

The background of the report cover is a composite image. The top half shows a wide-angle view of a deep blue lake nestled in a valley, with steep, forested mountains on either side and snow-capped peaks in the distance. The bottom half shows a close-up of a person rock climbing on a grey, craggy cliff face. The climber is wearing a red jacket, blue jeans, and a yellow helmet, and is secured by ropes and gear. A semi-transparent white box containing the title text is overlaid on the bottom half of the image.

2021 GREENHOUSE GAS EMISSIONS REPORT

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SUMMARY

Climate change is one of the greatest threats of our time. In Axess Group, we have a “passion to stop climate change”. In 2018, we established our Climate Roadmap with goals for how we can reduce our own emissions as well as what we can do to help our clients reduce their emissions. This report documents the specific results from the systematic work with the Axess Climate Roadmap, with 2017 as a base year.

Our footprint represents the greenhouse gas (GHG) emissions from our activities. The handprint represents our contribution to reduce our clients' footprint. Our goal is to minimise our footprint, while maximising our handprint.

- The reporting covers all activities in the global Axess Group.
- It reports on Axess' carbon footprint according to the GHG Protocol Scope 3.
- It reports on our contribution to our clients' footprint reduction, according to the Carbon Handprint Guide.
- It describes the distributed reduction goals and the reduction strategies for the next years.

The method used to measure and determining minimum target ambitions relative to the growth of the business, is GEVA. GEVA is defined as Greenhouse gas Emissions per Value Added, and the unit is kgCO₂e/MNOK. We define added value as EBITDA + payroll + COGS. All reduction targets relate to the base year 2017.

To report on emissions, reduction strategies and performance is continuous work, and our ambitions is to issue a GHG report annually. In 2022, we will increase and improve our reporting to a more systematic and partly automated data collection. We aim to improve the quality and insights over time.

Footprint

Our footprint is the GHG emissions from our own operations. The absolute value of our carbon footprint was 5000 tonnes CO₂e in 2017 and 4400 tonnes CO₂e in 2020.

Our footprint reduction target for 2025 is divided into three activity areas:

- Services represents our service activity mainly connected to inspection, maintenance and repair.
- Products are our mechanical products as the Alpa Winch and custom lifting solutions.
- Office represents our support activities, as office facilities, sales, and administration.

For *Services* and *Office*, we see that in 2020 we are in line with our reduction targets to reach the goals for 2025. For *Products*, the reporting and reduction work has recently started, and we expect to see results from 2021 and 2022. For each activity area, we have defined one or more focus areas. In total, there are six focus areas:

Activity area	Status 2020	Reduction target 2025	6 focus areas	Strategies
Services	-45%	-60%	Mobilisation	Local people, local warehouses, task bundle, digital solutions.
			Purchased equipment	Work with suppliers, reuse equipment.
Products	-6%	-30%	Steel production and product transport	Recycled steel, work with suppliers, local suppliers, reuse of products, circular economy, leasing models.
Office	-52%	-60%	IT consumption	Reuse and recycle IT hardware, optimise data storage.
			Business travel	Teams meetings, stay longer/do more when we travel.
			Commuting	Motivate and facilitate biking, walking and public transport.

Handprint

Our handprint is the reduction of our clients' footprint through our solutions. So far, we have identified three focus areas for handprint solutions:

- IMR vessels: reduce the need for costly and fuel consuming Inspection, Maintenance and Repair – vessels. Current solutions: caisson replacement and thruster replacement.
- Flaring: Avoid the need for flaring due to production shut down. Current solutions: Alpa Winch.
- Service Efficiency: Reduce travel and transport related to mobilisations of personnel and equipment. Current solutions: TRIM, Bridge, eDROPS, drone inspection.

The handprint target is defined in GEVA.

Focus area	Base year 2017 (t)	Base year 2017 (t/MNOK)	Status 2020 (t)	Status 2020 (t/MNOK)	Target 2025 (t/MNOK)
IMR vessel	1 700	5,4	570	1,1	10
Flaring	-	-	12 000	23,2	50
Service efficiency	-	-	44,1	0,1	5
Total	1 700	5,4	12 600	24,4	65



GHG footprint

Our footprint is the GHG emissions from our operations.



GHG handprint

Our handprint is how we reduce our customers' footprint, through our solutions.

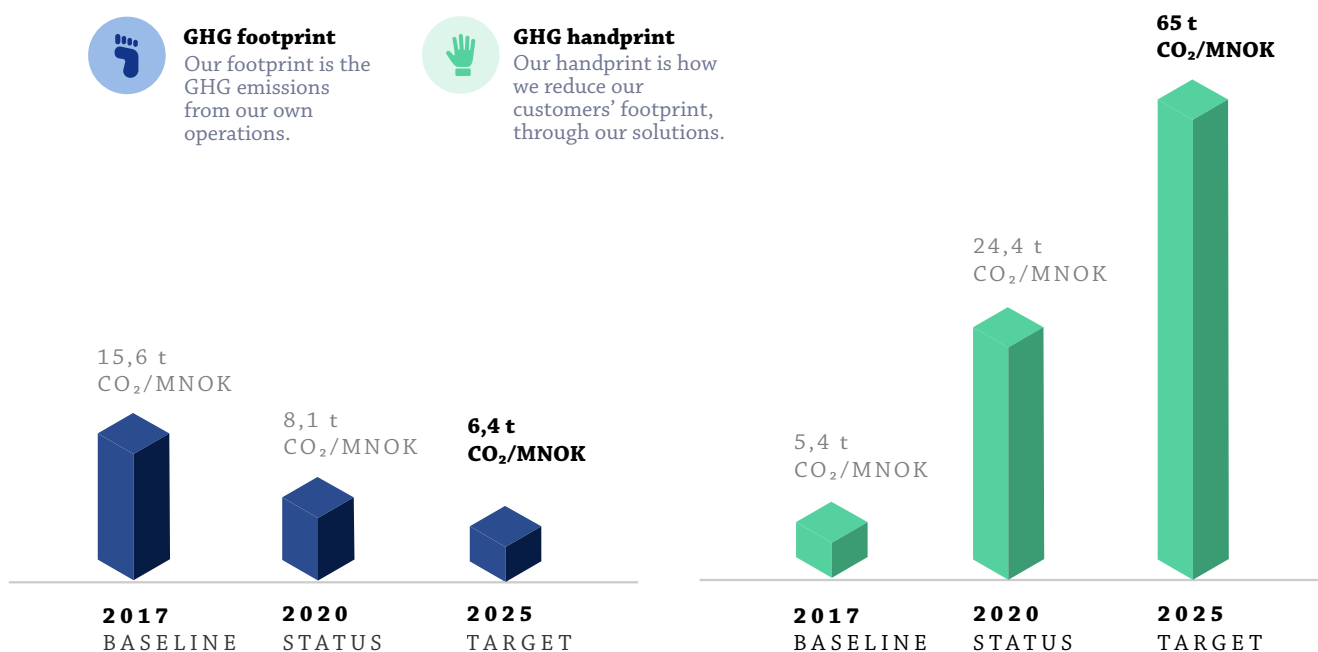


Fig 1. Axess' footprint and handprint progress and targets for 2025.

2 INTRODUCTION

2.1 About this report

Climate change is one of the greatest threats of our time. In Axess Group, we have a “passion to stop climate change”. In 2018, we established our Climate Roadmap with goals for how we can reduce our own emissions as well as what we can do to help our clients reduce their emissions. This report documents the systematic work with Axess Climate Roadmap with 2017 as a base year.

Our footprint represents the GHG emissions from our activities. The handprint represents our contribution to reduce our clients' footprint. Our goal is to minimise our footprint, while maximising our handprint.

- The reporting covers all activities in the global Axess Group.
- It reports on Axess' carbon footprint according to the GHG Protocol Scope 3.
- It reports on our contribution to our clients' footprint reduction, according to the Carbon Handprint Guide (Pajula, T., Vatanen, S., & Behm, K., 2021).
- It describes the distributed reduction goals and the reduction strategies for the next years.

We strive to achieve continuous improvement, also in measuring and reporting. This report presents our current insights. 2022 is the first year that we do systematic data collection on our focus areas, and we expect to learn a lot. The work will continue in the years to come, and the GHG report will be published annually.

The Axess GHG emission report is one part of the total sustainability reporting of the company.

2.2 Footprint definition and framework

Footprint definition

Carbon footprint is the amount of carbon dioxide released into the atmosphere as a result of the activities of a particular individual, organisation, or community.

(Source: Oxford Languages)

Our footprint is the GHG emissions from our own operations. Axess reports on its carbon footprint according to the GHG Protocol Scope 3, including 12 of 15 categories in the value chain.

Footprint framework

GHG Protocol supplies the world's most widely used greenhouse gas accounting standards. The standards are designed to provide a framework for businesses, governments, and other entities to measure and report their greenhouse gas emissions in ways that support their missions, potential and goals.

(Source: ghgprotocol.org)

Axess reports according to the GHG Protocol Standard Scope 1, 2 and 3, covering the value chain. According to the standard, we report on all relevant scopes and categories. For Axess today, this means we report on 9 of 15 categories in scope 3. Both scope 1 and 2 are not relevant, since Axess leases all assets such as buildings and vehicles, and do not own or control any industrial production on its own.

The Scope 3 categories relevant for Axess are:

- C1: Purchased goods and services - Equipment, steel production and miscellaneous.
- C4: Upstream transportation - Transport of purchased goods.
- C5: Waste generated in operations.
- C6: Business travel - Flights and hotels.
- C7: Employee commuting - Employees travelling from home to the office and back.
- C8: Leased assets - Electricity used in office facilities.
- C9: Downstream transportation - Mobilisation and transportation of equipment (from Axess to clients' sites).
- C11: Use of sold products – Emissions from the operating of Axess' products.
- C12: End-of-life treatment of sold products – Disposal of Axess' products.

For details, refer to appendix A.

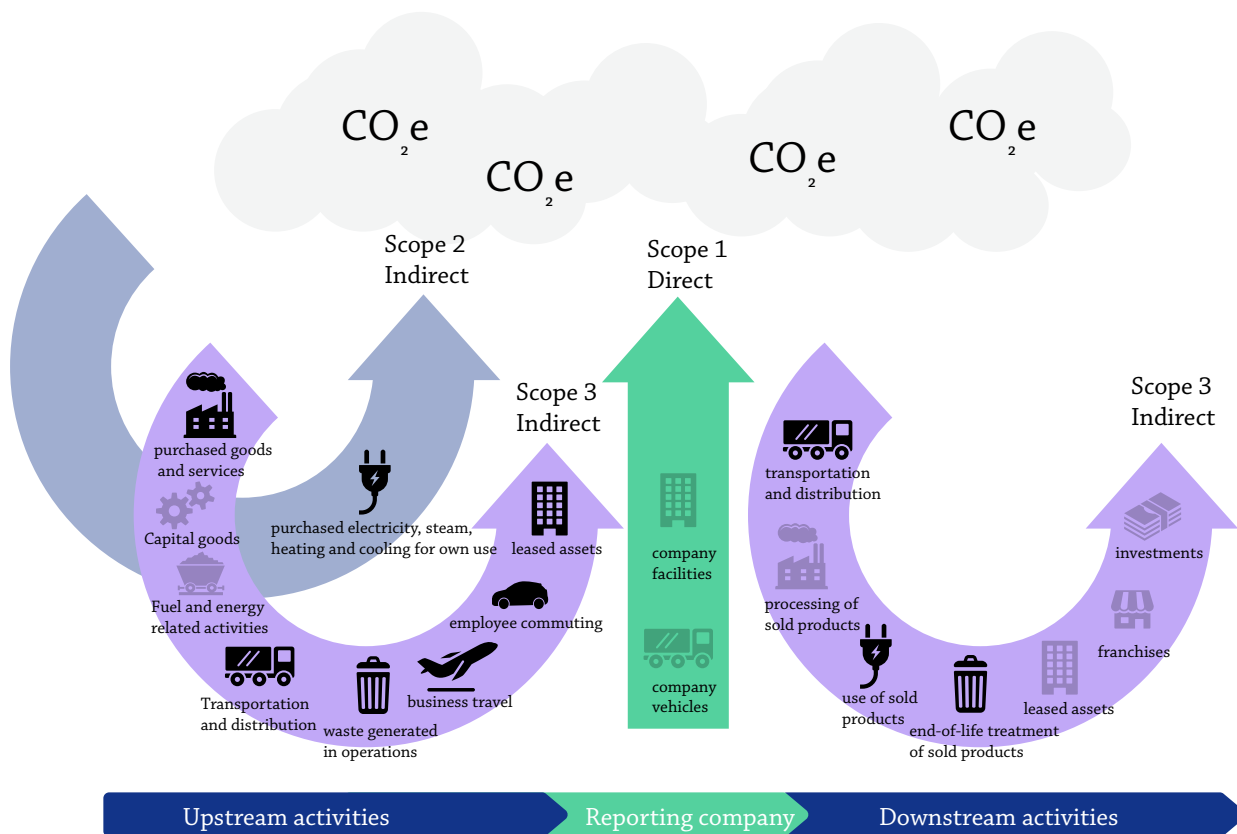


Fig. 2. The three scopes and 15 categories in the GHG Protocol Corporate Value Chain standard. 9 of 15 categories which are relevant to Axess are represented by the icons in black. (Source: GHG Protocol.org)

2.3 Handprint definition and framework

Handprint definition

A handprint refers to the beneficial environmental impacts that organisations can achieve and communicate by providing products that reduce the footprints of clients. A carbon handprint is the reduction of the carbon footprint of a client or clients.

