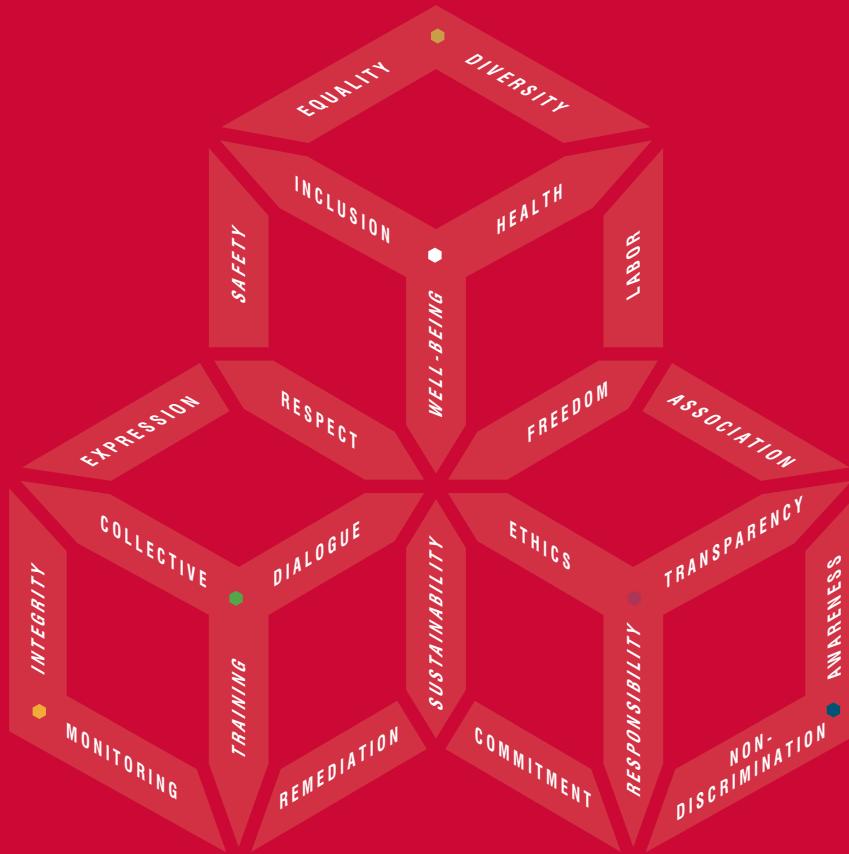


# SUSTAINABILITY REPORT

# 2024



# cargolux



## CONTENTS



Introduction **04**

Message from the Chairman **05**

Message from the President & CEO **07**

ESRS 2 General Disclosures **10**

### INTRODUCTION



**01** ESRS 2  
GENERAL DISCLOSURES

**13**

**02** ESRS E1  
CLIMATE CHANGE

**45**

**03** ESRS E5  
RESOURCE USE AND  
CIRCULAR ECONOMY

**59**

**04** ESRS S1  
OWN WORKFORCE

**65**

**05** ESRS S3  
AFFECTED COMMUNITIES

**78**

**06** ESRS G1  
BUSINESS CONDUCT

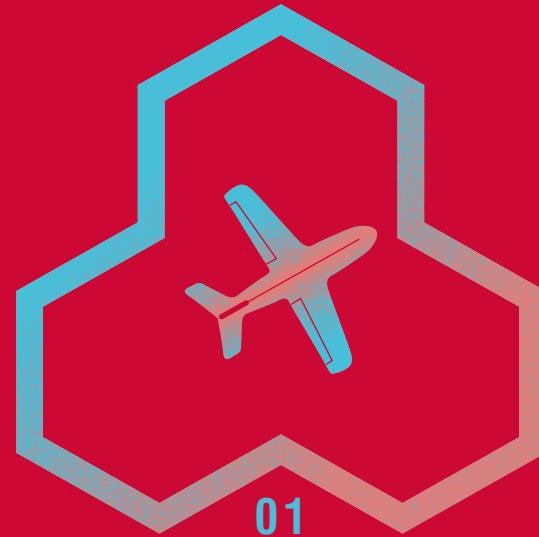
**81**

**07** INDEPENDENT AND LIMITED  
ASSURANCE REPORTS

**89**

**08** GLOSSARY

**93**



## INTRODUCTION



# INTRODUCTION

We are pleased to present Cargolux's first Sustainability Report aligned with the European Sustainability Reporting Standards (ESRS).

As a wave 2 company under the Corporate Sustainability Reporting Directive (CSRD), Cargolux will be required to publish its first CSRD-compliant report in 2028 for the fiscal year 2027. By voluntarily adopting ESRS ahead of this timeline, we aim to demonstrate our commitment to transparency, regulatory readiness, and leadership in sustainable aviation.

This report builds on Cargolux's long-standing commitment to sustainability. Since 2008, Cargolux has been a signatory to the UN Global Compact, aligning our practices with its Ten Principles on Human Rights, Labor, Environment, and Anti-Corruption.

Cargolux's efforts have been recognized through an EcoVadis rating and Luxembourg's ESR Label for Responsible Enterprises, reflecting progress in corporate social responsibility and continuous improvement across environmental, social, and governance dimensions. While the 2024 report is not

yet fully compliant with ESRS, it sets the foundation for future reporting. Compliance will be achieved gradually as the company strengthens processes, expands data coverage, and embeds sustainability across the group.

Cargolux's disclosures are informed by a Double Materiality Assessment and shaped through dialogue with stakeholders across our value chain. The content of this report has been subject to third-party limited assurance, reinforcing our commitment to credibility and trust.

Cargolux's approach reflects a principle of continuous improvement. The company aims to enhance the quality and comparability of our disclosures, engage stakeholders meaningfully, and prepare for the evolving regulatory landscape with confidence.

The scope of this report primarily covers the parent company, Cargolux Airlines International S.A., and where specified, its subsidiary Cargolux Italia S.p.A. Newly established entities, Aquarius Aerial Firefighting (AFF) and Luxcargo Handling (LCH), were included in the Double Materiality Assessment (DMA) but are currently not covered in performance disclosures due to limited data availability and scope prioritization. Their inclusion is under consideration for future reporting cycles. Looking ahead, we will continue to broaden our coverage, advance assurance levels, and explore digital reporting solutions to meet stakeholder expectations and regulatory requirements.

- **Cargolux** – Parent Company, acting on behalf of all
- **Cargolux Group** – all entities together
- **Entities:**
  - Cargolux Airlines International S.A.
  - Cargolux Italia S.p.A.
  - Luxcargo Handling S.A. (LCH)
  - Aquarius Aerial Firefighting S.à.r.l (AFF)
- **The airlines** – Cargolux Airlines and Cargolux Italia





## MESSAGE FROM THE CHAIRMAN

The year 2024 was a remarkable one for Cargolux. One of growth, of record profits, and of entering into the arena of ground handling operations as well as aerial firefighting.

The significant return of belly-hold capacity, especially from the Far East, global geopolitical unrest, and the threat of trade wars did not dampen demand. On the contrary, we recorded a significant increase in tonnage sold showing once again that the importance of air cargo in the logistics chain cannot be overestimated.

The high demand and trade flow imbalance throughout the year once again required Cargolux to adapt its operations and adjust its network and capacity to meet market demand where it arose. True to its resilience and flexibility, the airline successfully met its customers' expectations and delivered the service excellence it is renowned for. Cargolux achieved the best result in its history - outside of Covid years - consolidating its position as a leader in the industry.

In addition to its core business, the two new Cargolux Group entities, Luxcargo Handling (LCH) and Aquarius Aerial Firefighting (AFF), also witnessed a year of development. LCH is now the primary ground handling company for cargo at Luxembourg airport, providing services to both Cargolux and third party operators. Considerable investment is foreseen, in the short-, middle- and long-term, in both technology and infrastructure to further enhance and streamline ground operations at our main hub.

AFF also continued on its progress forward. The fleet, standing at 4 aircraft at the end of 2024 will eventually comprise 12 units, the remainder to be acquired over the next two years. To support this budding enterprise, the workforce, including crew and maintenance professionals, will also increase. To ensure the highest safety standards, comprehensive training methods have been developed for crew, including the acquisition of a dedicated flight simulator to be delivered in 2026.

As the Cargolux Group continues to expand, we must keep focusing on our core value of delivering service excellence. The resources we require will continue to grow and new needs will emerge to embrace technological and digital changes. Several major projects are currently underway within the company to modernize and streamline our processes in crucial areas such as Human Resources, Maintenance & Engineering, and Global Logistics. The implementation of our new ERP system (S4/HANA) and a new cargo management system from IBS have been completed. These major transformation projects will enable us to build upon our solid foundation while modernizing our business practices and driving change within the supply chain to navigate the future with confidence.

Air cargo is a notoriously volatile industry and as recent history has shown us, vulnerable to shifts in geopolitical and commercial circumstances. In addition, air freight also faces increasing pressure to meet stringent sustainability standards. To ensure a prosperous and bright future, Cargolux, along with all other actors in the supply chain, must play its part.

Beyond individual investment however, it is vital that all impacted stakeholders work together to develop suitable and competitive solutions.

There will be a cost to this but the airline will continue to look into solutions of which Sustainable Aviation Fuel (SAF) forms a vital part. It will collaborate with its commercial partners to promote accessibility to and availability of not only existing SAF but also new generation sustainable fuels. In parallel, Cargolux is looking into mitigating the impact of its activities in other areas such as plastic usage in palletization, sustainable and local procurement and waste reduction.

The journey to sustainability in our industry is no small undertaking, but Cargolux is committed to embracing this change while upholding the quality of service our customers have come to expect. In its 55 years of existence, our airline has demonstrated unwavering agility in adapting to sometimes unprecedented situations. This is what sets us apart and we must keep this engagement at the heart of our business.

In the years to come, it is on this mission that we must focus our efforts to ensure that Cargolux continues to create value for all stakeholders. Whether climate-related, geopolitical or commercial uncertainty, our industry will face challenges in the years to come. We must navigate these hurdles with resolve and determination, leveraging our know-how, flexibility and resources. The transformation of our industry is at hand and we must embrace change and innovation to maintain our leading position.

I would like to conclude this letter by thanking my fellow Board members for the trust they place in me as Chairman of the Board. The work they achieve to keep writing Cargolux's success story is commendable and I look forward to continuing our collaboration to ensure a bright and prosperous future for Cargolux. I would also like to extend my gratitude to our customers for their unwavering confidence as well as to the Cargolux Executive Management team and to all our employees across the globe for their dedicated efforts in keeping this company at the forefront of the industry.



**TOM WEISGERBER**  
Chairman of the Board



# MESSAGE FROM THE PRESIDENT & CEO



2024 demand for air freight capacity was driven by the boom in cross border E-commerce. This sustained trend resulted in significant capacity being shifted to North East Asia to service demand for shipments to the USA and to Europe.

Industry-wide, full-year demand for air cargo in 2024 increased 11.3% compared to 2023, exceeding the record volumes set in 2021. Overall demand exceeded supply by 3%, indicating a capacity shortage that pushed up load factors and yields. As at December 2024, the industry witnessed sustained growth over 17 consecutive months, an unusual trend for air freight that is traditionally subject to seasonal variations.

As well as strong demand for its scheduled services, Cargolux also registered a surge in charter demand leading to record production in this market segment for the airline. This offering is a significant commercial edge for the airline which can leverage its experience to provide tailored solutions to its customers.

These favorable conditions led to Cargolux achieving its most profitable year to date, outside of the Covid years of 2020, 2021 and 2022, generating a full-year consolidated net profit after tax of USD 448.3 million, a 56.5% increase over 2023, and a 11.4% increase in FTKs resulting from an increase in utilization of the fleet from by 1 hour 19 minutes to 14 hours 37 minutes per day. The airline ended the year in 7th position on IATA's annual ranking of international scheduled cargo carriers, consolidating its position as a leader in the air cargo industry and number one all-cargo airline in Europe.

I am particularly pleased with the strength of our Balance Sheet which will be vital as we enter a period of global political uncertainty and economic tensions.

The strong market conditions were buoyed by the full resurgence of China as the global powerhouse of production following several years of restrictions. The threat of trade wars between major economic players contributed to this dynamism, with a surge in demand for exports, especially from Asia, ahead of potential tariff impositions.

From an operational perspective, the year was marked by geopolitical tensions with the ongoing war in Ukraine and unrest in the Middle East. These events continue to have a negative impact on operating costs as longer routes have to be flown for certain rotations into and from Asia.

Throughout the years, Cargolux has developed an agile approach to business, a quality which enables the organization to be flexible and respond rapidly to changes in market dynamics. This capability has once again proved successful in 2024, as the airline seized opportunities and delivered the service excellence our customers expect.

Our commitment to high standards and client-centric model are at the forefront of our endeavors and we continuously strive to enhance customer experience through new solutions. Accessibility to quoting and booking tools was strengthened in 2024 with Cargolux joining several online booking platforms, and a dedicated Customer Experience department was created to bolster our service and after sales care. New tools, processes, and initiatives are continually assessed to keep our airline at the forefront of customer service. Over the years, we have forged trustworthy relationships with our customers, and I would like to express my gratitude for their continued support.

The past year, we also experienced our first year as a multi-disciplinary Group. Our subsidiary Luxcargo Handling (LCH) smoothly took over the Luxair Cargo ground handling activities at our hub in Luxembourg on 1 May 2024. This integration enables us, as veterans in the air cargo industry, to leverage our know-how and provide comprehensive services for all LCH customers. Looking to the future, we have launched an overhaul of major operating systems in the warehouse which will provide increased transparency and streamlined services at our home base. In addition, investment plans have also been formulated, not only for the short-term but for the mid- and long-term as well.

Aquarius Aerial Firefighting, (AFF), formed in 2023 was deployed on its first mission in the Summer of 2024. With three aircraft based in the South of Spain for the European Summer season, AFF provided aerial firefighting support for the Spanish government. The success of this first mission contributes to building AFF's reputation as a reliable provider of aerial firefighting services which we intend to build on in the future as the fleet and team grows. The demand for aerial firefighting capacity

is increasing as the world experiences more and more of these devastating phenomena. Beyond the immediate destruction and threat to people and property and the destruction of trees and vegetation, these uncontrolled blazes also significantly contribute to global CO<sub>2</sub> emissions and release harmful particulate matter into the air we breathe. Our commitment to mitigating the devastating effects of wildfires has never been stronger and the AFF team stands ready to take on upcoming challenges.

Environmental topics and climate concerns have become key points of focus for the aviation industry and we must address these concerns concretely. However, with new regulations and stringent requirements being introduced within the EU, this will place a significant administrative burden on airlines to implement and report back on what is required under such laws. These costs come on top of the mandatory SAF requirements implemented since 1 January 2025 and Cargolux's voluntary commitment to using SAF over and above the mandatory requirement.

It is essential that we address the climate and environmental issues confronting us but we must be aware that airlines alone cannot bear the brunt of the costs of achieving carbon reduction targets, let alone zero emissions by 2050. Authorities and industry players must work together to find suitable and viable solutions to guarantee a sustainable future for our industry.

In 2025, Cargolux will celebrate its 55<sup>th</sup> anniversary. This milestone is an opportunity for us to take stock of how far we've come and how we have adapted continuously to remain a leader in the industry. Looking back at what has been achieved, and the challenges overcome, it makes me confident that we are equipped and determined to take this legacy into the future. We must continue to invest in supply chain transparency, foster innovation, support sound business practices, and pursue our journey to a successful and sustainable industry.

The result we achieved in 2024 is a reflection of our unwavering perseverance and commitment to excellence in any circumstances, and I would like to thank all Cargolux employees worldwide for their dedication to this company. Every single individual has an impact on the performance of the company. I would also like to express my sincere thanks and gratitude to our Board of Directors for their continued support in helping Cargolux remain a recognized leader in the industry.

## OUTLOOK 2025

The beginning of the year is marked by significant uncertainty due to the emergence of tariffs and ongoing geopolitical tensions. The USA's tariffs and expected retaliatory measures from affected countries and trading blocs will disrupt traditional commercial lanes and the e-commerce sector, a key industry driver in 2024. Geopolitical tensions among major trading powers, further cloud global trade prospects, making the consequences hard to predict. Any escalation could create additional barriers, impacting our industry. We are closely monitoring the situation to anticipate and implement necessary measures, adapting operations as required.



RICHARD FORSON

President and  
Chief Executive Officer



# ESRS 2 GENERAL DISCLOSURES

## BP-1 GENERAL BASIS FOR PREPARATION OF THE SUSTAINABILITY STATEMENT

This ESRS-aligned sustainability report, covering the financial year 2024, represents a positive milestone in Cargolux's journey toward enhanced transparency and accountability in reporting. Following the implementation of the Corporate Sustainability Reporting Directive (CSRD) in 2023, companies are required to report in accordance with the European Sustainability Reporting Standard (ESRS). Although Luxembourg has not yet transposed the CSRD into national law, Cargolux has voluntarily adopted the ESRS framework for this report to strengthen internal preparedness and contribute to the development of best practices within the aviation sector.

As a wave 2 company according to the CSRD, Cargolux will be subjected to mandatory reporting for the fiscal year 2027, with publication in 2028. This voluntary report reflects the company's proactive approach and commitment to aligning with evolving regulatory expectations.

The scope of this report primarily covers the parent company, Cargolux Airlines International S.A., and where specified, its subsidiary Cargolux Italia S.p.A. Newly established entities, Aquarius Aerial Firefighting (AFF) and Luxcargo Handling (LCH), were included in the Double Materiality Assessment (DMA) but are currently not covered in performance disclosures due to limited data availability and scope prioritization. Their inclusion is under consideration for future reporting cycles. It should be noted that this scope differs from the financial consolidation applied in the Group's annual financial statements.

This report is informed by a comprehensive DMA conducted in 2024, in alignment with the EFRAG's Materiality Assessment guidelines. The assessment covered the four aforementioned entities of the Cargolux Group and evaluated both impact and financial materiality across the operations and value chain. The disclosures encompass both upstream and downstream value chain activities. A structured stakeholder engagement process was embedded throughout, involving external partners to ensure the relevance and credibility of the materiality outcomes.

The following material topics were identified and will guide the disclosures and strategic focus going forward:

- ESRS E1 Climate Change
- ESRS E5 Resource use and Circular Economy
- ESRS S1 Company's Own Workforce
- ESRS S3 Affected Communities
- ESRS G1 Business conduct

The reporting period spans 01/01/2024 to 31/12/2024. Unless stated otherwise, the information presented pertains to Cargolux's overall operations and geographic presence. Specific data boundaries are as follows:

- Data related to Occupational Health and Safety datapoints cover activities for Luxembourg-based employees of the parent company.
- Data monitoring and waste disposal relate to the parent company's facilities in Luxembourg.
- Fuel consumption and CO<sub>2</sub> emissions for the fleet include data from both Cargolux Airlines and Cargolux Italia. In 2024, 100% of flight-related CO<sub>2</sub> emissions were audited by Normec Verifavia.
- Facilities-related energy consumption and CO<sub>2</sub> emissions cover only the Cargolux headquarters building, the Maintenance Center and Cargolux Italia offices.

By voluntarily applying the ESRS framework, Cargolux aims to enhance the quality and comparability of its sustainability disclosures, support investor and stakeholder decision-making, and prepare for future digital reporting requirements under the EU Single Access Point (ESAP).

In accordance with ESRS-2 BP-1.5.d and BP-1.5.e, the airline has not omitted specific pieces of information corresponding to intellectual property, know-how or new innovations in the competitive landscape of the industry. The airline has not exercised the option to exclude information on continuous or previously planned developments or negotiations.

Cargolux invites all interested parties to connect and discuss its sustainability policy, its activities, and this report. The company's policy, details about business activities, and previous reports, can be found on the corporate website: <https://www.cargolux.com/our-responsibility/>.

All comments and enquiries are welcome and can be addressed to [sustainability@cargolux.com](mailto:sustainability@cargolux.com).

## BP-2 DISCLOSURES IN RELATION TO SPECIFIC CIRCUMSTANCES

### TIME HORIZONS

Cargolux applies the time horizons under ESRS 1, section 6.4, without deviation. The short term time horizon corresponds to the reporting year (one year), corresponding to the reporting period. The medium-term covers the period from the end of the short-term period up to 5 years, and long-term refers to a period beyond 5 years. These horizons are consistently applied across strategic planning and risk assessments. Any exceptions to the application of these time horizons in specific risk assessments are disclosed alongside the data points in the Sustainability Report.

### VALUE CHAIN ESTIMATION

In alignment with ESRS 2 BP-2.10, certain metrics—particularly Scope 3 greenhouse gas emissions—include data derived from Cargolux's upstream and downstream value chain. Where direct data from suppliers was unavailable, estimates were developed using recognized indirect sources, including:

- The Greenhouse Gas Protocol Scope 3 Standard,
- Industry-specific databases and literature.

These estimates are subject to inherent uncertainties due to the use of generalized data and assumptions. A detailed breakdown of value chain estimates, including methodology and accuracy levels is provided under ESRS E1-6.

Cargolux acknowledges these limitations and remains committed to enhancing data quality through supplier engagement and methodological improvements. As 2024 marks the first year of externally verified Scope 3 reporting, no material accuracy improvement plans were introduced during the reporting period.

### SOURCES OF ESTIMATION AND OUTCOME UNCERTAINTY

Cargolux applies recognized methodologies, including the Greenhouse Gas Protocol, to ensure consistency and comparability. Where metrics are subject to elevated uncertainty – due to limitations in source data or conversion factors – the underlying assumptions and methodologies are disclosed alongside the respective datapoints.

No quantitative metrics or monetary amounts disclosed in 2024 were identified as having an elevated of measurement uncertainty.

### CHANGES IN PREPARATION OR PRESENTATION OF SUSTAINABILITY INFORMATION

For the Sustainability Report 2024, Cargolux transitioned from the Global Reporting Initiative (GRI) Standards to the European Sustainability Reporting Standards (ESRS), in alignment with the Corporate Sustainability Reporting Directive (CSRD). This transition reflects the company's proactive approach to regulatory compliance and enhanced transparency and comparability.

Comparative information has not been adjusted retrospectively where impracticable. Notable changes include:

- A full Scope 3 emissions inventory aligned with the GHG Protocol, with recalculated comparators for 2023 and baseline 2019. (p.57)
- Employee headcount metrics under ESRS S1 now reflect monthly averages rather than year-end figures. Prior year data has not been recalculated.

#### DISCLOSURES STEMMING FROM OTHER LEGISLATION OR GENERALLY ACCEPTED SUSTAINABILITY REPORTING PRONOUNCEMENTS

In preparing this report, Cargolux applied the Greenhouse Gas Protocol methodology for emissions calculation. References to the UN Sustainable Development Goals (SDGs) illustrate the company's contributions to global sustainability objectives. These references do not replace or modify ESRS disclosure requirements.

Disclosures under ESRS E1 – Climate Change are based on GHG Protocol definitions and calculation principles, including scope and category classifications.

