South Pole **Climate Solutions**

Final report

2022 Greenhouse gas (GHG) accounting report

VistaJet

Reporting Period 01/01/2022 to 31/12/2022

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south pole
The Climate Company

Details

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Acronyms and abbreviations

CH_4	Methane
CO_2	Carbon dioxide
CO_2e	Carbon dioxide equivalent
GHG	Greenhouse gases
HFCs	Hydrofluorocarbons
kg	Kilogram
MWh	Megawatt hour
N_2O	Nitrous oxide
t	tonne
UNFCCC	United Nations Framework Convention on Climate Change
US	United States
WFH	Work-From-Home
GJ	Gigajoules
CEDA	Comprehensive Environmental Data Archive
BEIS	UK Department for Business, Energy & Industrial Strategy

Executive summary

This report presents the inventory of VistaJet's operational greenhouse gas (GHG) emissions for the 2022 calendar year, based on its reported data.

An operational control approach was taken for this accounting exercise, meaning emissions for all activities conducted under the control of VistaJet were calculated, using a combination of primary and extrapolated data.

A breakdown of emissions and relevant analysis is provided in this report for key sources of emissions, as per the categorisation specified in the GHG Protocol. All assumptions, data challenges, extrapolations, and limitations are described within this report and its annexes.

Based on the data provided by VistaJet, the total GHG emissions reported for the year 2022 are estimated to be **460,820.5** tonnes of carbon dioxide equivalent (tCO_2e). This represents a 17.08% increase in emissions from 2021. Scope 1 emissions from the combustion of aviation fuel was the largest contributor to the footprint, and accounted for 331,623.47 tCO_2e, 71.96% of total emissions.

Key performance indicators (KPIs) are found in Table 1, and an overview of GHG emissions by source is provided in Table 2, and Figures 1 and 2. The emissions intensity of VistaJet has decreased from 647 tCO_2e per employee in 2021 to 581.84 tCO_2e per employee in 2022, but increased from 64 tCO_2e per m2 in 2021 to 91.87 tCO_2e per m2 in 2022. Please note that, due to rounding of numbers, the figures in the tables in this report may not add up exactly to the totals provided.

Table 1: Summary of key performance indicators (KPIs)

Number of employees	792	**tCO_2e/**employee	581.84
Total area (m2)	5016	**tCO_2e/**m2	91.87

(Source: South Pole, based on VistaJet, 2023)

Table 2: GHG emissions by scope and greenhouse gas

Scope	Total (tCO_2e)	Percentage of total (%)
Scope 1: direct GHG emissions	331,818.98	72.01%
Scope 2: indirect GHG emissions (market-based)	412.03	0.09%
Dual reporting Scope 2: indirect GHG emissions (location-based[1])	301.49	-
Scope 3: other indirect GHG emissions	128,589.51	27.90%
Total GHG emissions (market-based)	460,820.52	100%

(Source: South Pole, based on VistaJet, 2023)

[1] A location-based method reflects the average emissions intensity of grids on which energy consumption occurs (using mostly grid-average emission factor data). A market-based method reflects emissions from electricity that companies have purposefully chosen (or their lack of choice): it derives emission factors from contractual instruments, which include any type of contract between two parties for the sale and purchase of energy bundled with attributes about the energy generation or for unbundled attribute claims (e.g. RECs, GOs, etc.).

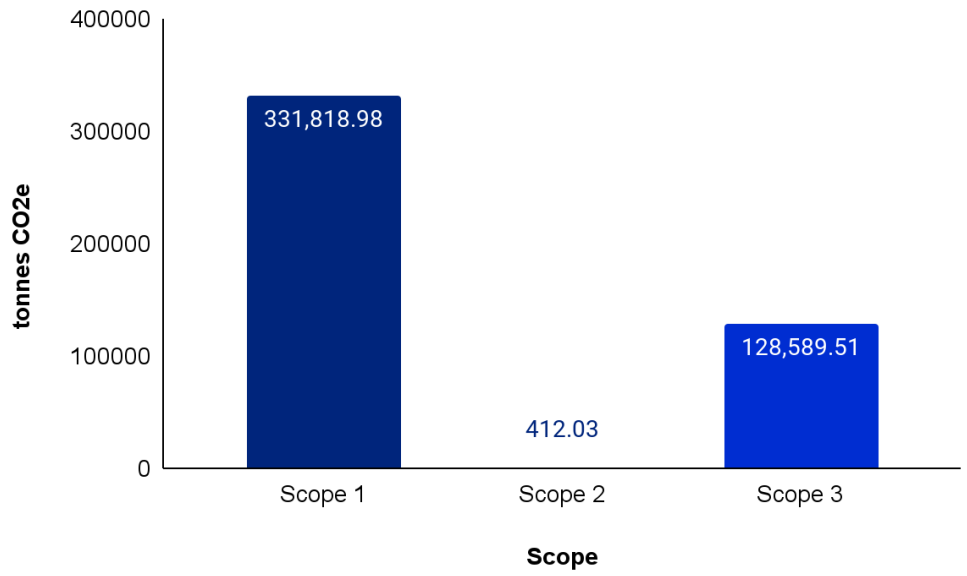

Figure 1: VistaJet's 2022 GHG emissions by scope
(Source: South Pole, based on VistaJet, 2023)

