

Carbon Footprint according to the GHG Protocol





Carbon footprint

Next steps

Prodan in a glance	
Introduction	4
In a nutshell	5
Materials manufacturing	6

Climate action	
Greenhouse gases	8
PCC Assessment Report	9
Greenhouse Gas Protocol	10
Approach	12

Carbon footprint	
Prodan's emissions	14
Value chain emissions	16
Total Scope 1,2,3 emissions	22
Progress so far	23

Next steps	
Commitments	25
Sustainable products	26

A supplier of total solutions in a variety of industries since 1965

Reported all emission Scope subcategories according to the Greenhouse Gas Protocol

Committed to using 100% renewable electricity since 2022





Welcome to the Sustainability Report of Prodan. As a leading Danish company, Prodan possesses a profound understanding of the crucial role played by emissions calculation and reduction in advancing environmental responsibility and fostering sustainable practices. This report sheds light on the substantial significance of addressing both direct and indirect emissions, highlighting their implications at local and global levels.

# The Significance of Emissions Calculation and Reduction

For Prodan, the calculation and reduction of emissions have emerged as fundamental responsibilities in addressing climate change and mitigating the company's ecological footprint. By quantifying the greenhouse gas emissions stemming from its operations, Prodan gains essential insights into its role in the global climate challenge. This awareness empowers the company to pinpoint specific areas for emissions reduction, optimize energy consumption, and cultivate a culture of sustainability.

#### **Direct Emissions: Local Accountability**

Prodan wholeheartedly embraces its local responsibility for direct emissions. These emissions stem from diverse activities, such as the combustion of fossil fuels for heating or transportation purposes. By proactively addressing direct emissions, Prodan acknowledges its central role in minimizing the environmental impact it leaves behind. This commitment drives the company to explore innovative solutions, enhance

energy efficiency, and transition toward cleaner alternatives, aligning with its strong dedication to environmental preservation.

#### **Indirect Emissions: Global Outlook**

In addition to direct emissions, Prodan recognizes the significance of addressing indirect emissions. Indirect emissions encompass an extensive range of environmental impacts across the entire value chain of the company, including those associated with purchased electricity, supplier activities, distribution, product use, and disposal. By diligently accounting for these indirect emissions, Prodan acknowledges its interconnectedness with the global ecosystem. The company assumes the responsibility to engage with suppliers, advocate for sustainable

practices, and reduce emissions throughout the lifecycle of its products and services.

#### The Global Impact of Emissions Reduction

The importance of emissions reduction extends beyond Prodan as a company, as the environmental challenges associated with climate change, such as escalating temperatures, extreme weather events, and ecological disruptions, present significant risks to communities across the world. By proactively and decisively reducing emissions, Prodan actively contributes to global efforts to combat climate change, protect critical ecosystems, and safeguard the well-being of future generations, thus exemplifying its commitment to responsible corporate citizenship.



Prodan, situated in Randers, Denmark, specializes in the metalworking and manufacturing industry. Prodan has built a reputation as a reliable provider of high-quality metal components to a diverse range of industrial sectors.

#### **Cutting-Edge Manufacturing Solutions**

Prodan A/S is known for delivering advanced manufacturing solutions. Their innovative methods aim to produce high quality and costeffective materials through their sustainable manufacturing processes. These solutions are designed to enhance energy efficiency and contribute to a more sustainable future.

## **Sustainable Production Practices: Reducing Material Waste**

Prodan's range of high-performance metal components plays a pivotal role in enhancing manufacturing processes and equipment. By providing effective solutions, Prodan helps its customers minimize

material waste, reduce environmental pollution, and improve overall operational efficiency. These components promote responsible resource management, supporting the conservation of valuable resources and fostering sustainable practices in the metal industry.

#### **Sustainability Initiatives**

Prodan actively engages in initiatives like Vild med Vilje: Prodan has chosen to give nature and biodiversity a helping hand. In their facilities, a total of 15,000 square meters of dull lawn have been converted into a wildflower meadow. This has become a safe haven for a variety of local wildlife, like bees and butterflies, and it has eliminated the impact of mowing and watering the grass.



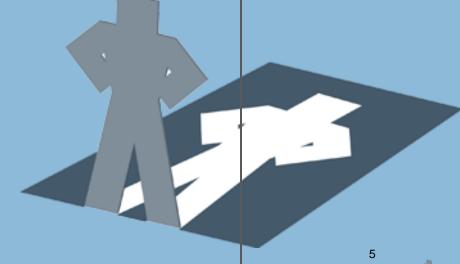
## **Commitment to Environmental Stewardship**

Prodan is committed to minimizing its environmental impact and continuously seeks to adopt ecofriendly practices. From sourcing sustainable materials to implementing energy-efficient measures in its manufacturing facilities, Prodan places a strong emphasis on adopting environmentally friendly practices throughout its value chain. By fostering collaboration with suppliers who share its sustainability commitment, Prodan aims to further reduce its ecological footprint and contribute to a more sustainable future in the metalworking and manufacturing industry.

Prodan's dedication to environmental responsibility is evident in its proactive approach to sustainability. By providing innovative manufacturing solutions, collaborating with customers, and continuously improving its practices, Prodan strives to minimize its environmental impact

and inspire others in the metalworking industry to embrace sustainable choices. As Prodan expands and evolves, its commitment to providing environmentally conscious solutions continues to support customers in their efforts to reduce energy demands, minimize environmental impact, and promote sustainability in the manufacturing sector.

Prodan is a productive link for a variety of industries and has become a supplier of total solutions that adds value to its customers, through close cooperation.