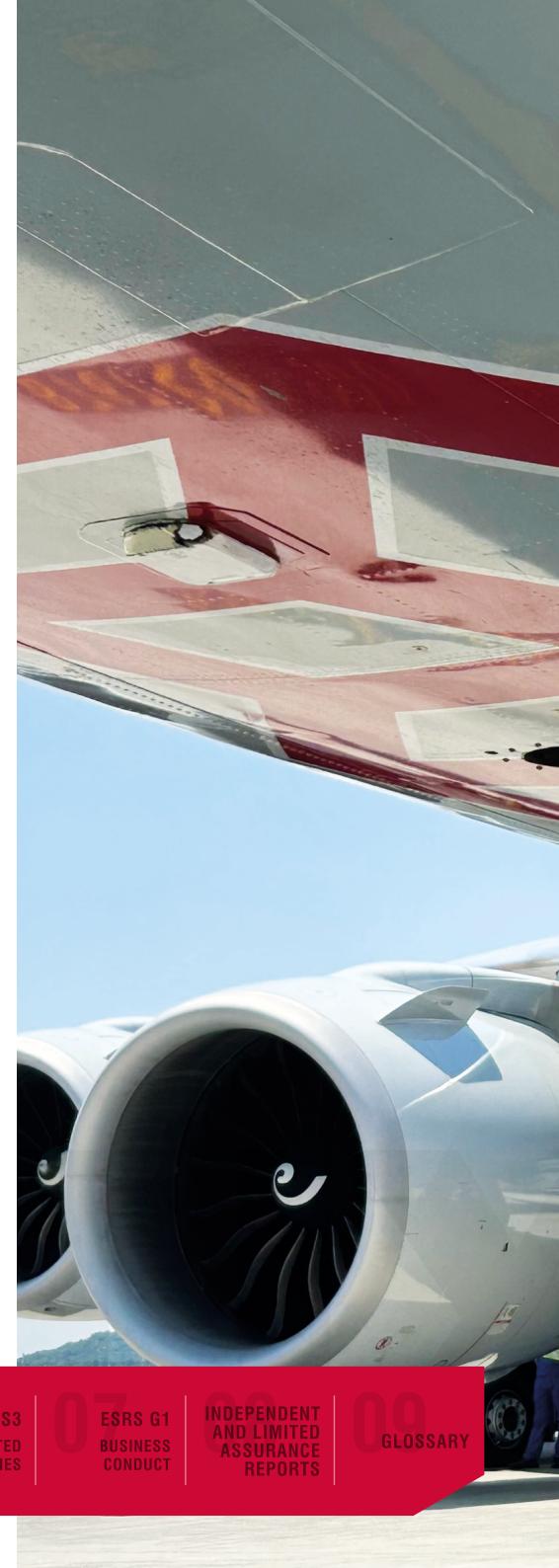
Selected data and processes have been externally verified through Cargolux's certified management systems. The company maintains ISO 14001 and ISO 45001 certifications for its Luxembourg-based operations, confirming conformity with environmental and occupational health standards.

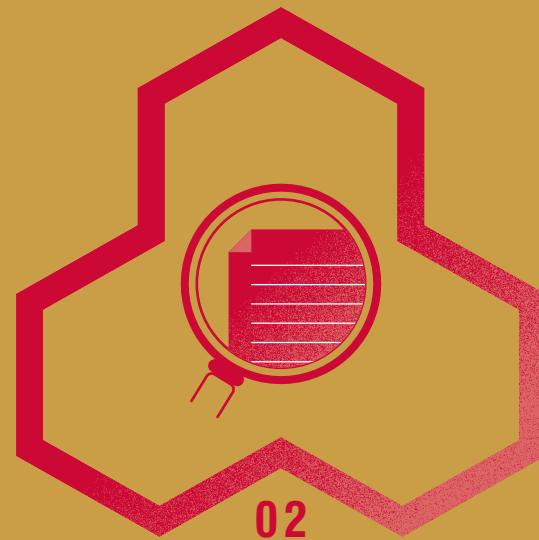
#### REPORTING ERRORS IN PRIOR PERIODS

No material errors in the prior reporting periods were identified in the preparation of this report.

#### INCORPORATION BY REFERENCE

All disclosures under ESRS are included in the Sustainability Report, and no information or data points have been incorporated by reference.





## ESRS 2 GENERAL DISCLOSURES

STRATEGY  
& BUSINESS MODEL

## STRATEGY

SBM-1 STRATEGY, BUSINESS MODEL  
AND VALUE CHAIN

Cargolux, based in Luxembourg, is Europe's leading all-cargo airline operating a fleet of 30 Boeing 747-8 freighters and Boeing 747-400 freighters. Its worldwide network covers over 50 destinations on scheduled all-cargo flights. With over 50 years of experience in the air cargo industry and an extensive product portfolio, Cargolux provides tailored transport solutions for all types of shipments. Its dedicated services cater to niche commodities such as live animals, perishables, temperature-sensitive commodities, and outsized freight.

The airline also offers charter services which can be deployed at very short notice, offering enhanced operational and commercial flexibility.

Cargolux has a dedicated Maintenance & Engineering division that ensures the continued airworthiness and operational reliability of its fleet. In addition to maintaining its own aircraft, the company provides third-party maintenance services from its modern two-bay hangar facility located at Luxembourg Airport. Cargolux specializes in Boeing 747 line and base maintenance, including up to C-Checks, and offers line maintenance capabilities for Boeing 777 aircraft. The division also delivers a range of specialized services, such as avionic system upgrades, structural repair solutions, reinforcing its commitment to safety, quality, and operational efficiency.



## Aquarius Aerial Firefighting – Fighting wildfires through a dedicated unit

Established in 2024, Aquarius Aerial Firefighting (AFF) is a wholly-owned subsidiary of Cargolux dedicated to aerial firefighting. As climate change intensifies extreme weather patterns, wildfires have become more frequent and destructive, posing serious risks to human lives, wildlife, and natural resources, while significantly contributing to global CO<sub>2</sub> emissions—estimated at 1.54 billion tonnes in 2022 alone.

With a growing fleet of AT-802 Fire Boss aircraft, the company builds on Cargolux's operational expertise and high safety standards to strengthen the capacity for aerial firefighting in Europe, providing assistance in the fight against devastating wildfires.

During its first deployment in Spain in summer 2024, AFF recorded a total of 40 flight hours and 118 water drops to fight wildfires. The first deployments, supporting to the Spanish federal government, focused on wildfires located north and east of Zaragoza as well as near Morella, north of Alicante, and in the Puebla San Miguel National Park. Water was drawn from various reservoirs, including the Mediterranean Sea.



Cargolux and Cargolux Italia operate in a complex regulatory environment shaped by the global nature of its customer base, which primarily consists of freight forwarding companies. These customers conduct business across multiple jurisdictions, where goods and services may be subject to restrictions or prohibitions due to local legislation, international sanctions, or security-related regulations. In certain cases, specific commodities, technologies, or logistical services are barred from import or export under trade embargoes, dual-use controls, public health measures, or international treaty obligations.

To ensure ethical and compliant business in this challenging framework, beyond regulatory compliance, Cargolux has developed internal policies that reflect its ethical and sustainability commitments. Stringent export control procedures are implemented as well as a growing list of prohibited and embargoed items.

These measures are embedded in operational workflows and supported by collaboration with authorities, regulators, and third-party stakeholders. This approach safeguards legal compliance, mitigates reputational risk, and reinforces the company's role as a responsible actor in global trade.

Cargolux's strategy is shaped by its commitment to operational excellence, customer service, and long-term sustainability. Sustainability considerations are embedded across strategic decision-making processes. Key elements include the fleet renewal, the procurement and operational integration of Sustainable Aviation Fuel (SAF), the development and implementation of contrail avoidance measures, and digital transformation to enhance cargo tracking and operational efficiency. All activities in Luxembourg are certified under ISO 14001 for environmental management and ISO 45001 for occupational health and safety.

Cargolux also partners with customers to co-develop low carbon logistics solutions and participates in regulatory dialogues to address competitive imbalance between EU and non-EU carriers in sustainability obligations.

As an engaged advocate for sustainable logistics, Cargolux regularly consults key stakeholders, including customers, suppliers, banks, and employees, to ensure its services and market strategies are aligned with sustainability-related goals. These exchanges inform both operational decisions and long-term strategic planning.

### *Assessment of Significant Products, Services, and Markets in Relation to Sustainability Goals*

Cargolux and Cargolux Italia's core business, the transport of commodities by air, is a vital component of global supply chains. As sustainability considerations become increasingly central to logistics decisions, the company has aligned its offerings to meet environmental and social objectives.

The airlines' geographic footprint includes key markets in Europe, Asia and the United States, where demand for sustainable logistics is accelerating. In Luxembourg, Cargolux's operations are fully certified under ISO 14001 and ISO 45001, reflecting its commitment to environmental stewardship and employee well-being. These certifications support the company's broader sustainability goals and provide regulatory assurance to stakeholders.

### *Strategic Elements Impacting Sustainability Matters*

Cargolux's sustainability strategy is shaped by a range of operational and market-driven factors. Fleet renewal remains a priority, with newer aircraft offering improved fuel efficiency and reduced emissions. The procurement of SAF at commercially viable prices is a critical enabler of the company's decarbonization efforts, alongside the exploration of e-fuels and other low-emission technologies.

It also addresses emerging challenges such as contrail avoidance and the measurement of non-CO<sub>2</sub> emissions, which are increasingly recognized as important components of aviation's climate impact. Cargolux is actively engaging with customers to promote voluntary contributions toward CO<sub>2</sub> abatement, fostering shared responsibility across the value chain.

Transparency in supply chain practices is another strategic focus, as is the need to navigate regulatory disparities between the EU and other jurisdictions. These elements collectively influence Cargolux's ability to deliver on its sustainability commitments while maintaining competitiveness in a global market.

### *Identification of Significant ESRS Sectors*

Cargolux and Cargolux Italia operate within the transportation sector, specifically in air freight logistics. While the ESRS sector classification emphasizes road transport, the airlines' activities align with the broader freight transport segment due to its global cargo operations. The following ESRS sectors have been identified as relevant to its business:

- Transportation – Other Transportation (Air Freight): Cargolux and Cargolux Italia's core business is the transport of goods by air, with direct environmental and social impacts related to fuel consumption, emissions, and noise pollution.
- Utilities – Power Production and Energy: The reliance on aviation fuel, and the transition to SAF, links Cargolux to the energy sector. This connection is central to the company's climate-related risk management and opportunity identification.

- Manufacturing – Aerospace and Equipment: Aircraft manufacturers and suppliers of spare parts are integral to the operations of Cargolux and Cargolux Italia. Their sustainability performance and technological innovation directly influence the company's environmental footprint and operational efficiency.

## BUSINESS MODEL AND VALUE CHAIN

Known within the industry as the “freight forwarders’ airline”, Cargolux Airlines, along with its subsidiary Cargolux Italia, has built its reputation on reliability, flexibility, and specialized cargo handling capabilities. In addition to its main service of transportation by air, the company also operates an extensive road feeder network in Europe, the United States and China ensuring seamless multimodal transport solutions for its customers.

To sustain and grow its operations, Cargolux draws upon a diverse set of capitals, each contributing to the resilience and performance of its business model.

- Financial capital underpins investments in fleet modernization, infrastructure upgrades, and digital transformation initiatives.
- Human capital is represented by a skilled and experienced workforce, whose expertise includes flight operations, engineering, ground handling, and customer service.

- Manufactured capital includes the company’s aircraft, IT systems, and operational facilities, which together form the backbone of its logistics capabilities.
- Natural capital, primarily aviation fuel, is essential for flight operations. Cargolux is actively exploring sustainable aviation fuel (SAF) options to reduce its carbon footprint.
- Social capital is cultivated through long-standing partnerships with customers, airports, regulatory bodies, social partners, and other stakeholders, fostering trust and operational continuity.
- Intellectual capital encompasses the company’s operational know-how, industry insights, and continuous improvement culture, which enables rapid adaptation to evolving market and regulatory conditions.

These inputs are managed through structured planning, strategic procurement, and ongoing engagement with internal and external stakeholders to ensure availability, efficiency, and sustainability. Cargolux’s business delivers a range of outputs that generate value for

customers, investors, and society at large. The group also contributes to economic value creation through revenue generation, employment, and support for local development and international trade.

Beyond commercial operations, Cargolux Airlines and its subsidiary Cargolux Italia play a role in delivering humanitarian aid, supporting disaster relief efforts, and contributing to wildlife conservation initiatives. These activities reflect the airline’s broader social impact and its commitment to responsible corporate citizenship.



ABOUT  
THIS REPORT

## KEY FIGURES

Cargolux is focused on creating value for its stakeholders by enhancing its positive impact and mitigating the adverse effects of its operation. In order to provide sustainable, long-term benefits, the company relies on different capitals – human, intellectual, natural, manufactured, etc. – that it must continuously invest in and develop.

## CONSOLIDATED FIGURES



Total revenue in USD '000  
Profit/(loss) for the year in USD '000  
Shareholders' equity in USD '000



Tonnes sold\*



Employees worldwide\* SBM-1  
(as at 31 December)  
Luxembourg\* SBM-1  
(as at 31 December)

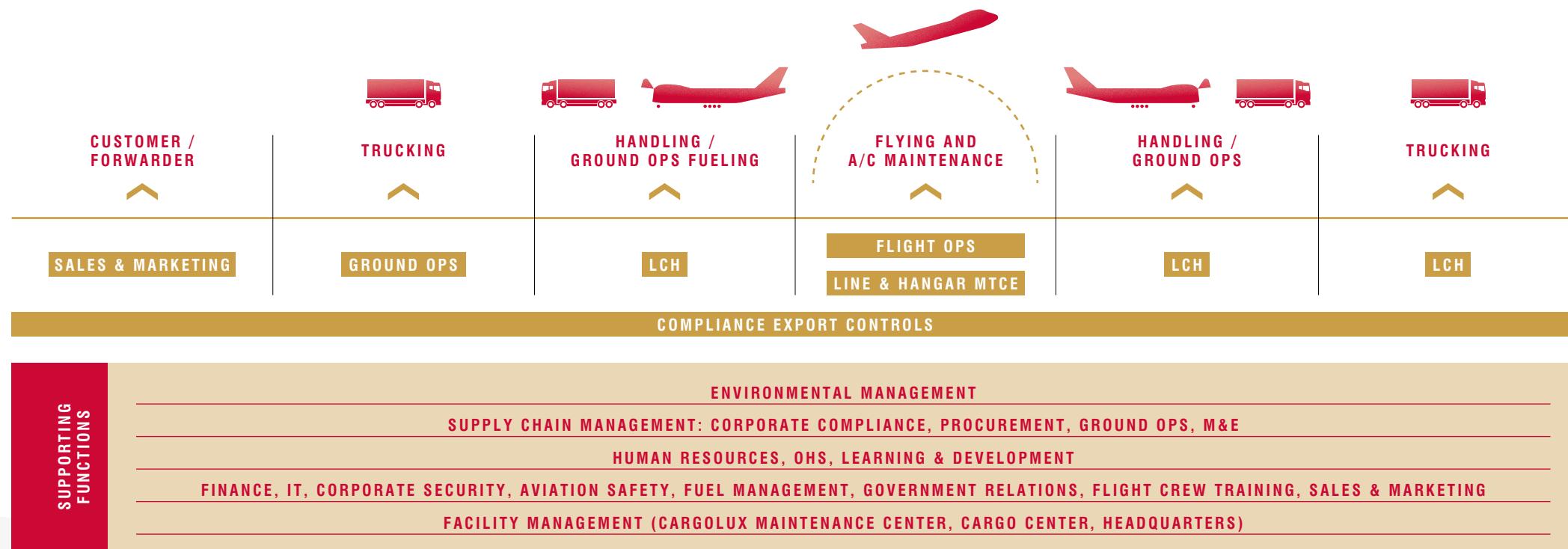


Boeing 747-8 freighters (units)  
Boeing 747-400 freighters (units)  
Boeing 747-400ERF (units)  
Air Tractor AT-802F Fire Boss

	2024	2023	2022	2021
Total revenue in USD '000	3,323,761	2,974,582	5,078,823	4,428,786
Profit/(loss) for the year in USD '000	448,327	286,480	1,578,627	1,295,297
Shareholders' equity in USD '000	4,824,008	4,491,577	4,530,729	3,130,982
Tonnes sold*	1,123,801	997,533	1,138,668	1,241,569
Employees worldwide* SBM-1 (as at 31 December)	3,881	2,540	2,539	2,477
Luxembourg* SBM-1 (as at 31 December)	3,174	1,867	1,888	1,830
Boeing 747-8 freighters (units)	14	14	14	14
Boeing 747-400 freighters (units)	10	10	10	10
Boeing 747-400ERF (units)	6	6	6	6
Air Tractor AT-802F Fire Boss	4	3	N/A	N/A

\* Includes all entities of the Cargolux Group

## VALUE CHAIN



DESTINATION  
MAP

 Cargolux hub  
• (Also) flown by Cargolux Italia

## MEMBERSHIPS & COMMITMENTS

### INDUSTRY ASSOCIATIONS



#### Airlines for Europe (A4E)

Europe's largest airline association represents the interests of airline members and their customers



#### Cargo iQ

This IATA interest group improves end-to-end processes in the air cargo transportation industry



#### Cool Chain Association



#### EASA Safety Management Best Practices

EASA CAT-CAT, IATA Safety Group, IATA Hazard Identification Task Force & EASA European Operators Flight Data Monitoring Initiative. These groups promote safety in the industry



#### Good Distribution Practice (GDP)

This certificate attests that Cargolux's management system meets World Health Organization guidelines and the EU directive "Guidelines on Good Distribution Practice of Medical Products for Human Use"



#### IAAIA

International Association of Airline Internal Auditors



#### IATA

Trade association for the world's airlines helps to guide and formulate industry policies on critical aviation issues



#### International Air Transport Association IATA TTTF

Time and Temperature Task Force



#### IATP

International Airlines Technical Pool



#### Chamber of Commerce Luxembourg (Powering Business)

## SUSTAINABILITY COMMITMENTS



UN Global Compact



UN Sustainable Development Goals



IATA Track Zero Program



IATA 25 by 2025



Pacte National Entreprises et Droits de l'Homme



United for Wildlife



Luxembourg's Diversity Charter



Vision Zero

## RECOGNITIONS



Actions Positives



Super Dreckskesch

## PARTNERSHIPS / EDUCATION



Lycée Technique Prive Emile Metz



Diplôme d'initiation aux métiers aéronautiques et spatiaux (DIMAS)

## SUSTAINABILITY MEMBERSHIPS



Smart Freight Center



RSB Roundtable on Sustainable Biomaterials

01  
INTRODUCTION

02  
ESRS 2  
GENERAL  
DISCLOSURES

03  
ESRS E1  
CLIMATE  
CHANGE

04  
ESRS E5  
RESOURCE USE  
AND CIRCULAR  
ECONOMY

05  
ESRS S1  
OWN  
WORKFORCE

06  
ESRS S3  
AFFECTED  
COMMUNITIES

07  
ESRS G1  
BUSINESS  
CONDUCT

08  
INDEPENDENT  
AND LIMITED  
ASSURANCE  
REPORTS

09  
GLOSSARY

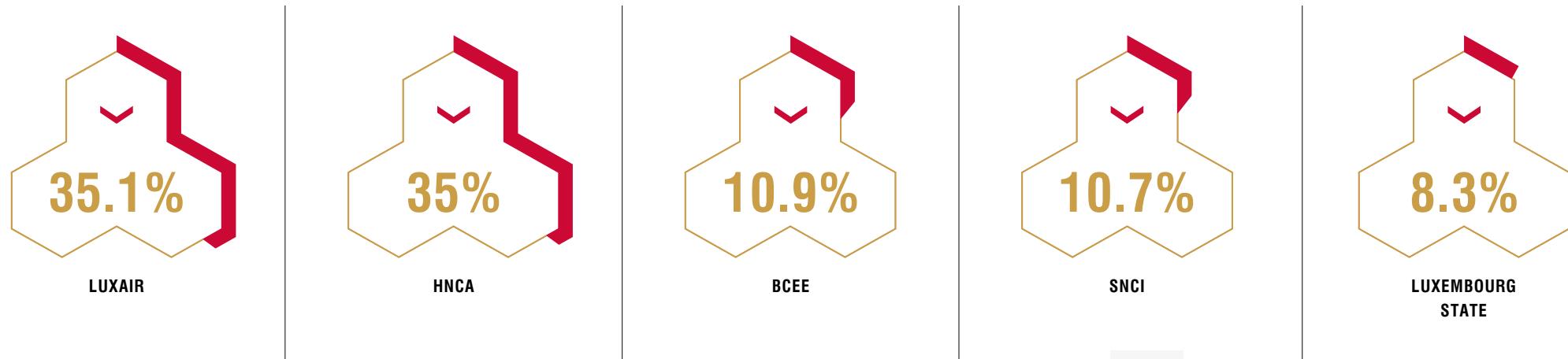
## GOVERNANCE



### SHAREHOLDERS

#### GOV-1 THE ROLE OF THE ADMINISTRATIVE, MANAGEMENT AND SUPERVISORY BODIES

*Governance Structure and Responsibilities*



## BOARD OF DIRECTORS

### Tom Weisgerber

Chairman of the Board of Cargolux,  
Premier Conseiller de Gouvernement,  
Ministry of Mobility and Public Works,  
Director

### Giovanni Giallombardo

Chairman of the Board of Luxair S.A.,  
Director

### Christine Goy

Secrétaire Générale du Gouvernement,  
Ministry of State,  
Director

### Eva KREMER<sup>1</sup>

Président du Comité de Direction SNCI,  
Director

### Patrick Nickels<sup>2</sup>

Premier Conseiller de Gouvernement,  
Ministry of the Economy,  
Director

### Marc Reiter

Chargé de Direction,  
Direction des transports aériens,  
Ministry of Mobility and Public Works,  
Director

### Françoise Thoma

Chief Executive Officer,  
Banque et Caisse d'Épargne de l'État,  
Director

### Jianmin Liu

General Manager,  
Henan Province Airport Group Co., Ltd.,  
Director

### Binbin Shi

General Manager PMO, HNCA,  
Head of the Culture and Tourism Department,  
HNCA,  
Director

### Félicie WEYCKER<sup>1</sup>

Premier Conseiller de Gouvernement,  
DG I Affaires européennes et juridiques,  
marchés publics et logistique,  
Ministry of Mobility and Public Works,  
Director

### Dongge Wang

Deputy Manager of Operation Management  
Department,  
Henan Civil Aviation Development & Investment  
Co., Ltd.,  
Director

### Dirk Becker

Captain,  
Director, Staff Representative

### Christine Dargan<sup>3</sup>

Manager (Sr), Crew Control,  
Director, Staff Representative

### Michael Kaiser<sup>3</sup>

Captain,  
Director, Staff Representative

### Astrid Kneip<sup>4</sup>

Director, Staff Representative

### Fabien Kowollik<sup>4</sup>

Foreman/MCC,  
Director, Staff Representative

### Johannes Wingenfeld

Captain,  
Director, Staff Representative

### Yves Zimmer

Technician (Sr) Line & Hangar Maintenance,  
Director, Staff Representative

### Footnotes

<sup>1</sup> Since 5 December 2024

<sup>2</sup> Until 1 November 2024

<sup>3</sup> Since 12 July 2024

<sup>4</sup> Until 12 July 2024

The Board of Directors is the supreme managing body of Cargolux. It has the broadest powers to accomplish all acts of management and of disposition of the assets in the name and for the account of Cargolux. The Board of Directors represents Cargolux in all judicial matters, whether as a plaintiff or as a defendant.

All matters which are not expressly reserved to the general meeting of the shareholders by virtue of law or by the articles of association fall within its authority.

As of 31 December 2024, the Board of Directors is composed of fifteen (15) directors, including ten (10) non-executive directors representing shareholders and five (5) employee representatives. The Board does not include any independent directors.

### Number of board members: 15

- Number of non-executive directors representing shareholders: 10
- Number of employee representatives: 5
- Number of executive representatives: 0
- Number of independent directors: 0

### Gender Diversity ratio: 5/15 (33%)



## COMMITTEES OF THE BOARD OF DIRECTORS

### Compensation Committee

Christine Goy  
Françoise Thoma  
Dongge Wang  
Tom Weisgerber

### Audit Committee

Patrick Nickels (Chairman)<sup>2</sup>  
Eva Kremer (Chairman)<sup>1</sup>  
Françoise Thoma  
Binbin Shi  
Tom Weisgerber

### Footnotes

<sup>1</sup> Since 5 December 2024  
<sup>2</sup> Until 1 November 2024

## EXECUTIVE COMMITTEE MEMBERS (EXCOM)



**RICHARD FORSON**

President & Chief  
Executive Officer (CEO)



**MAXIM STRAUS**

Executive Vice-President and  
Chief Financial Officer



**DOMENICO CECI**

Executive Vice-President  
Sales & Marketing



**STEPHANE KASTLER**<sup>6</sup>

Executive Vice-President  
Maintenance & Engineering



**PIERANDREA GALLI**<sup>5</sup>

Executive Vice President Commercial Planning



**CLAUDE ZEHREN**

Executive Vice-President  
Flight Operations

The Executive Committee is delegated by the Board of Directors to manage the daily operations of Cargolux and represent Cargolux in respect of the daily management, by being vested with the broadest management powers within the limitations by law or the articles of association.