(Source: Carbon Handprint Guide, Pajula, Vatanen, Pihkola 2018.)

Axess strives to be the most sustainable alternative for our clients. Our handprint is the reduction of our clients' footprint, through the use of Axess' solutions.

Handprint framework

Axess will use the Carbon Handprint framework from Finnish LUT and VTT, to describe and measure our contributions to reducing our clients' footprint. These are contributions outside but also partly overlapping with the GHG protocol Scope 3 categories. The footprint and handprint will be approached separately and are not to be summarised.

To identify the handprint, we need to calculate two things:

- The footprint from Axess' solutions
- The footprint from the industry standard, called the baseline solution

Baseline solutions need to be revised regularly. We will tackle this with an internal quality control group, with deep market insight, to ensure the calculated baseline continues to be relevant. We will communicate openly how we define the baseline and the calculated handprint.

Unlike the footprint, the handprint has no defined limits. We will calculate our handprint case by case, service by service, and present them in the annual report as an annual impact. We will continue to add new areas until we cover the potential in our current portfolio, and update it continuously to include new innovations.

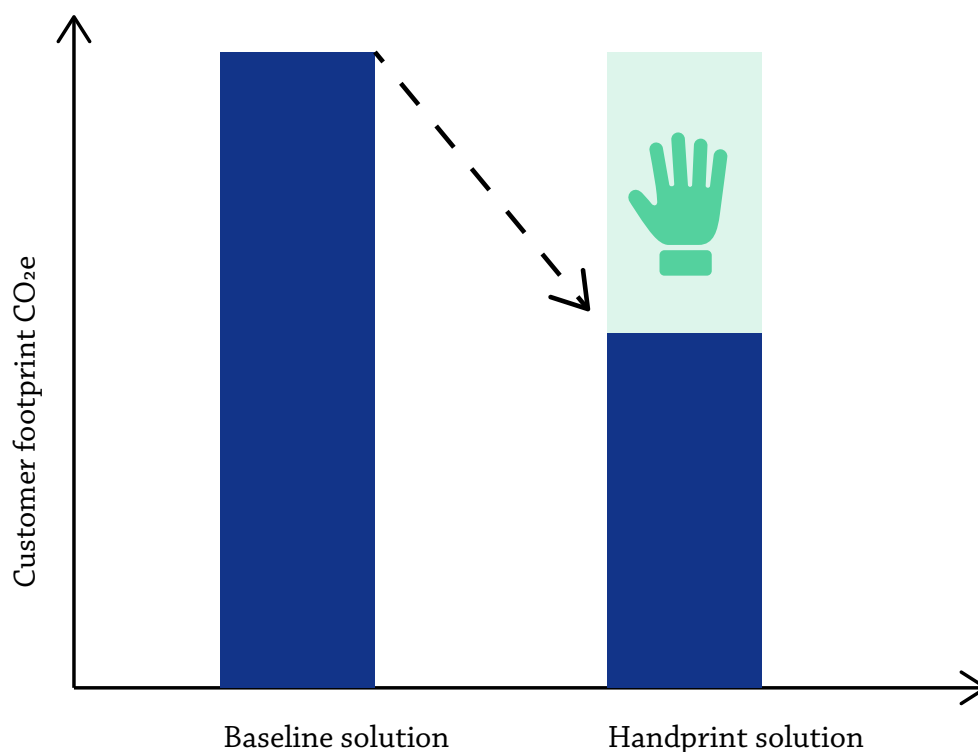


Fig. 3. The handprint is defined as the difference between the footprint from the industry standard/baseline solution and the footprint from the improved handprint solution. (Source: Pajula et al. 2018 Carbon Handprint Guide.)

2.4 Base year 2017

We have chosen 2017 to be our base year; from which we define our reduction targets. As the Climate Roadmap project was established in Q2 2018, we collected the 2017 data in retrospect. 2017 was considered a normal year of operations for Axess. The business had just recovered from the crack in the oil price in 2014, and a new focus on resource efficiency arose.

Axess' key figures in 2017:

- Number of employees: 208
- Turnover: 431 MNOK

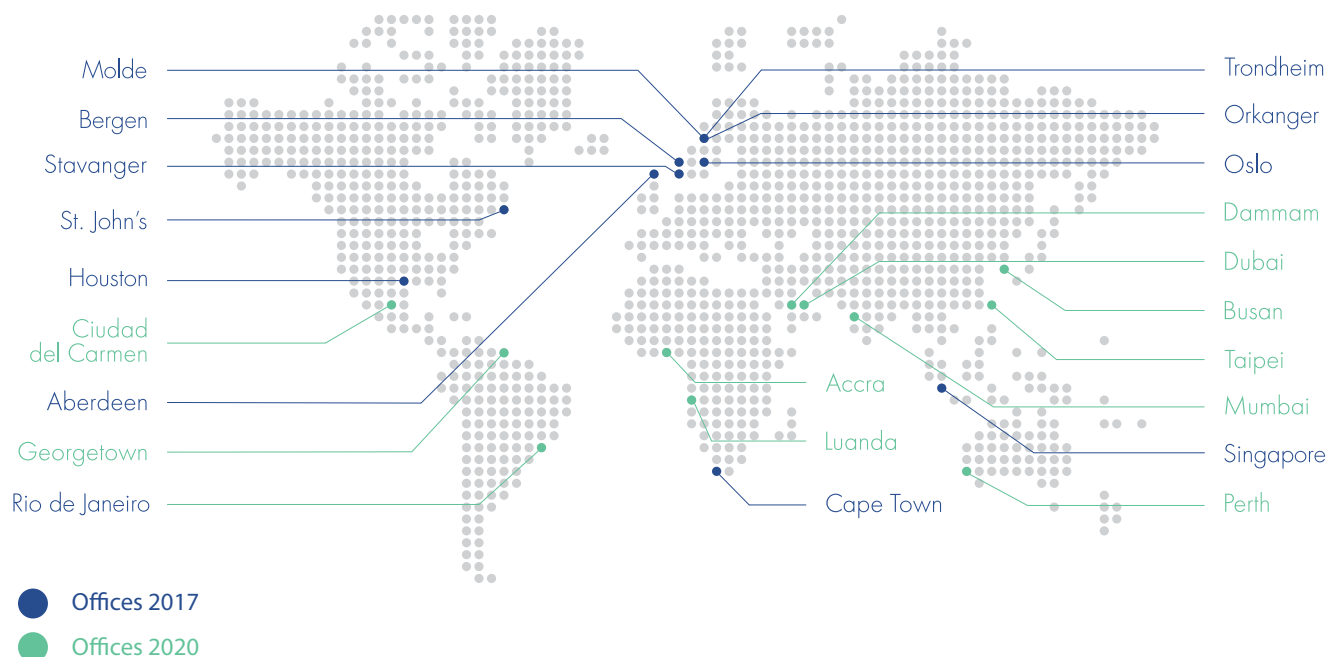


Fig. 4. Map with Axess' office locations – the dark blue dots show offices in 2017.

2.5 KPI - GEVA

We want to improve the resource efficiency in our activities, hence we measure our progress using emissions per value added (GEVA) as KPI. Both footprint and handprint have GEVA as the KPI. The unit of the KPI, GEVA, is (kg CO₂e/NOK).

Resource efficiency means using the Earth's limited resources in a sustainable manner while minimising impact on the environment. It allows us to create more with less and to deliver greater value with less input.

(Source: European Commission)

GEVA is defined as greenhouse gas emissions divided by the value added. This means that Axess is allowed to both grow our business and reach our reduction goals, although the absolute value of our footprint might increase.

We define value added as EBITDA¹ + payroll + COGS². This definition includes not only the added value within the company, but also the employees and the providers. Value creation is defined as EBITDA plus all salary and personnel costs. This figure says something about what values the company creates for employees and shareholders, before financial costs, depreciation, write-downs, taxes, etc (Stoknes, 2019). Axess also use a high degree of hired personnel. When we include COGS, our definition also includes values created for our providers of goods and services.

¹ EBITDA – earnings before interest, tax, depreciation and amortisation

² COGS – cost of goods sold



3 FOOTPRINT REPORTING

3.1 Footprint base year 2017

Distribution of emissions per category 2017

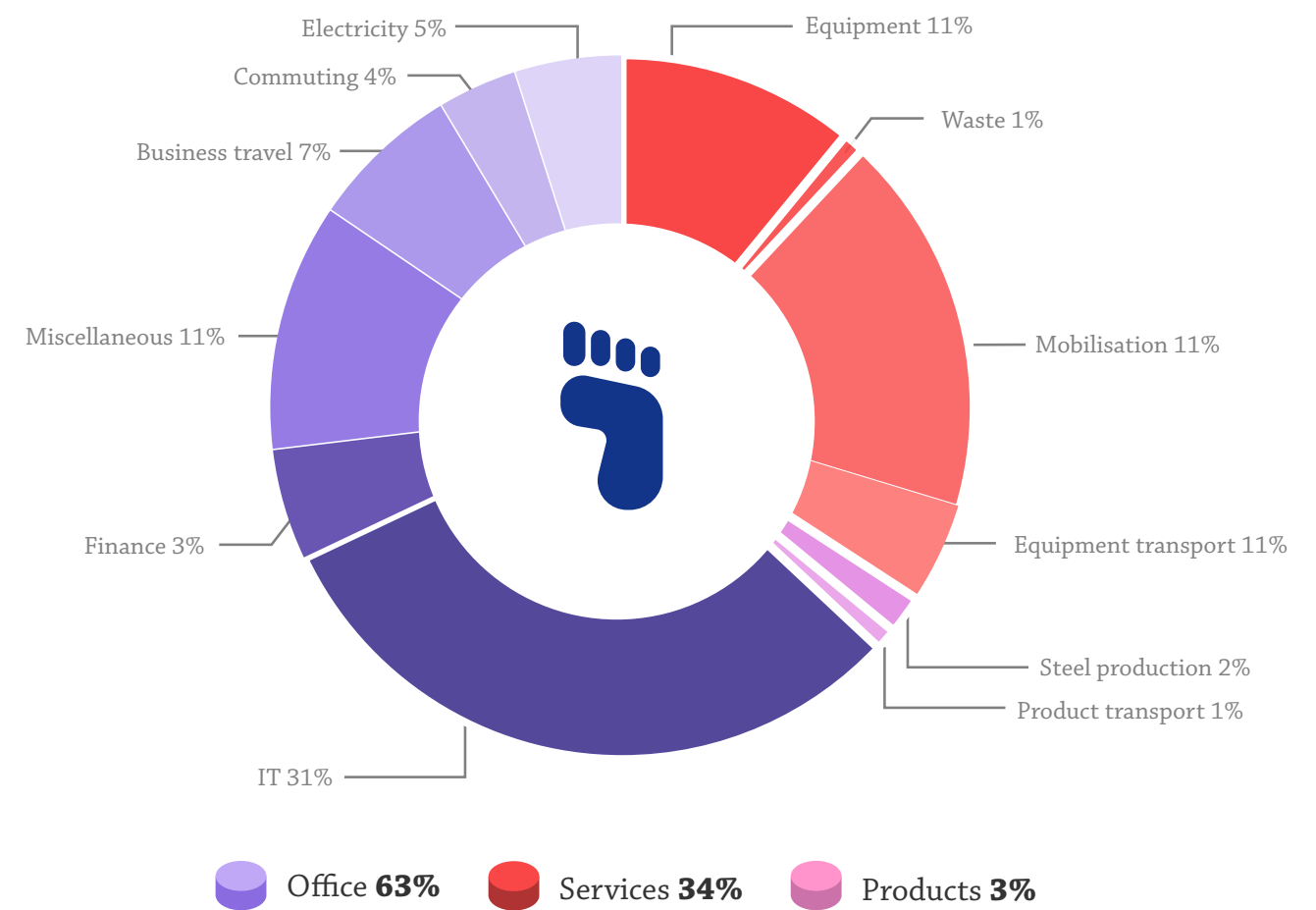


Fig. 5. Pie chart showing the distribution of Axess' footprint for 2017.

