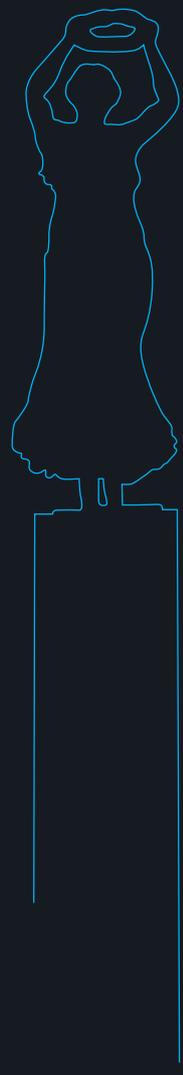




La Philharmonie - LUXEMBOURG

# 2018

CORPORATE SOCIAL  
RESPONSIBILITY **REPORT**



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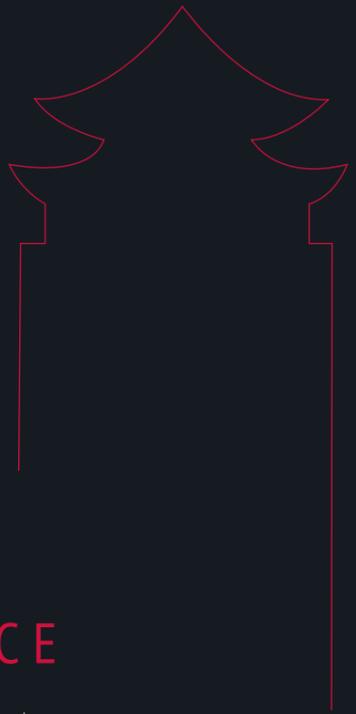
### SPANNING THE WORLD

110	European trucking Network
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# Vision, Mission and Values



## OUR VISION

To be "The Global Cargo Carrier of Choice"

## OUR MISSION

We deliver consistent flexibility and reliability through our valued and dedicated employees creating sustainable benefits for all stakeholders in a safe environment.

## THE CARGOLUX SPIRIT

GRI 102-16

- Leading by example
- Respecting each other
- Working as a team
- Being dedicated and passionate
- Going the extra mile
- Being cost efficient
- Being flexible
- Delivering service excellence

# Chairman's Letter



The year 2018 marks another highly successful year for Cargolux. Building on the achievements of a fruitful 2017, our company managed to surpass expectations and realized record results, despite looming uncertainty throughout the year. In a year of operational consolidation with a stable network, unchanged fleet, and steadily growing workforce, Cargolux managed once again to prove its prime position in this volatile industry. Our core business continues to place us as one of the leading air cargo carriers on the market today. With a global network that serves all main commercial gateways and major business centers, our long-standing worldwide presence offers a distinct and significant advantage.

Of course, the year came with its set of challenges which the company had to circumnavigate. Trade wars between China and the United States flared up throughout the year with tariff impositions impacting trade lanes. Questions surrounding the UK's exit from the European Union and the uncertainty regarding customs and trading conditions affected business confidence. After a healthy beginning to the year and despite a successful peak season, a slow-down in market conditions emerged. Demand for capacity stalled somewhat in the second half of the year, profiling clouds on the horizon for the coming year.

On the eve of its 50<sup>th</sup> anniversary, Cargolux, with Richard Forson at its helm, proved once again that resilience and adaptability can generate unmatched results. In line with our 2025 strategy, geared towards economic, social, and environmental sustainability, enhancements continued to be devised to guarantee the company's endurance.

A number of new measures were deployed to optimize and streamline processes. Among the important steps taken in 2018, a complete re-structuring of the IT environment was initiated in an effort to enhance digitization. This on-going process is well underway and a growing number of procedures are undergoing transformation to ensure Cargolux is at the forefront of this industry-wide movement. In an increasingly numeric era, innovation is paramount to commercial success and we will ensure this milestone is achieved in a timely manner.

On the business side, our dual hub strategy continued to bear its fruits as Luxembourg and Zhengzhou remained focal points in the network. As the Air Silk Road arises as a global trade project that will complement the One Belt One Road initiative, Cargolux and HNCA's decision to establish the dual hubs reinforces this. Luxembourg and Zhengzhou both benefit from prime geographical locations that will

enable our company to progress and consolidate its footprint in China. The country, and Henan province in particular, have been instrumental in Cargolux's development in the region. Our close ties to our honorable partner HNCA, as well as Luxembourg and China's warm relationship are to thank for this valuable progression.

As a customer-oriented company, Cargolux has also continued to work on developing tailor-made solutions for its customers. As requirements and regulations become ever more stringent, our company must position itself as the service provider of choice. Our expertise in the areas of perishables, off-size, pharmaceuticals, and live animals among others is highly appreciated and demand for these customized products has significantly increased over the past year. As interest grows, Cargolux will continue to invest in these service offerings to ensure our customers benefit from the service excellence they have come to expect from us.

Our commitment to agile processes and flexibility, combined with a strong sense of moral duty have allowed us to continuously adapt our commercial focus to match market requirements. Environmental awareness is becoming a recurring customer demand and one which we have fully implemented in the definition of our strategic measures.

Cargolux is strongly involved in Corporate Social Responsibility, a quality that has been recognized by our peers. As a pioneer in this field, our company is at the forefront of the trend in air cargo, a position we hope to upkeep and promote throughout the industry.

Cargolux is in the midst of a profound transformation, one which will propel our airline into the future in order to maintain long-term sustainability. In the current economic and geopolitical climate, the outcome for business entities is increasingly uncertain especially in an industry like ours. Throughout its almost 50 year-history, Cargolux has shown that the determination, resilience, and hard work of its employees can pull us through even the toughest times.

I would like to conclude by extending my profound gratitude to my colleagues on the Board of Directors and the Cargolux Management and staff as well as our business partners around the globe for their unwavering dedication and passion. 2018 resulted in an exceptional outcome, one we all contributed to, and one we should all be proud of. I look forward to continuing Cargolux's future journey with you and witnessing yet more successes ahead of the half century mark.

**Paul HELMINGER,**  
Chairman of the Board

## CEO's Letter

The past year can be regarded as the epitome of Cargolux's success, a year of record results achieved through employee commitment, trusted customer relationships, and a strategy geared towards sustainability. With revenue increasing 16.4% to USD 2.6 billion, 2018 was the strongest year yet in our airline's history. Despite the year being marked by a global softening in demand in second half, Cargolux strengthened its position in several key markets, resulting in solid revenue, growth, and a prime position as a leading industry player. A stable network and steady fleet complemented by additional workforce contributed to offering enhanced flexibility to meet market requirements. In line with our 2025 strategy, and the ultimate goal of remaining a financially, environmentally, and socially sustainable business, we have continued our journey towards digitalization. Several key steps were taken in the global IT restructuring journey. The main objective is to streamline processes and develop tools in order to provide our customers and employees with the best available service and applications to ensure seamless transaction processes.

As the fastest and most efficient mode of transporting commodities, air freight has a history of undertaking the most valuable, sensitive, and time-critical shipments.

Over time, Cargolux has forged a reputation of excellence in its field, one it continues to harbor and strengthen with every passing year. Our increasing focus on the development of our specialized product portfolio strongly contributed to the revenue recorded by the company last year. Indeed, our customized transport solutions have garnered more and more attention with products such as CV pharma, CV alive and CV precious witnessing increased demand throughout the year. We will continue to focus on the development of these products and establish strategic guidelines in order to gear customers towards the most suitable solution for their needs.

Changes were made at ExCom level with the arrival of two new members; namely Simon Meijer in the position of EVP Global Logistics and Domenico Ceci as EVP Sales & Marketing. Simon, who joined the company in July, has a solid background in logistics and extensive experience in strategic development. As for Domenico, his vast knowledge of the industry, combined with his long-standing dedication within Cargolux, make him a valuable addition to the Executive Committee. His previous role as Senior Vice President Commercial Planning has been filled by Pierandrea Galli, former CEO of Cargolux Italia. I am confident that this new structure



will contribute to stronger synergies between departments and enhanced service provisions as well as more transparent procedures.

Amidst the digital transformation and strategic measures, our core business continued its adaptation to market requirements. There was a heightened demand for transpacific services that prompted additional frequencies between China and Hong Kong, and North America specifically during the peak season. An additional connection between Hong Kong and Columbus (Rickenbacker) was added. Mexico was also added to our transpacific network in order to extend service offerings and diversify trade lanes. This gives the company a significant commercial advantage, and one that we intend to enhance as market demands evolve.

Our focus on flexibility proved to be a strong commercial advantage, as charter services witnessed a healthy demand throughout the year. Revenues increased by almost 14%, with the Europe-North America trade lane as a valuable contributor. Our area headquarters offices - in Houston, Hong Kong and Luxembourg - enable us to maintain a local presence in key gateways and explore new markets. This round-the-clock availability complemented by our fleet of freighter aircraft strongly contributed to the company's bottom-line in 2018.

Our ACMI services also gained positive ground, with a successful maintenance bridging operation during the summer months for a third party airline. The positive experience has encouraged our teams to explore this avenue further and build a viable service offering.

The positive outcome of this year, and the developments foreseen in the future to maintain a sustainable business would not have been possible without the input of each and every one of Cargolux's employees. Our workforce is what drives the company forward and their dedication is what enables us to surpass expectation, take advantage of market opportunities, and keep going the extra mile to accomplish our vision to be the Global Cargo Carrier of Choice. I would like to extend my heartfelt thanks to all of you, who have forged the company's reputation over the years and worked tirelessly to achieve yet another record year.

### 2019 OUTLOOK

As we move forward into 2019, clouds gather on the horizon of the air freight industry and we look towards a bumpy road. Our industry is a cyclical one; after two record years buoyed by e-commerce and GDP growth, there is much global uncertainty ranging from an unknown Brexit, trade wars between the USA

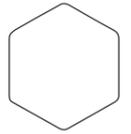
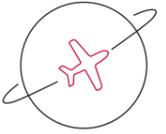
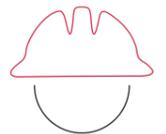
and China as well as between the USA and the EU, and the growth of the global economy. If these uncertainties arise, it will have a negative impact on our business. We are however determined to remain resilient in the face of these challenges and will strive to maintain a sustainable business. The implementation of flexible business practices has helped us to seize market opportunities and provide unmatched adaptability, a strategy that we intend to uphold. We have proved in the past that hard work and dedication can sustain our business through hard times; an approach we intend to demonstrate once again in turbulent times.

**Richard FORSON,**  
President & CEO

# Consolidated Figures

AS AT DECEMBER 31, 2018

GRI 201-1

	2018	2017	2016	2015
 Total income in US\$ '000	<b>2,633,723</b>	2,263,553	1,755,737	1,861,126
Profit/loss for the year in US\$ '000	<b>211,206</b>	122,301	5,533	49,479
Shareholders' equity in US\$ '000	<b>1,183,008</b>	985,365	838,001	822,996
 Tonnes sold	<b>1,053,626</b>	1,067,238	964,131	889,652
 Tonne-kilometers flown (millions)	<b>8,409</b>	8,480	7,550	6,919
Available tonne-kilometers (millions)	<b>12,375</b>	12,102	11,310	10,499
 Employees worldwide*	<b>2,031</b>	2,027	1,968	1,880
Headquarters	<b>1,531</b>	1,436	1,389	1,335

\*Excluding Cargolux Italia

Fleet operated	2018	2017	2016	2015
 Boeing 747-8 Freighter	<b>14</b>	14	14	13
Boeing 747-400 Freighter	<b>11</b>	11	10	9
Boeing 747-400 ERF	<b>2</b>	2	2	2
Boeing 747-400 BCF	<b>0</b>	0	0	2

# Corporate Governance

AS AT DECEMBER 31, 2018

GRI 102-18

## BOARD OF DIRECTORS

### Luxair Representatives

- **Paul Helminger**  
Chairman of the Board of Cargolux,  
Chairman of the Board of Luxair  
Group, Director
- **Adrien Ney**  
President and Chief Executive  
Officer of Luxair Group, Director
- **Françoise Thoma**  
President & Chief Executive Officer  
of Banque et Caisse d'Epargne  
de l'Etat, Director
- **Tom Weisgerber**  
Premier Conseiller de  
Gouvernement Ministry of Mobility  
and Public Works, Director

### Luxembourg State Representative

- **Isabelle Goubin**  
Director of the Treasury,  
Ministry of Finance

### BCEE Representative

- **Guy Rosseljong**  
Executive Vice-President,  
Member of the Executive  
Committee Banque et Caisse  
d'Epargne de l'Etat, Director

### SNCI Representative

Société Nationale de Crédit et  
d'Investissement (SNCI), Director  
(corporate mandate) represented  
by Patrick Nickels (Conseiller  
de Gouvernement 1<sup>ère</sup> classe)

### Cargolux Staff Representatives

- **George Karambilas**  
Captain, Director
- **Carlo Fonseca**  
Senior Analyst M&E Systems,  
Director
- **Fabien Kowolik**  
Controller Maintenance, Director
- **Darrell Myers**  
Captain, Director
- **Dirk Winne**  
Assistant Lead Technician, Director

### HNCA Representatives

- **Li Weidong**  
Chairman of Henan  
Airport Group, Director
- **Mingchao Zhang**  
Chairman of Henan Civil Aviation  
Development and Investment Co,  
Ltd, Director
- **Shengbo Yuan**  
Deputy General Manager  
of Luxembourg Project Office  
of Henan, Director

## COMMITTEES OF THE BOARD OF DIRECTORS

### Compensation Committee (as of 25/04/2018)

- Paul Helminger
- Françoise Thoma
- Tom Weisgerber
- Shengbo Yuan

### Audit Committee (as of 25/04/2018)

- SNCI represented  
by Patrick Nickels
- Françoise Thoma
- Tom Weisgerber
- Shengbo Yuan

# Executive Committee



**Richard Forson**  
President and Chief Executive Officer



**Maxim Straus**  
Executive Vice-President and Chief Financial Officer



**Domenico Ceci**  
Executive Vice-President Sales & Marketing



**Emese Bekessy**  
Executive Vice-President HR, Legal Affairs & Compliance



**Simon Meijer**  
Executive Vice-President Global Logistics



**Onno Pietersma**  
Executive Vice-President Maintenance & Engineering



**Claude Zehren**  
Executive Vice-President Flight Operations

# Shareholders

AS AT DECEMBER 31, 2018



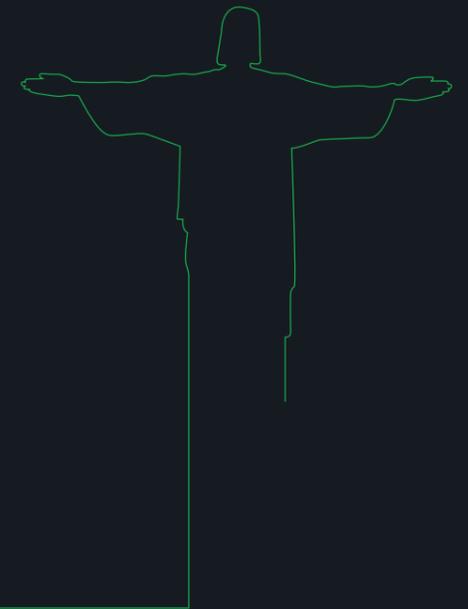


National Museum of the Republic - BRAZIL

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# 02





# Sustainability Report 2018

## CORPORATE SOCIAL RESPONSIBILITY AT CARGOLUX

Cargolux recognizes its responsibility for addressing environmental issues and is excited to be involved in raising awareness among its staff and within the industry. Cargolux understands that corporate social responsibility and sustainable development behaviors are part of the company's DNA.

The airline has been a signatory to the United Nations Global Compact since 2007 and also actively supports the 17 Sustainable Development Goals (SDGs), which came into effect in 2016 and form the heart of the UN's "Agenda 2030". In 2018, the company identified 6 priority goals that fit into its four CSR pillars of Environment, People, Communities and Customers.

This year's focus was the transition to creating a sustainable, business through digitalization, innovation, and collaboration. It is no longer enough to focus on the bottom-line only. To truly develop a sustainable,

vibrant organization, social and environmental activism must also be embraced.

The airline's commitment is ongoing and strong. Cargolux knows that by embodying the Sustainable Development Goals, it can help lead the industry to a better understanding of options and potential. We are in this together. Each saving, whether fuel or paper; each reduction, whether noise or emissions, is another step towards better business and a better environment.

The airline's deep roots in the country hail back to its inception in 1970. This longevity has afforded it strong ties with local government, communes, and other industry organizations. Now at almost 50 years of membership in Luxembourg's vibrant business community, commitment to promote partnerships at home and abroad is even stronger.

The "Cargolux 2025" strategy prepares the company to take on the challenges of the digital age. It aims at ensuring a sustainable future of digitalization and innovation.

The company's CSR program, in place since 2008, continues to engage stakeholders and use their input to guide organizational momentum. Despite the highly competitive nature of the air freight industry and challenging conditions in past years, Cargolux has eagerly upheld its commitment to Corporate Social Responsibility.

Responsibility toward our customers, local communities, employees, and shareholders are the hallmarks of Cargolux's innovative approach to the business, and industry leadership.



## Message from the CEO

GRI 102-14

### EMBRACING THE FUTURE

2018 was a busy year for Cargolux. Even though the market softened in the second half and capacity expanded beyond demand, Cargolux enjoyed its second record year in a row. Meanwhile, most experts predict a decline in economic progress for 2019. Notwithstanding this, the company is committed to doing business in the most sustainable manner possible. Customer relationships, environmental initiatives, technological advances, and social responsibilities are all critical elements in this picture.

The forecast may be uncertain, but Cargolux is investing in the future with digitalization, a continued expansion of our routes, destinations and networks, and additions to our fleet in 2019. I am encouraged and proud of our Cargolux team that keeps an attentive eye on customer requirements while winning environmental strategies within their areas.

Our commitment remains strong to continue the path laid out in the 2025 strategy. An important initiative supporting this is the transformation of our IT services to state-of-the-art business applications, residing within Cargolux. The further digitalization of processes will be augmented with the digitization of key data, making it easier to take advantage of real-time information in our day-to-day activity. This is at the heart of our strategic journey; regular investment in systems and tools is critical for any viable business today. Cargolux is ensuring every aspect of its operations are in step with developments in their respective industries.

Coupled with investments in technology and assets, is our dedication to our team. In 2018, “lean and agile” methodologies were introduced. This approach will streamline processes by reducing non-value-adding activities, saving time and costs, and improving safety. A number of workshops and training programs help ensure that the Cargolux team is certified and qualified.



Customer satisfaction is also central to our strategy. As well as maintaining a focus on excellent client relationships and service, the Cargolux transformation initiative is remapping and reconceiving the entire customer journey. We share our customers' ambition for business quality and understand that social factors must be addressed if we are truly to be successful.

Our focus on good practices is broad, but we are particularly proud of our work for animals. Transporting endangered animals to reserves where they can live closer to their natural habitat and supporting organizations that acclimatize and free endangered species is part of our DNA. 2018 saw a number of initiatives in this area, such as the transport of gorillas that were released to a reserve in Africa. Furthermore, the Cargolux team was busy in 2018 preparing the transport of two precious beluga whales from a water park in China to a sanctuary in Iceland in the spring of 2019.

Our goals of business excellence and social activism will not be achieved overnight. We strive to build on our achievements and to be agile in our thinking and behavior. We must work together to ensure our growth and expansion not only benefits the organization but also the people and communities we touch every day.

**Richard FORSON,**  
President & CEO

# About the company

GRI 102-2, GRI 102-3, GRI 102-4, GRI 102-6, GRI 102-7

Cargolux Airlines International S.A., having its headquarter in Luxembourg, is a leading provider of reliable, high-quality air cargo services, and the Global Cargo Carrier of Choice. Starting with a handful of CL-44 aircraft in the 1970s, the company developed into Europe's largest all-cargo airline, 6<sup>th</sup> overall worldwide, operating a steadily expanding fleet of efficient, purpose-built Boeing 747-8 and 747-400 freighters. Cargolux was the world's first operator of both aircraft types and uses its fleet, paired with trucking contractors to move cargo on its worldwide network that covers some 75 destinations with more than 85 offices in over 50 countries. Cargolux Italia, the airline's subsidiary airline based in Milan, Italy, was Italy's largest all-cargo carrier in 2018.