Members of the Executive Committee are also member of the Sustainability Steering Group (SSG). The ExCom plays a key role in overseeing the implementation of Cargolux's sustainability strategy. It receives escalated reports from the SSG on key developments, risks, and performance indicators, and ensures alignment with corporate objectives before reporting to the Board of Directors.

### Footnotes

<sup>5</sup> Since 16 December 2024

<sup>6</sup> Since 1 April 2024 replacing Onno Pietersma who acted as EVP Maintenance & Engineering until 31 March 2024.

## SUSTAINABILITY STEERING GROUP (SSG)

The SSG is central to Cargolux's sustainability governance framework. It includes the President & CEO, who reports to the Board of Directors on sustainability matters, Executive Committee members, and subject matter experts, ensuring cross-functional leadership and accountability.

The SSG:

- Defines sustainability policies, objectives, and targets.
- Reviews and approves recommendations from the Sustainability Team.
- Establishes topic-specific working groups to execute initiatives.
- Monitors progress and reports on sustainability performance.
- Ensures integration of ESG considerations into strategic and operational decision-making.

### BOARD OF DIRECTORS



### SUSTAINABILITY STEERING GROUP



Topic specific

### WORKING GROUPS

Environmental Management

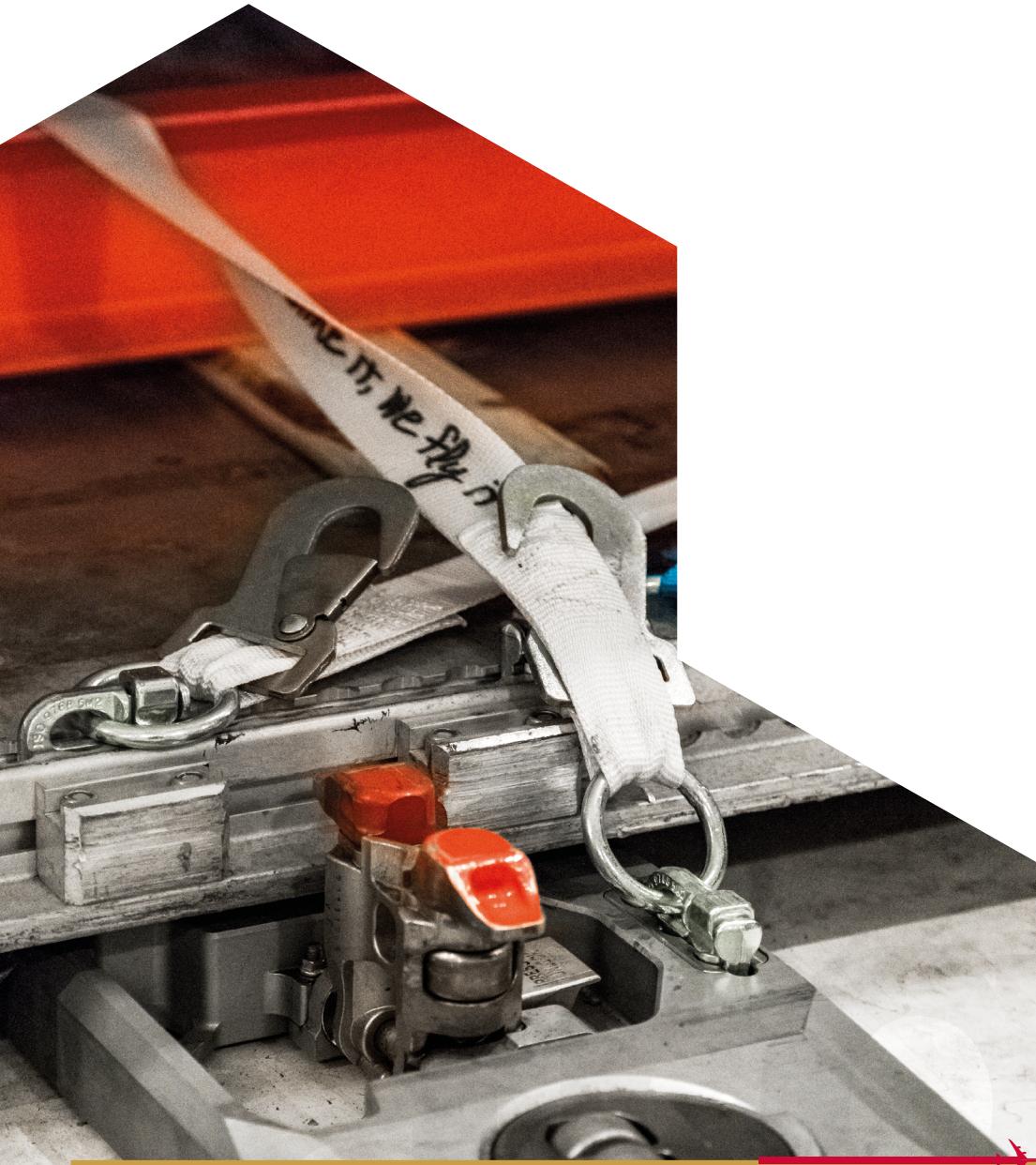
DEI

Carbon Efficiency

Human Rights

CSRD Taskforce





## SUSTAINABILITY TEAM

Led by the Chief Sustainability Officer (CSO), who reports to the CEO, the Sustainability Team facilitates materiality assessments and coordinates CSRD/ESRS-aligned reporting on group level. It monitors regulatory and normative developments and proposes integration of emerging requirements into company programs. The team comprises professionals with expertise in:

- Environmental Management & Emissions - carbon reduction, fuel efficiency, ISO compliance
- Sustainable Aviation Fuel (SAF) – chemical engineering and procurement expertise
- Social Sustainability – alignment with ISO 26000
- Human Rights and supply chain ethics – alignment with UN Guiding Principles and supply chain ethics
- Sustainability Reporting & Legislation – compliance with CSRD and ESRS

Cargolux applies the 70-20-10 learning model to embed ESG knowledge across roles. Members of the ExCom and subject matter experts have received targeted training, with middle management programs underway. Cross-functional collaboration ensures ESG integration into procurement, operations, and finance.

## CONTROLS AND PROCEDURES

Dedicated controls and procedures are embedded across internal functions through certified management systems:

- ISO 14001 for environmental management,
- ISO 45001 for occupational health and safety,
- UN Guiding Principles on Business and Human Rights,
- KYS processes for supply chain ethics.
- Topic-specific working groups under the SSG implement mitigation measures and drive performance improvements related to material sustainability risks such as emissions, fuel efficiency, and supplier practices.



## ROLE OF THE ADMINISTRATIVE, MANAGEMENT AND SUPERVISORY BODIES

### GOV-2 INFORMATION PROVIDED TO AND SUSTAINABILITY MATTERS ADDRESSED BY THE UNDERTAKING'S ADMINISTRATIVE, MANAGEMENT AND SUPERVISORY BODIES

Cargolux's administrative and management bodies, including the Sustainability Steering Group and dedicated working groups, actively address a comprehensive set of material impacts, risks, and opportunities identified through a Double Materiality Assessment. The SSG meets on a quarterly basis to discuss material impacts, risks and opportunities, implementation of due diligence, and results and effectiveness of policies, actions, metrics and targets adopted to address them.

The airline is implementing a centralized risk assessment framework to further integrate sustainability-related risks and opportunities into strategic decision-making, major transactions, and enterprise risk management processes. This initiative reflects the company's forward-looking approach to embedding sustainability into core business functions.

While formal trade-off analyses have not yet been conducted, the company acknowledges the importance of evaluating potential trade-offs between environmental, social, and economic outcomes and is working toward integrating such assessments into future governance practices.

The topics addressed by Cargolux's administrative and management bodies, including the SSG and dedicated working groups are identified through the Double Materiality Assessment. These topics are prioritized based on severity and likelihood of impact, as well as financial materiality, and are regularly reviewed in strategic and operational decision-making processes.

The following material topics are addressed:

- Environmental: Emissions, aircraft noise, waste management, pollution, fuel efficiency
- Social: OHS, staff welfare, DEI, training & development, human rights
- Governance: Ethical practices in business relationships, sustainable supply chain

### GOV-3 INTEGRATION OF SUSTAINABILITY-RELATED PERFORMANCE IN INCENTIVE SCHEMES

At present, the performance evaluation of its management and supervisory bodies does not include sustainability specifically.

## DUE DILIGENCE AND RISK ASSESSMENT

### GOV-4 STATEMENT ON DUE DILIGENCE

Cargolux applies a structured due diligence process to identify, prevent, mitigate, and account for actual and potential adverse impacts across its operations and value chain.

CORE ELEMENTS OF DUE DILIGENCE	PARAGRAPHS IN THE SUSTAINABILITY STATEMENT	PAGES
a) Embedding due diligence in governance, strategy and business model	<b>GOV-2:</b> Sustainability matters addressed by governance bodies <b>SBM-1:</b> Strategy integration of ESG (fleet renewal, SAF, circular economy) <b>GOV-5:</b> Risk management and internal controls <b>IRO-1:</b> Double Materiality Assessment methodology	30 14 32 39
b) Engaging with affected stakeholders in all key steps of the due diligence	<b>SBM-2:</b> Stakeholder engagement approach and mapping <b>S1-2:</b> Workforce engagement processes <b>S3-2:</b> Community engagement approaches	34 69 79
c) Identifying and assessing adverse impacts	<b>IRO-1:</b> DMA process and prioritization <b>SBM 3:</b> Material impacts tables <b>E1-1, E1-2:</b> Climate-related risks and opportunities <b>E5-1:</b> Resource use and circular economy policies	39 37 46 60

**CORE ELEMENTS OF DUE DILIGENCE**

d) Taking actions to address those adverse impacts

e) Tracking the effectiveness of these efforts and communicating

**PARAGRAPHS IN THE SUSTAINABILITY STATEMENT****SBM-3:** Mitigation actions for material topics

37

**E1-3:** Climate actions (SAF, fleet renewal, contrail avoidance)

51

**E5-2:** Circular economy actions (biodegradable plastics, PEFC wood)

60

**S1-4:** Workforce actions and effectiveness

71

**S3-4, S3-5:** Community noise abatement and resources

80

**G1-2:** Supplier due diligence

85

**GOV-2:** Governance monitoring and quarterly reviews

30

**GOV-4:** Statement on due diligence

31

**GOV-5:** Internal controls and ISO certifications

32

**E1-4 to E1-7:** Climate targets and metrics

52

**E5-3 to E5-4:** Resource use targets and inflows

61

**S1-4, S3-4:** Effectiveness of social actions

71, 80

**GOV-5 RISK MANAGEMENT AND INTERNAL CONTROLS OVER SUSTAINABILITY REPORTING**

A Double Materiality Assessment (DMA), conducted in alignment with EFRAG guidance and covering the full value chain of Cargolux is at the core of the company's sustainability multilayered risk management system to ensure the integrity and reliability of its sustainability reporting. This top-down assessment identifies both impact materiality (inside-out) and financial materiality (outside-in), ensuring a comprehensive understanding of sustainability-related risks and opportunities.

The DMA is complemented by topic-specific risk assessments, including those conducted under ISO 14001 (environmental management) and ISO 45001 (occupational health and safety), which currently apply to operations in Luxembourg. In addition, a climate-related risk assessment aligned with IFRS S2 that is being prepared will further strengthen the Group's climate risk preparedness.

Internal controls include cross-functional review of the DMA, coordination and oversight by the Sustainability Department, and third-party verification by external consultants and auditors to ensure robustness and transparency.

Cargolux's sustainability risk management is overseen by the Sustainability Steering Group (SSG), which acts as the central body for coordinating risk assessments, controls, and reporting. The SSG monitors these actions and ensures consistent integration across the organization. Progress and key findings are reviewed at regular SSG meetings, thereby securing both management follow-up and supervisory oversight.

Main risks identified correspond to the material topics disclosed in this report. Mitigation strategies are embedded into business functions: environmental plans to reduce impacts, health and safety initiatives to strengthen wellbeing, and HR projects to support workforce transformation.





# STAKEHOLDERS

## SBM-2 INTERESTS AND VIEWS OF STAKEHOLDERS

### *Stakeholder Engagement Approach*

Cargolux maintains an open and structured dialogue with internal and external stakeholders, tailored to the specific needs and expectations of each group. Since 2017, stakeholder engagement has been embedded in the company's sustainability strategy, supported by regular Double Materiality Assessment aligned with the GRI 2021 standard. An update of the stakeholder mapping and rating was done in 2025.

In the latest stakeholder mapping exercise in early 2025, the following were identified as the most important stakeholders:

## STAKEHOLDER CATEGORY



### Employees



### Employee representation



### Customers & Shippers



### Leadership & Management

## ENGAGEMENT METHOD

Surveys, staff meetings, training programs, internal communications, working groups

Regular meetings with staff delegation and unions

Customer survey, sustainability dialogues, business reviews, customer communications, cooperation and partnerships for sustainability

Strategic workshops, employee satisfaction surveys, internal communications

## INFLUENCE ON STRATEGY

Shapes HR policies and talent retention

Influences labor relations and compliance

Drives decarbonization roadmap and service strategy

Directly sets strategic direction and sustainability priorities

STAKEHOLDER CATEGORY	ENGAGEMENT METHOD	INFLUENCE ON STRATEGY	STAKEHOLDER CATEGORY	ENGAGEMENT METHOD	INFLUENCE ON STRATEGY
 Airports	Environmental committees, sustainability interviews, working groups	Supports environmental impact reduction and operational alignment	 General Public & Civil Society	Website updates, social media, NGO collaboration, meetings with interest groups	Shapes community engagement and biodiversity initiatives
 Suppliers	Sustainability surveys, KYS questionnaires, cooperation and partnerships for sustainability	Influences procurement decisions and ethical sourcing	 Educational Institutions & Youth	Regular dialogues and partnerships	Supports talent development and employer branding
 Financial institutions	Sustainability dialogues, annual bankers' day, sustainability survey	Aligns risk management and sustainability disclosures	 Regulators & Government Representatives	Regular dialogues	Ensures compliance and alignment with regulatory frameworks

The purpose of Cargolux's stakeholder engagement efforts is multifaceted, reflecting both the complexity of its global air cargo operations and the evolving expectations of its stakeholders. Operating across multiple jurisdictions, with varying regulatory frameworks, community sensitivities, and technical constraints, Cargolux's activities require tailored engagement approaches that respond to local contexts while maintaining consistency in sustainability performance.

Engagement enables the company to align its operations with stakeholder expectations and broader societal needs. This ensures that strategic priorities reflect the concerns and aspirations of those impacted by the company's activities, including compliance with national and international sustainability frameworks and support for voluntary commitments.

Through engagement, material sustainability topics and risks can be identified, enabling Cargolux to respond proactively. Transparent communication fosters trust and confidence in the group's sustainability performance and decision-making processes. By partnering with stakeholders, Cargolux is better positioned to develop practical solutions to environmental and social challenges. Stakeholder engagement also supports continuous improvement in ESG performance, helping to assess the effectiveness of actions and adapt strategy accordingly.

#### *Consideration of Outcomes*

Feedback and input from stakeholder engagement is integrated into strategic decision-making and sustainability reporting. Examples include:

- Employee feedback informing diversity and inclusion initiatives
- Customer and shipper input shaping environmental and climate impact mitigation strategies

- Collaboration with youth and educational institutions influencing talent development and attraction
- Regulatory engagement guiding compliance and voluntary commitments under national programs

The stakeholders were classified in accordance with their dependency, influence, vulnerability, dialogue capacity and ESG interest.

#### *Stakeholder engagement organization*

Cargolux's stakeholder engagement is currently coordinated across departments, with each function managing interactions relevant to its stakeholder group. While engagement is not yet structured under a centralized framework, sustainability-related topics are coordinated by the Sustainability Team to ensure consistency and alignment with the company's ESG priorities.

Recognizing the importance of a more systematic approach, Cargolux is considering the implementation of the AA1000 Stakeholder Engagement Standard (AA1000SES). This will support the development of a more inclusive, transparent, and structured engagement process, enabling the company to better identify stakeholder expectations, assess material sustainability topics, and strengthen its responsiveness.

This transition reflects Cargolux's commitment to continuous improvement in stakeholder dialogue and sustainability performance, ensuring that engagement efforts evolve in line with operational realities and stakeholder needs.

#### *Integration into Governance*

Stakeholder feedback is reported to the Sustainability Steering Group and integrated into strategic planning, risk management, and sustainability reporting processes.

## MATERIAL IMPACTS, RISKS AND OPPORTUNITIES

### SBM-3 MATERIAL IMPACTS, RISKS AND OPPORTUNITIES AND THEIR INTERACTION WITH STRATEGY AND BUSINESS MODEL

TOPIC	IRO DESCRIPTION	IMPACT	TIME HORIZON	VALUE CHAIN	TOPIC	IRO DESCRIPTION	IMPACT	TIME HORIZON	VALUE CHAIN
<b>ENVIRONMENT</b>									
Climate change	 CO <sub>2</sub> emissions - Scope 1 and Scope 2	Negative Impact	Short-Mid-Long term	Own operation	Ethical practices in business relationships	 Supplier relationships	Positive Impact	Short-Mid-Long term	Up-stream & Own operation
	 Own operations Reduction of GHG emissions	Opportunity	Short-Mid-Long term	Own operation		 Compliance & Ethics	Positive Impact	Short-Mid-Long term	All value chain
	 Advancing energy efficiency and clean energy adoption	Opportunity	Short-Mid-Long term	Own operation		 Strong corporate culture	Positive Impact	Short-Mid-Long term	Own operation
	 Mitigating wildfire through Aquarius AFF activities	Positive Impact	Short-Mid-Long term	Own operation		 Protection of whistleblowers	Positive Impact	Short-Mid-Long term	All value chain
Waste management	 Waste generation and management	Negative Impact	Short-Mid-Long term	Own operation					

TOPIC	IRO DESCRIPTION	IMPACT	TIME HORIZON	VALUE CHAIN
<b>SOCIAL</b>				
Own workforce	 Secure employment	Positive Impact	Short-Mid-Long term	Own operation
	 Working time	Positive Impact	Short-Mid-Long term	Own operation
	 Social dialogue	Positive Impact	Short-Mid-Long term	Own operation
	 Work-life balance	Positive Impact	Short-Mid-Long term	Own operation
	 Health and safety	Positive Impact	Short-Mid-Long term	Own operation
	 Diversity, Equity and Inclusion	Positive Impact	Short-Mid-Long term	Own operation
	 Employment and inclusion of persons with disabilities	Positive Impact	Short-Mid-Long term	Own operation

TOPIC	IRO DESCRIPTION	IMPACT	TIME HORIZON	VALUE CHAIN
<b>SOCIAL</b>				
Own workforce	 Anti-Harassment and Non-discrimination	Positive Impact	Short-Mid-Long term	Own operation
	 Adequate wage	Positive Impact	Short-Mid-Long term	Own operation
	 Training and skills development	Positive Impact	Short-Mid-Long term	Own operation
	 Privacy	Positive Impact	Short-Mid-Long term	Own operation
	 Training and skills development	Positive Impact	Short-Mid-Long term	Up-stream & Own operation
Affected communities	 Noise Pollution	Negative Impact	Short-Mid-Long term	Own operation

# DOUBLE MATERIALITY AND IROS

## IRO-1 DESCRIPTION OF THE PROCESS TO IDENTIFY AND ASSESS MATERIAL IMPACTS, RISKS AND OPPORTUNITIES

### DOUBLE MATERIALITY ASSESSMENT (DMA)

The Cargolux Group applies a double materiality approach, integrating both impact materiality (inside-out) and financial materiality (outside-in) as required under ESRS. Impact materiality identifies the company's actual and potential effects on the environment, society, and human rights, while financial materiality assesses sustainability-related risks and opportunities that could affect cash flows, performance, and company value over short-, medium-, and long-term horizons. Both perspectives are considered equally to ensure a balanced and comprehensive analysis.

The objective of the analysis is to define the scope of the double materiality exercise, assess the company's most significant ESG impacts, risks, and opportunities (IROs), and identify priority sustainability topics for reporting, in line with stakeholder expectations and ESRS requirements.

The process to identify impacts, risks and opportunities has evolved from previous Double Materiality Assessment (DMA). Earlier assessments were based on the GRI 2021 standards and focused solely on the parent company. The 2024 process was conducted fully in alignment with the ESRS framework, covering additional subsidiaries and value chain activities. Compared to prior reporting periods, the 2024 DMA represented a significant advancement. It also incorporated sector-specific materiality tools, structured stakeholder mapping, and a more detailed prioritization methodology. Although the stakeholder consultation scope remained limited, Cargolux plans to broaden its engagement and further align the DMA outcomes with enterprise risk management in future reporting cycles.

### SCOPE OF ANALYSIS

The analysis encompasses Cargolux Airlines International S.A., Cargolux Italia S.p.A., Aquarius Aerial Firefighting S.à.r.l., and Luxcargo Handling S.A. Both upstream (aircraft maintenance, fuel, ground handling and other suppliers, regulatory compliance and certification, human resources and training) and downstream activities (sales, marketing, distribution, flight operation, customer service) in the value chain are included, ensuring coverage of all operational and value chain impacts. The reporting period is the 2024 financial year (January 1 – December 31, 2024).

### IDENTIFYING IMPACTS, RISKS AND OPPORTUNITIES

Cargolux applies a structured process to identify, assess, prioritize, and monitor its material impacts, risks, and opportunities (IROs) in line with the requirements of the European Sustainability Reporting Standards (ESRS). The methodology draws on the ESRS framework, EFRAG guidance (2024), as well as recognized international references such as GRI, MSCI ESG Materiality Map, UNEP FI Portfolio Impact Tool, and the SASB Materiality Finder. Given data availability constraints,

the 2024 assessment applied a qualitative approach supported by sector-specific benchmarks to identify relevant IROs.

### STAKEHOLDER ENGAGEMENT

As part of the 2024 DMA, Cargolux engaged a targeted set of stakeholders including customers, airports, suppliers, and financial institutions. Stakeholder mapping followed the AA1000SES methodology, considering influence, dependency, vulnerability, dialogue capacity, and ESG interest. While engagement was limited in this cycle, the company plans to expand stakeholder inclusion and to integrate external expert input in future assessments.

## IMPACT MATERIALITY (INSIDE-OUT)

As part of the double materiality analysis, each impact was evaluated based on the following criteria: scale, scope, irremediability and likelihood.

- Actual Positive Impact (scale and scope): The positive impact has been assessed in terms of its magnitude and scope on people and the environment. This includes assessing the beneficial effects of the company's operations and value chain on its ecosystem.
- Potential Positive Impact (scale, scope, and likelihood): This aspect takes into account the potential positive impacts, their scope, magnitude, as well as the likelihood of their occurrence in the short, medium and long term.

- Actual Negative Impact (scale, scope, irremediability): The assessment of negative impacts focuses on their magnitude, extent, and irreversibility. Short-, medium-, and long-term impacts were considered, particularly impacts related to human rights and the environment.
- Potential Negative Impact (scale, scope, irremediability, and likelihood): The likelihood of occurrence was included in the analysis, in line with the ESRS criteria, to assess the likelihood of these impacts materializing over different time horizons. Potential negative impacts on human rights must prioritize the severity of the impact over its likelihood.

## FINANCIAL MATERIALITY (OUTSIDE-IN)

Risks and opportunities have been assessed on the basis of two factors: the magnitude of the financial effect and the likelihood of occurrence. For each risk and opportunity associated with the identified themes and sub-themes, the following elements were considered:

- Risk (magnitude and likelihood): The financial effect of the risks identified has been assessed on the basis of the magnitude of this impact and the likelihood of occurrence of this risk for the company.
- Opportunity (magnitude and likelihood): The financial effect of the opportunities identified was assessed according to the magnitude of this positive effect and the likelihood of occurrence of this opportunity for the company.

### *Materiality threshold*

IROs meeting or exceeding the threshold of 3 out of 5, or of strategic/sectoral significance, are considered material and included in reporting.

### *Decision-Making and Governance*

The outcomes of the DMA currently inform the company's understanding of its sustainability risk landscape and are progressively being embedded into its overall risk management system. Risks and opportunities identified are also incorporated into departmental improvement plans, initiatives, and transformation projects, ensuring operational follow-up.

