VISTA

# Greenhouse gas (GHG) accounting report

## XOJET Aviation

**01/01/2021–12/31/2021**

**Zurich, 27 December 2022**

south pole

**South Pole**
South Pole Carbon Asset Management Ltd. · Technoparkstrasse 1 · 8005 Zurich · Switzerland
+41 43 501 35 50 · info@southpole.com · southpole.com

# Details

### Prepared for:

**XOJET Aviation**
2000 Sierra Point Parkway · Brisbane · California 9400 · United States
xojetaviation.com

### Prepared by:

**South Pole Carbon Asset Management Ltd. (South Pole)**
Technoparkstrasse 1 · 8005 Zurich · Switzerland
southpole.com

### Project Manager:

Farzin Golzar, Consultant
f.golzar@southpole.com

### Project Leader:

Fionna Millett, Managing Consultant
f.millett@southpole.com

### Collaborator:

Arturo González, Analyst
ja.gonzalez@southpole.com

### Collaborator:

Humberto Lopez, Analyst
h.lopez@southpole.com

### Contact person:

Agnieszka Kwolek, Business Development Manager
+(44) 747 5827 007 · a.kwolek@southpole.com

# Table of contents

# List of tables



# Table of figures

# Acronyms and abbreviations

| | |
|---|---|
| AC | air conditioning |
| AR4 | IPCC Fourth Assessment Report |
| BEIS | United Kingdom's Department for Business, Energy and Industrial Strategy |
| CEDA | Comprehensive Environmental Data Archive |
| $CO_2$ | carbon dioxide |
| $CO_2e$ | carbon dioxide equivalent |
| eGRID | Emissions and Generation Resource Integrated Database |
| GHG | greenhouse gas |
| GJ | gigajoule |
| GRI | Global Reporting Initiative |
| GWP | global warming potential |
| IPCC | Intergovernmental Panel on Climate Change |
| IT | information technology |
| kg | kilogram |
| km | kilometer |
| kWh | kilowatt-hour |
| KPI | key performance indicator |
| m | meter |
| $m^2$ | square meter |
| $m^3$ | cubic meter |
| MWh | megawatt-hour |
| N/A | not applicable |
| pkm | passenger-kilometer |
| t | metric ton |
| tkm | ton-kilometer |
| USD | United States dollar |

# 1. Executive summary

This report presents the greenhouse gas (GHG) emissions footprint for XOJET Aviation's operations in 2021. The accounting followed an operational control approach and considered emissions from scopes 1 and 2, and material categories from scope 3. The offices considered in the accounting are located in Florida.

A summary of key performance indicators (KPIs) is presented in Table 1.

**Table 1: Summary of key performance indicators (KPIs)**

| | | | |
|---|---|---|---|
| Number of employees | 183 | $tCO_2e$/employee | 1,301 |
| Premises area | 3,843 square meters ($m^2$) | $tCO_2e/m^2$ | 62 |

(Source: South Pole, 2022)

The total GHG emissions of XOJET Aviation's operations for the calendar year 2021 were 238,010 metric tons of carbon dioxide equivalent ($tCO_2e$). Table 2 provides an overview of the 2021 GHG emissions by scope. Please note that, due to rounding of numbers, the figures may not add up exactly to the total provided.

**Table 2: GHG emissions by emission source**

| Scope | Emissions ($tCO_2e$) | Percentage (%) of total |
|---|---|---|
| Scope 1: direct GHG emissions | 170,954 | 72% |
| Scope 2: indirect GHG emissions from purchased electricity, heating and cooling | 157 | 0% |
| Scope 3: other indirect GHG emissions | 66,899 | 28% |
| **Total GHG emissions** | **238,010** | **100%** |

(Source: South Pole, 2022)

The distribution of the 2021 GHG emissions by category is presented in Figure 1. The largest emission sources in 2021 were mobile combustion and fuel- and energy-related activities, corresponding to 72% and 19% of total emissions, respectively.