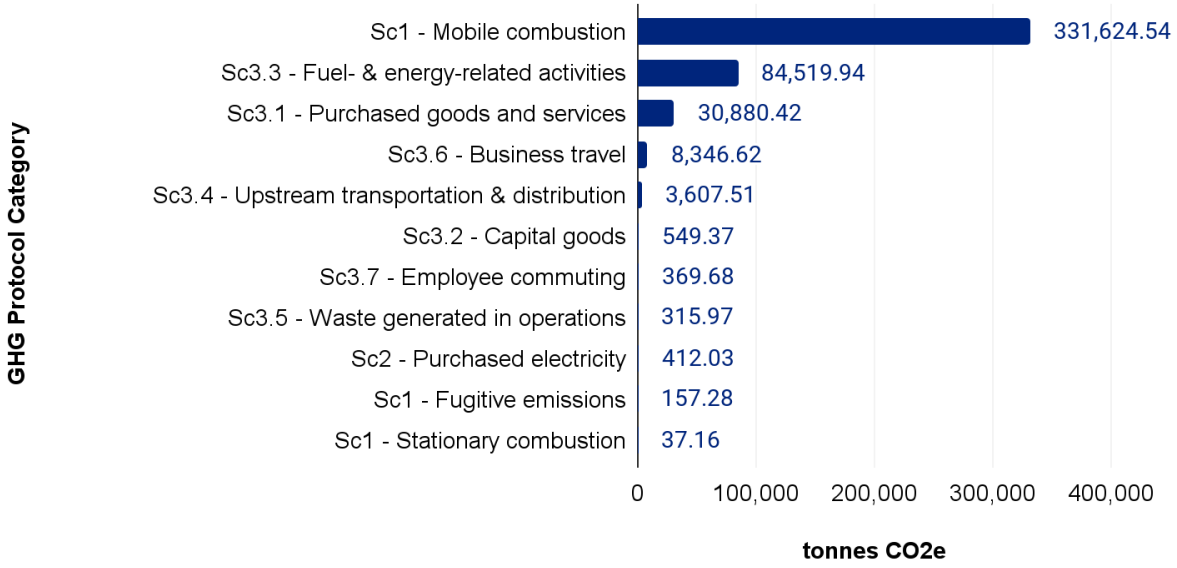

Figure 2: VistaJet's 2022 GHG emissions by GHG Protocol category
(Source: South Pole, based on VistaJet, 2023)

Introduction

Vista Global Holding Limited (Vista), the world's leading global private aviation group, has previously undertaken GHG inventories for 2019, 2020 and 2021. VistaJet was included in all three of these inventories. This report provides an account of the GHG emissions from VistaJet's global operations from 1st January 2022 to the 31st December 2022, based on reported data by the client. It includes an analysis of key sources of emissions, as well as targeted recommendations focused on data improvement and decarbonisation.

Company information and the reporting period are presented in Table 3.

Table 3: Company information

Company information	
Website	https://www.vistajet.com
Business function	Private aviation company
Reporting period	January 1 to December 31, 2022

(Source: South Pole, based on VistaJet, 2023)

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 partnership between the World Resources Institute and the World Business Council for Sustainable Development.

All accounting is 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 documented changes to the data;
- **Transparency:** guaranteeing data inventory sufficiency and clarity, where relevant issues are addressed in a coherent manner; and
- **Accuracy:** minimising uncertainty and avoiding systematic over- or under-quantification of GHG emissions.

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 at 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 (UNFCCC) and Kyoto Protocol, as presented in Table 4. These are the GWP used by the United Kingdom Department for Business, Energy and Industrial Strategy (BEIS) and are based on the 'Intergovernmental Panel on Climate Change (IPCC) Fifth Assessment Report (AR5), unless otherwise stated.

Table 4: Applied global warming potentials (GWPs)

GHG	GWP (100 years)
Carbon dioxide (CO_2)	1
Methane (CH_4)	28
Nitrous oxide (N_2O)	265
Hydrofluorocarbons (HFCs)	See IPCC AR5
Perfluorocarbons (PFCs)	See IPCC AR5
Refrigerants	See IPCC AR5

(Source: IPCC AR5, 2014)

System Boundaries

Organisational boundaries

VistaJet's GHG inventory follows the operational control approach, in accordance with the GHG Protocol. Under the operational control approach, a company accounts for 100% of emissions from operations over which it or one of its subsidiaries has operational control. This GHG inventory covers all activity from the VistaJet offices listed in table 5. It also includes activities carried out by third parties that partially conduct activities for VistaJet.

Table 5 shows the countries and offices that were included in the 2022 GHG inventory.

Table 5: Key figures for VistaJet's sites

Site location	Type of facility	Area (m^2)	Headcount
VistaJet London	Office	975	183
VistaJet Hong Kong	Office	443	35
VistaJet New York	Office	650	50
VistaJet Farnborough	Office	131	12
VistaJet Malta	Office	2,200	409
VistaJet Malta Maintenance (Part 145)	Office	110	6
VistaJet Dubai	Office	212	61
VistaJet Beijing	Office	6	2
VistaJet Fort Lauderdale	Office	288	34
Total	-	5016	792

(Source: South Pole, based on VistaJet, 2023)

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 result 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 emissions are all carbon emissions originating from sources that are directly managed by the organisation (direct GHG emissions). This includes the emissions from the combustion of fossil fuels in mobile and stationary sources (e.g. owned or controlled aircrafts, 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 6 (below) gives an overview of the emission sources considered in scope 1, based on the information provided by VistaJet.

