# Sustainability

# Company profile

#### 2.1 | 2.2 | 2.5 | 2.7 | 2.10

Cargolux Airlines International S.A. is Europe's biggest all-cargo airline with a fleet of modern Boeing 747-400 and 747-8 freighters. The Company was launch customer and the world's first operator of both aircraft types and uses its modern fleet and a number of trucking contractors to provide air freight transport services to freight forwarders in most parts of the world through scheduled and charter flights.

This includes the regular transportation of supply-chain goods, finished commodities, project cargo, perishables, temperature and shock-sensitive goods and live animals, among others, on its worldwide network that covers some 90 destinations. It has more than 85 offices in over 50 countries. As at 31 December 2012, the airline's shareholders included Luxair (43.4%), the Luxembourg State (35.0%), Banque et Caisse d'Epargne de l'Etat (BCEE; 10.9%) and Société Nationale de Crédit et d'Investissement (SNCI; 10.7%).

Cargolux has established itself firmly as a highquality, reliable air cargo carrier. Live animals, perishables or outsized freight benefit from Cargolux's proven expertise. Its highly trained and dedicated staff guarantees the best possible handling of its customers' shipments. Cargolux also offers third-party maintenance services at its modern two-bay maintenance hangar in Luxembourg. The Company is specialized in 747 line and hangar maintenance up to and including C-checks. It also offers a range of specialized maintenance services and holds approvals for other aircraft types, including the 737, 757, 767 and 777.

Over the years, innovative concepts and the constant drive for quality have earned Cargolux a number of awards, including the 'Best All Cargo Airline' award that the Company received for four consecutive years by the readers of the trade magazine Air Cargo News in recognition of its exemplary role as a first class provider of air cargo services to the industry. During 2012, the Company was also awarded the Air Cargo Award of Excellence by Air Cargo World, Best Developing Cargo Airline by Budapest Airport Ltd and ANAMA Quality Award for the Best Cargo Airline in Italy.

# A. Organizational profile

2.3 | 2.4 | 2.6 | 2.8 | 2.9

### Operational structure of the organization

- Flight Operations
- Sales, Marketing and Ground Services
- Finance and Administration
- Legal Affairs and Compliance
- IT
- Maintenance and Engineering
- Human Resources
- Corporate Services

#### Location of organization's headquarters

Luxembourg

### Nature of ownership and legal form

Joint-stock company (société anonyme)

# Scale of the reporting organization

	2012	2011		
Total income in US\$ '000	1,738,852	1,898,641	1,748,431	1,352,259
Profit/ (loss) for the year in US\$ '000	(35,130)	(18,337)	59,838	(153,301)
Shareholders' equity in US\$ '000	430,688	455,243	504,901	469,508
Tonnes carried	645,759	658,800	683,380	627,813
Tonne-kilometers flown (millions)	4,800	5,039	5,284	4,800
Available tonne-kilometers (millions)	7,002	7,114	7,210	6,954
Number of employees worldwide <sup>1</sup>	1,559	1,564	1,477	1,482
Headquarters	1,191	1,187	1,120	1,110
Fleet				
Boeing 747-400 Freighter	9	10	13	14
Boeing 747-400 BCF	2	3	1	/
Boeing 747-8 Freighter	6	2	/	/
Aircraft on order				
Boeing 747-8 Freighter	7	11	13	13
Aircraft subject to forward sale agreements	0	0	3	4

# Significant changes during the reporting period regarding size, structure or ownership

In November 2012, Qatar Airways announced the intention to divest of its 35% shareholding in Cargolux. The decision was the result of a difference in opinion with other shareholders about the future strategy of the Company. On December 31, 2012, the State of Luxembourg purchased the shares back from Qatar Airways with the intention to sell them to a suitable strategic partner in the future.

Albert Wildgen, who had joined the Cargolux Board of Directors on September 8, 2011 resigned from the Board of Directors in November 2012 and was succeeded by Paul Helminger in January 2013.

The current ownership structure is as follows:

Luxair 43.4%, Luxembourg State 35%, BCEE 10.9%, SNCI 10.7%.

# Company profile

# **B.** Report parameters

3.1 | 3.2 | 3.3 | 3.4 | 3.5 | 3.6 | 3.7 | 3.8

#### Reporting period

Information provided in this report covers calendar year 2012

#### **Date previous report**

March 2012

#### Reporting cycle

Annual

### **Contact point**

We invite all interested parties to enter into dialogue with us about our sustainability policy, our activities and this report. Our policy, further information about our activities and previous reports can be found on our website at www.cargolux.com/sustainbility. All comments and enquiries

are welcome and can be forwarded to us through the contact form on the aforementioned webpage, or by writing to **corpcom@cargolux.com**.

#### Reporting process and GRI

This is Cargolux's fifth Corporate Sustainability Report.

The elaboration of this report is based on the continued analysis of the Company's main impact and responsibilities, both in regards to the environment and society, and relative to the concerns raised by key groups of stakeholders in this area.

The 2012 report describes the Company's efforts made at a time when the airline's priorities centered on regaining economic strength and ensuring its long-term sustainability following the devastating effect of the global economic crisis on the world-wide air cargo industry. Despite the difficulties and challenges that the Company had to overcome, we made every effort to uphold our commitment to environmental and social responsibility.

This report is based on the guidelines of the Global Reporting Initiatives (GRI G3). We believe that our report meets application level C of the guidelines. Cargolux makes every effort to constantly review and further elaborate its Corporate Social Responsibility program and the Sustainability Reporting Process.

This report pertains to Cargolux's operations and geographical presence overall, except where otherwise specified in the report. Certain indicators only cover our Luxembourg-based activities. These include figures relating to waste disposal, the Company's employees as well as data related to Occupational Health and Safety. The report does not cover the activities of separate legal entities fully or partly owned by Cargolux. Our monitoring of fuel consumption and  $\mathrm{CO}_2$  emissions includes the data collected by Cargolux Italia.

# C. Governance, commitments and engagement

Ownership structure as at December 31, 2012

43.4%	35.0%	10.9%	10.7%
LUXAIR S.A.	LUXEMBOURG STATE	BANQUE ET CAISSE D'EPARGNE DE L'ETAT	SOCIÉTÉ NATIONALE DE CRÉDIT ET D'INVESTIS- SEMENT

#### **C.1. Governance** 4.1 | 4.4

#### a. Board of Directors

At 31 December 2012, the Board of Directors (BOD) was composed of thirteen members, including eight directors who represented the shareholders and 5 Cargolux staff representatives. As per Luxembourg law, a limited company with 1,000 or more employees must have 1/3 of its Directors elected by, and representing the employees.

The BOD consisted of two women and eleven men.