GHG emissions 2017	t CO ₂ e	GEVA
Services	1724	5,4
Products	134	0,4
Office	3076	9,7
Total 2017	4934	15,6

Activity Areas

Axess wants the whole organisation to be involved in the work to reduce our carbon footprint and see it as relevant to their work. To be able to communicate the strategies, status and progress, we have split Axess' total footprint into three activity areas, namely, Services, Products and Office. The GHG protocol defined categories are sorted into these activity areas. This is explained further in Chapter 4.1 Footprint reduction targets.

Services

The services that we sell include mobilisation of personnel and equipment to locations, equipment used during service and waste produced.

Products

The products that we develop and sell include the materials used in production and the transport of finished products from the suppliers who produce them. This area will also include end-of-life treatment of sold products, but we still do not have the data to calculate this.

Office

Office consist of all support activities not directly related to what we sell, like electricity, finance, IT, training, marketing and communication, business travels and employee commuting.

Calculation methods 2017

Data was collected in several phases for 2017 and there is a difference in the quality of the data and the calculation methods. Business travels, mobilisation of personnel and employee commuting were collected in 2018 and are of good quality. The rest of the categories were calculated in 2021 to complete the picture according to the standard. Most of these categories were calculated using the account-based method, which is the less accurate method. This method is based on the annual account, and the emission calculator provided by the GHG Protocol standard. The miscellaneous category is a mix of different purchased services, that we must look into more closely to separate and identify. The reason for this is that the account data are not sorted with these categories in mind. For the next report, we will work to improve this data quality and insights, but for now we will use what we have.

The full overview of data information and calculation methods are in appendix B and C.



3.2 Footprint 2020

Distribution of emissions per category 2020

The detailed data and calculations are in appendix B and C.

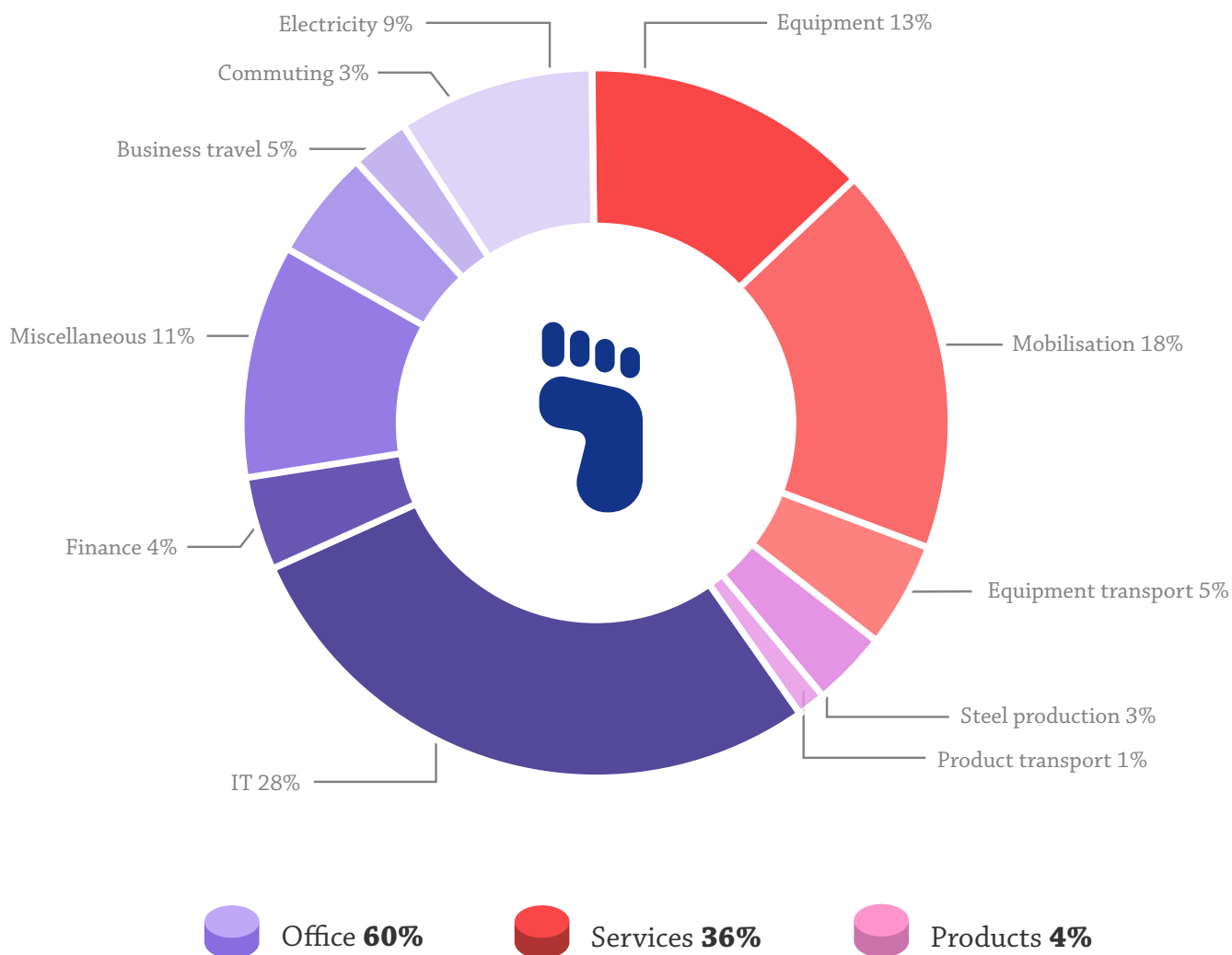


Fig. 6. Pie chart showing the distribution of Axess' footprint for 2020, over the relevant Scope 3 categories.

GHG emissions 2020	t CO ₂ e	GEVA
Services	1549	3,0
Products	205	0,4
Office	2608	4,7
Total 2020	4363	8,1

Calculation methods 2020

The footprint for 2020 is calculated using the same principles as for 2017, but with more extrapolations:

- Mobilisation is based on Horizon Planner for Europe and extrapolated
- Business travel is based on Berg Hansen for Norway and extrapolated
- Commuting data was not collected. We have assumed the same behaviour as in 2017 for the first three months, for the rest of the year we have assumed home office for all employees.
- Electricity; we have used the same emissions per employee as 2017. This means we have not taken into account any reduction in power consumption due to COVID-19 and extensive use of home office. Employees working from home, also use energy for heating/cooling of their houses.
- The rest of the categories in Scope 3 are calculated account based, similar to 2017.

The full overview of data information and calculation methods are in appendix C.

Special conditions

2020 has been a special year due to the COVID-19 pandemic, except for Q1. In particular, commuting and business travel could show a temporary reduction of emissions, due to meeting and travel restrictions.

3.3 Progress 2017 – 2020

The KPI is greenhouse gas emissions per unit of value added (GEVA). From 2017 to 2020, GEVA is reduced by 48% for all of Axess.

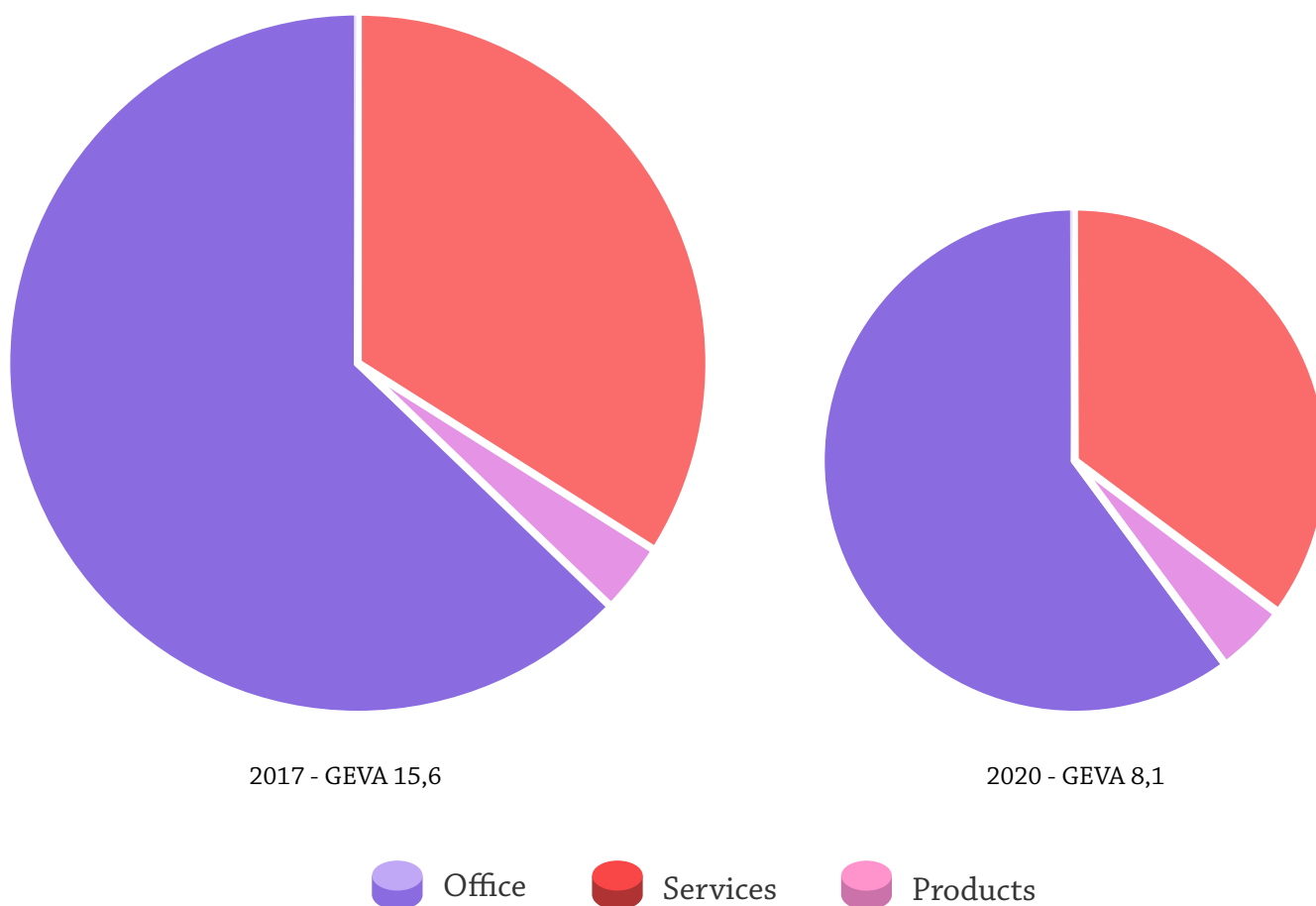
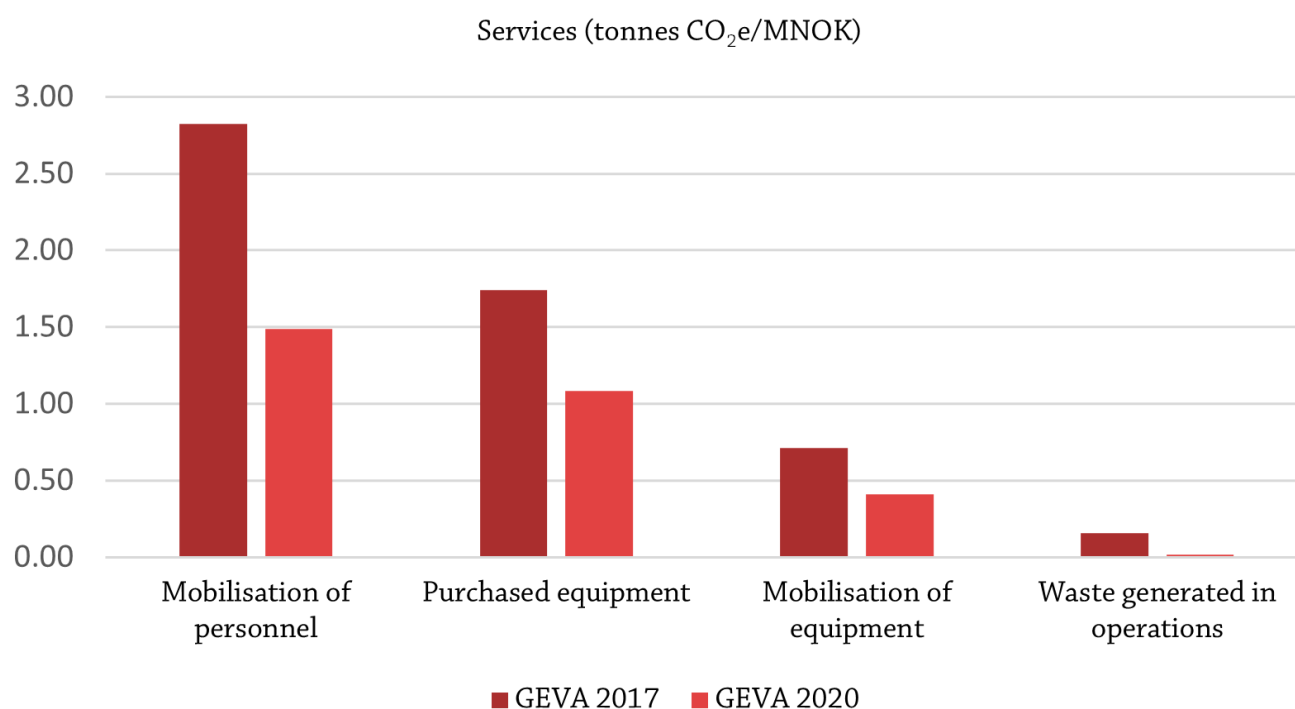


