



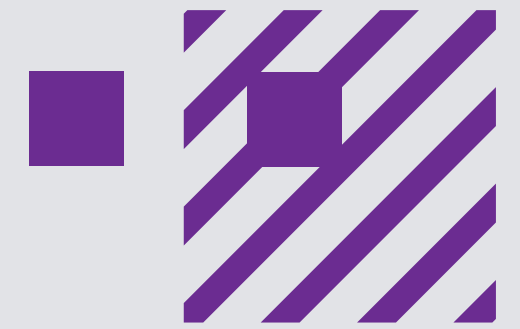
MNB PRECISION

Carbon Footprint Report 2024



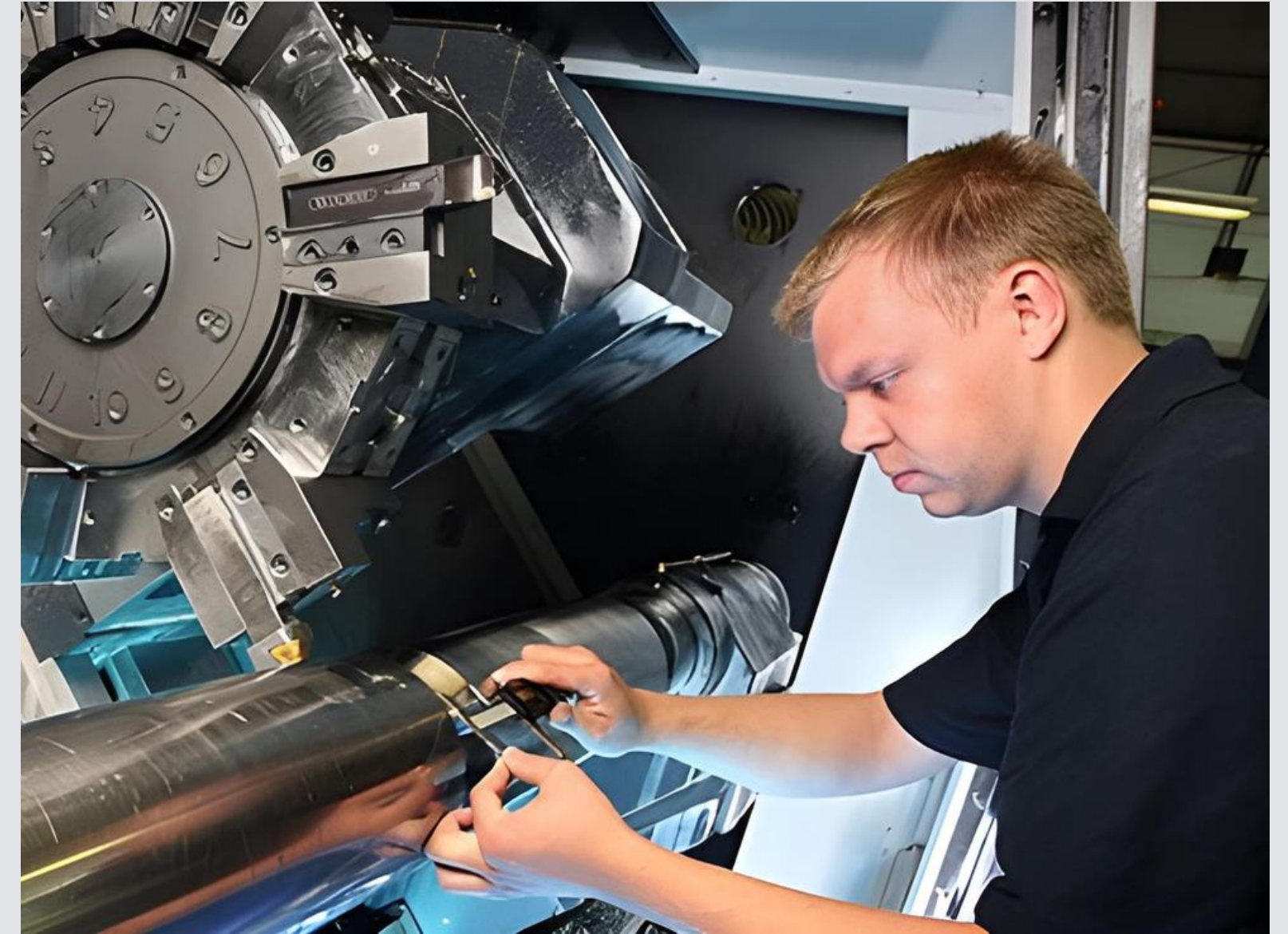
Eco Sourcing Hub
REDUCE COSTS, EMISSIONS & RISKS