Table 6: Overview of scope 1 emission sources for 2022

Category	Emission sources	Boundary and justification for exclusion
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
Fugitive emissions	Emissions from the use of cooling systems and AC equipment, leakage from CO_2 tanks or methane tubes	Included

Scope 2

Scope 2 includes indirect GHG emissions from the generation of purchased electricity, steam, heat or cooling purchased by the organisation from external energy providers.

As required by the GHG Protocol, Scope 2 emissions are reported using both the location-based method and the market-based method[2]. This dual reporting allows corporations to compare their individual purchasing decisions to the overall GHG-intensity of the grids on which they operate.

[2] A location-based method reflects the average emissions intensity of grids on which energy consumption occurs (using mostly grid-average emission factor data). A market-based method reflects emissions from electricity that companies have purposefully chosen (or their lack of choice): it derives emission factors from contractual instruments, which include any type of contract between two parties for the sale and purchase of energy bundled with attributes about the energy generation for unbundled attribute claims (e.g. RECs, GOs, etc.).

The market-based method reflects emissions that result from electricity purchases that the company has purposefully chosen. When a contract is set up for the sale of electricity and the origin of energy generation can be guaranteed, then those specific and relevant emissions factors can be applied. The location-based method applies average emission factors that correspond to the grid where consumption occurs. The default method applied to VistaJet reporting is market-based; location-based results are shown for completeness and transparency.

Table 7 presents an overview of the emission sources considered in scope 2.

Table 7: Overview of scope 2 emission sources for 2022

Category	Emission sources	Boundary
Electricity	Purchased electricity	Included
Steam	Purchased steam	Not applicable
District heating	Purchased heating	Not applicable
District cooling	Purchased district cooling	Not applicable

Scope 3

Scope 3 includes other indirect emissions, such as emissions from the extraction and production of purchased materials and services, vehicles not owned or controlled by the reporting entity, outsourced activities, or waste disposal.

According to the 'GHG Protocol', companies shall separately account for and report for emissions from Scope 1 and 2. Scope 3 is an optional reporting category according to the 'GHG Protocol', but as it is the most important scope for many organisations, companies are expected to assess at least the most relevant categories. In addition, it is best practice to include scope 3 emissions and it is a requirement for setting science-based targets (SBTs).

Table 8 presents an overview of the emission sources considered in Scope 3.

Table 8: Overview of scope 3 emission sources for 2022

Category	Emission sources	Boundary
Purchased goods and services	Purchased goods (raw materials) and services	Included
Capital goods	Production of capital goods (information technology [IT] equipment, machinery, buildings etc.)	Included
Fuel- and energy-related activities	Emissions from fuel and electricity generation, including transmission and distribution (T&D) losses	Included
Upstream transportation and distribution	Transportation and distribution of goods and services purchased by the reporting company	Included

Category	Emission sources	Boundary
Waste generated in operations	Waste management of operational waste (landfilling, recycling, etc.)	Included
Business travel	Travel and accommodation of employees/contractors	Included
Employee commuting and teleworking	Employee travel between home and work and incremental emissions related to working from home	Included
Upstream leased assets	Operation of assets leased by the organisation (lessee) in the reporting year and not included in scope 1 or 2	Not material. Not included
Downstream transportation and distribution	Transportation and distribution of products not purchased by the reporting company	Not material. Not included
Processing of sold products	Processing of intermediate products sold by the organisation	Not material. Not included
Use of sold products	Emissions from the use of sold products (e.g. energy consumption during use)	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
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

Data inventory and assumptions

Overall, the data inventory, emission factors, and assumptions are based on the 'GHG Protocol'. Unless otherwise specified, all emission values in this report are given in metric tonnes 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 summarised in Annex II. Whilst every effort has been made to calculate emissions as accurately as possible, GHG emissions calculations carry an inherent level of limitation and uncertainty. As standard practice and in line with the GHG Protocol, the choice of assumptions and emission factors followed a conservative approach.

The quality of activity data provided for a GHG inventory has a significant impact on the reliability and accuracy of emissions calculations. Primary activity data, such as the kWh of electricity purchased within a reporting year, yields to the highest quality calculations. Spend based data, which relies on a far greater number of assumptions, results in the least accurate.

Results

Based on the data provided by VistaJet, the total GHG emissions for the year 2022 are estimated to be **460,820.52 tCO_2e.** Table's 9 and 10 below illustrate the key figures in terms of GHG emissions (in tCO_2e) and energy intensity (in gigajoules [GJ]) relevant to corporate sustainability reporting, in accordance with the GRI Standards. Please note that, due to rounding of numbers, the figures may not add up exactly to the total provided.