Fig. 7. Pie charts for 2017 and 2020. Difference in circle area reflects the reduction in GEVA; -48%. The distribution is almost the same.

Development 2017-2020	2017	2020	Absolute change	Change (%)
Growth in business				
Employees	208	329	121	58%
Turnover (MNOK)	431	621	190	44%
Value added (MNOK)	317	518	201	63%
Footprint KPI (GEVA)				
Services (t CO ₂ e/NOK)	5,4	3,0	2,4	-45%
Products (t CO ₂ e/NOK)	0,4	0,4	0,0	-6%
Office (t CO ₂ e/NOK)	9,7	4,7	5,0	-52%
Total (t CO ₂ e/NOK)	15,6	8,1	7,5	-48%

3.4 Comments on progress per activity area

Services



Mobilisation of personnel and equipment

We have focused on mobilisation since before 2017. After the oil crises in 2014 there has been a change in the market towards more efficient solutions, and Axess has increased resource efficiency significantly. The reduction of 45% seems reliable. We are on track towards the 2025 60% reduction target. To reach the target and make the reduction permanent, we need to upscale the implementation of the measures and continue to innovate together with clients.

Purchased equipment

It has been a focus on more efficient use of equipment since 2017. More than one department has mentioned the consumption of both chemicals and textiles as a notable waste related to Axess activity. The reduction is a result of that together with the effect from reduced mobilisation and therefore less use of equipment.

Waste generated in operations

Waste has not been a special focus and the data set is uncertain, but the reduction could be a result of the focus on more efficient use of equipment and therefore less waste.

Products



Production and transportation

Products in total is a relatively small part of the footprint. With the investment in Axess Technologies (previously Alpa and Axess Engineering) this business area is expected to grow. The difference in GEVA between 2017 and 2020 is small.

Use of sold products

Emissions from the operation of Axess products such as the Alpa Winch. The emissions from the number of winches currently in operations are negligible.

End-of-life treatment of sold products

We have not yet obtained data for this.

Office

Office (tonnes CO₂e/MNOK)



IT
IT was not a focus in 2017 and was not calculated before 2022. Seeing that it is the largest contributor has made it one of the focus areas going forward. This category consists of both hardware, software, and cloud storage. To understand it better, we need to break it down, and this we will do in collaboration with our IT suppliers. Between 2017 and 2020, the storage was moved from servers to cloud, and that can explain most of the reduction during this period.

Business Travel
The reduction in business travel is significant due to the COVID-19 restrictions throughout most of 2020. But in Q1 and Q3, business travel went on as normal. In that period, the Axess management also visited all the offices globally and that led to extra travel this year.

Commuting
2020 was not a normal year due to COVID-19. Home office was dominant from March – October 2020 and the data set for 2020 is an estimation. The reduction is therefore a result of the pandemic.

Electricity
We have used the same power consumption level per employee for 2020 as for 2017. Number of employees has increased and so has the added value, hence the GEVA remains about the same.

Finance
The financial costs are not necessarily coherent with the growth of the company. A large part of the change between 2017 and 2020 is other financial income and other financial expenses.

These posts represent mainly currency gains and losses. Axess operates in many countries, and the exchange market was extremely volatile in 2020 due to the COVID-19 pandemic. In situations like this, it is relatively random to end up with a loss or a gain.

Miscellaneous
This consists of several categories. It became a rather large part of the contribution, and it will need to be looked at closely in the next report.

4 FOOTPRINT STRATEGIES

4.1 Footprint reduction targets

The original reduction target set in 2018 was 60% reduction by 2025. In 2021 we have extended the coverage of our GHG reporting, and therefore revised the targets. The Axess activity areas, namely, Services, Products and Office, are aligned with the GHG Protocol categories.

We have individual focus areas and reduction targets for each activity area. This is based on criteria as size, reduction potential and stakeholder/employee interests.

The focus on reducing our emissions through reduced mobilisation and travel activity remains the same, and therefore the 60% reduction goal is now valid for the activity area Services.

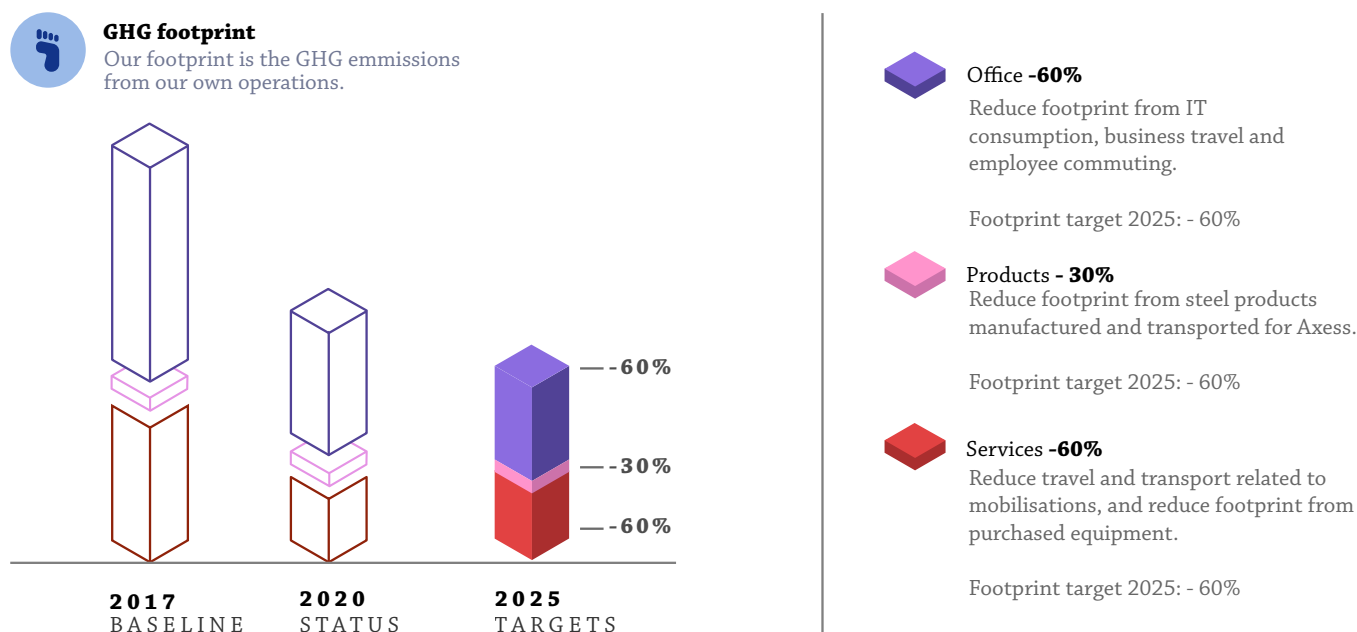


Fig. 8. Distribution of emissions from the three activity areas, and individual reduction targets.

Activity areas and reduction targets:

Services: 60% reduction target for 2025

This area covers our activities related to asset integrity management services; inspection, quality control, installation and maintenance activities performed at our clients' sites. The emissions mainly come from travelling via plane and helicopter, and also the purchases and waste related to equipment used in these activities.

Products: 30% reduction target for 2025

This area covers products designed and delivered by Axess to our clients' sites. The production is performed by suppliers, which is mainly the production of steel constructions, gears and machinery. The emissions relate mainly to production and transport of products, as well as end-of-life treatment of sold products.

Office: 60% reduction target for 2025

This area covers Axess' support activities, such as office functions, sales, and management. The emissions mainly come from business travel, purchase of IT equipment, cloud storage, electricity, and commuting.

4.2 Footprint reduction strategies

Footprint reduction approach

For each activity area we have analysed the categories and decided on focus areas. This is based on the GHG emission calculations and workshops with each department/entity in Axess performed during 2021. (See Appendix F for mapping of each department/entity.) We will work on the Focus Areas and explore different reduction strategies and evaluate effect year by year through the continuous mapping and reporting of GHG emissions.







The focus areas are prioritised based on criteria defined in the GHG Protocol and Axess' business strategy, where the most weighted criteria are:

- Size: Makes up a significant part of Axess' footprint
- Influence: Obvious potential for improvement, stop waste of resources, low-hanging fruits.
- Risk: They contribute to the company's risk exposure (e.g., regulatory, product and customer, reputation.)
- Stakeholder: Engagement and initiatives from employees, clients, and the public.

We will strive to obtain better data quality and calculation methods. We will put most effort into our focus areas, and work on more systematic collection of data. We will continue to report and improve on all categories relevant to Axess.

Footprint focus areas

We have defined six focus areas for the next years. They are colour-coded according to the three activity areas; **services**, **products**, and **office**.

Activity areas	Focus areas	Description	Reduction strategies to explore
Service	Mobilisations 	Reduce our travel and transport related to mobilisations of personnel and equipment. Streamline and digitalise our services.	Local people, local warehouses, task bundle, long stay, digital solutions.
	Purchased equipment 	Reduce our footprint from purchased equipment. Reuse and collaborate with suppliers.	Work with suppliers, ask for product footprint/EPD, reuse equipment.
Products	Production and transport 	Reduce footprint from steel products manufactured and transported for Axess. Reuse and recycle steel products.	Use recycled steel, work with suppliers, use local suppliers, reuse of products, circular economy, leasing models.
Office	IT Consumption 	Reduce our footprint from IT hardware and cloud storage. Collaborate with suppliers.	Reuse and recycle IT hardware, optimise data storage, reduce email attachments.
	Business travel 	Reduce our air travel related to business and sales meetings.	Teams meetings, stay longer/do more when we travel.
	Commuting 	Facilitate carbon-efficient transport to our offices.	Motivate and facilitate biking, walking and public transport. We have relaunched the focus with a commuting campaign in April 2022.

5 HANDPRINT REPORTING

5.1 Handprint focus areas

Axess has so far identified three focus areas for handprint solutions:

IMR vessels

We offer innovative lifting solutions that avoid the use of support or Inspection, Maintenance and Repair (IMR) vessels. Our caisson replacement and thruster replacement services reduce 200 t CO₂ per caisson and 100 t CO₂ per thruster, respectively. If the customer is reporting according to GHG protocol, the emissions will relate to customers' Scope 3, C1; purchased services.

Current handprint solutions:

- Caisson replacement
- Thruster replacement

Strategies:

- Increase our market share in thruster and caisson replacement
- Innovate on new lifting solutions to avoid IMR vessels



Fig. 9. The typical IMR vessel represents about 21,7 tonnes of CO₂ emissions every day it is operating offshore, on dynamic positioning.

Flaring

We offer products and solutions that avoid production shutdown and flaring. An example is the Alpa Winch – its reduction potential is 100 t to 500 t CO₂ per month, depending on the customer case. The emissions will relate to customers' Scope 1.