General Information

MNB Precision is a leading provider of world-class precision engineering services with over 40 years of experience. Founded as a family business, the company has grown into a medium-sized enterprise, specialising in CNC precision machining, predominantly serving industries such as oil and gas, power generation, and rail. Headquartered in Coventry, UK, MNB Precision operates out of a 52,000-square-foot facility equipped with state-of-the-art machinery. The company offers a broad range of in-house capabilities including CNC turning, milling, jig boring, wire and spark erosion, shot peening, and CMM inspection.



Reducing Carbon Footprint

Carbon Footprint

02.



Organisational Boundaries

Reporting Boundaries

Reported GHG and GWP

Uncertainty Assessment

General Information



At the core of MNB's business is a commitment to quality, innovation, and customer satisfaction. We pride ourselves on tackling the most challenging projects, working with a variety of materials such as Inconel, Beryllium, and non-magnetic stainless steels, while delivering high-precision components with tight tolerances. This 'can-do' culture is what sets us apart, as we continuously explore new technologies and methods to meet the evolving needs of our clients.

Reducing
CarbonFootprint

Carbon
Footprint

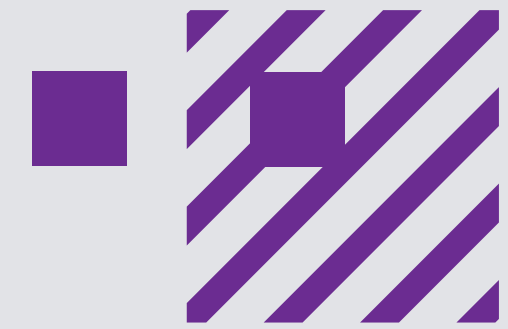


Organisational
Boundaries

Reporting
Boundaries

Reported GHG
and GWP

Uncertainty
Assessment



General Information

In recent years, MNB Precision has invested heavily in expanding its capabilities and machinery, including the addition of advanced 5-axis CNC machining and inspection tools. This investment has allowed us to offer an all-encompassing project management service, handling everything from material sourcing to allied treatments in-house. Our ongoing growth and dedication to excellence have been recognised through numerous awards, including

The Queens Award for International Trade, The Sunday Times Fast Track 100 and SME of the Year.



Reducing
Carbon Footprint

Carbon
Footprint

04.



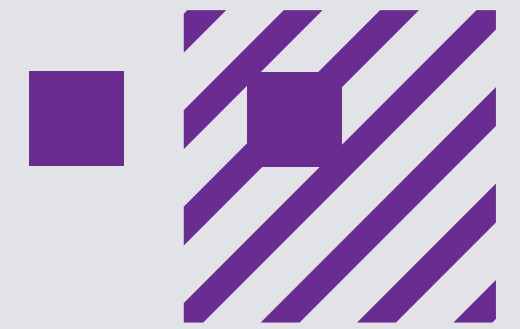
Organisational
Boundaries

Reporting
Boundaries

Reported GHG
and GWP

Uncertainty
Assessment

General Information



As we continue to expand, we remain committed to sustainable growth and innovation, aiming to further reduce our carbon footprint while maintaining our reputation as a trusted engineering partner

The purpose of this report is to disseminate the inventory of greenhouse gas emission with respect to consistency, comparability and completeness in the accounting procedures.

This report is intended for all stakeholders interested in the greenhouse gas emissions inventory and the associated reporting structure and explanations. All recipients are considered intended users.

Reducing
Carbon Footprint

Carbon
Footprint

05.



Organisational
Boundaries

Reporting
Boundaries

Reported GHG
and GWP

Uncertainty
Assessment

This report

- Covers the footprint of the entire organisation: MNB PRECISION LTD .
- Has been prepared in accordance with the requirements of the Greenhouse Gas Protocol reporting standards (Corporate Accounting and Reporting Standard, 2004; Corporate Value Chain Accounting and Reporting Standard, 2011).
- Endeavours to use primary data wherever possible but especially surrounding all major emissions sources. Where primary data is not available, a consistent and conservative approach to calculation is applied.
- Excludes specific targets as well as reports on greenhouse gas removals.