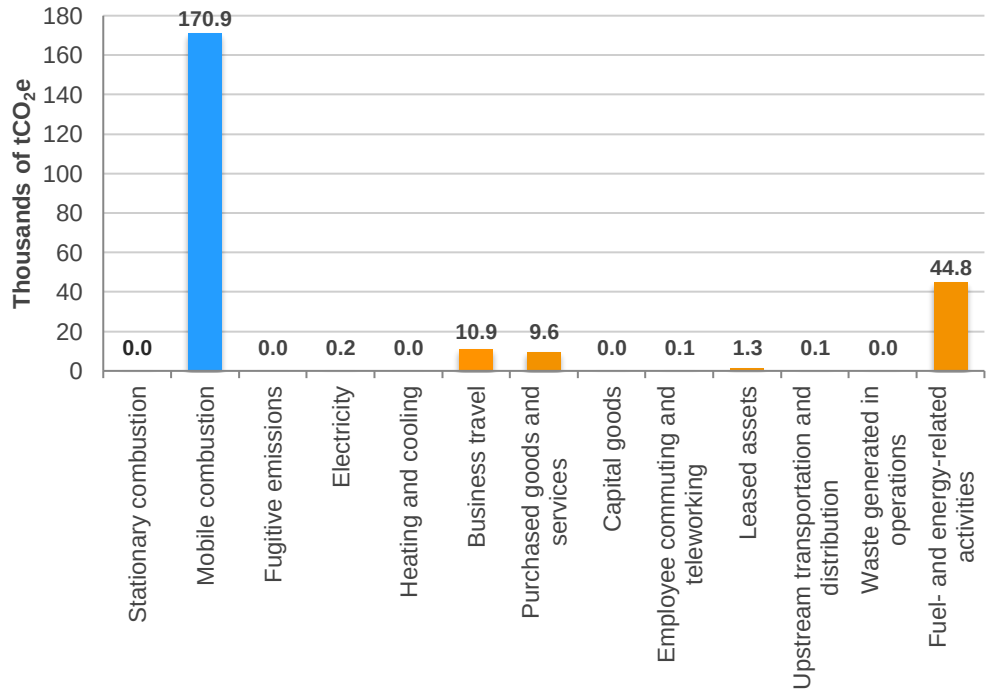


**Figure 1: GHG emissions in 2021 by category**

(Source: South Pole, 2022)

Figure 2 shows a summary of the total emissions by scope. Scope 1 has the highest contribution to GHG emissions, accounting for 72% of the total footprint.

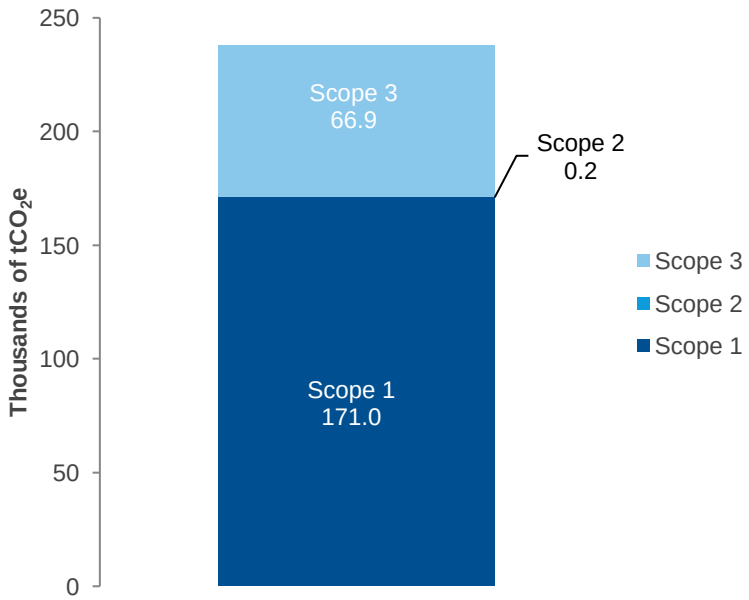


**Figure 2: GHG emissions in 2021 by scope**

(Source: South Pole, 2022)

# 1 Introduction

XOJET Aviation is a business aviation company founded in 2006. This report provides a summary of the GHG emissions from XOJET Aviation's corporate operations from January 1 to December 31, 2021. The company information and the reporting period are presented in Table 3.

Please note that XOJET Aviation is part of Vista Global Holding (Vista), a group integrating private aviation services via an ecosystem of owned brands and participated companies, including VistaJet, XOJET Aviation, XO, Talon Air, Red Wing Aviation, GMJ Air Shuttle and Apollo Jets.

