

Carbon Accounting Report 2021

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Executive summary

This report consists of a detailed analysis of the Greenhouse gases emitted from Cooksongold in the calendar year 2021. The data showcases the current state of the business quantitatively through a total carbon footprint figure as well as the gases emitted specific to activities for the business and the relevant targets specific to the business in order to reach Net Zero.



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Net Zero Vision

The United Kingdom's current target is to reach Net Zero Greenhouse Gases (GHG) by 2050. We aim to become Net Zero by the year 2030.


In the Paris Agreement of 2015, global governments recognised that warming of the earth must be limited to a well below 2°C increase and ideally not more than 1.5°C above pre-industrial levels.

In order to limit this global warming, a significant reduction of greenhouse gas emissions, such as CO₂, will be required within a set period.

This explains the purpose for setting targets. This ensures that the amount of greenhouse gas emissions being released into the atmosphere are equal to the amount being removed from it, this results in the significant reduction of the amount of harmful emissions that contribute to climate change.

Cooksongold recognise the impact and significance the business holds within the precious metal processing industry. We aim to lead by example and reduce the amount of GHG emissions produced by the business and other companies interconnected with our processes in the wider supply chain.

SwissRe calculated recently that the global economy could be 7-10% smaller in 2050 than now as a result of the cost of climate impacts, as compared to a world that meets the Paris goals (Cran-McGreehin, 2022). This is an economic harm greater than both the Covid-19 pandemic and the 1920s Great Depression.



We aim to become Net Zero by the year 2030.

Principals

The Quality, Health & Safety & Environmental Policy states that “We are committed to the protection of the environment”. As part of this we are working on plans to achieve Net Zero involving all aspects of our business operations. However, the key strategic priority in this area is to provide a complete range of gold and silver bullion products in 100% recycled material. This is because by far the most significant element of the carbon footprint and overall environmental impact of gold and silver processing is generated by the extraction of the metal.

Impact of Precious Metal Extraction

Key data:

The Production of 1kg of Mined Gold Generates:

- More than 30 Tonnes of CO₂ is produced using current mining processes (World Gold Council reporting)
- 300 times more CO₂ than refining processes (Fritz, B., Aichele, C. & Schmidt)
- More than 2,000 Tonnes of waste material (Earthworks)
- Significant volumes of hazardous materials such as cyanide and mercury

The Production of 1kg of Mined Silver Generates:

- More than 300kg of CO₂ using current mining processes (J Fernandez & C Klimas)
- 12 times more CO₂ than for refining (Fritz, B., Aichele, C. & Schmidt)

For gold product, switching from mined to recycled material reduces the total carbon footprint by approximately 99% – by far and away the most significant action.

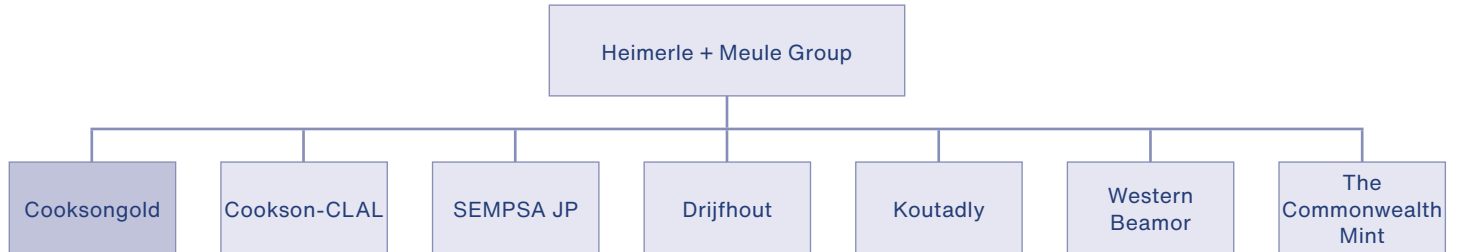
For silver product, switching from mined to recycled material reduces the total carbon footprint by approximately 80%.

Less of an impact than gold as silver is extracted frequently as a by-product as opposed to a primary source, but still clearly the most significant action to limit the environmental impact.



Profile

Organisational Profile



The Heimerle + Meule Group is one of Europe's largest refiners and processors of precious metals. The Heimerle + Meule Group employs over 750 members of staff at locations in seven countries: Germany, France, the United Kingdom, the Netherlands, Austria, Portugal and Spain. The advantage of the precious metals group functioning on an international level helps meet the demand of the customer in an agile environment.