In almost 50 years of operations, Cargolux has become an expert in handling a variety of delicate shipments. Live animals, perishables, temperature-sensitive commodities and outsize freight benefit from Cargolux's experienced touch. The airline offers an extensive

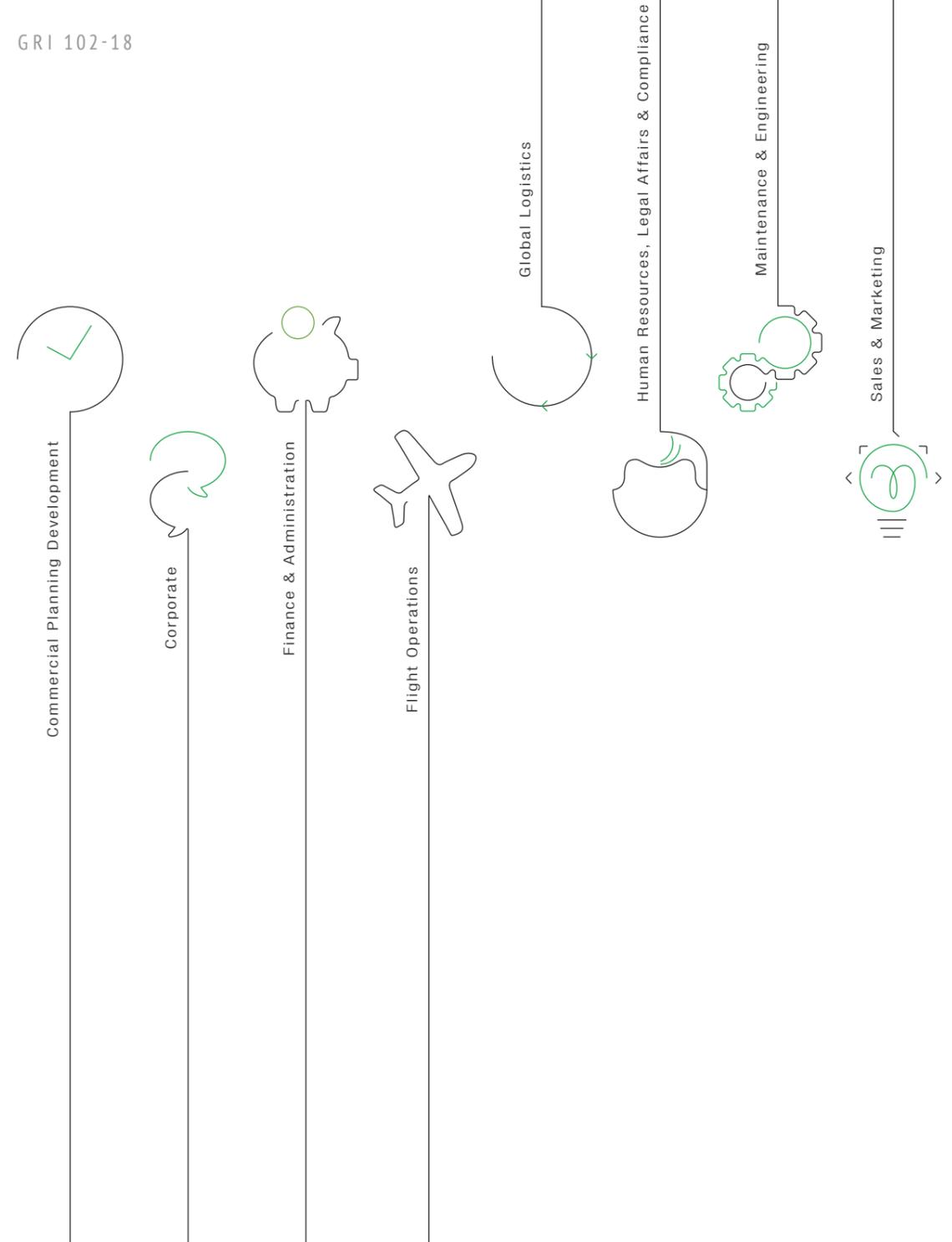
product portfolio that gives customers expert treatment for even the most unusual requirements. Cargolux continues to build on its existing core competency, pushing global consistency and leveraging the evolution of its global presence. The airline's focus is on industry-specific needs – it thinks beyond just the in-flight needs and responds to customers' door-to-door requirements.

The company's flexible charter services offer the advantage of dedicated tailored solutions for its clients. The airline operates a number of dedicated charter aircraft that can be operated at very short notice. With staff stationed across the globe, Cargolux Charter gives customers 24/7 coverage.

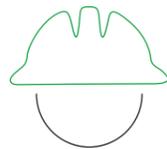
Cargolux's maintenance center in Luxembourg also offers third-party maintenance services, specializing in Boeing 747 line and hangar maintenance up to and including C-Checks. It offers a range of specialized maintenance services such as, but not limited to, avionic modifications, structural repairs, and worldwide AOG support.

# OPERATIONAL STRUCTURE OF THE ORGANIZATION

GRI 102-18



GRI 102-7



**2,031**

staff worldwide<sup>1</sup>  
**1,531** at Headquarters  
in Luxembourg



Europe's largest  
all-cargo airline;

**6<sup>TH</sup> WORLDWIDE**

**3.6 %**



Worldwide  
market share



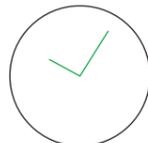
**27**

B747-400 and  
B747-8 operated in 2018



**14:43**

hours average daily  
aircraft utilization<sup>2</sup>



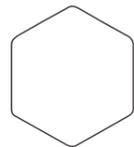
**138,179**

Total block hours  
(including ACMI)  
(+3% 2017: 134,195)



**1,053,626**

Tonnes sold  
(incl. 4 CV Italia)



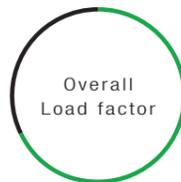
**8,408,798**

tonne-kilometers flown (FTK)



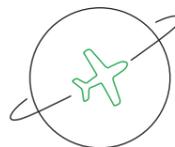
**254,827**

Product tonnage  
(excl. CV classic)



Overall  
Load factor

**67.95 %**



**MORE THAN 75**

scheduled flight  
destinations worldwide

<sup>1</sup> This number indicates filled positions  
on 31 December 2018

<sup>2</sup> Only on Core fleet (excluding Flexible Fleet:  
LX-FCL, LX-GCL, LX-ICL, LX-JCV, LX-OCV)

# Precautionary principles and risk management

GRI 102-11

Cargolux is firmly committed to ensuring full compliance with all applicable laws and regulations, as well as adherence to internal rules and policies. The airline is convinced that ethical corporate and individual behavior is a precondition for sustainable and profitable business relationships, fostering trust and avoiding the risk of reputational or other damage.

It assists the company in accomplishing its objectives by bringing a systematic and disciplined approach to evaluate and improve the effectiveness of the organization's risk management, control, governance, and other processes related to the design and operation of internal controls.

Key risks were identified and used as a base by the Internal Audit department for the 2018 risk-based Audit Plan. The latter being approved by senior management and the Board of Directors via the Audit Committee.

Cargolux has set up an independent Internal Audit department (IA), whose purpose is to provide independent, objective assurance and consulting services that are guided by a philosophy to add value and improve Cargolux's operations.

## Building bridges: competency & confidence

GRI 102-12, GRI 102-13

Cargolux takes its commitment to the business environment and industry seriously. Integral to the development of industry-wide solutions are partnerships and community development. As well as being a member of the Chamber of Commerce and various other business associations, Cargolux takes an active role in the following communities:

### INDUSTRY ASSOCIATION MEMBERSHIPS

#### **Airlines for Europe (A4E):**

Cargolux joined A4E in 2016. Based in Brussels, A4E is Europe's largest airline association. It represents the interests of airline members and their customers in various policy areas, including European air traffic management framework reform, aviation emissions trading schemes, security issues, and aviation taxes.

**Cargo iQ:** Formerly the Cargo 2000 initiative, this IATA interest group aims to improve end-to-end work processes in the air cargo transportation industry from shipper-to-consignee.

GRI 102-12, GRI 102-13

#### **Centre for Aviation (CAPA):**

established in 1990, this is a global leader in aviation knowledge and one of the world's most trusted sources of aviation market intelligence for the airline industry. CAPA has a reputation for independence and integrity, providing powerful data and in-depth insights on the news, issues, and trends that are shaping our industry.

**Cluster for Logistics:** Cargolux is a founder and Board Member of the Cluster for Logistics. This community seeks to promote Luxembourg as a logistics hub and gathers logistics service providers, research institutes, and other organizations to build competencies in order to continuously optimize activities and benefit the customer. Cargolux was a sponsor for the May 2018 "smart start-ups and new business models in supply chain 1" logistics conference.

**GDP Certification:** In March 2018, Cargolux successfully passed its GDP Surveillance Audit, validating its GDP certification for another year. Cargolux was the first airline worldwide to receive the Good Distribution Practice (GDP) certification that attests that Cargolux's management system

meets the requirements of the World Health Organization guidelines and the EU directive "Guidelines on Good Distribution Practice of Medical Products for Human Use". Reflecting this expertise in its CV pharma product, one of eight specialized offerings in its product portfolio, makes Cargolux a preferred carrier for the transport of pharmaceutical goods, and underlines the company's commitment to the safe and fast movement of high-value, temperature-sensitive healthcare shipments across its global network.

**IATA:** The International Air Transport Association (IATA) is the trade association for the world's airlines. It represents approximately 265 airlines or 83% of all air traffic. As well as supporting many areas of aviation activity, it helps to guide and formulate industry policies on critical aviation issues.

#### **Safety Management Best Practices:**

Several of the Cargolux Aviation Safety Department members are involved in external safety groups and contribute to generating industry best practices that can then be implemented within Cargolux. These groups include amongst others, EASA CAT-CAT (Civil Aviation Collaborative Analysis Group),

the IATA Safety Group, the IATA Hazard Identification Task Force, and the EASA European Operators Flight Data Monitoring Initiative.

**SAFUG:** Cargolux is a founding member of the Sustainable Aviation Fuel Users Group (SAFUG), a cross-industry initiative aimed at promoting and bringing to market sustainable aviation biofuels.

#### **Animal welfare association membership include:**

**IPATA** (International Pet and Animal Transportation Association), **ATA** (Animal Transportation Association), **UFW** (United for Wildlife) and **IATA LAPB** (Live Animal and Perishables Board).

On top of that, Cargolux belongs to a number of associations aimed at upholding high-quality standards in the industry, including:

**Cool Chain Association,** **IATA TTTF** (Time and Temperature Task Force), **Maintenance: IATP** (International Airlines Technical Pool). **RSB** (Roundtable on Sustainable Biomaterials).

GRI 102-12, GRI 102-13

## BUSINESS ASSOCIATION MEMBERSHIPS (LUXEMBOURG AND INTL.)

**UN Global Compact:** Cargolux is committed to operating and acting in a socially and environmentally responsible manner. It is a participant company actively engaging at a global level in the UN Global Compact.

**Business Federation Luxembourg (FEDIL):** is the voice of Luxembourg Industry. With 585 members in 37 sectors, FEDIL represents 95% of Luxembourg's industrial producers, 20 sector associations, and 75% of its private research firms. FEDIL supports and connects members, creating synergy as well as a dynamic and diverse network that supports decision-making for future prosperity.

**China-Luxembourg Chamber of Commerce (CHINALUX):** is a non-profit organization that supports and encourages bilateral trade and cultural exchange between China and Luxembourg.

**Federation des Jeunes Dirigeants (FJD):** aims to facilitate and strengthen economic and social business leadership by promoting entrepreneurial spirit in Luxembourg. Its focus is to contribute to a favorable economic environment, support the exchange of views, and encourage interaction among its members. The Federation is in

regular contact with political and socio-economic actors, and currently has over 150 active members who attend working groups, dinner debates, company visits, conferences, and/or study tours.

**Institute of Internal auditors Luxembourg chapter (IIA Luxembourg):** The IIA Luxembourg is one of the leading professional Internal Audit organizations in Luxembourg, bringing together more than 550 members active in a variety of sectors (financial, industry and services, public organizations, and consultancy services).

**International Association of Airline Internal Auditors (IAAIA):** This non-profit organization, was created in 1991 by several airlines with the aim to exchange information on challenges and best practices. Today, the organization counts over 45 member-airlines and continues to meet around the world annually in order to network and exchange ideas and solutions.

**Luxembourg Open Innovation Club:** Dedicated to the development of business relations between large accounts, intermediate-sized enterprises, and innovative startups through open innovation. This association comes alive through collaborations, exchanges, idea sharing, and relationships.

**ProRSE:** The first network for CSR professionals in Luxembourg, **ProRSE** brings together active CSR professionals

**Vision Zero:** Along with 166 companies in Luxembourg, Cargolux (via OHS) has made a voluntary **Vision Zero** commitment to reduce the number workplace accidents and their severity.

## CERTIFICATIONS (LUXEMBOURG AND INTL.)

**IATA Operational Safety Audit (IOSA):** The IATA Operational Safety Audit (IOSA) program is an internationally recognized system designed to assess the operational management and control systems of an airline. It evaluates about 900 different standards. The exceptional results achieved by Cargolux are due, in part, to IOSA audit parameters being used in the affected systems and processes, thus providing guidance to teams, ongoing and accurate assessment of every impacted division.

As a member of IATA, Cargolux, like any other IATA member airline, must pass an initial IOSA audit and subsequent renewal audits every two years. Not only does this ensure a constant enhancement of aviation safety, it is recognized by insurers and a number of aviation authorities, such as the FAA, across the world. Cargolux passed its initial audit in 2007 and its long-term commitment to the IOSA registry underlines the airline's strong commitment to the safety of its operations, and its constant push for high safety standards within the airline industry.

**ISO 14001 certification:** The ISO 14000 certification confirms that Cargolux follows practical standards for managing its environmental systems and responsibilities. It includes specific tools and approaches (e.g. audits, communications, labelling and life cycle analysis) to address environmental challenges such as climate change.

**OHSAS 18001 certification for Health & Safety:** This international certification provides evidence that the organization has a framework in place to identify, control, and decrease workplace health and safety risks. Cargolux adheres to a rigorous health and safety policy which protects staff against possible occupational risks and also reduces the likelihood of accidents or incidents. Cargolux believes in proactively identifying health and safety risks while conforming to all local and international regulations.

**INDR:** 2018 certificate for a socially responsible company. Created in 2007, the National Institute for Sustainable Development and Corporate Social Responsibility (INDR) promotes Corporate Social Responsibility (CSR) among companies in Luxembourg. The certificate recognizes organizations that contribute to sustainable development while demonstrating that CSR improves competitiveness and image.

**ECOVADIS:** recognized Cargolux with an Ecovadis' Gold Rating status in 2018. Ecovadis provides a solution for monitoring sustainability in global supply chains;

Cargolux is one of the companies audited by Ecovadis. The audit produces a reliable assessment of the airline's corporate social responsibility performance through comprehensive feedback, benchmarks, and tools. Its methodology is based on the sustainable development standards of the Global Reporting Initiative GRI, the United Nations Global Compact, and ISO 26000.

**Lean and Green:** The LEAN and GREEN award recognizes efforts to reduce carbon footprint (CO<sub>2</sub> emissions) in aviation logistics by at least 10 percent in 5 years. It recognizes organizations that successfully face the challenge of finding a healthy balance between environmental and economic concerns.

**Superdreckskescht fir Betriber (SDK):** Cargolux celebrated its 10<sup>th</sup> anniversary as a recipient of this environmental label in 2018. This certifies the sound treatment of waste material.

## AWARDS, RECOGNITIONS

Cargolux has a strong focus on service excellence. Personal contact and detailed attention to customer needs is a foundation for a successful business and is built on cooperation and trust. With its activities, the airline seeks to boost the corporate and economic success of its partners. This has earned Cargolux a high level of trust and loyalty from its customers and partners in the industry.



Many of these long-lasting partnerships have grown over decades, and Cargolux is proud that its efforts are recognized with the many industry awards it receives. Among the awards that Cargolux received in 2018 were:

### **Best All-Cargo Airline:**

Logistics Management's Quest for Quality Award. This prestigious industry award recognizes the outstanding performance of key players in all fields of logistics including motor carriers, railroad and intermodal services, airlines, freight forwarders, and contract logistics services. The voting process takes into account various criteria such as timely performance, value, and customer service to determine the best operators in each of their categories. Transport News' subscriber base of over 60,000 industry professionals cast votes to decide which of the contestants deserves the award. This year, the research group received over 4,500 responses to determine the winners.

### **Best Performing Cargo Airline:**

The 2018 Budapest Airport Awards recognized Cargolux for carrying over 10,000 tonnes of freight through Budapest International Airport in 2017.

## Progress in 2018

In 2018, Cargolux expanded many projects related to its CSR program and the sustainability goals. It is important to note here that most of these initiatives would be advanced whether there was a CSR report or not. The link between increased safety, more effective operations, cost efficiency, and organizational health cannot be denied. Although Cargolux has been committed to environmental and social awareness for many years, we see a growing focus on sustainability across industries and sectors.

In 2018, Cargolux reviewed the CSR program in order to align its strategy and initiatives with the expectations of its stakeholders and the requirements for a sustainable future of the company. The Cargolux CSR strategy is defined based on the materiality analysis, stakeholder engagement, and permanent dialogue with internal parties. Cargolux strives to continuously expand its engagement towards the environment, its neighbors, and the people whose livelihood relies on the economic success of the company.

### SUSTAINABLE DEVELOPMENT GOALS



*"People, young and old, are mobilizing around the globe. The world knows that if we ever hope to make a positive difference in the environment, the time to act is now. More and more, we see governments and businesses being held accountable for their social and environmental responsibilities.*

*Cargolux's CSR efforts are geared toward reducing the negative effect that our industry has, and enhancing the positive impact on people, society, and the environment. Our program has many elements. As well as investment in the latest technology and customer-facing systems, we are collaborating within the organization and industry to innovate and create new solutions.*

*While 2018 was filled with consultation, in 2019 we will consolidate feedback from stakeholders and user groups to ensure our CSR plan, not only fits into the Cargolux business strategy, but addresses high-priority areas. A key focus for our 2025 business strategy is sustainability. Business practices, direction,*

*systems upgrades, and evolution, the utilization of technology at all levers that come into play to ensure our business remains healthy and productive.*

*Corporate Social Responsibility is a lever that organizations can use to fulfill their commitments to the industry and community. It is also a business imperative, providing a platform for creative solutions for issues and challenges that have high environmental, social, and bottom-line impacts. Our aim is to ensure that we are considering every aspect of our supply chain and working in collaboration with other actors, to guarantee we are making progress toward greener, sustainable, more environmentally- and people-friendly solutions."*

**Moa SIGURDARDOTTIR,**  
Head of Corporate  
Communications & CSR



# Materiality and stakeholder engagement

## METHODOLOGICAL NOTES ON THE REPORTING PRINCIPLES FOR DEFINING THE REPORT CONTENT

GRI 102-42, GRI 102-43, GRI 102-44, GRI 102-46

Since 2016, Cargolux has published a CSR Report sharing its CSR ambitions based on both business priorities and in-depth stakeholder dialogue. Information is also collected from Subject Matter Experts and consolidated at the end of the year, by the CSR Coordinator, via individual and group meetings, email and review of media releases and other reports. All CSR reports follow a framework associated with the UN's SDGs in alignment with GRI standards (non-audited).

The CSR roadmap addressed in the 2018 report is structured around the three strategic responsibilities of Cargolux: the corporate, operational and community responsibilities. It is the result of materiality assessments which are based on a robust methodology aligned with the GRI standards and delivered by Forethix - GRI Certified Training Partner Luxembourg. Fueled by a process of continuous improvement and dialogue with all parties involved, the Cargolux CSR approach is based on a progressive and inclusive program of stakeholder engagement. This program will be renewed periodically to continuously engage new groups.