**Table 3: Company information**

| Company information | |
|---|---|
| Website | www.xojetaviation.com |
| Business area | Private aviation company |
| Reporting period | January 1 to December 31, 2021 |

(Source: South Pole, 2022)

## 1.1 Methodology

The GHG accounting and reporting procedure is based on the 'The Greenhouse Gas Protocol: GHG Protocol: A Corporate Accounting and Reporting Standard – Revised Edition' (GHG Protocol) and the complementary 'Corporate Value Chain (Scope 3) Accounting and Reporting Standard' – the most widely used international accounting tools for government and business leaders to understand, quantify, and manage GHG emissions. The standards were developed in a partnership between the World Resources Institute and the World Business Council for Sustainable Development.

The accounting was based on the principles of the 'GHG Protocol':

- **Relevance:** establishing an appropriate inventory boundary that reflects the GHG emissions of the company and serves the decision-making needs of users;
- **Completeness:** including all emission sources within the chosen inventory boundary. Any specific exclusion is disclosed and specified;
- **Consistency:** ensuring meaningful comparison of information over time and transparently documenting changes to the data;
- **Transparency:** guaranteeing data inventory sufficiency and clarity, where relevant issues are addressed in a coherent manner; and
- **Accuracy:** minimizing uncertainty and avoided systematic over- or under-quantification of GHG emissions.

## 1.2 System boundaries

### 1.2.1 Organizational boundaries

System boundaries were defined by the control approach, i.e., covering all entities where XOJET Aviation has operational control. With this approach, XOJET Aviation is taking ownership of 100% of emissions from facilities and offices over which it has operational control and/or the authority to implement operational policies. The 2021 accounting included offices in Florida and the office/s of its subsidiary, GMJ Air Shuttle. The 2021 accounting included offices in Florida and the office of its subsidiary, GMJ Air Shuttle. VistaJet Global has selected an operational control boundary for the 2021 GHG accounting exercise, and thus it is aligned with this boundary for the evaluation of its subsidiaries XOJET Aviation and GMJ Air Shuttle. GMJ Air Shuttle has a unique operating

model with Intel Corporation whereby Intel Corporation owns and operates the aircrafts and supporting operations in full.

According to the 'GHG Protocol Corporate Value Chain (Scope 3) Accounting and Reporting Standard', page 136, "an organization has operational control over an operation if the organization or one of its subsidiaries has the full authority to introduce and implement its operating policies at the operation". The GHG Protocol's guidance is not to be confused with the United States Federal Aviation Administration (FAA)[1] definition which regulates the F125 Certificate under which GMJ Air Shuttle operates.

For XOJET Aviation, while the operations associated with Intel Corporation's activities are within the organizational boundary, they lie outside of the GHG Protocol's definition of operational control for GMJ Air Shuttle, and thus outside of XOJET Aviation's footprint. Therefore, we are excluding GMJ Air Shuttle operations which are fully owned and operated by Intel Corporation. XOJET Aviation's emissions inventory is based on the disclosed information. Any additional management or back-office operations of GMJ Air Shuttle not fully owned and operated by Intel Corporation do fall within GMJ Air Shuttle's operational control and thus are considered for XOJET Aviation's GHG emissions.

Table 4 shows the office included in the 2021 GHG inventory.

**Table 4: Office included in the 2021 GHG accounting**

| Country | Location | Area ($m^2$) | Headcount |
|---|---|---|---|
| United States | Florida and California | 3,843 | 183 |
| Total | | 3,843 | 183 |

(Source: South Pole, 2022)

### 1.2.2 Operational boundaries

Under the 'GHG Protocol', emissions are divided into direct and indirect emissions. Direct emissions are those originating from sources owned or controlled by the reporting entity. Indirect emissions are generated as a consequence of the reporting entity's activities but occur at sources owned or controlled by another entity.

The direct and indirect emissions are divided into three scopes, as found below.

## Scope 1

Scope 1 includes all carbon emissions that can be directly managed by the organization (direct GHG emissions). This includes the emissions from the combustion of fossil fuels in mobile and stationary sources (e.g., owned or controlled boilers, power generators and vehicles) and carbon emissions generated by chemical and physical processes, as well as fugitive emissions from the use of cooling and air conditioning (AC) equipment. Table 5 gives an overview of the emission sources considered in scope 1, based on the information provided by XOJET Aviation.