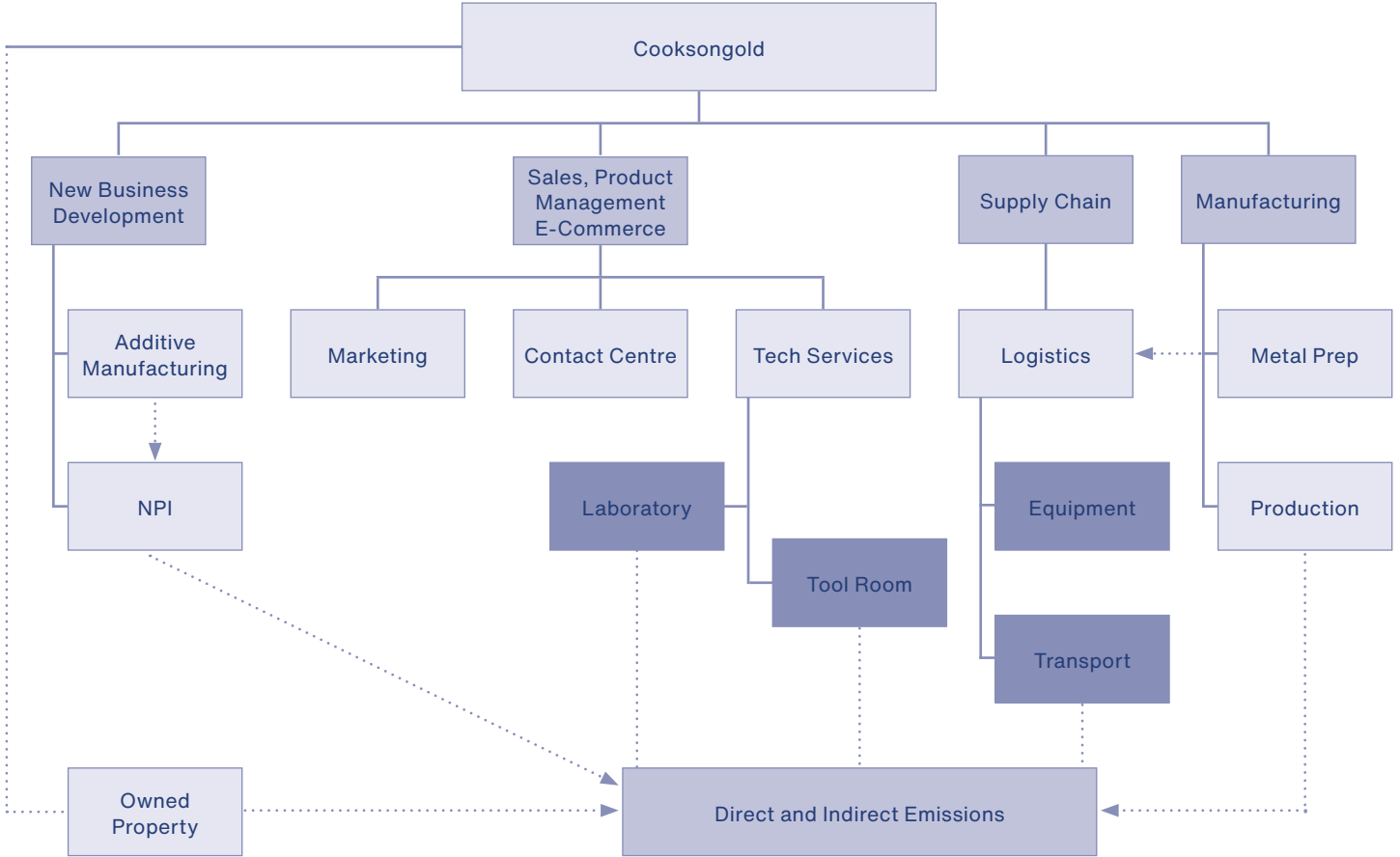
Products and Services

Cooksongold is the UK's largest one-stop shop for all types of jewellery creators with 20,000 products including a huge stock of silver, gold, palladium and platinum bullion cut to customer requirements as well as most notably: findings, loose and finished chain, gemstones, ring blanks, jewellery making tools, silver clay, beading materials etc.

Alongside a one-stop-shop solution for the jewellery maker, we also offer a range of services; including bespoke manufacturing capabilities, stampings, scrap metal recycling services plus groundbreaking 3D Printing in precious metals.