The reporting period covered in this document is 01/03/2023 to 29/02/2024. Next iteration of this footprint is expected to be of the same length, starting from the first day following this reporting period. Any deviation from this will be mentioned in communication at the time of publication.

Additional details on the activities of can be found on the company website.



06.

Reducing
Carbon Footprint

Carbon
Footprint

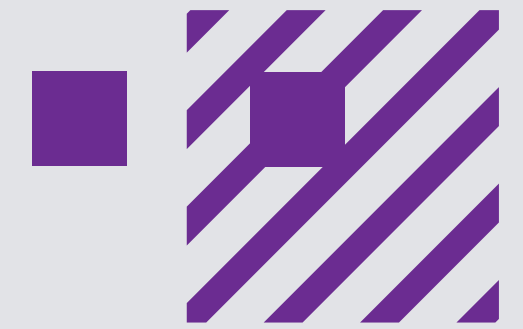
Organisational
Boundaries

Reporting
Boundaries

Reported GHG
and GWP

Uncertainty
Assessment

Organisational Boundaries



The organisational boundaries were drawn using the consolidation based on operational control approach. This approach considers all emissions that the organisation has operational control over, but not necessarily financial control.

The MNB Precision LTD operate from 4 sites in the UK. This report contains the footprint of the entire organisation. The chosen consolidation approach applies to all units and subunits.

No allocation percentage is used in the calculation of the emissions share of each subunit.



Reporting Boundaries

In this report 13 different sources of carbon emissions are considered, grouped in 4 blocks:

Direct



Direct emissions from operations that are owned or controlled by the reporting company

1. Stationary Combustion - Emissions resulting from combustion of fuels in stationary sources
2. Mobile Combustion - Emissions resulting from the combustion of fuels in company owned/controlled mobile combustion sources

Electricity



Indirect emissions from the generation of purchased electricity, steam, heating, or cooling consumed by the reporting company

3. Electricity - Emissions resulting from the generation of electricity, purchased by the company

08.

Organisational
Boundaries

Reporting
Boundaries

Reported GHG
and GWP

Uncertainty
Assessment

Reducing
Carbon Footprint

Carbon
Footprint

Reporting Boundaries

In this report 13 different sources of carbon emissions are considered, grouped in 4 blocks:



Upstream



Indirect emissions that occur in the value chain related to purchased goods & services

4. Goods & Services - Embedded emissions in purchased goods and services
5. Raw Material - Embedded emissions in purchased goods and services
6. Capital Goods - Embedded emissions in capital goods like buildings, cars, ICT and machinery
7. Energy Supply - Embedded emissions in the purchase of fuels and energy in other activity categories
8. Transport Upstream -
Emissions related to the transport of goods upstream of the production process or any transport purchased by the company
9. Waste - Emissions related to the disposal and processing of waste generated in operations
10. Business Travel - Emissions related to transportation of employees for business-related activities
11. Commuting - Emissions related to commutes of employees in vehicles not under control of the company

09.

Reducing
Carbon Footprint

Carbon
Footprint

Organisational
Boundaries

Reporting
Boundaries

Reported GHG
and GWP

Uncertainty
Assessment

Reporting Boundaries

In this report 13 different sources of carbon emissions are considered, grouped in 4 blocks:

Downstream



Indirect emissions that occur in the value chain related to sold goods & services

12. Transport Downstream - Emissions related to the transport of goods downstream of the production process not paid for by the company
13. End-of-life of Product - Emissions related to the disposal of the sold product at the end of its planned lifetime

This includes all relevant sources of greenhouse gas emissions. These were selected based on their relevance to the organisations operations and/or their relative size in the total footprint.



Reducing Carbon Footprint

Carbon Footprint

10.

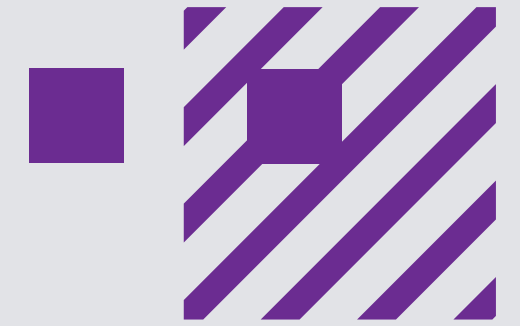
Organisational Boundaries

Reporting Boundaries

Reported GHG and GWP

Uncertainty Assessment





The excluded emission categories are listed below.