GRI 102-42, GRI 102-43, GRI 102-44, GRI 102-46

### 1. MATERIALITY JOURNEY

The sustainability challenges that society is facing require sound collective action and the airfreight industry is directly and indirectly related to a huge number of them. That's why Cargolux started a materiality analysis in 2017 – to precisely identify which challenges the company can effectively address regarding its significant economic, environmental, and social impacts, as well as their influence on its stakeholders.



#### STEP 1: Raising Awareness Internally

In September 2017, Cargolux's CSR team launched a materiality assessment. It first started with an exhaustive list of issues (42 topics - 7 economic topics, 13 environmental topics, and 21 social topics) based on in-depth desktop research on current market trends using a sector-specific benchmark analysis. The analysis was carried out using the applicable GRI sector

supplement, as well as reports of the aviation sector and B2C companies displaying high maturity in terms of CSR reporting and performance.

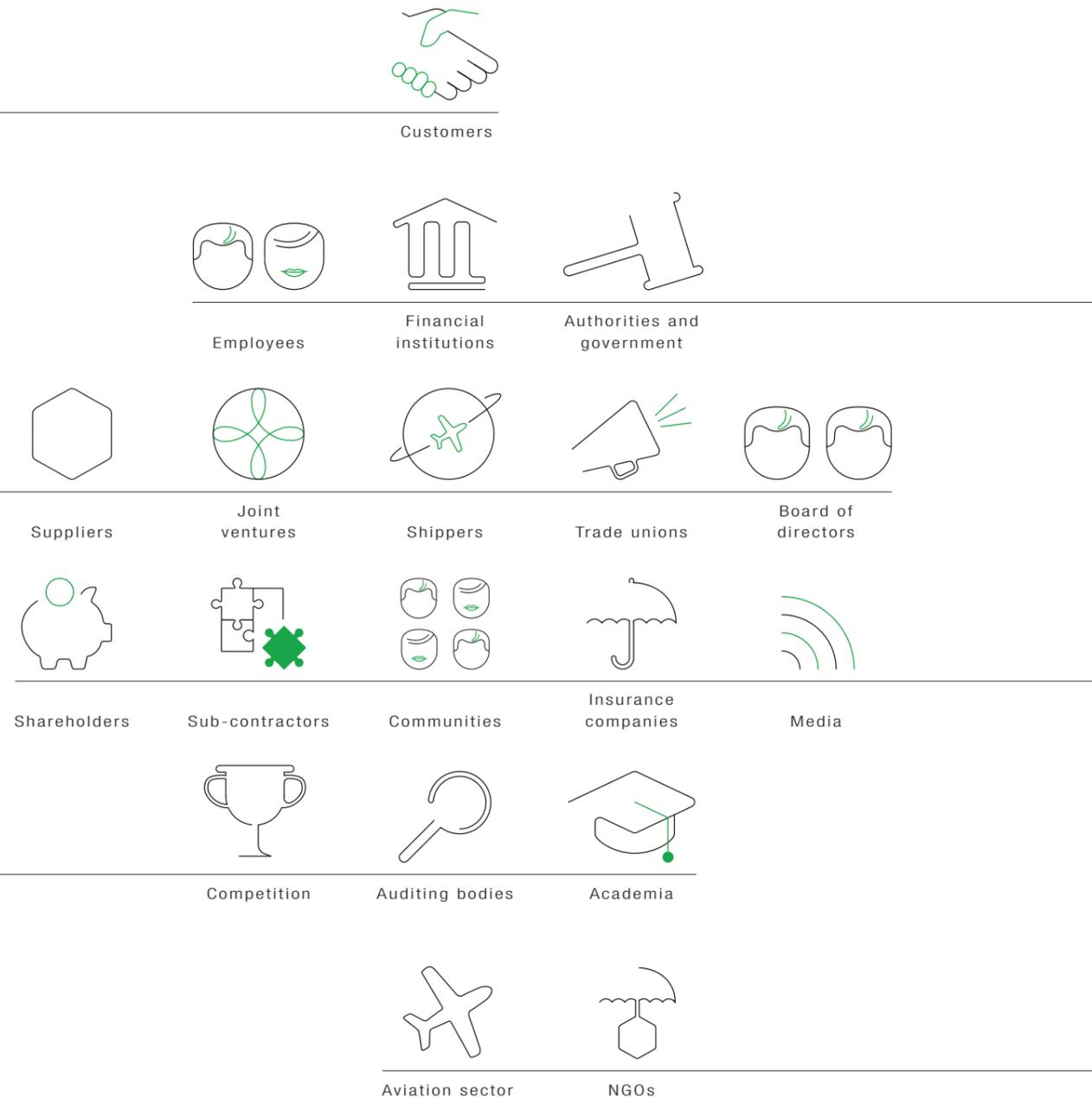
In October 2017, Cargolux gathered input from internal stakeholders through 4 thematic workshops, organized around the domains of Economy, Environment, and Society and brought together experts from the various Cargolux corporate and operational areas: Human Resources & OHS, Compliance, Maintenance & Engineering, Environmental Management, Procurement, Flight Operations, Corporate Finance, Strategy & Development, Sales & Marketing, Global Logistics, and Corporate Communications. The above-mentioned 42 topics were prioritized according to their level of impact, occurrence, and the control that Cargolux holds. An initial list of material topics emerged from these workshops.

After completing the workshops involving a sample of internal collaborators, Cargolux mapped both internal and external stakeholders which would gradually engage in the materiality analysis.

The mapping workshop resulted in a list of 19 stakeholder groups, prioritized according to their level of dependence on, and influence exerted upon Cargolux. Based on this mapping, a stakeholder engagement plan was designed to cover the 2018-2020 period. Cargolux expects that increasing engagement will allow it to identify and anticipate future sustainability risks and opportunities, and respond to stakeholder expectations more effectively.

## STAKEHOLDER MAPPING

GRI 102-40



GRI 102-42, GRI 102-43, GRI 102-44, GRI 102-46

### STEP 2: Engaging Strategic Internal Body and Customers

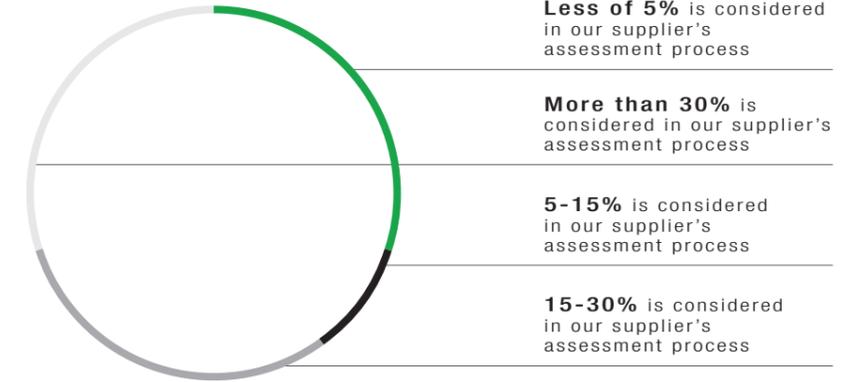
In 2018, Cargolux continued to improve the engagement process, involving external stakeholders in the materiality process. Aligned with the mapping and the engagement plan, customers were the first group to be involved. 17 customers were selected based on the sales volume, the nature of the relationship (short versus long term), and the capacity to be engaged (depending on their CSR maturity and their will to be engaged). The questionnaire assessed the following items:

The customers' CSR maturity (including the compliance with international standards such as UNGC, GRI, SDGs, CDP & ISO 26000)

Percentage of the CSR granted to your suppliers' assessment process, with equal quality services proposal:

- The relevance of the economic, social, and environmental topics to be tackled - The rating being rated from 1-not important, to 4-critical; and the SDGs
- The customers' level of current and desired engagement
- The participation rate was 53% with 9 participants - with specific topics and key areas of improvement:

- Cargolux's supply chain management. Material topics such as the supplier environmental assessment, the human rights assessment in the supply chain, and purchasing practices were flagged up.



- Cargolux's reporting practices relating to sustainability action plan & objectives disclosures.

Simultaneously, the CSR board - composed of operational managers and top management - was integrated in the annual engagement process. The questionnaire assessed the following items:

- The role of CSR in purchasing processes
- The relevance of SDGs
- The importance of the economic, social, and environmental topics to be tackled. The rating was rated from 1-not important to 4-critical.

The participation rate was 63% of 50 participants - with specific topics and key areas of improvement:

- Efficient air traffic management, attracting talents, and employee engagement in CSR programs were highlighted.

- Integrating CSR in the core business was specifically underlined as a priority through embedding CSR objectives into corporate values, developing a CSR policy, increasing employee involvement in CSR objectives, and creating an internal CSR training.

GRI 102-42, GRI 102-43, GRI 102-44, GRI 102-46



**STEP 3: Going Further with the SDGs**

Feedback from both customers and the CSR Board converged to the main following common material topics:

- Common material topics:
  - Ethical practices in business relationships
  - Fuel efficiency
  - Emissions
  - Waste management
  - Occupational health and safety
  - Emergency preparedness and business continuity

It is also worth noticing the common importance given to sustainability within the supply chain through the following topics numbers 5, 27 and 28.

The materiality matrix has been updated based on the gathered input.

Following the 2018 consultation, the top 10 material topics were linked to six SDGs:

- SDG 8 Decent work & economic growth
- SDG 9 Industry, innovation & infrastructure
- SDG 12 Responsible consumption & production
- SDG 13 Climate action
- SDG 16 Peace, justice & strong institutions
- SDG 17 Partnership for the goals

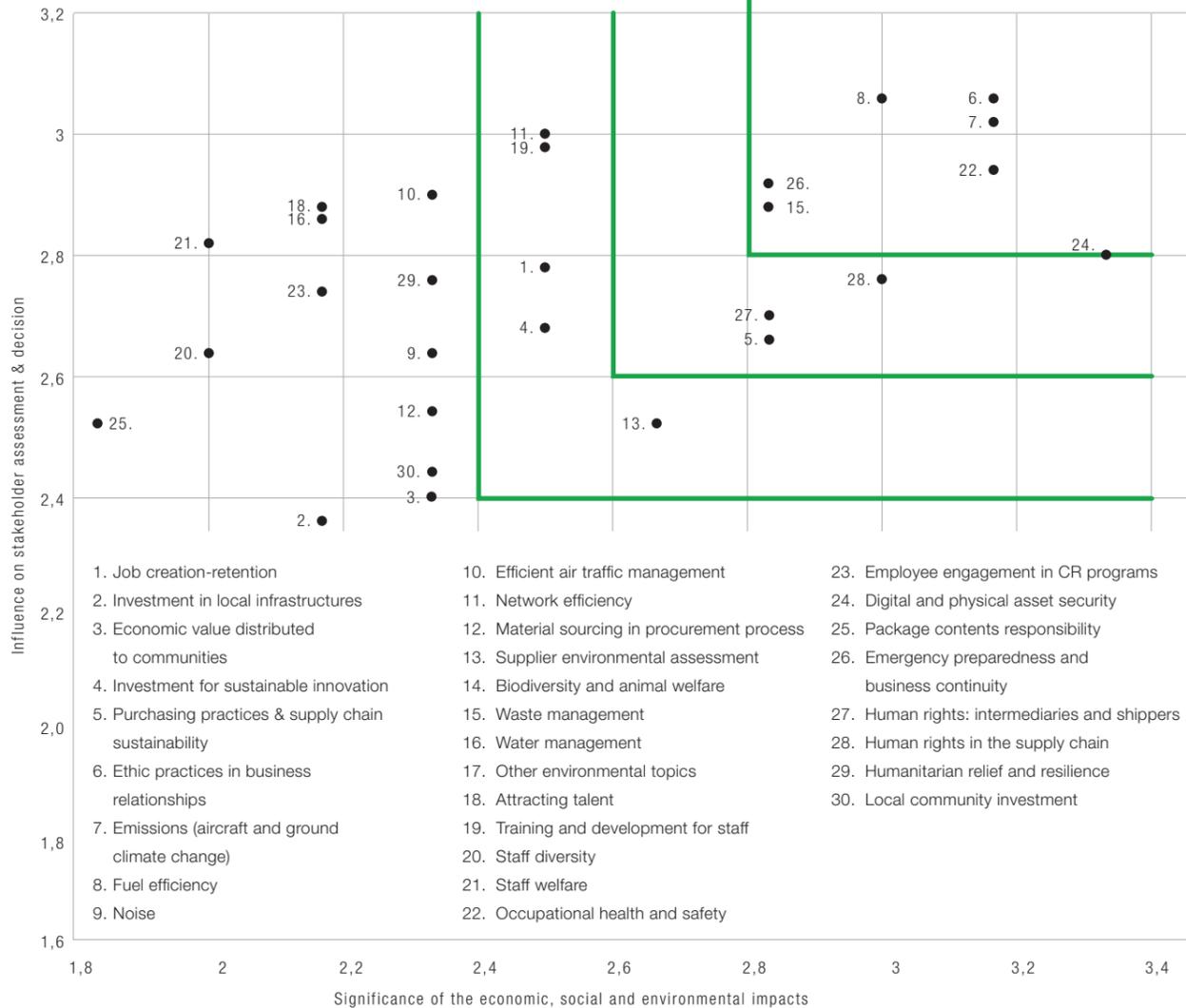
In 2019, Cargolux will first engage its suppliers based on the stakeholders engagement plan and the updated material topics. The objectives are to update the materiality matrix assessing the influence of the economic, environmental, and social impacts of Cargolux's activities as well as their expectations.



## 2. MATERIALITY MATRIX

Following the consultation of the CSR Board and key customers, the materiality matrix has been updated. All stakeholders' feedbacks have been equally weighted to give them all the same voice.

GRI 102-47



The materiality threshold was determined by the CSR board according to the significance of the topics. This led to a four-tiered categorization going from high to low priority items with the following coordinates on the materiality matrix:

- First priority topics: (2.8; 2.8)
- Second priority topics: (2.6; 2.6)
- Third priority topics : (2.4; 2.4)
- Fourth priority topics: (1.8; 1.8)

The CSR strategy will focus on the first priority topics with coordinates strictly higher than 2,8: ethical practices in business relationships, fuel efficiency, emissions, waste management, occupational health & safety; and emergency preparedness and business continuity. However, it should be noted that the topics are interdependent and their position on the matrix must be understood accordingly. For example, emissions are closely linked to network efficiency.

Structured around Cargolux's three main strategic responsibilities – corporate, operational and community – the road map discloses detailed information on material topics as such:

- Ethical practices in business relationships in the section "Compliance & ethics"
- Fuel efficiency in the section "Fuel consumption"
- Emissions in the section "New standards, new factors"
- Waste management in the section "Waste management"
- Occupational Health & Safety in the section "Safety"
- Emergency preparedness and business continuity through the section "Precautionary approach & risk management", "Certifications", "Safety" and "Training".

## Section I: Corporation

As businesses all over the world try to keep up with the digital revolution today, the Cargolux 2025 strategy provides a roadmap for accommodating and keeping pace with the digital age. The strategy has three pillars: Strategic Measures, Business Process Review, and a Digital Roadmap. The Digital Roadmap is of particular interest and intersects with a variety of groups, processes, and procedures at Cargolux.



## COMPLIANCE & ETHICS

SDG16

GRI 103-1, GRI 103-2

Cargolux's strong, comprehensive policies and procedures safeguard the company's business environment and assets and protect its employees by providing tools that allow them to identify and address challenges. Throughout the world, all divisions of Cargolux are actively supported to flag and improve business issues and ethical concerns. Policies are based on a set of well-thought-through conduct guidelines and are supplemented by regularly scheduled trainings, communication initiatives, and a consultation desk assisting employees on the practical application of policies.

Compliance and Ethics personnel wield the tools of communication, engagement, and training expertly. Thanks to Javier Coto, Vice President Compliance & Ethics and his team's efforts, understanding the basic principles of ethical business practices and the rationale behind them has been woven into the fabric of Cargolux. This includes fundamental human rights principles. Whether it is ethical supply chain mechanisms, compliance updates and training, or personal data protection, the Compliance and Ethics team stays on the leading edge of the industry.

In 2018, the high-priority areas of export controls and anti-trust were reviewed and simplified to ensure ease of use and thorough understanding of main elements. 2018 saw the implementation of a robust shipment integrity control system tied to ethical supply chain principles. The ground work was set for a new shipment verification system which allows not only Master, but also House Air Waybills received for cargo moving through the Cargolux network, to be verified. "This system allows Cargolux to know what we are carrying, no matter where it is going, or which companies are sending and receiving the cargo," says Javier. "This ensures that shipments follow the required compliance standards, and vendors and travelers are verified."

Compliance and Ethics trainings were reorganized in 2018. In-class training was streamlined, reformatted, and information was targeted to specific groups. On-demand webinars were added to the already robust classroom training. Topics included: protecting personal data, embargoes, harassment in the workplace, understanding and preventing fraud, corruption, and confidential reporting.

GRI 103-2, GRI 205-1, GRI 205-2, GRI 412-1, GRI 412-2

Cargolux takes its responsibility for data very seriously. The General Data Protection Regulation (GDPR), which took effect in May 2018, was an important project for Compliance and Ethics. Information disclosure, data integrity and protection are important business elements and Cargolux sees the GDPR basically as health and safety for data. The organization is committed to data protection, transparency and ethical behavior in this area. Along with the GDPR implementation measures, a hotline was added to the already extensive compliance service desk that guarantees anonymity to all callers.

In 2018, work to prepare for the new ISO 37001 anti-bribery certificate took place in parallel with reviewing and reorganizing compliance support services to better serve the company and community and to further strengthen ethical supply chain activities. All elements of the Compliance and Ethics program were thoroughly reviewed. Export Control, Anti-trust, and Document Retention Policies were all updated in 2018. This was to ensure that internal policies align with ISO 37001 standards and to prepare for a restructuring to increase focus on priority policies.



60

Due diligence



16

Station visits



2,161

Shipments checked



1,930

Compliance consultation desk inquiries answered



877

Total participants compliance training



813

Trained Cargolux personnel



77,08%

HQ staff trained in compliance

PARTNERSHIPS

Cargolux's objective is to guarantee the optimal balance between the quality of goods and/or services, and cost effectiveness. This fundamental principle ensures that the airline can support its partners and service providers with sustainable business practices. This is especially important in such a highly competitive field.

With relatively stable workforce growth, Cargolux supports numerous jobs in industries, locally and abroad, that are directly related to its air freight activities. This includes employment of workers in airport operations, freight forwarding, and storage facilities<sup>2</sup>.

Sustainable Procurement

SDG16, SDG8, SDG10

GRI 103-1, GRI 103-2, GRI 103-3, GRI 204-1, GRI 102-9, GRI 102-10

Sustainable procurement is a priority and 2018 saw requirements and gaps (e.g. updating process and policy document to reflect changes in current procurement best practice) come into sharper focus. The Cargolux Procurement Policy guides all staff through a consistent and vetted process which includes and considers the environmental impact of goods (e.g. investments, transportation, storage, etc.) This means that cultivating and encouraging local providers is an important element in the process. The contracts and procurement process provides suitable segregation of decision-making

and duties between the department requiring the goods/services, the procurement process, and payment approval. We buy a wide variety of goods and services from over 640 suppliers worldwide. No significant changes in the supply chain has been implemented.

As a general rule, each department throughout Cargolux is responsible for procuring its required goods/ services in conjunction with the procurement department. The focus for 2019 and beyond will be to build upon gains and ensure that good general procurement practices reside in every part of the organization. Cargolux uses a standard tender process. The validate program guarantees transparency in the selection process and provides a platform where skilled providers can easily be found. The tender process includes receiving at least three bids for any specific requirement and then conversations with the supplier and process owner to refine the understanding of any boundaries or constraints. Potential suppliers are selected based on objective criteria such as technical expertise, past experience, quality of proposed staffing, relevant credentials, resources, geographical coverage, possession of necessary licenses (where applicable). All contracts must specify goods/services required, milestones, method, and timing of payments. As an international company, Cargolux takes pride in working with suppliers of different sizes and ownership structure. It chooses suppliers based on their ability to provide goods/services of high-quality that are cost effective.