Profile

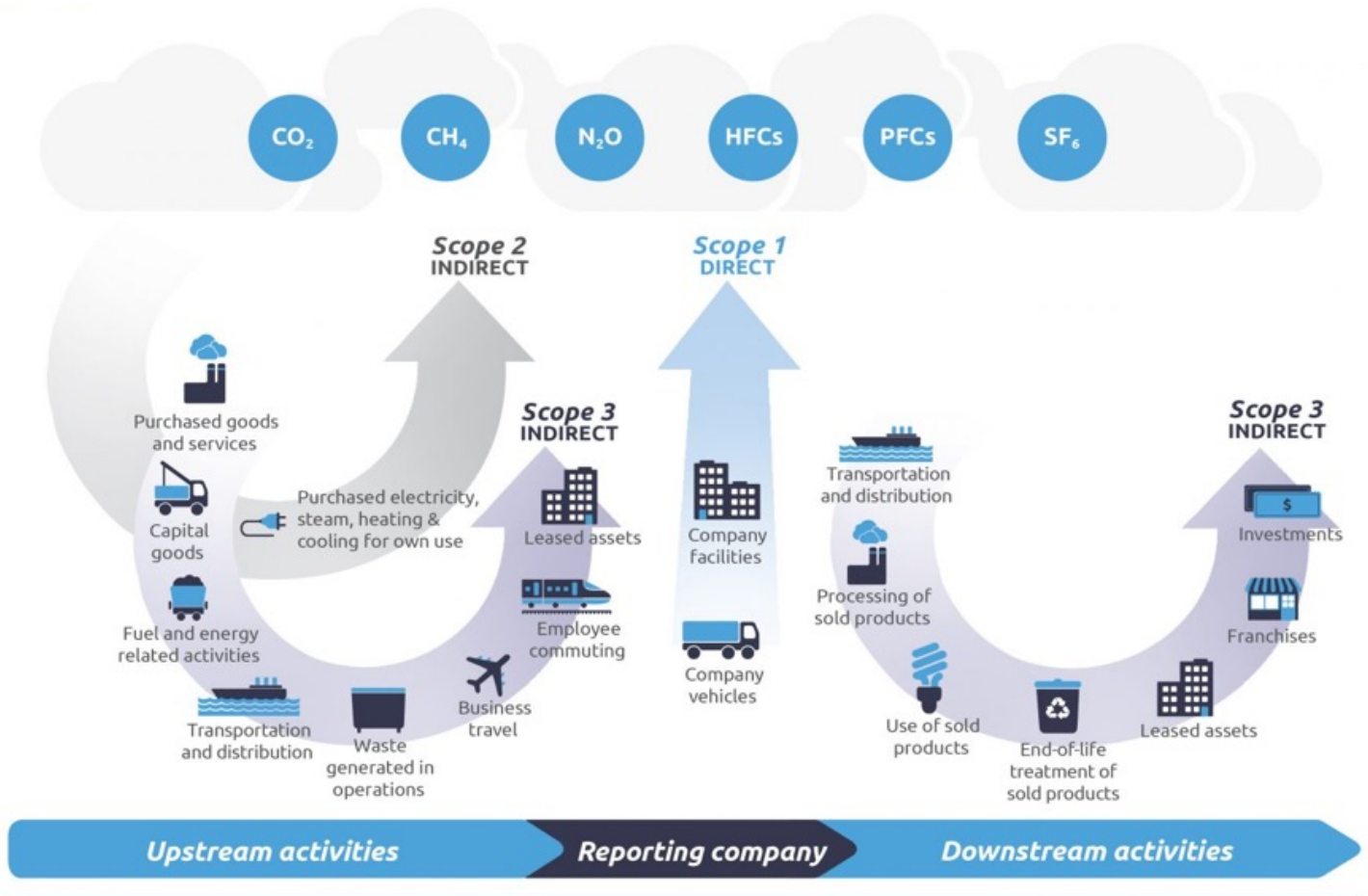
Company Structure



The company can be divided into notable departments that help optimise operations and processes of the company. The organisational profile spans from high level senior management to factory and warehouse operations. At each level of the business there is a combination of direct and indirect emissions that fall under Scope 1, 2 or 3 emissions.

Profile

Overview of GHG protocol scopes and emissions across the value chain.