## IRO-2 DISCLOSURE REQUIREMENTS IN ESRS COVERED BY THE UNDERTAKING'S SUSTAINABILITY STATEMENT

DISCLOSURE REQUIREMENT	CHAPTER	PAGE
<b>ESRS 2 - GENERAL DISCLOSURES</b>		
<b>BP-1</b>	General basis for preparation of the sustainability statement	10
<b>BP-2</b>	Disclosures in relation to specific circumstances	11
<b>GOV-1</b>	The role of the administrative, management and supervisory bodies	24
<b>GOV-2</b>	Information provided to and sustainability matters addressed by the undertaking's administrative, management and supervisory bodies	30
<b>GOV-3</b>	Integration of sustainability-related performance in incentive schemes	30
<b>GOV-4</b>	Statement on due diligence	31
<b>GOV-5</b>	Risk management and internal controls over sustainability reporting	32
<b>SBM-1</b>	Strategy, business model and value chain	14
<b>SBM-2</b>	Interests and views of stakeholders	34
<b>SBM-3</b>	Material impacts, risks and opportunities and their interaction with strategy and business model	37

DISCLOSURE REQUIREMENT	CHAPTER	PAGE
<b>ESRS 2 - GENERAL DISCLOSURES</b>		
<b>IRO-1</b>	Description of the process to identify and assess material impacts, risks and opportunities	39
<b>IRO-2</b>	Disclosure Requirements in ESRS covered by the undertaking's sustainability statement	41
<b>ESRS E1 - CLIMATE CHANGE</b>		
<b>E1-1</b>	Transition plan for climate change mitigation	46
<b>ESRS 2 SBM-3</b>	Material impacts, risks and opportunities and their interaction with strategy and business model	47
<b>ESRS 2 IRO-1</b>	Description of the processes to identify and assess material climate-related impacts, risks and opportunities	48
<b>E1-2</b>	Policies related to climate change mitigation and adaptation	51
<b>E1-3</b>	Actions and resources in relation to climate change policies	51
<b>E1-4</b>	Targets related to climate change mitigation and adaptation	52

DISCLOSURE REQUIREMENT	CHAPTER	PAGE
<b>ESRS E1 - CLIMATE CHANGE</b>		
<b>E1-5</b>	Energy consumption and mix	53
<b>E1-6</b>	Gross Scopes 1, 2, 3 and Total GHG emissions	54
<b>E1-7</b>	GHG removals and GHG mitigation projects financed through carbon credits	58
<b>E1-9</b>	Anticipated financial effects from material physical and transition risks and potential climate-related opportunities	Omitted as per ESRS 1 Appendix C
<b>ESRS E5 - RESOURCE USE AND CIRCULAR ECONOMY</b>		
<b>E5-1</b>	Policies related to resource use and circular economy	60
<b>E5-2</b>	Actions and resources related to resource use and circular economy	60
<b>E5-3</b>	Targets related to resource use and circular economy	61
<b>E5-4</b>	Resource inflows	62
<b>E5-5</b>	Resource outflows	63
<b>E5-6</b>	Anticipated financial effects from material resource use and circular economy-related risks and opportunities	Omitted as per ESRS 1 Appendix C

DISCLOSURE REQUIREMENT	CHAPTER	PAGE
<b>ESRS S1 - OWN WORKFORCE</b>		
<b>ESRS 2 SBM-3</b>	Material impacts, risks and opportunities and their interaction with strategy and business model	66
<b>S1-1</b>	Policies related to own workforce	67
<b>S1-2</b>	Processes for engaging with own workforce and workers' representatives about impacts	69
<b>S1-3</b>	Processes to remediate negative impacts and channels for own workforce to raise concerns	71
<b>S1-4</b>	Taking action on material impacts on own workforce, and approaches to managing material risks and pursuing material opportunities related to own workforce, and effectiveness of those actions	71
<b>S1-5</b>	Targets related to managing material negative impacts, advancing positive impacts, and managing material risks and opportunities	74

DISCLOSURE REQUIREMENT	CHAPTER	PAGE
<b>ESRS S1 - OWN WORKFORCE</b>		
<b>S1-6</b>	Characteristics of the undertaking's employees	74
<b>S1-7</b>	Characteristics of non-employees in the undertaking's own workforce	Omitted as per ESRS 1 Appendix C
<b>S1-8</b>	Collective bargaining coverage and social dialogue	75
<b>S1-9</b>	Diversity metrics	74
<b>S1-10</b>	Adequate wages	75
<b>S1-11</b>	Social protection	76
<b>S1-12</b>	Persons with disabilities	76
<b>S1-13</b>	Training and skills development metrics	76
<b>S1-14</b>	Health and safety metrics	77
<b>S1-15</b>	Work-life balance metrics	77
<b>S1-16</b>	Remuneration metrics (pay gap and total remuneration)	75
<b>S1-17</b>	Incidents, complaints and severe human rights impacts	77

DISCLOSURE REQUIREMENT	CHAPTER	PAGE
<b>ESRS S3 - Affected Communities</b>		
<b>ESRS 2 SBM-3</b>	Material impacts, risks and opportunities and their interaction with strategy and business model	79
<b>S3-1</b>	Policies related to affected communities	79
<b>S3-2</b>	Processes for engaging with affected communities about impacts	79
<b>S3-3</b>	Processes to remediate negative impacts and channels for affected communities to raise concerns	80
<b>S3-4</b>	Taking action on material impacts on affected communities, and approaches to managing material risks and pursuing material opportunities related to affected communities, and effectiveness of those actions	80
<b>S3-5</b>	Targets related to managing material negative impacts, advancing positive impacts, and managing material risks and opportunities	80

DISCLOSURE REQUIREMENT	CHAPTER	PAGE
<b>ESRS G1 - BUSINESS CONDUCT</b>		
<b>ESRS 2 GOV-1</b>	The role of the administrative, management and supervisory bodies	82
<b>G1-1</b>	Business conduct policies and corporate culture	83
<b>G1-2</b>	Management of relationships with suppliers	85
<b>G1-3</b>	Procedures to address corruption and bribery	85
<b>G1-4</b>	Incidents of corruption or bribery	86
<b>G1-6</b>	Payment practices	86





## ESRS E1 CLIMATE CHANGE

# ESRS E1 CLIMATE CHANGE



## ESRS 2 – GENERAL DISCLOSURES

### E1-1 TRANSITION PLAN FOR CLIMATE CHANGE MITIGATION

Cargolux acknowledges the critical role the aviation sector plays in addressing climate change and is committed to contributing meaningfully to global decarbonization efforts.

The aviation industry operates under a growing set of climate-related expectations and regulations. The Paris Agreement calls to limit global warming to well below 2°C, with efforts to limit it to 1.5°C. In response, the International Civil Aviation Organization (ICAO) adopted the Long-Term Aspirational Goal (LTAG) of achieving net-zero carbon emissions from

international aviation by 2050. In parallel, the European Union has introduced regulatory frameworks such as the EU Emissions Trading System (EU ETS) and ReFuelEU Aviation, which mandate the progressive decarbonization of the sector. Cargolux is subject to these frameworks and ensures compliance with their requirements.

Cargolux is committed to playing its part in the global effort to decarbonize aviation and ensuring that operations evolve to support a just and sustainable transition. To this end, Cargolux has invested over USD 18 million in measures to address climate-related risks. These include investment in Sustainability Available Fuel (SAF) and the supply chain and procurement of e-fuel production.

At the date of publication, the airline is developing its transition plan in alignment with applicable regulatory requirements and the company's long-term sustainability vision.

As of 2024, Cargolux had not yet completed its EU Taxonomy assessment. Accordingly, the alignment of capital and operational expenditures with taxonomy-eligible activities remains to be determined.



## ESRS 2 SBM-3 MATERIAL IMPACTS, RISKS AND OPPORTUNITIES AND THEIR INTERACTION WITH STRATEGY AND BUSINESS MODEL

Climate change presents both significant risks and emerging opportunities for the aviation sector. As a global cargo carrier, Cargolux operates in a highly regulated and environmentally sensitive industry, where climate-related impacts are increasingly shaping strategic and operational decisions.

The transition to a low-carbon and climate-resilient economy introduces a range of material transition risks for Cargolux. These include regulatory, legal, technological, market, and reputational in response to implementation of the EU Emissions Trading System (EU ETS), UK ETS, Swiss ETS, ReFuelEU Aviation Regulation and CORSIA. For example, the use of Sustainable Aviation Fuel (SAF) is currently three to five times more expensive than conventional Jet A-1 fuel. This cost difference, combined with limited availability and the need for rigorous sustainability verification, poses a significant financial and operational challenge for decarbonization.

Cargolux is also exposed to technology-related risks, particularly in relation to fleet modernization. The airline industry is dependent on aircraft manufacturers' pace of innovation to deliver more fuel-efficient aircraft. Cargolux has placed an order for ten Boeing 777-8 freighters, which are expected to be approximately 30% more fuel-efficient than the Boeing 747-400 freighters they will replace. Decarbonizing aviation is uniquely challenging due to the long waiting times for new designs and aircraft delivery. The long service life of aircraft (typically around 25 years) and the very high capital requirements means that even as new, more efficient models are introduced, the overall fleet changes slowly, limiting the speed at which technological improvements can impact emissions.

Given the short timelines of global climate targets for 2030, 2040, and 2050, relying solely on new aircraft is not sufficient. Once aircraft are in service, their environmental performance is largely fixed. As a result, sustainable aviation fuel is essential for reducing emissions from both current and future fleets. Cargolux actively supports the development and adoption of SAF as a key part of its decarbonization strategy.

Access to affordable financing is critical to enabling these actions, particularly for capital-intensive investments such as fleet renewal and SAF procurement. Cargolux recognizes the need for collaboration across the aviation value chain, including governments, fuel producers, and industry stakeholders, to ensure the availability and affordability of SAF and to accelerate the transition to a low-carbon aviation sector.

In parallel, physical climate risks are becoming more pronounced. As a global operator, Cargolux is increasingly exposed to extreme weather events such as high winds, heavy snowfall, excessive rainfall, and extreme temperatures. These conditions can disrupt flight schedules, damage infrastructure, and increase maintenance and fuel costs, thereby affecting the reliability and cost-efficiency of operations.

While a formal climate resilience analysis has not yet been finalized, Cargolux is aware of the strategic implications of climate change. A climate scenario analysis is expected to be completed in 2025, assessing the resilience of the airline's business model under different climate futures. This analysis will support the development of a robust transition plan and inform long-term investment and risk management strategies.

As the aviation industry continues to evolve in response to climate imperatives, Cargolux strives to integrating environmental considerations into its core business model. The company views climate action not only as a regulatory necessity but also as an opportunity to innovate, lead, and contribute to a more sustainable global logistics network.

## IMPACT, RISK AND OPPORTUNITY MANAGEMENT

### ESRS 2 IRO-1 DESCRIPTION OF THE PROCESS TO IDENTIFY AND ASSESS MATERIAL CLIMATE-RELATED IMPACTS, RISKS AND OPPORTUNITIES

Understanding and managing the impacts, risks, and opportunities associated with climate change is extremely important. As a global air cargo operator, the company is exposed to a wide range of climate-related challenges that can affect its operations, financial performance, and long-term strategic positioning.

#### Greenhouse gas inventory

To assess its climate-related impacts, Cargolux prepares a comprehensive carbon inventory in accordance with the Greenhouse Gas Protocol – A Corporate Accounting and Reporting Standard (Revised Edition). This inventory includes Scope 1 (direct GHG emissions from sources that are owned or controlled by Cargolux), Scope 2 (indirect GHG emissions from the generation of purchased electricity, heating, and cooling consumed by Cargolux operations), and Scope 3 emissions (all other

indirect emissions that occur in the value chain of Cargolux, both upstream and downstream). Scope 1 and Scope 3 emissions from jet fuel production, transportation, and combustion accounting for approximately 98% of the company's total carbon footprint. In 2024, Cargolux reported total emissions of 5.90 million tonnes of CO<sub>2</sub>e.

The carbon footprint data is prepared and reviewed by the Environmental Management team and is independently verified using internationally recognized standards including ISO/IEC 17029:2019, ISO 14064-3:2019, and ISO 14065:2020.

#### Environmental Management System (EMS)

Cargolux's Environmental Management System (EMS) was established in 2009 to oversee all Luxembourg-based operations. Certified under ISO 14001:2015, the EMS serves as the foundation for managing and continuously improving the company's environmental performance. It ensures compliance with legal requirements, supports the achievement of annual environmental goals, and drives sustainability across the organization.

The EMS plays a central role in identifying and addressing environmental impacts, risks, and opportunities, including those related to climate change, air quality, noise pollution, chemical use, and the effects of operations on local communities. In response, Cargolux has implemented a variety of initiatives, such as integrating renewable energy and sustainable technologies, enhancing employee training, and optimizing operational processes.

At the heart of the EMS is the company's Environmental Policy, which reflects Cargolux's commitment to sustainable development, corporate responsibility, and environmental stewardship. The policy emphasizes compliance with environmental regulations, pollution prevention, and the reduction of the company's environmental footprint. It also promotes transparency and open communication, both internally and externally.

To embed environmental awareness throughout the organization, all employees and new hires complete a mandatory Environmental Awareness e-learning course covering energy conservation, climate action and waste management; with additional training provided to staff in roles with specific environmental responsibilities. The EMS is further supported by regular activities such as annual emissions verification audits, spill response tests, controls on air emissions and any possible soil contamination. Crew members also undergo specialized training modules focused on sustainability-related topics such as fuel efficiency, noise reduction measures and environmentally responsive operations in extreme weather conditions (e.g. cold and hot weather procedures). These modules are essential not only for operational understanding, but also for supporting the company's broader environmental goals.



ISO 14001 ensures data accuracy through a combination of standardized procedures, thorough documentation, and rigorous evaluation processes. These include implementing standardized data collection protocols, conducting regular audits, and utilizing reliable measurement instruments. These procedures ensure that the environmental data reported by Cargolux adheres to the principles of relevance, completeness, consistency, transparency, and accuracy.

Oversight of the EMS lies with the Cargolux Executive Committee, which ensures that environmental management aligns with broader sustainability commitments. These include participation in the UN Global Compact, support for the UN 2030 Agenda and its Sustainable Development Goals.

Employees have access to a dedicated intranet page containing all relevant EMS documentation, policies, procedures, and training materials. Environmental updates are also shared through the internal staff newsletter. Externally, Cargolux communicates its environmental progress through sustainability reports and a dedicated page on the corporate website.

The Environmental Management Manager collaborates closely with other industry stakeholders through the Lux-Airport Environmental Committee (LAEC), chaired by Lux Airport. This committee facilitates joint projects and the exchange of best practices among airport operators in Luxembourg. Additionally, any environment-related complaints such as those concerning noise pollution would also be discussed in the committee.

#### *Double Materiality Assessment (DMA)*

In 2024, Cargolux conducted a qualitative assessment of its climate-related risks and opportunities. This assessment identified two primary categories of risk:

- **Transition risks**, arising from the shift to a low-carbon economy, including regulatory changes (e.g. ReFuelEU mandates), legal liabilities, evolving market expectations, and reputational pressure. The cost of compliance with emissions trading schemes (EU ETS, UK ETS, Swiss ETS, and CORSIA) and the high price of SAF—currently three to five times the cost of conventional jet fuel—pose significant financial challenges.

Additionally, the company is dependent on the long-term pace of technological innovation in aircraft design, which requires substantial capital investment and operational adaptation.

- **Physical risks**, related to the increasing frequency and severity of extreme weather events, such as high winds, heavy snowfall, and flooding. These occurrences can disrupt flight schedules, damage infrastructure, and increase operational costs. Cargolux's global network comprises a wide range of climate conditions, and long-term changes — such as rising sea levels or increased flooding — at key airport locations could impact operational reliability.

This exercise highlighted that both operations and financial performance may be impacted by climate-related developments over various timeframes. A formal climate scenario analysis is foreseen for 2025/2026 to expand into having a climate risk assessment accounting for short-, medium-, and long-term time horizons for. The sensitivity of Cargolux's assets and operations will also be assessed to identify hazards.

Cargolux is intent on actively driving the transition to a climate-neutral economy. Due to the complex nature of the industry, the extent of required adaptation has not yet been defined. The company acknowledges that its current fleet includes ageing aircraft that are less fuel-efficient than newer generations, and that locked-in emissions from its existing fleet pose a risk to achieving long-term climate goals. Significant investment is required to align with long-term decarbonization goals. Cargolux has already taken steps in this direction with 10 new Boeing 777-8F aircraft on order to replace the older 747-400 freighters and 6 more under option. Once this re-fleeting phase is completed, between 14 and 20 of the older, less-fuel efficient aircraft will remain in operation. This presents a transition risk that the company is actively managing through its investment and operational strategies.

The company views climate-related risk assessment not only as a compliance requirement but as a strategic imperative to ensure long-term resilience and competitiveness in a rapidly changing global environment.

## E1-2 POLICIES RELATED TO CLIMATE CHANGE MITIGATION AND ADAPTATION

### *Environmental Policy*

Cargolux has established an Environmental Policy that governs its global operations and outlines its commitments to addressing climate change. The policy includes specific provisions on climate change mitigation, energy efficiency, and the promotion of renewable energy.

The policy affirms Cargolux's commitment to reducing greenhouse gas emissions and improving its carbon footprint. It supports compliance with international and regional regulatory frameworks, including the EU Emissions Trading System (EU ETS) and ICAO's CORSIA scheme. The policy also reflects alignment with IATA's net-zero by 2050 target, guiding the company's long-term climate strategy.

In terms of operational implementation, the Environmental Policy emphasizes fuel efficiency as a key mitigation measure. This includes commitments to reduce fuel consumption across both aircraft and ground vehicles supported by investments in new generation aircraft and the revision of the internal Fuel Efficiency Program.

While a dedicated climate adaptation policy has not yet been formalized, the Environmental Policy acknowledges the need to consider the physical impacts of climate change and supports the integration of climate resilience into operational planning.

## E1-3 ACTIONS AND RESOURCES IN RELATION TO CLIMATE CHANGE POLICIES

Cargolux has initiated a series of actions to support the mitigation and adaptation climate change. In terms of adaptation, the airline focuses on technological and operational resilience to address the physical risks posed by climate change. These include extreme weather events and long-term climate shifts that may affect airport infrastructure and flight operations. Best practices are integrated into the airline's operational planning to enhance resilience across its global network.



### *Fleet replacement*

Cargolux has committed to a fleet renewal program which looks to replace the older Boeing 747-400s with new Boeing 777-8 freighters. Ten aircraft were ordered in 2022, with options for an additional six more. These next-generation aircraft are expected to deliver a 30% improvement in fuel efficiency, significantly reducing emissions per tonne-kilometer flown. One of the most impactful long-term actions in the company's climate strategy, the re-fleeting process is set to begin in 2028.



### *Sustainable Aviation Fuel (SAF)*

SAF is considered one of the biggest levers for the aviation industry to reach climate targets. The company has already demonstrated leadership by becoming the first airline to uplift SAF at Luxembourg Airport and the first foreign airline to do so in China. In 2024, Cargolux committed up to EUR 10.25 million in projects related to e-fuel and bio-ethanol production,

including a landmark offtake agreement with Norsk e-Fuel, supporting the development of synthetic fuels derived from CO<sub>2</sub> and water. These investments are intended to support the scale-up of alternative fuels that are essential for long-term decarbonization.

In addition to voluntary initiatives with customers, the SAF program will expand significantly from 2025, in line with the ReFuelEU Aviation Regulation, which mandates all fuel suppliers at EU airports to provide a 2% SAF blend from 2025, increasing to 6% by 2030. The regulation does not apply to non-EU airports that Cargolux departs from. While quantitative impacts are not yet available, the program is expected to play a major role in reducing lifecycle emissions across Cargolux's global operations.



### *Operational efficiency*

Cargolux's Fuel Efficiency Program is supported by a cross-departmental working group that continuously evaluates and implements fuel-saving measures around energy usage in ground operations, logistics, and maintenance.



### Carbon emissions trading and offsetting

Cargolux complies with all applicable carbon pricing mechanisms, including the EU ETS and CORSIA. The airline also participates in regional carbon pricing and offsetting mechanisms, such as the UK ETS and the Swiss ETS. These programs are integral to managing international aviation's GHG emissions and are aligned with ICAO's global climate strategy. ETS schemes require the company to monitor, report, and verify its emissions and to purchase allowances or offsets for emissions that exceed regulatory thresholds.



### Ground Support Equipment (GSE)

A long-term improvement plan has been devised for Cargolux's Ground Support Equipment (GSE) to reduce emissions from ground operations. GSEs include cars, trucks, lifting vehicles, cleaning sweepers, towing vehicles and aircraft Ground Power Units (GPU). The scheme foresees

the gradual replacement of internal combustion engine vehicles with electric-powered alternatives. In 2024, 68% of GSE were running on renewable electricity. The transition to fully electric, which is reviewed annually, is set to be completed by 2032.



### Trucking

Cargolux provides comprehensive Road Feeder Services through a global network of contracted trucking companies. A dedicated system allows the airline to monitor average load factors per truck and identify areas of potential improvement. It also enables the planning department to devise optimized solutions while maintaining service excellence. In 2024, the airline launched a two-year trial for a hydrogen-powered trucking service in collaboration with its partner Arthur Welter. The service currently operates on behalf of Cargolux five times a week between Luxembourg and Frankfurt.



### Contrail avoidance

Contrails (short for "condensation trails") form when hot, humid air from aircraft engines mix with the colder, low-pressure air at cruising altitudes. Under certain conditions, this leads to the formation of ice crystals that can persist and spread into cirrus-like clouds, which have a net warming effect on the planet. Cargolux recognizes contrail avoidance as a complementary measure to reduce its impact on the climate. While contrails are not greenhouse gases themselves, they can trap heat in the earth's atmosphere, contribute to radiative forcing and amplify aviation's climate impact.

In 2023, the airline initiated a pilot project involving aircraft to adjust flight paths based on atmospheric modeling, aiming to reduce contrail formation. These trials supported the development of operational procedures for potential large-scale implementation. In 2024, Cargolux began engaging with prospective partners to advance this research further.

## METRICS AND TARGETS

### E1-4 TARGETS RELATED TO CLIMATE CHANGE MITIGATION AND ADAPTATION

To date, the airline's climate-related efforts have focused on meeting regulatory obligations under the EU ETS, Swiss ETS, UK ETS, and CORSIA, as well as on building a robust and verified carbon footprint aligned with the Greenhouse Gas Protocol. These efforts provide the foundation for future target-setting and performance tracking. No targets around Net Zero, Scope 1,2 or 3 have been formally set at the moment.

Cargolux is committed to aligning with the Paris Agreement, the International Civil Aviation Organization (ICAO), and the International Air Transport Association (IATA) targets for net-zero emissions by 2050. Quantitative tracking of gross CO<sub>2</sub> emissions is conducted annually, using a 2019 baseline, consistent with industry practice.

## E1-5 ENERGY CONSUMPTION AND MIX

The airline operates within the transportation and storage sector (NACE Section H), which is classified as a high climate impact sector under the European Sustainability Reporting Standards (ESRS). As a global air cargo carrier, the company's energy consumption is primarily driven by jet fuel use, which constitutes the vast majority of its total energy demand.

### *Cargolux's energy consumption and mix*

#### ENERGY CONSUMPTION AND MIX

- (1) Fuel consumption from coal and coal products (MWh)
- (2) Fuel consumption from crude oil and petroleum products (MWh)
- (3) Fuel consumption from natural gas (MWh)
- (4) Fuel consumption from other fossil sources (MWh)
- (5) Consumption of purchased or acquired electricity, heat, steam, and cooling from fossil sources (MWh)
- (6) Total fossil energy consumption (MWh) (sum of 1 to 5)
- Share of fossil sources in total energy consumption (%)
- (7) Consumption from nuclear sources (MWh)
- Share of consumption from nuclear sources in total energy consumption (%)
- (8) Fuel consumption from renewable sources, including biomass (also comprising industrial and municipal waste of biologic origin, biogas, renewable hydrogen, etc.) (MWh)
- (9) Consumption of purchased or acquired electricity, heat, steam, and cooling from renewable sources (MWh)
- (10) Consumption of self-generated non-fuel renewable energy (MWh)
- Total renewable and low carbon energy consumption (MWh) (sum of 8 to 10)
- Share of renewable and low carbon sources in total energy consumption (%)
- Total energy consumption (MWh)

2024	2023
-	-
18,363,230	16,335,539
4	5
-	-
4,602	5,570
18,367,835	16,341,114
99.97%	99.96 %
-	-
0%	0%
72,707	-
4,780	4,542
-	-
4,852	4,542
0.42%	0.04%
18,445,321	16,345,656

The airline's energy profile reflects the operational realities of the aviation industry, where propulsion energy for aircraft dominates overall consumption. Aircraft fuel consumption is recorded in tonnes, with some ground operations recorded in liters or estimated based on km travelled. Fuel usage is converted to MWh using UK DEFRA database for the appropriate fuels.