[1] FAA. Part 125: Certification and Operation of U.S.-registered Civil Airplanes.

**Table 5: Overview of scope 1 emission sources for 2021**

| Category | Emission sources | Boundary |
|---|---|---|
| Stationary combustion | Generation of electricity and heat | Included |
| Mobile combustion | Company-owned or leased vehicles | Included |
| Physical or chemical processing | Manufacture or processing of chemicals and materials | Not applicable (N/A) |
| Fugitive emissions | Emissions from the use of cooling systems and AC equipment, leakage from $CO_2$ tanks or methane tubes | N/A |

## Scope 2

Scope 2 includes indirect GHG emissions from the generation of purchased electricity, steam, heat or cooling purchased by the organization from external energy providers. Table 6 gives an overview of the emission sources considered in scope 2.

**Table 6: Overview of scope 2 emission sources for 2021**

| Category | Emission sources | Boundary |
|---|---|---|
| Electricity | Purchased electricity | Included |
| Steam | Purchased steam | N/A |
| District heating | Purchased district heating | Included |
| District cooling | Purchased district cooling | N/A |

## Scope 3

Scope 3 includes other indirect emissions that arise along the value chain as a consequence of the reporting company's activities. These emission sources occur in another entity's operations. Examples of scope 3 emission sources include the extraction and production of purchased materials and services, vehicles not owned or controlled by the reporting entity, and outsourced activities and waste disposal.

According to the 'GHG Protocol', companies shall separately account for and report on emissions from scope 1 and 2. Scope 3 is an optional reporting category, but its reporting is often required for climate neutrality labels.

Table 7 gives an overview of the emission sources considered in scope 3.

**Table 7: Overview of scope 3 emission sources for 2021**

| Category | Emission sources | Boundary |
|---|---|---|
| Purchased goods and services | Purchased goods (raw materials) and services | Included (e.g., water supply, paper, marketing material and consumables, aircraft maintenance) |
| Capital goods | Production of capital goods (e.g., machinery, information technology [IT] equipment, etc.) | Included (e.g., IT equipment) |
| Fuel- and energy-related activities | Upstream life cycle emissions from fuel and electricity generation, incl. transmission and distribution losses | Included |
| Upstream transportation and distribution | Transportation and distribution of goods and services to the company | Included (air and land) |
| Waste generated in operations | Waste management of operational waste (landfilling, recycling, etc.) | Included |
| Business travel | Travel and accommodation of employees/contractors | Included |
| Employee commuting | Employee travel between home and work | Included |
| Upstream leased assets | Operation of assets leased by the organization (lessee) in the reporting year and not included in scope 1 or 2 | Included |
| Downstream transportation and distribution | Transportation and distribution of products sold by the organization | Not material. Not included |
| Processing of sold products | Processing of intermediate products sold by the organization | Not material. Not included |
| Use of sold products | Use of sold goods that require energy to operate | Not material. Not included |
| End-of-life treatment of sold products | Waste disposal and treatment of sold products | Not material. Not included |
| Downstream leased assets | Operation of assets owned by the company (lessor) and leased to other entities, not included in scope 1 or 2 | Not material. Not included |

| Category | Emission sources | Boundary |
|---|---|---|
| Franchises | Operation of franchises not included in scope 1 or 2 | Not material. Not included |
| Investments | Operation of investments not included in scope 1 or 2 | Not material. Not included |

## 1.3 Data inventory and assumptions

Overall, the data inventory, emission factors, and assumptions are based on the 'GHG Protocol'. The choice of assumptions and emission factors followed a conservative approach. Unless otherwise specified, all emission values in this report are given in metric tons of carbon dioxide equivalent ($tCO_2e$).

Where activity data of the inventory was lacking, extrapolations and estimations were made. The complete overview of activity data, extrapolations, and estimations is summarized in Annex II.

## 1.4 Global warming potential (GWP)

Global warming potential (GWP) is a measure of the climate impact of a GHG compared to carbon dioxide over a time horizon. GHG emissions have different GWP values depending on their efficiency in absorbing longwave radiation and the atmospheric lifetime of the gas. The GWP values used in GHG accounting include the six GHGs covered by the United Nations Framework Convention on Climate Change and Kyoto Protocol and combinations of these, as presented in Table 8. These are the GWP used by the United Kingdom's Department for Business, Energy and Industrial Strategy (BEIS) and are based on the 'Intergovernmental Panel on Climate Change (IPCC) Fourth Assessment Report (AR4)'. Although the 'AR5' is more recent, it has not been accepted internationally by all stakeholders.