Prodan in a glance

Climate action

Carbon footprint

Next steps

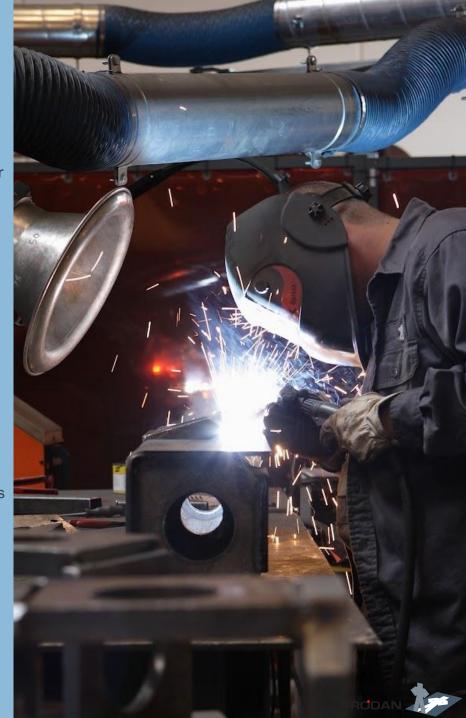
# **Materials manufacturing**

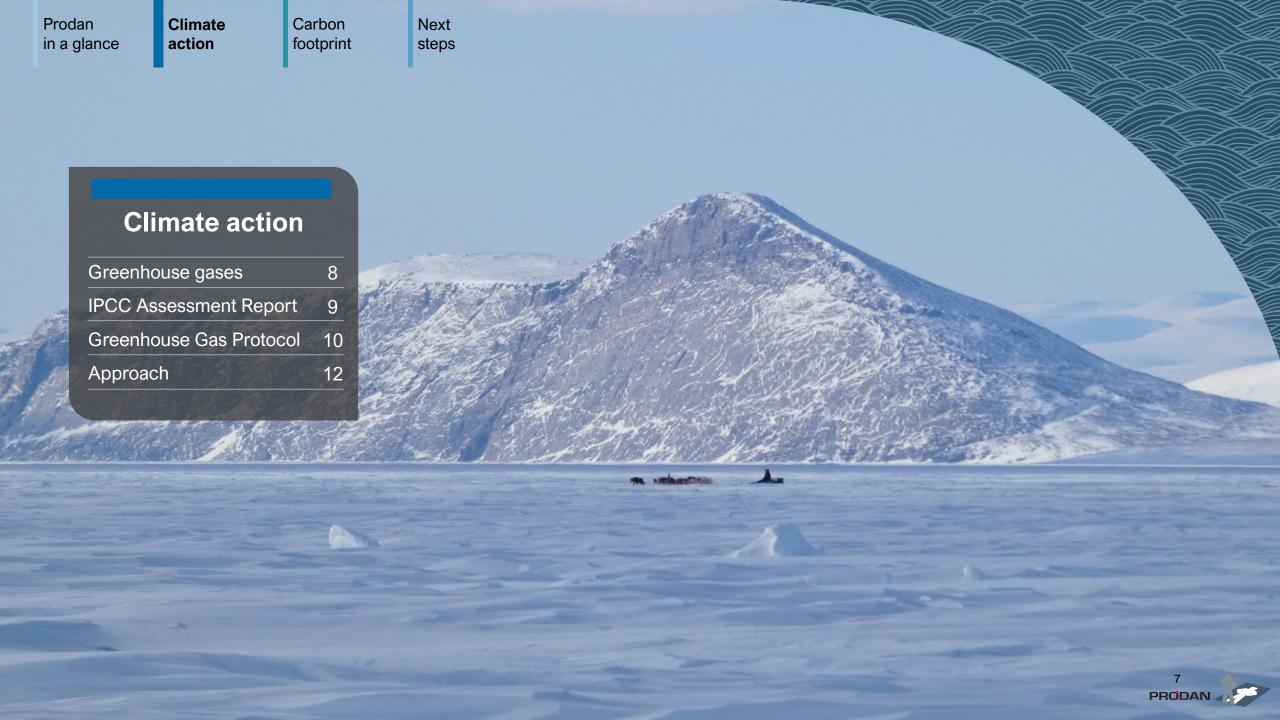
Prodan, operating as a manufacturing company, occupies a significant position across diverse sectors of the economy. Engaged in the handling of a wide array of raw materials, including various metals, and utilizing heavy machinery for their processing, Prodan is acutely aware of the substantial environmental consequences associated with its operations. The extraction of these materials alone places considerable strain on precious natural resources, while the manufacturing processes, such as welding and metal sheet manipulation, are known to result in noteworthy CO2 emissions owing to their energy-intensive nature. This dual impact underscores the pressing need to address emissions in the manufacturing industry, not only to meet regulatory requirements but also to reduce the ecological footprint and combat climate change.

The manufacturing sector, with its extensive reliance on heavy machinery, plays a critical role in global CO<sub>2</sub> emissions. Recent statistics reveal that manufacturing operations involving heavy machinery contribute significantly, with figures indicating that they are responsible for nearly 30% of total industrial emissions on a global scale. These operations, while essential for production, release substantial amounts of carbon dioxide due to their energy demands. Recognizing this reality, the urgency of addressing emissions in the industry becomes abundantly clear.

For Prodan, this imperative forms the cornerstone of their environmental commitment. The company is fully aware of the importance of minimizing its environmental impact in the interest of preserving our planet. In line with this, Prodan has not only **achieved ISO 14001 certification** but has also meticulously crafted a comprehensive environmental policy. This policy is designed to set new environmental goals each year, ensuring a proactive approach to environmental responsibility. Presently, Prodan is channelling their efforts into several key initiatives, including the enhancement of natural lighting within their production facilities, the stringent management of dust levels, noise reduction measures, and the implementation of an effective waste separation system.

Furthermore, **Prodan's influence stretches beyond its own operations**, serving as an industry leader in driving positive change. Their ongoing efforts to curtail emissions and boost efficiency offer an inspiring example to fellow manufacturing companies. By demonstrating the practicality and benefits of circular production methods, Prodan empowers others to adopt environmentally responsible practices, thus contributing to the collective mission of establishing a more sustainable, ecoconscious manufacturing sector. This approach is integral to the joint endeavour of addressing climate change and fostering a greener industrial landscape.





Climate change is a pressing global challenge with the Earth's atmosphere acting as a delicate balance, regulating temperature and supporting life. Human activities have disrupted this equilibrium by emitting greenhouse gases (GHGs) into the atmosphere. This report explores various GHGs, their sources, and their effects on climate change. Additionally, it delves into Global Warming Potential (GWP) and its significance in assessing the relative impact of different GHGs.

# **Greenhouse Gases and Their Sources**

GHGs are gases that trap heat,

causing the greenhouse effect. Significant contributors to climate change include carbon dioxide (CO<sub>2</sub>), methane (CH<sub>4</sub>), nitrous oxide (N<sub>2</sub>O), and fluorinated gases. CO<sub>2</sub> stems from burning fossil fuels, industrial processes, and deforestation. CH<sub>4</sub> is emitted from natural and human sources like agriculture and landfills. N<sub>2</sub>O is released through agriculture and industrial processes, while fluorinated gases are synthetic compounds used in various applications.