<sup>2</sup>Economic Impact of Luxembourg Airport



Procurement trends are reviewed periodically to ensure the Cargolux procurement policy reflects the current, and global, supply/demand landscape.

### Ongoing Partnerships

Ongoing partnerships are integral to a well-functioning and community-minded organization. Hereafter are a few of the ongoing partnerships that make a difference in the organization, business landscape and community.

### Recruitment Pipeline

SDG1, SDG8, SDG17

GRI 103-2

Cargolux falls within the top 10 of Luxembourg's most attractive employers and is one of the largest employers in the private sector. The airline attracts and recruits

motivated and highly qualified personnel. The airline puts strong emphasis on supporting youth and future professionals by participating in a variety of annual initiatives that give youths the chance to gain an understanding of career opportunities at Cargolux. Human Resources and the Recruitment department regularly cooperate and have meaningful exchanges with external bodies, such as the Luxembourgish industry federation ("FEDIL") and the Chamber of Commerce.

Cooperation with schools and job fair programs continued, driven by the Cargolux commitment to promote education and training for youth. This kind of activity also increases Cargolux's visibility with students and job seekers and provides a fertile field of potential recruits to the organization.

The efforts to build knowledge and understanding about this exciting industry pays dividend when children and young adults realize the career potential of working in this industry.

**Job day @ Cargolux** saw the influx of job seekers interested in potential employment. Applicants had a chance to speak with a variety of hiring managers and employees individually who described their roles and talked about future job opportunities in the company.

The airline participated in the **annual Youth Job Day (Jugend job Dag)** in Diekirch. Running since 2012, the job fair provides an easy-to-access location for youths located in the north of Luxembourg. Exhibits include educational and professional placement opportunities.

**FEDIL:** Cargolux took part in three **Hello Future** events hosted by FEDIL.

The **Fit4jobStart** at the House of Training brought together young job seekers with businesses. The overall aim of the Fit4JobStart project is to support sustainable professional integration for young job seekers between the age of 18 and 30 who are registered with the ADEM. The project offers young people selected by the ADEM the possibility of defining a relevant professional roadmap, in line with their profile and their aspirations. This project aims to facilitate their access to the labor market and their integration into working life.

**IFEN (Inst. de formation de l'éducation national):** Cargolux welcomed a group of teachers at the Maintenance Center. The purpose of the visit was

to introduce the teachers to the private sector, and to present job opportunities and requirements. This new way of collaborating with the Ministry of Education was initiated in 2018.

Cargolux has an active and long-standing **partnership with ADEM** (the government's employment development agency). It supports programs that facilitate access to on-the-job training and professional experience for young job seekers. The "Contrat d'Initiation à l'Emploi" (CIE), provides a legal framework for on-the-job training for candidates who have completed their studies.

In 2018, the company also attended several **workshops** organized by **ADEM**, for candidates who are interested and/or qualified to become technical helpers. Other initiatives included the RTL Léierplatzendag for mechanics and engineering trainees.

Cargolux runs an **Apprenticeship Program** for aircraft mechanics (Maintenance & Engineering division) via the airline's long-term, cooperative relationship with Luxembourg's Lycée Privé Emile Metz (LPEM). In 2018, Cargolux had five apprentices in the B1 and four in the B2 (avionics) program, the latter being a new program in Luxembourg. Successful apprentices are awarded a Luxembourg end-of-school certificate (Diplôme de Technicien) as well as an Aircraft Maintenance License that is recognized in all countries of the European Union.

## GATHERING FEEDBACK

Cargolux believes that partnerships are based upon open communication and respect. Surveys provide a needed perspective-check for different groups within the organization and, of course, for management.

### Staff Satisfaction Survey

In 2018, Cargolux saw an increase in staff of 5.5% throughout the network. Of this increase, 15.5% were new hires. In the Luxembourg headquarters, staff increased by 6.1%. Although some stations were closed during the year, overall staff around the network was augmented by 3.75%.

A company-wide staff satisfaction survey was run in 2018, which saw a participation rate of 44% of all staff from across the network. The results showed 84% of respondents feeling proud to say that they work for Cargolux and 87% feeling motivated to do their best to contribute to Cargolux's success. The survey also identified some areas for improvement, and this valuable feedback helped leadership to develop initiatives – for example, in the area of improving performance feedback processes or transparency of career paths.

**OUR PEOPLE**

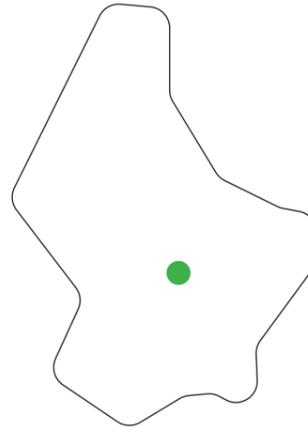
SDG3, SDG4, SDG5, SDG8, SDG9

GRI 102-8

Cargolux has highly trained and qualified personnel. The airline puts strong emphasis on supporting its staff by providing a variety

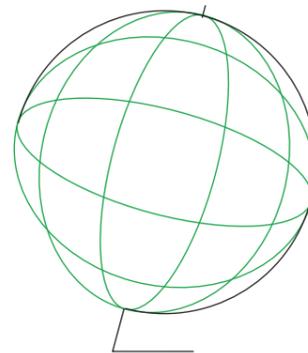
of initiatives aimed at offering seamless and reliable support to all employees in terms of personal development opportunities and career progression at Cargolux. The HR team continues to be committed to employee development and supporting the organization in preparing for the future with confidence.

	2018	2017	Variation
Total	2,031	1,916	+5.5%
Luxembourg based employees	1,531	1,436	+6.1%
Rest of the world	500	480	+3.7%
Full-time	1,860	1,775	+4.8%
Part-Time	162	148	+9.4%
Employees CWA	1,316	1,240	+6.1%



**1,531**

Luxembourg based employees



**500**

Rest of the world

GRI 103-1, GRI 103-2

**Teamwork and Commitment**

HR acknowledges that any transition program relies, at least in part, upon management support and sponsorship, but also upon the employees' capacity to understand and adopt new practices and behaviors, in line with the organization's core values. The Values to Behavior workshops, which began in 2017 as part of the Connecting Flights initiative, continued in 2018 and were a central focus for the year, with the addition of an online version of the workshops to reach flight crews and personnel in smaller station offices. "As part of the ongoing focus on business transformation, which is a core element of the Cargolux 2025 strategy, HR embarked on a number of change initiatives, to help future-proof the organization. This includes launching a structured succession planning program, continuously upgrading our approach to talent management and embracing technology in our processes." comments Emese Bekessy, Executive Vice President, HR, Legal Affairs & Compliance.

Joining the company-wide journey of digitalization, HR launched the first module of its new digital HR suite, dubbed as the HR Hub, streamlining the recruitment and onboarding processes. With further modules in the development pipeline, the department aims at adding more flexibility and agility to the company's appraisal, feedback, and talent management systems, to improve transparency and support a more holistic approach to career development.

In line with its vision to be the Global Cargo Carrier of Choice, Cargolux's mission is to deliver consistent flexibility and reliability through its valued and dedicated employees, creating sustainable benefits for all stakeholders in a safe environment. Knowing that its success relies on the commitment of its workforce, Cargolux gives high importance to building and nurturing mutually beneficial long-term relationships with its employees. The reputation and the achievements of Cargolux are built on team spirit and family-like work environment for the staff. This atmosphere has been instrumental in the company's growth and prosperity. Maintaining it is essential to ensuring the airline's long-term success in an increasingly competitive industry.

In 2018, the HR team further strengthened its "HR business partners" program. This initiative saw dedicated HR personnel working closely with business clients in other departments, often on-site in their offices on regularly scheduled days each week. This program has proved to be a very successful initiative and was met with appreciation from the divisions. It improved communication between HR and the business units and continues to provide faster and more efficient support in people management activities, adding to HR's service quality.



### Corporate Training Survey

Cargolux believes in continuous development, which also applies to its approach to learning. Employee views about the future of learning at Cargolux were sought through a staff survey and have furthered the organization's approach to meeting learning requirements. In 2018, survey feedback was used to define and/or modify learning mode options, address development needs, and create new learning approaches.

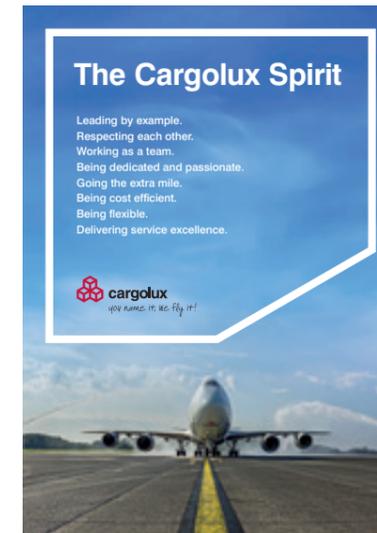
This solicitation of staff feedback contributes to the evolution of future learning strategies. Key numbers include: 81% of respondents feel that they are receiving the training and development necessary to do their job, 76% feel that their managers support them accessing training opportunities, yet only 51% have regular discussion with their manager about their development.

In any high-risk industry, a collaborative culture is integral to safe growth and evolution.

**Connecting Flights, Just Culture,** and **Brainwaves**, are just a few programs that Cargolux uses to support trust-building, innovation, employee engagement, collaboration, and transparency within the company.

**Connecting Flights** focuses on living the eight core values of the Cargolux spirit. These values are the hallmark of Cargolux's success and act as the key guiding principles for the company's employees in their day-to-day activities which bring the airline's mission to life. The project helps underpin other strategic talent management initiatives such as succession planning, mapping of career paths, talent development, management, and leadership training. The holistic approach aims to increase the resilience of the organization, reinforcing the right behaviors and further developing key skill sets.

**Just Culture:** Cargolux operates under the Just Culture principles. This concept has been specially developed to enhance the reporting of safety-related events, but Cargolux has also decided to extend the principles throughout the whole organization. Just Culture aims at reinforcing an atmosphere of trust and fair treatment, in which people feel encouraged to provide essential safety-related information. The Just Culture approach balances the objective to establish a constructive, non-punitive reporting and learning environment with the recognition of the need for accountability of individuals for their actions.



**Brainwaves:** The Cargolux employee suggestion scheme is an ongoing program that encourages employees' creative thinking; providing a channel for innovative ideas to enhance the airline's efficiency, productivity and to improve the performance and quality of day-to-day work. Suggestions are evaluated by specialists in the relevant area of the organization and successful proposals are implemented and rewarded. In 2018, the Brainwaves platform was digitalized and automated for easier access and moved to the HR Hub. This transition not only allows easier tracking but also gives greater visibility of the many improvement ideas submitted by creative employees.

## Employee development

GRI 103-1, GRI 103-2



The aviation industry demands high levels of expertise, training, and regulatory compliance. The Cargolux Corporate Training philosophy includes continuous learning and development as a central philosophy. The company has a strong focus on teaching and learning at all levels in the organization. The learning opportunities offered go well beyond the mandatory trainings required to maintain technical qualifications. The aim is to retain and develop talented individuals, and to develop skills and capabilities for Cargolux's future success. In line with the philosophy of continuous learning, employees are encouraged to work towards relevant degrees or other professional qualifications as well as to take shorter trainings to develop essential soft skills.

**Performance management** and **succession planning** are the backbone of organizational achievement. Cargolux sees its future in its people. Success depends on a dedicated and talented team. To safeguard internal knowledge and skills, and to ensure ongoing operational activity, Cargolux has recently started laying the foundations for a structured succession planning framework that aligns with its commitment to career development for all employees in the company's global network.

GRI 103-2, GRI 103-3, GRI 404-1, GRI 404-3

**Developing capabilities** is of critical importance, so too is developing digital competences. A key focus is the **Human Capital Management** tool that allows employees and managers to centrally access and track their learning. Building on the successful implementation of the **HR Hub** and its **Recruitment module**, the Human Resources team spent several months on the design and testing of the **Talent Management module**, which went live at the beginning of 2019.



## TRAINING

on average,  
each employee enjoyed 73hrs  
of training in 2018



## COMPANY SUPPORT FOR EDUCATION

6 requests were approved in 2018  
and 6 sponsorships were completed  
during the reporting period



## APPRAISAL PROGRAM

17% of the staff received  
regular performance and career  
development reviews

GRI 103-1, GRI 103-2, GRI 404-2

## SKILLS DEVELOPMENT (SOFT SKILLS, MDP, ELDP)

Cargolux is interested in knowing what motivates its employees and what their individual aspirations are. This allows HR to optimize the fit between organizational needs and individual career ambitions. Training and development supports business continuity and increases individual job satisfaction. Corporate Training is one of Cargolux's four major training pillars (Corporate, Flight, Technical, and Ground Operations). Training services are open to employees and many of these trainings are offered to contractors at stations around the Cargolux network.

Most people are not born with **leadership skills**. It is a talent that is developed and honed over years. Outstanding leadership is a key tool in the implementation of our corporate strategy. **Developing leaders** is central to an effective organization and critical for a strong succession planning process. Cargolux continues to engage and invest in the growth of leadership capabilities. The company has a well-established **team leader** and **management development program**. This reporting year saw the continued development and implementation of an orientation program for new managers. In 2017, Cargolux partnered with an external training provider to initiate an Executive Leadership Development Program. In 2018,

the first cohort of future potential leaders graduated from the pilot program, enriched with new knowledge, skills and techniques that help them align their leadership capabilities with organizational vision and corporate strategy.

**Developing learning approaches** is critical for addressing a variety of learning styles and capabilities. As the workforce grows, so does Cargolux's developing digital capabilities. A key focus was offering a choice of learning options to allow staff to tailor their learning journey to their specific needs and learning mode. Classroom training options were extended with less time consuming mini-courses, new CBT (Computer-based Training) courses were developed, and some blended learning options were introduced, to better adapt to the varying needs of staff.

**Gender Balance and Diversity** in an extremely male-dominated industry can be a challenge, but Cargolux prides itself on its inclusive and welcoming company environment and strives to provide an atmosphere, programs, and initiatives that support diversity and gender equality. Each year, the airline concentrates on ensuring that no matter the gender, race, or religious beliefs of an employee, they are accepted and respected. Cargolux also believes that visible demonstration of its core values is important. The company employs staff from 70 different countries throughout the network and is building toward greater gender inclusiveness in job categories that are traditionally male-dominated.

GRI 103-2, GRI 401-1, GRI 401-3

Embedding the principle of gender equality in policies and processes for both employees and governing bodies throughout its operations and supply chains, including recruitment, remuneration/benefits, training, promotion, and development reviews. Cargolux awards equal pay for equal work, including benefits.

Cargolux recognizes that the burden of unpaid care work disproportionately affects women and takes this into account when designing programs to advance gender equality. Offering **flexible work options, leave** and

**re-entry opportunities** to positions of **equal pay** and **status** are just a few ways Cargolux looks to a diversified workplace. At the same time, embracing the possibilities offered by Luxembourgish social legislation, a significant number of male employees were able to benefit from full time or part time parental leave options.

Cargolux is dedicated to the principles of equality and inclusion. In 2018, the percentage of female employees remains stable at 19%.

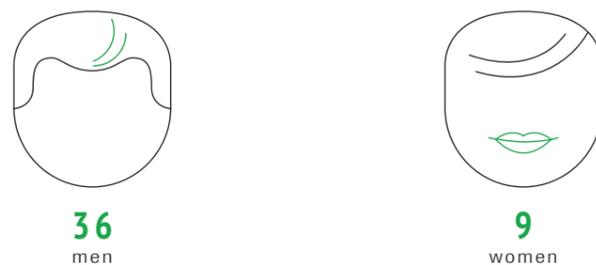
## NEW HQ PROJECT

The construction of a new headquarter building for Cargolux is well underway and is expected to be completed at the end of 2019. It will house employees who are currently spread across two locations. The new offices are designed to provide a different, more open working environment to create a productive work atmosphere. Cargolux realizes that ensuring a smooth transition to the new offices takes much more than carefully planned and well-executed logistics. It also requires solid change management. A new office space will provide the opportunity to shape the organization's culture, support certain desired behaviors anchored to the core values and show employees that their wellbeing at work matters. To ensure the success of this pivotal project during 2018, a joint working group was set up between Facility Management and Human Resources, and the company enlisted the support of consultants with significant experience in similar corporate relocation projects.

## TURNOVER RATE 7% WORLDWIDE



## PARENTAL LEAVE STARTED IN 2018



## RECRUITMENT

SDG1, SDG8, SDG17  
GRI 103-1, GRI 103-2

Cargolux focuses on attracting and securing a motivated and highly qualified workforce that can address current activity requirements and future needs. The airline puts strong emphasis on supporting future professionals and participates in a range of annual initiatives that include school visits and internship programs. It also participates in events that give youths the chance to gain personal impressions of daily work requirements in the air freight industry, first-hand information about career opportunities, and allows them to explore job opportunities and possible career paths.

On top of that, the new **succession planning program** is underway, which will provide a clear view of possible career paths in Cargolux and the different ways to approach professional development and career growth. Regular communication is aimed at allowing staff to understand the opportunities and potential within their existing role and other areas of the organization.

Recruiting and working with the **next generation** gives an exciting perspective to the pipeline of potential leaders and managers available to the organization.

The influx of a younger generation is a welcome trend at Cargolux. With their youth comes energy, enthusiasm, and a dynamism that fits the Cargolux culture. The company is proud to see established, long-term employees taking time to mentor and guide new professionals; listening to their ideas and giving them an avenue to add to the company's success. Having different generations working together, side by side, changes the conversation. It lets the older generation feel they are passing on their knowledge and leaving a legacy. The younger generation benefits from getting a running start as they are supported in their knowledge acquisition. Cargolux's HR practices aim at fostering such productive and forward-looking collaboration between generations.

## 2018: Cargolux people (in numbers)

GRI 102-8, GRI 102-41, GRI 401-1, GRI 405-1

Network

**75+**  
scheduled flight destinations worldwide

**50+**  
countries

Staff

**2,031**  
staff worldwide,  
**1,531** at HQ

**5.5%**  
**increase of staff** throughout the network (13% new hires):  
**6.1%** (Luxembourg) and **3.75%** (stations) staff increased

**1,996**  
permanent contract and **162** part-time

Diversity at Cargolux: women

**392**  
**women** worldwide (19%):  
**212** at the HQ,  
**181** at the line stations  
**383** permanent contract worldwide,  
**61** part time worldwide

**1**  
in executive management role

**7**  
in senior management positions

**15**  
female pilots

**2**  
**women** on Board of Directors

The percentage of women remains stable at **19%**

	2018	2017	2016
Staff worldwide <sup>3</sup>	2,031	1,916	1,856
Staff at headquarters <sup>3</sup>	1,531	1,436	1,389
Staff with permanent contract %	98%	97%	97%
Staff covered by CWA (LUX) %	86%	86%	86%

<sup>3</sup>This number indicates filled positions

## Section II: Operation

At Cargolux, flight safety, occupational health, and environmental attention go hand-in-hand with communication and a focus on service excellence and innovation. 2018 was a year of collaboration, digitalization, and communication. From introducing peer-to-peer support, to consolidating information and data from a multitude of systems and applications in order to provide an easy-to-use tool that streamlines flight operation processes for Cargolux and 3<sup>rd</sup> party providers, to environmental successes in emissions control, fuel management, and digitalized cargo management and logistics systems... It's been a busy year.

### SAFETY

SDG3, SDG4, SDG8, SDG17

GRI 103-1, GRI 103-2, GRI 103-3

#### Operational Safety

The digitization of the Operational Safety data took the full year to implement. This new system will provide big data analytics that cover every aspect of

operational safety, ensuring that most pieces of information available can be accessed during analysis. "We now have less data silos which helps us have a better understanding of operational problems and/or issues." says Mattias Pak, VP Aviation Safety, "Analytical tools allow us to gain intelligence that Operational Safety can use when presenting findings and recommendations to management."