All of these sources are identified as not applicable or not significant for the current reporting objectives.

- Upstream Leased Assets
- Processing Of Sold Products
- Use Of Sold Products
- Downstream Leased Assets
- Franchises
- Investments



Reducing Carbon Footprint

Carbon Footprint



Organisational Boundaries

Reporting Boundaries

Reported GHG and GWP

Uncertainty Assessment

Methodologies for the Collection and Quantification of Data

The emissions summary reflects the consolidation of emissions data according to the Greenhouse Gas Protocol reporting standards. These being the Corporate Accounting and Reporting Standard (2004) and the Corporate Value Chain Accounting and Reporting Standard (2011).

GHG classification structure



GREENHOUSE
GAS PROTOCOL

The reported GHG are aggregated into the following category groups at the organisational level

Scope 1 - Direct Emissions from operations

Scope 2 - Indirect emissions from the use of purchased electricity, steam, heating,

and cooling Scope 3 - Indirect emission in the value chain; further divided into upstream and downstream emissions

Carbon offsets are not reported in this report, nor have they been subtracted from the total.

12.



Organisational
Boundaries

Reporting
Boundaries

Reported GHG
and GWP

Uncertainty
Assessment

Reducing
Carbon Footprint

Carbon
Footprint

Reported GHG and GWP



The following greenhouse gases are included in the analysis: carbon dioxide (CO₂), methane (CH₄), nitrous oxide (N₂O), sulphur hexafluoride (SF₆), nitrogen trifluoride (NF₃), hydrofluorocarbons (HFCs) and perfluorocarbons (PFCs).

Emissions from these greenhouse gases are expressed in CO₂-equivalent (CO₂e) based on their global warming potential over a time horizon of 100 years (GWP100). The Greenhouse Warming Potential (GWP) values are based on the Intergovernmental Panel on Climate Change (IPCC) Fourth, Fifth or Sixth Assessment Report (AR4, AR5 or AR6), in accordance with the methodological choices of the emission factor publishers used in this report.

The split of the GHG emissions inventory into the individual contributions of each GHG (group) can be found in the end of the report. Activities for which a further split in greenhouse gasses is not known, are reported under the CO₂e*-column.

The emission factors for aviation were extended to include the additional effects of radiative forcing through the emission of gases and aerosols and changing cloud abundance. For this a central estimate for a multiplier to the GWP100 figure is used. This estimate tries to reflect the additional effect based on the best available scientific evidence, while being consistent with UNFCCC reporting convention. The total emissions in this report include electricity emissions using the market-based method. Travel emissions in this report include the effects of radiative forcing for aviation.



Organisational Boundaries

Reporting Boundaries

Reported GHG and GWP

Uncertainty Assessment



Uncertainty Assessment

For this report a qualitative assessment of uncertainty has been applied. Seen that the effectiveness of a quantitative assessment would be limited due to a general lack of accurate uncertainty data .

The applicability of these quantitative assessments will be reviewed in each subsequent reporting period.

Activity Group	Emissions (tCO ₂ e)	Uncertainty	Share of total emissions
Stationary Combustion	70.77	-3% to +4%	1.1%
Mobile Combustion	69.63	-5% to +5%	1.1%
Electricity	616.31	-18% to +22%	10.0%
Goods & Services	432.16	-33% to +49%	7.0%
Raw Material	4,141	-40% to +67%	67.2%
Capital Goods	257.65	-43% to +76%	4.2%
Energy Supply	274.69	-13% to +15%	4.5%
Transport Upstream	140.79	-20% to +25%	2.3%
Waste	2.85	-51% to +106%	0.0%
Business Travel	31.44	-13% to +15%	0.5%
Commuting	36.19	-29% to +41%	0.6%
Transport Downstream	74.2	-35% to +54%	1.2%
End-of-life of Product	11.08	-49% to +98%	0.2%
Total GHG emissions	6,159	-29% to +42%	100.0%