Current solution:

- Alpa Winch

Strategies:

- Increase sales of Alpa Winch
- Innovate on new ways to avoid flaring

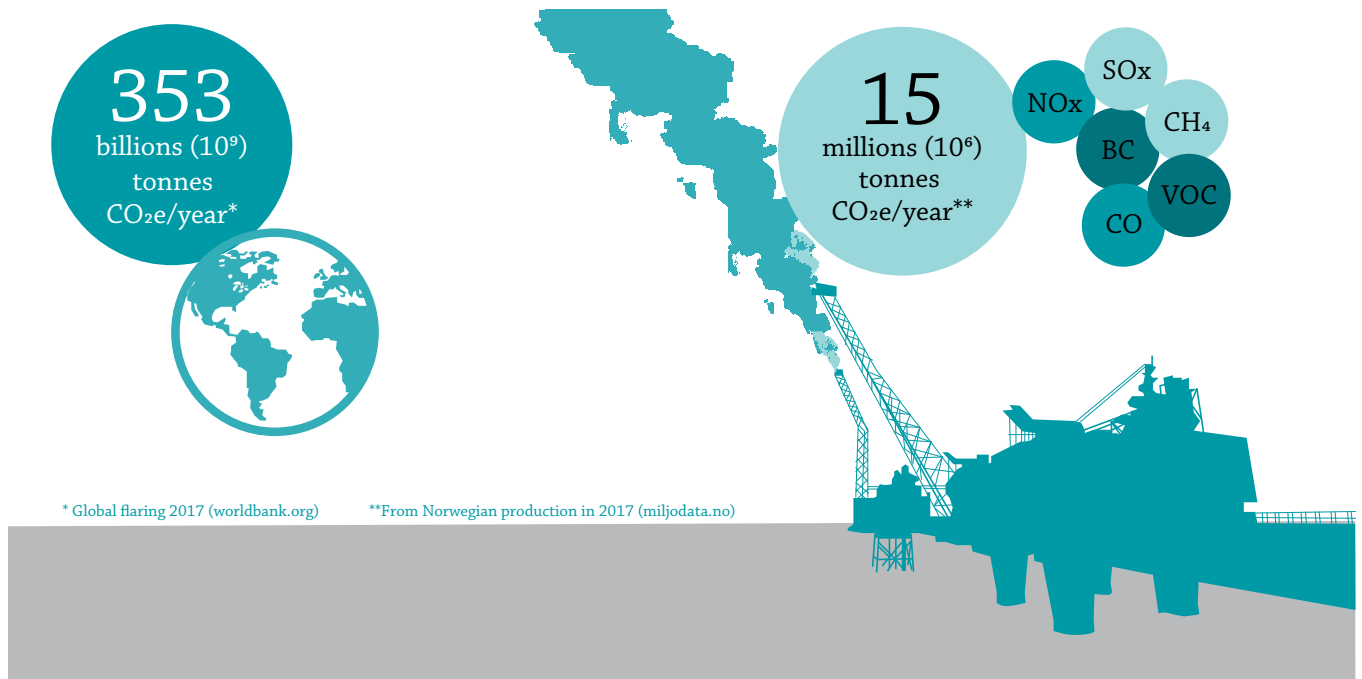


Fig. 10. Flaring in general is one of the major contributors to GHG emissions.

Service efficiency

We offer products and solutions that reduce the need for mobilisation of personnel and equipment. The effect is overlapping with the Axess Scope 3, C9; Downstream Transportation. For offshore installations, the helicopter flight is provided by customer. The entire mobilisation footprint will affect their Scope 3, C1; Purchased Services, and reduced emissions from own helicopters in Scope 1.

Current solutions:

- TRIM
- eDROPS
- Bridge
- Drone inspection

Strategies:

- Calculate more customer cases
- Innovate to increase efficiency and digitalisation

5.2 Handprint base year 2017

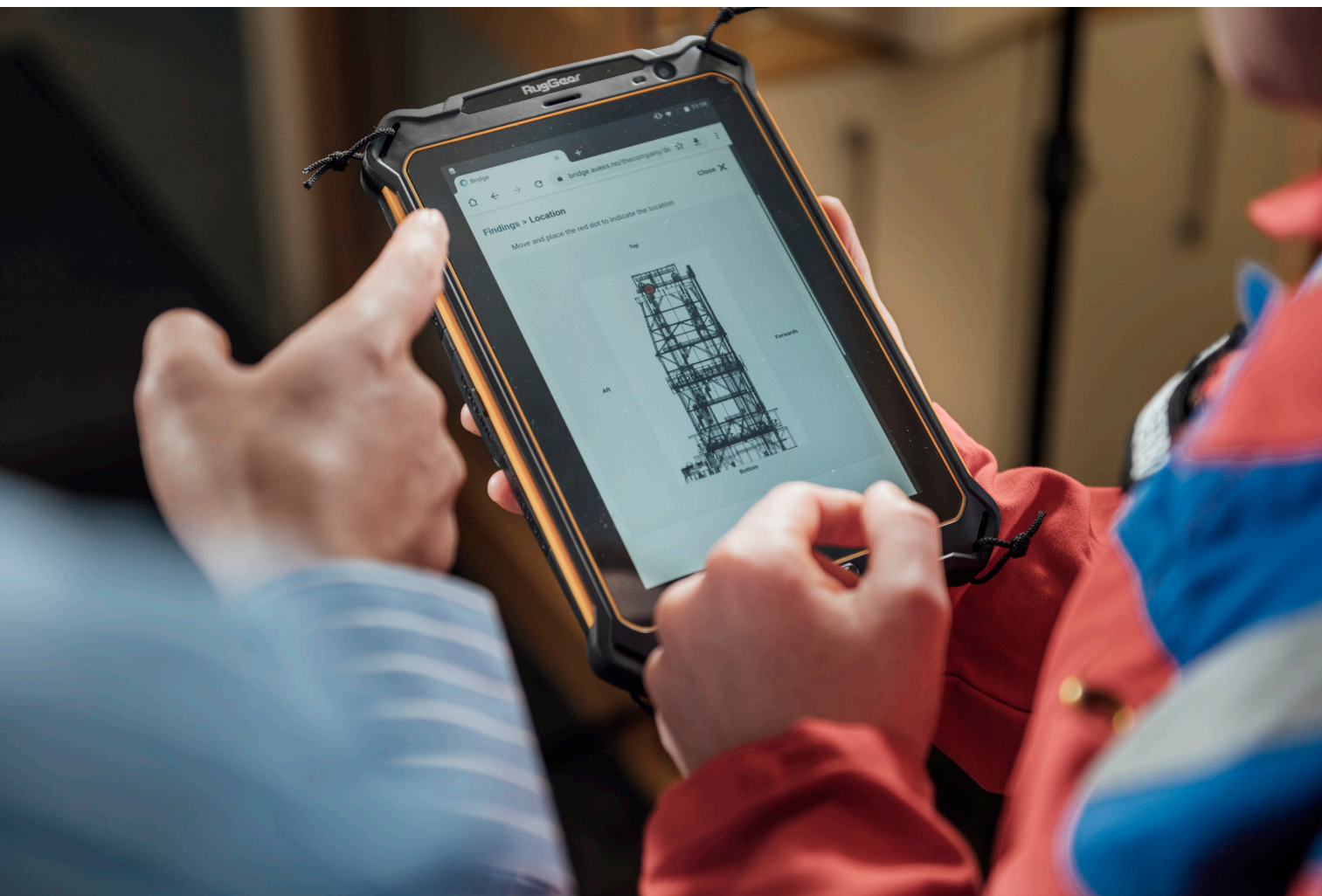
In 2017, Axess changed caissons at the Brage installation and contributed to a footprint reduction of about 1700 t CO₂e emissions for the client Wintershall. This was the first handprint estimation in Axess' history and makes up the calculated handprint for 2017. For calculation, see appendix E.

	Handprint 2017 (t)	Handprint 2017 (t/MNOK)
IMR vessel (caisson replacement)	1700	5,4

5.3 Handprint 2020

For 2020, we have estimated the handprint from all three focus areas. For calculation, see appendix E.

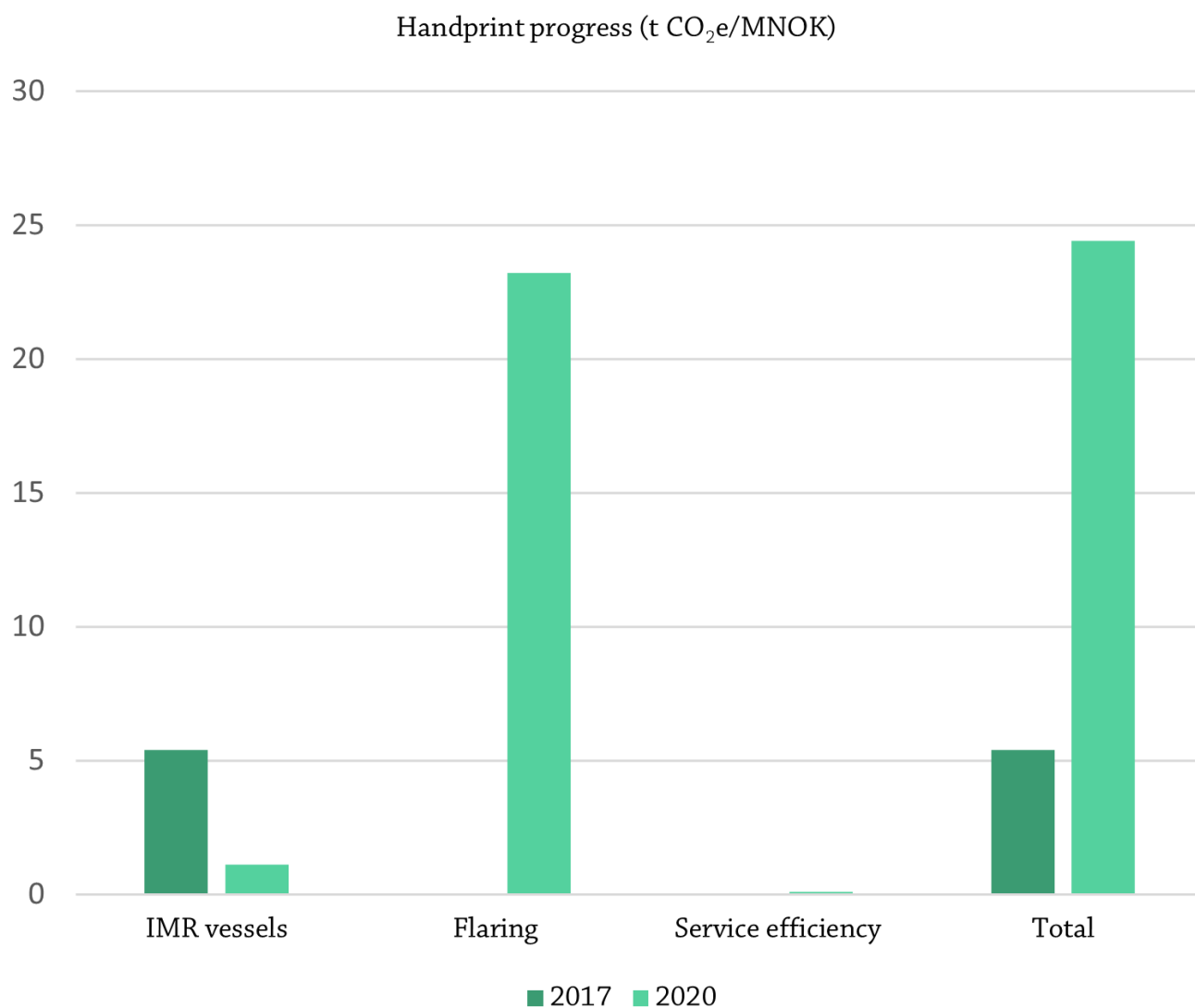
	Handprint 2020 (t)	Handprint 2020 (t/MNOK)
IMR vessel (thruster replacement)	570	1,1
Flaring (Alpa Winch)	12 000	23,2
Service efficiency (TRIM)	44,1	0,1
Total handprint	12 600	24,4



5.4 Handprint progress 2017 – 2020

The size of the documented handprint is dependent on continuous innovation and new calculations.

- The IMR vessel contribution is dependent on the specific projects for each year.
- In comparison, the Alfa Winch units will contribute with an annual handprint over their operating period at client's installation.
- Service efficiency is based on only one client portfolio. The potential here is dependent on systematic improvement and calculations in cooperation with clients.