#### Members

### Albert Wildgen<sup>2</sup>

Chairman of the Board of Cargolux Independent Director

### **Richard Agutter**

Consultant Director

#### Dr. Hussain Al-Abdulla

Board Member and Executive, Qatar Investment Authority Director

#### Akbar Al-Baker

Chief Executive Officer, Qatar Airways Director

#### Jean-Claude Finck

President and Chief Executive Officer, Banque et Caisse d'Epargne de l'Etat Director

#### Paul Helminger

Chairman of the Board, LuxairGroup Director<sup>3</sup>

### Marc Hoffmann<sup>4</sup>

Chairman of the Board, LuxairGroup Director

### Adrien Ney

President and Chief Executive Officer, Luxair Group Director

#### Société Nationale de Crédit

et d'Investissement Represented by

**Gaston Reinesch** 

Director<sup>5</sup>

**Patrick Nickels** 

Director<sup>6</sup>

#### Françoise Thoma

Executive Vice President, Banque et Caisse d'Epargne de l'Etat Director

### Tom Weisgerber

Premier Conseiller de Gouvernement, Ministère du Développement durable et des Infrastructures Director

#### Pierre-Olivier Edouard7

First Officer Senior Staff Representative

#### Bettina Faulhaber<sup>8</sup>

Manager Business Support Flight Operations

# Staff Representative George Karambilas

Captain

Staff Representative

#### Einar Kristjansson<sup>8</sup>

Captain

Staff Representative

#### Fred Lopes da Silva<sup>7</sup>

Senior Technician, Line & Hangar Maintenance Staff Representative

#### **David Massaro**

Permanent Delegate, Staff Delegation Staff Representative

### Astrid Mosel-Kneip<sup>7</sup>

Permanent Delegate, Staff Delegation Staff Representative

### Armand Seil<sup>8</sup>

Officer Material Repairs
Staff Representative

<sup>&</sup>lt;sup>2</sup>Until November 19, 2012 | <sup>3</sup>Since June 12, 2012 | <sup>4</sup>Until May 14, 2012 | <sup>5</sup>Until July 17, 2012 ; From October 11 until November 27, 2012 | <sup>6</sup>Since November 27, 2012 | <sup>7</sup>Until March 28, 2012 | <sup>8</sup>Since March 28, 2012

# Company profile

#### b. Committees of the BOD

#### **Audit Committee:**

The Audit Committee (AC) comprises a maximum of four members who may, but do not need to, be member of the Board of Directors. As at 31 December 2012, it consisted of three members of the BOD, representing the shareholders.

The role of the AC is to support the BOD in fulfilling its oversight responsibilities regarding the:

- completeness and accuracy of Cargolux's financial statements;
- effectiveness of the Company's internal control and risk management system;
- compliance organization and processes;
- proficiency of the internal audit function and its objectivity for performing its task;
- performance of the Company's internal and external audit functions.

#### Members:

- Richard Agutter
- Adrien Ney
- Françoise Thoma

# Compensation Committee:

The Compensation Committee determines the remuneration of senior management. It is made up of four members of the Board of Directors, representing the shareholders.

#### Members:

- Akbar Al-Baker
- Jean-Claude Finck
- Marc Hoffmann<sup>9</sup>
- Albert Wildgen<sup>10</sup>

# Shareholders' Strategic Committee:

#### Members:

- Akbar Al-Baker
- Marc Hoffmann<sup>9</sup>
- Paul Helminger<sup>11</sup>
- Albert Wildgen<sup>12</sup>

#### Alternates:

- Richard Agutter
- Giles Agutter
- Jean-Claude Finck
- Adrien Ney

#### c. Executive Committee

As at 31 December 2012, the Executive Committee consisted of four members. The Executive Committee is charged by the Board of Directors with the daily management of the Company and establishes the internal rules of daily management and administration within the Company at all levels. It implements the strategies and decisions of the Board of Directors.

#### Members:

#### Richard Forson

Interim President and Chief Executive Officer<sup>13</sup> Chief Financial Officer

#### Frank Reimen<sup>14</sup>

President and Chief Executive Officer

#### Peter van de Pas

Senior Vice President and Chief Operating Officer

#### Robert van de Weg

Senior Vice President Sales and Marketing

#### Henning zur Hausen

Senior Vice President Legal Affairs and Compliance

### d. Business principles 4.6 | 4.8

In 2012, the Company's compliance program and procedures were further refined and expanded. The Company's compliance program is built upon Cargolux's values, which guide the Company in all business activities.

Living our values: Dedication, Respect, Integrity

#### Dedication

- We act as a team
- We perform to high standards
- We deliver on promises

#### Respect

- We live diversity and respect
- We respect personal privacy
- We provide a healthy and safe environment for others and ourselves
- We care for the environment
- We live our responsibility as a global corporate citizen

# Integrity

- We compete fairly
- We avoid conflicts of interest
- We respect the law and act accordingly
- We protect our assets
- We handle information adequately
- We value our business partners

Cargolux Directors, Management and all other employees follow compliance trainings.



# Company profile

#### C.2. Commitments to external initiatives

4.11 | 4.12 | 4.13

#### **Precautionary principles and risk management**

As the world is changing fast and the pace of globalization is accelerating, it is giving rise to new and more complex ethical challenges. To protect our Company and employees from the detrimental effect of potential violations of laws and regulations, we seek to minimize the risk of reputational and financial loss.

Prevention is indeed rooted in the Cargolux Ethics Code and policies that form the Company's constitutional documents. They summarize the principles that guide the Cargolux staff in doing business. Good, sustainable business is always driven by values. Cargolux's values – dedication, respect and integrity, are also the basis for the Ethics Code.

In 2011, the Company had rolled out the Compliance 4 Business (C4B) program as the cornerstone of the airline's business integrity program, comprising three key elements – prevent, detect and act. The aim of the program is to foster a culture of ethical behavior to help the Company comply with all applicable external regulatory requirements and internal policies, guidelines and procedures.

In 2012, an Enterprise Risk Management (ERM) Program was developed and is currently further elaborated. Based on methods and processes used to manage risks and seize opportunities related to the achievement of the airline's objectives, it builds on the C4B program and will be ready for implementation in 2013.

The ERM Program is another important part of the sustainable development of the Company. It aims to identify and assess risks that could adversely impact the Company's objectives, ensures that reporting is done effectively and that the Company is compliant with rules and regulations. The ERM is developed in line with the ISO 31000 standard.

Externally developed economic, environmental, and social charters, principles, or other initiatives to which the organization subscribes or endorses

# UN Global Compact and UN Global Compact Foundation:

At Cargolux, we are committed to operating and acting in a social and environmental responsible manner and underpinned this commitment in 2007, when we signed up to the UN Global Compact, pledging to apply its 10 key principles.

In 2012, Cargolux became Gold contributor of the UN Global Compact Foundation.

# Corporate Charter for Social Responsibility and Sustainable Development:

In 2005 already, Cargolux signed the Corporate Charter for Social Responsibility and Sustainable Development, which was an initiative launched by the Chamber of Commerce in Luxembourg.

