VistaJet

2023 TCFD Report

south pole
The Climate Company

VISTAJET

Details

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Acronyms and abbreviations

AEG	Associated Energy Group
BAU	Business-as-usual
CO_2	Carbon Dioxide
CO_2e	Carbon Dioxide Equivalent
CORSIA	Carbon Offsetting and Reduction Scheme for International Aviation
EPA	Environmental Protection Agency
ETS	Emissions Trading Scheme
EU	European Union
EXCO	Executive Committee
FDM	Flight Data Monitoring
FSB	Financial Stability Board
GHG	Greenhouse Gas
MRA	Malta Resources Authority
NZ	net zero
RCP	Representative Concentration Pathway
R&O	risks and opportunities
SAF	Sustainable Aviation Fuel
SAG	Safety Action Group
SDS	Sustainable Development Scenario
SRB	Safety Review Board
SSP	Shared Socioeconomic Pathways
TCFD	Taskforce on Climate-related Financial Disclosures
US	United States

01 Introduction

In 2023, VistaJet continued with its sustainability and climate resilience efforts, summarised and presented in its third Task Force on Climate-related Financial Disclosures (TCFD) Report. The third report includes analysis based on new climate scenarios and an updated analysis of the current climate landscape. The first and only global private aviation company, flying to 187 countries and with a Members' fleet of over 360 aircraft, VistaJet remains committed to better understanding its climate risks and opportunities, integrating these into its strategy, and increasing resilience to the future challenges presented by climate change.

Mark Carney and Michael Bloomberg played a key role in establishing the TCFD framework in 2017 by the Financial Stability Board (FSB). The aim of the FSB was to assist companies in effectively communicating climate-related information across every sector and market. Currently supported by over 4000 stakeholders, this framework relies on four key pillars: governance, strategy, risk management, and metrics and targets.

The first section of this report introduces the Governance structures that focus on identifying and managing climate-related topics across the company, followed by the Strategy section which lays out how climate risks and opportunities are identified, analysed and addressed strategically. The third section of the report describes the Risk Management processes by which VistaJet assesses and integrates climate-related risks and opportunities into its internal risk management systems. In the final section, VistaJet's Metrics and Targets are presented, including the greenhouse gas (GHG) emissions calculated for 2022, and the initiatives in place to reduce emissions and increase resilience to climate risks.

02 Governance

Vista level governance structure is attributed to each individual company within the Vista group, including VistaJet. The Executive Committee (EXCO), the Chief Sustainability Officer representing the Sustainability Department, the Safety Review Board (SRB) and the Safety Action Group (SAG) are the main bodies in Vista's climate governance structure with the ultimate responsibility for overseeing climate-related issues falling on the Executive Committee (EXCO), which is in charge of shaping Vista's strategy, from creating opportunities for customers to offset their emissions, to investing in sustainable aviation fuels. The EXCO monitors risks and opportunities, including those related to climate change (e.g., changes in carbon pricing regulations) and approves Vista's climate strategy and targets.

The Sustainability Department reports to the Chief Sustainability Officer and is responsible for implementing and monitoring Vista's climate strategy and targets and developing the GHG accounting and TCFD report, supported by an external consultancy.

In 2023, Vista is further working on integrating sustainability issues into its governance structure, by introducing the role of a Chief Sustainability Officer, with the existing overall governance structure undergoing changes with the goal of achieving further improvements.

The Safety Review Board involves functional or senior management and has the objective of providing a forum to discuss safety issues. The SRB meets at least twice per year. The Safety Action Group reports to and takes strategic direction from the SRB. The composition of the SAG varies based on the process under analysis, but meetings are always attended by members of the Safety Department and by personnel with expertise in the relevant areas. The SAG meets quarterly or more often if deemed necessary.

The Sustainability Department oversees the development of the yearly GHG accounting and TCFD reports and overall sustainability reporting, as well as the implementation and monitoring of VistaJet's climate strategy and targets. The diagram below summarises how these departments are structured.

Figure 1. Vista's sustainability governance structure

03 Strategy

Following TCFD guidance, VistaJet assessed two types of climate risks and opportunities (R&O): physical and transition. Physical R&O are defined as those that affect companies due to changes in the climate, for example more frequent and/or intense heatwaves, extreme rainfall events, and flooding. The impact of physical risks can translate into operational interruptions and delays as well as damage to infrastructure and aircraft. Transition R&O, meanwhile, are associated with the economic and policy shifts necessary to mitigate climate change and transition to a low-carbon economy, such as regulatory and policy changes, and technological advancements. The impact of transition risks can be translated into increased costs of investment in green technologies, while opportunities can be harnessed in the form of enhanced reputation and consumer confidence due to strong sustainable offerings.