Reducing Carbon Footprint

Carbon Footprint

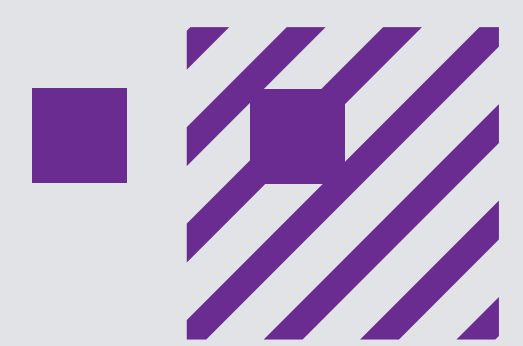


Organisational Boundaries

Reporting Boundaries

Reported GHG and GWP

Uncertainty Assessment



Approach to Emission Factors

For each activity the most relevant and localised emission factor possible has been selected, at the discretion of the reporter. Apart from locality and relevancy, other considerations were the availability of emission factors and consistency in the selection of emission factor publications throughout the document.

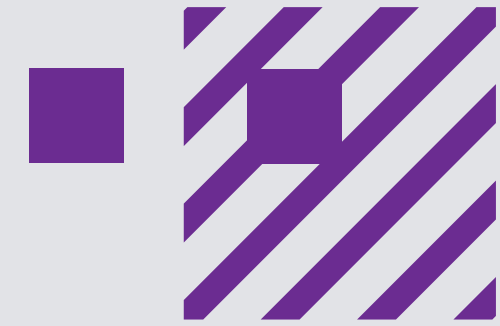
A full list of emission factor publications used in this report can be found in the table below:

Publisher	Publication Version	Publication Date	URL
Exiobase	3.8.2	21/10/2021	link
UK.gov	v2023 1.0	15/05/2023	link
ADEME Base Carbone	2022 v22.0	24/06/2022	link
ecoinvent	3.10	12/03/2024	link
Association of Issuing Bodies	2022 v1.0	26/05/2023	link

Each emission factor used in the calculation has an assigned validity period overlapping or partially overlapping with the application period of the reported activity. The validity period of emission factors is determined by its publication document[1].

[1] In case the application period of the activity overlaps with the validity period of more than one emission factor, the median data of the activity period is used to determine which factor to use. (example if an activity stretches from August 2021 to July 2022, the median date is 29/01/2022)





Approach to base year reporting

The reporting period Y-23/24 is the first GHG reporting period for , and counts as the base year for the current and future reporting cycles.

Review, Internal Audit and Improvement

This emission inventory for reporting period has been compiled with highest attention for completeness and correctness.

Reducing CarbonFootprint

Carbon Footprint



Overview of Our Carbon Footprint

Our total greenhouse gas (GHG) emissions amount to 6,159 tonnes of CO₂e.

Our scope 1 emissions account for 140 tonnes of CO₂e, or approximately 2.3% of our total emissions. These emissions arise from two primary sources: stationary combustion (51% of Scope 1) and mobile combustion (49% of Scope 1).



Stationary Combustion (71 tonnes CO₂e): This refers to the combustion of fuels in machinery or onsite energy production that is fixed in place, such as boilers or furnaces. This makes up 1.15% of our total emissions.



Mobile Combustion (70 tonnes CO₂e): This involves emissions from vehicles owned or controlled by our company, such as delivery trucks or on-site transportation. These emissions contribute to 1.14% of the total.

While Scope 1 emissions are relatively small compared to other categories, they still represent an area where we can reduce emissions by improving the energy efficiency of our vehicles and equipment or transitioning to cleaner fuel sources.

17.

Reducing
Carbon Footprint

Carbon
Footprint

Organisational
Boundaries

Reporting
Boundaries

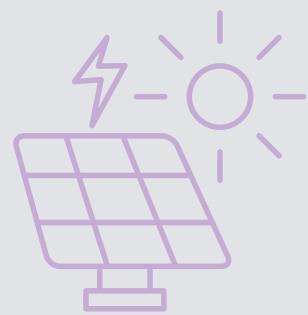
Reported GHG
and GWP

Uncertainty
Assessment

Overview of Our Carbon Footprint

Scope 2 Indirect Emissions from Purchased Electricity

Scope 2 emissions are higher, totaling 616 tonnes of CO₂e, and accounting for 10% of our overall GHG emissions.



Since our electricity consumption forms a significant portion of our emissions, shifting to renewable energy sources or improving energy efficiency can greatly reduce our Scope 2 emissions. Even a small improvement in energy efficiency could have a substantial impact on our total carbon footprint.