# **Effects of Greenhouse Gases on Climate Change**

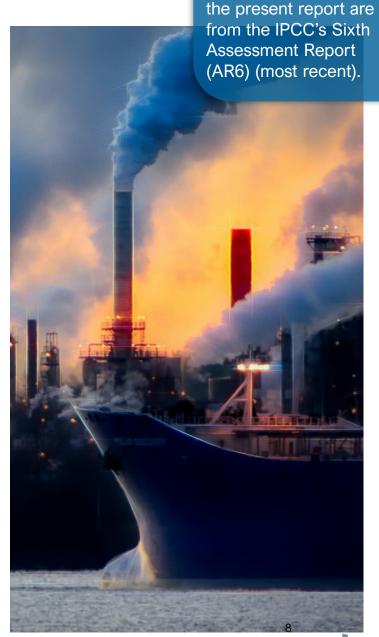
Accumulated GHGs enhance the greenhouse effect, leading to rising temperatures and climate pattern changes. Consequences of climate change include sea-level rise, extreme weather events, altered precipitation, and biodiversity loss, posing challenges for sustainable

development.

# **Global Warming Potential (GWP)**

Global Warming Potential (GWP) is a metric comparing warming effects of GHGs to CO<sub>2</sub> over a specified timeframe. CO<sub>2</sub> serves as the baseline with a GWP of 1. Other gases have higher GWPs, indicating stronger warming potential. Methane, for instance, has a GWP of 28-36, while nitrous oxide has a GWP of about 265-298.

Overall, GHGs significantly contribute to climate change. Understanding their types, sources, and effects is crucial for effective mitigation. GWP helps assess relative impacts and guides emission reduction strategies. By addressing emissions and transitioning to low-carbon alternatives, we can mitigate climate change, safeguard the environment, and build a sustainable future.



The GWPs used for

# **IPCC** Assessment Reports

**Insights for Climate Action** 

# The IPCC's Role in Assessing Climate Change

The IPCC is the foremost scientific body dedicated to assessing climate change, providing comprehensive reports that synthesize the latest research and analyze the impacts, risks, and potential mitigation strategies associated with climate change.

These reports are the result of the collaboration of thousands of scientists worldwide, delivering an authoritative evaluation of the climate crisis. They present unequivocal evidence of human-caused climate change and its far-reaching consequences for ecosystems, societies, and economies, underlining the urgent need for immediate action.

# **Evidence of Human-Caused Climate Change**

The findings of the IPCC reports demonstrate the clear link between human activities, greenhouse gas emissions, and the observed increase in global temperatures, as well as the intensification of extreme weather events.

Furthermore, the reports shed light on the extensive impacts of climate change across various sectors, including energy, agriculture, water resources, coastal areas, biodiversity, and human health. These insights underscore the necessity of concerted efforts to reduce greenhouse gas emissions and adapt to the changing climate.

# **Understanding the Extensive Reach of Climate Change**

Guided by the scientific foundation provided by the IPCC reports, it becomes evident that urgent and substantial emission reductions are imperative to limit global temperature rise and mitigate the severe impacts of climate change. The reports emphasize the importance of transitioning to low-carbon economies, embracing renewable energy sources, and enhancing energy efficiency.

Moreover, ambitious climate action offers a multitude of benefits, such as improved air quality, enhanced resilience to climate impacts, and the promotion of sustainable development. The reports highlight the interconnectedness between

climate action, environmental protection, and social well-being.

In conclusion, the IPCC assessment reports serve as invaluable resources, providing a comprehensive understanding of the urgency and complexity of climate change. They reinforce the need for collective action and policy interventions to reduce greenhouse gas emissions, adapt to the changing climate, and foster a sustainable future. Leveraging the findings of these reports empowers stakeholders to make informed decisions and drive transformative change towards a more sustainable and resilient world.



Consistency

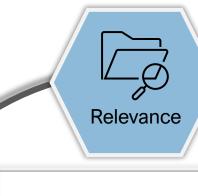
Transparency

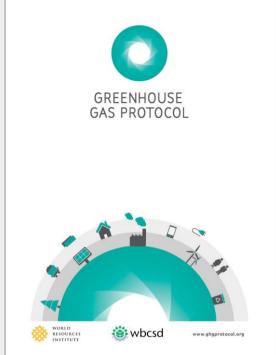


# **Greenhouse Gas Protocol**

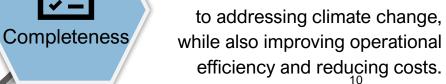
The GHG Protocol is a globally accepted and widely recognized accounting framework for measuring and managing GHG emissions. Developed by the World Resources Institute (WRI) and the World **Business Council for Sustainable** Development (WBCSD), the **GHG** Protocol provides organizations with a standardized methodology to quantify and report emissions. By establishing consistent guidelines and principles, the GHG Protocol enables companies to track emissions over time, set reduction targets, and implement effective emission reduction strategies. The GHG Protocol serves as a valuable tool for organizations seeking to understand and

manage their environmental impact.





The GHG protocol provides a comprehensive framework for emissions accounting and reporting, helping companies identify emission sources, assess their carbon footprint, and prioritize reduction opportunities. Additionally, the GHG Protocol enables organizations to enhance transparency and credibility in their sustainability reporting, enabling stakeholders, investors, and customers to make informed decisions based on reliable emissions data. By accounting for emissions according to the the GHG Protocol, organizations can demonstrate their commitment to addressing climate change,



Accuracy

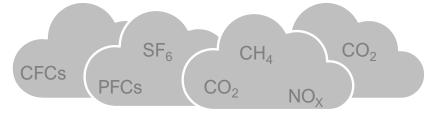


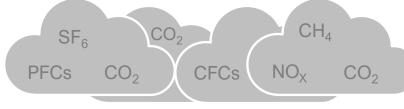
Carbon footprint

Next steps

# **Greenhouse Gas Protocol**

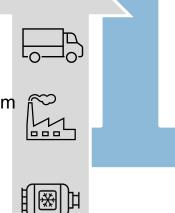






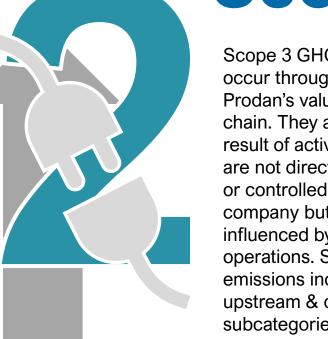
# Scope

Scope 1 GHG emissions are generated from equipment that is owned or controlled by Prodan. The emissions from fuels that are combusted from stationary and mobile sources (vehicles, boilers, generators, etc.). Other GHG emissions like refrigerant and coolant gases are also included in Scope 1 emissions.