#### ISO 14001 certification:

Seeking at all times to operate with the lowest possible impact on the environment is one of Cargolux's key principles. This concerns atmospheric emissions, noise or waste materials. Cargolux demonstrated its commitment to environmentally sound operations with the ISO 14001 certification of its Flight Operations Division and Type Rating Training Organization in 2009 and the Maintenance Division in 2012. Ground Operations aim to achieve certification in 2013.

# SuperDrecksKëscht®:

The SuperDrecksKëscht® (SDK) is a national system for enhanced waste management that is initiated by the Ministry for Sustainable Development and Infrastructure in cooperation with the local communes, the Chamber of Trades, and the Chamber of Commerce. It is based on the EU waste management approach and geared towards both individuals and companies. Cargolux has been SDK certified since 2008.

# OHSAS 18001: An international Occupational Health and Safety management standard:

To ensure the well-being of our employees, Cargolux strives to provide a working environment that is safe and healthful. To underpin this commitment to its staff, the Company is aiming to have its Occupational Health and Safety management system certified according to OHSAS 18001. Preparations for the certifications were started in 2012 and final certification is expected for 2013.

### Cargo 2000 (C2K):

Cargolux gained the C2K platinum membership status in 2012, joining the club of only seven other members that have reached this level of C2K's new classification system.

Cargo 2000 is the name for a joint effort by a group of airlines and forwarders (members) and, today, an IATA interest group aiming at improving the work processes in the air cargo transportation from shipper- through-to-the-consignee (door-to-door).

# Memberships in associations

Cargolux is a founding member of SAFUG (Sustainable Aviation Fuel Users Group). We are member in numerous committees of the Association of European Airlines (AEA), as, for example, the Environmental Standing Committee and IATA.

### C.3. Stakeholder engagement

4.14 | 4.16 | 4.17

# List of stakeholder groups engaged by the organization

Stakeholder groups include our shareholders, employees, customers, investors and suppliers. They extend to the communities potentially affected by our activities, primarily living around the airport of Luxembourg, our primary operational hub, and also include government and local authorities, national and industrial representations, non-governmental organizations and auditing bodies.

# Approaches to stakeholder engagement, including frequency of engagement by type and by stakeholder group

We are engaged in an ongoing dialogue with our stakeholders via public meetings, direct representation or the media.

Frequent and regular meetings between the senior management and the staff are a long-standing tradition at Cargolux. They are complemented by a variety of communication initiatives towards employees, including memos and newsletters.

# Key topics and concerns that have been raised through stakeholder engagement, and how the organization has responded to those key topics and concerns, including through its reporting

As a result of challenging global economic conditions on one side and due to shareholder disagreement about the future direction of the airline on the other, Cargolux went through a phase of instability and turbulence in 2012. Senior management was therefore keen to intensify its dialogue with staff. The frequency of the staff meetings was increased and employees were kept informed about the Company's situation and strategic options through a media mix of tools and channels, including the opportunity to ask questions and seek clarification on areas of concern from the senior management.

# Environment

# Disclosure on management approach

It is an undisputed fact that airlines play a part in global climate change and we recognize that we have a significant responsibility to accept.

Following a setback in 2011 in the field of environmental sustainability caused by the unfavorable fleet mix in the wake of the delivery delays of the Boeing 747-8 cargo aircraft, 2012 brought us back on track with the delivery of an additional four units of these highly efficient, new-generation freighters, making a total of six.

Looking back at the first year in service, the 747-8 has proven to be a success at Cargolux and its introduction into our fleet has worked well. As with any new aircraft type, even if it is a derivative of an existing type, some technical issues had to be dealt with. However, all-in-all, the Service Ready Team had well prepared the entry-into-service of the new generation aircraft and we had good support from Boeing and General Electric.

The aircraft is very close to meeting its original performance specifications by the manufacturer. In 2012, we had a daily aircraft utilization of 15:32 hours, compared to 14:57 hours for the 747-400F.

With the 747-8F, Cargolux now offers one of the most environmental-conscious air cargo services worldwide.

We further progressed on the ISO 14001 certification and started some new initiatives supporting the environmental sustainability framework. This includes, among others, new technologies, electricity from 100% renewable hydroelectric sources, assessments of our stations and improved customer care.

Throughout its history, Cargolux made great efforts to run an energy-efficient and environmentally sound operation, be it in terms of atmospheric emissions, noise or waste materials.

- Reduce fuel consumption per FTK;
- Reduce CO<sub>2</sub> emissions per FTK;
- Reduce noise emissions;
- Improve chemical risk management;
- Improve waste management;
- Improve environmental awareness through training and communication.

In 2012, Cargolux continued its path towards an environmentally sustainable operation:

- Fleet renewal: 4 new Boeing 747-8 freighters joined the fleet.
- First full year of operation of the 747-8F, the world's most efficient freighter.
- World's first 747-8 simulator taken into operation.
- ISO 14001 certification of Cargolux Maintenance Division, Ground Operations being prepared for certification in 2013.
- Assessment of environmental commitment of General Handling Agents.
- Electricity coming from 100% renewable hydroelectric sources.

# A. Greenhouse gas emissions EN29

### A.1. Flight Operations

The International Air Transport Association (IATA) is ambitious about reducing the aviation industry's emissions and has therefore defined long-term and near-term targets for a carbon-neutral growth. This target has been adopted by the global aviation industry and was further elaborated in 2009, when the members committed to halting the growth of emissions from 2020 and to halve emissions by 2050 compared to 2005 levels.

To achieve those ambitious targets, Cargolux has developed a framework of voluntary actions and made significant investments to operate one of the most fuel-efficient fleets available on the market.

### a. Voluntary actions

# Fuel and CO<sub>2</sub> emissions performances EN3 | EN16

In 2012, the Cargolux fleet burned in average 165 grams of fuel to transport one tonne of cargo over one kilometer, which corresponds to 520 grams  ${\rm CO_2}$  emissions per tonne-km (tkm). This represents an improvement of 3.8% over 2011.

This positive development clearly results from the improved situation of our fleet that comprised eleven 747-400 and six 747-8 freighters at the end of the review period. The last two Boeing 747-8 deliveries, in particular, proved to be extremely efficient due to

the fact they are 2.5 tonnes lighter than the airplanes delivered earlier and, thus, very close to meeting the original performance specifications announced by the manufacturer.

The improved efficiency of the Boeing 747-8 freighter, driven by higher payload and reduced fuel consumption, is reflected in the ratio between the improved CO<sub>2</sub> emissions and the load factor in 2012 compared to 2011. Despite a decrease of 5.6% in block hours, we managed to keep up a relatively high load factor of 68.6% in 2012.