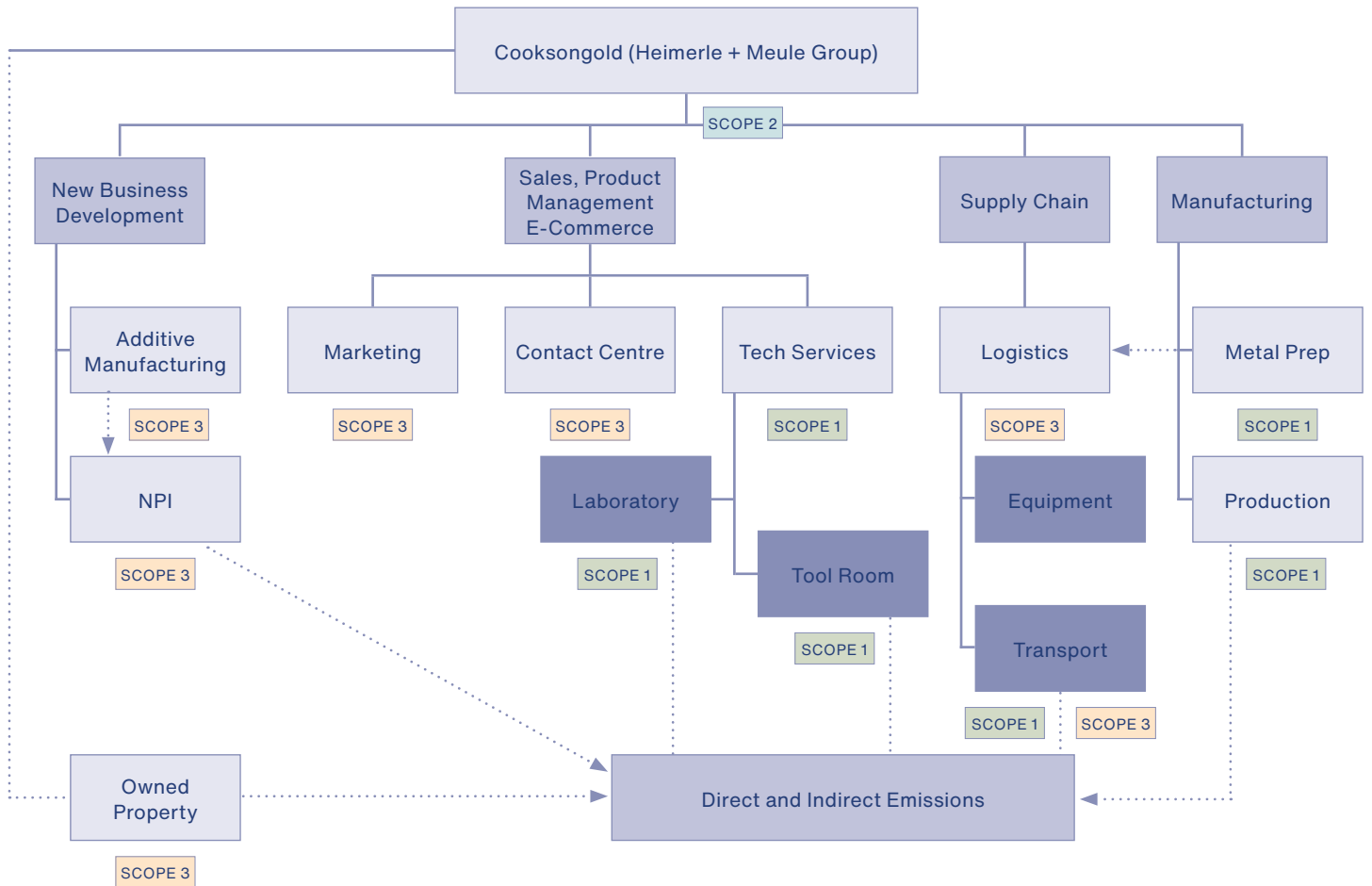


Originally sourced from - ghgprotocol.org

At Cooksongold we take into consideration the impact all of our processes, prioritising the environmental impact each of our in-house processes produce as well as being proactive and highly selective on our third party relations and suppliers who share similar values on wanting to reduce GHG emissions. Therefore, we have decided to report all the Scopes, including the optional requirement of Scope 3. This is because we believe that to truly reduce the carbon footprint of the business and reach the UK's target of Net Zero by 2050, we need to consider all the elements on a broader scale. By capturing all the elements which enable the company to operate on a day-to-day basis we'll be able to best make decisions that consider the environmental impact of the whole business.

Profile

Company Structure



Report Scope

The reporting period of the 2021 emissions data was collected during the dates of 6/06/22 – 31/08/22. This is Cooksongold's first official carbon account that will be used as a benchmark for future accounts comparison.

The data provided is strictly relevant to Cooksongold's CO₂ generating activities within the Heimerle + Meule Group. This report intends to increase transparency between the business and customers to ensure that the services we provide help towards a sustainable future. This includes the CO₂ impact of the gold and silver material on the environment which is a core element to the business. As well as setting targets internally that hold all employees accountable to making better choices for the future.

Report Profile

This report provides the greenhouse gases emissions emitted by Cooksongold from the 1st January until the 31st of December 2021. The emissions are divided into activities defined by the UK Government's Department for Business, Energy & Industrial Strategy. This results in proving the overall carbon footprint of the company. Provided from the carbon footprint figure are a set of targets and a roadmap for the business to adhere to reach Net Carbon Neutrality by 2030.

This report adheres to the GHG Protocol Corporate Accounting and Reporting Standard (this document, a verified guide for companies to use in quantifying and reporting their

GHG emissions) to ensure that validity is met throughout the report.

Methodology

To get an accurate depiction of the carbon footprint of the company, a range of methods were used to collect the most accurate data. This included a combination of primary and secondary data sources. To calculate Scope 1 (direct) emissions, internal records from mileage, weights, volumes and energy consumed were utilised to calculate the amount of CO₂ produced. The most common method used was communication with our suppliers of material, transport and other services, etc. These supplied the data of weights and energy consumed for Cooksongold, which is required to help calculate Scope 2 and 3 (indirect) emissions. As of 2021, Scope 1 and 2 are mandatory to report if a company falls within certain criteria.

This data is then multiplied by an emissions factor (dependent on the activity) provided by the UK Governments Greenhouse Gas Reporting Conversion Factors (2021). This multiplied value provides a CO₂ equivalent value. The sum of all CO₂ equivalent values from Scope 1, 2 and 3 provides the final Carbon Footprint figure.

Cooksongold has decided to perform a centralised approach to collecting the data within the company. This is to ensure consistency in the data collected and a reduction in the margin of calculation error.

Collaboration with Coventry University – The Institute of Advanced Manufacturing and Engineering (AME)

Reaching the ultimate target of becoming Net Zero is an exciting venture that requires input from multiple stakeholders across the company. We have collaborated with the Institute of Advanced Manufacturing and Engineering (a joint venture between Unipart Powertrain Applications and Coventry University) to help become a key stakeholder within the carbon accounting field. Their cutting edge research and facility helps Cooksongold verify carbon accounting results as well as being at the forefront of research into standardising carbon accounting on a governmental level. The fast growing carbon footprint understanding is rapidly adjusting and changing and the AME help keep up to date with changes whilst curating cutting edge systems to help optimise the process.

We remain committed to the principle of a credible and reliable verification process and will continue to explore this issue and report on developments. We will also continue to seek input from our stakeholders to ensure that our future sustainability reports are increasingly meaningful to them.

Justification of Activities

| Activity | Why this activity | Collection Source |
|-------------------------------|--|--|
| Scope 1 | | |
| Fuel | Significant use of natural gas within the production facilities. | Energy Management™ supplied CO2 emissions. |
| Refrigerant | Air conditioning and other cooling units are used to control precious metal alloy production and regulate internal work space. | Kg of refrigerant used in AC units from Envtec Services Ltd. |
| Delivery & Passenger Vehicles | Use of two delivery vans owned by the company that transport goods in the Birmingham area. Also to and from the main Birmingham site and the Hatton Garden store, London. 10 company cars. | Data from company car contracts and van type & mileage. |
| Scope 2 | | |
| UK Electricity | Significant use of supplied electricity within the production facilities and all other departments. | Energy Management™ supplied CO2 emissions. |
| Scope 3 | | |
| Transmission and Distribution | The amount of electricity lost through the transmission and distribution of electricity from the national grid to the main site. | Data from the National Grid ESO to work out percentage loss. |
| Water Supply /Water Treatment | The amount of water supplied as well as the amount of the water discharged to sewer. Some used for manufacturing processes. | Meter readings from the supplying water and sewage companies. |
| Material Use | The company uses a range of materials in its manufacturing of product. Other materials are consumed in the general running and operation of the business. A core element of the business is the use of gold and silver material. We have decided to include the impact of this activity as well as the variations of how the material is obtained. However this report does not take into account other fine metals which are used in much smaller amounts. | Supply Chain, Manufacturing, Sales and Finance Department's records. |