Scope 3 Indirect Emissions in the Value Chain

The bulk of our emissions—5,317 tonnes CO₂e, or 86.3% of our total—falls under Scope 3, which covers both upstream and downstream activities within our value chain.

18.

Reducing
Carbon Footprint

Carbon
Footprint

Organisational
Boundaries

Reporting
Boundaries

Reported GHG
and GWP

Uncertainty
Assessment

Overview of Our Carbon Footprint

Upstream Emissions

The majority of our Scope 3 emissions come from upstream activities, which account for 5,317 tonnes CO₂e, or 86.3% of our total GHG emissions. The most significant contributors within this category are:



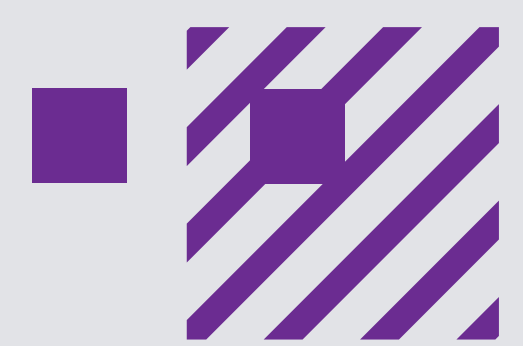
Purchased Goods and Services (4,573 tonnes CO₂e): This category is by far the largest, accounting for 74.2% of total emissions. It includes the emissions embedded in the raw materials, components, and services we purchase to operate our business. This emphasises the importance of working closely with our suppliers to ensure they are also taking steps to reduce their carbon footprints, as a reduction in this area will significantly lower our overall emissions.



Capital Goods (258 tonnes CO₂e): Representing 4.2% of total emissions, capital goods are the long-term assets like machinery and equipment that we use in our production processes. While these items are necessary for our operations, investing in more energy-efficient machinery or equipment with a lower carbon footprint could help mitigate these emissions.



Overview of Our Carbon Footprint



Fuel- and Energy-Related Activities (275 tonnes CO₂e): This includes the upstream emissions from the production of fuels and electricity we consume. It makes up 4.5% of our total emissions. Reducing energy consumption and switching to low-carbon fuels will directly impact this category.



Upstream Transportation and Distribution (141 tonnes CO₂e): This accounts for 2.3% of our total emissions and refers to the transportation of goods we purchase. Streamlining our supply chain and opting for more sustainable transportation methods could help reduce this figure.



Other Upstream Emissions: Smaller contributors include waste generated in operations (3 tonnes CO₂e), business travel (31 tonnes CO₂e), and employee commuting (36 tonnes CO₂e). Although these categories combined only account for 1.1% of total emissions, they are areas where we can take immediate steps to reduce our footprint, such as encouraging remote work, carpooling, or waste reduction strategies.

20.

Reducing
Carbon Footprint

Carbon
Footprint



Organisational
Boundaries

Reporting
Boundaries

Reported GHG
and GWP

Uncertainty
Assessment

Overview of Our Carbon Footprint

Downstream Emissions

Downstream activities in our value chain contribute 85 tonnes CO₂e, or about 1.4% of total emissions. The two main categories here are:



Downstream Transportation and Distribution (74 tonnes CO₂e): This represents the emissions from transporting our products to customers and is equivalent to 1.2% of our total emissions. By optimising our distribution logistics and considering more eco-friendly shipping options, we can reduce this figure.



End-of-Life Treatment of Sold Products (11 tonnes CO₂e): Accounting for 0.18% of total emissions, this category refers to the emissions associated with the disposal or recycling of our products at the end of their life cycle. While this is a small portion of our footprint, designing products with better recyclability or using more sustainable materials could help reduce these emissions.

21.