	2012	2011	Variation (%)
CO <sub>2</sub> emission (in million tonnes)	2.49	2.72	-8.5
CO <sub>2</sub> emissions (in g/tkm)	520	540	-3.7
Fuel burn per tkm (in g/tkm)	165	171	-3.5

#### Fleet renewal EN5 | EN18 | EN26

With four new-generation Boeing 747-8 freighter aircraft joining the Cargolux fleet in 2012 and additional deliveries expected for 2013, the fleet renewal program is currently in full swing. One of our 747-400 freighters left the fleet in 2012 and another one is scheduled to leave in 2013. The fleet renewal program foresees the 747-8 freighters to gradually replace our current fleet of 747-400 freighters. The complete rollover is set to be concluded in 2017.

The Boeing 747-8F, the world's most efficient freighter, represents a new benchmark in fuel efficiency and noise reduction. The first of our 747-8 freighters fell short of the manufacturer's commitment on performance; however, the latest deliveries have proven very close to original performance specifications.

Thanks to its new engines and new aerodynamic design, this aircraft brings important savings per tonne-km compared to the Boeing 747-400 freighter.

The delivery delays in 2010 and 2011 had considerably slowed down energy efficiency improvements that were projected. However, starting in 2012, we were able to benefit from the economic and environmental advantages that the 747-8 offers.

# Environment

#### Alternative fuels EN6

Cargolux is a founding member of the Sustainable Aviation Fuel User's Group (SAFUG), a crossindustry initiative that brings together airlines and other stakeholders sharing a common interest in accelerating the development and commercialization of sustainable aviation biofuel.

We are convinced that sustainable aviation biofuel is one of the most effective solutions to reducing carbon emissions, with total life cycle greenhouse gas emissions significantly lower than those from fossil fuels. We have not yet started to operate our fleet with biofuels; this approach will be incorporated in our policies once remaining technical challenges are overcome and sustainable biofuel becomes available in sufficient quantities and at an acceptable cost.

SAFUG was formed in 2008 with support from the world's leading environmental organizations such as the Natural Resources Defense Council and the Switzerland-based Roundtable for Sustainable Biofuels (RSB). They have defined clear requirements for the sustainable development of aviation biofuels. Any solutions that would require changes to aircraft engine fuel systems, storage facilities or distribution methods would not be viable for an industry burdened with high structural and other costs. What's more, aviation biofuel must neither

compete with agricultural food production nor pose a threat to fragile eco-systems. Aviation biofuel must come from renewable resources, have a positive socio-economic impact and meet or exceed internationally recognized jet fuel specifications.

#### APU EN5 | EN18

The Auxiliary Power Unit, APU, is a small turbine located in the tail section of the aircraft. It provides electrical power for cockpit and hydraulic systems when no ground power supply is available, as well as pneumatic air for engine starts.

	2012	2011	Variation (%)
Hours of APU use	25,500	23,592	8.09
Number of cycles	14,702	13,718	7.17
Average time per cycle (minutes)	104	103.19	0.78

APU usage saw an increase of roughly 8% in 2012, compared to the previous year, which is due to an increase in cycles of nearly 7.2% in the same period. The average APU use, however, went up by barely one hour in 2012

In 2007, Cargolux set in place a procedure to ensure that electrical power should be obtained from the airport, either from a mobile ground power unit (diesel powered), or from a fixed ground power installation, wherever possible.

### Network optimization and flexibility EN5 | EN18

Cargolux operates with a high level of flexibility in order to achieve the best possible balance between the revenues generated by servicing its customers and – at the same time – the optimization of costs. In this type of set-up, the cost of fuel – and therefore carbon emissions - plays the most important role.

This flexibility and a fleet mix of Boeing 747-8 and 747-400 freighters greatly helped the Company through the difficult economic climate that prevailed in 2012. A close cooperation between all members of staff from the commercial, operation, and maintenance divisions enabled us to consolidate and re-route flights where necessary and thereby maintain a relatively high load factor despite the challenging market conditions and, as far as possible, the fuel efficiency of our operations.

New stopover destinations were opened for technical stops on certain routes. These are located nearly halfway between the points of departure and arrival, which results in a better balance between cargo and fuel loads and carry more freight relative to the amount of fuel burnt.

### Deep core engine washing EN5 | EN18 | EN26

In 2012, Cargolux started using General Electrics's newly released ClearCoreTM engine wash system for the GEnx-2B engines, powering the Boeing

747-8 freighters. GE's estimations on fuel savings by washing the GEnx engines have proven correct and even exceeded expectations.

ClearCoreTM is an on-wing engine wash and effluent collection system that allows operators to wash engines at the gate or in the hangar. The used water is captured and filtered for reuse.

When washing the engines, surface contaminants are removed from inner engine components, improving the overall aircraft engine efficiency. The engine washing program on the 747-400 fleet has shown an increased efficiency of both GE and RR engines. Fuel burn has been reduced on Cargolux's GE engines and speed margins on the RR engines have improved. Overall, we have registered lower CO<sub>2</sub> emissions on GE engines and an improvement of engine on-wing time on both GE and RR engines.

# **b. EU Emissions Trading Scheme and regulatory compliance**

Beginning January 2012, the aviation industry was included in the EU Emissions Trading Scheme (EU-ETS). As a consequence, all airlines operating to, from or within Europe were to 'pay' for the  ${\rm CO_2}$  emissions from their flights.

At the end of 2012, the European Union announced its decision to suspend the enforcement of the EU-ETS on international flights to and from Europe for

one year, thus giving the International Civil Aviation Organization (ICAO) the possibility to finalize an alternative solution

While the EU-ETS remains in effect for airlines operating within the European Union, airlines operating extra-European flights are able to reduce the scope of emissions reporting and limit it to intra-European flights. Cargolux continues to comply with the full ETS reporting and maintains the original set-up of monitoring, reporting and verification of emissions processes. However, we support ICAO's idea of a global market-based measure for addressing international aviation emissions.

The European Commission further elaborated the EU-ETS by adopting two new regulations on monitoring, reporting and verification. This required some modifications on the Cargolux monitoring and reporting system, which had been implemented and approved by the competent authorities before the end of the year, allowing the Company to comply with the updated regulations that were entering into effect on January 2013.

# Environment

#### A.2. Luxembourg headquarters

Even though the  $\mathrm{CO}_2$  impact of our non-flight activities, including road feeder services, Ground Support Equipment (GSE) fleet, business travel, commuting, and office heating, may seem insignificant in relation to flight operations, our chief activity, we commit to the sustainable management of finite resources as rule by monitoring and seeking to minimize the consumption of energy of all non-flight activities.

#### Facilities EN3 | EN4 | EN6

In line with this target, we signed an agreement stipulating that all electricity consumed by Cargolux in Luxembourg in 2012 is provided from 100% renewable hydroelectric sources. Further to this initiative, a system was set in place at the maintenance facilities to collect electricity data, which allow us to identify the biggest consumer. Once this has been completed, further energy meters can be installed in order to capture more accurate data on the excessive consumption and eventually find means to reduce it.