Development 2017-2020	2017	2020	Absolute change	Change (%)
Growth in business				
Employees	208	329	121	58%
Turnover (MNOK)	431	621	190	44%
Value added (MNOK)	317	518	201	63%
Handprint KPI (GEVA)				
Total handprint	5,4	24,4	19	352%

6 HANDPRINT STRATEGIES

6.1 Handprint improvement approach

The size of the documented handprint for 2020 is already many times bigger than the footprint. This reinforces our motivation for innovation in our products and services. The handprint calculations will help us communicate with the market, become the preferred partner, and inspire others to follow.

To continuously improve our handprint, we need to work on 3 levels:

- Identifying new potential for improved client's footprint, and coming up with ideas for new solutions.
- Develop and implement solutions and calculate effect with pilot client. This includes calculating the footprint of baseline solutions to compare and quantify improvement.
- Scale-up; offer improved solutions to all customers to reach full potential of improvement.

The total handprint will be calculated annually by summarising effect of all implemented handprint solutions this year.

6.2 Handprint targets

To further increase our handprint, we need to identify more focus areas and work systematically with innovations in close cooperation with clients.

We want to improve our handprint related to the growth of our business, hence we use the same KPI as for the footprint, GEVA. As the calculations show, the potential handprint varies over the focus areas. The effect from service efficiency can never compete with flaring. Still, we want to improve on all areas, and we therefore define individual handprint goals for each focus area.

The total handprint target for 2025 is 65 t/MNOK.

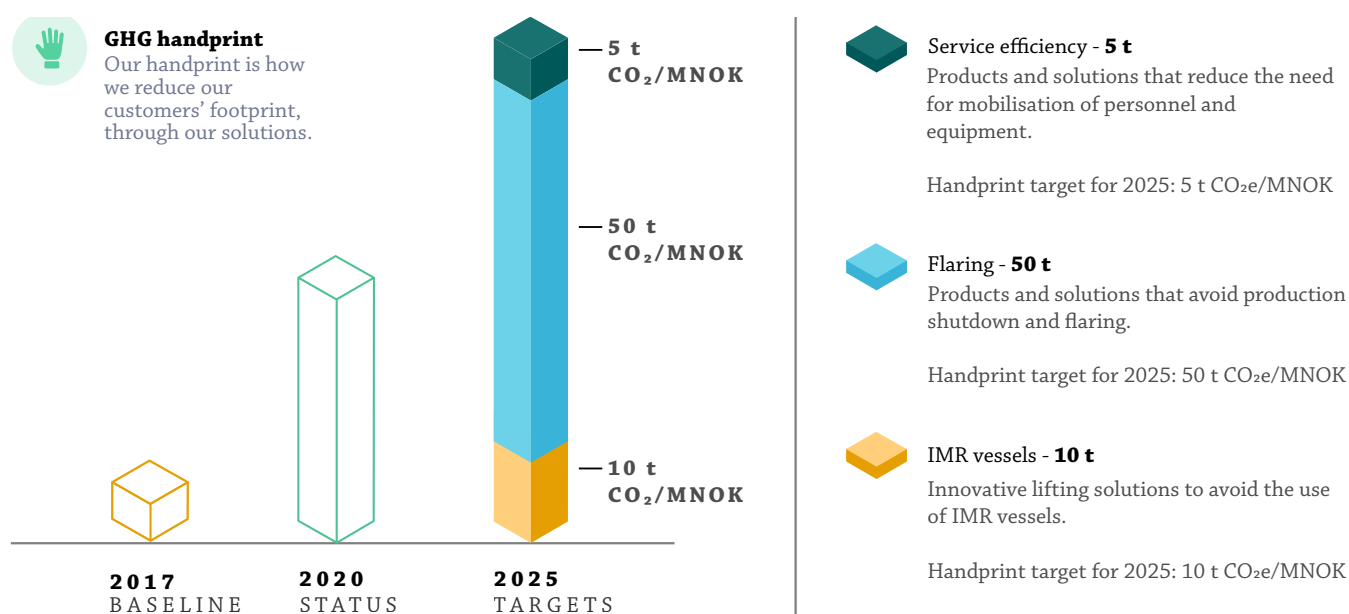


Fig. 11. Distribution of emissions from the three handprint focus areas, and individual reduction targets.

APPENDIX

A. Climate Roadmap history

The Axess Climate Roadmap initiative was started in early 2018. The main idea was to reduce the most obvious source to GHG emissions; our extensive travel activity. Both related to worldwide client projects (mobilisation) and management activity in a global enterprise (business travel). The work started with manual mapping of the footprint for 2017. Our ambition was to monitor the footprint regularly, and it became clear that we needed more efficient methods to collect and analyse data.

Automated monitoring

In 2019, we started developing systems and tools for monitoring the carbon footprint:

- Mobilisation: Integrated functions in our digital resource planner (Horizon Planner), tracking the carbon footprint from mobilisation of personnel.
- Commuting: Integrated functions in Agresso, our hourly system, to track employees' mode of transportation.
- Business travel: Regular, automated reports from our travel agency (Berg Hansen)
- Preparing for communication with employees on SharePoint.

The project was paused during 2020 due to COVID-19.

Choosing a standard

When we picked up early in 2021, we decided to use the GHG protocol standard for our initiative. To align with the standard, we did a complete scan of our value chain, involving all entities worldwide. This resulted in a mapping of our complete footprint, and extended reduction targets as described in chapter 4.

This first GHG emission report was completed in May 2022. We use 2017 as the base year and have a status reporting for selected categories for 2020. Due to COVID-19, both 2020 and 2021 are not representative years since business was not as usual for Axess. Office employees stayed at home, and business travel was negligible.

Now Axess intends to report all emissions in conformance with the GHG Protocol Corporate Standard annually.

In Q1 2022, we have revised the reduction goals and strategies based on these calculations.

The first footprint calculation

The first calculation of the 2017 footprint was performed in 2018. It was before we adopted the GHG Protocol standard, but we covered the following categories; C9 Downstream transportation (mobilisation and goods), C8 Leased assets (electricity), C7 commuting, C6 Business Travel (management and sales). Mobilisation of personnel represents the most significant contribution with 58%.

The total scan revealed a footprint of about 1600 tonnes CO₂e. However, this is not the complete footprint, according to the GHG Protocol Scope 3.

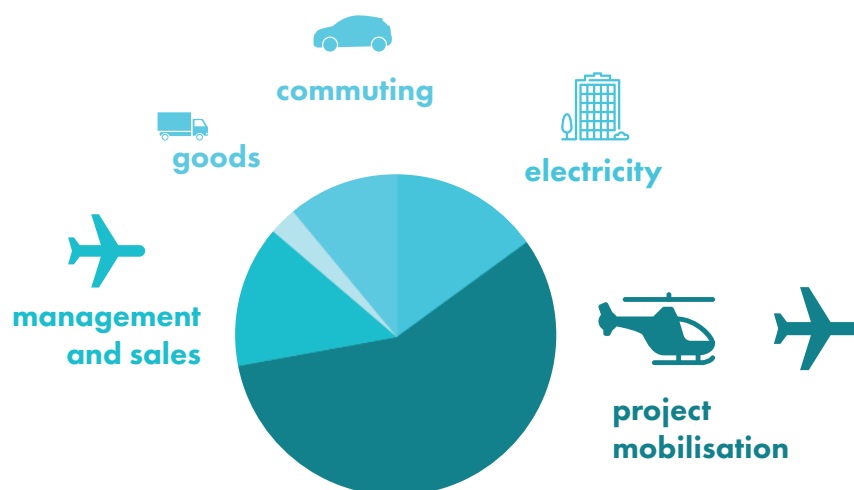


Fig. A.1. The pie chart shows the carbon footprint distributed on the categories included in the first round of emissions calculations in 2018.

The second footprint calculation – scope 3

In 2021, we decided to implement the GHG Protocol Scope 3, the value chain perspective. The procedure is to perform a scan to identify significant sources of emissions. From this basis, we will decide appropriate focus areas and reduction strategies.

Rationale for selecting categories

We did a calculation for the remaining, relevant categories, as described in chapter 3.2. We have specified subcategories for some categories. They have different reduction strategies and by keeping them separate it easier to measure progress. Emissions were calculated with the Scope 3 Evaluator using data from annual account, suppliers' invoice, and extrapolating.

B. Footprint reporting scopes

The figure below shows the three scopes in the GHG Protocol standard. Scope 3 is the value chain perspective with its 15 categories.

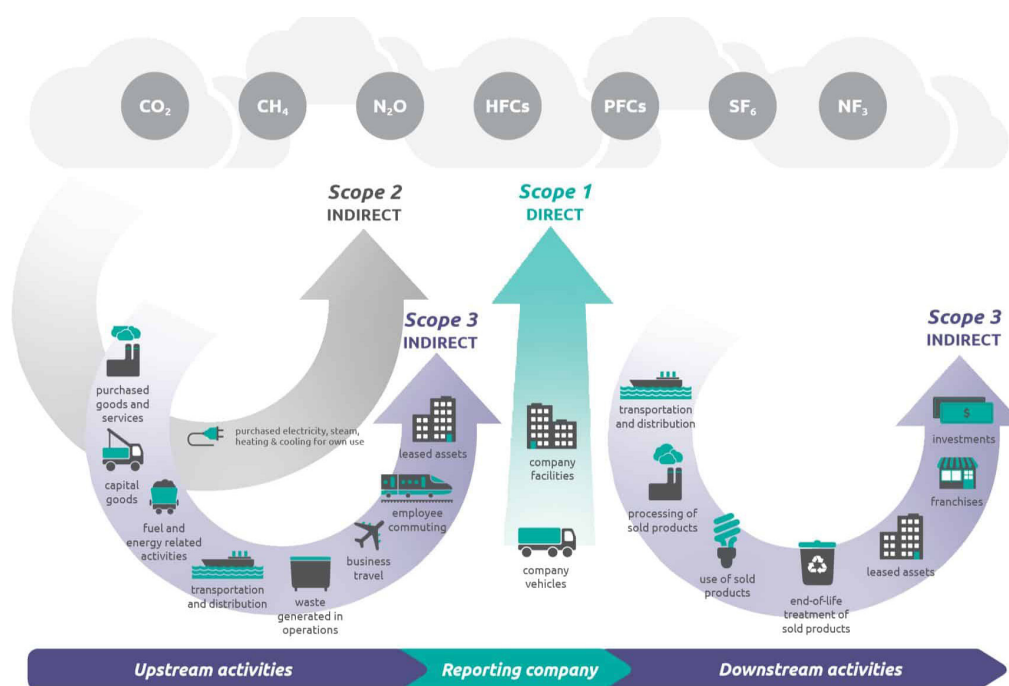


Fig. B.1. Overview of GHG Protocol scopes and emissions across the value chain. (Source: GHG Protocol)

Axess Scope 1 and 2

Scope 1 includes direct emissions from operations owned or controlled by the reporting company. Axess do not own any buildings or vehicles or control any operations, hence Scope 1 is not relevant.

Scope 2 includes emissions from purchased electricity for own combustions. Axess do not own any buildings or vehicles, hence Scope 2 is not relevant. Electricity used in leased facilities is accounted for in Scope 3 – Category 8: Upstream leased assets.

Axess Scope 3

Axess will report on all relevant categories in Scope 3 – indirect emissions in the reporting company's value chain. This is the first year, and we will gain experience and improve over time. This year we are not ready to report in detail on all categories. We have used the GHG Protocol scope 3 evaluator to identify which categories have the most significant emissions. This will form the base on which we define our focus areas and reduction strategies.

Relevant Scope 3 categories

C1: Purchased goods and services

Defined as emissions from extraction, production and shipping of products and services purchased by Axess. E.g., steel constructions, machine parts, IT, cloud services, project equipment.

C2: Capital goods

Extraction, production, and transportation of products that Axess own. Typically, equipment in warehouse used in projects, office furniture.

C4: Upstream transportation and distribution

Transportation of purchased goods from supplier to Axess.

C5: Waste generated in operation

Disposal and treatment of waste generated in Axess' operation. Project waste, typically ropes, slings, packaging. Office waste e.g., electronics, packaging, leftovers from lunch etc.

C6: Business travel

Transportation of employees for business-related activities. Typically for Axess, sales and management meetings and travel related to social events, visits, training etc.

C7: Commuting

Transportation of employees between their homes and their worksites, in vehicles not operated by Axess. The typical Axess employee travel by personal car.