Organisational
Boundaries

Reporting
Boundaries

Reported GHG
and GWP

Uncertainty
Assessment

Reducing
Carbon Footprint

Carbon
Footprint

Recommendations for Reducing Our Carbon Footprint

Given the breakdown of our carbon footprint, it is clear that the largest opportunities for reduction lie in Scope 3, particularly in the emissions from purchased goods and services. We can address this by:

- **Collaborating with Suppliers:** Encourage our suppliers to adopt more sustainable practices and lower their own emissions. This could involve working with them to develop more eco-friendly materials or processes.
- **Energy Efficiency:** Investing in energy-efficient machinery and reducing electricity consumption in our facilities will directly lower our Scope 1 and 2 emissions.
- **Switching to Renewable Energy:** Transitioning to renewable energy sources for our electricity needs could drastically reduce our Scope 2 emissions. Even partial adoption of renewable energy would have a substantial impact on our footprint.
- **Optimising Transportation:** Streamlining our logistics and opting for lower-emission transportation options in both upstream and downstream activities will help reduce transportation-related emissions.
- **Reducing Waste:** Minimising waste generation in our operations and finding ways to recycle or repurpose materials will help address waste-related emissions in Scope 3.
- **Employee Engagement:** Encourage more sustainable commuting options, such as public transport or cycling, and reduce business travel by utilising virtual meetings where possible.

22.

Reducing
Carbon Footprint

Carbon
Footprint

Organisational
Boundaries

Reporting
Boundaries

Reported GHG
and GWP

Uncertainty
Assessment

CONCLUSION

Reducing our carbon footprint is not only a matter of corporate responsibility but also a business opportunity. By addressing the key areas of emissions in our value chain, we can not only lower our environmental impact but also improve our operational efficiency and reputation. This report provides a clear roadmap for where we can focus our efforts, with the largest opportunities lying in Scope 3 emissions from purchased goods and services. Moving forward, our goal is to collaborate with our partners and suppliers, invest in energy-efficient technologies, and transition to renewable energy sources to make a meaningful impact on our carbon footprint.