Scope

Scope 2 GHG
emissions are
associated with
the purchase of
electricity, warm
water, steam or
cooling. They are
generated during the
production of the
energy consumed by
Prodan, but occur at
sources outside of the
company's
boundaries.



Scope

Scope 3 GHG emissions occur throughout Prodan's value chain. They are the result of activities that are not directly owned or controlled by the company but are influenced by its operations. Scope 3 emissions include 15 upstream & downstream subcategories, which are further explained in pages 16-21.







# **Approach**

According to the GHG Protocol there are three approaches for developing organizational boundaries — the Equity Share, the Operational Control and the Financial Control Approach. Since Prodan has the complete authority to introduce and implement its operating policies, the Operational Control approach is used. This means that Prodan accounts for 100 percent of emissions from operations over which it has operational control of.

Inventory boundaries determine which of the operations and emissions will be accounted for in Prodan's boundary.

Therefore, the boundaries of Prodan include all operations that arise from their central building in Randers, Denmark.

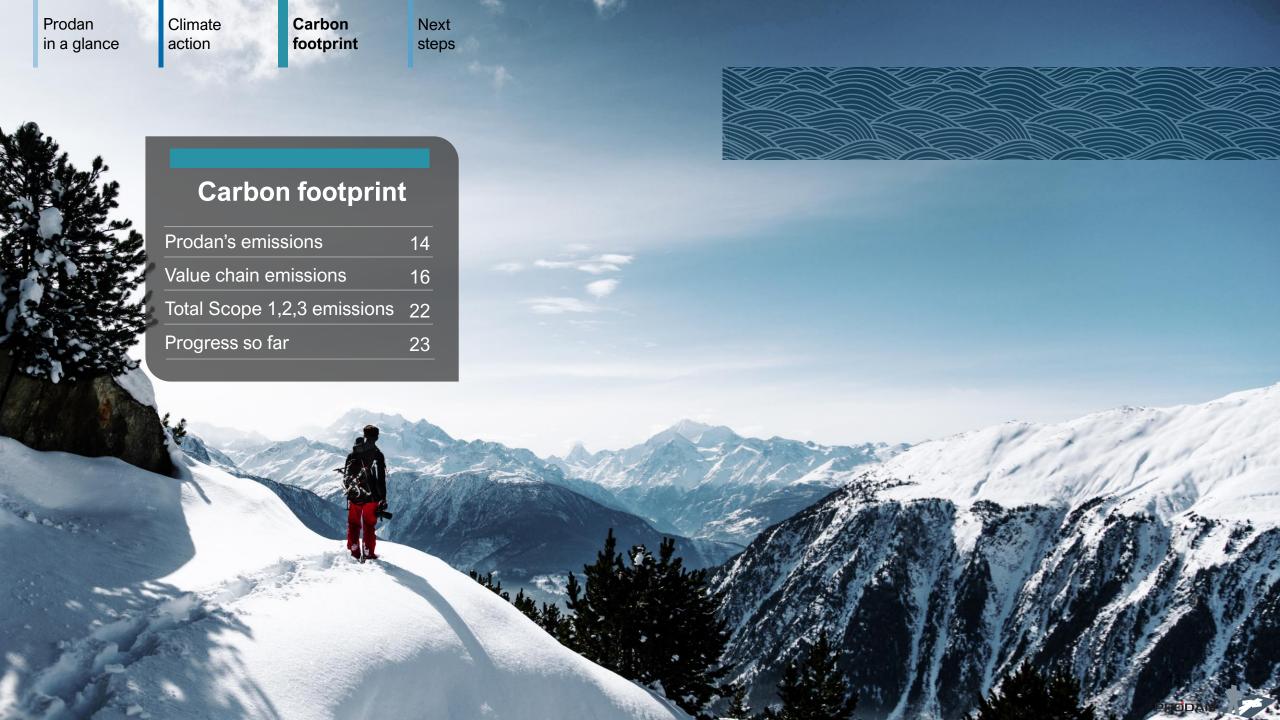
Based on the performed procedures and the obtained primary data, the selected

information for the 12 months period that ended on 31 December 2022, has been prepared in accordance with ethical requirements and GHG regulations.

The fundamental principles of Relevance, Consistency, Transparency, Accuracy and Completement, the Danish Code for Research Integrity and our Business Ethics were applied. An extensive and comprehensive system of collected data for quality control and other procedures regarding compliance with professional standards and ethical requirements is in place. The presented work was performed by an independent team with experience in sustainability reporting.

The applied emission factors and the measurement techniques are as of 30<sup>th</sup> of September 2023, while the primary data that Prodan is solely responsible for selecting and providing, are as of 30<sup>th</sup> of September 2023.





Carbon footprint

Next steps

# **Prodan's emissions**

Scope 1 greenhouse gas emissions

As part of Prodan's dedication to a greener future, measuring, reporting, and mitigating Scope 1 & Scope 2 GHG emissions is prioritized.

#### **Emission sources at Prodan**

#### Scope 1

Combustion emissions from company vehicles including diesel and propane.



Combustion emissions from natural gas.



CO<sub>2</sub> emissions from welding gases.

#### Scope 2

Indirect emissions from the production of purchased electricity.



Prodan takes a proactive approach to sustainability, constantly striving to reduce our GHG emissions and to minimize the environmental impact. Through the implementation of innovative technologies, operational improvements, and the adoption of renewable energy sources, **Prodan is committed to achieving emissions reductions**.

By providing transparent and comprehensive reporting on the Scope 1 and Scope 2 GHG emissions, Prodan aims to foster trust and accountability with stakeholders.

# **Scope 1 GHG emissions**

In the reporting period, Prodan's total **Scope 1 GHG emissions** amounted to **235,962 kilograms of CO<sub>2</sub> eq.** These emissions primarily originated from two sources, with the **combustion of natural gas** accounting for **69% of the total**, while **30% resulted** from the mobile **combustion of diesel and propane** for the company's fleet of trucks, forklifts and other vehicles. The remaining 1% originates from the use of welding gases, some of which have CO<sub>2</sub> and CO. Argon and nitrogen is also included in the

welding gases, however they are not considered greenhouse gases and they do not contribute towards global warming.

The largest contributor to the Scope 1 emissions is the use of natural gas, which reflects the extensive operational activities of Prodan, as it is used to create most of Prodan's products.

A smaller portion of the Scope 1 emissions is attributed to the combustion of fuel for vehicles. While this represents a comparatively smaller proportion, Prodan has been committed to finding energy-efficient solutions for its fleet.