**Table 8: Applied global warming potentials (GWP)**

| GHG | GWP (100 years) |
|---|---|
| Carbon dioxide ($CO_2$) | 1 |
| Methane ($CH_4$) | 25 |
| Nitrous oxide ($N_2O$) | 298 |
| Hydrofluorocarbons (HFCs) | See IPCC AR4 – Table 2.14 |
| Perfluorocarbons (PFCs) | See IPCC AR4 – Table 2.14 |
| Sulphur hexafluoride ($SF_6$) | 22,800 |

(Source: IPCC AR4, 2007)

# 2 Results

The results of the 2021 GHG emissions accounting are presented as follows:

1) Key information according to the Global Reporting Initiative (GRI) in Table 9
2) Results of emissions at the corporate level in Table 10

Total emissions in this report refers to the emissions sources covered, as described in Section 1.2. Please note that, due to rounding of numbers, the figures may not add up exactly to the total provided. Also, note that the following figures and tables consider the market-based numbers in scope 2 when calculating emission totals. The market-based numbers consider renewable energy purchase instruments and contracts, such as renewable energy certificates, renewable power contracts, and green tariffs. On the contrary, location-based numbers only consider average regional production emission factors when calculating emissions.

## 2.1 Corporate-level results

XOJET Aviation's total emissions in 2021 are 238,010 $tCO_2e$. The key figures according to the GRI are presented in Table 9.

**Table 9: Key figures according to the Global Reporting Initiative (GRI)**

| GRI G4 | GRI Standards | Topic | Quantity | Unit |
|---|---|---|---|---|
| G4-EN3 | 302-1 | Direct energy consumption by primary source | 2,486 | GJ |
| | | Aviation fuel | 2,483 | GJ |
| | | Diesel | 0 | GJ |
| | | Petrol | 2 | GJ |
| G4-EN3 | 302-1 | Indirect energy consumption by primary source | 1,403 | GJ |
| | | Renewable electricity | 0 | GJ |
| | | Grid electricity | 1,403 | GJ |
| | | District cooling | 0 | GJ |
| G4-EN15 | 305-1 | Direct GHG emissions (scope 1) | 170,954 | $tCO_2e$ |
| G4-EN16 | 305-2 | Energy indirect GHG emissions (scope 2) | 157 | $tCO_2e$ |
| G4-EN17 | 305-3 | Other indirect GHG emissions (scope 3) | 66,899 | $tCO_2e$ |
| G4-EN18 | 305-4 | GHG emission per employee | 1,301 | $tCO_2e$ per employee |

(Source: South Pole, 2022)

**Table 10: GHG emissions by scope and activity for 2021**

| Activity | Emissions ($tCO_2e$) | Percentage of total (%) |
|---|---|---|
| Scope 1: direct GHG emissions | 170,954 | 72% |
| Stationary combustion | 9 | 0% |
| Mobile combustion | 170,944 | 72% |
| Refrigerants | 0 | 0% |
| Scope 2: indirect GHG emissions from purchased electricity, heating and cooling | 157 | 0% |
| Electricity | 157 | 0% |
| Heating and cooling | 0 | 0% |
| Scope 3: other indirect GHG emissions | 66,899 | 28% |
| Purchased goods and services | 9,595 | 4% |
| Capital goods | 13 | 0% |
| Fuel- and energy-related activities | 44,812 | 19% |
| Upstream transportation and distribution | 135 | 0% |
| Waste generated in operations | 0.28 | 0% |
| Business travel | 10,943 | 5% |
| Employee commuting and teleworking | 95 | 0% |
| Upstream leased assets | 1,307 | 1% |
| Total GHG emissions | 238,010 | 100% |

(Source: South Pole, 2022)

Figure 3 shows a breakdown of emissions by category. Mobile combustion and fuel- and energy-related activities represent the most important categories, corresponding to 72% and 19% of total emissions, respectively. Together, these emission categories cover 91% of XOJET Aviation's total emissions. Other relevant categories include business travel (5%) and purchased goods and services (4%).