Justification of Activities

| Activity | Why this activity | Collection Source |
|------------------|---|---|
| Waste Disposal | Cooksongold have seriously considered its waste streams and any disposal, which in the main are managed by a third party. It's worth noting that it's inherent within the precious metal industry that all precious metal even at its lowest grade is recovered and recycled. | Data collected from in house data and using Waste Efficiency TM. |
| Business Travel | This activity is divided into two sections; a) Travel for business purposes (Car, Rail, Flights etc. b) Employee commuting to and from site – the mode of transport and distance. | Company Survey's, EGENCIA Travel data. |
| Freighting Goods | This activity is heavily used within the business; a) Shipping of material and finished products to us for resale from global suppliers. b) Shipping of products to customers both UK and abroad. | In-house Goods Inwards data, Supplier data and outbound Courier data. |
| Hotel Stay | To capture the GHG emissions for this business activity. | EGENCIA Travel data. |

Base Year

This year (2021) is Cooksongold's Base Year for the official carbon accounting report. We have decided to account our carbon footprint figures on a yearly basis to be able to produce suitable targets to monitor GHG emissions carefully whilst becoming Net Zero. We aim to report our emissions in alignment with the financial report of the year, this is to ensure that we treat carbon emissions as much as a KPI as cost, quality and delivery.

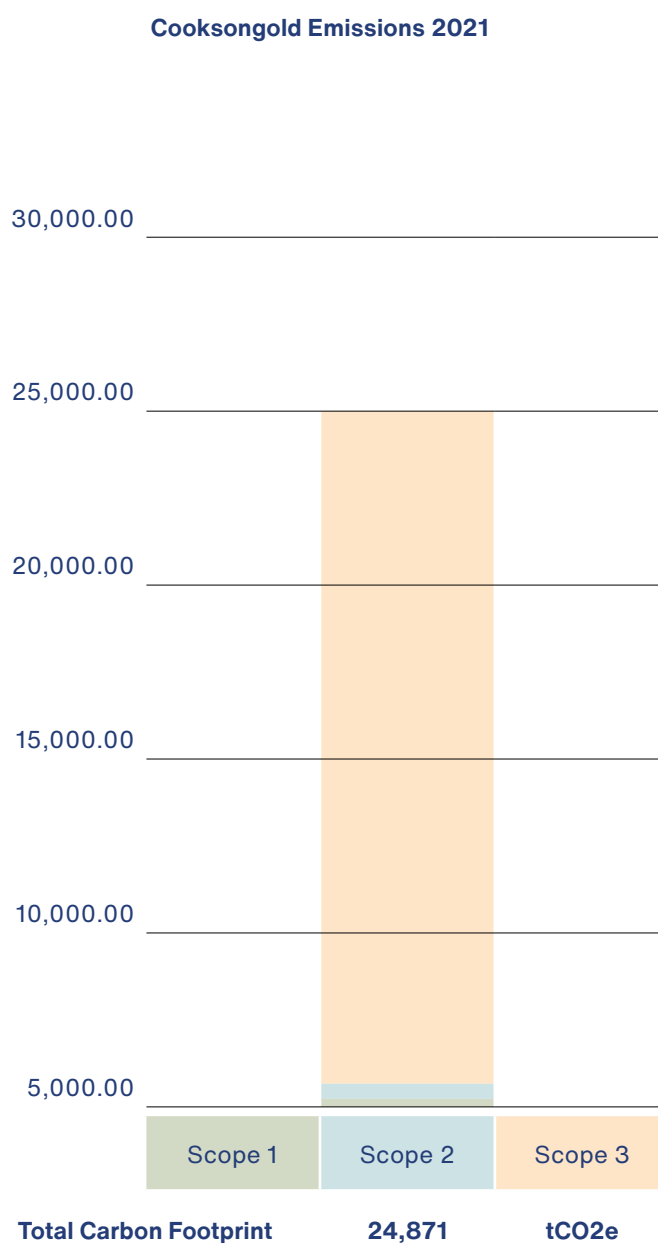
Analysis

Emissions Results Table

The results showcase all the CO2 emission business activities Cooksongold produced in the 2021 calendar year.