Namely, out of the 14 operational

**forklifts, 11 are electric,** while only 3 consume fuels, like diesel and propane.

Prodan has implemented a transparent reporting of Scope 1 emissions to foster accountability and to drive meaningful change. By openly sharing this data, Prodan demonstrates its commitment to addressing climate change and actively seeking ways to mitigate the direct GHG emissions.

Through ongoing efforts to optimize operations, implement energy-efficient practices, and explore low-carbon technologies, Prodan is determined to continuously reduce Scope 1 GHG emissions.



# **Prodan's emissions**

Scope 2 greenhouse gas emissions









# **Scope 2 GHG emissions**

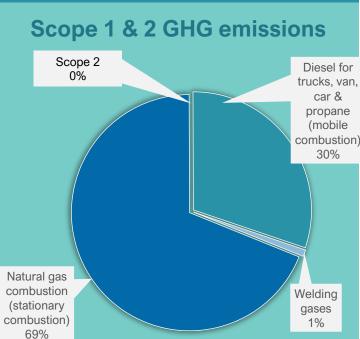
During the reporting period, the **total market-based Scope 2** GHG emissions were **0 kg CO<sub>2</sub>eq**. The lack of emissions arises from the indirect consumption of energy from the **100% renewable sources** (1,905 MWh – Norlys).

If the location-based approach is used, the total Scope 2 emissions are equal to 266,686 kg CO<sub>2</sub>eq and they would have been a result of using

conventional electricity from the Danish grid.

The average emissions intensity of the use of electricity in Denmark is equal to 140 kg CO<sub>2</sub>eq per MWh.

Prodan actively implements energysaving measures, such as energyefficient lighting systems and equipment, to reduce the electricity demand and subsequently consume less electricity for its own operations.



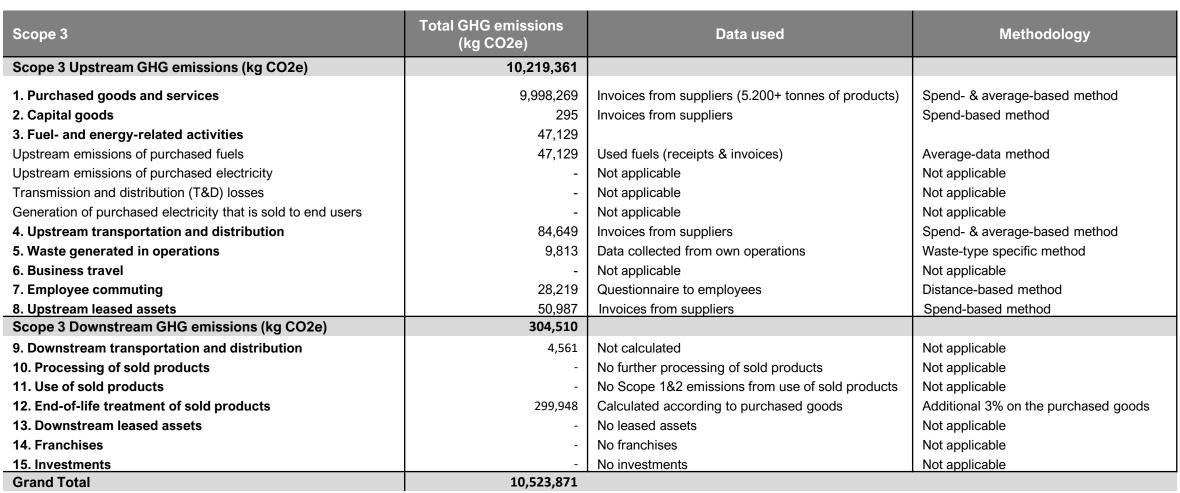
Prodan understands the importance of transitioning to renewable energy sources to further mitigate the environmental impact. By partnering with renewable energy providers and exploring on-site renewable energy generation options, Prodan aims to increase the share of renewable energy in the electricity supply and decrease the reliance on fossil fuel-based energy.

15



# Value chain emissions

# Scope 3 emissions



Carbon footprint

Next steps

The indirect emissions that are related to Prodan's suppliers, from the purchased **primary materials** and goods that **flow into** the company to the services that Prodan utilizes are known as **upstream emissions**.

# **Value chain emissions**

Scope 3 upstream emissions

# Purchased goods and services

This subcategory includes upstream emissions from the production of at least 5,200 tonnes of purchased goods. It includes all upstream (i.e., cradle-to-gate) emissions from the production of products purchased by Prodan in 2022.

Both the spend-based and average-based methods were used for the purchased goods, using the database Exiobase 3 and industry-average emission factors. The emission factors used were location-specific, combining information about the type of material, the country of origin and the total value spend or weight of the goods.

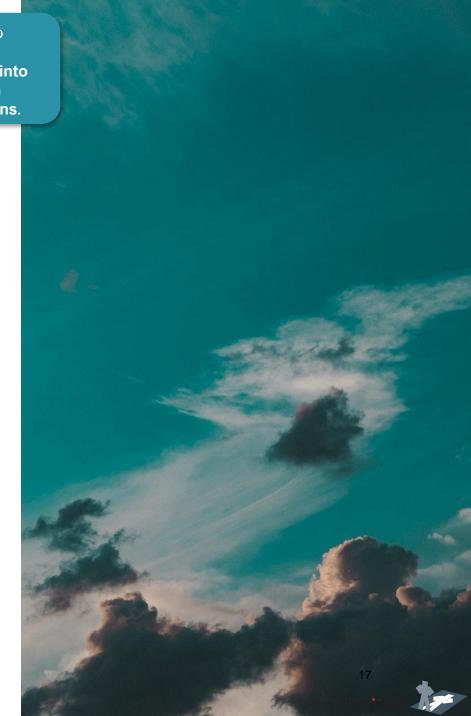
This subcategory played a pivotal role in contributing to most emissions within Prodan's footprint with 9,998 tonnes of CO<sub>2</sub>eq, as it encompasses a vast array of products, comprising thousands of tonnes, most of which are manufactured from materials demanding energy-intensive processing methods. This environmental

impact is particularly significant due to the diverse product range, the energy intensive processing of the primary materials and the large volume of goods that are procured by Prodan.

# **Purchased capital goods**

This subcategory encompasses emissions arising from the production of capital assets procured by Prodan during 2022. This was assessed using the **spend-based method**, with data sourced from the monetary database **Exiobase 3**.