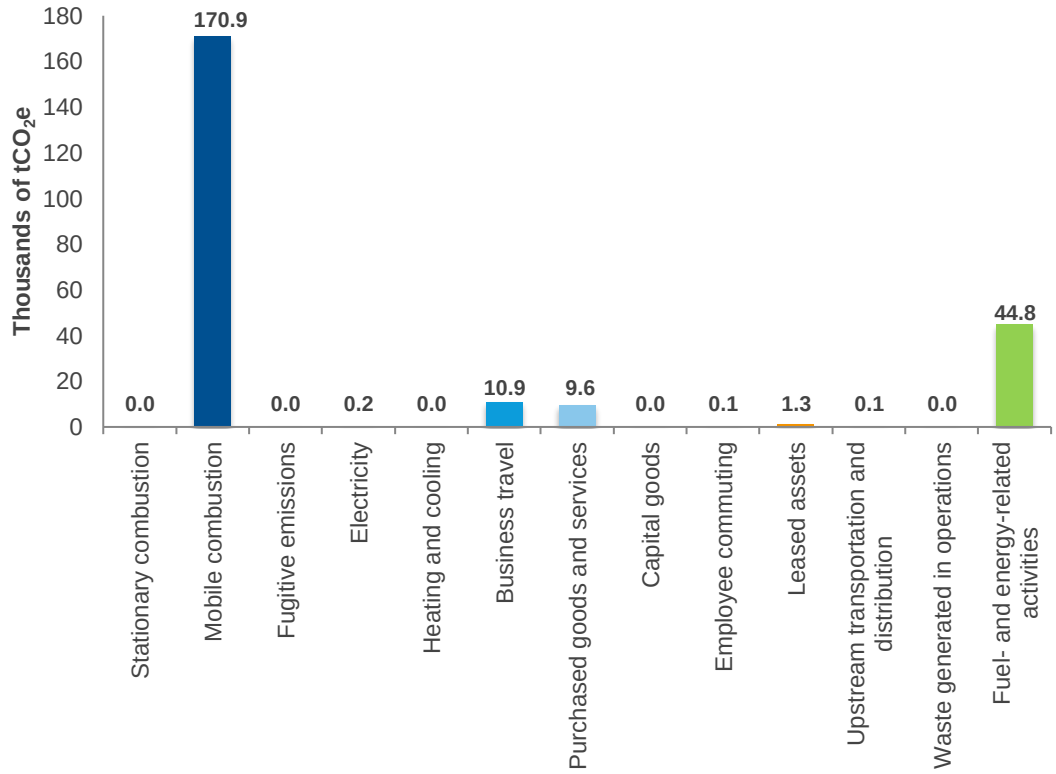


**Figure 3: GHG emissions by category for 2021**

(Source: South Pole, 2022)

Figure 4 shows the contribution of each fuel used in XOJET Aviation's operations to the energy matrix and its GHG emissions. XOJET Aviation's main emission source in 2021 is the consumption of aviation fuel (170,818 $tCO_2e$), which is reported at a corporate level.