In 2024, Cargolux continued to operate a voluntary SAF program, with SAF volumes tracked internally by the Fuel Procurement team. From 2025 onward, SAF usage will be reported in accordance with the ReFuelEU Aviation Regulation, which mandates a minimum SAF blend at EU airports.

## E1-6 GROSS SCOPES 1, 2, 3 AND TOTAL GHG EMISSIONS

Cargolux is committed to transparent and comprehensive greenhouse gas (GHG) emissions reporting in line with internationally recognized standards. The company calculates and discloses its emissions in accordance with the Greenhouse Gas Protocol, ensuring consistency, accuracy, and comparability across reporting periods. The methodology encompasses Scope 1, Scope 2, and Scope 3 emissions, providing a full picture of the company's climate impact across its value chain. The data is verified by an independent third-party auditor, ensuring compliance with ISO standards and the GHG Protocol principles of relevance, completeness, consistency, transparency, and accuracy.

No significant changes occurred in 2024 regarding the definition of the reporting boundary or the upstream/downstream value chain. Likewise, no material events or changes in circumstances were identified that would affect the reported GHG emissions.

### Scope 1 emissions

Scope 1 emissions represent direct GHG emissions from sources owned or controlled by Cargolux. All Scope 1 fuel and fugitive emissions are converted to CO<sub>2</sub>e using the UK DEFRA database. Over 99% of total Scope 1 emissions are associated with aircraft operations. Emissions from Sustainable Aviation Fuel (SAF) are reported as zero for CO<sub>2</sub>, while non-CO<sub>2</sub> effects (CH<sub>4</sub> and N<sub>2</sub>O) are included and reported in CO<sub>2</sub>e. Additional Scope 1 emissions arise from ground support equipment and stationary machinery, calculated based using the fuel consumption from supplier invoices and purchase orders multiplied by DEFRA emission factors.

### Scope 2 emissions

Scope 2 emissions result from the purchase of electricity and energy recorded through supplier invoices based on metered consumption. In 2024, Cargolux sourced 100% of its electricity from renewable sources and purchases heat, cooling and compressed air for hangar operations.

Emissions were calculated using both the market-based and location-based approaches, with electricity emission factors derived from the Institut Luxembourgeois de Régulation (for Luxembourg) and the European Environment Agency (EEA) for Italy. Cargolux also uses Guarantees of Origin to substantiate its renewable energy claims from hydropower. Therefore, there are no biogenic emissions from CO<sub>2</sub> from the combustion or biodegradation of biomass not included under Scope 2 emissions. For the use of purchased heat, cooling and compressed air, the emissions are calculated using the total electricity and natural gas used to produce the purchased energies using DEFRA factors.

**Scope 3 emissions**

Scope 3 emissions include indirect emissions across upstream and downstream activities. Cargolux reports on the following categories:



**Category 1: Purchased goods and services and Category 2: Capital goods**

Category 1 includes upstream emissions from the extraction, production, and transportation of goods used for core activities such as aircraft maintenance. Category 1 also includes the emissions from purchased services, including but not limited to, consultancy, software, advertising and cleaning.

Category 2 includes all upstream emissions associated with the extraction, production, and transportation of capital goods purchased. For Cargolux this mainly relates to aircraft, aircraft engines, company cars and buildings.

Categories 1 and 2 were entirely calculated by multiplying Cargolux's financial spend data with Environmentally Extended Input-Output (EEIO) spend-based emission factors. The EEIO emission factors describe the emissions of a certain industry as a ratio of the value add that industry creates. This approach is considered to have a medium degree of uncertainty but provides consistency in a challenging environment to collect activity or quantity data.

The emission factors are based on the OPEN IO database originally developed by the Sustainability Consortium at the University of Arkansas and are further adjusted for inflation. The total emissions for 2023 were calculated and reused for 2024.



**Category 3: Fuel and energy-related activities**

Category 3 includes the upstream emissions relating to the extraction, production and transportation of fuels and energy purchased or acquired. For Cargolux, this relates to all upstream emissions of fuel, natural gas and electricity consumed in Cargolux's owned sites and aircraft.

Emissions are calculated by multiplying electricity and fuel (including jet fuel, natural gas, diesel and petrol for company-owned vehicles) consumption quantities by the relevant upstream Well-to-tank (WTT) emission factors from the DEFRA database.



**Category 4: Upstream transportation and distribution**

Category 4 includes the upstream emissions relating to the transportation and distribution services purchased by Cargolux. Emissions data originate mainly from CO<sub>2</sub>e or distance travelled reports; with a minority of journeys based on total spend. These reports are then converted into total emissions.

For distance-based calculations, the 'tonne. km' values for each type of logistics service procured have been summed to ascertain the total distance and tonnage in the reporting period. This total, per provider, is multiplied by the well-to-tank emission factor from the UK DEFRA database.

Similar to category 1 and 2; spend-based calculations multiply the spend (converted to USD) in the reporting period by the EEIO emissions database.



**Category 5: Waste generated in operations**

Category 5 includes emissions from the disposal and treatment of waste generated. At the current time of reporting, waste emissions are limited to all Luxembourg sites.

The waste generated across all operations stems mainly from the following primary activity streams: aircraft maintenance, cargo packaging, office administration, and meal production for the canteen. The weight of the waste is recorded by the waste disposal company and provides a certificate with the disposal method and emissions.



### Category 6: Business travel

Category 6 includes the emissions from the transportation and business travel of employees, including accommodation services.

Spend-based calculations: Emissions are calculated by multiplying the spend (in USD) amounts by an EEIO emissions factor (see category 1).

Hotel stay calculations: The total number of stays has been multiplied by the corresponding emission factor for that location using the DEFRA emission factors.



### Category 7: Employee commuting

Category 7 includes the upstream emissions relating to transportation energy consumption of employees working for Cargolux. This relates to all employees traveling from their homes to Cargolux locations for work. This category also does not include working from home emissions of Cargolux employees.

The average commuting distance and frequency were sourced from a 2021 employee survey multiplied by the emissions factor from the UK DEFRA database. This provided the average emissions per employee to be multiplied by the total FTE per geographical division. The total emissions for 2023 were calculated and reused for 2024.



### Category 8: Upstream leased assets

Category 8 includes the upstream emissions relating to the use of assets that Cargolux leases (offices and warehouses). This includes natural gas and fuel oil converted to emissions using DEFRA factors, and electricity emissions from the International Energy Agency (IEA). The total emissions for 2023 were calculated and reused for 2024.

**Categories 9-14 are not applicable to Cargolux and have therefore been excluded.**



### Category 15: Investments

Category 15 includes the emissions relating to investments made by Cargolux in companies and assets for which Cargolux does not have operational control. This includes the electricity consumption of the company Global Air Transportation Services (GATS) in Hong Kong which was estimated based on an equivalent sized facility. The total emissions for 2023 were calculated and reused for 2024.

At Cargolux, 86% of Scope 3 emissions are calculated using primary data obtained from suppliers or other value chain partners. This represents data captured to report the fuel usage from mobile and stationary sources under Category 3 of scope 3 emissions.

**CARGOLUX GHG EMISSIONS BREAKDOWN****Scope 1 emissions**Gross total scope 1 emissions (tCO<sub>2</sub>e)**% CHANGE  
2024 FROM 2023****2024**

2023

2019

4,238,905

4,062,822

Percentage of Scope 1 GHG emissions from regulated emission trading schemes (%)

+12%

4,746,198

1.1%

**Scope 2 emissions**Gross total scope 2 location-based emissions (tCO<sub>2</sub>e)

-7%

2,635

2,820

3,007

Gross total scope 2 market-based emissions (tCO<sub>2</sub>e)

-1%

1,738

1,752

n/a

**Scope 3 emissions**Gross total Scope 3 emissions (tCO<sub>2</sub>e)

+11%

1,150,623

1,036,445

1,023,318

1 Purchased goods and services

-

80,513

80,513

90,694

2 Capital goods

-

16,431

16,431

25,663

3 Fuel and energy-related activities (not included in Scope 1 or Scope 2)

+12%

991,311

883,057

841,825

4 Upstream transportation and distribution

+15%

39,001

33,980

35,421

5 Waste generated in operations

-96%

10

236

37

6 Business traveling

+7%

17,711

16,582

24,340

7 Employee commuting

-

5,121

5,121

5,006

8 Upstream leased assets

-

525

525

331

15 Investments

-

0.13

0.13

0.13

**Total GHG emissions**Total GHG emissions (location-based) (tCO<sub>2</sub>e)

+12%

5,899,457

5,278,170

5,089,147

Total GHG emissions (market-based) (tCO<sub>2</sub>e)

+12%

5,898,559

5,277,102

n/a

**GHG intensity by Freight Tonne Kilometer (FTK)****2024**

2023

2022

**KGCO<sub>2</sub>/FTK**

0.515

0.510

0.488

The airline measures the carbon intensity of its freight movements, reported in kgCO<sub>2</sub>/FTK. In 2024, Cargolux achieved a carbon intensity of 0.515 kgCO<sub>2</sub>/FTK. This represents a 1% increase in the emissions per FTK over the previous year. While the average load factor increased slightly and improved transport efficiency, this was offset by fewer technical stops operated and an increase in tonnage flown on shorter trade lanes.

The network carbon intensity is calculated using the CO<sub>2</sub> emissions arising from the fuel consumption of all flights operated by Cargolux and Cargolux Italia (with an emission factor of 3.16 for 2024 and 3.15 for 2022/2023), and the total freight tonne kilometers (FTK). The journeys included within the reporting period are based on flight departure date and local time for each individual leg. FTK is composed of two factors, the actual weight of the cargo and the distance between the airport of departure and airport of arrival computed using the Great Circle Distance (GCD).

The intensity figure includes the Greenhouse Gas savings from SAF. In 2024, Cargolux consumed 5,949 tonnes of SAF (0.40% of total fuel consumption). The SAF purchased adhered to the EU RED and CORSIA/ EPA Renewable Fuel Standards sustainability principles, certified under the ISCC EU and CORSIA scheme. SAF-based Scope 3 emission reduction certificates were issued to the customers for SAF uplifted by Cargolux in its network. The Well to Wake emission factors and the GHG savings were calculated by the SAF producer as per the methodology adhering to the certification scheme.

The Network Carbon Intensity benefits from the GHG reduction provided by SAF. In 2024, Cargolux consumed 5,949 tonnes of SAF, equivalent to 18,738 tCO<sub>2</sub>e reported as out of scope emissions and away from Scope 1. These reductions were realized for defined Cargolux customers through a voluntary SAF program. They should therefore not be claimed by all Cargolux customers.

### E1-7 GHG REMOVALS AND GHG MITIGATION PROJECTS FINANCED THROUGH CARBON CREDITS

High-integrity carbon credits can contribute to supporting global climate goals, particularly in the context of hard-to-abate sectors such as aviation. While Cargolux has not yet made use of carbon credits to offset its emissions, initial steps have been introduced to support mitigation efforts beyond the airline's value chain.

In 2024, Cargolux financed the purchase of 30,000 tonnes of CO<sub>2</sub>e in ART TREES CORSIA-eligible emission units. These credits are derived from projects certified under the ART TREES Version 2 High Forest Cover Low Deforestation (HFLD) approach, which supports the preservation of tropical forests and contributes to emissions reductions through nature-based solutions. These credits are eligible under the Carbon Offsetting and Reduction Scheme for International Aviation (CORSIA), the global market-based mechanism developed by ICAO to stabilize net CO<sub>2</sub> emissions from international aviation.

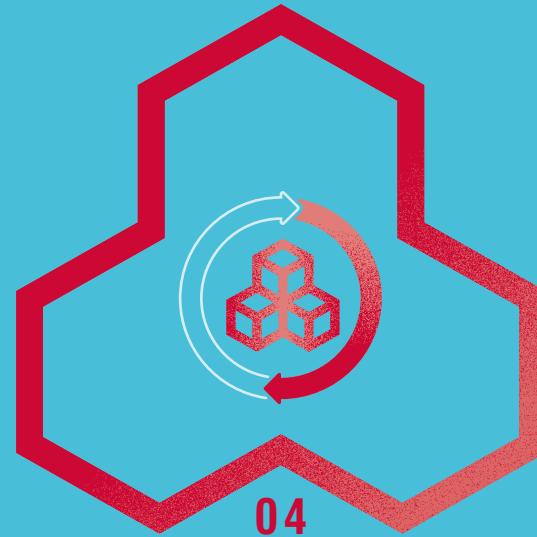
At this stage, Cargolux has not cancelled these credits to offset its reported emissions and does not engage in the resale of carbon credits on the voluntary market.

While the airline has not yet developed a formal carbon credit policy in place, the evaluation of high-quality carbon credits is currently underway as part of its broader climate approach. This would address residual emissions that cannot be eliminated through operational measures alone.

No technological GHG removal activities (e.g. direct air capture or geological storage) have been undertaken or financed by Cargolux, and no removals have been converted into credits for resale. As such, there are no associated disclosures regarding storage types, transport, or permanence risk management at this time.

As the company continues to develop its climate roadmap, the use of carbon credits will be considered in line with evolving regulatory guidance, industry best practices, and the principles of environmental integrity and transparency.





## ESRS E5 RESOURCE USE AND CIRCULAR ECONOMY

# ESRS E5

## RESOURCE USE AND CIRCULAR ECONOMY



### IMPACT, RISK AND OPPORTUNITY MANAGEMENT

#### E5-1 POLICIES RELATED TO RESOURCE USE AND CIRCULAR ECONOMY

Cargolux's environmental policy is the foundation of its Environmental Management System (EMS) which outlines its commitment to operating as a safe, responsible and sustainable airline. It covers specific environmental aspects in the wider context of sustainability development and corporate social responsibility that are implemented in the company's business. This policy applies to all Cargolux's activities.

Cargolux's Executive Committee has direct control over the Environmental Policy and all environmental management activities, which support the company's advancement to voluntary initiatives such as the commitments made under the UN Global Compact, the support of the UN 2030 Agenda and its SDGs. This roadmap, established in 2023, includes a dedicated Carbon Efficiency Working Group, chaired by the CFO, which serves as a forum for discussions on carbon efficiency.

Cargolux is certified for ISO 14001:2015; setting a standard to enhance environmental performance through resources optimization and waste minimization. The ISO-certified EMS plays a key role in controlling and

implementing Cargolux's environmental initiatives, ensuring compliance with legal requirements and building on continuous improvement. The system also addresses environmental impacts, risks, and opportunities, guiding the company in its sustainability efforts.

Cargolux is obliged to operate in compliance with the requirements of European Union Aviation Safety Agency (EASA) Part-145 governing aircraft maintenance. Therefore, the sourcing of aircraft parts inherently accompany with very high safety standards where alternative components made from recycled materials are approved or available.

#### E5-2 ACTIONS AND RESOURCES RELATED TO RESOURCE USE AND CIRCULAR ECONOMY

Cargolux relies on two main resource inflows for its ground handling operations: wood beams and plastics.

##### *Reducing the thickness of plastic sheets and making it biodegradable*

Due to their light weight and hygienic characteristics, plastic sheets are used for packing. The plastic wrapping protects goods from moisture and external elements that could compromise their integrity. These materials, wood beams and plastics, are integral components in the packaging and securing processes that are vital to Cargolux's efficient and safe operations.

Over the last decade, Cargolux took the initiative to reduce the thickness of the plastic sheets used for wrapping pallets from the Luxembourg cargo center. The sheets are now just 15 microns thick, offering a cost-effective way to reduce the total amount of material used. This improvement was made possible through technological advancements in the manufacturing of the sheets, and thinner sheets reduce the overall environmental impact of its transport, manufacturing and disposal.

In addition, Cargolux has identified the environmental benefits from using biodegradable plastic in its packaging operations. Microplastics, which persist in ecosystems and pose risks to biodiversity and human health, are often the result of fragmented plastic waste that escapes formal disposal channels. Bioplastics are designed to fully break down under natural conditions and are especially valuable in regions or situations where waste may end up in open environments, waterways, or landfills lacking proper containment.

#### *Using wood beams from PEFC controlled sources*

Wood beams are essential to provide structural support for specific types of cargo, to prevent any dislodgement during flight. This crucial function not only ensures the safety of the aircraft but also safeguards the cargo onboard.

All wooden beams used in export operations out of Luxembourg are purchased locally within the Grand Duchy and from PEFC controlled sources. PEFC controlled sources material is third-party verified through a due diligence system to ensure it is harvested legally in accordance with local laws. Therefore, the material is sourced responsibly with a low-risk against requirements for biodiversity, workers' rights, and indigenous peoples' rights.

#### *SquAIR timber lightweight beams*

SquAIR-timber offers a sustainable and lightweight alternative to the traditional wooden beams used in air cargo. Made from a cardboard fiber composite, SquAIR-timber is almost 70% lighter than wood, which significantly reduces the overall weight of air freight. This weight reduction translates to lower fuel consumption and CO<sub>2</sub> emissions, making it an environmentally sound option. These beams are used for all pharmaceutical shipments out of Luxembourg

#### *Enhancing aircraft lifecycle*

Aircraft maintenance plays a significant role in circular economy through endeavors aimed at extending the lifespan of devices and technologies. Regular maintenance and repair ensure that aircraft remain in service longer, reducing the need for new aircraft production and thus preserving resources. Older components from other industries or retired aircraft can also be refurbished and reused as a valuable component.

## METRICS AND TARGETS

### E5-3 TARGETS RELATED TO RESOURCE USE AND CIRCULAR ECONOMY

In 2023, Cargolux was exclusively using standard plastic sheets to wrap pallets onto Cargolux aircraft leaving Luxembourg. Since then, a target for 100% biodegradable plastic sheets by 2026 was established where interim targets of 50% for 2024 and 60% for 2025 were set. The target is based on the date recorded in the invoices of the delivered inventory during the reporting year. The target for 2024 was achieved and is on track to meet the 2026 target.

**E5-4 RESOURCE INFLOWS**

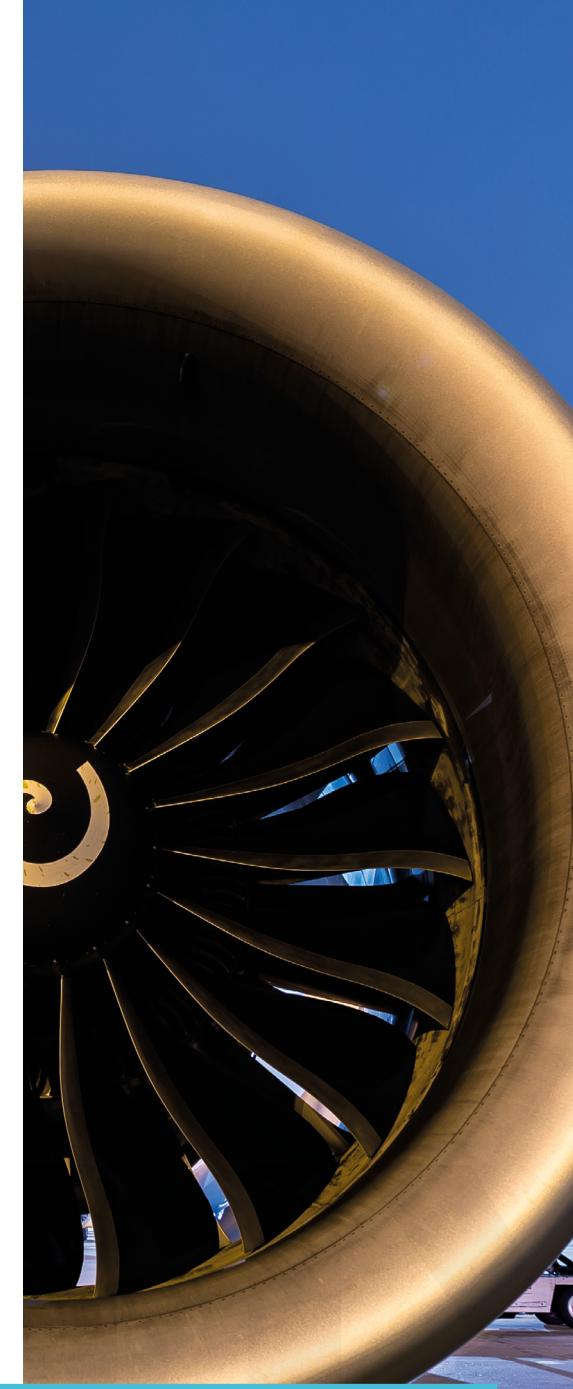
Cargolux's use of wood beams increased to 2,928 tonnes in 2024 in proportion with the increased amount of goods exported from Luxembourg. Similarly, total plastic consumption increased to 141 tonnes.

The weight of the wooden beams is measured directly by suppliers and indicated in the weekly invoices. The reported usage of wood is based on the date of delivery within the reporting period. The data is recorded in volume (m<sup>3</sup>) and converted into tonnes using the density of 699 kg/m<sup>3</sup> by Forest Research. The data is aggregated and reported for the preparation of this disclosure.

The weight of packing plastics used in operations for all Cargolux flights departing from Luxembourg is based on the date of delivery. Deliveries are roughly between 4-6 weeks, where the quantity of rolls by type is included. The weight is converted to tonnes for each plastic type based on the supplier's product specifications.

*Materials used by weight or volume*

		2024		2023	2022
<b>Wood</b>	<b>tonnes</b>	<b>2,928</b>		2,545	2,313
Wood beams	tonnes				
<b>Cargo plastic</b>	<b>tonnes</b>	<b>72</b>		-	-
Biodegradable	tonnes				
Standard plastic	tonnes	<b>69</b>		153	174
<b>Total</b>	<b>tonnes</b>	<b>141</b>		153	174
<b>Total weight of products and technical and biological materials</b>	<b>tonnes</b>	<b>3,069</b>		2,698	2,487
<b>Percentage of weight of secondary reused or recycled components</b>	<b>%</b>	<b>0</b>		0	0



**E5-5 RESOURCE OUTFLOWS**

Waste management is an integral part of Cargolux's operational sustainability efforts. The waste generated across all operations stems from the following primary activity streams: aircraft maintenance, cargo packaging, office administration, and meal production for the canteen. Each of these streams contributes distinct types of waste which are carefully categorized and managed according to their composition and environmental impact.

**Aircraft maintenance**

Various waste materials are generated including both hazardous and recyclable components. This includes metals (such as aluminum) which are sorted and processed for reuse or recycling. Maintenance activities often result in residues such as used oil, paint, solvents, batteries, and filters. These are classified as hazardous and require careful disposal procedures due to their potential environmental and health risks.

**Cargo packaging  
(not in scope)**

At the Cargo Center in Luxembourg, the handling and repackaging of freight generates a variety of operational waste streams. During the consolidation of goods into transportable stacks, materials such as plastic sheeting, strapping bands, and wooden pallets may be added to non-hazardous solid waste. For live animal transport, the process can result in additional animal waste, dismantled wood crafts,

or hay. This is handled by Luxcargo Handling (LCH) which is currently not in scope of the current Sustainability Report.

**Meal production**

Catering facilities primarily generate organic waste including food scraps and biodegradable materials which are classified as biomass waste. All biodegradable waste is processed into bioenergy. Some packaging materials, such as cardboard & paper (biomass) and glass (non-metallic), may also be recycled.

**Office administration**

These activities contribute largely to recyclable and residual waste. Recyclable materials such as plastics, paper, cardboard and glass are collected and handled by a third-party waste collection provider.