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

GRI Standard		Topic	Quantity	Unit
302-1	e	Energy consumption within the organisation	4,641,590.54	GJ
	a	Total fuel consumption from non-renewable sources	4,638,818.16	GJ
		Aviation fuel	4,638,093.33	GJ
		Natural gas	724.83	GJ
	b	Total fuel consumption from renewable sources	77.81	GJ
	c	Total electricity consumption	2,772.38	GJ
305-1	a	Direct GHG emissions (scope 1)	331,818.98	tCO_2e
305-2	a	Location-based energy indirect GHG emissions (scope 2)	301.49	tCO_2e
	b	Market-based energy indirect GHG emissions (scope 2)	412.03	tCO_2e
305-3	a	Other indirect GHG emissions (scope 3)	128,589.51	tCO_2e
302-4		GHG emissions intensity	581.84	tCO_2e/ employee

(Source: South Pole, based on VistaJet data, 2023)

Table 10: GHG emissions by scope and activity for 2022

Activity	Consumption	Unit	Emissions (tCO_2e)	Percentage of total (%)
Scope 1: direct GHG emissions			331,818.98	72.01%
Stationary combustion			37.16	0.01%
Diesel	294.65	litre	0.75	0.0%
Natural gas	2,214.00	ccf	36.40	0.0%
	132,031.36	kWh	412.03	0.1%
Mobile combustion			331,624.54	71.96%
Aviation fuel	36,152,121.00	gal	331,623.67	71.96%
Sustainable aviation fuel	1,818.00	kg	0.87	0.00%
Fugitive emissions			157.28	0.03%
Refrigerants	75.13	kg	156.87	0.03%
	3,384.00	m2	0.41	0.00%
Scope 2: indirect GHG emissions from purchased electricity, heating and cooling (market-based)			412.03	0.09%
Purchased Electricity			412.03	0.09%
Grid	770,056.00	kWh	412.03	0.09%
Renewable	49.00	kWh	0.00	0.00%
Scope 3: other indirect GHG emissions			128,589.51	27.90%
Category 1: Purchased goods and services			30,880.42	6.70%
Flight-related	205,548.00	Euro	16.27	0.00%
	101,954,516.00	USD	30,863.57	6.70%
Non flight-related	102.42	kg	0.16	0.00%
	2,258.24	m3	0.34	0.00%
	31.00	sheets	0.00	0.00%
	178.00	units	0.09	0.00%
Category 2: Capital goods			549.37	0.12%
Non-flight related	1,623.00	units	549.37	0.12%
Category 3: Fuel- and energy-related activities			84,519.94	18.34%
Aviation fuel	36,152,121.00	gal	84,413.30	18.32%
Sustainable aviation fuel	1,818	litre	00.22	0.00%
Grid (electricity)	770,056.00	kWh	99.54	0.02%
Natural gas	2,214.00	ccf	2.15	0.00%
	132,031.36	kWh	4.55	0.00%

Activity	Consumption	Unit	Emissions (tCO_2e)	Percentage of total (%)
Renewable (electricity)	49.00	kWh	0.00	0.00%
Diesel	294.65	kg	0.18	0.00%
Category 4: Upstream transportation and distribution			3,607.51	0.78%
Air transportation	25,733.00	GBP	138.34	0.03%
	567.52	tkm	1.16	0.00%
	1,036.05	USD	2.00	0.00%
Ground transportation	17,786.00	GBP	9.98	0.00%
	5,114.15	tkm	1.40	0.00%
	5,130,574.00	USD	3,454.42	0.75%
Sea transportation	10,315.72	tkm	0.21	0.00%
Category 5: Waste generated in operations			315.97	0.07%
Commercial and industrial waste	213.81	ton	92.08	0.02%
Glass	174.72	ton	4.32	0.00%
Oil waste	244.89	ton	5.21	0.00%
Paper/Cardboard	268.86	ton	214.35	0.05%
Category 6: Business travel			8,346.62	1.81%
Accommodation	116,323.00	nights	2,026.00	0.44%
Air travel	48,243,337.00	miles	5,644.47	1.22%
Ground transportation	28,801.48	AED	12.39	0.00%
	266.16	CHT	0.13	0.00%
	1,182,773.94	EUR	576.72	0.13%
	36,997.28	GBP	21.50	0.00%
	11,150.58	HKD	0.61	0.00%
	16,820.00	km	3.80	0.00%
	2,667.00	rental days	61.00	0.01%
Category 7: Employee commuting			369.68	0.08%
Car	1,061,188.02	km	232.75	0.05%
Other	85,805.11	km	17.33	0.00%
Public transport	546,447.99	pkm	45.31	0.01%
Teleworking	46,435.00	person days	74.28	0.02%
Walk	249,946.66	pkm	0.00	0.00%
Total GHG emissions (location-based)			460,707.43	-
Total GHG emissions (market-based)			460,820.52	100%

(Source: South Pole, based on VistaJet, 2023)

Overall results - Vista

Figure 3 presents a breakdown of Vista's GHG emissions for each of its eight business units. In 2022 VistaJet had the highest GHG footprint of all eight global entities, at 460,820.52, tCO_2e, accounting for 31.8% of the overall global footprint.