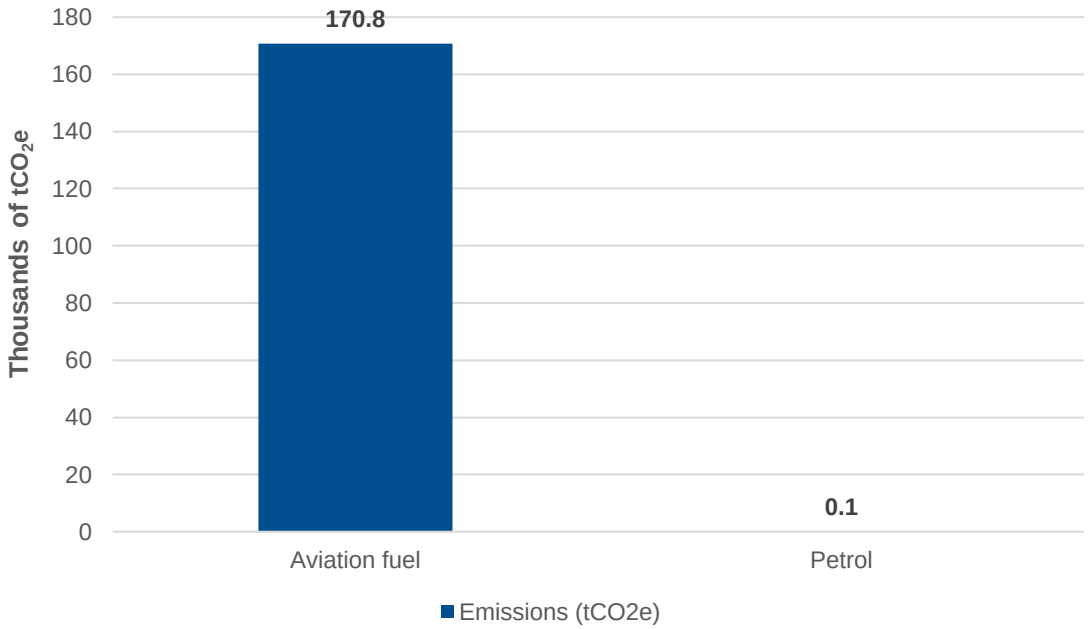


**Figure 4: GHG emissions in thousands of $tCO_2e$**

(Source: South Pole, 2022)

# 3 Conclusions and recommendations

## 3.1 Conclusions

The 2021 GHG footprint was estimated in accordance with the 'GHG Protocol'. Where activity data for the inventory was lacking, extrapolations and estimations were made, and the choice of assumptions and emission factors followed a conservative approach. It is best practice to improve the quality of the accounting from each reporting period to the next.

The main emission category is mobile combustion, due to the amount of aviation fuel used in the operations of the fleet. The second most relevant emission category is fuel- and energy-related activities, which is a result of the use of fuels and electricity consumption. The category of fuel- and energy-related activities is directly correlated with the category of mobile combustion. This means that if a reduction in aviation fuel use is achieved or a switch to a fuel with a lower carbon intensity is achieved, the reduced emissions in mobile combustion will be directly reflected in the fuel- and energy-related activities category.

## 3.2 Recommendations

For the 2022 GHG accounting estimation, XOJET Aviation should evaluate whether the following points are relevant for its sustainability strategy. Its implementation could make the data assessment process more efficient and would improve the accuracy of the GHG accounting of the company's operations.

### Scope 3 accounting improvements

Fuel- and energy-related activities, purchased goods and services and business travel are the most relevant scope 3 categories and should therefore be prioritized for the data collection in the next reporting period.

Labor costs, onboard cabin consumables and aircraft maintenance make up most of the purchased goods and services category. South Pole relied on cost-based emission factors from the Comprehensive Environmental Data Archive (CEDA) for the labor cost and aircraft maintenance. Emissions for onboard cabin consumables were extrapolated based on head counts using data from other entities which provided data for this category. Ideally, primary data on the materials of the parts should be collected to improve the accuracy of the GHG footprint. Using weights is generally much more accurate, as the emission factors based on costs include more assumptions.

# 2. Annex I

## 1. Emission factors

**Table 11: Emission factors**

| Activity | Emission factor reference[2] |
|---|---|
| Stationary combustion, mobile combustion, and fuel-related activities | BEIS, 2021. |
| Electricity and electricity-related activities | Emissions and Generation Resource Integrated Database (eGRID), 2021; Ecoinvent 3.8. |
| Business travel | CEDA, 2021. |
| Business accommodation | Cornell Hotel Sustainability Benchmarking, 2021; CEDA, 2021; CEDA, 2021. |
| Commuter travel | BEIS, 2021. |
| Teleworking | BEIS, 2021; International Energy Agency (IEA), 2021; eGRID, 2019; Anthesis, 2020. |
| Global marketing and consumables | CEDA, 2021 |
| Meal, food and drink products | CEDA, 2021; South Pole Food Database, 2021. |
| Maintenance labor and materials | CEDA, 2021. |
| Other purchased good and services | CEDA, 2021; BEIS, 2021; Ecoinvent 3.8; South Pole calculated. |
| IT equipment | Apple, 2021; Dell, 2021; South Pole calculated; Samsung, 2021; IBM, 2016; Konica Minolta, 2018. |
| Waste | BEIS, 2021. |
| Leased assets | CEDA, 2021. |

[2] South Pole derives its emission factors from reliable and credible sources. South Pole is not responsible for inaccuracies in emission factors provided by third parties.