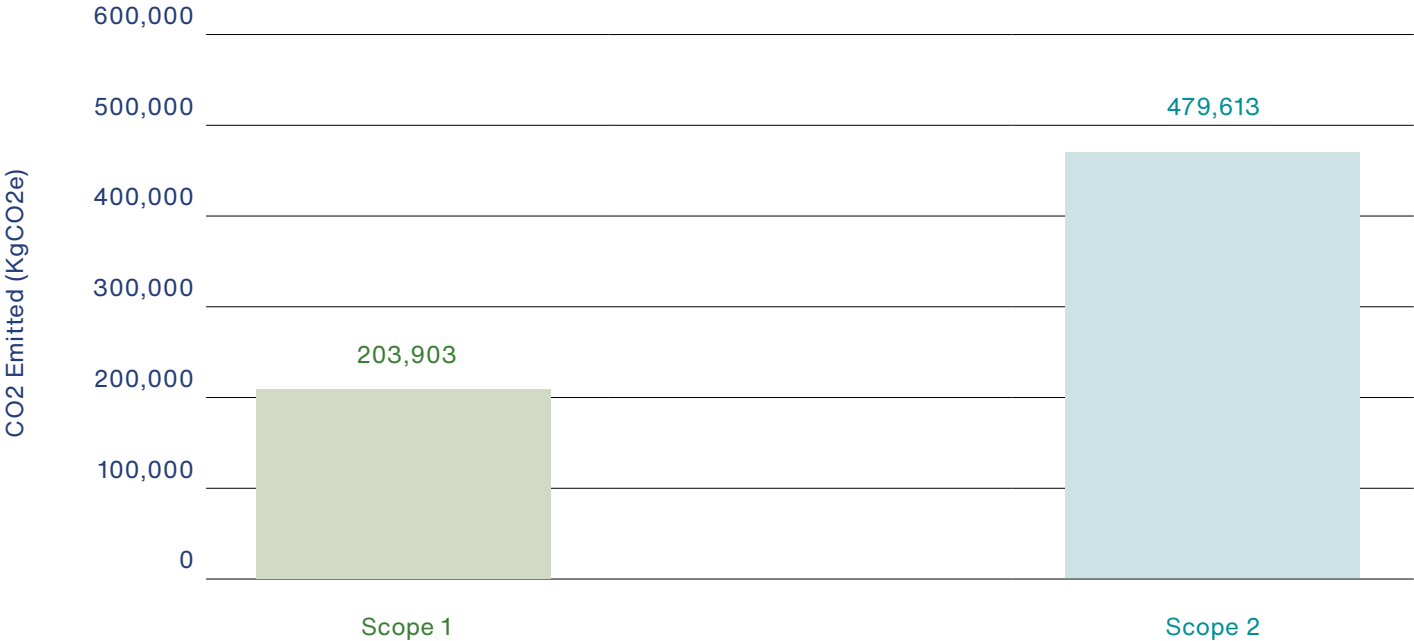
| Category | Kg CO2e |
|-------------------------------|---------------|
| Fuels | 143,683.56 |
| Refrigerant | 61.67 |
| Delivery Vehicles | 18,800.24 |
| Passenger Vehicles | 41,357.64 |
| UK Electricity | 476,316.38 |
| UK Electricity for EV's | 3,296.23 |
| Transmission and Distribution | 2,346.04 |
| Water Supply | 1,661.65 |
| Water Treatment | 3,033.34 |
| Material Use | 23,889,215.33 |
| Waste Disposal | 1,042.13 |
| Business Travel – Air | 5,722.12 |
| Staff Commuting | 118,852.83 |
| Freighting goods | 164,918.64 |
| Hotel Stay | 455.90 |

| Category | Kg CO2e |
|----------|---------------|
| Scope 1 | 203,903.10 |
| Scope 2 | 479,612.61 |
| Scope 3 | 24,187,248.99 |