C8: Leased Assets

Emissions from operation of assets leased by Axess. Includes emissions from electricity used to operate offices and warehouses, and emissions from leased vehicles, running on electricity or fuel.

C9: Downstream transport and distribution

Transport of products and services sold by Axess. For work on offshore installations this includes transport of personnel from home to heliport with plane or car, and transport to installation by helicopter or boat. For work on land-based installations transport methods are typically leased cars or plane. Category also includes transport of equipment from warehouse to clients' sites.

C11: Use of sold products

Direct emissions from end use of products and services sold by Axess, over their expected lifetime. Typically sold products that consume electricity or fuel, as the Alpa Winch.

C12: End-of-life treatment of sold products

Emissions from waste disposal and treatment of products sold by Axess at the end of their life. Typically, emissions from disposal of steel structures and winches, and energy used for recycling steel structures. (Today Axess has little control over end-of-life treatment. As Axess strategy represent a move from selling to leasing, this will change in the future.)

Categories that are not relevant for our value chain, and excluded from the report:

- C3: Fuel- and energy related activities (not included in scope 1 or scope 2)
- C10: Processing of sold products
- C14: Franchises
- C15: Investments

C. Footprint - Calculation methods

The footprint was calculated in two sequences, one in 2018 for 2017 and one in 2021 for 2020.

The first sequence was calculated using different data sources, and not based on a standard. For the second sequence, we used the GHG protocol standard, and the calculation tool provided by this standard, using the spend-based method to do a brief scan.

2017

In 2017, data was collected without basing it on a standard. Our extensive travel activity was what triggered us to look into our emissions. We saw a potential in more resource efficient mobilisation of personnel. An identification of the main activities in the company led to the selected categories. Data was collected manually from suppliers accounting and data sets, software and questionnaires. This is specified per category below, for the following categories.

Mobilisation (C9 Downstream Transportation):

Axess services requires mobilisation of personnel to client installations for different projects. For Norway, this was calculated based on data from Horizon Planner and an online carbon footprint calculator. The other offices used excel to collect data.

Transportation of equipment (C9 Downstream Transportation):

Calculated based on accounts, from transporters and DHL's online carbon calculator. These were the less complete datasets.

C6 Business travel:

The calculation was based on data from travel agencies, for management and sales employees.

Electricity (Category 8 Upstream leased assets):

Power consumption was calculated based on electricity bills. To calculate electricity footprint, we have used the average emission factor for the OECD countries for all of our offices. Norwegian electricity has a much lower footprint, but as we operate in an international energy market, we find it fair to use the same factor for all. The large part of our electricity goes to heating and cooling of our office facilities.

C7 Commuting:

Employee commuting was calculated based on an employee survey and an online carbon emission calculator.

2021

In 2021, we aligned everything with the GHG Protocol standard. To make the data set more complete we used the Scope 3 Evaluator to report on all relevant categories. This is a scan based on the spend based method, meaning it gives a brief scan of the emissions. For a deeper understanding we need to work with higher quality data for the focus areas. This work will be continued in the years to come.

Base year emissions recalculation policy

We will evaluate what recalculation method we will use after we have collected and analysed data for 2022. We might apply different recalculation methods for the categories that we prioritise to be our focus areas and categories of less priority.

D. Footprint - data overview and calculations

Data information overview 2017

Scopes and categories [1]	Specifications	Metric tons CO ₂ e	Description of the types and sources of data used to calculate emissions	Description of the data quality of reported emissions
Scope 1: Direct emissions from owned/ controlled operations		0	Axess do not own any production facilities, buildings or vehicles.	
Scope 2: Indirect emissions from the use of purchased electricity, steam, heating, and cooling		0	Axess do not own any production facilities, buildings or vehicles.	
Category 1: Purchased goods and services	Steel Production	90	Internal data systems	Fair
	Computers/ IT/ technology	1 579	Annual account	Fair
	Services (grouped)	552	Annual account	Poor
	Office/other (grouped)	579	Annual account	Poor
	Finance	248	Annual account	Poor
Category 4: Upstream transportation and distribution	Transport of steel mainly	44	Data from supplier	Fair
Category 5: Waste generated in operations		50	Annual account	Poor
Category 6: Business travel		351	Travel agency	Very good
Category 7: Employee commuting		186	Automated and manual registration	Good
Category 8: Upstream leased assets	Electricity used in leased facilities	245	Data from supplier	Good
Category 9: Downstream transportation and distribution	Mobilisation of personnel	896	Data from supplier and automated and manual registration	Good
	Equipment	226	Suppliers invoices	Fair
Category 11: Use of sold products		0	Internal data systems	Fair
Category 12: End-of-life treatment of sold products		0		
Category 13: Downstream leased assets		0	Internal data systems	Fair

Description of the methodologies, allocation methods, and assumptions used to calculate emissions	Emission factor used
Hybrid method, estimating weight of end product to estimate steel purchased. Based on information of Alpa only, which stands for most of the steel production in Axsess.	Emission factor for steel 1.85 (global average from, World Steel Org, https://www.mckinsey.com/industries/metals-and-mining/our-insights/decarbonization-challenge-for-steel)
Spend based method. Extrapolated based on employees using data from Axsess Europe.	WIOD emission factors, Electrical and optical equipment, 0,82.
Spend based method, using the Scope 3 Evaluator. Extrapolated based on employees using data from Axsess Europe.	WIOD emission factors. Factors listed in calculations.
Spend based method, using the Scope 3 Evaluator. Extrapolated based on employees using data from Axsess Europe.	WIOD emission factors. Factors listed in calculations.
Spend based method, using the Scope 3 Evaluator. Extrapolated based on employees using data from Axsess Europe.	WIOD emission factors. Factors listed in calculations.
Fuel-based method. Own calculations based on own record and emission factors from DHL, as if and assuming that transport is done with them.	DHL Carbon Calculator https://dhl-carboncalculator.com/#/scenarios . Factors kg CO ₂ e/km differ between countries 0,0013 for Norway, 0,159 Brazil, 1,27 Singapore
Spend based method, using the Scope 3 Evaluator. Extrapolated based on employees using data from Axsess Molde office	WIOD emission factors, 0,95 kg CO ₂ e/\$
Fuel-based method. CO ₂ emission account from travel agency Spend based method for hotel and restaurants. Based on Axsess Global.	Emission factors used by travel agency Berg Hansen for travel. WIOD emission factors, Hotels and restaurants, 0,56 kg CO ₂ e/\$
Fuel-based method. Own calculations based on global employee survey.	Emission factors from 'Ducky', a Norwegian company specialised in digital carbon footprint calculation. Simplified categories, e.g., same emission factor used for tram/short distance train/long distance train/bus to represent "public transport". Factors listed in calculations.
Asset-specific method. Own calculations using electricity consumption per facility, based on electricity bill. Based on Axsess Global.	Based on average/flat emission factor for OECD 2013. E.g., Norway does not benefit from clean energy/hydropower. http://www.compareyourcountry.org/ (electricity data no longer available on this site)
Fuel-based method. Own calculations using data from Horizon planner (Norway) and manual registration in Excel (globally). Accounting for plane and helicopter travel only. Transport in vehicle and boat are small, and will not be registered in the coming years.	Emission factor helicopter: U.S. Energy Information Administration, https://www.eia.gov/environment/emissions/co2_vol_mass.php , 2,5 kgCO ₂ /litre. Simplification: Same flight distance for all mobilisations. Emission factor plane: Online, free carbon calculator https://www.carbonfootprint.com/calculator.aspx
Spend based method. Extrapolated based on employees using data from Axsess Norway.	WIOD emission factors. Air transport 1,97, Inland transport 0,96
The fuel consumption of the products in use are neglectable.	
Products have not reached end-of-life yet and have not been estimated.	
The fuel consumption of the products in use are neglectable.	

Data information overview 2020

Scopes and categories [1]	Specifications	Metric tons CO ₂ e	Description of the types and sources of data used to calculate emissions	Description of the data quality of reported emissions
Scope 1: Direct emissions from owned/ controlled operations		0	Axess do not own any production facilities, buildings or vehicles.	
Scope 2: Indirect emissions from the use of purchased electricity, steam, heating, and cooling		0	Axess do not own any production facilities, buildings or vehicles.	
Category 1: Purchased goods and services	Steel Production	149	Internal data systems	Fair
	Computers/ IT/ technology	1222	Annual account	Fair
	Services (grouped)	561	Annual account	Poor
	Office/other (grouped)	460	Annual account	Poor
	Finance	192	Annual account	Poor
Category 4: Upstream transportation and distribution	Transport of steel mainly	56	Annual account	Poor
Category 5: Waste generated in operations		8	Annual account	Poor
Category 6: Business travel		222	Travel agency	Poor
Category 7: Employee commuting		114	Automated and manual registration	Fair
Category 8: Upstream leased assets	Electricity usen in leased facilities	398	Data from supplier from previous year	Fair
Category 9: Downstream transportation and distribution	Mobilisation of personnel	770	Data from supplier and automated registration	Fair
	Equipment	211	Suppliers invoices	Fair
Category 11: Use of sold products		0	Internal data systems	Fair
Category 12: End-of-life treatment of sold products		0		
Category 13: Downstream leased assets		0	Internal data systems	Fair

Description of the methodologies, allocation methods, and assumptions used to calculate emissions	Emission factor used
Hybrid method, estimating weight of end product to estimate steel purchased. Based on information of Alpa only, which stands for most of the steel production in Axess.	Emission factor for steel 1.85 (global average from, World Steel Org, https://www.mckinsey.com/industries/metals-and-mining/our-insights/decarbonization-challenge-for-steel)
Spend based method. Extrapolated based on employees using data from Axess Europe. Reduced the CO ₂ emission with return and reuse service.	WIOD emission factors, Electrical and optical equipment, 0,82.
Spend based method, using the Scope 3 Evaluator. Extrapolated based on employees using data from Axess Europe.	WIOD emission factors. Factors listed in calculations.
Spend based method, using the Scope 3 Evaluator. Extrapolated based on employees using data from Axess Europe.	WIOD emission factors. Factors listed in calculations.
Spend based method, using the Scope 3 Evaluator. Extrapolated based on employees using data from Axess Europe.	WIOD emission factors. Factors listed in calculations.
Spend based method, using the Scope 3 Evaluator. Data from Alpa and using data from Europe to extrapolate based on Employees.	WIOD emission factors, Inland transportation 0,96 kg CO ₂ e/\$
Spend based method, using the Scope 3 Evaluator. Extrapolated based on employees using data from Axess Europe.	WIOD emission factors, 0,95 kg CO ₂ e/\$
Using data from 2017 for CO ₂ /employee and extrapolating based on employees for 2020. Data for 2017 fuel-based method. CO ₂ emission account from travel agency Spend based method for hotel and restaurants. Based on Axess Global.	Emission factors used by travel agency Berg Hansen for travel. WIOD emission factors, Hotels and restaurants, 0,56 kg CO ₂ e/\$
Using data from 2017 for CO ₂ /employee and extrapolating based on employees for 2020 and adjusted to 30% because of low activity large part of the year. Data for 2017 is done with fuel-based method. Own calculations based on global employee survey.	Emission factors from 'Ducky', a Norwegian company specialised in digital carbon footprint calculation. Simplified categories, e.g., same emission factor used for tram/short distance train/long distance train/bus to represent "public transport". Factors listed in calculations.
Using data from 2017 for CO ₂ /employee and extrapolating based on employees for 2020. Data for 2017 is done with asset-specific method. Own calculations using electricity consumption per facility based on electricity bill. Based on Axess Global.	Based on average/flat emission factor for OECD 2013. E.g., Norway does not benefit from clean energy/hydropower http://www.compareyourcountry.org/ (electricity data no longer available on this site)
Fuel-based method. CO ₂ emission account from travel agency and own calculations. Own calculations using data from Horizon planner (Norway) and extrapolated based on employees.	Emission factor helicopter: U.S. Energy Information Administration, https://www.eia.gov/environment/emissions/co2_vol_mass.php , 2,5 kgCO ₂ /litre. Simplification: Same flight distance for all mobilisations. Emission factor plane: Online, free carbon calculator https://www.carbonfootprint.com/calculator.aspx
Spend based method. Extrapolated based on employees using data from Axess Norway.	WIOD emission factors. Air transport 1,97, Inland transport 0,96
The fuel consumption of the products in use are neglectable.	
Products have not reached end-of-life yet and have not been estimated.	
The fuel consumption of the products in use are neglectable.	