Waste sorting is a crucial process within Cargolux facilities and different types of waste are identified using a color-coding system. This system, which directly engages employees, is designed to streamline the sorting process and ensure that each type of waste is properly categorized for efficient disposal or recycling. The color-coded system helps employees easily identify and segregate recyclable, hazardous materials, and general waste, promoting environmental sustainability and responsible waste management practices.

The various waste fractions are gathered by an approved waste management company to ensure proper disposal. The weight of the waste is recorded and documented on the certificate issued by the waste management company.

**Waste generated, breakdown by hazardous and non-hazardous waste**

	UNIT	2024	2023	2022
Hazardous	kg	<b>313,866</b>	259,656	334,375
Non Hazardous	kg	<b>281,234</b>	252,942	269,714
<b>Total</b>	kg	<b>595,100</b>	512,598	604,089

**Waste directed to disposal, breakdown by hazardous and non-hazardous waste and treatment type**

	WASTE DIRECTED TO	UNIT	2024	2023	2022
Hazardous	other disposal operations*	kg	<b>274,213</b>	248,707	162,921
Non Hazardous	other disposal operations*	kg	<b>48,454</b>	153,029	153,892
<b>Total</b>		kg	<b>322,667</b>	401,736	316,813

**Waste diverted from disposal, breakdown by hazardous and non-hazardous waste and treatment type**

	WASTE DIVERTED BY	UNIT	2024	2023	2022
Hazardous	recycling	kg	<b>18,373</b>	8,949	3,443
	other disposal operations	kg	<b>21,280</b>	2,000	168,010
Non Hazardous	recycling	kg	<b>123,580</b>	99,913	115,822
	other disposal operations	kg	<b>109,200</b>		
<b>Total</b>		kg	<b>272,433</b>	110,862	287,275

**Waste directed to disposal, breakdown by hazardous and non-hazardous waste and treatment type**

	WASTE DIVERTED AND DIRECTED TO DISPOSAL	UNIT	2024	2023	2022
Total non-recycled waste	kg	<b>453,147</b>	403,736	484,823	
Total percentage non-recycled waste	%	<b>76</b>	79	80	

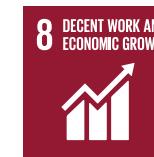
\* other disposal operations methods include treatment methods employed to deal with the following materials: incineration (with energy recovery), end-of-life tires, lead batteries, aluminum, mixed materials, edible oil and fat, discarded electronic equipment, street cleaning residues and waste from sewage cleaning



## ESRS S1 OWN WORKFORCE



# ESRS S1 OWN WORKFORCE



## ESRS 2 – GENERAL DISCLOSURES

### SBM-3 MATERIAL IMPACTS, RISKS AND OPPORTUNITIES AND THEIR INTERACTION WITH STRATEGY AND BUSINESS MODEL

Key workforce-related impacts, such as occupational health and safety, skills development, and employment conditions, are intrinsically linked to Cargolux's priorities. Internal cross-functional workshops conducted as part of the DMA under ESRS S1 involved HR, OHS, Learning & Development, and other departments, to validate and refine the IROs. The biennially conducted employee engagement survey is another important tool to assess employees' viewpoint on their work, company culture, senior management governance and workplace environment.

The outcomes of both initiatives ensure that workforce insights, such as the need for enhanced training or improved working conditions, are embedded in strategic planning and business model adaptation.

Material Topics related to the company's workforce, which includes both employees and non-employees along the entire value chain, reflect areas of strategic importance and shape the company's approach to sustainable human capital management.

The topics mostly relate to the following areas:



Occupational Health & Safety and Human Rights

Social dialogue

Working conditions

Training and personal development



Talent Attraction and Retention

Employee Wellbeing and work-life balance

Diversity, Equity & Inclusion (DEI)

Workplace Culture and Conduct

These topics are continuously monitored through surveys, feedback loops, and compliance audits, ensuring alignment with Cargolux's strategic objectives and regulatory obligations and supporting Cargolux's commitment to sustainable human capital management.

Positive impacts primarily relate to improved working conditions and DEI initiatives, benefiting both employees and non-employees. These include enhanced flexibility, targeted training, and inclusive workplace programs. Material negative impacts on the workforce are typically factors that are considered widespread or systemic, particularly in operational contexts, and involving higher risk. Cargolux addresses these through strict safety policies, regular training, personal protective equipment, and periodic safety audits and risk assessments.

Cargolux has developed a nuanced understanding of risks faced by workers with particular characteristics or in specific contexts, informed by regular risk assessments, employee consultations, and internal audits. These processes enable targeted protection measures and support a safe working environment for all.

Preliminary human rights risk mapping indicates that risks of forced or child labor are primarily associated with certain value chain activities in regions with limited labor protections. Aviation-related activities are subject to stringent regulatory oversight, substantially mitigating such risks within direct operations. Cargolux is refining its human rights framework and will provide further disclosures as assessments are completed, in line with international benchmarks and due diligence requirements.

The airline is evaluating the social implications of its environmental transition plans, including those aimed at achieving climate-neutral operations. The company is committed to a just transition, ensuring proactive engagement, training, and capacity-building for affected workers. Further disclosures will be provided as transition planning evolves.

Cargolux's business model is highly dependent on the availability and retention of specialized aviation professionals, including pilots and maintenance engineers. Workforce-related factors such as psychosocial stress or gender imbalance can affect employer attractiveness and operational continuity while opportunities in DEI and flexible work arrangements strengthen resilience and talent pipelines. In the short term, health and safety risks can have an operational impact; in the medium term, engagement and training impact retention and productivity; while in the long term, workforce transition for climate-neutral operations will require reskilling and capacity-building.

## IMPACT, RISK AND OPPORTUNITY MANAGEMENT

### S1-1 POLICIES RELATED TO OWN WORKFORCE

Cargolux has implemented a comprehensive suite of internal policies to manage the material impacts, risks, and opportunities related to its own workforce. These policies reflect the company's long-standing commitment to fostering a safe, inclusive, and fair working environment. They are devised according to international human rights standards, including the Universal Declaration of Human Rights (UDHR), the UN Guiding Principles on Business and Human Rights (UNGPs), and the UN Global Compact (UNGC) of which Cargolux is a signatory.

#### *Alignment of policies to internationally recognized instruments*

UDHR - Cargolux's commitment to respecting human rights in all business operations is rooted in the principles outlined in the UDHR, which emphasizes the inherent dignity and equal rights of all individuals.

UNGPs - Cargolux adheres to the UNGPs, which provide a framework for businesses to prevent and address human rights abuses linked to their operations. The corporate due diligence processes and remediation measures meet the requirements of these principles.

UNGC – As a signatory of the UN Global Compact, Cargolux is committed to respecting the ten guiding principles which cover human rights, labor, environment, and anti-corruption. This commitment bolsters the company's dedication to upholding internationally recognized human rights standards.

#### Key workforce policies and practices



#### Employee code of conduct

Cargolux's comprehensive Code of Conduct and Ethics reflects its adherence to international laws, standards, and voluntary commitments to sustainable development and human rights. It also outlines the company's responsibilities in areas such as labor conditions, health and safety, diversity equity and inclusion, gender balance, and employee wellbeing.

In addition, Cargolux provides mandatory training for all employees on key compliance topics, including anti-harassment, anti-discrimination, anti-corruption, data privacy, and occupational health and safety (OHS). Role-specific training is also offered where relevant.

Dedicated policies have been implemented to address specific areas such as OHS, harassment and discrimination, diversity equity and inclusion, human rights, workplace culture, data privacy & protection. The company also supports freedom of association and collective bargaining through a formal Cargolux dedicated Collective Work Agreement (CWA) in the home base, which outlines both legal and additional provisions related to working conditions for Luxembourg based employees.



#### Anti-harassment and non-discrimination policy

This policy outlines a zero-tolerance approach to all forms of discrimination and harassment, including all protected characteristics such as gender, ethnicity, religion, age, or sexual orientation. The policy also aims to provide colleagues with a clear process for reporting

all incidents, with the aim of putting a stop to it. It is supported by an e-learning for all employees worldwide complemented by an in-person training for Luxembourg based managers. Additional initiatives include a public Human Rights Commitment, provisions for supplier conduct, and access to dedicated modules via self-training platforms. The policies are made available through the company intranet, onboarding programs, and internal campaigns.

As a global company, Cargolux takes a wider view on these topics:

- In the EU, the protected grounds are sex, sexual orientation, disability, age, religion or belief, racial or ethnic origin, color, genetic features, language, political or other opinions, national or social origin, association with a national minority, property, birth or other status.
- In the US, Federal laws prohibit discrimination on the basis of the following protected classes: race/color, religion, national origin, sex (including gender, pregnancy, sexual orientation and gender identity), age (over 40), disability, citizenship, veteran status, genetic information. State law may include further protected classes.



#### Health and safety

Health and Safety is a top priority at Cargolux. The company is committed to maintaining a safe and healthy work environment for all employees, recognizing the diverse nature of its operational settings. These range from aircraft flight decks and machine-intensive ground operations to office spaces, and highly sensitive maintenance areas. Each of these environments presents unique safety challenges, requiring tailored procedures and dedicated oversight. Cargolux is certified for ISO 45001-certified Health and Safety Management System across all operational areas in Luxembourg. This system encompasses four key activity domains: maintenance, logistics, flight operations, and support services. The performance is monitored, and suitable controls are developed. The policy aims to develop a culture that promotes the importance of Occupational Health and Safety for all its employees, contractors and suppliers.



## Diversity, Equity & Inclusion (DEI) policy

Introduced in 2024 and endorsed by the Executive Committee, this policy aim is to foster a culture of belonging aligned with our commitment to be inclusive. The Policy is applicable - but not limited - to our practices and policies on recruitment and selection, compensation and benefits, working conditions, talent management, learning and development and reintegration after a long-term absence. Cargolux has also embedded in its core competencies a DEI dimension.



## Human Rights commitment

Cargolux's commitment to Human Rights was formalized in a declarative policy in 2021. This policy is grounded in international frameworks such as the UN Global Compact. Due diligence checks are conducted on vendors and agents to ensure no forced or compulsory labor is used and to prevent and

eliminate child labor within the supply chain. As a signatory of Luxembourg's Pact for Business and Human Rights, a voluntary initiative sponsored by Luxembourg's Ministry of Foreign and European Affairs and coordinated by Luxembourg's House of Sustainability, Cargolux aligns with the UN Guiding Principles on Business and Human Rights. The airline publishes an annual human rights report, which is reviewed by an external party appointed by the relevant authority. The external auditor provides recommendations for improvements.

All new HR policies are reviewed by the HR leadership and the Executive Committee. In accordance with the Luxembourg Labor law, some of those policies are also reviewed by the Staff Delegation prior to signature, when applicable. These HR policies are included in onboarding materials, accessible to all Cargolux employees via the company intranet, and strengthened by compliance and DEI training. External stakeholders such as legal representatives are held to the same standards through the Sustainable Supplier Charter and Code of Conduct, which are aligned with ILO principles.

## S1-2 PROCESSES FOR ENGAGING WITH OWN WORKFORCE AND WORKERS' REPRESENTATIVES ABOUT IMPACTS

Cargolux actively engages with its workforce through multiple structured and informal channels to ensure that employee considerations are included in decision-making processes.

### Engagement mechanisms



#### Employee engagement survey

Conducted biennially over three weeks, the survey of over 35 questions is sent to all employees asking their opinion on various company-related topics. This tool is used to measure the employees' level of engagement and satisfaction. The questions are designed to assess employees' viewpoint on their work, company culture, senior management governance and workplace environment.

The latest survey, conducted in 2024, had a 54% response rate, and showed a modest improvement in engagement

score (from 3.6 to 3.7). Notably, 84% of respondents are either engaged or contributing employees, which represents a rise from the previous Employee Engagement survey edition.

Results showed that overall, the satisfaction on work-life balance has slightly improved since 2022, which coincides with the introduction of the Working From Home (WFH) policy and the option to convert the 13<sup>th</sup> month bonus payment into time off as well as the introduction of the preferential bidding system for the pilots. The corporate values of "respecting each other" and the ability of leadership to listen to staff concerns have also been following a favorable trend. The results highlighted psychosocial factors (revolving around job roles, workloads, demands) as an area of investigation and improvement for the company. In response to this, Cargolux is now working on a Psychosocial Risk Program and assessment tool for managers.



### Talent review process

In 2024, Cargolux formalized a process for managers to adopt a feedback and development mechanism for employees. This new initiative aims to improve fairness and consistency, enhance opportunities for advancement, set visible goals, and establish priorities for each role. The process was implemented in direct response to employee feedback requesting a standardized company-wide approach on performance reviews and career development. A Talent Management System was introduced, with training sessions for managers completed by the end of 2024 and ready for a broader roll-out in 2025, leading to a 100% coverage of the Talent review process among ground staff.



### Company news

The company intranet, accessible to all employees, is populated by a wide array of news, useful information and resources which can be consulted at any time. The platform includes a news section frequently updated based on business needs. Employees are informed about ongoing initiatives, opportunities and achievements of the company via the intranet or through dedicated email updates. The communications teams also publish podcast focused on sharing expertise and knowledge from colleagues as well as a corporate magazine "Charlie Victor", which is distributed both internally and externally. There are also a number of departments that publish their own newsletters that are issued to defined audiences. These communication channels highlight success stories, share insights from experts promote awareness of corporate goals.



### Staff meeting

Regular staff meetings, led by the CEO serve as key moments for company-wide engagement, transparency, and alignment. These events provide employees with a comprehensive overview of the company's performance, strategic direction, and upcoming priorities. It also offers a platform for leadership to recognize achievements, address challenges, and reinforce the company's values and vision. Employees are invited to send in their questions ahead of the meeting and have the opportunity to ask questions during the event.

To ensure inclusivity across all locations, the meeting is livestreamed, allowing employees at international stations, flight crews enroute, or employees unable to attend physically, to participate in real time. A full recording is made available afterward, enabling everyone to stay informed and engaged regardless of their schedule or location. Meetings are also held regularly at divisional and team level. This approach reflects Cargolux's commitment to open communication and fostering a connected, informed workforce.



### Equality and Safety delegates

Appointed under the Luxembourg labor law, these representatives are an important part of the governance structure and contributes to discussions related to equal treatment, anti-discrimination and safety.



### Open feedback channels

Anonymous surveys, the Speak Up platform, and the iQSMS safety reporting system are also available to engage vulnerable people or groups. All employees, regardless of role or location, are included in these processes, which contribute directly to Cargolux's materiality assessment and risk planning.

## S1-3 PROCESSES TO REMEDIATE NEGATIVE IMPACTS AND CHANNELS FOR OWN WORKFORCE TO RAISE CONCERNs

Cargolux provides multiple, well-established mechanisms through which employees can raise concerns safely and confidentially.

### *Grievance and reporting mechanisms*

- **Speak Up platform:** An anonymous whistleblower channel that allows employees and agents to raise to the attention of the company via phone, web, or mobile app, alleged violations of external laws and regulations, and internal policies with the exception of safety matters covered by Cargolux Safety Management System and matters subject to procedures defined in the Collective Work Agreement.
- **“Here for You” intranet page:** A platform providing employees with contact information and processes for reporting grievances relating specifically to harassment or discrimination. The page contains names of individuals who should be contacted in such cases and states the internal process for internal investigations.

- **iQSMS reporting system:** A tool originally designed for safety reporting, also available to report HR or compliance issues.
- **Direct reporting:** Employees may contact HR, Compliance, or the Aviation Safety Department directly, depending on the issue.

### *Remediation process*

Reported cases via the **Speak Up** platform are reviewed by the Vice-President Compliance and Ethics Department and escalated to the CEO, who will validate appropriate follow-up actions.

Trust in these systems is evident from regular use, feedback, and training coverage. The Compliance Department tracks all cases falling on the scope of the respective policy, ensuring they are resolved in line with legal and internal standards. External mechanisms, such as the Speak Up link on the company website, offer additional options for stakeholders. Thorough and impartial investigations are conducted with whistleblower protection in place. In case of HR related matters reported through the Speak Up channel, the Vice-President of the Compliance Department involves the Vice-President Human Resources.

Claims for potential harassment or potential discrimination are encouraged to be brought to the HR dedicated channel, in alignment with the “Here for you” campaign”. In 2024, no confirmed cases of harassment and/or discrimination were concluded by the HR Department’s investigation process.

From an Occupational Health & Safety (OHS) perspective, all risk situations and accidental events must be reported via the iQSMS platform. This tool is accessible to anyone working for Cargolux and allows them to submit a report. Each report is then handled by the OHS team, who work closely with management to ensure the most appropriate corrective actions are implemented. In 2024 alone, no fewer than 197 reports were submitted through the platform.

## S1-4 TAKING ACTION ON MATERIAL IMPACTS ON OWN WORKFORCE, AND APPROACHES TO MANAGING MATERIAL RISKS AND PURSUING MATERIAL OPPORTUNITIES RELATED TO OWN WORKFORCE, AND EFFECTIVENESS OF THOSE ACTIONS

Cargolux proactively implements initiatives to prevent, mitigate, and respond to material workforce risks and impacts.

This includes:

- Dedicated resources for Employee Engagement, Learning and Development Health and Safety and DEI, under the supervision of the Vice President for Human Resources.
- Budget for DEI initiatives, well-being programs, health and safety initiatives, training and development programs.
- A biennial Employee Engagement Survey and various pulse surveys to gather employee insights and feedback.
- Dedicated resources aimed at ensuring continuous dialogue and collaboration with employee representatives.

**Actions taken in 2024**

- **DEI campaigns:** A new Diversity Equity and Inclusion policy was introduced to set the company's stance on the topic and clearly state the behaviors expected of colleagues and the company's commitment. All Luxembourg-based managers completed classroom training on anti-harassment and non-discrimination. An e-learning module was rolled out globally. Cargolux premises have dedicated disabled parking spaces, adjustable desks, adapted sanitary facilities, as well as sufficiently wide access points, and elevators. In 2024, an audit was conducted to identify additional areas of potential improvement which will be addressed with a multi-year plan.
- **DEI awareness events:** Cargolux aims to foster a sense of shared purpose across the organization. In 2024, a variety of meaningful initiatives and events took place; these include International Women's Day, International Men's Day, Breast Cancer Awareness Month, and World Mental Health

Day, which raise awareness among the staff. A standout initiative is the launch of One Evening for All, an event blending art and advocacy to support causes such as breast cancer awareness (Pink October), men's health (Movember), activism against gender-based violence (Orange Week), human rights, and child welfare. The company also supports employee-led corporate sports teams, event participation (forums, panels, tournaments, etc.), cultural initiatives, and several annual staff get togethers; creating opportunities for employees and their families to connect beyond the workplace and build a strong, inclusive community.

- **Working from home (WFH):** In 2024, the dedicated policy was updated to include an enhanced agreement signed between Luxembourg and its neighboring countries (France, Belgium and Germany) allowing cross-border employees to benefit more from the current two-days a week allowance. The updated policy also introduced greater flexibility to the two-day a week WFH allowance.

- **Mental health and wellbeing:** In 2023 and 2024, a week-long campaign was held to broach topics such as resilience and substance misuse. Attendance and feedback were tracked reflecting overall satisfaction with an average session rating of 4.4/5.

- **“Return After Long Absence” process:** The airline introduced a guide for employees and managers to ensure that colleagues who are absent from work for a period of 6 weeks or longer can be reintegrated smoothly.

- **Positive Actions label:** Cargolux was awarded a certification from the Ministry for Equalities in Luxembourg for the company's practices in promoting gender equality, equal treatment, and a healthy work-life balance. This voluntary program supports an inclusive economy and an equal society based on three key pillars: equal treatment, equal decision making and work life balance. When submitting its application for this initiative, Cargolux identified seven action points across the program's pillars for implementation across the company.

The effectiveness of all actions taken on the topic of social sustainability is monitored through:

- Survey feedback post-training.
- Monitoring use of grievance mechanisms
- Ongoing audits of OHS procedures and ISO 45001 compliance

These actions are guided by a Double Materiality Assessment, which identified Health & Safety as a material topic, including concerns at stations outside of the ISO certification scope.

## METRICS AND TARGETS

### CHARACTERISTICS OF THE UNDERTAKING'S EMPLOYEES

	2024 FEMALE   MALE IN ABS.		2024 FEMALE   MALE IN %	
<b>S1-6 Total average employees</b>	523	2,069	20.2%	79.8%
<b>S1-6 By employee group</b>				
Crew	23	714	3.2%	96.8%
Employee	375	1,008	27.1%	72.9%
Middle management	120	299	28.6%	71.4%
Upper Management	5	49	9.8%	90.2%
<b>S1-9 By age group</b>				
under 30 years old	77	199	27.8%	72.2%
30 to 50 years old	350	1,340	20.7%	79.3%
over 50 years old	96	530	15.4%	84.6%
<b>S1-6 By contract type</b>				
Permanent contract	501	2,019	19.9%	80.1%
Temporary contract	23	51	30.8%	69.2%
<b>S1-6 By Country</b>				
Luxembourg	311	1,595	16.3%	83.7%
Italy	25	146	14.4%	85.6%
United States of America	64	87	42.4%	57.6%
China (incl. Hong Kong)	44	87	33.6%	66.4%
Germany	18	33	35.0%	65.0%

	2024 FEMALE   MALE IN ABS.	2024 FEMALE   MALE IN %
<b>S1-6 Employees turnover</b>	178	6.9%
<b>S1-8 Collective bargaining agreement (CBA) coverage</b>		
covered by CBA in HQ Luxembourg	234	1,340
covered by CBA (EEA)	49	159
<b>S1-13 Training &amp; Skill Development</b>		
Total training hours*	19,222	126,965
Avg training hours*	37	65
Performance & Career development review	125	348
<small>* excl. Cargolux Italia &amp; AFF</small>		
<b>S1-14 Health &amp; Safety</b>		
Percentage of workers who are covered by ISO 45001		73.8%
# of recordable work-related accidents for own workforce	32	
# of days lost to work-related injuries and fatalities from work-related accidents, work related ill health and fatalities from ill health	183	

*Variations in the figures at the relevant aggregation level may result from rounding applied.*

## S1-6 CHARACTERISTICS OF THE UNDERTAKING'S EMPLOYEES, AND TARGETS

Reported employee data considers Cargolux, Cargolux Italia and Aquarius Aerial Firefighting (AFF), that started operation in August 2024.

In 2024, Cargolux had on average 2,593 employees<sup>1</sup>, with 73.5% (1,905) working at the Headquarters in Luxembourg. With offices in 24 locations worldwide, regional Hubs are located in USA (150), Hong Kong (69) and Italy (171). This geographic distribution reflects the operational footprint of the undertaking and supports its international business activities.

In 2024, Cargolux's workforce increased by +120 employees (12/2024 vs 12/2023) driven by strong hiring in the area of IT, Flight Crews, Sales & Marketing and Global Logistics. The workforce growth is fueled by consistently high operational demands and organizational growth, alongside ongoing digitalization and transformation initiatives that require continuous IT development and support. Additionally, the establishment of the airline's subsidiary Aquarius Aerial Firefighting in 2024 has also contributed to an increase in headcount.

Cargolux's rate of employee turnover was 6.9% for 2024.<sup>2</sup> Compared to previous years there is a notable increase of retirements that impact the turnover %. Excluding retirements, the turnover rate is at 4.75%.

## S1-9 DIVERSITY METRICS (& S1-5 TARGET)

The gender distribution along 2024 is composed of 79.8% male employees and 20.2% female. The % of female employees is impacted by two underrepresented areas, typically staffed by male employees in the airline sector. The Pilot workforce consists of 3% female employees and the Maintenance Technician group<sup>3</sup> is composed of 1.9% female employees. Cargolux' Upper Management<sup>4</sup> is composed of 9.8% female employees. With an increase in female employees by +51 employees (+0.9 ppt) 12/2024 vs 12/2025, the trend reflects the company's ongoing commitment to diversity and inclusion within its workforce. While this figure reflects progress in building gender diversity, Cargolux recognizes that the underrepresented areas highlight a significant opportunity to further strengthen gender diversity. Supporting this, Cargolux is a proud signatory of IATA's 25by2025 initiative since 2021, which is dedicated to enhancing

a more balanced and inclusive gender diversity within the aviation industry. This initiative sets ambitious targets to improve female representation in the industry by 25%, or up to a minimum of 25% female representation by 2025. Participating organizations, including Cargolux, commit to reporting annually on key diversity metrics, such as the percentage of women in leadership positions and traditionally male-dominated roles like pilots, technicians and operations.