### **Ground Support Equipment** EN3 | EN16 | EN18

Since 2009, when the new maintenance facility was taken into service, we have renewed our Ground Support Equipment (GSE) by favoring lower emission vehicles that meet higher environmental protection standards, as well as electric powered equipment. At the end of the reporting period, 30% of the GSE units were less than 4 years old and 36% were between 4 and 10 years.

The vehicle fleet comprises 57 cars and vans, of which 31% are younger than 4 years and 36% are between 4 and 12 years.

The total fuel consumption in 2012 was 107,879 liters, representing 284 tonnes of  $CO_2$  emissions.

	Liters
Industrial fuel	85,633
Diesel	17,461
Unleaded gasoline 95	4,785

#### Trucking EN5 | EN18

Cargolux uses several trucking companies for its road feeder services in order to complement its flights and facilitate the transfer of goods from origin to their final destination. Over 90% of all trucking organized by Cargolux takes place in Europe, where shipments are transported mainly between our Luxembourg hub and the destination airports of the shipments throughout the continent and vice-versa. However, trucking is also organized in the United States and in Asia.

Because the European road feeder service is the biggest in our network, special emphasis was placed on working with companies that introduce and operate modern trucks conforming to Euro 5 or Euro 6 standards, representing the highest standard applicable in the European Union today.

In recent years, trucking companies contracted by Cargolux upgraded their fleets to Euro 5 or Euro 6 standard. This continued in 2012. The fleet of trucks operating on our behalf is becoming increasingly environmentally friendly with 84% of the trucks now being certified Euro 5 or Euro 6, up from 55% in 2009. At the same time, the number of Euro 3 and Euro 4 standard trucks has decreased from 28% in 2011 to 16% in 2012. In 2009, 45% of the trucks operating for Cargolux were certified Euro 3 or Euro 4.

Air cargo trucking is a premium product on the road transport market and operators need the reliability and efficiency of newer vehicles, with the result that younger fleets are operated for our services.

	2012							
EURO 2	0	0	0	0	0	0	0	0
EURO 3	40	11	87	23	99	24	92	30
EURO 4	20	5	20	5	59	14	46	15
EURO 5	270	71	266	69	254	62	166	55
EURO 6	50	13	10	3	0	0	0	0
TOTAL		100	383	100	412	100	304	100

# **Environment**

# Disclosure on management approach

# **B. Environmental Management System**

The Cargolux Environmental Management System (EMS), in conjunction with the Corporate Environmental Policy, provides an environmental performance framework that is fully compliant with the requirements of ISO 14001. Other than helping to define long-term objectives and key performance indicators (KPI) designed to reduce our ecological footprint in a steady manner, it allows us to monitor the impact of our operations and processes on the environment. It also offers significant benefits in terms of energy savings, waste reduction, process efficiency improvements and better use of limited resources.

Environmental targets and objectives are implemented, maintained and documented throughout the organization and include the reduction of fuel consumption and CO<sub>2</sub> emissions, lower noise emissions and an improved waste management in offices and workshops. We have established a variety of programs to achieve long-term objectives.

An Environment Management Board (EMB) was created to coordinate all relevant efforts within the Company. It is made up of 10 members, each representing one of Cargolux's divisions, and meets regularly to review progress on current projects while defining future action plans. The EMB is sponsored by the chief executive officer and coordinated by the environmental management of Cargolux.

To safeguard its continuing suitability and effectiveness, the EMS is subject to regular reviews by executive and senior management who analyze the outcome of internal audits, evaluate compliance with legal requirements and assess attained results against environmental KPI.

#### a. ISO 14001 certification EN5 | EN18 | EN28

Cargolux made another step forward in certifying its activities to ISO 14001 standards, when the Maintenance and Engineering division achieved the ISO 14001 certification in 2012.

The Flight Operations division and Type Rating Training Organization, which achieved ISO 14001 first, were re-certified in 2012. Cargolux started its environmental certification process with the Flight Operations division, in other words, its core activity, which has by far the greatest impact on the environment and where the greatest benefits are to be gained from an efficient environmental management system.

The Ground Operations and Luxembourg Station are ready to attain ISO 14001 certification in the course of 2013.

# **Employee and supplier awareness training**

Mandatory web-based trainings on environmental awareness are part of the corporate training curriculum as we aim to instill environmental awareness and practices into our regular business operations. Staff that is exposed to environmental issues during the performance of their job duties is encouraged to attend further internal and external training courses in order to improve their environmental expertise.

New employees are introduced to the Cargolux environmental principles during their induction training.

Cargolux's main suppliers and contractors in Maintenance and Engineering are also introduced to the Cargolux environmental principles and the environmental management system, encouraging them to actively support and contribute to the Company's efforts towards environmental sustainability.

#### Communication

A comprehensive communication system, relaying both internal and external data, uses various channels to ensure that the same information is available throughout the network.

In 2012, the CSR and Environment Intranet section was updated and expanded. At the end of the year, an environmental awareness campaign was launched in order to alert Cargolux staff throughout the world to the cost and value of finite natural resources.

### b. Spills at the maintenance hangar EN23

No spills were recorded in 2012.

# C. Cargolux stations

Throughout the years, Cargolux has developed a host of environmental conservation and social responsibility principles and we strongly encourage our commercial partners to also observe them.

In order to achieve this goal, a clause was added to the standard service level agreement between the airline and the ground handling agents (GHAs) who work for us at airports around the world with the aim to get their endorsement of the UN Global Compact principles on the environment and the adherence to officially recognized environmental management standards.

In 2012, Cargolux started to assess the environmental program of its GHAs throughout the network. This will be continued in 2013.

#### D. Noise emissions

The emission of noise is the second important area of environmental concern to Cargolux after  $\mathrm{CO}_2$  emissions and all possible efforts are made to mitigate the amount of noise produced by our aircraft. These efforts are of particular importance at the Company's hub in Luxembourg, as this is where the highest number of aircraft movements takes place.

#### New technologies EN26

With the introduction of the Boeing 747-8 freighters in 2011, Cargolux now operates the world's quietest freighter in its class.

The latest 747 freighter type combines a redesigned wing with advanced engine technology that leads to a substantial reduction in noise levels. The advanced technology of the General Electric GEnx engine features a new type of the 3-D shaped aerodynamic fan blade, a seamless air intake that causes less resonance, as well as chevron-shaped exhausts. The combined effect of these features, in addition to the larger size of the fan, markedly reduces noise levels of the aircraft.

The newly developed noise-reduction technology also makes the 747-8F remarkably quieter than its predecessor with an estimated 30% reduction of the take-off noise footprint at 85dB.

The 747-8F allows us to offer one of the most environmentally-conscious air cargo services worldwide. It generates substantially lower  $CO_2$  emissions and allows us to considerably reduce the noise disturbances for the communities around the airports where we operate.

# Reduced number of engine run-ups

Since 1993, Cargolux operated a fleet of 747-400 freighters powered by two different engine types: the General Electric CF6-80 and the Rolls Royce RB211. At the end of the reporting period, we oper-

ated eleven 747-400, out of which only one is GE powered.