# 3. Annex II

## 1. Data assumptions and extrapolations

### Capital goods – IT equipment

XOJET Aviation didn't provide data regarding IT equipment. Emissions were extrapolated from VistaJet's 2020 GHG accounting.

### Business travel – accommodations

XOJET Aviation didn't provide data regarding accommodation. Emissions were extrapolated based on head count using data from other entities which provided data for this category.

### Onboard cabin consumables

XOJET Aviation didn't provide data regarding global consumables on board. Emissions were extrapolated based on head count using data from other entities which provided data for this category.

# 4. Annex III

## 1. Breakdown of emissions by scope and category

**Table 12: Breakdown of XOJET Aviation's GHG emissions by scope and category in 2021**

| Activity | Consumption | Unit | Emissions ($tCO_2e$) | Percentage of total (%) |
|---|---|---|---|---|
| Scope 1: direct energy use per primary source | | | 170,954 | 72% |
| Stationary combustion | | | 9 | 0% |
| Diesel | 3 | $m^3$ | 9 | 0% |
| Mobile combustion | | | 170,944 | 72% |
| Aviation fuel | 67,116 | $m^3$ | 170,818 | 72% |
| Petrol | 14,363 | gallon | 127 | 0% |
| Refrigerant leakage | | | 0 | 0% |
| R410A | 0 | kg | 0 | 0% |
| Scope 2: indirect GHG emissions from purchased electricity, heating and cooling | | | 157 | 0% |
| Electricity | 389,830 | kWh | 157 | 0% |
| Grid | 389,830 | kWh | 157 | 0% |
| Heating and cooling | Included in electricity | - | - | - |
| District heating and cooling | Included in electricity | MWh | - | - |
| Scope 3: other indirect GHG emissions | | | 66,899 | 28% |
| Purchased goods and services | | | 9,595 | 4% |
| Paper | 1,760 | kg | 2 | 0% |
| Water | 1,215,492 | liter | 1 | 0% |
| Labor cost | 14,625,106 | USD | 3,920 | 2% |
| Maintenance | 7,020,171 | USD | 1,881 | 1% |
| Other consumables | 12,257,750 | USD | 3,240 | 1% |
| Maintenance | Extrapolation | - | 22 | 0% |
| Onboard cabin consumables | Extrapolation | - | 530 | 0% |
| Capital goods | | | 13 | 0% |
| IT equipment | Extrapolation | - | 13 | 0% |
| Fuel- and energy-related activities | | | 44,812 | 19% |
| Power generator | 3 | $m^3$ | 2 | 0% |
| Electricity grid | 389,830 | kWh | 35 | 0% |

| Activity | Consumption | Unit | Emissions ($tCO_2e$) | Percentage of total (%) |
|---|---|---|---|---|
| Aviation fuel | 67,116 | $m^3$ | 35,364 | 15% |
| Petrol E5 | 14,363 | gallon | 197 | 0% |
| Fuels | Extrapolation | - | 9,092 | 4% |
| Electricity | Extrapolation | - | 122 | 0% |
| Upstream transportation and distribution | | | 135 | 0% |
| Air | 132,583 | tkm | 135 | 0% |
| Road | 11 | tkm | 0 | 0% |
| Waste generated in operations | | | 0 | 0% |
| General | 1 | ton | 0 | 0% |
| Cardboard | 0 | ton | 0 | 0% |
| Business travel | | | 10,943 | 5% |
| Rental cars | 1,714,813 | USD | 3,478 | 1% |
| Taxi rides | 195,140 | USD | 110 | 0% |
| Accommodation | 17,362 | USD | 6 | 0% |
| Accommodation | 34,252 | occupied room | 1,792 | 1% |
| Accommodation | Extrapolation | - | 5,558 | 2% |
| Employee commuting and teleworking | | | 95 | 0% |
| Car | 66,781 | pkm | 15 | 0% |
| Public transport | 261,560 | pkm | 44 | 0% |
| Walking/cycling | 228,170 | pkm | 0 | 0% |
| Other | 0 | pkm | 0 | 0% |
| Working from home | 17,020 | person-days | 36 | 0% |
| Upstream leased assets | | | 1,307 | 1% |
| Upstream leased assets | 956,485 | USD | 781 | 0% |
| Jet rental | 410,771 | USD | 526 | 0% |
| Total GHG emissions | | | 238,010 | 100% |

(Source: South Pole, 2022)


south pole