Operational Safety is a collaboration between many teams throughout the company via the Safety Management System. The airline industry is filled with complex objects, machines, technology, processes, and systems. Due to its control mechanisms, it is considered a high-risk, ultra-safe industry. Managers and process owners are responsible for ensuring risks are addressed. Operational Safety supports them throughout the company to keep their specific risk low by taking advantage of the Safety Management System to improve their processes and keep the focus on potential hazards.



GRI 103-2, GRI 103-3

Having a system that can process information, specifically big data and give meaningful information, allows Cargolux to keep risks under control by using data-driven decision making. It improves accuracy, provides more objective and valid information. Identifying risks, and barriers in order to mitigate them is extremely important in this field. A well-functioning system means that not only incidents but also disruptions during aircraft operations are kept at low level and the potential for accidents is reduced.

#### Human Factors: Pilot Peer-to-Peer Support & Development

A serious incident is defined as an event that happens suddenly or unexpectedly and that is regarded as critical, and very upsetting. Pilot peer-to-peer support offers help in handling personal emotions and reactions after highly stressful events. The pilot peer support program is designed to alleviate the impact of stress-related consequences and to facilitate the recovery process. Cargolux is

a key player in the industry with peer support program design and implementation that considers the individual. "2018 was a year of planning, design, and preparation. In 2019, we will implement the full program with the Mayday Foundation<sup>4</sup>. The Cargolux Pilot Peer-to-Peer Support (PSP) will be offered in close cooperation with the Foundation and guarantees extensive assistance for people. The agreement calls for a response contacted by a peer within 6 hours but based upon experience, it's more like minutes." says Gunnar Steinhardt, Cargolux's Manager Human Factors.

Designed, implemented and monitored by an advisory group, the program which was honed and evolved during 2018 focuses on peer-to-peer counselling. A "peer volunteer" shares common professional qualifications and experience with the pilot dealing with stress. Volunteers are trained and supported by the Mayday Foundation's independent team. Pilots in need may request assistance either from a peer of



<sup>4</sup><http://english.stiftung-mayday.de/>

GRI 103-2, GRI 103-3

the Cargolux peer volunteer or from others in the community. In their role as a peer volunteers, these individuals are independent from any airline and act on behalf of Mayday Foundation.

Peer volunteers are bound to strict confidentiality. All volunteers in the program sign a confidentiality agreement and are trained to respect, understand, and protect the callers' confidentiality.

As well, all electronic communication and records are securely stored within encrypted systems and are compliant with the Data Protection Act. Through a highly confidential system, people can be assisted and supported as they work through issues relating to the stress of a situation. The aim is to ensure that each caller understands that stress is the normal reaction to an abnormal situation. In most cases, once this assistance is received, no further action is required. If necessary and requested, professional referral is coordinated by the Mayday Foundation. In 2018, peer support moved from a voluntary internal discrete function, to being an EASA regulation which will be mandatory in August 2020.

Cargolux is ready now and implemented its program, headed by Gunnar Steinhardt, Cargolux's Manager Human Factors, on March 15, 2019. Gunnar has presented highlights from the Cargolux peer support and pilot development program to EASA (European Aviation Safety Agency), DAC, the EPPSI (European Pilot Peer Support Initiative), and EAAP (European Association for Aviation Psychology).

### OHS Everywhere

Sr. Management's decision to implement **ISO 45001:2018, the Occupational Health and Safety Management System** for the whole organization is a signal of the importance of their people's health, safety, and wellbeing. Luc Loschetter's team worked throughout 2018 to align headquarters to this standard, which included improving hazard management, reviewing practices regarding vibrating tools, isolated worker approach, and integrating OHS into the IQ SMS reporting and quality system, to name only a few.

"OHS is an internal service provider," says Luc, "we understand the importance of worker health and well-being and we work fluidly with different parts of the organization to ensure optimal conditions."

The department tracks everything from types and rates of injury, occupational diseases, lost days, absenteeism, and number of work-related fatalities. OHS also provides information on workload stress, monitors and follows up with anyone who is absent from work for more than 6 consecutive weeks. Although the amount of sick days seems to be increasing over the last three years, the number of lost days related to accidents is more or less stable; with a slight reduction in internal accidents. Overall, global absence and lost hours are decreasing slightly, with a higher population which is a good sign.

GRI 103-2, GRI 103-3



Other important initiatives in 2018 included: the digitalization of the risk assessment, providing information and recommendations on **road safety**, running an **international vaccination** program, an **HQ influenza vaccination** campaign, aligning health and safety management for **staff travelling** abroad, consultation and guidance on the **new HQ building**, a health and safety **poster campaign**

(digital and hard copy), **working at height** assessment – to ensure staff and 3<sup>rd</sup> party contractors are following labor code regulations and best practices – this included training and implementing controls.

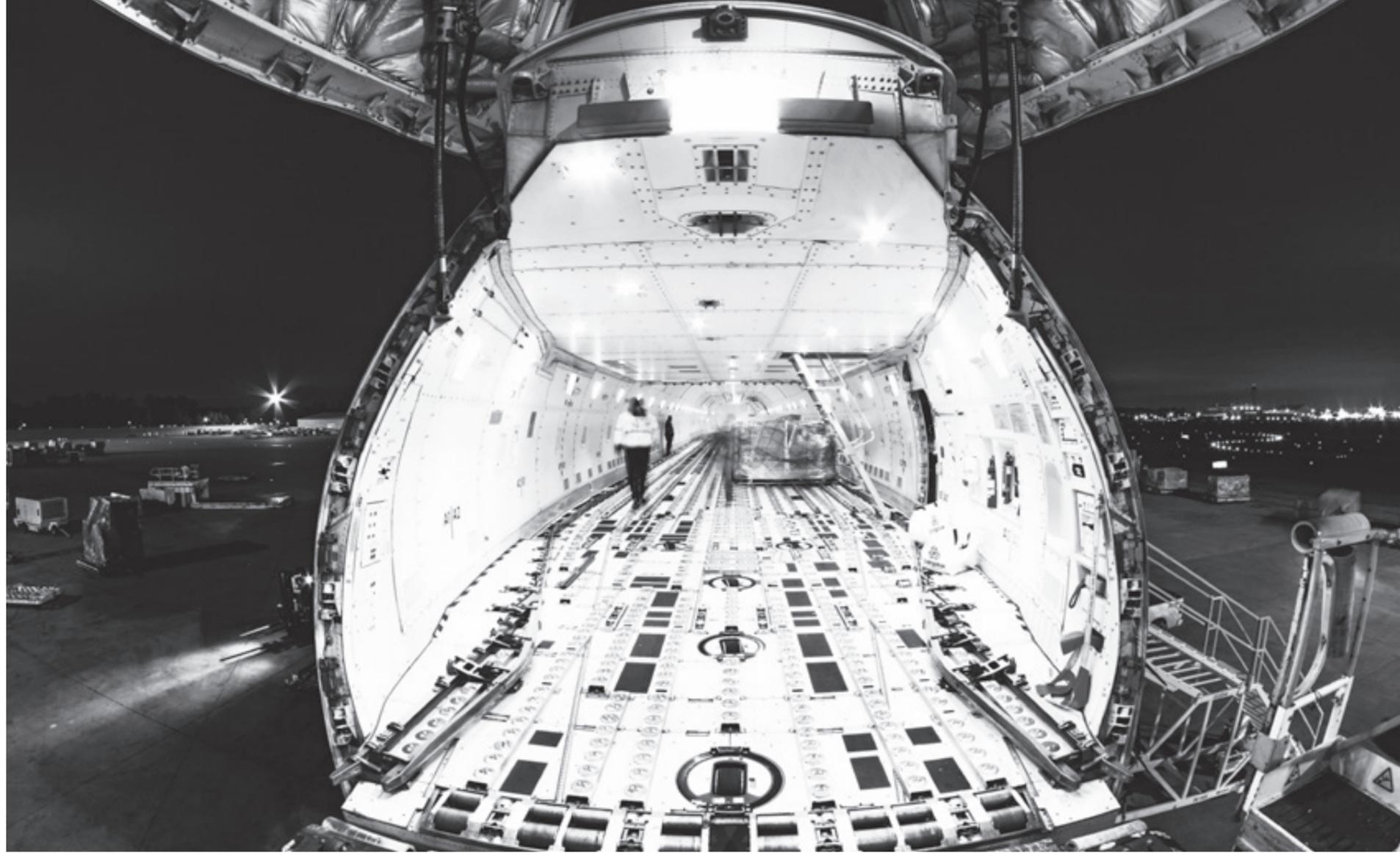
### Well-being Promotion

Throughout the year, Cargolux provides services that impact the health and well-being of its staff. The company promotes proactive dialogue and positive behaviour in key areas that affect well-being and health. Cargolux employees who are travelling are provided with international health and safety services that are a mixture of technical and on-the-ground sources to keep staff safe 7 days/week and 24 hours/day (24/7), virtually anywhere in the world. Cargolux staff traveling to countries affected by sudden security concerns get immediate access to real-time information on developing situations and guidance on how to react appropriately to any security issue. As the airline operates in a large number of countries that are affected by a variety of disease (e.g., Malaria, Yellow Fever, etc.) the company offers a vaccination program for employees based at Headquarters and maintains a monitoring and information program on outbreaks throughout the world.

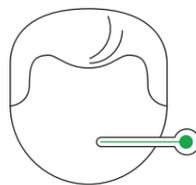
GRI 103-2, GRI 103-3

**Safe Workplace:** Work plays a central role in people's lives as they spend a large part of each day in the workplace. Recognizing this, Cargolux believes that a work environment should be safe and healthy, where its employees feel comfortable and protected during their workday, as well as inspiring and conducive to creativity. The Cargolux Occupational Health & Safety (OHS) Department promotes health and safety awareness using a variety of systems and tools such as a dedicated intranet site to promote safety practices. Aimed at creating a system of continuous improvement, this site shares information and promotes prevention. In an ongoing campaign, OHS runs a sensitivity campaign aimed specifically at staff working in high-risk areas ensuring, with their on-site presence, a clear understanding of Safety Operating Procedures (SOPs).

**Health & Safety:** Cargolux strives to provide its employees with a safe and healthy workplace. The company offers an environment where its employees feel comfortable and protected during their daily work. To this end, Cargolux has in place an effective health and safety management system that is aligned to the CWA (Collective Work Agreement) and includes formal joint management-employee health and safety committees. Cargolux holds an OHSAS 18001 certification for its Health & Safety Department.



GRI 403-2



Lost days from sickness



Lost days from accidents



### Fatigue Management

Cargolux Flight and Rest provisions are governed by European Flight Time Limitations. In addition the company introduced its Fatigue Risk Management (FRM) system in 2009. The main elements of FRM are the policy, procedures, and training. Furthermore, fatigue reporting and the application of a mathematical model are used to collect live data and conduct surveys. A Fatigue Safety Action Group is tasked specific with analyzing all aspects of fatigue. It meets quarterly and is composed of pilot representatives, management, aviation safety, and human factors representatives. Results from data are used by the group to issue recommendations designed to reduce overall pilot fatigue.

### TRAINING

SDG4, SDG8, SDG16

#### Fight Ops Training

The Cargolux Flight Crew Training department is composed of administration, instructors, and the simulator department. The team of about 85 people, welcomed 19 new instructors, who underwent an intensive teaching and learning course in 2018. This program ensures that instructors' methods and approaches to training are standardized, enabling the highest level of training for the crews. We continue to provide training for third party customers who appreciate our dedication to quality and high standards.

The Training department utilizes collected data and analyzes trends in performance to tailor training to the specific requirements of our operation, making training more realistic, and ensuring our pilots gain and maintain the highest level of competence.

Significant investments are continuously made to ensure that all training devices are operating to the latest standards and requirements, for example upset prevention and recovery (UPRT) software for our 747-8 simulator. Work has begun on preparations for the re-location of the Training Department to the new HQ. Dismantling, transporting, and re-assembling the training equipment in a timely fashion to ensure minimal disruption to operations, is a major project for the department for the coming year.

Our two simulators were used for a total of 11,893 hours. The 747-400 simulator was used for a total of 6,259 hours and the 747-8 for 5,634 hours. This represents a utilization of 71% and 64% respectively. The 747-400 was used for 1,272 hours by third party customers and the 747-8 for 742 hours.

### Compliance Training

Compliance training includes classroom, online, and blended training solutions. Webinars such as Personal Data, embargoes under the Trump era, harassment in the workplace, fraud, corruption, and confidential reporting are available on demand.

### Technical Training

The EASA Part-66 B2 program continues to be successful, and practical tasks were improved for the Part-66 B1 apprenticeship. A classroom continuation training was re-introduced in 2018, to improve troubleshooting skills and knowledge of all technical staff.

## ENVIRONMENT

SDG3, SDG12, SDG13, SDG15

GRI 103-1, GRI 103-2, GRI 103-3

The switch to LED lights, e-booking, a new trucking management system, and paperless processes are all contributing to reducing waste, the weight of the aircraft (which results in fuel savings) and other forms of energy use. Many projects have helped eliminate dependency on paper and other heavy processes that cause waste, and have allowed Cargolux staff to get closer to the customer and focus on their primary activities. Some projects that have an impact on the environment, therefore may be found in the digital transformation and innovation section of this report.

### New Standards, New Factors

“In August 2018, the EU Trading Systems (EU ETS) was augmented by a new Carbon Offsetting and Reduction Scheme for International Aviation (CORSIA) by ICAO.” says Geraldine Guebel, Manager Environmental Management. “For European airlines that meant that we now have a blended reporting solution with elements from each regulation.”

GRI 103-2, GRI 103-3

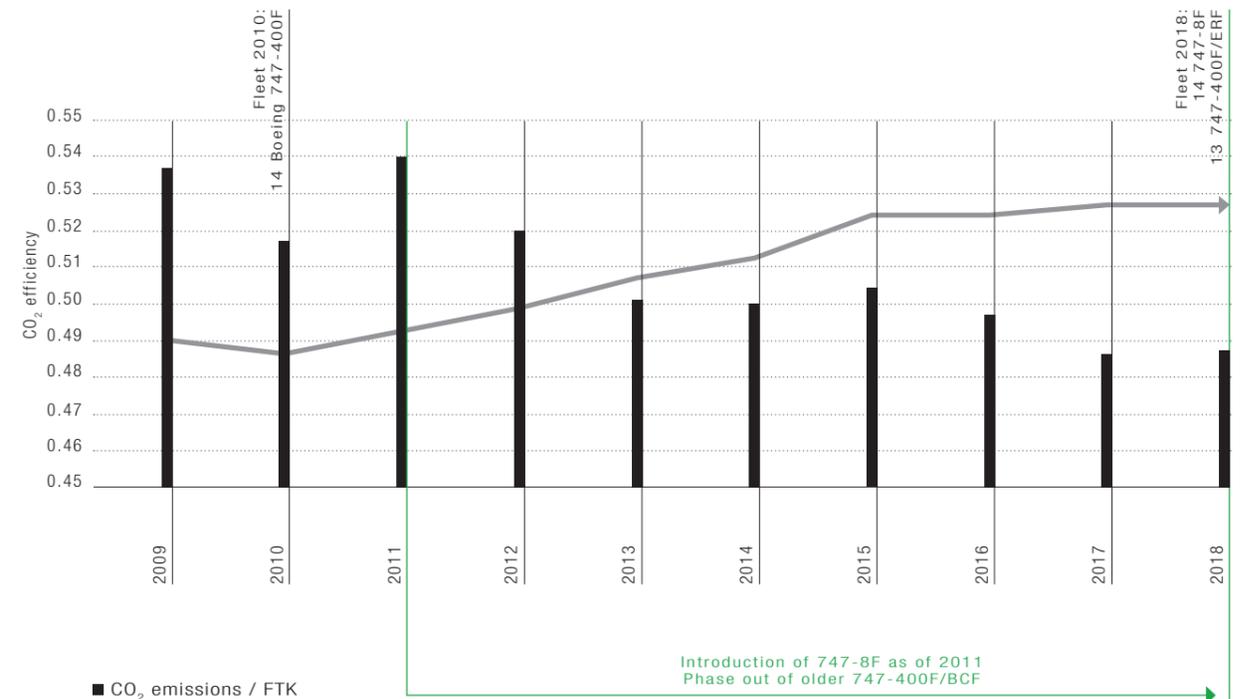
Much of the year was spent in preparation for the modified regulation and reporting format. The new process for monitoring emissions, documentation, and reporting templates were just a few changes associated with the updated regulations. The most significant change was in the methodology and emission factors calculation. Notwithstanding these changes, Cargolux continues to follow and meet industry targets toward carbon neutral operations.

Cargolux has adopted IATA's near- and long-term goals for airlines to reduce CO<sub>2</sub> emissions with the aim to eventually achieve carbon-neutral growth:

- An average **improvement in fuel efficiency** of 1.5% per year from 2009 to 2020
- A cap on net aviation CO<sub>2</sub> emissions from 2020 (**carbon-neutral growth**)
- A **reduction in net aviation CO<sub>2</sub> emissions of 50%** by 2050, relative to 2005 level

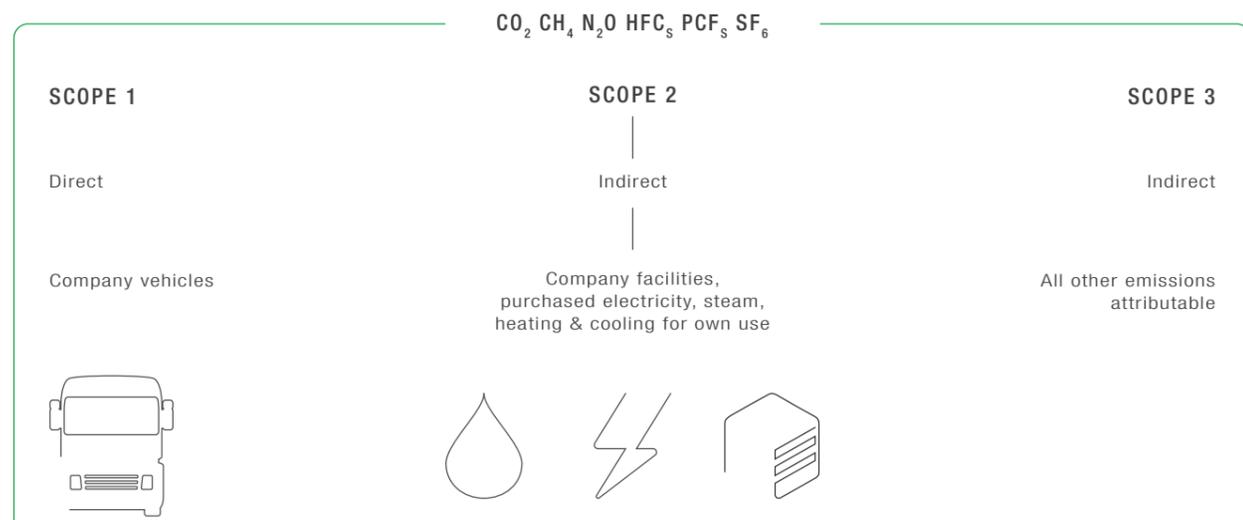


Development of CO<sub>2</sub> efficiency vs fleet



The **Greenhouse Gas Protocol** defines three **scopes** of emissions:

GRI 103-3, GRI 305-1, GRI 305-2, GRI 305-4, GRI 305-5



**SCOPE 1**

The Cargolux Group can show exemplary greenhouse gas emission management for its fleet. Based on 12.1 million ATKs (available tonne kilometers) for the Cargolux and Cargolux Italia fleets, the CO<sub>2</sub> efficiency reached 0.34 kg CO<sub>2</sub> per ATK.

**SCOPE 2**

Cargolux offices and facilities recorded a CO<sub>2</sub> emission of 2065 tonnes for fuel and gas heating during 2018. Use of electricity emitted no CO<sub>2</sub>, as it comes from renewable sources.

**SCOPE 3**

Category that covers all other indirect emissions attributable to the activities of Cargolux, but from the company. Scope 3 is not relevant to the reporting of Cargolux and is not included here.