The environmental evaluation considered the replacement of all fixtures inside Prodan's facilities (36 fixtures). It was revealed that the emissions associated with the production of these capital goods amounted to just under **0.3 tonnes of CO<sub>2</sub>eq.** 



Carbon footprint

Next steps



Scope 3 upstream emissions

## Waste generated in operations

Within this subcategory, emissions are accounted for based on the responsible disposal and treatment of waste resulting from Prodan's daily operations. In total, the organization generated 1,686 tonnes of waste, of which only 24 tonnes comprise general waste (dagrenovation). The remainder consists of recyclable materials such as steel (15,823 tonnes), aluminium, paper and cardboard. Most of the waste is recycled and its management resulted in the generation of approximately 9 tonnes of CO<sub>2</sub>eq emissions, reflecting the environmental impact associated with its proper disposal and treatment and potential losses that might end up in landfills (5% of the total).

# **Employee commuting**

This subcategory includes the emissions generated from employee commutes between the workplace and home. At Prodan around 86% of the commutes took place via car. The rest were done via cycling, train and a moped. The emission factors used for this distance-based method were

from EEA (European Environmental Agency) and TUMI.

A total of **15 tonnes of CO<sub>2</sub>eq** were generated by employee commuting, which is the equivalent of 7 round trips from Copenhagen to New York (1 person – economy class).

#### **Leased assets**

This subcategory includes the emissions generated from the use of leased assets. This included several forklifts, a printer as well as a variety of different services that took place at Prodan's facilities. The spend-based method was used to calculate the associated emissions.

A total of **51 tonnes of CO<sub>2</sub>eq** were generated by the leased assets.

## Fuel- & Energy-related activities

Prodan's Scope 3 emissions in for fuel- and energy-related activities encompass a broad spectrum, **extending beyond on-site consumption**. These emissions do not account for the direct combustion of natural gas, electricity

consumption, and fuel for vehicles but encompass the upstream activities involved in the **extraction**, **processing**, and transportation of fuels.

Additionally, they encompass transmission and distribution losses in the electricity supply chain and district heating distribution losses. The total GHG emissions from fuel- and energy-related activities in 2022 were equal to 47 tonnes CO<sub>2</sub>eq and they were associated with the used diesel, natural gas and propane, as the sourced

electricity was certified to be 100% renewable.

Prodan is dedicated to addressing the holistic environmental impact of its energy footprint, from source to end-use, by exploring cleaner energy sources, enhancing energy efficiency, and actively engaging in strategies to reduce emissions throughout the entire energy supply chain.

Carbon footprint Next steps

# Value chain emissions

# Scope 3 transportation emissions

**Transportation and distribution** play a pivotal role in Prodan's environmental footprint. These emissions encompass the upstream aspects of the organization's supply chain, accounting for all deliveries to Prodan.

**Upstream**, Prodan's operations involve the sourcing of materials from various international locations, including Denmark, Germany and Sweden. The sheer scale of this global supply chain is evidenced by the total weight of materials, which amounted to an impressive 5,222 tonnes. To assess the environmental impact, Prodan considered both the weight and the distance travelled, calculating a total of 689,972 ton-kilometers (tkm). The emission percentage for inland transportation (rail and road) was determined based on Eurostat data. with emission factors sourced from the European Environment Agency (EEA). When data on a weight-basis was not available, the spend-based method was used, assumed a transportation cost equal to 10% of the purchase price. This analysis revealed that these upstream activities accounted for a substantial 85 tonnes of CO2eq emissions, marking it as the thirdlargest contributor to Prodan's Scope 3 emissions.

Downstream. Prodan's focus shifts to delivering its products to an extensive customer base, primarily in Denmark, but also extending other countries. This number was calculated with the spend-based method for a total of 891,964 DKK that resulted to 4,561 kg of CO2eq.









Carbon footprint

Next steps

# Value chain emissions

Scope 3 downstream emissions

## **End-of-life treatment of sold products**

The assessment of emissions arising from the **disposal and treatment of waste** generated by products sold by Prodan at the end of their life cycle is a critical component of the organization's sustainability efforts. To calculate these emissions, the approach that was adopted, used insights from a report by Columbia Engineering that examined 1,100 products sourced from the CDP database. This study found that approximately **3% of the cradle-to-grave emissions** associated with construction and commercial materials could be **attributed to end-of-life treatment**.

Building upon this finding, an additional 3% was estimated from the total emissions of purchased goods, providing a reasonable approximation of the end-of-life emissions for Prodan's products. It is important to acknowledge that this estimate carries a degree of uncertainty, primarily due to the exceptionally eco-friendly waste management system in Denmark, where the majority of Prodan's products are sold. This Danish waste management system sets a high standard compared to the global average, making it challenging to generalize the emissions for end-of-life treatment worldwide.

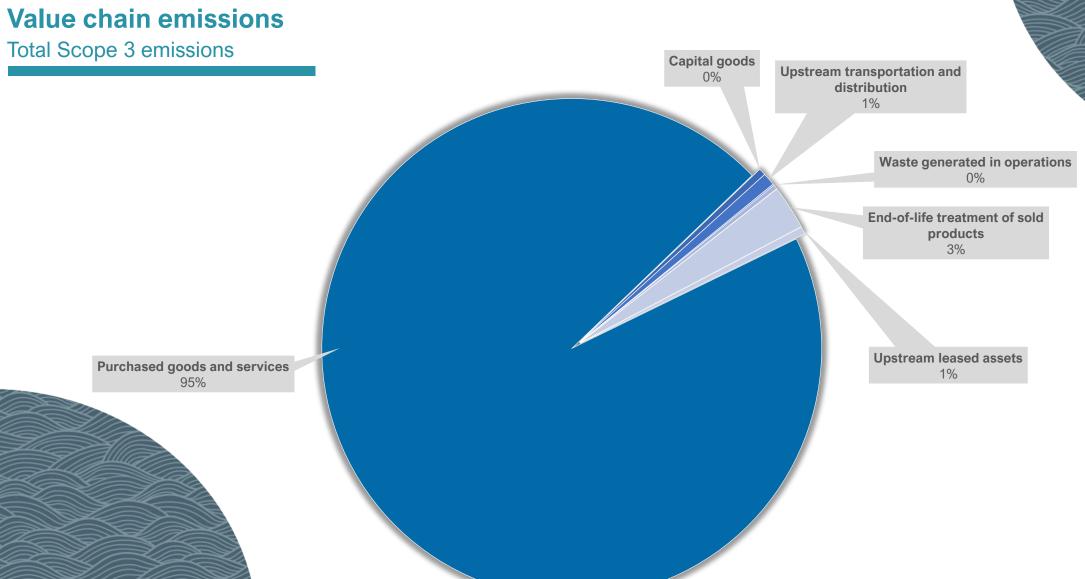
The indirect emissions that are related to the utilization of Prodan's products and services, as they are employed by customers and end-users in various applications, are recognized as downstream emissions

Nevertheless, this analysis revealed that the total CO<sub>2</sub>eq emissions associated with the end-of-life treatment of Prodan's sold products amounted to 300 tonnes, making it the second-highest Scope 3 subcategory. This figure, while subject to certain uncertainties, underscores the organization's commitment to addressing its environmental impact at its fullest extend, including the calculation of the emissions of the end-of-life of its products.