In 2024, 2.8% of Cargolux's workforce was employed under temporary contracts. The filling of time limited positions is focusing preliminary on replacement positions for temporary leave (maternity, parental and sick leave) and time limited projects. In line with the company's policies, all employees under temporary contract are treated fairly and equitably, with access to competitive compensation and benefits, safe and inclusive working conditions and opportunities for training, development and internal mobility.

The age diversity at Cargolux reflects the opportunity to have a valuable mix of early-career talents (10.7%),

experienced professionals (65.2%) and to support career longevity (24.1%). The company actively promotes intergenerational collaboration through Mentorship programs that connect junior and senior employees and continuous learning opportunities that value both experience and potential.

<sup>1</sup> The numbers displayed under headcount consider average headcounts throughout the year (with key date being the last day of each month), whereas financial statements refer to the average FTE; i.e. headcount on the key date 31 December 2024. Average headcounts include all contracted employees (active employees, employees on sick leave, unpaid leave, maternity leave or parental leave) excluding apprentices, interns, students, contractors & agency workers. Depending on the aggregation of data, there might be differences on the totals due to decimal rounding.

<sup>2</sup> The turnover rate is calculated with the sum of employees that left the company divided by the average number of employees during the year. The metric excludes end of temporary contracts / student or trainee assignments, as well as transfers between Group entities. Employees that leave the company and returned during same year are however included.

<sup>3</sup> In the table, Maintenance Technicians are part of the Employee group "Employee"

<sup>4</sup> Cargolux's Upper Management comprises the Executive Committee as well as Vice President and Director positions. These roles are one and two levels below the administrative and supervisory bodies and are active contributors to the company's strategic decisions.



### **S1-8 / S1-10 / S1-16 / COLLECTIVE BARGAINING COVERAGE, ADEQUATE WAGES & REMUNERATION METRICS**

Cargolux is committed to fair and adequate compensation across the company's workforce, in full compliance with applicable regional labor laws, including meeting and exceeding national minimum wage requirements.

Where applicable, wages and working conditions are determined through negotiated agreements (Collective Bargaining Agreements), covering as well social dialogue by employee representatives. In the Headquarter in Luxembourg, 82.6% of the employees are covered by a CBA and employee representatives. In the European Economic Area (EEA), beside Luxembourg, there are national CBAs in Spain, Belgium, Austria, France & Italy, which results in a 69% coverage worldwide.

For employees not covered by Collective Bargaining Agreements, compensation practices are regularly reviewed and benchmarked to maintain internal equity, external competitiveness and to retain talents. Salaries are evaluated across employees holding comparable roles, with similar levels of competence, experience

and seniority. This internal comparison helps ensure consistency and fairness in pay across the organization. To align with market standards, the company also conducts external compensation benchmarking. This involves leveraging data and insights from reputable compensation and benefits consulting firms to compare Cargolux's salary structures with those of similar roles in the industry and region.

On top, Cargolux is committed to ensuring equal pay for equal work and strives to maintain this principle across its operations. The global unadjusted gender pay gap, defined as the difference of average pay level between female and male employees, is 30.9% for 2024. This is in line with Industry gender pay gap where certain roles being predominantly male, such as pilots and upper management, receive typically higher incomes. It serves as an important indicator of gender equality, particularly in terms of economic opportunity and treatment within organizations. Besides the unadjusted gender pay gap, Cargolux performs an analysis on the adjusted pay gap (adjusted for personal qualifications and workplace characteristics—such as job function, education level, and experience)

for Luxembourg based employees, using the Logip standard analysis tool for Basic salaries, which results in an adjusted pay gap of 3%.

It has been decided not to disclose the ratio between the remuneration of the highest paid individual and the median remuneration of employees (as outlined in ESRS S1-16) for 2024.

#### S1-11 SOCIAL PROTECTION

The airline tracks the support provided across 5 categories of benefits and programs designed to support employee well-being and financial security, including sick leave and family leave (leave for sick children or care for relatives), unemployment benefits/insurance, parental leave, retirement contributions and injury/disability for on-the-job injuries. Some protections are mandatory based on government regulations, while others are voluntary initiatives by the company, compensating in cases loss of income is not guaranteed. The degree of the benefits varies from country to country.

In the headquarter in Luxembourg, these entitlements are governed by national legislation and the collective bargaining agreement ensuring access for all eligible employees. The parental leave system offers flexible options—ranging from full-time leave for four to six months, part-time arrangements, or split leave formats—allowing parents to tailor their leave to their family and professional needs. With approximately 20% of entitled employees in Luxembourg taking parental leave, the benefit is not only widely used but also deeply valued. Employers benefit from improved productivity and engagement, as employees who can harmonize their personal and professional lives tend to perform better and remain committed to their organizations. Parental leave, therefore, stands as a vital pillar of employee well-being—supporting families, promoting gender equality, and reinforcing Luxembourg's commitment to a balanced and sustainable workforce.

#### S1-12 PERSONS WITH DISABILITIES

Cargolux does not discriminate including on disability and in Luxembourg, the company actively supports employees through its Reclassification Program, designed for

individuals who, due to illness, physical limitations, or disability, can no longer perform their original job functions. This program enables affected employees to continue their careers within the organization in roles that are adapted to their new capabilities. In 2024, 19 employees were part of the Reclassification Program. Information related to disabilities is collected based on voluntary disclosures from employees, such as the submission of medical certificates or other relevant documentation.

#### S1-13 TRAINING & SKILL DEVELOPMENT METRICS

Learning and development refers to structured programs delivered through official channels, primarily focused on compliance, safety, and standardized procedures. These are tracked and aligned with company policies. In contrast, other types of learning—such as on-the-job learning (knowledge sharing within teams), learning that is self-directed (online courses, reading books), mentoring, conferences, workshops, academic education, or language courses—are considered personal development and are not part of the formal learning and development framework.

Flight crew (captains and first officers) undergoes additional mandatory corporate training to ensure safety, regulatory compliance, and operational readiness. As of 2025, these requirements are shaped by aviation authorities like the FAA (U.S.), EASA (Europe), and ICAO (global). Firstly, pilots are subject to a highly structured and regulated training framework. Each year, they complete two formal assessments and one major recurrent training program, all of which are mandatory and rigorously monitored to ensure compliance with aviation safety standards. These sessions cover a wide range of technical and operational topics, including aircraft systems, emergency procedures, and scenario-based simulations. The category of pilots is predominately male (96%), which accounts for the discrepancy between average male and female training hours per employee.

Up to 2024, the Performance and Career Development Review Process was only actively affecting employees in the Management type. Starting 2025, all ground staff employees will be part of the Talent Review process.

## S1-14 HEALTH AND SAFETY METRICS

All Luxembourg operations are ISO 45001:2018 certified, covering 74% of the total workforce. In 2024, no fatalities were reported among employees or non-employees. There were 32 work-related incidents involving employees, resulting in a total of 183 lost workdays. Additionally, one accident involving a non-employee was recorded, leading to less than one day of time lost.

No cases of work-related ill health were reported for either employees or non-employees.

## S1-15 WORK-LIFE BALANCE

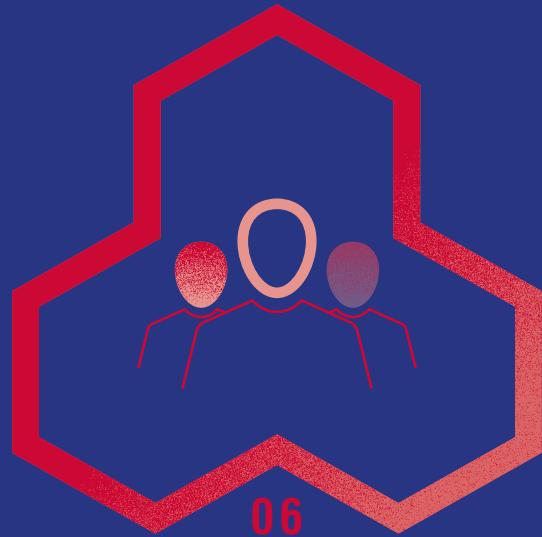
Cargolux recognizes work-life balance as a key driver of employee well-being, productivity, and retention and aims to create a supportive work environment. The Working from Home policy is a benefit across all company locations, subject to the employee's function, designed to support employees in achieving a better work-life balance. By offering flexibility, the policy empowers employees to better manage personal responsibilities alongside

professional commitments, contributing to increased satisfaction, productivity, and retention. Additionally, the employees in Luxembourg have the possibility to convert the 13<sup>th</sup> month salary into time off. It reflects the company's proactive approach to employee well-being, recognizing that time can be just as valuable as financial compensation.

## S1-17 INCIDENTS, COMPLAINTS AND SEVERE HUMAN RIGHTS IMPACTS

In 2024, the Compliance & Ethics department did not receive any conclusive complaints of discrimination or severe human rights issues from internal or external stakeholders across all operations. No fines, penalties or compensation payments were made.





## ESRS S3 AFFECTED COMMUNITIES

# ESRS S3 AFFECTED COMMUNITIES



## ESRS 2 – GENERAL DISCLOSURES

### SBM-3 MATERIAL IMPACTS, RISKS AND OPPORTUNITIES AND THEIR INTERACTION WITH STRATEGY AND BUSINESS MODEL

Cargolux's operations, particularly nighttime flights at Luxembourg Airport, have a material impact on nearby communities due to aircraft noise. In response, the airline signed a charter with the Administration de la Navigation Aérienne (ANA) to limit night take-offs to exceptional cases. While this impact does not currently drive changes to the business model, it informs operational planning and flight scheduling. Community feedback is integrated into decision-making, reflecting a strategic commitment to responsible growth.

Cargolux acknowledges the material impacts its operations may have on communities located near airports, particularly in relation to aircraft noise. The airline strives to minimize these impacts through operational controls, stakeholder engagement, and continuous improvement.

The airline's global operations, particularly those at Luxembourg Airport, can affect the quality of life of nearby residents due to nighttime flight activity. In response, Cargolux has signed a charter with the ANA, committing to limit night flight take-offs to exceptional cases. This reflects our strategic intent to balance operational efficiency with community well-being.

While these impacts do not currently drive changes to Cargolux's business model, they inform operational planning and flight scheduling. Community feedback is integrated into decision-making processes, reinforcing the airline's commitment to responsible growth.

#### S3-1 POLICIES RELATED TO AFFECTED COMMUNITIES

Cargolux is committed to minimizing the impact of its operations on affected communities, particularly those located near airports. While a dedicated noise management policy is in the process of being formalized, our current approach is guided by strong commitments and operational practices embedded within our ISO 14001-certified Environmental Management System.

Key principles include:

- Commitment to noise reduction:** Cargolux actively implements noise abatement procedures and adheres to the charter signed with the Administration de la Navigation Aérienne (ANA) to restrict nighttime take-offs to exceptional cases.
- Community engagement:** Cargolux maintains open dialogue with affected communities and relevant authorities to ensure concerns are heard and addressed promptly.
- Continuous Improvement:** Our commitments are regularly reviewed to incorporate stakeholder feedback and evolving best practices, with the aim of formalizing a dedicated policy in the near future.

These principles reflect Cargolux's strategic intent to balance operational efficiency with community well-being and to uphold international standards for social and environmental responsibility.

### S3-2 PROCESSES FOR ENGAGING WITH AFFECTED COMMUNITIES ABOUT IMPACTS

Through the Double Materiality Assessment, the organization has identified communities living near operational hubs, particularly in Luxembourg, as materially affected by aircraft noise. Vulnerable groups such as children, elderly individuals, and those with pre-existing health conditions are at greater risk. Cargolux engages with these communities via meetings with ANA, and dialogue with interest groups.

Resources allocated to managing community impacts include the EVP Flight Operations and his team, the environmental team, and senior management. All mitigation measures are fully implemented, and Cargolux continues to monitor performance and engage with stakeholders to identify further improvements.

### S3-3 PROCESSES TO REMEDIATE NEGATIVE IMPACTS AND CHANNELS FOR AFFECTED COMMUNITIES TO RAISE CONCERNs

Affected communities can raise concerns through multiple channels, including direct contact with Cargolux and the ANA's official complaint system. The airline maintains regular communication with ANA to ensure concerns are addressed collaboratively and transparently. Internally, feedback is monitored and escalated to relevant teams for resolution.

While Cargolux has not yet assessed community trust in these mechanisms, we recognize the importance of building awareness and confidence in our processes. Policies are in place to protect individuals from retaliation when raising concerns.

### S3-4 TAKING ACTION ON MATERIAL IMPACTS ON AFFECTED COMMUNITIES, AND APPROACHES TO MANAGING MATERIAL RISKS AND PURSUING MATERIAL OPPORTUNITIES RELATED TO AFFECTED COMMUNITIES, AND EFFECTIVENESS OF THOSE ACTIONS

Cargolux has implemented a range of noise abatement procedures, including:

- Reduced thrust takeoff and continuous descent approach
- Flap and landing gear management
- Three-engine taxi and APU-off procedures
- Use of quieter aircraft (747-8F fleet)
- Fleet renewal - replacement of aging aircraft with new technology

Cargolux monitors compliance with curfew restrictions via an internal dashboard and assess effectiveness through complaint statistics and feedback from ANA. These measures are complemented by the ISO 14001-certified Environmental Management System.

### S3-5 TARGETS RELATED TO MANAGING MATERIAL NEGATIVE IMPACTS, ADVANCING POSITIVE IMPACTS, AND MANAGING MATERIAL RISKS AND OPPORTUNITIES

Although no formal noise reduction targets are currently set, our ambition remains focused on year-on-year improvement in curfew compliance and community satisfaction.



# ESRS G1 BUSINESS CONDUCT



# ESRS G1 BUSINESS CONDUCT



## ESRS 2 – GENERAL DISCLOSURES

### GOV-1 THE ROLE OF THE ADMINISTRATIVE, MANAGEMENT AND SUPERVISORY BODIES

#### *Governance Oversight of Responsible Business Conduct*

The Executive Committee holds overarching responsibility for the company's approach to responsible business conduct, encompassing anti-corruption, anti-bribery, and ethical business practices. This oversight is operationalized through the Compliance function, led by the Vice President Compliance, which ensures the implementation and continuous improvement of the Ethics & Compliance framework.

This framework includes robust internal controls such as Know Your Customer (KYC) and Know Your Supplier (KYS) procedures, third-party due diligence, and fair competition safeguards. These controls are subject to regular review and are overseen by senior management.

All employees receive training on business ethics and compliance, and a confidential whistleblowing mechanism is in place to facilitate the reporting of suspected misconduct. Reported cases are managed by the Compliance team and escalated to relevant governance bodies as required.

The Sustainability Steering Group (SSG), composed of members of the Executive Committee and subject matter experts, plays a key role in integrating responsible business conduct into the company's broader ESG governance structure.

#### *Expertise of Governance Bodies in Business Conduct Matters*

Cargolux's governance bodies are supported by dedicated internal expertise to ensure ethical conduct is embedded across strategic and operational decision-making. The Compliance function, comprising 25 professionals across Export Controls and Corporate Compliance, brings deep regulatory and operational knowledge in areas such as anti-bribery, export controls, sanctions compliance, and ethical business relationships.

Key responsibilities of the Ethics & Compliance team include:

- Implementation of KYC and KYS procedures,
- Due diligence on business partners,
- Shipment Integrity Monitoring,
- Oversight of embargoed goods and adherence to international sanctions regimes.

In 2023, Cargolux formalized its sustainability governance structure by establishing the Sustainability Steering Group and cross-functional Work Groups. These include subject matter experts from Compliance, Legal, Procurement, and other relevant departments, ensuring that business conduct considerations are embedded within the company's sustainability strategy and aligned with ESG priorities.

Executive Committee receives regular updates on compliance risks and developments, reinforcing accountability and transparency in governance.

#### G1-1 BUSINESS CONDUCT POLICIES AND CORPORATE CULTURE

Cargolux's corporate culture is rooted in integrity, transparency, and ethical conduct. These principles are embedded in the company's Code of Conduct, which serves as the cornerstone for ethical behavior and responsible business practices. Guided by the motto "Integrity is doing the right thing, even when no one is watching" (C.S. Lewis), the Code integrates values aligned with the UN Sustainable Development Goals and is distributed to all new employees during onboarding, accompanied by mandatory training within the first 30 days. All employees, leaders, and business partners are expected to respect and align with its principles.

Corporate culture is evaluated through stakeholder engagement, internal surveys, and materiality assessments that include topics such as staff welfare, diversity, and occupational health and safety. Governance structures such as the Sustainability Steering Group and cross-functional working groups ensure that cultural values are reflected in strategic and operational decisions.

##### *Policies*

Cargolux maintains robust policies and procedures to prevent, detect, and respond to incidents of corruption and bribery. These policies are fully aligned with the principles of the United Nations Convention against Corruption and form an integral part of the company's broader Ethics & Compliance framework.

Policies addressing corruption, bribery, and anti-competitive behavior help prevent the misallocation of resources and promote fair market practices. These policies also support human rights by ensuring equitable access to resources and opportunities, fostering social justice, and protecting vulnerable communities from exploitation.

In 2024, Cargolux strengthened its commitment to ethical business through key policy updates, including:

- Access Control Policy
- IT Acceptable Use Standard
- Records Retention Policy
- Diversity, Equity and Inclusion Policy
- Safety, Compliance Monitoring and Security Policy

All employees undergo regular training on core compliance topics such as the Code of Conduct, competition law, anti-bribery, export controls, and data protection. Functions identified as being at higher risk of exposure to corruption, such as Sales, Global Logistics, and Finance, receive advanced training and are subject to enhanced monitoring.

The Compliance & Ethics department plays a critical role in driving the corporate culture. It offers support through a Compliance Consultation Desk, which fielded over 3,712 inquiries in 2024, to ensure employees and partners have ready access to guidance on ethical questions or policy interpretation.

#### *Mechanisms for Reporting and Investigating Misconduct*

The Corporate Reporting and Whistle-blowers Protection Policy ensures that concerns related to unlawful behavior or breaches of the Code of Conduct can be reported safely and addressed effectively. The policy outlines multiple internal and external reporting channels and guarantees protection for individuals who raise concerns in good faith. The protection is aligned with Luxembourg's Law of 2 May 2023, which transposes EU Directive 2019/1937 on the protection of persons who report breaches of Union law. For Cargolux Italia, the policy complies with Italian Legislative Decree No. 24/2023, which implements the same Directive.

Employees are encouraged to first address concerns with their line manager or, depending on the nature of the issue, contact the Compliance department via the internal consultation desk, Human Resources, or the Aviation Safety department. For safety-related matters, reports can also be submitted through iQSMS, a web-based Safety, Quality, and Risk Management platform.

To ensure accessibility across its global operations, Cargolux has a third-party reporting tool available to both internal and external stakeholders. 'SpeakUp' supports anonymous or named reporting via web, mobile app, or telephone hotline, and accommodates multiple languages with automatic translation into English.

All reports are reviewed by the Ethics & Compliance team, which is responsible for conducting investigations in accordance with internal procedures. Investigations are carried out timely, independently, and objectively, with strict adherence to confidentiality and non-retaliation principles.

To reinforce awareness and compliance, all employees have to complete mandatory eLearning on corporate reporting, whistleblower protection, and anti-retaliation safeguards. Employees with people management responsibilities receive additional training through online workshops led by the Compliance team. These sessions cover the scope of the Directive, the legal implications of retaliation, and the role of managers as potential first points of contact for whistleblowers.

Cargolux regularly reviews its reporting mechanisms to ensure their effectiveness and alignment with evolving legal and ethical standards.

#### *Commitment to animal welfare*

The airline is in the process of formalizing a policy on animal welfare to further strengthen its commitment to safe transport of live animals and animal welfare.

In practice, Cargolux adheres strictly to the IATA Live Animals Regulations (LAR). These regulations cover all aspects of animal transport, including crate requirements, documentation, handling procedures, and species-specific care guidelines.

Cargolux's operational procedures reflect industry best practices and include:

- Specialized infrastructure:** Luxembourg airport, the airline's home base, operates a fully EU-certified veterinary station and dedicated live animal facility, capable of accommodating up to 49 horses simultaneously. The facility includes temperature-controlled stables, noise-protected areas, and groom accommodations.

- Trained personnel:** Staff involved in live animal handling receive specialized training in accordance with IATA LAR standards. This includes training on animal behavior, stress minimization, and emergency procedures.

- Customized transport conditions:** Cargolux uses temperature-regulated aircraft and purpose-built containers (e.g., HMC stalls for horses) to ensure species-specific comfort and safety during transit.

- Compliance with CITES:** The airline also complies with the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES), ensuring that endangered species are transported legally and ethically.

- Embargoes and restrictions:** Cargolux enforces strict embargoes on the transport of certain live animals, including endangered species not covered by valid CITES documentation, and animals intended for purposes that conflict with ethical or conservation principles. These embargoes are regularly reviewed and updated in line with international conservation efforts.



ATA

Animal Transportation Association



IATA LAPB

Live Animal and Perishables Board



IPATA

International Pet and Animal Transportation

## G1-2 MANAGEMENT OF RELATIONSHIPS WITH SUPPLIERS

Cargolux ensures ethical alignment across its global supply chain through comprehensive due diligence and monitoring mechanisms:

- The Know Your Supplier (KYS) program, in place since 2010, screens suppliers for ethical alignment.
- A Know Your Customer (KYC) process complements this effort with customer vetting.

When it comes to working with suppliers, Cargolux expects the same high levels of quality, service excellence, integrity and compliance standards that are delivered to its own customers. The airline's internal policy of vetting all business partners before onboarding new vendors is an essential component to help fulfil these commitments. Suppliers are therefore invited to complete a detailed questionnaire about their business including their values and ethical principles. Once the answers and supporting documentation have been submitted, a member of the Cargolux Compliance team evaluates the information provided and issues a recommendation to the employee wishing to use this supplier.

Periodic audits are conducted on SAP vendor additions, invoice review, expense and travel claims, and GSA contracts. Suppliers are required to comply with Cargolux's Business Integrity Handbook and are evaluated regularly as part of the company's ongoing risk assessment process.

## G1-3 PREVENTION AND DETECTION OF CORRUPTION AND BRIBERY

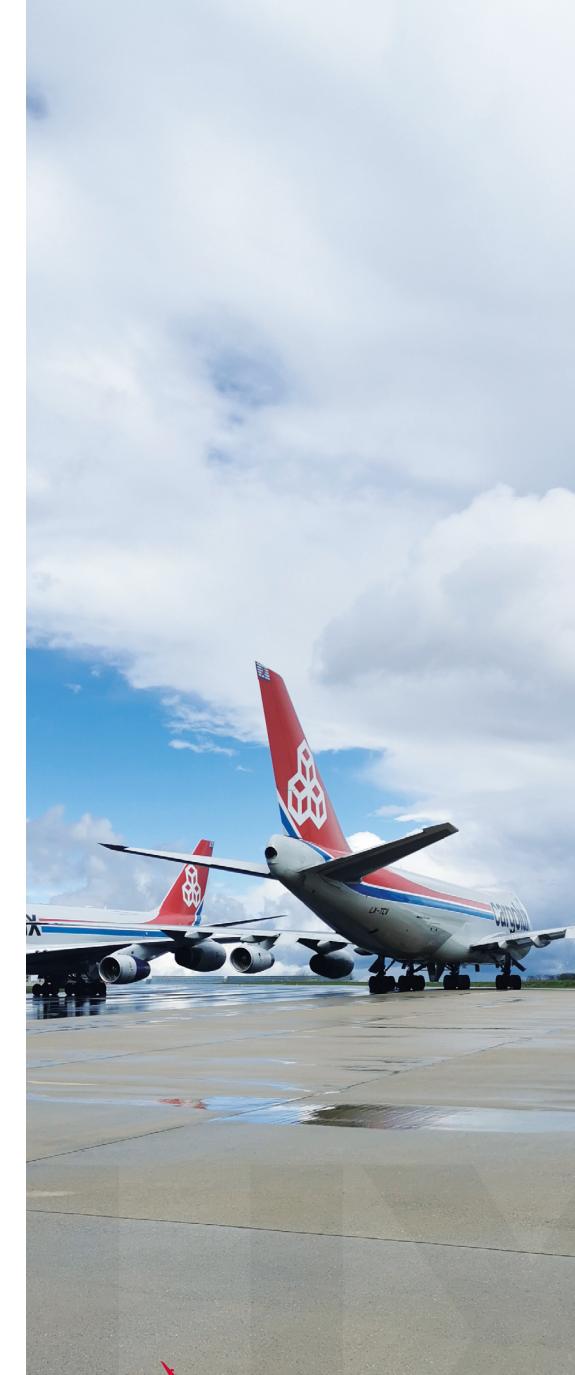
Cargolux applies a zero-tolerance policy for corruption, bribery, and anti-competitive behavior. All internal and external stakeholders are subjected to the Anti-Bribery, Corruption, and Gifts & Entertainment Policy which strictly prohibits improper conduct in any form.