Following maintenance procedure changes for Rolls Royce engines in 2008, the number of post-maintenance high power runs on our RB211 engines was significantly reduced.

#### E. Material and waste

#### Electronic Flight Bag EN1

Cargolux opted for the installation of the Electronic Flight Bag (EFB), a digital information management system installed on the flight deck of its Boeing 747-8 freighters. The EFB hosts applications for takeoff and landing performance calculations, all operations manuals and navigational charts.

It was designed to replace the paper-based takeoff performance system used on the 747-400F and allows more accurate calculations in relation to increased takeoff weights or reduced takeoff thrust, hence improving engine wear.

In a next step, we seek to reduce the amount of paper involved in the operation of an aircraft. This will include reducing the number of printed manuals and charts carried aboard the aircraft; potentially allowing savings of more than 65kg of paper per aircraft per year.

The 747-400 EFB is planned for installation late in 2013 allowing for a similar level of improvements on that fleet.

# **Environment**

# Disclosure on management approach

### Waste management EN22

Cargolux has a waste management program in place that covers all company facilities and offices in Luxembourg, including our headquarters, the entire maintenance center as well as rented offices at other locations.

In recognition of our continued efforts in the area of waste management, Cargolux obtained the renewal of the environmental label "Superdreckskëscht® fir Betriber" for the fourth time in 2012. Superdreckskëscht 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 transparent waste recycling and disposal system. This certificate is subject to annual audits that verify the Company's adherence to these principles.

	Variation 12/11 in %	2012		
Hazardous waste	37	176,544	128,959	98,022
Recyclable waste	13	116,639	103,383	86,836
Residual waste	-11	78,128	87,696	51,559
Oily waste	-5	23,836	24,998	31,571
Other waste	-25	4,390	5,888	1,420

In 2012, the waste disposal remained largely stable compared to the previous reporting period, with the exception of hazardous waste, which went up by 37% and accounted for 44% of the total waste produced. This increase is due to the disposal of 41,000 kg of contaminated kerosene from a 747-8 freighter.

#### F. Water

In 2012, Cargolux consumed 7,236m³ of water. This amount includes the usage at the maintenance facility and the headquarters. Other rented offices in Luxembourg and stations are not recorded.

The largest portion of Cargolux's water consumption is related to its maintenance activities. Until 2012, the Company did not collect enough data to provide detailed figures on water consumption.

To improve the monitoring, two new water meters were installed at the maintenance hangar in 2012 that allow us the collection of more data in the future, supporting Cargolux's aim to reduce water consumption at its Luxembourg facilities.





# Disclosure on management approach

The persisting challenging economic situation in 2012 that impacted consumer spending, international trade and, consequently, air freight activities worldwide, led airlines to focus on streamlining business strategies in order to ensure economic sustainability. While Cargolux implemented a host of cost cutting measures throughout the year, we did not lose sight of our social responsibilities.

At Cargolux, we commit to living up to our core values of dedication, respect and integrity; we act as a team, value and respect our employees and embrace cultural and social diversity. We show respect for human dignity and the rights of the individual, promote adherence to and respect for human rights principles in our areas of operation across our worldwide network and comply with all relevant national laws. We support humanitarian non-governmental organizations and promote sports and cultural activities. Last but not least, we strive to provide a safe and healthy workplace and seek to reduce the environmental footprint of our operations.

The internal and external turbulences resulted in a slowdown of activities. However, in 2012 notable actions included the further development of the compliance program Compliance for Business (C4B), and preparing the Occupational Health and Safety management system for certification according to OHSAS 18001 standard.

# A. Business ethics and compliance

Cargolux's compliance program Compliance for Business (C4B) was successfully implemented in 2012. C4B is the cornerstone of the Company's business integrity program, comprising three key elements – prevent, detect, act. It is designed to foster a culture of ethical behavior to help us comply with all applicable external regulatory requirements and internal policies, guidelines and procedures.

# A.1. Training and Communication

### **Ethics Code and Policies training HR3**

The Cargolux compliance training program comprises an Ethics Code and Policies training course, mandatory for all Cargolux and General Sales Agents' (GSA's) employees, and online courses covering compliance related subjects. The Ethics Code and Policies training course is recurrent every two years, while the online courses are ongoing. At the end of 2012, 1,660 employees and GSA's had completed the Ethics Code and Policies training, and 2,651 online courses had been distributed to the employees.

The communication initiatives that were started in 2011 to enhance awareness and keep employees informed about relevant developments in the field of compliance were maintained and further developed throughout 2012. This includes the Com-

pliance newsletter and the Compliance Intranet page. Hard copy folders with all policies and the Ethics Code were distributed to all Cargolux staff, GSA's and legal representatives of the Company.

### A.2. Anti-Corruption

# **Anti-corruption policies and procedures**

By the end of 2012, a training program on anti-corruption and anti-bribery was completed. Cargolux employees and Cargolux GSA's were enrolled in the anti-corruption training. All employees have completed at least one anti-bribery training course, whereas personnel exposed to a higher risk of corruption had to complete five anti-bribery courses in 2011 and 2012. The training program consisted of classroom trainings, webinars and online courses and went on for two years. 1,698 online courses on anti-corruption have been distributed and 1,660 employees and GSA's completed the classroom training and webinars.

# Business units analyzed for risk related to corruption

Cargolux regularly analyzes business partners and suppliers for risk related to corruption. In 2012, due diligence was performed on business partners classified at high and medium risk. The risk classification is country-specific (Corruption Perception Index) and based on the type of service rendered.

# Social

At the end of the year, 36 GSAs and 7 legal representatives and parties dealing with authorities had been audited; both categories being classified as high risk.

With reference to the suppliers considered as medium risk, 25 of the General Handling Agents (GHAs) and trucking companies had been subject to due diligence by the end of 2012. Likewise, 23 fueling companies throughout the world were audited.

# **B.** Our employees

We believe in the importance of building and nurturing mutually beneficial long-term relationships with our employees. The reputation and success of Cargolux is built on the team spirit and family-like atmosphere among its staff. It has helped the Company to grow and prosper, but also to come out of crisis and times of recession with added strength.

Cargolux was not immune to the negative developments in the international air freight industry in 2012, which, according to IATA, saw growth contract by 1.5% following a 0.6% decline in 2011. As a result, the Company closed the year with a loss of US\$ 35.1 million – better than expected – but still some way to go on the airline's road to sustainability, which would be entered with the approval

of the business plan for the years 2013 to 2017 in early 2013.

In the light of the challenging situation, the Company adopted a cautious approach to its human resources management. The number of employees decreased, which is primarily due to leaving staff not being replaced, while part time work was favored. At the end of 2012, 11% of the Luxembourg-based employees were working part-time.

Despite the difficult environment, we sought to maintain a stable and rewarding work environment, which we consider essential to attract and retain high-performing, engaged and motivated employees.