#### **Rest of Scope 3**

Prodan has no emissions from the processing and the use of its sold products, as they are not further processed after the sale, and they do not consume electricity or fuel to operate, during their use phase. Moreover, Prodan is not leasing any equipment or vehicles to 3<sup>rd</sup> parties, so there are no emissions from downstream leasing activities. Prodan was not involved in any business travel activities. The downstream transportation subcategory was not calculated due to the scarcity of data. Finally, since Prodan does not own any franchises or investments, there are no greenhouse gas emissions that are associated with those activities.

Carbon footprint Next steps





# Greenhouse gas emissions

At Prodan, a proactive and unwavering commitment to sustainability is fundamental to the organization's identity. Central to this commitment is the pursuit of significant reductions in greenhouse gas emissions. This reduction mission is underpinned by a multifaceted strategy that embraces the calculation of 14 out of 15 subcategories of the different **Scopes**. The significance of such a task is highlighted by the fact that the average company that reported its emissions in the Carbon Disclosure Project in 2021, managed to report fewer than 6 categories.

## **Scope 1 Emissions:**

In the reporting period, Prodan's Scope 1 emissions amounted to a total of around 236 tonnes of CO<sub>2</sub>eq. These emissions have two primary sources. The dominant contributor is the use of natural gas, responsible for 60% of the Scope 1. Additionally, approximately 39% of these emissions originate from the combustion of diesel and propane for the company's vehicles. Prodan is not only mindful of the environmental impact of its operational activities but is also actively exploring and implementing sustainable alternatives for its vehicle fleet. This includes the integration of hybrid and electric

forklifts, with 11 such vehicles operating within the company's fleet of 14 forklifts.

#### **Scope 2 Emissions:**

The company's rigorous approach to emissions extends to Scope 2 emissions, encompassing the market-based method. In the reporting period, market-based emissions were calculated at 0 kg **CO<sub>2</sub>eq**, arising from the use of renewable electricity. Significantly, the adoption of renewable energy sources for electricity usage has resulted in zero emissions (market-based). Regardless, energysaving measures and the plan to integrate solar panels are a core component of Prodan's efforts to mitigate emissions in this scope.

# Scope 3 Emissions:

Scope 3 emissions represent a multifaceted set of categories, with the highest contributing factors being 'Purchased Goods and Services' and 'Endof-life-treatment of sold products.' 'Purchased Goods and Services' accounted for a substantial 9,998 tonnes of CO<sub>2</sub>eq emissions, reflecting the vast range of products procured and the energy-intensive processing methods involved in their manufacture. The end-of-life-treatment was responsible for

Scope 1	Scope 2	Scope 3
(kg CO <sub>2</sub> eq)	(kg CO <sub>2</sub> eq)	(kg CO <sub>2</sub> eq)
235,962	0	10,523,871

300 tonnes of CO<sub>2</sub>eq emissions. These two subcategories encompass the extraction, processing, and end-of-life-treatment of materials and goods sourced internationally. Importantly, having higher emissions in Scope 3 than in direct emissions (Scope 1 and 2) is a common phenomenon in many organizations. It underscores the significance of addressing emissions across the entire supply chain and procurement activities.

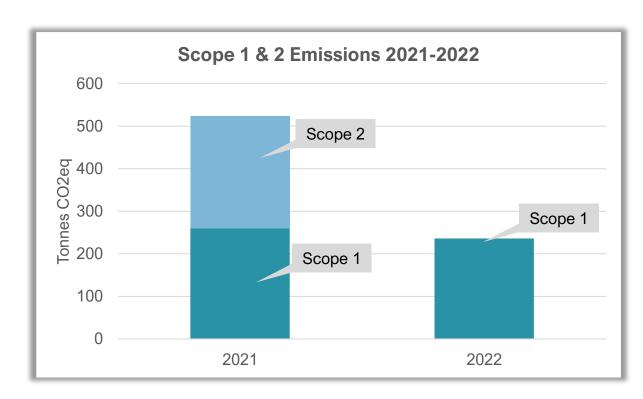
This comprehensive approach is a testament to Prodan's unwavering commitment to minimizing its environmental impact and its continued efforts to reduce greenhouse gas emissions. It is rooted in the company's core values of sustainability and responsibility.

# **Progress so far**

Between 2021 and 2022, Prodan underwent some changes in its carbon emissions profile. In 2021, the company recorded 260 tonnes of CO<sub>2</sub>eq emissions in Scope 1, primarily due to direct fuel consumption. Scope 2 on the other hand, accounted for 264 tonnes of CO<sub>2</sub>eq emissions, primarily due to the use of electricity. However, in 2022, there was a shift in this balance. Scope 2 emissions dropped to zero, thanks to the strategic change towards sourcing renewable electricity. At the same time, Scope 1 emissions decreased by 24 tonnes, mainly due to lower fuel consumption despite the business expansion. The total decrease in the direct emissions resulted to a total of 288 tonnes of CO<sub>2</sub>eq, which is equal to a 55% emissions reduction in the span of one year!