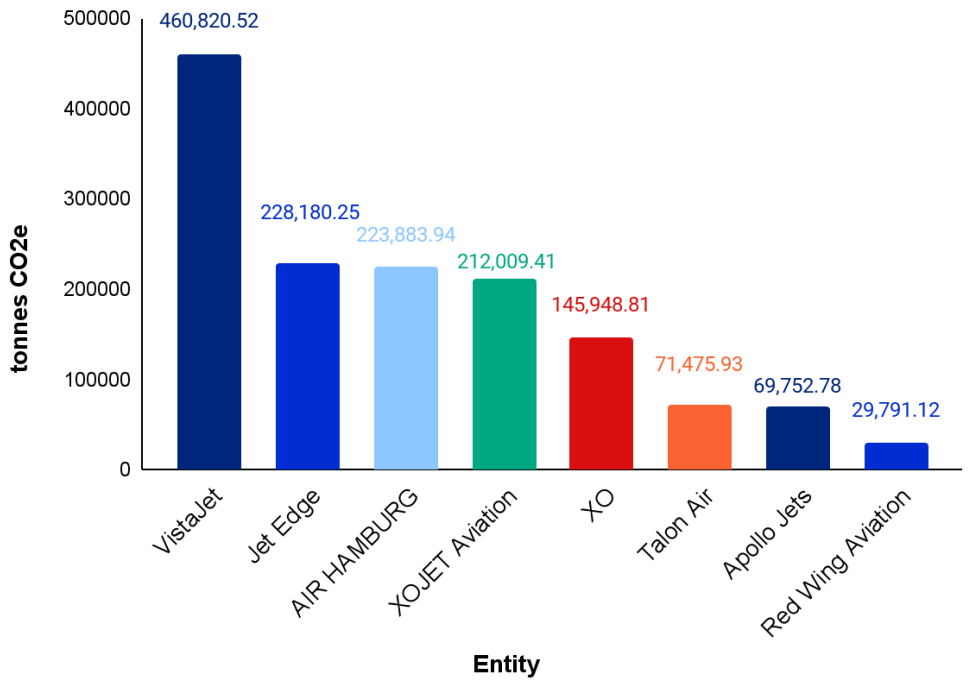

Figure 3: Vista overall 2022 GHG emissions by business entity
(Source: South Pole, based on VistaJet 2023)

Site-level results

Figure 4 presents a breakdown of emissions for each of VistaJet's 9 sites. Over 99% of emissions fall under VistaJet's global operations in this GHG inventory. This is partly because scope 1 and scope 3 (Category 3) emissions from aviation fuel fall under VistaJet's global operations, but also because a significant quantity of scope 3 data for business travel, upstream transportation and distribution, and purchased goods and services have been provided at the entity ('VistaJet') level rather than site level for this inventory.

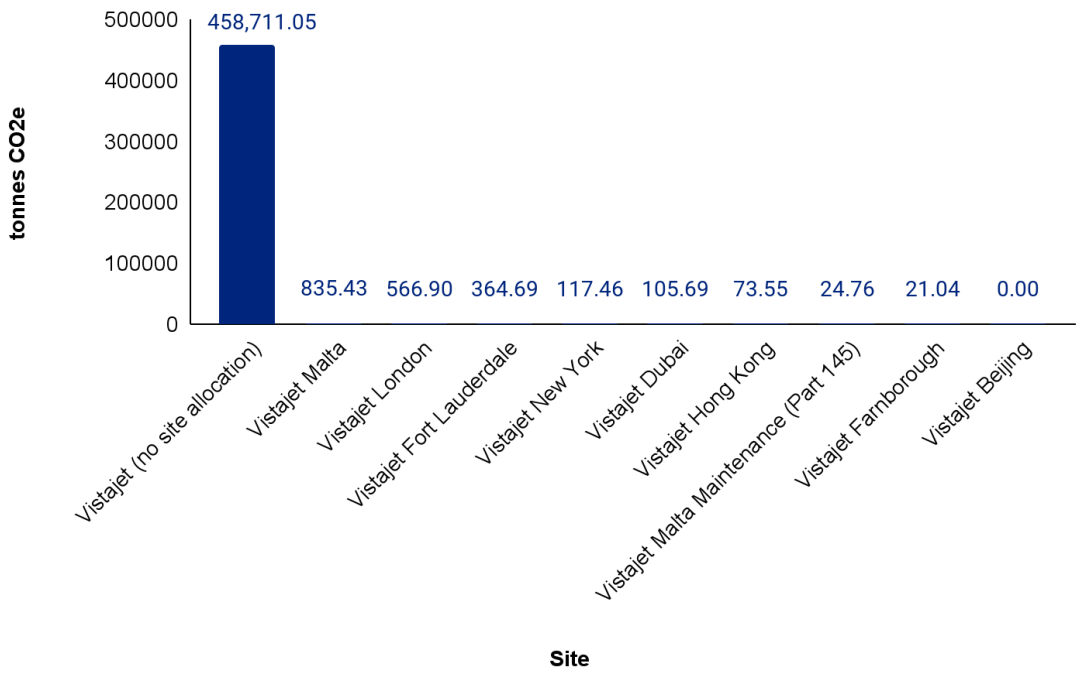

Figure 4: VistaJet's 2022 GHG emissions by site
(Source: South Pole, based on VistaJet, 2023)

Category-level results

Figure 5 presents a breakdown of VistaJet's overall 2022 emissions by scope. The vast majority of emissions - 72.01% - fall under Scope 1. This is largely driven by emissions associated with the burning of aviation fuel, which accounts for over 99% of the Scope 1 footprint. 27.09% of emissions fall under Scope 3, and this is mostly driven by upstream emissions from aviation fuel (in category 3, fuel and energy related activities), as well as purchased goods and services (mostly for aircraft maintenance) and flight-related business travel. Scope 2 emissions account for a tiny proportion of the overall footprint, and all come from the purchasing of electricity.

Figure 6 further provides a breakdown of emissions by GHG Protocol category. Mobile combustion is the largest source of emissions, accounting for 71.96% of the overall footprint.

The upstream scope 3 emissions associated with burning aviation fuel - which are accounted for under *Category 3 - Fuel and energy related activities* is the second largest source of emissions, and specifically accounts for 18.32% of the 2022 footprint. Overall, aviation fuel is therefore responsible for 90.28% of the total emissions for 2022. This is illustrated in figure 7, which compares overall scope 1 and 3 aviation fuel emissions and all other emissions.