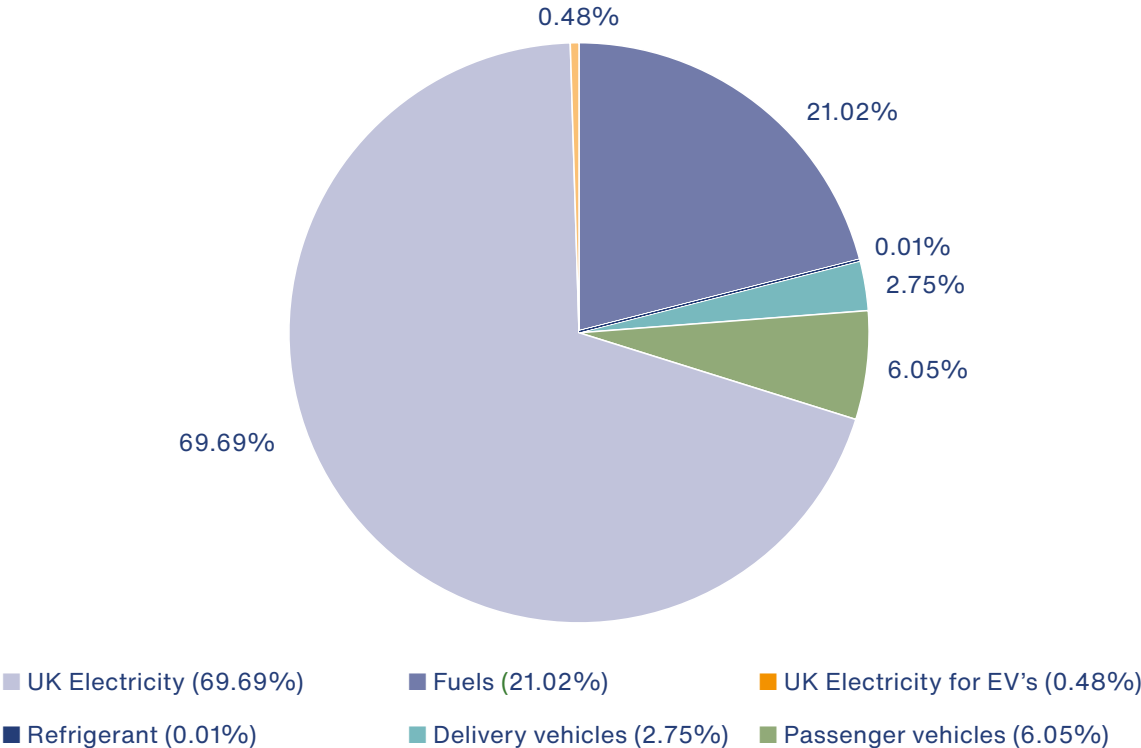


Analysis

Scope 1 and 2 Emissions



Business Activity Category Scope 1 and 2



Analysis Total Emissions Results Table – Carbon Footprint Calculations 2021

| Scope | Category | Activity | Type | Unit | Total | Kg CO2e | Kg CO2 | Kg CH4 | Kg N2O | |
|--------------------------------|-------------------------------|-----------------------|------------------------------------|------------------------------------|-------------------------|------------|---------------|----------|----------|-------|
| Scope 1 Direct Emissions | Fuels | Gaseous Fuels | Natural Gas | kWh | 781,526.00 | 143,683.56 | 142,878.58 | 195.38 | 78.15 | |
| | Refrigerant | Kyoto Protocol | R410a | Kg | 0.03 | 61.67 | - | - | - | |
| | Delivery Vehicles | - | Average Class (upto 3.5 tonnes) | Miles | 43,257.00 | 16,787.91 | 16,658.70 | 0.43 | 128.77 | |
| | Passenger Vehicles | Cars (Petrol) | Lower Medium | | 5,941.00 | 2,012.34 | 2,005.38 | 2.26 | 4.69 | |
| | | | | | 26,666,67 | 7,509.07 | 7,480.00 | 13.60 | 15.47 | |
| | | | | | 21,666,67 | 6,101.12 | 6,077.50 | 11.05 | 12.57 | |
| | | | | | 20,000.00 | 5,631.80 | 5,610.00 | 10.20 | 11.60 | |
| | | | | | Upper Medium | 10,000.00 | 3,276.40 | 3,265.50 | 5.10 | 5.80 |
| | | | | | Dual Purpose 4x4 | 20,000.00 | 6,970.80 | 6,949.00 | 10.20 | 11.60 |
| | | | | | Executive (Hybrid) | 7,500.00 | 8,632.30 | 8,626.38 | 2.70 | 3.23 |
| | | | | | Upper Medium (Hybrid) | 12,500.00 | 1,430.25 | 1,420.88 | 4.63 | 4.75 |
| | | | | | Small Off Road (Hybrid) | 10,000.00 | 360.90 | 358.40 | 1.40 | 1.10 |
| | | | | Lower Medium (Hybrid) | 10,000.00 | 1,084.30 | 1,077.40 | 3.60 | 3.30 | |
| Small Off Road (Hybrid) | 10,000.00 | 360.70 | 358.40 | 1.20 | 1.10 | | | | | |
| Scope 2 Electricity | UK Electricity | Electricity Generated | Electricity: UK | kWh | 1,863,522.60 | 476,316.38 | 391,637.91 | 1,490.82 | 2,553.03 | |
| | UK Electricity for EV's | Cars | Large Off Road | Miles | 15,000.00 | 1,345.35 | 1,331.55 | 5.10 | 8.70 | |
| | | | Executive (Hybrid) | | 7,500.00 | 250.96 | 245.18 | 2.10 | 3.68 | |
| | | | Upper Medium (Hybrid) | | 12,500.00 | 399.63 | 393.50 | 1.50 | 2.63 | |
| | | | Small Off Road (Hybrid) | | 10,000.00 | 492.00 | 487.00 | 1.80 | 3.20 | |
| | | | Lower Medium (Hybrid) | | 10,000.00 | 316.30 | 313.10 | 1.20 | 2.00 | |
| | | | Small Off Road (Hybrid) | | 10,000.00 | 492.00 | 487.00 | 1.80 | 3.20 | |
| Scope 3 InDirect | Transmission and Distribution | T&D – UK Electricity | Electricity: UK | kWh | 124,856.01 | 2,346.04 | 2,322.32 | 8.74 | 14.98 | |
| | Water Supply | Water In | Water In | M³ | 11152 | 1,661.65 | - | - | - | |
| | Water Treatment | Water Out | Water Out | | 11152 | 3,033.34 | - | - | - | |
| | Material Use | Metal | - | Fine Gold (From Banks) | Tonnes | 0.7 | 21,000,000.00 | - | - | - |
| | | | | Fine Silver (From Banks) | | 9 | 2,700,00.00 | - | - | - |
| | | | | Fine Recycled Gold (From SEMPSA) | | 2.9 | 59,786 | - | - | - |
| | | | | Fine Recycled Silver (From SEMPSA) | | 4.9 | 49154.80 | - | - | - |
| | | Paper | - | Paper & Board: Paper | | 24 | 22,065.60 | - | - | - |
| | | | | Paper & Board: Board | | 26 | 23,904.40 | - | - | - |
| | | Plastic | - | Polyethylene (LDPE) | | 12 | 31,200.00 | - | - | - |
| | | | | Polypropylene (PP) | | 1 | 3,104.73 | - | - | - |
| | | Pallets | - | Wood | | 4 | 145.16 | - | - | - |
| | | Waste Disposal | Refuse | Commercial and Industrial Waste | | 48.94 | 1,042.13 | - | - | - |
| | Electrical Items | | WEEE – Mixed | 2.52 | 0.00 | - | - | - | | |