# Number of employees LA1

	2012	2011	
Employees worldwide	1,559	1,564	1,477
Employees headquarters	1,191	1,187	1,120
Staff covered by collective work agreement (Luxembourg)	88%	87.7%	91.5%
Staff with Permanent Contract (Luxembourg)	99.7%	98.5%	99.8%

#### Staff turnover TA2

Otali talilovoi EAZ				Headquarters					
Turnover	76	50	26	35	27	8	41	23	18
Below 30 years	16	5	11	2	0	2	14	5	9
30-50 years	32	21	11	15	11	4	17	10	7
Over 50 years	28	24	4	18	16	2	10	8	2

In good and in challenging times, Cargolux employees have always demonstrated commitment and dedication to the Company. This is reflected in the average staff seniority of 12 years in 2012. With 4.9% in 2012, staff turnover of shows a slight increase compared to previous years (2011: 4.2%).

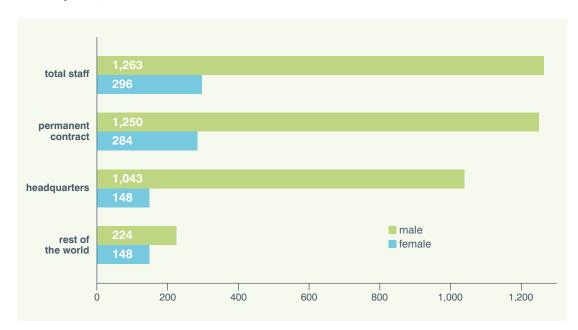
### New hires LA2

				Headquarters					
									Female
New hires	45	28	17	18	14	4	27	14	13
Below 30 years	19	8	11	7	5	2	12	3	9
30-50 years	22	17	5	9	8	1	13	9	4
Over 50 years	4	3	1	2	1	1	2	2	0



# Disclosure on management approach

#### Diversity LA1 | LA13



Due to the nature of the air cargo industry, the noticeable gender gap is caused by the fact that aircraft mechanics and pilots, our two largest groups of employees, still tend to be male-dominated professions. However, Cargolux actively encourages women to apply for these positions and, at the end of 2012, counted 15 female pilots and one female mechanic among its staff. Overall, women made up 19% of the total workforce at the end of 2012, while they represented 40% of our staff at the stations throughout the world. 2 out of 13 members of the Company's Board of Directors are female.

We believe that an environment of diversity and inclusion mirrors our way of doing business, as we operate in a myriad of countries and are keen to draw on the ideas and input of people with different cultural backgrounds and individual abilities who bring value to our business. A healthy balance of age groups gives us a mix of experienced and developing employees. The multi-national and multicultural composition of our staff makes Cargolux a dynamic, inspiring and pleasant place to work. It greatly helps the Company to integrate and adapt seamlessly to the different cultures and customs in our many countries of operation.

We have defined no minority groups, as no difference is made between the staff.

#### Parental leave LA15

Three female and one male employee left for parental leave in 2012, while two male and one female employee returned to work during the reporting period. 307 employees were entitled to go on parental leave, including 275 men and 32 women.

The high number of entitled employees is due to the fact that, in Luxembourg, parents have the possibility to take parental leave up to the child's fifth birthday. Retention rate in 2012 was 100%.

We do not collect this data when individuals join the Company, but we assume that newly-hired staff with children under five years of age has taken the parental leave with a former employer.

#### **B.1. Employee relations**

It is common practice by the management to maintain an open dialogue with the trade unions, the staff representatives and the staff directly. In 2012, the frequency of the staff meetings was increased due to the challenging conditions prevailing throughout the year.

#### Collective bargaining agreement LA4

With the Company's strong endorsement of the principle of association, a majority of our employees are represented by labor unions and covered by collective work agreements (CWA). In 2012, 125 out of a total of 148 female employees or 84.5% fell under the CWA regime. The proportion of male employees covered by the CWA was largely similar with 88.5% of a total 1,045 men.

In the face of accelerating globalization and the resultant ever-changing business environment, management at the end of September decided to repudiate the existing CWA. The airline has since engaged in regular and frequent meetings with unions and staff representatives in order to negotiate a CWA that will give Cargolux the improvement in flexibility and productivity required to put the airline into a better position, to withstand future challenges and to achieve long-term sustainability.

#### **Joint Works Council**

Employees working at the headquarters are represented by a staff delegation, whose function is predominantly one of protecting the rights of employees, and a joint works council ('Comité Mixte') that is composed of staff and employer representatives in equal numbers and enjoys co-determination rights on Company policy in a wide field of topics, including recruitment, promotion, transfer and dismissal, employee assessment and health and safety matters. In addition, the Joint Works Council possesses consultation and information rights relative to management decisions pertaining to technical changes, training and the Company's economic and financial situation, to name but a few. Besides, pilot representatives are in charge of social dialogue with Company management on crew-related matters.

### B.2. Helping first-time job seekers

Cargolux continues to actively support two types of measures sponsored by the Employment Administration (ADEM) that were adopted by the Luxembourg Government with the intention to promote employment prospects on the job market. The employment initiation contract ('contract d'initiation à l'emploi', CIE) is designed to enable such job seekers to receive practical training during work hours in order to make them better suited for the labor

# Disclosure on management approach

market. Targeting young graduates who encounter difficulties finding a job, the practice-oriented employment initiation contract ('contrat d'initiation à l'emploi – expérience pratique', CIE-EP) offers them practical work experience in order to facilitate their entry into the professional life.

In 2012, Cargolux employed 9 people under the CIE regime and 16 university graduates were employed on the basis of a CIE-EP regime. Nine of those were subsequently hired on a full-time basis. This initiative not only supports young first-time job seekers, but it also allowed the Company to absorb increasing workload from its staff.

Both schemes are governed by the relevant provisions of the Luxembourg labor law, which defines working, training and remuneration conditions.

# **B.3. Training** LA10

Training is an important element of the day-to-day functioning of all airlines. This is especially true for Cargolux, having set itself the objective to rank among the most efficient airlines in the world.

Training all staff categories is essential to ensure that the airline operates safely and efficiently. It furthermore offers the staff the opportunity to enhance skills, capabilities and knowledge and enables the Company to sustain its success in an increasingly competitive industry.

To cope with the economic crisis in 2012, non-compulsory training had to be scaled down, whereas training programs for flight crews and mechanics, as well as compulsory courses in the fields of occupational compliance, occupational health and safety, regulations and security were strictly maintained.

The overall training hours in 2012 decreased by 13% compared to 2011. This is primarily due to the extensive 747-8 training curriculum offered to flight crews, maintenance staff and ground operations in 2011 in preparation of the entry-into-service of the new aircraft in October of that year. Cargolux employees received an average of 38 hours of training in 2012.