VistaJet is analysing climate related-risk and opportunities for the short, medium and long-term. The time horizons are defined as follows:

- Short: Current day (baseline)
- Medium: 2030
- Long term: 2050

3.1 Physical risks

The analysis focused on the company's strategic locations, including 31 airports representing 50% of legs flown in the year 2022, as well as key assets considered important from an operational perspective (for example, offices, training and maintenance facilities). Future exposure to physical risks was evaluated by assessing the future changes as projected under a high emissions scenario typically referred to as a 4°C scenario[1]. Under this scenario, GHG emissions continue rising until the end of the century, with little mitigation efforts. As a result, physical risks become more severe, intense, and/or frequent, with the exact magnitude of the change depending on the region and risk.

A qualitative rating was assigned to each physical risk, varying from very low to very high, according to its projected degree of change from historical conditions until a medium-term (2030) and a long-term (2050 onwards) time horizon.

VistaJet applied the following process to identify key risks. Current day exposure was estimated based on a record of historical events that were deemed as being financially material. The physical risks screening included these hazards as well as others (see below) which had affected other Vista companies, to better understand all possible physical risks that VistaJet may face.

In line with the analysis of other members of the Vista group, VistaJet analysed the physical risks to which group companies had reported the highest impacts based on historical records, complemented by physical risks that sector publications consider key risks.

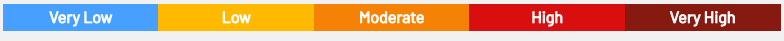
The physical risks selected for the analysis were: extreme temperatures, storms and tropical cyclones, riverine and coastal flooding, extreme rainfall, thunderstorms and hail, frost, snowfall, high winds, and clear-air turbulence.

The key impacts of these hazards as well as the risk rating based on the results of the climate scenario analysis are shown in the table below.

[1] 4°C refers to the temperature change by the end of the century compared to preindustrial levels. The correct scientific name for the scenarios are Representative Concentration Pathway (RCP) 8.5 or the new Shared Socioeconomic Pathway (SSP) 5-8.5

Table 1. Summary of the selected physical risks, and their potential impacts and risk levels under two time horizons under a 4°C scenario.

Hazard	High-level impact	2030	2050
Extreme temperatures	Extreme temperatures can affect VistaJet's operations by decreasing an aircraft payload capacity as well as potentially causing delays in takeoff and landing due to melting runways. Airports in Malta, Spain, Italy and Hong Kong, and offices in Florida, New York, Malta, and Hong Kong are projected to have the largest increases in annual maximum temperatures and hot days		
Riverine flooding	Flooding caused by the overflowing of rivers can lead to operational interruptions and road closures. Airports in New York and Barcelona are projected to have the highest inundation height		
Coastal flooding	Coastal flooding can lead to operational interruptions and road closures. Airports in Amsterdam and Hong Kong are projected to have the highest inundation height		
Extreme rainfall	Extreme precipitation can impact VistaJet's operations by causing flooding and potentially causing interruption of operations and closure of roads nearby airports. Airports in Kuwait, Qatar, Saudi Arabia, United Arab Emirates, and Malaysia and the offices in Dubai, Hong Kong, and New York are projected to have the highest increases in extreme rainfall amount over one day and five consecutive days		
Thunderstorms	Thunderstorms and lighting strikes can damage aircraft. Airports located in North America and East Asia are projected to have the biggest increases in the long term		
Storms and tropical cyclones	Storms can affect aircraft take-off, cause delays and cancellations, or even a total interruption of ground operations. Severe storms can cause damage to office and airport infrastructure, increasing operational costs. Airports located in the Western Pacific are projected to experience increases in storm strength.		
Frost	Frost can damage aircrafts. Decreases in cold days were found in all locations.		
Extreme snowfall	Extreme snowfall can cause damage to aircraft, as well as operational delays by interrupting takeoff and landing. Decreases in heavy snowfall days were found in all locations.		
High winds	High winds can affect take-off and landing, cause delays, or even total interruption of operations, as well as aircraft damage. No changes in the highest and the average wind speeds were found at the locations.		
Clear air turbulence	Sudden severe turbulence can harm crew and passengers, cause aircraft damage, and increase operational costs due to safety inspections. Airports in North America are projected to have the largest increases in the long term		



The hazards that are projected to have the highest change in the future under a 4°C scenario, particularly in the long term, are extreme temperatures, thunderstorms and clear air turbulence. Other hazards, such as frost days, high winds, and extreme snowfall, are projected to experience decreases in both the medium and the long term at almost all of the locations analysed. The number of facilities at risk of riverine and coastal flooding are projected to remain stable overtime.