Analysis Total Emissions Results Table – Carbon Footprint Calculations 2021

| Scope | Category | Activity | Type | Unit | Total | Kg CO2e | Kg CO2 | Kg CH4 | Kg N2O |
|------------------------|-----------------------|---------------|---------------------------|--------------|-----------------------|-----------|------------|----------|----------|
| Scope 3 InDirect | Business Travel – Air | Short Haul | Economy Class (BHX – DUS) | Passenger.km | 2 Flights / 1,197.92 | 180.44 | 179.98 | 0.01 | 0.45 |
| | | | Economy Class (BHX – STR) | | 8 Flights / 11,415.88 | 2,087.84 | 2,079.16 | 0.11 | 8.56 |
| | | | Economy Class (MAN – STR) | | 2 Flights / 3,988.32 | 983.63 | 980.60 | 0.04 | 2.99 |
| | | | Economy Class (LHR – LYS) | | 2 Flights / 3,031.88 | 747.74 | 745.44 | 0.03 | 2.27 |
| | | | Economy Class (LBA – LYS) | | 2 Flights / 2,392.32 | 590.02 | 588.20 | 0.02 | 1.79 |
| | | | Economy Class (BHX – FRA) | | 3 Flights / 4,591.68 | 1,132.45 | 1,128.96 | 0.05 | 3.44 |
| | Staff Commuting | Cars | Average Car (Petrol) | Miles | 317,760 | 55,388.75 | 55,172.67 | 101.68 | \$114.39 |
| | | | Average Car (Hybrid) | | 79,200 | 1,726.70 | 1,626.11 | 13.46 | 87.12 |
| | | Bus | Local Bus | Passenger.km | 365,280 | 37,357.10 | 37,054.00 | 3.65 | 299.53 |
| | | | National Rail | | 511,077.12 | 18,138.13 | 17,938.81 | 35.78 | 163.54 |
| | | Rail | Light Rail and Tram | Passenger.km | 127,769.28 | 3,655.48 | 3,618.43 | 14.05 | 23.00 |
| | | | Walking | | Walking | Miles | 56,640 | 0.00 | 0.00 |
| | | Other | Motorbike (Average) | Miles | 14,160 | | 2,587.60 | 2,538.18 | 35.97 |
| | | | Cycling | | 28,320 | 0.00 | 0.00 | | 0.00 |
| | Freighting Goods | Inbound | Germany | Tonne.km | 17602.00 | 3,490.14 | - | - | - |
| | | | Hong Kong | | 1533.00 | 1,561.68 | - | - | - |
| | | | India | | 568395.00 | 10,947.15 | - | - | - |
| | | | Israel | | 758.00 | 772.60 | - | - | - |
| | | | Italy | | 1841.00 | 3,211.60 | - | - | - |
| | | | Japan | | 3780.00 | 3,851.85 | - | - | - |
| | | | Netherlands | | 76.00 | 8.21 | - | - | - |
| | | | Singapore | | 3341.00 | 3,404.54 | - | - | - |
| | | | Spain | | 64280.00 | 6,909.46 | - | - | - |
| | | | Switzerland | | 16390.00 | 1,761.74 | - | - | - |
| | | | Turkey | | 49799.00 | 5,352.89 | - | - | - |
| | | | UK | | 2044.00 | 4,834.38 | - | - | - |
| | | Outbound | USA | Tonne.km | 125460.00 | 56,269.10 | - | - | - |
| | | | DPD | | 1045850.00 | 4,594.67 | - | - | - |
| | | | Royal Mail | | 1568775.00 | 7,519.64 | - | - | - |
| | | | DHL | | 1307312.50 | 3,133.18 | - | - | - |
| | | | Fed Ex / TNT | | 351968.75 | 843.55 | - | - | - |
| | | | Brinks | | 76.35 | 1,171.00 | - | - | - |
| | | | Woodland | | 3339897.84 | 43,751.13 | - | - | - |
| Malkamit | | | 19427.14 | | 1,530.12 | 1,529.89 | 0.19 | 0.04 | |
| Hotel Stay | Hotel | Domestic (UK) | Room Per Night | 19 | 455.90 | - | - | - | |
| Carbon Footprint | | | | | | | 24,870,919 | KgCO2e | |
| Total Carbon Footprint | | | | | | | 24,871 | tCO2e | |

Figures Explained

Assumptions made

As mentioned in the methodology chapter, a range of informed assumptions are made for each of the categories to produce an accurate figure with the most common use of UK Government GHG Conversion Emission Factors. As this report accounts for the inaugural carbon account, we aim to deliver more precise data collection methodologies going forward to depict an ever more accurate landscape of our carbon emissions.

Conclusion

Aims and Reduction Targets

The Overall goal of the ongoing carbon accounting report is to create transparency between the business and our customers with our aims and intentions; becoming Net Zero and the stages required to reach that goal. Cooksongold takes pride in aiming to make no negative impacts on the environment by improving our current processes to serve a better future for the precious metals industry as well as the wider community. This report acts forms the mode of communication and standardisation of the company to keep ourselves in alignment with the current standard of carbon reporting from the UK Government on a public scale.

Future High-Level Recommendations

The table below showcases the top CO2 intensive activities categorised by the three scopes and their respective targets.

| Activity | Value (tCO2e) | Target/Initiatives | |
|--------------------|--------------------------|--|--|
| Scope 1 | | | |
| Fuels | 14.4 | We are currently conducting research on alternative fuels and technologies to manufacture our precious metal products to the same high-quality finish, producing less CO2. | |
| Passenger Vehicles | 41.4 | We pledge to have all our company owned passenger vehicles fully electric within the next 5 years. | |
| Scope 2 | | | |
| UK Electricity | 476.3 | We aim to thoroughly review renewable energy sources to integrate into our main facilities. | |
| Scope 3 | | | |
| Material Use | Mined: Gold Silver | 21,000.0 2,700.0 | We will continue to solely use only 100% recycled gold and silver in our manufactured products. |
| | Plastic | 34.3 | We will be investigating the newest developments in recyclable and biodegradable packaging to minimise overall plastic use. |
| Freighting Goods | Inbound | 102.4 | We aim to conduct regular reviews of our suppliers and carriers to ensure that we are in collaboration with companies that keep sustainability in the forefront of their activities. |
| | Outbound | 62.5 | |

Further Work

As we develop our carbon accounting methodologies, we pledge to engage in further work such as curating a detailed roadmap to ensure all milestones are reached within the given timeframe. We will be reviewing our relationships with other companies to reduce our Scope 3 indirect emissions on a regular basis. We will also be keeping up with the wider Net Zero community by integrating our new technologies with the newest and suitable green technologies, advancements, and initiatives to reduce our carbon footprint.