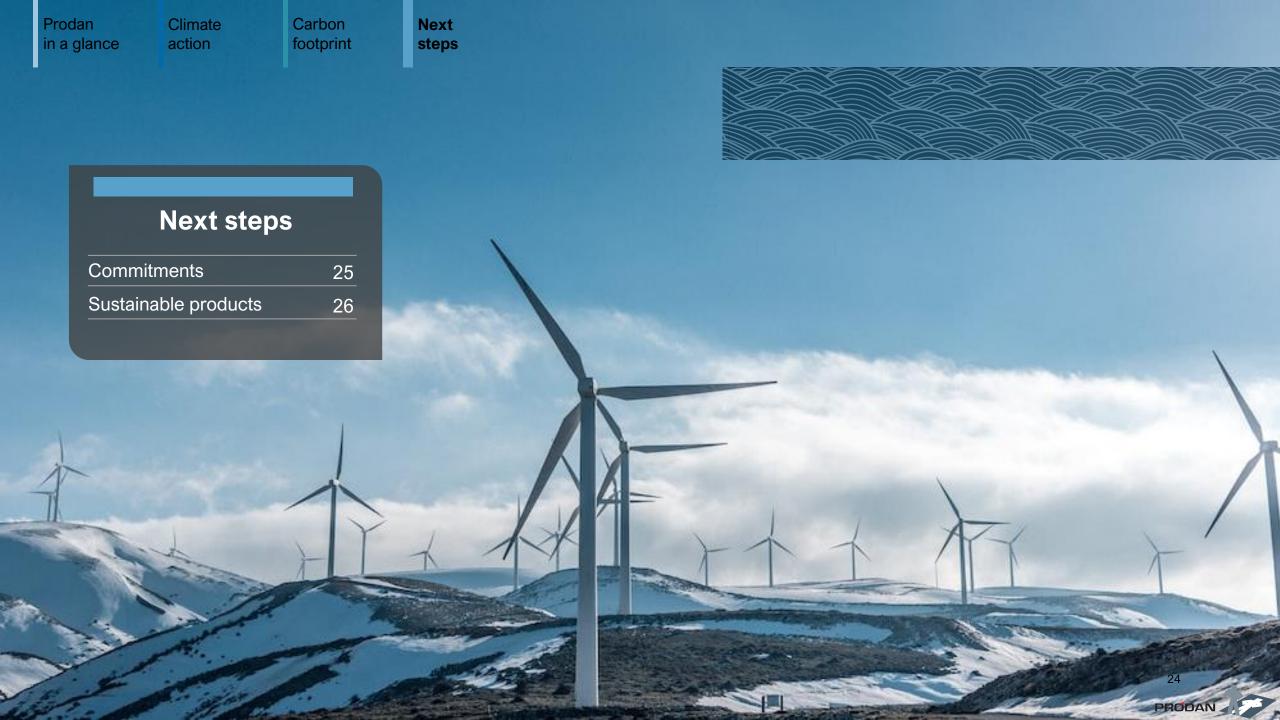
The significant decrease these emissions highlights Prodan's commitment to greener energy procurement. Choosing renewable electricity is a positive step toward reducing the company's carbon footprint and aligning with sustainability goals. Regarding the **decrease in Scope 1 emissions**, this is viewed as a **transitional phase** as Prodan grows its operations. It's important to recognize that Prodan has a long-term strategy to **gradually introduce electric and hybrid vehicles into its fleet**. This signifies a proactive approach to reduce reliance on fossil fuels and decrease Scope 1 emissions over time.

The **substantial increases in Scope 3 emissions** between 2021 and 2022 for Prodan (from 4,946 tonnes to 10,524 tonnes), are indicative of the company's growing **commitment to thorough and accurate emissions reporting**. This significant surge in emissions, particularly within the **"Purchased Goods and Services" and "End-of-life-treatment"** subcategories, can be attributed to the **improved data collection methods** that now allow Prodan to consider the **additional products in the emissions calculation**. In 2021, the purchased emissions were calculated for 1,821 tonnes of products, but in 2022 this number was almost tripled to a total of 5,222 tonnes. Subsequently, the emissions for the treatment of the sold products increased proportionately.



This shift in data collection methods marks a significant stride toward **more precise** and transparent emissions accounting. It acknowledges the environmental impact associated with the international nature of Prodan's operations and sourcing. Importantly, this adjustment better reflects the reality of the supply chain, allowing for more accurate and comprehensive Scope 3 calculations. Going forward, Prodan's commitment to providing more detailed data for Scope 3 calculations, even at a product-specific level, is a commendable step. The latter approach represents the best and most recommended method for emissions calculations, fostering a more granular and accurate understanding of the organization's carbon footprint.

PRODAN A



# Commitments



## Renewable electricity

Since 2022, Prodan purchases 100% renewable electricity. By making this eco-conscious choice, a remarkable dedication to reducing its environmental impact is demonstrated. This initiative not only significantly reduces carbon emissions but also serves as an example to others in the industry and beyond. Prodan's leadership in embracing renewable energy sources is a testament to its forward-thinking approach and commitment to environmental responsibility.



# Solar panels

In 2023, Prodan plans to install solar panels in its own facilities. By harnessing the power of the sun, Prodan is taking a proactive approach to reduce its carbon footprint and energy costs simultaneously. This investment in solar energy not only showcases the organization's environmental commitment but also positions it as a role model for embracing clean and renewable technologies.



#### **Emissions calculation**

In the following years, Prodan commits to improve the precision of its Scope 3 calculations, particularly on a product-specific level. This is a significant leap forward in the pursuit of environmental responsibility. This commitment underscores Prodan's dedication to a more thorough and accurate assessment of its carbon footprint, including the emissions that occur outside its direct operations.



Carbon footprint

Next steps

# **Sustainable products**

# **Products made sustainably**

Prodan A/S takes pride in producing its metal solutions in an environmentally responsible and sustainable manner. Throughout the entire product development process, Prodan ensures that its sheet metal processing machinery, software, and automation solutions are crafted with a strong commitment to environmental friendliness, using innovative approaches and 100% renewable electricity, while maintaining uncompromising quality.

Starting from the sourcing of raw materials and extending through the manufacturing process, Prodan A/S carefully selects suppliers who align with their values and adhere to responsible environmental practices. This strategic approach enables Prodan to incorporate sustainable materials into all their products, ensuring that they are eco-friendly from the outset.

Furthermore, Prodan places a significant emphasis on waste reduction in their manufacturing processes. By implementing circular economy principles, they minimize waste generation through efficient reuse and recycling practices. Their production methods are designed to maximize resource utilization, contributing to a more sustainable and responsible approach to sheet metal fabrication.

# **Products made for sustainable operations**

Prodan A/S is dedicated to enhancing the operational sustainability of its customers by providing a diverse range of tailored products. These solutions not only adhere to the strictest quality standards but also serve as contributors to the development of a more environmentally balanced and sustainable future.

Prodan's product offerings empower customers in various sectors, including but not limited to the **offshore and wind-turbine industries**, where the precision-crafted parts they provide are instrumental in ensuring smooth, efficient, and reliable operations.

The offshore industry, with its unique and challenging environmental conditions, relies on **Prodan's specialized products** to maintain safety and efficiency. Prodan's expertise in delivering high-quality and sustainable solutions is paramount in supporting offshore operations.

Prodan is dedicated to continuously optimize resource use in the manufacturing process, while offering products that improve the efficiency of customers and partners.