Purchased goods and services and business travel are the third and fourth highest sources of emissions, accounting for 6.70% and 1.81% of the total footprint respectively.

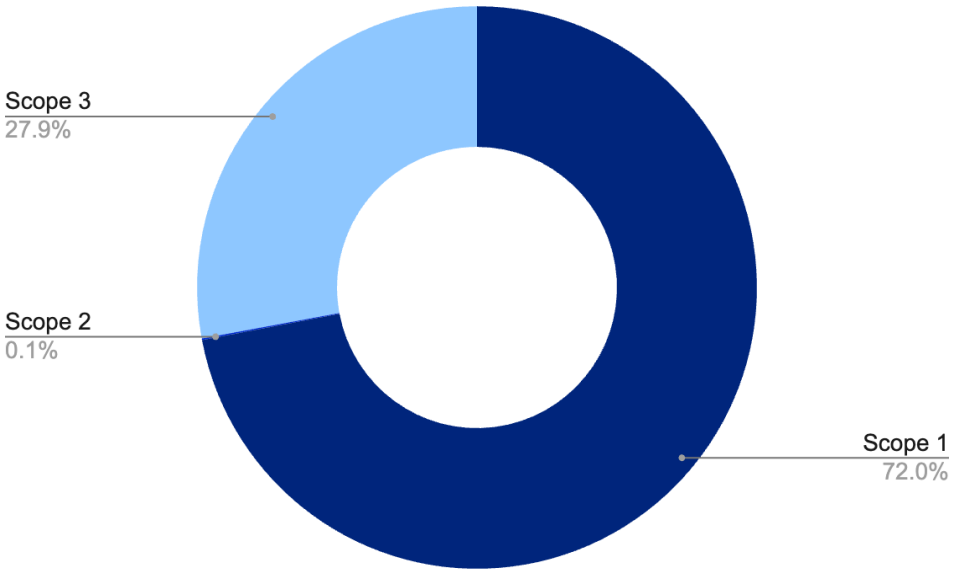

Figure 5: VistaJet's 2022 GHG emissions by scope
(Source: South Pole, based on VistaJet, 2023)

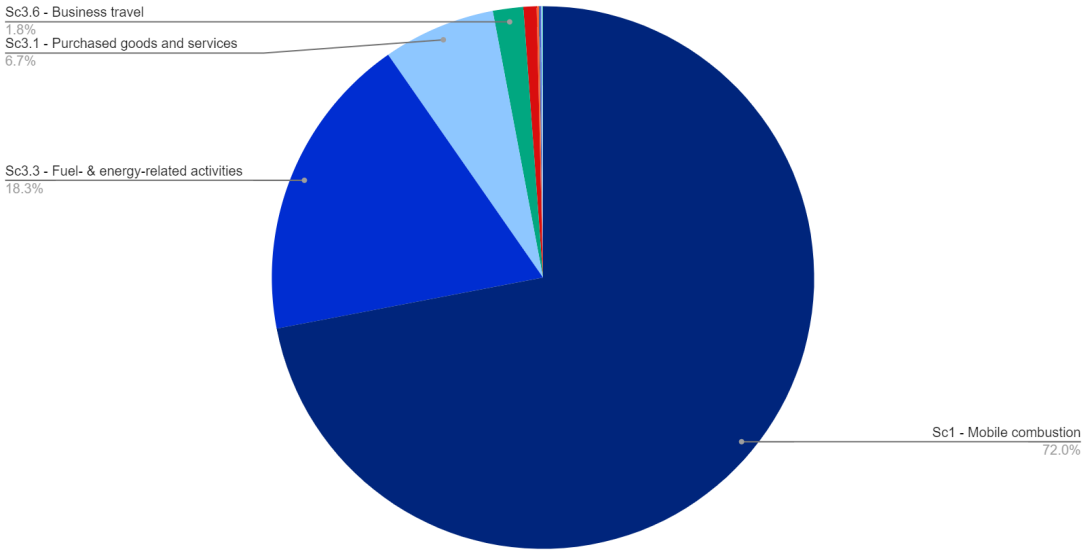

Figure 6: VistaJet's 2022 GHG emissions by GHG Protocol category
(Source: South Pole, based on VistaJet, 2023)

