sub> emissions from transportation by ferry are divided into two calculations; the emissions from the bus and the emissions from the ferry. To calculate the CO<sub>2</sub> emissions from transportation by the ferry, we have used the emission factor obtained from Molslinjen where the weight of an average car is deducted.

#### **BUS**

The CO<sub>2</sub> emissions from bus transportation in Denmark are calculated using the kilometres in our economy system. We have used an average CO<sub>2</sub> emission factor for diesel buses of 0.088 kg CO<sub>2</sub>/km which is a bit lower compared to the average emission factor used in last year's report given by 0.1047 kg CO<sub>2</sub>/km.

The CO<sub>2</sub> emissions from transportation with "Kombardo Expressen" are divided into two calculations; the emissions from the bus and the emissions from the ferry. To calculate the CO<sub>2</sub> emissions from transportation by the bus, we have used the average emission factor and a total of 236 km for a return trip.

#### **TAXI**

The CO<sub>2</sub> emission from the use of taxis in Denmark are calculated from the actual costs used and a generic factor of 0.17048 kg CO<sub>2</sub>/km cf. carbonfootprint.com. The total number of kilometres is based on a unit price of 31.02 DKK (based on 6 bills).

In last year's report, we used a unit price of 5.43 DKK per km. Furthermore, we used an emission factor of 0.155 kg CO<sub>2</sub>/km which means the CO<sub>2</sub> emissions are significantly higher in this report.

#### **HOME OFFICES**

Emissions from home offices (heating, lighting and equipment as computer, phone etc.) are part of our carbon footprint. To estimate the emissions, it is necessary to know the average power use (lightning, computer etc) and the energy used to heat, the number of employees working from home, and the number of working hours in a month.

The overall impact from home offices is limited and therefore we have chosen not to calculate the emissions. Employees are allowed to work from home two days a week.



## METHOD DESCRIPTION SOCIAL DATA

In 2020, a number of administrative employees changed from being employed at DEM to our holding company. The staff turnover rate in 2019-2020 does not include this shift.

The average number of employees is calculated by using the “ATP-method” in accordance with the annual accounts. The total payment to ATP is divided by the payment rate for a full-time employee.

### Employee turnover:

The number of employees with a permanent employment contract (exclusive of students, trainees and employees providing services through the holding company) having left the company during the financial year is measured against the average of the total number of employees with a permanent employment contract.

### Gender ratio:

The gender ratio is calculated as the average of female employees with a permanent employment contract at the beginning and end of the financial year measured against the average of the total number of employees with a permanent employment contract.

### Sickness absence and gender split:

We do not include student assistants and trainees in the accounts for sickness and gender split since this group is not on a regular employment contract.

## ABBREVIATIONS

TECHNICAL TERM	EXPLANATION
ADB	The Asian Development Bank
AI	Artificial intelligence
BR 2030	Bygningsreglement 2030
EE	Energy Efficiency
EnDev	EnDev is a strategic partnership of like-minded donors and partners to support access to modern energy.
EPD	Environmental Product Declaration
ESCO	Energy Service Company. ESCO projects use the estimated long-term savings through energy efficiency measures to finance the investment cost.
ESG	Environment – Social – Governance
FBK	Danish: Den Frivillige Bæredygtighedsklasse
GIZ	Deutsche Gesellschaft für Internationale Zusammenarbeit GmbH
IFU	Danida / Investment Fund for Developing Countries
IoT	Internet of Things
LCA	Life Cycle Analysis
LCC	Life Cycle Costing
OECD DAC	Organisation for Economic Cooperation and Development Development Assistance Committee
PIR-based occupancy sensor	A Ceiling Mounted Passive Infrared (PIR) Occupancy Sensor accurately detects occupancy and automatically switches lighting on and off as needed.
RE	Renewable Energy
RVO	Netherlands Enterprise Agency
SBT	Science Based Targets
SDG	Sustainable Development Goal



February 2023

[www.dem.dk](http://www.dem.dk)