E. Handprint - Calculations

Handprint calculation 2017

The first handprint calculation was based on the Brage Caisson Replacement project in 2017. This project included advanced lifting operations without using costly and fuel intensive IMR vessels. The IMR vessel is the baseline solution, and the new lifting solution is the handprint solution. This was the only quantified project/solution in 2017, as the calculation was a handprint-pilot for Axess. The calculation was performed in close cooperation with client Wintershall. We were able to identify the baseline solution with the help of Ecoxy, a firm specialised in emissions from ships, based on information from Wintershall.

Base year calculation:

In 2017, Axess changed caissons at the Brage installation and contributed to a footprint reduction of about 1700t CO₂e emissions for the client Wintershall.

Baseline solution footprint:

- IMR vessel: 21,7 tonnes/day x 80 days

Axess solution footprint:

For this operation, we used special designed lifting equipment. The friction clamps lasted for the entire operation, changing seven caissons. After the operation, the steel material was recycled by the customer's system.

- Production of lifting solution (steel): 8,9 tonnes steel x 1,85 t CO₂e/t = 16,5 t CO₂e
- Lifting wire: 3,1 t steel x 1,85 t CO₂e/t = 5,7 t CO₂e
- Transport Kristiansund Mongstad on truck: 13 t x 470 km x 5,27 gCO₂e/tkm (Suzan, 2021) = 0,32 t CO₂e
- Sum: 22,5 t CO₂e

Handprint solution	Baseline solution	Client	Installation	Baseline solution (t CO ₂ e)	CO ₂ e reduction (t)
Caisson replacement	IMR vessel	Wintershall	Brage	22	1700

Handprint calculation 2020

In 2020, we have expanded the handprint calculation with more products/projects. These are related to the currently three focus areas: IMR vessels, Flaring and Mobilisation. This is described in chapter 6: Handprint strategies.

IMR vessels

In addition to the caisson replacement method, we have calculated the handprint from the similar thruster replacement method. For both solutions, the baseline is defined based on the traditional method, with estimated operating hours for an IMR vessel.

Baseline solution footprint:

- IMR vessel: 21,7 tonnes/day x 4,5 days/thruster = 100 tonnes/thruster

Axess solution footprint:

The thrusters are replaced using an Axess specific method, but with standard equipment, except for the subsea connectors. The winches used in the operation are reused and can last for 30 to 50 years. The wires must be changed between each replacement lift.

- Steel wire estimated weight: 3000 kg x 1,85 t CO₂e/t = 5,5 t CO₂e
- 3 steel subsea connectors, estimate weight: 300 kg x 1,85 t CO₂e/t = 0,55 CO₂e

Handprint solution	Baseline solution	Client	Installation	No. of thrusters	Axess solution footprint (t CO ₂ e)	Baseline solution footprint (t CO ₂ e)	2020 CO ₂ e reduction (t)
Thruster Replacements	IMR vessel	Equinor	Norne	2	6	200	194
Thruster Replacements	IMR vessel	Equinor	Åsgard A	2	6	200	194
Thruster Replacements	IMR vessel	Equinor	Heidrun B	2	6	200	194
Sum							582

Flaring

The Alpha Winch is a solution for lifting above pressurised equipment to avoid production shutdown and flaring. The baseline solution is therefore estimated emissions from the avoided flaring, related to the operating of the winch. As shown in the table below, this will vary in different client cases.

The flaring represents huge amounts of carbon emissions, and the footprint from the Axess solution is negligible in comparison. Hence the handprint equals the flaring emissions.

Axess Technologies is also working with a leasing model, meaning that the production footprint from the Alpha Winch can be shared between multiple clients over its lifetime.

Baseline solution footprint:

The baseline solution involves flaring, footprint is estimated by client.

Axess solution/Alpha Winch footprint:

- Production: 10 tonnes of steel x 1,85 tonnes CO₂e/tonne = 18,5 tonnes CO₂e
- Transport: 10 tonnes/4 cbm on ship/truck 1800 km (Gdansk-Molde) = 0,3 tonnes CO₂e (Truck shared with other shipments)

SUM: 19 tonnes (negligible compared to flaring)

Handprint solution	Baseline solution	Client	Installation	Calculation data	Annual CO ₂ e reduction (t)
Alpha Winch	Flaring	Equinor	Kvitebjørn	Estimated by client	6000
Alpha Winch	Flaring	Equinor	Oseberg	Estimated by client	4800
Alpha Winch	Flaring	Equinor	Gudrun	Estimated by client	1200
Sum					12 000

Service efficiency

Our effort in this area also affects our clients' footprint. Together with a major client, we have calculated the increased efficiency and reduced mobilisations. As baseline solution we use our own footprint with the same client in 2016. This baseline solution probably needs to be revised, as also our competitors have increased their efficiency. We will look closer into this in the year to come, but for now this is what we have; from 2016 to 2020 we have reduced the annual man-mobs from 22 to 15. This is achieved through close dialogue with client and a combination of solutions, both TRIM and digital solutions as eDROPS and Bridge.

Footprint from one mobilisation from Houston:

- Estimated average flight distance from Houma - both ways: 600 km
- Helicopter CO₂e – emission: 315 kg

Baseline solution footprint:

20 rigs x 22 mob/rig x 0,315 t CO₂e/mob = 138,6 t CO₂e

Handprint solution:

20 rigs x 15 mob/rig x 0,315 t CO₂e/mob = 94,5 t CO₂e

Handprint solution	Baseline solution	Client	Installation	No. of rigs	Handprint solution footprint (t CO ₂ e)	Baseline solution footprint (t CO ₂ e)	2020 CO ₂ e reduction (t)
Service efficiency	Axess mobilisations in 2016	Major client	All their rigs	20	94,5	138,6	44,1

F. Department focus areas and reduction strategies

The tables below show an overview of recognised sources of emissions by each department/entity. The tables are not yet complete, and we need to dig deeper to fill up the gaps. We will explore the ideas for strategies in the time to come. All content is based on workshops with each entity in Axess:

- Alpa: 2021.06.16
- Engineering: 2021.06.17
- AIM: 2021.06.25
- Renewables: 2021.08.27
- Warehouse: 2021.09.10
- Digital: 2021.09.15
- INSI: 2021.09.29
- Africa: 2021.09.28
- APAC: 2021.10.18
- Americas: 2021.10.19

Axess Services

Topic	GHG category	Axess Department	Reduction strategies
Mobilisation of personnel by plane and helicopter	<ul style="list-style-type: none"> C4 Upstream transportation C9 Downstream transportation 	<ul style="list-style-type: none"> All departments 	<ul style="list-style-type: none"> Use local people for production control Increase service efficiency Task-bundle, long stay (TRIM) Digital solutions (eDROPS, drones, AI)
Mobilisation of Equipment	<ul style="list-style-type: none"> C4 Upstream transportation C9 Downstream transportation 	<ul style="list-style-type: none"> All departments 	<ul style="list-style-type: none"> Local warehouses Local inspection of equipment in warehouses Optimised transport volume Store equipment on client installation
Transportation of hired personnel	<ul style="list-style-type: none"> C1 Purchased goods and services 	<ul style="list-style-type: none"> AIM QC Africa Americas APAC 	<ul style="list-style-type: none"> Hired personnel on long assignments Use local suppliers for hired personnel Low-emission transport e.g., train instead of flight
Leased cars	<ul style="list-style-type: none"> C8 Upstream leased assets 	<ul style="list-style-type: none"> QC 	Lease electric cars
Single-use equipment	<ul style="list-style-type: none"> C1 Purchased goods and services 		<ul style="list-style-type: none"> Sustainable products from local suppliers Avoid disposable products Reuse e.g., slings, coveralls
Equipment	<ul style="list-style-type: none"> C2 Capital goods 	<ul style="list-style-type: none"> Warehouse (All departments) 	<ul style="list-style-type: none"> Ask for EPD/carbon footprint of products Reuse e.g., clean coveralls, inspect lifting slings

Data source	Footprint 2017 (kg/kr)	Footprint 2017 (%)	Reduction Target 2025	Potential	Priority
Horizon Planner / travel agency				<ul style="list-style-type: none"> • High priority in Axess, in strategic focus since 2017. • Further reduction means innovation within service efficiency and digitalisation 	Size
Warehouse/ transporters					Size
Horizon Planner / travel agency				Today not entirely managed by Axess, need to take more control	Size
Insurance company					
Supplier invoice/GHG account					Influence
Supplier invoice/GHG account					Influence

Axess Products

Topic	GHG category	Axess Department	Reduction Strategies
<ul style="list-style-type: none"> Steel products and machinery 	C1 Purchased goods and services	<ul style="list-style-type: none"> Engineering Alpa 	<ul style="list-style-type: none"> Optimised construction/design Low-emission materials Reuse of products
<ul style="list-style-type: none"> Transport of products 	C4 Upstream transportation and/or C9 Downstream transportation	<ul style="list-style-type: none"> Engineering Alpa 	<ul style="list-style-type: none"> Supplier location/transport distance Quality control at supplier (not in Molde) Transportation method Local suppliers/transport distance Optimised packaging/transport volume
<ul style="list-style-type: none"> Packaging, pallets 	C5 Waste generated in operation	<ul style="list-style-type: none"> Engineering Alpa 	<ul style="list-style-type: none"> Optimised packaging of sold products
<ul style="list-style-type: none"> Sold products energy consumption 	C11 Use of sold products	<ul style="list-style-type: none"> Alpa 	<ul style="list-style-type: none"> Electric power source
<ul style="list-style-type: none"> Single-use steel constructions Disposal of used steel constructions and engines 	C12 End of life treatment of sold products	<ul style="list-style-type: none"> Engineering Alpa 	<ul style="list-style-type: none"> Avoid single-use steel constructions Reuse or recycle material from products Product return service

Axess Operations

Topic	GHG category	Axess Department	Reduction Strategies
Business meetings (Reduce flights)	C6 Business Travel	<ul style="list-style-type: none"> All departments 	<ul style="list-style-type: none"> Teams Bundle meetings
Commuting	C7 Commuting	<ul style="list-style-type: none"> All departments 	<ul style="list-style-type: none"> Home office policy Facilitate biking, walking, public transport Motivation campaign
Cloud services	C1 Purchased services	<ul style="list-style-type: none"> All departments 	<ul style="list-style-type: none"> Reduce CAD models storage Reduce e-mails
IT e.g., computers and mobile phones	C1 Purchased products		
Electricity used in offices and warehouses	C8 Upstream leased assets	<ul style="list-style-type: none"> Americas 	<ul style="list-style-type: none"> Clean energy Save energy
Office operation e.g., lunch and cleaning	C1 Purchased services		
Waste handling	C5 Waste from operation		

Data source	Footprint 2017 (kg/kr)	Footprint 2017 (%)	Reduction Target 2025	Potential	Priority
Supplier invoice/ material declaration				<ul style="list-style-type: none"> Estimated 10-20% reduction potential in low-carbon steel In addition to our other strategies, + future technologies and industry focus. 	Size
Transporter invoice					
Supplier invoice					
Estimated running hours					
Estimated lifetime + material weight					Influence

Data source	Footprint 2017 (kg/kr)	Footprint 2017 (%)	Reduction Target 2025	Potential	Priority
Travel agency				Size	
Agresso timesheet/ Excel log				Stakeholders	
Supplier invoice/GHG account					
Supplier invoice/GHG account					
Supplier invoice/GHG account					

7 REFERENCES

Oxford Languages. (2022, March) Carbon footprint definition

Oxford Languages https://www.lexico.com/definition/carbon_footprint

Bhatia, Cummis, brown, Rich, Draucker, Lahd (2011) Corporate Value Chain (Scope 3) Standard

Greenhouse Gas Protocol <https://ghgprotocol.org/standards/scope-3-standard>

Pajula, T., Vatanen, S., & Behm, K. (2021). Carbon handprint guide. VTT Technical Research Centre of Finland Ltd.

Handprint guide: https://www.vttresearch.com/sites/default/files/pdf/publications/2021/Carbon_handprint_guide_2021.pdf

Stoknes (2019, August 26) KPI: Hvordan måle ekte grønn vekst og unngå grønnvaskingsfellen

Fagpressenytt: <https://fagpressenytt.no/artikkel/hvordan-m%C3%A5le-ekte-gr%C3%B8nn-vekst-og-unng%C3%A5-gr%C3%B8nnvaskingsfellen>

Suzan Simon (2021, October) Easy Ride: Why the EU truck CO2 targets are unfit for the 2020s

Transport & Environment https://www.transportenvironment.org/wp-content/uploads/2021/10/202108_truck_CO2_report_final.pdf

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