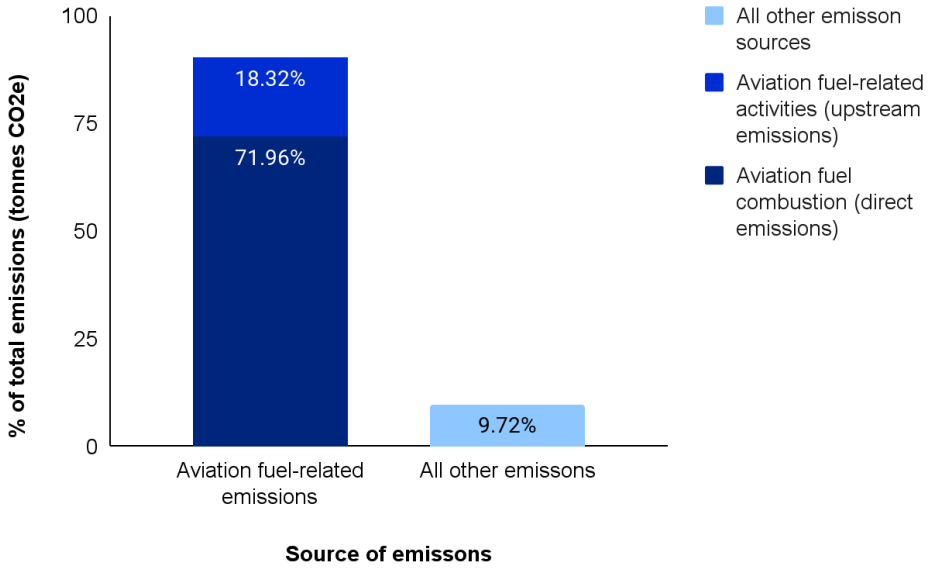

Figure 7: Comparison of VistaJet's aviation fuel emissions and all other emissions
(Source: South Pole, based on VistaJet, 2023)

Figure 8 presents a comparison of VistaJet's GHG inventories from 2019-2022. The overall pattern of emissions is consistent across years, with scope 1 emissions (from aviation fuel) dominating the footprint, and very little occurring at the scope 2 level.

From 2021 to 2022 emissions have increased by 67,240.52 tCO_2e, or 17.08%. This was predominantly driven by a 56,106.49 tCO_2e rise in scope 1 and scope 3 emissions from the combustion of aviation fuel, as illustrated in Figure 9. This increase relates to a large rise in the consumption of aviation fuel in 2022.

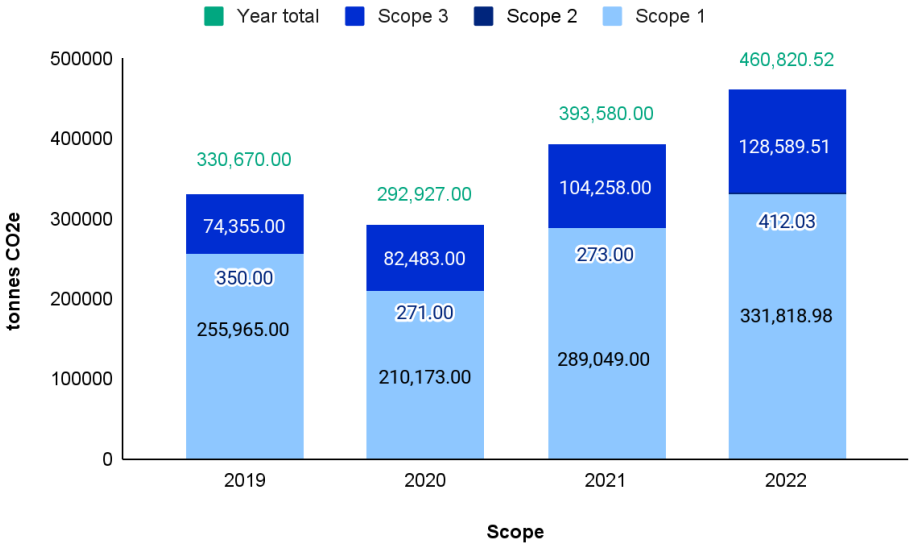

Figure 8: VistaJet's GHG emissions from 2019-2022 by scope
(Source: South Pole, based on VistaJet, 2023)

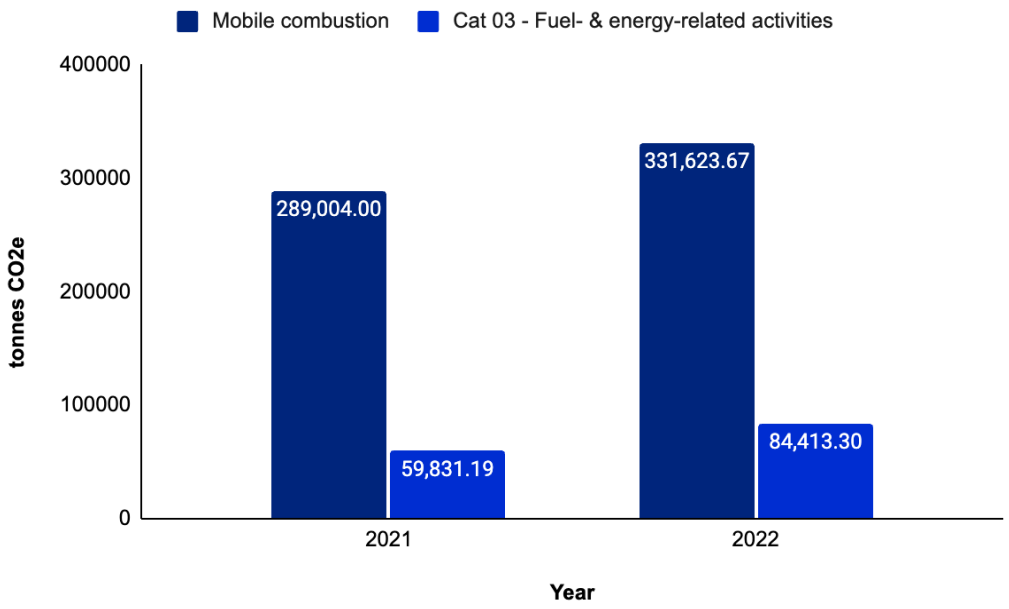

Figure 9: VistaJet's emissions from aviation fuel from 2021-2022
(Source: South Pole, based on VistaJet, 2023)

Conclusions

The annual measurement of GHG emissions is an essential first step that organisations must take on their journey to mitigating climate impact.