VistaJet will continue monitoring the climate physical risks material to the company. Currently, the impacts of physical climate risks are mitigated by measures already in place. For example, when a tropical cyclone is projected to impact a city where the company operates, aircraft are safely parked and put out of harm's way, meanwhile, there is an increase in flights booked leaving the affected areas before the tropical cyclone hits, so the impact of the extreme weather events is not linked to a decrease in bookings. Flooding and extreme rainfall also have a limited impact due to the flexible nature of private flights where flights can be booked to transport passengers out of a certain place before a storm or flooding warning. Turbulence is constantly monitored and avoided as part of flight safety. The impact of extreme temperatures is managed by avoiding scheduling flights at the peak hottest times of the day in the warmest locations.

By continuously monitoring the weather, VistaJet reduces the exposure of its aircraft and avoids damages, which is the biggest source of financial impact due to weather events. More information about how these risks are monitored and managed can be found in the Risk Management section.

3.2 Transition risks and opportunities

The analysis focused on VistaJet's key regions of operation with special focus on North America and Europe. Future exposure to transition risks and opportunities was primarily assessed under a 1.5°C scenario[2] with consideration of current data and trends under a business as usual scenario (BAU), reflecting current policies and trajectories.

Similarly to physical risks, a qualitative rating was assigned to each transition risk and opportunity according to the strength and direction of its change relative to current conditions for a medium-term (2030) and a long-term (2050 onwards) time horizon.

In order to identify key transition risks and opportunities, past climate risk lists were reviewed and updated according to new information regarding industry trends and relevant emerging policies, this research was complemented with stakeholders' engagement, which gave insight on the current and future exposure perceived by Vista companies.

The transition risks and opportunities selected for the analysis were: price and availability of biofuels and other sustainable fuels, customer demand, ticket prices, low carbon technologies aimed to reduce emissions, and policies impacting the private airline industry.

A summary of the selected risks, potential impacts and risk levels, can be seen in Table 2.

The hazards that are projected to have the highest change in the future, particularly under a 1.5°C scenario are those concerning the biofuels market, policy changes, and low-carbon technologies, with the biggest changes projected to occur in Europe and North America. VistaJet continues to monitor developments in the SAFs market and advocates for its adoption across the aviation industry. In this regard, the company is progressively transitioning to the use of SAF ahead of regulations. It purchased 200,000 US Gallons of blended SAF in 2022 and secured a further 4 million US gallons in 2023. VistaJet is only sourcing SAF from sustainable feedstocks and production methods, certified by the International Sustainability and Carbon Certification (ISCC).

Compared to physical risks, VistaJet finds itself more exposed to transition risks, which are continuously monitored and assessed by internal stakeholders. Given the nature of its operations as an aircraft operator, VistaJet is exposed to constantly evolving regulations and developments regarding emerging technologies, sustainable fuels, and carbon taxes. More information about how these risks are monitored and managed can be found in the Risk Management section.

[2] The scenario assumptions are based on the International Energy Agency's 2022 World Energy Outlook and sector-specific projections and plans

Table 2. Summary of the selected transition risks, and their potential impacts and risk levels under two time horizons under a business as usual and a 1.5°C scenario.