Reducing
Carbon Footprint

Carbon
Footprint

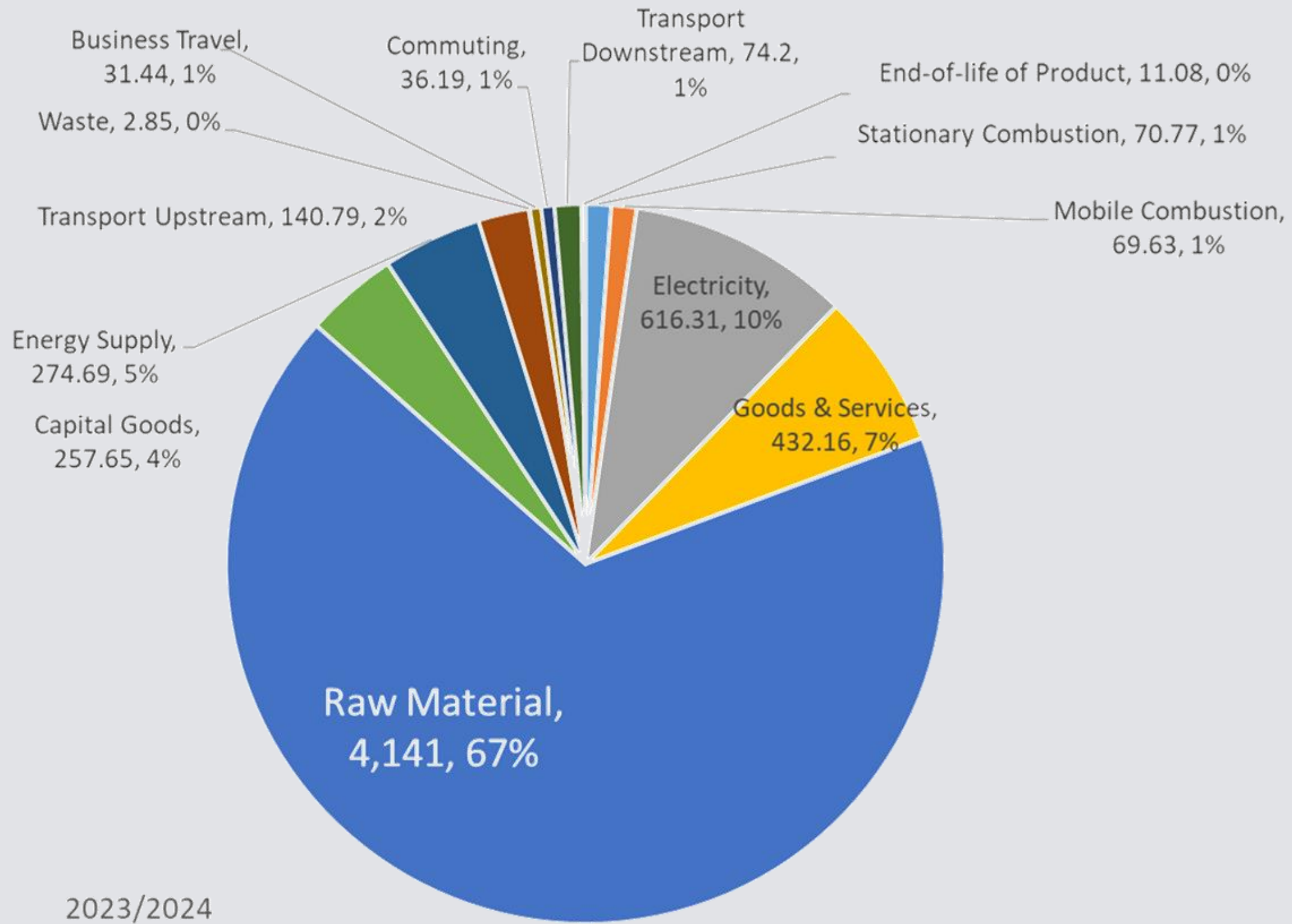


Organisational
Boundaries

Reporting
Boundaries

Reported GHG
and GWP

Uncertainty
Assessment



Reducing Carbon Footprint

Carbon Footprint



Organisational Boundaries

Reporting Boundaries

Reported GHG and GWP

Uncertainty Assessment

Detailed emission

Emission Category	Scope	All GHG (tCO2e)
Scope 1 - Direct Emissions from operations		140
Stationary Combustion	Scope 1	71
Mobile Combustion	Scope 1	70
Scope 2 - Indirect Emissions from electricity consumption		616
Purchased electricity - market based	Scope 2	616
Purchased electricity - location based	Scope 2	399
Scope 3 - Indirect Emissions in the value chain - Upstream		5,317
Purchased goods and services	Scope 3	4,573
Capital goods	Scope 3	258
Fuel- and energy-related activities	Scope 3	275
Upstream transportation and distribution	Scope 3	141
Waste generated in operations	Scope 3	3
Business travel	Scope 3	31
Employee commuting	Scope 3	36
Scope 3 - Indirect Emissions in the value chain - Downstream		85
Downstream transportation and distribution	Scope 3	74
End-of-life treatment of sold products	Scope 3	11
Total GHG emissions		6,159

Reducing
Carbon Footprint

Carbon
Footprint



Organisational
Boundaries

Reporting
Boundaries

Reported GHG
and GWP

Uncertainty
Assessment

Detailed emission

Emission Category	CO ₂	CH ₄	N ₂ O	SF6	NF3	HFCs	PFCs	CO ₂ e*
Scope 1 - Direct Emissions from operations	139	<1	1	-	-	-	-	-
Stationary Combustion	71	<1	<1	-	-	-	-	-
Mobile Combustion	69	<1	1	-	-	-	-	-
Scope 2 - Indirect Emissions from electricity consumption	616	-	-	-	-	-	-	-
Purchased electricity - market based	616	-	-	-	-	-	-	-
Purchased electricity - location based	399	-	-	-	-	-	-	-
Scope 3 - Indirect Emissions in the value chain - Upstream	991	110	15	6	0	17	6	4,172
Purchased goods and services	330	73	8	4	0	11	4	4,143
Capital goods	206	37	4	2	-	6	2	-
Fuel- and energy-related activities	247	-	-	-	-	-	-	28
Upstream transportation and distribution	139	<1	2	-	-	-	-	-
Waste generated in operations	2	<1	<1	<1	-	<1	<1	<1
Business travel	31	<1	<1	-	-	-	-	-
Employee commuting	36	<1	<1	-	-	-	-	-
Scope 3 - Indirect Emissions in the value chain - Downstream	74	<1	1	-	-	-	-	11
Downstream transportation and distribution	74	<1	1	-	-	-	-	-
End-of-life treatment of sold products	-	-	-	-	-	-	-	11
Total GHG emissions								

Reducing
Carbon Footprint

Carbon
Footprint



Organisational
Boundaries

Reporting
Boundaries

Reported GHG
and GWP

Uncertainty
Assessment



MNB PRECISION

Tel: +44 (0) 2476 695959

Email: info@mnbprecision.com



Eco Sourcing Hub

REDUCE COSTS, EMISSIONS & RISKS