	2018	2017	Variation
CO <sub>2</sub> efficiency/FTK	0.487	0.486	+0.2%
Lead-free (liters)	6,393	3,984	+60%
Diesel (liters)	19,075	14,658	+30%
Diesel/industrial machines (liters)	75,959	69,530	+9.2%

GRI 103-2, GRI 103-3

The airline is aware of the effect air cargo operations has on the environment and surrounding communities. Environmental Management was moved to the OHS division and was successful certified in the **ISO 14001: 2015 Environmental Management System Standard**. ISO 14001 is a voluntary set of standards that provides organizations with a set of clear requirements for effective environmental management. It includes identifying key influencing stakeholders and determining their requirements, risks for their areas,

and opportunities that might impact the environmental management system (EMS) supply chain. The EMS was adapted to meet the new ISO 14001: 2015 standards and passed the audit with “no non-conformities (aka: flying colors).

During the 2018 reporting period, the company’s carbon footprint remained stable.

The **Trucking Management System (TMS)**, being used to track and bring transparency to import activities, was designed in 2016 and

implemented in 2017. It is showing great results. The progress in 2018 focused on processes, making further use of, and optimizing the system. As a result, the load factor out of Luxembourg airport rose. For example, combining an airport to airport delivery with a direct delivery. The second half of 2018 saw a reduction of 834 trucks compared to July-December 2017 – when the TMS was also live.

Category	Number of trucks	%
Euro 6	481	93.7%
Euro 5	14	2.7%
Euro 4	18	3.5%
<b>TOTAL</b>	<b>513</b>	<b>100%</b>

**Variation % 2018/2017**



**CO<sub>2</sub> emissions reduction & control** are important first steps toward a carbon-neutral company. Cargolux complies with the European Union’s Emissions Trading System (EU-ETS) reporting requirements, and continues to monitor and report CO<sub>2</sub> emissions.

## FUEL CONSUMPTION\*

SDG13

GRI 103-1, GRI 103-2

The **Fuel Efficiency Round Table** ongoing since 2016, continues to identify areas of potential savings.

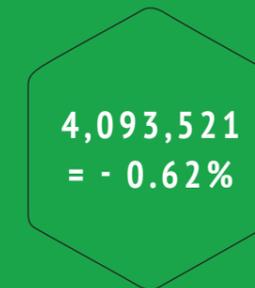
“Currently, Cargolux has 15 different fuel-saving programs underway which are netting out fuel savings.” says Jeff Huntoon, responsible for the fuel efficiency program, “It’s pretty exciting to see the savings and to consider the positive environmental impacts coming out of them.”

The **Core Engine Compressor** wash was perfected in 2018. This cleaning process is performed on the GENX-2B, CF6-80C2B5F, and selected RB211-524H2-T engines with low N3 speed margin. In 2018, a long-term efficient solution was studied and agreed.

GRI 302-1, GRI 302-4, GRI 305-4, GRI 305-5



Jet fuel



CO<sub>2</sub>



Carbon footprint



Tonne-kilometers  
flown (FTK)

Fuel saved



CO<sub>2</sub> emissions reduction



No APU after landing



Fuel saved

Fuel and CO<sub>2</sub> Emissions  
Reductions in 2018 GRI 305-5



CO<sub>2</sub> emissions reduction

\* Cargolux and Cargolux Italia

## CONTINUOUS DESCENT OPERATION (CDO): FUEL SAVING ADVANCES

GRI 103-2

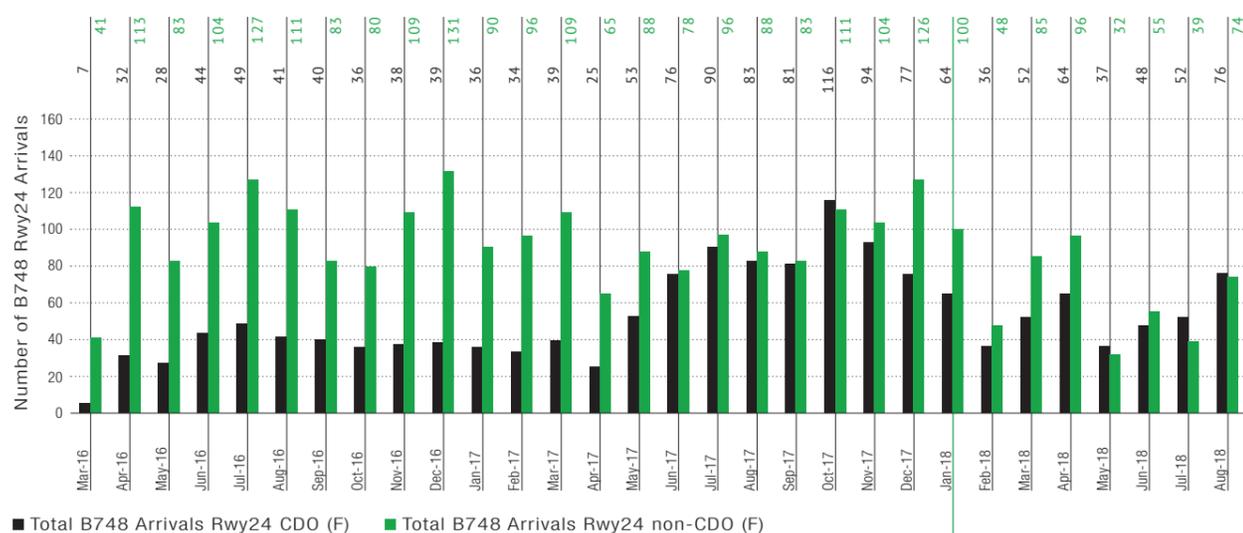
The latest development in the **CDO(F) program** which began in 2017, saw Belgium and Luxembourg stakeholders come together to develop a roadmap for the implementation of Performance Based Navigation (PBN) arrivals by 2020 in Luxembourg.

In 2018, Cargolux participated in the initial meeting to set up the Luxembourg working group. Besides fuel savings, this navigation procedure has a number of advantages including improved safety and airspace use in terms of efficiency and capacity, therefore decreasing congestion,

and reducing aircraft noise impacts. "This project brings together many elements" says Christophe Klees, Chief Technical Pilot, "Ultimately, we will see reliable, flexible, all-weather operations that enjoy infrastructure interoperability and reduced environmental impact."

Cargolux cooperated with the local ANSP to develop CDOs arrivals into Luxembourg. A number of waypoints were created that allow pilots to efficiently plan the descent. CDOs and CDAs (Continuous Descent Operations and Approach) methodologies are a huge step-change in the industry and represent potential for significant fuel savings as well as substantial reduction in CO<sub>2</sub> emissions. A CDO(F) arrival can log fuel savings of approximately 250 kg per flight for a B747, as the engines stay at a near-idle thrust during the process. The lack of thrust during descent also means a quieter arrival; reducing noise for surrounding communities.

B748 Arrivals rwy24 - cdo (f) v. non-cdo (f)



## WASTE MANAGEMENT

SDG12

GRI 103-1, GRI 103-2, GRI 103-3, GRI 306-2

Waste reduction is also a key element in the Cargolux strategy with the extension of recycling schemes, and the development of a paperless working environment.

Since 2008, Cargolux has developed and maintained a waste management program that covers the company's headquarters in Luxembourg, the maintenance center and offices as well as rented offices at other locations.

In 2018, Cargolux obtained the renewal of its environmental label "Superdreckskscht fir Betriber" for the 10<sup>th</sup> consecutive year. "Superdreckskscht" is a program run by Luxembourg's Ministry for Sustainable Development and Infrastructure. The label is awarded to Luxembourg companies that demonstrate exemplary waste

management practices, including waste avoidance measures, safe and environmentally-friendly waste storage, selective collection and a transparent waste recycling and disposal system. This certificate is subject to annual renewal following audits that verify the company's adherence to these principles.

Over this past decade, Cargolux has also developed an ambitious, organization-wide program to reduce paper consumption and waste. The company has been working towards an increasingly paperless operation throughout all its divisions. The installation of Electronic Flight Bags across the fleet and the introduction of crew iPads have yielded significant results. Since all flight-related documentation is now digitally available, Cargolux has a strict no-printing policy for operations manuals thus reducing the amount of paper periodically required.

This ambitious paperless project was extended to the Maintenance & Engineering division in 2018. eMobility, the Trax suite of mobile

applications will be introduced in early 2019 in line maintenance, followed by hangar maintenance, repair and refurbishment shops, and material control later in the year. This initiative will render all major manual processes digital and paperless, from planning to executing and signing off work on aircraft. Lean management principles have also been introduced into M&E processes in an effort to further reduce waste.

Lean and agile processes are at the heart of Cargolux's strategy, and waste reduction measures will continue to be developed and implemented throughout the organization. Our new headquarters have been designed in line with these standards and new measures are under development to continue and improve our efforts in this direction. Our commitment to environmental awareness is ongoing and we endeavor to develop ever more stringent initiatives to reduce our waste and boost our efficiency.

### Waste disposal by category (in kg)

	2018	2017	Var in % 18/17
Hazardous waste	150,731	173,752	-13.2
Recyclable waste	97,385	81,174	20.0
Residual waste	133,672	112,267	19.1
Oily waste	28,959	21,527	34.5
Other waste	3,434	6,911	-50.3
<b>Total</b>	<b>414,180</b>	<b>395,631</b>	<b>4.7</b>
% recyclable waste	23.51	20.52	

## DIGITAL TRANSFORMATION AND INNOVATION

SDG4, SDG8, SDG9, SDG12

Going forward constant innovation will be one of the cornerstones of Cargolux's success. Every division and department is in the course of taking measures to review processes and streamline procedures. Digitization of data, the use of digitalization, AI and automation all form part of the future of Cargolux to ensure that it provides the required level of connectivity and service excellence required by our customers.

Innovation and digitalization are great enablers. The organization has and uses a vast amount of digitalized information for making business decisions. Ensuring the integrity of that data is of utmost importance. For Cargolux, 2018 was yet another chapter in the journey to better leveraging our expertise, enabling faster processes, and streamlining our connection with the customer, industry and our people. Innovation and the digital transformation of the company will allow creative solutions and provide inspiration for continuous and sustainable development of the airline. This section details some of the exciting projects underway as Cargolux capitalizes on advances in thinking and technology.

### Digital Cargolux

The focus for many current projects is to improve both business capability and margin visibility via **revenue management** and

the implementation of a new **ERP system**. In **Logistics**, solutions are in place and being developed to optimize truck utilization, reduction of truck waiting times as well as introducing digital management of aircraft turnarounds to improve our performance levels. In Flight Operations, the focus is on **flight plan optimization**. **OHS risk assessments** are now loaded automatically into the **IQSMS** (Integrated Quality and Safety Management System) system, while the **HR HUB** connects **the learning, talent management and recruitment portals, the onboarding system, and the employee suggestion scheme, Brainwaves**.

From **VR (virtual reality) training** for mechanics and pilots for everything outside the simulator – which must be legally approved by the appropriate air industry bodies – to **predictive maintenance** programs and **CRM sales solutions**, IT is involved in the planning, designing, and implementing of over 20 projects.

"We are preparing for the future," says Martin Bordt, Chief Information Officer, "we want our people to be able to more efficiently collaborate across business units, driving the process and better meet compliance and security needs. Our focus must be on increasing the speed of transaction and improving information visibility throughout the organization and streamlining connection with our customers and partners."

In 2018, Cargolux's long-term contract with Champ Cargo Systems, CCS, for Enterprise Services came to an end. In 2019 all Business Applications hosted,

supported and maintained by CCS will be taken back into Cargolux. Our core Cargo Management System will continue to be provided by CCS under a SaaS contract. This will be a major project for the airline in 2019. "The first task was to conduct an assessment of the current state; how CHAMP was meeting Cargolux needs, and to define the desired future state for the company to help identify priority areas." says Martin Bordt, CIO.



### Digital Customer Connection:

As part of the innovation and digitalization initiatives currently underway in the company, Cargolux strives to introduce new and improved features for its customers and business partners. Internal procedures are not the only items undergoing change to meet the requirements of an ever-evolving world. As customer satisfaction is at the heart of our philosophy, we are also enhancing interfaces and optimizing platforms that are used by our clients. For example, the new and intuitive **CV pharma Service Capabilities Map** allows customers to check important pharma capabilities within the CV network on an interactive map, thus enabling them to swiftly and remotely screen the comprehensive service offering with respect to:

- CV pharma service (2-8°C/15-25°C/frozen)
- CV pharma active/passive solutions

### Going paperless everywhere...:

Digital touches everything. Cargolux staff are undertaking a variety of projects that will reduce paper and increase efficiency throughout operations. Electronic flight bags (EFBs) and paperless checks allow thousands of pages of documents to be replaced with an electronic tablet.

Paperless CMR consignment notes (**e-CMR**) retain the functionality (eg, harmonized contractual conditions for goods transported by road, and facilitates overall ease of goods transport) but also accelerates administration, improves accuracy, reduces discrepancies, removes paperwork and handling costs.

Another substantial benefit is the control and monitoring of shipments and access to real-time information such as pick-up and delivery confirmation.

The electronic Air Waybill (**e-AWB**) is the digital version of this critical air cargo document. This e-AWB removes the need for printed copies of the contract of carriage and provides transparency related to the provenance and destination of every shipment. Using an e-AWB simplifies the air cargo process, reducing paper, administration time, and delays. **EFB on -400: upgrade and maintenance:** In line with the move to a paperless cockpit started in 2017, the 747-400 and 747-8 fleet were equipped with upgraded tablet based Electronic Flight Bags in 2018. These modifications will allow a fully digitized flight operations environment to provide pilots with digital connectivity to all required data for their flight. The installation of next generation EFBs is an integral component of Cargolux's digital transformation for future sustainability.

## LEAN MAINTENANCE & ENGINEERING (M&E)

SDG8, SDG9, SDG12

Following the business process review that began in 2017, technology and digitization took center stage in the Maintenance & Engineering division in 2018. In an effort to promote paperless operations, lean and agile processes,

a number of programs were launched. Training sessions were also held to ensure all stakeholders were involved in the implementation of these new methods.

One of the major projects across M&E was the preparation to deploy Trax e-Mobility, a suite of mobile applications which cover all technical process flows to reduce and subsequently eliminate paper-based procedures. This leap forward will contribute to significantly improved workflows throughout the division by streamlining processes. The enhanced transparency provided by the solution allows for higher efficiency, with a reduction in man hours ultimately foreseen.

As well as modernizing processes, many production work areas were re-organized according to the 5S lean principle to offer a better overview of the structure and avoid unnecessary, time-consuming actions. This structural method relies on 5 pillars; sorting, setting in order, sweeping, standardizing, and sustaining the discipline. This initiative was devised to help all employees identify and eliminate waste and clutter. This way, work spaces, especially shared ones, are arranged according to a common standard.

Basic lean training was organized throughout the division, at all levels, to ensure a full understanding of the principle. The courses were based on real M&E issues giving both employees and management the opportunity to reflect on

their current approach and identify areas of improvement. The workshops promoted increased communication between all parties providing a healthy basis for information sharing and further improvements.

### Advanced Tool Management

**System (ATMS):** The ATMS project takes a ubiquitous technology, RFID (Radio Frequency Identification), used in everything from retail, to inventory tracking and logistics supply chain visibility, to tracking conference attendee movement, and runners' finishing times to save time... and steps, at work.

Using three pillars of focus:

- 1) tool identification and traceability,
- 2) decentralization of storage solutions, and
- 3) improvement of tool maintenance, M&E is using the RFID tags to identify and track tools. An RFID, which contains a unique ID code and works via passive UHF (Ultra High Frequency) electromagnetic waves, is permanently attached to each tool. This tagging procedures allows tools to be tracked either with a fixed or hand-held scanning device. Christophe Moyen, Supervisor Tool Support, who oversaw the project explains, "These "smart" tools improve traceability and transparency of tools, their location, their use in maintenance operations, and streamlines efforts – all in line with lean and agile principles we have adopted here."



Hippolyte BRUWIER

Andre VAN DONGEN

## T.E.A.M. WORKS!

A cross-divisional collaboration in 2018 netted an excellent result that will save many teams time and effort while centralizing processes. Under the T.E.A.M project, Andre van Dongen, Manager Network Punctuality & Operations Control and Hippolyte Bruwier, Manager LUXHUB Planning & Capacity Management started with a question about how to streamline processes using digitalization ended with a project that inspired teams from across Cargolux and beyond. The result is a system that provides real-time information regarding what's happening, and when, for every aircraft turnaround.

Mapping the flow of activities and plotting out bottlenecks initially allowed the project team to identify existing systems that tracked all the stakeholders of a turnaround process: people, equipment, food, fuel, cargo, and weather, to name only a few, and design a system

that integrated the information coming from a variety of systems into a coherent and useful "picture". "Fuel, catering, M&E, Luxair, drivers, crew, Ops Control, Networking, Load Control, and Hub Steering Control, all helped in the design and have access to information that should make their job easier." says Hippolyte, "It will streamline systems and allow teams from each organization to work efficiently and effectively."

Now, from the time an aircraft is on approach until after it takes off, personnel have ready-access to the predicted schedule for everything from arrival at the gate to loading, fueling and take-off ... and much, much more. "The benefits are enormous." says Andre, "Everyone involved has a single platform for communication and can see the real-time status of the aircraft. This allows any issues to be mitigated quickly and transparently."

As well as providing visibility to important data, the system was designed to "lighten" the workload and paperwork. Instead of completing endless paper-based forms and status reports, that are usually not available until the next day; many actors in the process will now be able to signal the beginning or completion of a task or activity with the touch of a button on their tablet. This in-house designed and custom-built analytics system uploads and organizes information automatically from the tablets, and communicates it directly into system, providing key timing for activities and information from over 10 different systems and a variety of teams.

Designed and tested during 2018, the system goes live in Luxembourg in Q1 of 2019 and will be rolled out throughout the network soon after. Improvements in on-time performance, communication,

and transparency for internal and external stakeholders are just a few of the anticipated benefits.

## Ongoing Innovation & Digital Transformation Programs

SDG8, SDG9, SDG12, SDG13

**LIDO:** 2018 saw the launch of the Lufthansa LIDO/Flight4D system implementation; a proven solution that automates and optimizes flight planning, and controls processes. Taking all possible flight-related data, such as current weather, airspace restriction, etc. into consideration, LIDO automatically calculates the most efficient route in terms of cost, flight time, and fuel consumption. The long-term agreement with Lufthansa provides a cloud-based solution with real-time information that is another building block in assuring the highest quality service possible.

**Validaide CSR Global Logistics Project:** In 2018, Cargolux joined the **Validaide** platform. Validaide is a supplier qualification and risk assessment tool that removes guesswork and drastically reduces manual work, such as completing forms and detailed excel spreadsheets, from the transport supply chain. No longer must Cargolux personnel spend hours completing hundreds of detailed flight routing sheets that are required for the customer. Now clients and Cargolux teams can access current, real-time service capability information for origins, transit, and destinations, from one platform where data is compiled automatically.

## Light-weight Solutions:

The implementation of **SquAIR timber** use that began in 2017 was extended in 2018 to include animal transport.

**10ft Connectors:** Building upon the success of the environmentally friendly beam solution implemented in 2017, Cargolux helped with the certification of **10ft connectors** (10-foot pallet connectors) and acquired the solution in 2018. This certified component is constructed of aluminum. Typical 20ft pallets weigh around 500kg. This connector gives us the possibility to safely connect two 10-foot pallets (that weigh around 120kg each). This is an optimal way to enable the transport of long cargo on the main deck via nose-loading while saving weight/fuel.

## Light bulbs changed to LED:

LED light bulb replacements for vertical fin and wing illumination for 27 aircraft were completed in 2018. 25 aircraft were modified in the same time period.

# Section III: Community

SDGS: 9, SDG12, SDG13

GRI 103-1, GRI 103-2

From support for apprenticeship programs, environmental research, and endangered species, to supporting cultural exchanges or sponsoring community events and non-profit organizations, Cargolux recognizes that ties to the local and global communities bring benefit to the business, the country, and society. The organization goes above and beyond with their efforts to connect with and support the community.