Hazard	Scenario	High-level impact	North America		Europe		Global	
			2030	2050	2030	2050	2030	2050
Biofuels market	BAU	As SAF is considered the main component to reach NZ emissions in this sector, its consumption is expected to increase gradually to 2030, with an accelerated demand thereafter and up to 2050 and expecting higher consumption particularly in the 1.5°C degrees scenario and especially in the EU and US, based on their climate targets and aviation plans respectively. Likewise, policies and regulations from governments on fuel consumption and blending mandates (such as REFuelEU and the United States' Renewable Fuel Standard), are expected to make SAF the most common air transport fuel in the long term.						
	1.5°C							
Customer preferences and behaviours	BAU	Although demand for air travel is expected to grow in the medium and long term, in advanced economies the pace of growth is expected to be lower. Additionally, the increase of alternative, more sustainable transport modes such as high-speed rail, which will provide increased land-based connectivity at reduced travel times, is expected to decrease air travel demand in advanced economies.						
	1.5°C							
Air-flight tickets market	BAU	Increased carbon tax-related policies could lead to a decrease in air-flight ticket demand. In advanced economies, carbon pricing schemes to cover emissions from the airline sector in domestic and international flights are expected to increase ticket prices, especially for short routes. Likewise, carbon prices for CO2 emissions per mile travelled could drive a decrease in demand for air travel, especially for non-frequent travellers.						
	1.5°C							
Low-carbon technologies	BAU	In the long term, technologies such as electric engines, hydrogen engines and unconventional aircraft configurations are expected to support decarbonisation of the sector, especially for domestic flights and smaller aircraft where change is expected in a shorter period, however, their contribution to avoiding emissions will be significantly lower than those avoided using alternative modes of transport and SAFs.						
	1.5°C							
Policy changes	BAU	North America and the EU have ambitious aviation decarbonisation targets that are likely to be supported by stronger policy measures, as evidenced by the strengthening of carbon pricing measures for aviation in the EU and the introduction of mandatory offsetting requirements in line with CORSIA. Globally, coordinated efforts by international organisations are expected to drive the sector's NZ target, but will depend on national policy guidance to ensure its achievement, following the example of regions such as the EU and its targets for sustainable fuel consumption or implementation of new technologies.						
	1.5°C							

Risk

Very Low | Low | Moderate | High | Very High

Opportunity

Very Low | Low | Moderate | High | Very High

04 Risk Management

This section explores how climate-related risks and opportunities are detected, assessed, and integrated into VistaJet's risk management processes.

In order to assess the future changes and impacts of physical and transition R&O, scenario analysis was conducted following a four-step approach. Firstly, a long list of possible climate-related risks and opportunities was prepared, based on previous assessments done for VistaJet, assessing any relevant updates in the landscape and reviewing the latest aviation publications. Secondly, company-specific data including historical records and financial impacts of past events was taken into account to narrow down which R&O are most likely to impact VistaJet in the future. Thirdly, a working session was prepared with key Vista stakeholders with oversight of operations across all companies, including members from the Sustainability, Finance, and Operations departments, to confirm the short list and align on prioritisation and perceived impact to the company. The final step involved the assessment of the key risks using scenario analysis.

The operations team at VistaJet actively manages physical risks associated with meteorological events as part of their day-to-day operations, undertaking daily reviews of weather conditions and communicating any potential risks to the duty manager. The pilots also conduct risk assessments, deciding whether to involve the maintenance team and take precautionary measures to protect the aircraft. For example, when strong wind gusts pose a threat to grounded aircraft, adjustments are made to prevent damage, such as reaching out to the maintenance team. In case of extreme events, such as severe flooding at critical airports, risks are escalated to the Executive Committee (EXCO) for further action.

To monitor risks that may affect flights, VistaJet implemented a Flight Data Monitoring (FDM) programme, which uses digital flight data from routine operations to identify, quantify, assess, and address operational risks. By automatically detecting risk events, the company can gather accurate and objective safety data, mitigating the chances of significant incidents or aircraft damage. The collected data is analysed to identify patterns and trends, supporting information reported by the flight crew and aiding in incident investigations, such as turbulence occurrences during flight routes. VistaJet also monitors fuel consumption to identify areas for improvement in current fuel-saving policies specific to their fleet. For a long term understanding of VistaJet's physical risk exposure, VistaJet takes into account the results of the scenario analysis undertaken following the TCFD recommendations.

Developments around carbon markets (such as EU ETS, UK ETS, Swiss ETS, and CORSIA) are communicated to VistaJet by the respective regulatory bodies. EU ETS, Swiss ETS and CORSIA notifications are received from the Malta Resources Authority, while notifications related to the UK ETS are issued by the UK Environmental Agency. Any change in regulations is assessed and informed to the COO and any relevant department, such as Billing, Finance, or Operations. Updates on fuel regulations are monitored by the Quality or Maintenance teams, while changes in fuel prices are monitored and updated on a weekly basis and communicated to the EXCO and other competent departments. One additional measure to assess VistaJet´s evolving exposure to transition risks is to collaborate with South Pole, an external climate services provider, in the identification and analysis of any new risks. The goal of this ongoing process is to fully integrate climate-related risks and opportunities into VistaJet's internal processes.