This report has presented a summary of VistaJet's 2022 GHG footprint. As with previous years, the mobile combustion of aviation fuel is the primary driver of emissions. In 2022, emissions were higher than in 2021, reflecting an increased use of aviation fuel that stems from general year-on-year growth of business operations.

It is important that VistaJet takes steps to continue improving the quality and accuracy of its GHG footprint, and implements measures to decarbonise its operations. Glasgow's COP26 and the 2021 IPCC report shone a spotlight on the critical need to achieve Net Zero emissions to keep global warming within the 1.5 degree limit. Private aviation is a highly emissions intensive industry, and VistaJet has an important role to play in this transition.

In order to improve the quality of the GHG footprint, the following courses of action are recommended:

- **Collect primary activity data:** VistaJet can improve data quality by collecting primary consumption data as activity volumes for all sources of emissions. This allows for far more accurate and reliable GHG calculations than spend-based data.
- **Continue establishing formalised data collection procedures:** Formalised data collection procedures, with internal quality controls, supplier communication, assigned roles, and clear frameworks allow for a more streamlined data collection processes and limits the risk of missed data.
- **Review data assumptions in Annex 2:** Annex 2 in this document provides a more granular breakdown of key data assumptions. Treat these as priority emission sources to act on and improve data collection procedures for.

The following next steps are recommended for VistaJet to continue on its decarbonisation journey.

- **Prioritise investment in and uptake of Sustainable Aviation Fuel (SAF):** The 2022 GHG footprint re-emphasised the role of aviation fuel in VistaJet's footprint. Decarbonising fuel, for instance by switching to SAF, should be an absolute priority for VistaJet to act on its climate ambitions.
- **Set science based targets with SBTi:** The Science Based Targets initiative drives ambitious climate action in the private sector by enabling companies to set science-based emissions targets. VistaJet should demonstrate its commitment to sustainability in the aviation sector, and cement its position as a sector leader, by setting targets with SBTi.

Annex I

Emission factors sources

Table 11: Emission factors sources

Activity	Emission factor reference[3]
Fuels (stationary and mobile combustion) and fuel-related activities	BEIS, 2022, SBTi Aviation Tool 2.0
Electricity and electricity related activities	BEIS, 2022; eGRID, 2021; AIB 2022, Ecoinvent v3.9.1; IPCC, 2014
Refrigerants	ADEME 2022; BC V8.8
Business travel	BEIS, 2022; CEDA, 2022
Business accommodation	Emissions calculated by VistaJet
Commuter travel	BEIS 2022
Teleworking	IEA energy indicators 2022; Anthesis, 2020; BEIS 2022; eGRID, 2021; SP custom EF's
Purchased goods and services (consumables, food and drink products, aircraft maintenance)	CEDA, 2022; Agribalyse, 2021; BEIS, 2022
IT devices	Apple, 2022; Dell, 2022; Cisco, 2013; BEIS, 2022
IT services	CEDA, 2022
Waste	BEIS, 2022
Freight	BEIS, 2022; CEDA, 2022

[3] 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.

Annex II

Data assumptions and extrapolations

Table 12: Data assumptions and extrapolations

Category	Sub-Category	Relevant sites	Assumption
Stationary heating	Heating	London, Hong Kong, Malta	Emissions from heating consumption were estimated based on average sectoral heat intensity metrics for office spaces. Sites with an all-year hot climate were excluded from estimations. Heating method was assumed to be natural gas.
Fugitive emissions	Refrigerants	All except London	Emissions from refrigerant leakage were estimated based on average sectoral consumption values and applied to VistaJet sites based on total site area.
Purchased Heat	Heating	London, Hong Kong, Malta	Emissions from heating were estimated based on average sectoral heat intensity metrics for office spaces. Sites with an all-year hot climate were excluded from estimations.
Purchased goods and services	Water supply	Hong Kong, London, Beijing, Fort Lauderdale	Emissions from water supply were estimated based on figures for country/regional level water consumption and extrapolated based on site headcount.
Fuel and energy related activities	Heating	London, Hong Kong, Malta	Upstream emissions from heating consumption were estimated based on average sectoral heat intensity metrics for office spaces. Sites with an all-year hot climate were excluded from estimations. Heating method was assumed to be natural gas.
Waste generated in operations	Solid waste	Hong Kong, New York, Farnborough, Malta, Malta Maintenance (Pard 145), Dubai	Emissions from solid waste generation were estimated based on country/regional figures for waste consumption, waste type and waste disposal, and applied to each site based on the area (m2).
Business travel	All	All	When applicable, Scope 3 emissions include Well-to-tank (WTT) emissions, which are those associated with the upstream production and distribution of the fuel and energy.
Business travel	Flights	All	Flight emissions include a radiative forcing index (RFI) multiplier of 1.9, which accounts for the effects of non-CO2 emissions (contrails, water vapour, nitrogen oxides and soot). This is in line with BEIS recommendations, which are informed by wider industry research.
Employee commuting	Teleworking	All sites other than Beijing	Teleworking emissions were estimated based on country and regional electricity and heating consumption for employees working from home, and

			applied to sites based on headcount.
Employee commuting	Travel	All sites other than Beijing	Employee travel emissions were estimated based on country and regional travel data for modes of commuter transport and applied to sites based on headcount.


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