## LOCAL COMMUNITY INVESTMENT

SDG1, SDG4, SDG9, SDG11, SDG17

To have a healthy future society, the community and individuals must work together. They must be engaged and encouraged. Cargolux cares about team spirit and whenever possible supports its employees to build ties to their business and social community and also partners with associations and organizations that focus on improving physical, mental or emotional well-being. 2018 saw a number of exciting initiatives come to fruition.

GRI 103-2

## Reaching Children & Youth

A **children's website** (kids.cargolux.com) was launched in December. This website is an interesting and exciting vehicle to introduce the world of air freight to children. The site provides information and activities related the air transport industry and Cargolux's business.

For the second year running, Cargolux supported **Tolmachevo Airport's** initiative to introduce a group of Novosibirsk region children from social institutions to the world of aviation. The children visited the airport, the emergency and rescue station, and the operational center. After watching the landing of a Cargolux aircraft, the group had a short Q&A with the pilots. The captivated youths asked the pilot a lot of interesting questions: from the complexity of operating wide-body aircraft to his favorite football team.

**Formida? Formidable!** In 2018, the Ministry of Education established the Formida Center that receives donated resources that would normally be considered waste or surplus from businesses in the Greater Region like Cargolux. Donated materials are made available free of charge to professionals working in formal and non-formal training and education, artists and designers, etc. The materials are managed by about 20 youths who work in the "supply center for ideas and materials" and receive therapeutic and social support.



10

CIE contracts in 2018



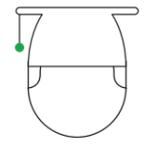
10

maintenance apprentices



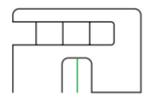
29

trainees



5

school visits @ Cargolux



9

visits to schools

GRI 103-2

**FOC in support of ...**

Cargolux supported a range of initiatives in 2018 with FOC (Free of Charge) transports. **Local artists and cultural institutions**, as well as research and humanitarian causes benefited from this cooperation with government and non-governmental organizations. These initiatives add to the cultural vibrancy and reputation of Luxembourg and expose other populations to art and culture that they would otherwise not experience.

**INNOVATION, RESEARCH AND DEVELOPMENT OF FUTURE TECHNOLOGY**

SDG9, SDG17

**Solar Power Research:** Cargolux provided FOC (Free of Charge) transport for Anne Quemere's Solar Boat, the *lcade*, a solar propulsion prototype. Anne is a renewable energies ambassador, who designed and constructed a solar boat that crossed the Pacific Ocean, from Peru to French Polynesia, in 2011.

In 2018, Cargolux transported the new solar boat intended to cross the Northwest Passage. The trip through the passage was cancelled which was a huge disappointment to all involved, but we salute those brave souls who are willing to dare. The risk of disappointment is nothing

compared to the possibilities envisioned when dreams become reality.

*"As I was in the Arctic this summer, I was able to see what was going on. In the course of my discussions with the Inuit I ran into along the way, I learned that they were worried about the very unusual weather for the season."*

Anne posted on her site about her foray north.

**ART & CULTURE**

SDG11, SDG17

**The origins of Chinese Civilization: Archaeological Treasures from Henan exhibit at MNHA:**

Three tonnes of cultural artifacts were carefully transported to Luxembourg via a 10-hour flight from the Cargolux China hub, Zhengzhou. This transportation of priceless historical artifacts between Zhengzhou and Luxembourg is part of a cultural exchange agreement between China's Henan Museum and Luxembourg's Musée National d'Histoire et d'Art (MNHA).

**Su-Mei Tse/MUDAM partnership:**

In 2018, Cargolux transported Su-Mei Tse's exhibition between Luxembourg and Beijing, China. Su-Mei Tse is an artist who shares European and Asian heritage. Her attention to the sonorous dimension of the world adds dimensions to her art as she explores time, memory, musicality, and language. Her art forms – sculptures, videos, photographs, installations – create a link between sound and image, nature and culture, mental space, and sensory experience.

**ANIMAL WELFARE AND PRESERVATION**

SDG14, SDG15, SDG17

GRI 103-1, GRI 103-2, GRI 304-2

Cargolux is well-placed to provide assistance in lands near and far. 2018 saw a focus on endangered species, animal welfare, and biodiversity.

**Preserving wildlife:** For over 45 years, Cargolux has transported priceless thoroughbreds, high-performance sled dogs, alpacas, and polo ponies, but also giraffes, white tigers, rhinos, dolphins, and whales, just to name a few. Their ties to the wildlife preservation communities means that Cargolux is at the forefront of animal transport. It supports worthy charities and associations by providing careful and caring transportation for endangered species. Cargolux personnel has a deep understanding of how important the survival of endangered species is to our environment and society. Whether it's breeding pairs (to help repopulate a local environment) or endangered species (being transported to a new home), the animals' welfare is always a top priority at Cargolux.

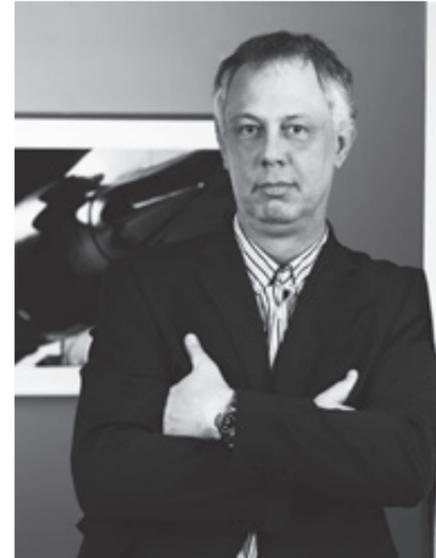
Marc Roveri, Head of Global Customer Services, lives and breathes animal health and well-being. *"It's not just what happens in the air,"* he says, *"We must be vigilant about how an animal's environment is prepared for flight; the quality of its container and condition of its surroundings."*

From ensuring an optimal temperature, to even arranging to fly at a different altitude, to ensure animals are comfortable, no detail is overlooked.

*"Marc's team works with shippers, ensuring that the air transport leg of the journey, and the transition from ground to air and back again, is as low-stress as possible for every animal."* says Richard Forson, Cargolux CEO.

Cargolux has decided to reject applications for animal transport on a regular basis because the recipient does not comply with rules or standards.

In 2018, Cargolux reviewed its standards, enforced a hunting trophy embargo, and signed the United for Wildlife Pledge. This non-legally binding document confirms the airline's engagement in ethical and sustainable business as well as its commitment to animal welfare. A highlight of 2018 was transporting gorillas being reintroduced into the African wild by the Aspinall Foundation.



A 30% increase in horse transports (from 2,000 in 2017 to 2,600 in 2018) was a substantial element in the 15.7% increase in this year's CV alive transports. This is a strong indication that customers recognize their expertise and dedication to animals.





## GRI 103-2

**More Freedom for Two Belugas:** Cargolux was abuzz with excitement throughout 2018 as it prepared for the journey of Little Grey and Little White. These two female Beluga whales will be transported from China to Iceland in Spring 2019. Their new location is a groundbreaking effort to provide a home for whales who have spent too much time in captivity to ever survive in the wild. Months of painstaking collaboration between every company in the transportation chain has led to a deep understanding of the plight of whales and dolphins in captivity around the world. Cargolux is proud to sponsor activities that provide new homes to animals and marine life and that allow them to live safely as close to their natural habitat as possible.

*"It takes months to prepare for a transport like this. It's not just the specialized equipment and know-how that is important. It takes months to prepare Little Grey and Little White for the journey so that once it starts, there is as little stress as possible. We must think of everything. Nothing can be a surprise for these two special whales."* says James Burleigh, Sea Life's Chief Ambassador.

**Back to the wild:** The Aspinall Foundation reintroduces some of the world's most endangered species, back into some of the most fragile environments on earth, in hopes of conserving wildlife and its local habitat. Cargolux provided transport of 2 gorillas from the UK Aspinall Foundation location to Brazzaville, Congo.

*"We are thrilled to have worked with Cargolux on our gorilla move and look forward to partnering with Cargolux for future reintroductions."* Says Jane Michotte, Fundraising Director.

## EMPLOYEE ENGAGEMENT

SDG1, SDG3, SDG17

A healthy bottom-line cannot be achieved and sustained without full employee engagement and enthusiasm. Cargolux provides support to the many employees who extend their reach outside of the company and into a variety of industry, social, and local interests. Cargolux believes that a well-rounded team leads to more understanding, collaboration, and innovation. 2018 saw Cargolux and its employees taking the lead in a number industry and community activities.

### CV Employees in the Community:

In 2018, Cargolux employees sponsored, participated in or raise funds for a variety of events.

- Cargolux staff donate about 100 Christmas shoe boxes each year to **Nadia Pierson**, who runs the Shoebox initiative and SIPO collection. Each year Nadia coordinates a collection of shoe boxes packed with food for the homeless, and toys and games for under-privileged children. Each box is wrapped before it is delivered, and a handwritten card is included. For the homeless, easy-to-open, non-perishable food items and non-alcoholic beverages are gathered. The shoe boxes are delivered by charities such as the Good Samaritan Foundation, Les Restos du Coeur, SAMU Social, etc. For the children, gifts are comprised of games and toys that support the child in growing intellectually,

emotionally, and/or physically. Gifts are delivered to the Elisabeth Foundation Children's Care.

- Cargolux staff raised 7,500 euros for Aktioun Télévie. This charity event sponsored by RTL TVI, supports cancer research, specifically for leukemia, by the Scientific Research Fund (Belgium).
- Some flight crewmembers took part in the #Flypink campaign; exchanging their standard epaulettes for pink ones in support of breast cancer awareness and to raise funds for cancer research.
- **Pierre Beaufort** qualified for the World Championship Triathlon in Hawaii – for the fourth time! Triathlons are not for the weak of spirit, of for loners. From coaches to sponsors and raving fans, Pierre can count on the people who cheer him on. He is a shining example of the spirit of excellence and collaboration Cargolux and its people embody.
- **Corporate teams and sports clubs:** The organization knows that a healthy population is happier and more resilient. It has a number of active sports clubs that are run by its employees. The organization is pleased to be able to support corporate teams and sports clubs to participate in a variety of sport-related leagues and competitions. Here are just a few of the activities:
- Luxembourg Times Business Run: Cargolux sponsored a team for the 4<sup>th</sup> edition "Run & Dancel". Teams of three run a 5.5 km course on the Kirchberg plateau

that finishes at the Coque Arena. 2,00 euros from each registration are donated to the Cancer Foundation of Luxembourg.

- **Bud: Runway Run** (Budapest): Cargolux sponsored a team for this exciting run on Budapest Airport's Runway 13R-31L. The 10km run brings together more than 1,000 runners: adult personnel from all sectors of the aviation industry and children to find the fastest airline in the world. In 2018, teams raised 57,600 euros to support worthwhile charities that promote the inclusion of disabled people in sport.
- Employees formed a team for the **Andy Schleck Challenge**, a six-hour biking course. This event raises funds for the United Action for a United World (Action pour un Monde uni [AMU]). Funds were used for a project in Uganda that focuses on building an HIV / AIDS center in Kampala, providing medical care, and educating medical staff on the advantages and process for enhancing awareness through campaigns geared to adolescents.
- **24hrs Velo Wentger:** A team of 10 sporty Cargolux employees braved the heat to take part in this 24-hour cycling relay event in Winckrange. The group, kitted out with the Cargolux colors, made its way through the scenic north of Luxembourg.
- **Inter departmental League and Tournaments:** Every year, the Cargolux Football Club organizes a staff tournament, inviting colleagues from around the company to form their teams.

GRI 103-2

## CORPORATE SPONSORSHIP; CHARITIES & CLUBS

SDG1, SDG3, SDG14, SDG15, SDG17

Cargolux is also a corporate sponsor for a number of sports clubs, community and charity fund-raising events...

- In 2018, Cargolux donated funds that were allocated to buy Christmas presents for customers to two Luxembourg-based organizations; **CSI Lëtzebuerg** and **Unity Foundation**. These charities focus on promoting education to establish self-sustainable communities in Latin-America, Africa, and Asia, regions that have long been part of Cargolux's network.

**Chinese New Year** event, the film prize for the **Film Akademie Letzebuerg**, and the **Children's Wish foundation** (Kanner Wonsch) with a donated a flight simulator session to for their annual auction.

- **Rock Against Cancer:** Cargolux is an ongoing sponsoring partner of this music event that supports Foundation Cancer Luxembourg and Fondatioun Kriibskrank Kanner in the fight against cancer.

- For some years, Cargolux continues sponsoring of the **Widdebierglaf in Mensdorf**, a cross-country run in the vicinity of the airport.

- **Natur & Umwelt:** For some years, Cargolux has supported the environmental foundation in their activities.

- **Art2Cure New York (FOC shipment):** Cargolux has sponsored the Art2Cure New York, an art event to raise funds in support of Luxembourg Centre for Systems Biomedicine (LCSB) research on Parkinson's disease. Art2Cure brings visibility to this important area of research and artists receive 40% of sales proceeds. Art2Cure recognizes that to build a sustainable event, everyone who participates must benefit.

- Other supports to local sports clubs include: Basketball club AB Contern, Tennis Club Senningerberg, **Fédération Luxembourgeoise de Tennis de Table (FLTT)**, **Top Squash Sandweiler**

**International Bazaar:** Cargolux continues its long-standing support of the International Bazaar by sponsoring transports from the USA, Canada, Hungary, South Africa, and Thailand for stands at the International Bazaar Luxembourg.

## INDUSTRY SPONSORSHIP & PARTNERSHIPS

SDG8, SDG9, SDG12, SDG17

**Cargo iQ's Quality Rally**, or Q Rally, is a new initiative for members of the Cargo iQ group to showcase operational improvements,

developed collaboratively, that create tangible benefits for their organizations, through data gathered by the group. Cargolux and Panalpina were just two of the 14 members participating in this challenge. Collaborating to boost data quality and performance at Luxembourg Airport, ensuring that RCSs (Ready for Carriage) notifications were sent after FWBs (Freight Weight Bills) to eliminate delays, and improve the airport's supply chain quality rating to 94%. The team won the first phase of the challenge.

"The result of the first Q Rally shows that different organizations can work together to produce tangible outcomes," said Franco Nanna, Director Global Logistics Services, Cargolux, "Cargo iQ can be compared to a well-functioning family, where all members respect each other, because it doesn't just benefit one or two members, it benefits the entire cargo industry."

**International Federation of Air Line Pilots' Associations (IFALPA)** 2018 conference in Luxembourg: The IFALPA conference and general assembly welcome approximately 500 participants, representing Member Associations. At this event, professionals from the airline pilot community meet to discuss current developments and to recommend policies which will promote the highest level of flight safety.

**Luxembourg for Finance Delegation Support:** In November 2018, Cargolux was a sponsor for the mission to Zhengzhou, China, that brought together financial professionals, government officials, and the public to identify and develop new business opportunities.

GRI 103-2

**Smart Start-Ups and New Business Models in Supply Chain:**

Cargolux was a proud sponsor of this Cluster for Logistics Conference that brought together experts in Smart Start-ups and Supply Chain Management in May, 2018.

**Mind & Market in Luxembourg:**

Cargolux sponsored Deloitte's Mind & Market in Luxembourg event in December, 2018. Mind & Market guides innovative project holders, helps set up a team and provides advice on how to test an idea on the market.

Cargolux was a sponsor for the **Luxembourg Open Innovation Club (LOIC) Artificial Intelligence (AI)** event in July, where start-ups pitched their AI business concepts, and networking centered around smart solutions and open innovation.

The Luxembourg Centre for Logistics organizes its annual **eXplore Conference: Navigating the green supply chain** conference and executive education program dedicated to green supply chains. Insights from the academic forefront include topics on the future of supply chains, the development in sustainability, digitalization and risk management and brings together experts from the MIT Center for Transportation & Logistics, and the University of Luxembourg.

**ECONOMIC VALUE  
 DISTRIBUTED  
 TO COMMUNITIES**

SDG4, SDG9, SDG17

Cargolux recognizes the value of supporting local and global community events that work to create a healthier, kinder, and better future for all. Not only does the organization provide ongoing support and sponsorship for many initiatives locally and abroad, most initiatives are spearheaded by Cargolux staff who are personally involved.

**Showcasing Our People and Industry**

Cargolux is proud and supportive of active and theoretical research that provides keener insight into this expansive industry. Thomas Klein, V.P Business Intelligence and Corporate Control, has released a second edition of his book, **Moving Boxes by Air**, co-authored with Aviation Academic, Peter Morrell. The book details the complex and multi-faceted industry that requires many fields of expertise and involvement from multiple players in the supply chain. Cargo comes in a variety of sizes and shapes, often with very individual requirements. Freight routes are inherently more complex than passenger flights; managing this type of transport effectively and efficiently is a challenge. The book provides a holistic overview of the air freight industry, and perspectives on the theoretical, financial and practical aspects of the industry.

GRI 103-2

For those working in the industry, the book provides a view of the wider horizon of implication of air cargo practices.

*"It was our objective to give those working in the industry an insight into what happens in other areas around their core competency, whether there is a direct link to their work or not."* comments Thomas.

**Luxembourg Science Center:**

Cargolux has partnered with the new science and technology discovery center, since 2017. The partnership includes sponsorship for the center's exhibits, and transportation support for equipment and important elements for interactive displays. In 2018, Cargolux donated a wind tunnel exhibit to the Center.

With the omnipresence of connected devices, **Social Media Etiquette** is becoming more and more important. Cargolux published a social media etiquette guide to help employees understand required boundaries and barriers to being a savvy social media ambassador.

## ONGOING COMMUNITY SUPPORT AND ENGAGEMENT

SDG12

GRI 103-2

Cargolux acknowledges the importance of stable and consistent support for local events and activities. Science, technology, and the environment are all closely related to the air cargo industry and to Cargolux's CSR endeavors.

The airline is proud to be active and ongoing sponsors of ....

### Noise abatement programs

GRI 413-2

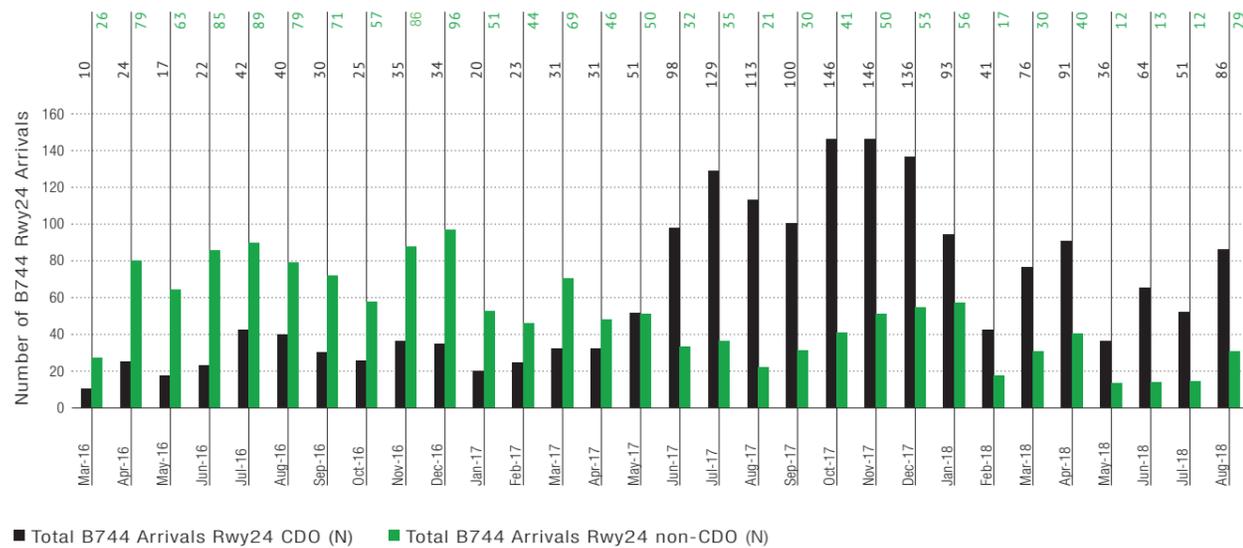
such as APU off, Active Quiet Climb, Three Engine Taxi, and Constant Descent Approach; all projects that are succeeding and making a difference for the communities around the Luxembourg hub.