Risk Management

VistaJet undertakes the following process to identify, assess, and manage risks:

01

Risk identification

Risk can be climate-related, or involve equipment, procedures, safety, etc.

02

Risk evaluation

The likelihood and severity of the risk is assessed. If the risk if found to be within VistaJet's safety performance criteria, it is accepted, if not, actions are taken to reduce it.

03

Risk mitigation

Action are taken to mitigate the risk.

04

Risk monitoring

Overseen by the EXCO, if action was taken, the mitigationactions continue to be monitored and reviewed to ensure their effectiveness.

Figure 2. Risk management process

05 Metrics and Targets

Since 2020, VistaJet has undertaken yearly assessments of greenhouse gas inventories, adhering to the recommendations outlined in 'The Greenhouse Gas Protocol: A Corporate Accounting and Reporting Standard, Revised Edition' (GHG Protocol), alongside the accompanying 'Corporate Value Chain (Scope 3) Accounting and Reporting Standard'.

In line with best practices, VistaJet reports its Scope 1, Scope 2 and Scope 3 emissions:

- Scope 1: Emissions directly generated from sources owned or controlled by the company
- Scope 2: Emissions generated by the generation of purchased electricity
- Scope 3: Emissions indirectly generated as a result of the activities of the company from sources that the company does not own or control

VistaJet's total carbon footprint for the calendar year 2022 was calculated to be 460,820.52 tonnes of carbon dioxide equivalent (tCO2e). Both direct and indirect emissions were measured, and a breakdown by scope (Scope 1, Scope 2 and Scope 3) can be seen in Table 3.

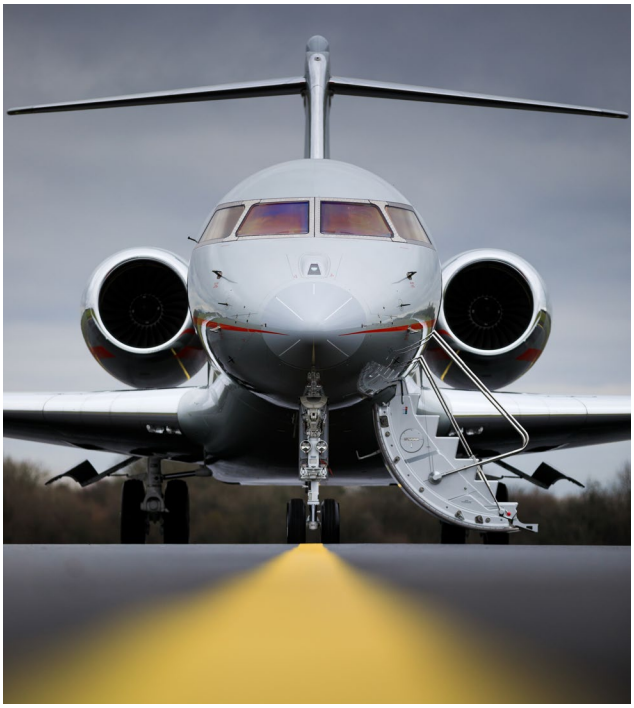
Scope 1 has the highest contribution to the overall GHG emissions, accounting for 72% of the total footprint, followed by Scope 3 with 27.9% and Scope 2 with 0.1%.

VistaJet continues to offset part of its carbon emissions through the use of certified carbon credits, and aims to offset all of its carbon emissions by 2025. The use of certified carbon credits remains a strong tool to offset VistaJet's carbon footprint while investing in carbon emission mitigation projects that benefit nature and local communities. To date, nearly a million tons of CO2 have been offset since 2020.

VistaJet continues to monitor developments in the SAFs market and advocates for its adoption across the aviation industry. In this regard, the company is transitioning to the use of SAF, purchasing 200,000 US Gallons of blended SAF in 2022 and securing a further 4 million US Gallons of blended SAF in 2023. VistaJet has ensured to source SAF that is certified by the International Sustainability and Carbon Certification (ISCC).

Table 3. Total emissions for Scopes 1, 2, and 3 for VistaJet, from 2019-2022, in thousands of tCO_2 eq

GHG Scope	2019	2020	2021	2022
Scope 1	255.8	210.2	289	331
Scope 2	0.3	0.3	0.3	0.4
Scope 3	91.2	82.5	104.3	128.6
Total	**347.3**	**293**	**393.6**	**460.8**



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