A structured process is followed to prevent, detect and address corruption and bribery.

• **Prevention:** The Compliance Department delivers tailored training, including basic and advanced modules. These address bribery risks, conflicts of interest, and ethical dilemmas. Communications are also sent out whenever there is an update concerning Compliance policies or procedures.

Calls are regularly organized with country manager across the network to foster open communication and ensure any concerns can be addressed in a timely manner. A quarterly newsletter on topical subjects further enhances these messages.

- **Detection and Reporting:** The Compliance team plays an active internal role by supporting and advising various business divisions in their daily operations. They carry out a wide range of monitoring activities, including periodic reviews of sampled invoices, charter agreements, expense and credit card reports, the Gifts & Entertainment Register, travel records (both internal and external), new SAP vendor entries, GSA invoices, and interline transactions. To further enhance support, a dedicated consultation desk has been established to address compliance-related inquiries, including policy interpretation and guidance. Employees are encouraged to report concerns to Compliance directly or anonymously via SpeakUp.





- **Investigation:** Reports trigger independent investigations led by the Compliance team. Confidentiality and non-retaliation policies are strictly enforced. Findings are escalated to the CEO where appropriate.

- **Training Coverage:** Cargolux provides a comprehensive suite of mandatory Compliance training programs for all new hires and annually for current employees. These include detailed modules on Anti-Corruption, Anti-Bribery, and Antitrust, tailored to each employee's role and exposure risk—ranging from Basic to Advanced levels. All at-risk roles are covered by mandatory advanced training based on the inherent risk associated with their role and the exposure to external stakeholders. All managers, including the CEO and Executive Committee (ExCom) also complete this training regularly. Each training, delivered via eLearning or webinars depending on the module, concludes with a quiz designed to assess participants' understanding and ability to apply the concepts in real-world scenarios. Employees are also required to provide feedback upon completion of the training. The Compliance department closely monitors quiz results, and follow-up sessions are arranged for those who do not

pass to ensure clarity and comprehension. Additionally, the department regularly updates all Compliance-related materials and informs Management to support decisions on future training needs, including potential policy revisions.

#### G1-4 CONFIRMED INCIDENTS OF CORRUPTION AND BRIBERY

Cargolux recorded zero suspected or confirmed cases of corruption or bribery in 2024. No employees were disciplined or dismissed, no contracts were terminated, and no fines were incurred for anti-corruption violations during the reporting year.

#### G1-6 PAYMENT PRACTICES

Cargolux's standard payment term is variable depending on the vendor and contract (including whether they are small or medium enterprises). Cargolux's average number of days to pay is 22 days and is recorded as the Days Payable Outstanding (DPO). The total percentage of payments aligned with their respective payments has not been disclosed for the current reporting year. In 2024, Cargolux had no legal proceedings due to late payments.

# WILDLIFE CONSERVATION



Cargolux's role in the global logistics chain extends beyond commercial cargo. As part of its broader sustainability and corporate responsibility strategy, the airline draws on its longstanding expertise in the safe and ethical transport of animals. This expertise enables Cargolux to support wildlife conservation efforts, including the transport of rescue animals to protected environments and sanctuaries.

These missions build on the airline's extended operational know-how and reflects its commitment to biodiversity, animal welfare, and environmental stewardship. Cargolux leverages its expertise to support these complex operations which require planning, specialized equipment, and transparent collaboration with both internal and external stakeholders. The Cargolux teams work closely with veterinarians, conservationists, and wildlife experts to design tailored transport solutions for each of these missions. From temperature-controlled environments to noise-reduction protocols and dedicated handling procedures, every aspect of the journey is meticulously managed to ensure the animals' safety and comfort are upheld throughout the journey.

*Back to their ancestral land –  
Cargolux supports lion rescue mission*

In 2024, Cargolux partnered with UK-based charity Born Free to transport two rescue lions, Tsar and Jamil, from war-torn Ukraine to a wildlife sanctuary in South Africa. The lions had suffered neglect and exploitation before being rescued and temporarily housed in a sanctuary in Belgium.

True to its commitment to the protection of wildlife, Cargolux offered to support the project with a Free of Charge (FOC) flight. Ahead of the move, Cargolux and Born Free collaborated closely to make sure every logistical aspect was covered to mitigate any adverse effect on the animals. Relocating animals internationally, especially when they are listed as Appendix I

species by CITES, requires teamwork and dedication. From the crates to export and import permits, veterinarian checks, and biosecurity requirements, no detail is left to chance.

Thanks to the hard work invested, the mission was a success and Tsar and Jamil were successfully relocated to the sanctuary. After an early life filled with hardship, the pair can now enjoy their new spacious environment, surrounded by local wildlife, and experience the newfound tranquility of big cat life.



### From Luxembourg to South Africa – a leopards' tale of resilience

As a recognized partner for animal transport, and an advocate for wildlife protection, in May 2024, Cargolux supported the move of two captive leopards from Belgium to South Africa with a Free of Charge flight. Mother Alda and her daughter Ginny were taken by road from Belgium to Luxembourg before boarding a flight to South Africa ahead of their relocation to a wildlife sanctuary.

The pair were rescued in 2017 from an illegal breeding facility in Poland where they were kept in inappropriate conditions for this kind of animal. Following their rescue by UK-based charity Born Free Foundation, they were moved to a temporary facility in Belgium until a permanent home could be found. After several years, and countless hours of hard work, planning, evaluation and documentation, the two leopards were finally ready to move to a sanctuary in South Africa.

Following their relocation journey, the leopards were released to their new forever home where the care team have admired the animals' capacity to adapt. Both leopards are now enjoying their spacious 2.5-acre space—soaking in the sounds, smells, and scenery of their natural habitat.

#### Nature conservation at home base



Cargolux is a long-standing partner of Luxembourg's Fondation Hellef fir d'Natur (Help For Nature Foundation) one of country's best-known nature conservation charities. The airline provides financial support for environmental conservation and restoration programs that help preserve local species and their habitats.

A long-term donation plan has been signed and finalized up to 2027 to ensure continuous support for the Haangebierg nature reserve and its ecosystems in the Moselle area.

Cargolux's support also covers the LIFE Orchis and LIFE bats & birds projects. The project aims to clear vast enclosed areas of bushes and fencing to serve as grazing ground for goats. These new open-land biotopes (dry grasslands) have proved successful with the gradual return of orchid species such as the bumblebee orchid and the late spider orchid.

#### Bees at the Luxembourg HQ

In collaboration with Lux-Airport, Cargolux installed ten beehives on the grounds of its headquarters and is managed by a reputable beekeepers. This project is designed both to support biodiversity and to enhance the ecological balance in the vicinity of the airport. The bees play a crucial role in pollinating the surrounding flora thus contributing to the health and sustainability of the local ecosystem.

In addition to their environmental benefit, the beehives serve as the basis for a comprehensive bio-monitoring study. Pollen transported by the bees is collected using a trap placed at the entrance of the hive and is analyzed annually. The results of these analyses provide valuable insight into plant species present in the area and help identify any high levels of pesticide or other pollutants. The findings are highly satisfactory, indicating that the area maintains a relatively clean and healthy environment.



# INDEPENDENT AND LIMITED ASSURANCE REPORTS



# INDEPENDENT AND LIMITED ASSURANCE REPORTS



## ASSURANCE STATEMENT

### Context

NORMEC VERIFAVIA has been engaged by CARGOLUX AIRLINES to perform an independent verification of carbon inventory data with reasonable assurance for Scope 1 & 2, and limited assurance on Scope 3 emissions for fiscal year 2024 (January 1, 2024 - December 31, 2024). The report presented is the CARGOLUX AIRLINES' Carbon Footprint report. Scope 2 emissions were calculated using location- and market-based emission factors. Scope 3 emissions consist of categories 1, 2, 3, 4, 5, 6, 7, 8, and 15 as per the Greenhouse Gas Protocol - "A Corporate Accounting and Reporting Standard" (Revised Edition).

A summary of the emissions data reported by Cargolux Airlines is given in the table below:

Environmental Footprint		
Source	Unit	Emissions
<b>Scope 1</b>		4746198
Mobile sources	tCO <sub>2</sub> e	4745937
Stationary sources	tCO <sub>2</sub> e	244
Fugitive emissions	tCO <sub>2</sub> e	17
<b>Scope 2</b>		
Location-based emissions	tCO <sub>2</sub> e	2635
Market-based emissions	tCO <sub>2</sub> e	1738
<b>Scope 3</b>		1150623
Purchased goods and services	tCO <sub>2</sub> e	80513
Capital goods	tCO <sub>2</sub> e	16431
Fuel and energy-related activities	tCO <sub>2</sub> e	991311
Upstream transportation & distribution	tCO <sub>2</sub> e	39001
Waste generated	tCO <sub>2</sub> e	10
Business travel	tCO <sub>2</sub> e	17711
Employee commuting	tCO <sub>2</sub> e	5121
Upstream leased assets	tCO <sub>2</sub> e	525
Investments	tCO <sub>2</sub> e	0.13
<b>Total emissions: location-based</b>	tCO <sub>2</sub> e	5899457
<b>Total emissions: market-based</b>	tCO <sub>2</sub> e	5898559
<b>Biogenic emissions</b>	tCO <sub>2</sub> e	18738

The sub-categories (1, 2, 7, 8 and 15) for Scope 3 emissions are based on values calculated in the 2023 carbon footprint. To avoid gaps in the current year's carbon footprint, these values have been considered for 2024 reporting. This approach was deemed appropriate as no significant changes have been identified for the current year that would materially impact these categories. Therefore, it is assumed that the impact on Scope 3 emissions remains consistent and not significantly altered.

Any other information in the CARGOLUX AIRLINES' Carbon Footprint report is not subject to our assurance engagement, and we do not report and do not opine on that information. The Environmental Management Team of CARGOLUX AIRLINES is responsible for the preparation and presentation of CARGOLUX AIRLINES' Carbon Footprint report, including the reported annual environmental data and information presented therein.

We are responsible for providing an Assurance Statement on the reported annual environmental data presented in the table above. NORMEC VERIFAVIA disclaims any liability or responsibility to a third party for decisions, whether investment or otherwise, based on this Assurance Statement.

### Criteria

The framework used by CARGOLUX AIRLINES to report the carbon inventory is the Greenhouse Gas Protocol - "A Corporate Accounting and Reporting Standard" (Revised Edition).

We conducted the independent audit based on the following verification criteria:

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## ASSURANCE STATEMENT

### Responsibilities

CARGOLUX AIRLINES is solely responsible for the preparation and reporting of its carbon inventory data, for any information and assessments that support the reported data, for determining the group's objectives concerning carbon information and management, and for establishing and maintaining appropriate performance management and internal control systems from which reported information is derived.

In accordance with the verification contract, it is our responsibility to form an independent opinion, based on the examination of information and data presented in the Carbon Footprint report, and to report that opinion to CARGOLUX AIRLINES. We also report if, in our opinion:

- the carbon inventory data is or may be associated with misstatements (omissions, misrepresentations, or errors), non-conformities; or
- the verification team/verifier has not received all the information and explanations that it requires to conduct its examination; or
- improvements can be made to the group's performance in monitoring and reporting carbon inventory data.

### Independence statement

We confirm that NORMEC VERIFAVIA and the verification team are independent of CARGOLUX AIRLINES and have not assisted in any way with the development of the carbon inventory or in the preparation of any text or data provided in the Carbon Footprint report, except for this Assurance Statement.

### Work performed & basis of the opinion

We conducted the examination of the data referred to the verification criteria/documents listed above. This involved a virtual site visit on the 03.06.2025, to interview the staff responsible to gain reasonable assurances that the amounts and disclosures relating to the data have been properly prepared in accordance with the requirements of the Greenhouse Gas Protocol in terms of relevance, completeness, consistency, transparency, and accuracy. This also involved assessing where necessary estimates and judgements made by CARGOLUX AIRLINES in preparing the data and considering the overall adequacy of the presentation of the data in the Carbon Footprint report.

### Materiality threshold

For the purpose of this audit, a materiality threshold of 5% was determined as GHG quantification has inherent uncertainties due to measurement instrumentation capabilities, testing methodologies, and incomplete scientific knowledge used in determining emissions factors and global warming potentials.

### Opinion

NORMEC VERIFAVIA conducted the verification of the carbon inventory data reported by CARGOLUX AIRLINES in its Carbon Footprint report and presented above. Based on the verification work undertaken and a virtual-site visit (dated 03.06.2025), interviews and walkthrough of the data, and assessment of technical assumptions and judgments to gain reasonable assurance for Scope 1 & 2 and limited assurance for Scope 3 that the data is fairly stated and contains no material misstatements or material non-conformities.

Courbevoie, 20 June 2025



Patricia PINILLA  
Sustainability Initiatives Director  
NORMEC VERIFAVIA



Nilay WARKHEDKAR  
Lead Auditor  
NORMEC VERIFAVIA



Vivek KUSHWHAHA  
Auditor  
NORMEC VERIFAVIA

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**Independent practitioner's assurance report**

**Cargolux Airlines International, S.A.**  
Att. The Management  
Aéroport de Luxembourg  
L-2990 Sandweiler  
Grand Duchy of Luxembourg

**Scope**  
We have been engaged by the Management of Cargolux Airlines International S.A. to perform a 'limited assurance engagement,' as defined by International Standards on Assurance Engagements, here after referred to as the engagement, to report on Cargolux Airlines International S.A.'s Sustainability Information based on European Sustainability Reporting Standards (the "Subject Matter") contained in Cargolux Airlines International S.A.'s (the "Company's") Sustainability Report for the year ended December 31, 2024 (the "Report").

Other than as described in the preceding paragraph, which sets out the scope of our engagement, we did not perform assurance procedures on the remaining information included in the Report, and accordingly, we do not express a conclusion on this information.

**Criteria applied by Cargolux Airlines International S.A.**  
In preparing the Annual Sustainability Report, Cargolux Airlines International S.A. applied the European Sustainability Reporting Standards (ESRS) as adopted by the European Commission and compliant with the double materiality assessment process carried out by the Company to identify the information reported pursuant to the ESRS (Criteria).

**Cargolux Airlines International S.A.'s responsibilities**  
Cargolux Airlines International S.A.'s management is responsible for selecting the Criteria, and for presenting the Annual Sustainability Report in accordance with that Criteria, in all material respects. This responsibility includes establishing and maintaining internal controls, maintaining adequate records and making estimates that are relevant to the preparation of the subject matter, such that it is free from material misstatement, whether due to fraud or error.

- 1 -

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**Responsibilities of the Réviseur d'Entreprises Agréé**  
Our responsibility is to express a conclusion on the presentation of the Subject Matter based on the evidence we have obtained.  
We conducted our engagement in accordance with the *International Standard on Assurance Engagements* ('ISAE 3000 (Revised)'), *"Engagements Other Than Audits or Reviews of Historical Financial Information"*, and the terms of reference for this engagement as agreed with Cargolux Airlines International S.A. on April 28, 2025. Those standards require that we plan and perform our engagement to express a conclusion on whether we are aware of any material modifications that need to be made to the Subject Matter in order for it to be in accordance with the Criteria and to issue a report. The nature, timing, and extent of the procedures selected depend on our judgment, including an assessment of the risk of material misstatement, whether due to fraud or error.  
We believe that the evidence obtained is sufficient and appropriate to provide a basis for our limited assurance conclusion.

**Our independence and quality management**  
We have maintained our independence and confirm that we have met the requirements of the Code of Ethics for Professional Accountants issued by the International Ethics Standards Board for Accountants, and have the required competencies and experience to conduct this assurance engagement.  
Our firm also applies International Standard on Quality Management 1, *Quality Management for Firms that Perform Audits or Reviews of Financial Statements, or Other Assurance or Related Services engagements*, which requires that we design, implement and operate a system of quality management including policies or procedures regarding compliance with ethical requirements, professional standards and applicable legal and regulatory requirements.

**Description of procedures performed**  
Procedures performed in a limited assurance engagement vary in nature and timing from and are less in extent than for a reasonable assurance engagement. Consequently, the level of assurance obtained in a limited assurance engagement is substantially lower than the assurance that would have been obtained had a reasonable assurance engagement been performed. Our procedures were designed to obtain a limited level of assurance on which to base our conclusion and do not provide all the evidence that would be required to provide a reasonable level of assurance.

- 2 -

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Although we considered the effectiveness of management's internal controls when determining the nature and extent of our procedures, our assurance engagement was not designed to provide assurance on internal controls. Our procedures did not include testing controls or performing procedures relating to checking aggregation or calculation of data within IT systems.

A limited assurance engagement consists of making enquiries, primarily of persons responsible for preparing the Annual Sustainability Report and related information and applying analytical and other appropriate procedures.

**Our procedures included:**

Our review, performed in accordance with the Engagement Letter dated 28 April 2025, included an assessment of Cargolux's alignment with ESRS reporting requirements. The procedures comprised a review of the double materiality analysis and methodology, including value chain definition, stakeholder engagement, and ESG risk and opportunity analysis. We evaluated internal systems and controls supporting non-financial data, examined data collection processes, and held inquiry meetings with key data owners. Selected ESRS data points were recalculated and tested for accuracy. We also reviewed the sustainability report for compliance and consistency with financial information.

We conducted interviews, analytical procedures, and observations to form our conclusion on Cargolux's sustainability disclosures.

We also performed such other procedures as we considered necessary in the circumstances.

**Conclusion**

Based on our procedures and the evidence obtained, we are not aware of any material modifications that should be made to Annual Sustainability Report as of December 31<sup>st</sup>, 2024 and for the year then ended, in order for it to be in accordance with the Criteria.

- 3 -

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**Restricted use**

This report is intended solely for the information and use of Cargolux Airlines International S.A. and is not intended to be and should not be used by anyone other than those specified parties.

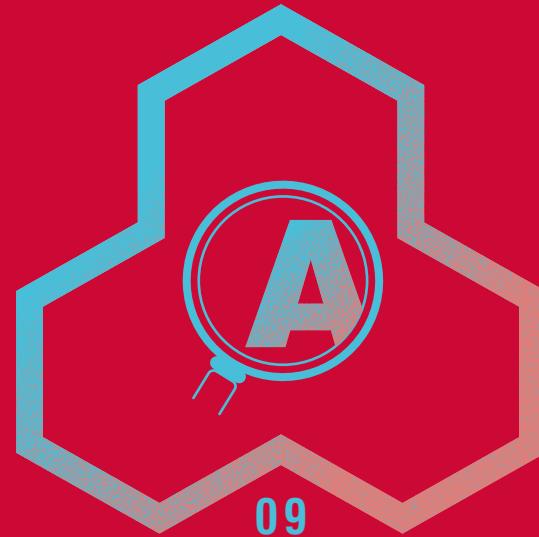
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Cabinet de révision agréé

  
Amedeo Pedini

Luxembourg, 17 December 2025

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## GLOSSARY



# GLOSSARY

## A

**AA1000SES (2015)**

Stakeholder Engagement Standard to ensure inclusivity and transparency.

**ANA**

Administration de la Navigation Aérienne (Air Navigation Administration)

**APU**

Auxiliary Power Unit

**AFF**

Aquarius Aerial Firefighting

## B

**Biogenic Emissions**

Emissions of greenhouse gases (GHGs) that result from biologically based materials

## C

**CBA**

Collective bargaining agreement

**CH<sub>4</sub>**

Methane

**Circular Economy**

An economic model focused on resource efficiency, waste reduction, and recycling to keep materials in use for as long as possible.

**CITES**

Convention on International Trade in Endangered Species of Wild Fauna and Flora

**CO<sub>2</sub>e**

Carbon Dioxide Equivalent

**CORSIA**

Carbon Offsetting and Reduction Scheme for International Aviation

**Crew**

Pilots required for the operation of a flights plus Loadmasters and Flight Mechanics

**CSO**

Chief Sustainability Officer

**CSRД**

Corporate Sustainability Reporting Directive

**CWA**

Collective Work Agreement

## D

**DEFRA**

UK Department for Environment, Food & Rural Affairs

**DEI**

Diversity Equity and Inclusion

**DMA**

Double Materiality Assessment

**Due Diligence**

The process of identifying, preventing, mitigating, and accounting for adverse impacts.

## E

**EASA**

European Aviation Safety Agency

**EEIO**

Environmentally Extended Input-Output

**EFRAG**

European Financial Reporting Advisory Group

**EMS**

Environmental Management System (EMS)

**ERP**

Enterprise Resource Planning

**ESG**

Environment, Social, Governance

**ESRS**

European Sustainability Reporting Standard

**ESRS-aligned**

Reflects the concepts and principles of the ESRS but is not currently fully compliant

**EU RED**

European Union Renewable Energy Directive

**EU Taxonomy**

Classification system established by the European Union

**EVP**

Executive Vice President

**ExCom**

Executive Committee

**F****FAA**

Federal Aviation Administration

**Financial materiality**

How sustainability matters affect the company's financial position, performance, and development

**FTK**

Freight Tonne Kilometer

**G****GHG**

Greenhouse Gas

**GHG Protocol**

International standard for greenhouse gas accounting and reporting

**GHG removals**

Process of extraction and storage of greenhouse gases from the atmosphere

**GRI**

Global Reporting Initiative

**Ground Staff**

All employees under the CWA except Pilots

**GSA**

General Sales Agent

**GSE**

Ground Support Equipment

**H****HR**

Human Resources

**I****IATA**

International Air Transport Association

**IATA LAR**

Live Animals Regulations by the International Air Transport Association

**ICAO**

International Civil Aviation Organization

**Impact Materiality**

The significance of a company's impacts on the environment and society

**IQSMS**

Integrated Safety and Quality Management System

**IRO**

Impact, Risk and Opportunity

**ISCC EU**

International Sustainability and Carbon Certification

**ISMS**

Information Security Management System

**ISO**

International Organization for Standardization

**ISO 14001**

International standard for environmental management systems

**ISO 27001**

Standard for information security management systems

**ISO 45001**

Standard for occupational health and safety management systems

**K****KYC**

Know Your Customer

**KYS**

Know Your Supplier

**L****LCH**

Luxcargo Handling

**L&D**

Learning and Development

**Learning model 70-20-10**

Experiential learning framework, where 70% of the learning comes from 'on the job' experiences, 20% comes from social learning and 10% from formal education.

**LTAG**

Long Term Aspirational Goal

**M****Materiality**

The determination of relevancy for reporting

**M&E**

Maintenance and Engineering

**MWh**

Megawatt-hour

**N****N<sub>2</sub>O**

Nitrous Oxide

**O****OHS**

Occupational Health and Safety

**OPS**

Operations

**Own Workforce**

Employees directly employed by the company, excluding workers in the value chain.

**P****PEFC**

Program for Endorsement of Forest Certification

**R****ReFuelEU Aviation**

EU regulation mandating the use of SAF at European airports

**S****SAF**

Sustainable Aviation Fuel

**Scope 1,2,3**

GHG emissions that are released across our company's entire value chain

**SDG**

UN Sustainable Development Goals

**SpeakUp**

Confidential whistleblower platform for reporting ethical or compliance concerns.

**SquAIR-timber**

Innovative lightweight beams made from cardboard fiber composite

**SSG**

Sustainability Steering Group

**U****UN 2030 Agenda**

United Nations 2030 sustainable development agenda

**UNGC**

United Nations Global Compact

**UNGP**

United Nations Guiding Principles

**V****Value Chain**

Includes upstream and downstream activities linked to the company