Cargolux operates the world's quietest 747 freighter aircraft. The advanced engine technology and wing design of the -8F,

reduces the already low 85db take-off noise footprint of the -400F by another 30%. Both aircraft types fully comply with the ICAO chapter 4; the most stringent aviation standard.

Additional **Noise Abatement** measures can be seen in the CDO(N) program. Following a similar protocol to the CDO(F) (Fuel), CDO (N) (Noise) using different parameters to ensure minimum noise disturbance to the surrounding area on approach.

### B744 Arrivals rwy24 - cdo (n) v. non-cdo (n)



In 2018, Cargolux became the first airline to sign an agreement with the ANA (Administration de le Navigation Aérienne/ Administration of Air Navigation) concerning curfew exemptions and noise protection,

which outlines the takeoff/landing framework and restrictions. The agreement limits the number of authorized exemption and includes a clause in which the airline commits to using only the quietest

aircraft if movements are foreseen within the curfew times. Cargolux follows best practice in this area to ensure curfew exemption demands are kept to a minimum.

## About this report

GRI 102-48, GRI 102-49, GRI 102-50, GRI 102-51, GRI 102-52, GRI 102-54

This report describes the company's efforts within an incredibly competitive industry and a stressful air cargo market environment full of global challenges. Despite these challenges and tough economic drivers, Cargolux is concerned with, and committed to addressing environmental and social issues that impact its business, partners, and local communities.

This CSR annual report provides information about ongoing CSR initiatives and programs as well as an update on new programs started during the period of 01/01/2018 to 31/12/2018. The development of details included here is based on the continued analysis of the company's main impact and responsibilities. It encompasses concerns for the environment, society, and those raised by key groups of stakeholders in this area.

Information contained here pertains to Cargolux's overall operations and geographic presence, except where otherwise specified in the report:

- Certain indicators cover parent company activities only. These include information related to the company's employees and to occupational health and safety. Data monitoring and the company's waste disposal also relate to its facilities in Luxembourg only.
- Monitoring of fuel consumption and CO<sub>2</sub> emissions includes the data collected by Cargolux Italia.

Cargolux endeavors to constantly review and further elaborate its Corporate Social Responsibility program and the Sustainability Reporting Process. This report has been prepared in accordance with the GRI standards - core option.

The previous report was published in April 2018.

### Contact Point

GRI 102-53

Cargolux invites all interested parties to enter into dialogue about its sustainability policy, its activities, and this report. The company's policy, details about its activities, and previous reports, can be found on its website at <http://csr.cargolux.com>. This report will also be registered on the databases of the UN Global Compact and the Global Reporting Initiative. All comments and enquiries are welcome and can be forwarded through the contact form on the aforementioned webpage, or by writing to [corpcom@cargolux.com](mailto:corpcom@cargolux.com).

# SDG contributions



	1 NO POVERTY	2 ZERO HUNGER	3 GOOD HEALTH AND WELL-BEING	4 QUALITY EDUCATION	5 GENDER EQUALITY	6 CLEAN WATER AND SANITATION	7 AFFORDABLE AND CLEAN ENERGY	8 DECENT WORK AND ECONOMIC GROWTH	9 INDUSTRY, INNOVATION AND INFRASTRUCTURE	10 REDUCED INEQUALITIES	11 SUSTAINABLE CITIES AND COMMUNITIES	12 RESPONSIBLE CONSUMPTION AND PRODUCTION	13 CLIMATE ACTION	14 LIFE BELOW WATER	15 LIFE ON LAND	16 PEACE, JUSTICE AND STRONG INSTITUTIONS	17 PARTNERSHIPS FOR THE GOALS	
<b>CORPORATION</b>																		
Compliance & ethics, p45																	X	
Sustainable procurement, p47								X		X							X	
Recruitment pipeline, p48	X							X										X
Our people, p50			X	X				X	X									
Recruitment, p60	X							X										X
<b>OPERATIONS</b>																		
Safety, p62			X	X				X										X
Training, p67				X				X									X	
Environment, p68			X										X	X		X		
Fuel consumption, p72													X	X				
Waste management, p75													X					
Digital transformation & innovation, p76				X				X	X				X					
Lean maintenance & engineering, p78								X	X				X					
Ongoing innovation & digital transformation programs, p81								X	X				X	X				
<b>COMMUNITY</b>																		
Local community investment, p82	X			X					X		X							X
Innovation, research and development of future technology, p84									X									X
Art & culture, p84											X							X
Animal welfare and preservation, p85														X	X			X
Employee engagement, p88	X		X															X
Corporate sponsoring, p89	X		X											X	X			X
Industry sponsoring & partnerships, p89								X	X			X						X
Economic value distributed to communities, p90				X					X									X
Ongoing community support & engagement, p92													X					

# GRI appendix

## SOCIAL

GRI 401-1, GRI 401-2

### Employment

	2018	2017	2016
<b>Number of staff</b>			
Worldwide	2 031	1 916	1 856
Headquarter	1 531	1 436	1 389
Rest of the world	500	480	467
Percentage of women	19	19	20
Permanent contract	1 996	1 865	1 798
Newly hired	243	149	207
<b>CWA</b>	<b>1 316</b>	<b>1 240</b>	<b>1 199</b>
Female	172	160	159
Male	1 144	1 080	1 040
Turnover	141	87	120
Retention rate after parental leave			
<b>Number of employees by age groups</b>			
under 30	302	269	249
30-50	1 214	1 162	1 166
over 50	515	485	441

### Absenteeism

	2018	2017	2016
Lost days for accidents	321	386	346
Lost days for sickness	14 722	13 576	12 163
maternity leave	5 072	6 278	7 566

GRI 403-2, 404-1

### Occupational Health & Safety

	2018	2017	2016
<b>Number of injuries (accidents)</b>			
Internal	36	43	27
External	15	11	10
Injury rate			
Work related fatalities			
Occupational disease rate			

### Training

	2018	2017	2016
Number of training hours per employee	73	77	64

# GRI appendix

## ENVIRONMENT

GRI 301-1, GRI 305-1, GRI 305-2

### Materials

	2018	2017	2016
A/C cleaning products, TOTAL (ltrs)	36 457	31 075	37 955
Honey bee	362	349	401
A/C cleaner	32 720	27 326	34 456
Hydraulic removal	3 375	3 400	3 098
A/C dry wash soap		311	
De-icing and anti-icing product, TOTAL (kgs)			
Tarmac/airside (ltrs/kgs)	7,050	8 900	3,400 / 1,600
Salt (parking/road)	9 120	13 675	11 075
Paper (DIN A4) (kgs)	23 905	28 906	
Cartridges (pcs)	9 <sup>5</sup>	37 <sup>6</sup>	

### Emissions

	2018	2017	2016
<b>Direct emissions:</b>			
CO <sub>2</sub> emitted by aircraft (tonnes)	4 093 521	4 119 139	3 746 552
CO <sub>2</sub> emitted by GSE vehicles	66	49	261
<b>Indirect emissions:</b>			
Facilities	2 065	2 003	2 235

<sup>5</sup> 497 cartridges for shared printers

<sup>6</sup> 858 cartridges for shared printers

GRI 302-1, GRI 302-2, GRI 303-1, GRI 306-2

### Consumption

	2018	2017	2016
Water (ltrs)	9 683	10 877	10 309
Fuel (Heating systems)	75 457	86 517	79 210
Fuel (sprinkler pumps)	4 438	4 508	2 190
Electricity (kWh)	6 081 304	5 814 638	5 787 954

### The following data regarding the indirect Energy Consumption are only available for CMC:

Heating (kWh)	4 346 000	4 667 700	5 445 500
Cooling (kWh)	527 200	426 900	483 700
Compressed air (m <sup>3</sup> )	1 289 051	1 120 870	1 040 123
Gas (m <sup>3</sup> )	887 631	889 081	966 882

### Fuel

Jet A (tonnes)	1 299 531	1 307 663	1 189 382
GSE vehicles			
Industrial Fuel (ltrs)	75 959	69 530	74 216
Diesel (ltrs)	19 075	14 658	20 851
Unleaded Gasoline 95 (ltrs)	6 393	3 984	3 210

### Waste

	2018	2017	2016
Hazardous waste	150 731	173 752	165 410
Recyclable waste	97 385	81 174	91 172
Residual waste	133 672	112 267	109 829
Oily waste	28 959	21 527	20 031
Other waste	3 434	6 911	7 826

Wastewater from our maintenance operations at the maintenance facilities in Luxembourg are directly collected by the airport sewage system prior to a wastewater treatment plant.

# GRI content index

GRI 102-55

GRI Standard	Disclosure	Pages
<b>GRI 101: FOUNDATION 2016</b>		
<b>GRI 102: GENERAL DISCLOSURES 2016</b>		
<b>Organizational profile</b>	102-1 Name of the organisation	p128
	102-2 Activities, brands, products, and services	p128
	102-3 Location of headquarters	p128
	102-4 Location of operations	p128
	102-5 Ownership and legal form	p56
	102-6 Markets served	p32, 33, 34, 128
	102-7 Scale of the organization	p29, 128
	102-8 Information on employees and other workers	p154, 165
	102-9 Supply chain	p151
	102-10 Significant changes to the organization and its supply chain	p151
	102-11 Precautionary principle or approach	p151
	102-12 External initiatives	p152, 153, 154
	102-13 Membership of associations	p152, 153, 154
<b>Strategy</b>	102-14 Statement from senior decision-maker	p126
<b>Ethics and integrity</b>	102-16 Values, principles, standards, and norms of behavior	p11
<b>Governance</b>	102-18 Governance structure	p18, 19, 129

GRI Standard	Disclosure	Pages
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	102-41 Collective bargaining agreements	p165
	102-42 Identifying and selecting stakeholders	p140, 141, 143, 145
	102-43 Approach to stakeholder engagement	p140, 141, 143, 145
	102-44 Key topics and concerns raised	p140, 141, 143, 145
<b>Reporting Practices</b>	102-45 Entities included in the consolidated financial statements	p23
	102-46 Defining report content and topic Boundaries	p140, 141, 143, 145
	102-47 List of material topics	p147
	102-48 Restatements of information	p197
	102-49 Changes in reporting	p197
	102-50 Reporting period	p197
	102-51 Date of most recent report	p197
	102-52 Reporting cycle	p197
	102-53 Contact point for questions regarding the report	p197
	102-54 Claims of reporting in accordance with the GRI Standards	p197
	102-55 GRI content index	p204
102-56 External assurance	p210	

GRI Standard	Disclosure	Pages
<b>SPECIFIC DISCLOSURES 2016</b>		
<b>ECONOMY</b>		
<b>Material topic: gri 201 - Economic Performance 2016</b>	201-1 Direct economic value generated and distributed	p23, 24, 25
<b>Material topic: GRI 203 - Indirect Economic Impacts 2016</b>	103-1 Explanation of the material topic and its Boundary	p186
	103-2 The management approach and its components	p186
<b>Material topic: GRI 204 - Procurement Practices 2016</b>	103-1 Explanation of the material topic and its Boundary	p151
	103-2 The management approach and its components	p151
	103-3 Evaluation of the management approach	p151
	204-1 Proportion of spending on local suppliers	p151
<b>Material topic: GRI 205 - Anti-corruption 2018</b>	103-1 Explanation of the material topic and its Boundary	p149
	103-2 The management approach and its components	p149, 150
	205-1 Operations assessed for risks related to corruption	p150
	205-2 Communication and training about anti-corruption policies and procedures	p150
	205-3 Confirmed incidents of corruption and actions taken	No incidents of corruption identified

GRI Standard	Disclosure	Pages
<b>ENVIRONMENT</b>		
<b>Material topic: GRI 301 - Materials 2018</b>	301-1 Materials used by weight or volume	p202
	103-1 Explanation of the material topic and its Boundary	p176
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	302-2 Energy consumption outside of the organization	p203
	302-4 Reduction of energy consumption	p177
	<b>Material topic: GRI 303 - Water 2018</b>	303-1 Water withdrawal by source
<b>Material topic: GRI 304 - Biodiversity 2018</b>	103-1 Explanation of the material topic and its Boundary	p189
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<b>Material topic: GRI 306 - Effluents and Waste 2018</b>	103-1 Explanation of the material topic and its Boundary	p179
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	103-3 Evaluation of the management approach	p179
	306-2 Waste by type and disposal method	p179, 203
	306-3 Significant spills	p207

GRI Standard	Disclosure	Pages
<b>SOCIAL</b>		
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	103-2 The management approach and its components	p155, 164
	401-1 New employee hires and employee turnover	p162, 200
	401-2 Parental leave	p162, 200
<b>Material topic: GRI 403 - Occupational Health and Safety 2018</b>	103-1 Explanation of the material topic and its Boundary	p166
	103-2 The management approach and its components	p166, 167, 168, 169, 170
	103-3 Evaluation of the management approach	p166, 167, 168, 169, 170
	403-2 Types of injury and rates of injury, occupational diseases, lost days, and absenteeism, and number of work-related fatalities	p170, 201
<b>Material topic: GRI 404 - Training and Education 2018</b>	103-1 Explanation of the material topic and its Boundary	p159
	103-2 The management approach and its components	p159, 160, 161
<b>Material topic: GRI 404 - Training and Education 2018</b>	103-3 Evaluation of the management approach	p160
	404-1 Average hours of training per year per employee	p160, 201
	404-2 Programs for upgrading employee skills and transition assistance programs	p161
	404-3 Percentage of employees receiving regular performance and career development reviews	p160
<b>Material topic: GRI 405 - Diversity and Equal Opportunity 2018</b>	103-1 Explanation of the material topic and its Boundary	p161
	103-2 The management approach and its components	p162
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GRI Standard	Disclosure	Pages
<b>Material topic: GRI 412 - Human Rights Assessment 2018</b>	412-1 Operations that have been subject to human rights reviews or impact assessments	p150
	412-2 Employee training on human rights policies or procedures	p150
<b>Material topic: GRI 413 - Local Communities 2018</b>	103-1 Explanation of the material topic and its Boundary	p186
	103-2 The management approach and its components	p186, 187, 188, 189, 193, 194, 195, 196
	413-2 Operations with significant actual and potential negative impacts on local communities	p196

GRI 102-56



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To the Shareholders of  
Cargolux Airlines International S.A.  
Aéroport de Luxembourg  
L-2990 Sandweiler

#### Independent Limited Assurance Report to Cargolux Airlines International S.A.

We have been engaged by the Management of Cargolux Airlines International S.A. ("Cargolux") to provide limited assurance on the "Sustainability Report" of Cargolux for the year ending 31 December 2018.

#### Management's responsibility for the Sustainability Report

Management is responsible for the preparation and presentation of the Sustainability Report in accordance with the Sustainability Reporting Guidelines (GRI Standards) of the Global Reporting Initiative ("GRI") and the information and assertions contained within it, for determining Cargolux's objectives in respect of sustainable development performance and reporting, including the identification of stakeholders and material issues; and for establishing and maintaining appropriate performance management and internal control systems from which the reported performance information is derived.

#### Responsibility of the Réviseur d'Entreprises agréé

Our responsibility is to carry out a limited assurance engagement and to express a conclusion based on the work performed. We conducted our engagement in accordance with the International Standard on Assurance Engagements (ISAE) 3000, Assurance Engagements other than Audits or Reviews of Historical Financial Information as adopted for Luxembourg by the Commission de Surveillance du Secteur Financier. This standard requires that we comply with applicable ethical requirements, including independence requirements, and that we plan and perform the engagement to obtain limited assurance about whether the Sustainability Report is free from material misstatement.

A limited assurance engagement on a sustainability report consists of making inquiries, primarily of persons responsible for the preparation of information presented in the sustainability report and applying analytical and other evidence gathering procedures, as appropriate. These procedures included:

- Assessment of the suitability of the reporting criteria and their consistent application.
- Inquires of management to gain an understanding of Cargolux processes for determining the material issues for Cargolux key stakeholder groups.

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- Interviews with senior management and relevant staff at group level and selected business unit level concerning sustainability strategy and policies for material issues, and the implementation of these across the business.
- Interviews with relevant staff at corporate and business unit level responsible for data capture and preparation of the information in the Sustainability Report.
- Comparing the information presented in the Sustainability Report to corresponding information in the relevant underlying sources to determine whether all the relevant information contained in such underlying sources has been included in the Sustainability Report.
- Review of material qualitative statements in the report with regard to consistency and plausibility.
- Reading the other information presented in the Annual Report 2018 of Cargolux to determine whether it is in line with our overall knowledge of, and experience with, the sustainability performance of Cargolux.

The extent of evidence gathering procedures performed in a limited assurance engagement is less than that for a reasonable assurance engagement, and therefore a lower level of assurance is provided.

#### Conclusion

Based on the procedures performed, as described above, nothing has come to our attention that causes us to believe that the Sustainability Report of Cargolux for the year ended 31 December 2018 is not presented fairly, in all material respects.

Ernst & Young  
Société anonyme  
Cabinet de révision agréé

Olivier Lemaire

Luxembourg, 8 April 2019

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Empire State Building - NEW YORK

SPANNING  
THE WORLD

# 03

110 European trucking Network

112 Destinations route map 2018



### EUROPEAN ROAD FEEDER NETWORK FROM AND TO LUXEMBOURG

- Austria**  
Linz  
Vienna
- Belgium**  
Antwerp  
Brussels
- Czech Republic**  
Prague
- Denmark**  
Billund  
Copenhagen
- Finland**  
Helsinki
- France**  
Lille  
Lyon  
Marseille  
Mullhouse  
Nice  
Paris  
Strasbourg  
Toulouse
- Germany**  
Berlin  
Bremen  
Cologne  
Cologne  
Dortmund  
Dresden  
Dusseldorf  
Frankfurt  
Hamburg  
Hanover  
Leipzig
- Munich  
Munster  
Nuremberg  
Osnabruck  
Stuttgart
- Hungary**  
Budapest
- Italy**  
Bologna  
Citanova  
Florence  
Marche  
Milan  
Rome  
Turin  
Venice
- Netherlands**  
Amsterdam  
Maastricht  
Rotterdam
- Norway**  
Bergen  
Stravanger  
Oslo
- Portugal**  
Lisbon  
Porto
- Spain**  
Alicante  
Bilbao  
Madrid  
Valencia  
Zaragoza

- Sweden**  
Gothenburg  
Malmö  
Stockholm
- Switzerland**  
Basle  
Geneva  
Zurich
- United Kingdom**  
London  
Manchester  
Prestwick
- Ireland**  
Cork  
Dublin  
Shannon

### ROAD FEEDER NETWORK FROM PRESTWICK

- Aberdeen  
Belfast  
Birmingham  
Bristol  
Cardiff  
Cork  
Derby
- Dublin  
Glasgow  
London  
Manchester  
Newcastle  
Norwich  
Shannon

### ROAD FEEDER NETWORK FROM MAASTRICHT

- Amsterdam
- Luxembourg

### ROAD FEEDER NETWORK FROM MILAN

- Barcelona  
Basle  
Bordeaux  
Civitanova  
Firenze  
Fiumicino  
Geneva  
Genova  
Lyon  
Marche  
Marseille
- Munich  
Naples  
Nuremberg  
Stuttgart  
Toulouse  
Turin  
Venice  
Verona  
Vienna  
Zurich

### ROAD FEEDER NETWORK FROM BARCELONA

- Alicante  
Bilbao  
Lisbon  
Madrid
- Porto  
Valencia  
Zaragoza

### ROAD FEEDER NETWORK FROM BUDAPEST

- Bratislava  
Bucharest  
Linz  
Ljubljana  
Prague
- Sarajevo  
Sofia  
Vienna  
Warsaw

### ROAD FEEDER NETWORK FROM ISTANBUL

- Adana  
Ankara
- Izmir

# European trucking Network



# Destinations route map 2018



● (also flown by Cargolux Italia)

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