#### Legally required training

Pilots and mechanics regularly attend courses required to maintain and upgrade their licenses and receive training on the use of new equipment, technologies or the application of new procedures. Similarly, Ground Operations staff follows courses to be entitled to perform certain functions, such as supervising the loading of an aircraft. These types of training are an essential means of ensuring operational flight safety; a field where no compromises can be made.

#### Flight crew training

Flight Operations provided a total of 21,424 hours of training to Cargolux flight crews. On average, every female pilot went through 54 hours of training during the review period while their male colleagues were trained 51 hours on average.

#### **Technical training**

In 2012 training activities at the Technical Training department decreased by 26% compared to the year before, due to the fact that all maintenance staff in Luxembourg and the majority of stations had completed the 747-8 training in 2011. However, in 2012, Technical Training continued the training of Cargolux's as well as contractors' staff at stations that were certified for the 747-8 operation. On average, maintenance staff received 44 hours of training during the reporting period.

### **Ground operations training**

The Ground Operations training team provided 13,626 hours of training to Cargolux staff, GHAs, GSAs and shippers.

#### Compliance

At the end of the reporting period, over 1,200 individuals from our worldwide network had completed over 3,600 hours of compliance training.

	Number of employees		Average hours per employee
Cockpit Crew	418	24,274	58.07
Apprentice Office	5	141	28.17
Employee	830	23,376	28.16
Middle Management	157	1,867	11.89
Executive Management	32	501	15.66
Maintenance Engineer	15	1,501	100.08
Exempt Employee	28	755	26.97
Trainee	25	73	2.91
Worker	79	7,786	98.56
Maintenance Apprentice	10	644	64.41
Total	1,59	9 60,919	38.10

#### **B.4. Occupational Health and Safety (OHS)**

It is elementary good practice for companies to protect and maintain their assets. Because we consider that our employees are our most precious asset, the Company commits to protecting and preserving the health, well-being and safety of its employees.

#### **OHSAS 18001 certification**

In 2012, Cargolux started preparations for OHSAS 18001 with the objective of attaining certification of the Maintenance and Engineering (M&E) division in 2013. OHSAS 18001 stands for Occupational Health and Safety Assessment Specification and is the internationally recognized standard for OHS management systems. This certification will enhance the protection of Maintenance and Engineering staff, contractors and suppliers working at the maintenance hangar, shops and offices. It will give Cargolux a framework to identify, control and reduce the risks that are typically associated with health and safety in our workplace. The risk areas within the Company will be certified progressively over the years to come.

# Noise reduction project

Noise is an important factor in aviation maintenance and can cause significant health problems. To mitigate the potential danger for our staff, the most important high noise sources and tasks

# Disclosure on management approach

were assessed and the Noise Reduction Project launched as a consequence. External experts were mandated to analyze and assess the situation and to come up with recommendations for improvements.

As a result, a high noise warning system is being installed and will be operational in early 2013.

Furthermore, a noise awareness campaign was launched amongst the staff concerned, including e-learning modules, posters and information booklets.

The Company also negotiated a special price from a supplier for individual tailor-made ear plugs that can be purchased at a discount by its staff.

#### **Training**

The OHS training program was further developed and two new courses were added to the curriculum.

# H&S topics covered in formal agreements with trade unions LA9

OHS-related matters are covered in the CWA between Cargolux and the concerned unions. Four members of the staff delegation hold a special OHS role including the full time safety delegate. The CWA stipulates the set-up of a joint management-employee OHS committee and the participation of staff representatives in health and safety inspections, audits and accident investigations. The purpose of this body is essentially to promote and maintain an active interest in OHS on the part of the involved parties in order to avoid accidents

and occupational illness, suggest improvements and follow-up on their implementation.

In 2012, safety experts were nominated for the ground staff and the flight crews. These are new functions that were created to improve the cooperation with the safety delegate and enable improved reporting and understanding of any OHS issue in both areas. Safety experts are members of the staff delegation and an integral part of the OHS committee.

#### Injuries at Luxembourg headquarters LA7

The number of injuries, as well as the injury rate, declined further in 2012 compared to the year before, confirming the effectiveness of the Company Health and Safety program. However, lost days increased significantly due to three severe accidents, one internal and two external.

Absenteeism increased by 16% in 2012.

	2012	2011	2010	
Internal	29	34	36	37
External	14	16	15	11
Total	43	50	51	48

	2012	2011		
Cargolux	3.91	4.60 (5.09)**	4.98 (5.51)**	4.58 (5.07)**
Luxembourg	n/a	4.91	5.68 (6.28)**	5.53 (6.12)**
Total	3.91			

<sup>\*</sup> According to the Luxembourg Accident Insurance Association methodology, the injury rate is defined as the number of accidents per 100 full time employees and compared to Luxembourg industry average and relative to the Luxembourg aviation sector

#### \*\* New calculation formula

For reasons of comparability with international statistics, the frequency calculation formula has been adjusted with respect to the number of employees at risk and the number of hours of exposure per employee year, respectively. Thus the calculation is now based on 1,880 work hours per annum for an employee who works 40 hours per week over 47 weeks per year, to the extent that they benefit from five weeks' vacation per year. The previous calculation method was based on 2,080 work hours per annum.

	2012	2011	
Lost days	312.25	223.43	232.20
Absenteeism (in number of days)	10,398.13	8,961.29	9,708.78

# A. Participation in education

# A.1. Aircraft Maintenance License (AML) apprentice scheme

Cargolux and Luxair, in cooperation with the 'Lycée Technique Privé Emile Metz', a technical high school based in Luxembourg, run a dedicated training program for aircraft mechanics. Students, who fulfill the requirements for entry and successfully pass their exams, obtain an aircraft mechanics license (AML) under the European Aviation Safety Agency (EASA) regulations, Part 66. It is recognized in all EASA member states.

In 2012, eight individuals graduated as licensed aircraft mechanic under the AML scheme with five of those people obtaining a B-license and three people an A-license. Another six were admitted to the course in 2012, four for an A-license and two for a B-license. A-licensed mechanics are certified for line maintenance only, while B-licensed mechanics are certified to perform mechanical and/or avionic works during base and line maintenance.

After having obtained the AML, the junior mechanics have to complete a type rating training for the 747-400F and 747-8F aircraft in-house in order to be fully licensed to work on Cargolux and customer aircraft. The curriculum of the AML program

is somewhat demanding, especially due to the required technical knowledge level and to the fact that all teaching material is in English, the working language at Cargolux but not an official language in Luxembourg.

#### A.2. Support to youth and schools

Cargolux is keen to support young people in their career choice and to offer an opportunity to get a glimpse of the many facets of our business. This ranges from company visits to trainings in various Cargolux departments.

Our Human Resources department has built close ties with a number of schools in Luxembourg, giving the students the possibility to visit the Company and learn about job profiles at Cargolux in particular and in aviation in general. We provide practical advice regarding job application and interview techniques on a regular basis.

We also offer trainings in various departments ranging from a few days to several months. Such practical experience proves useful in guiding the career choice of young people by offering them insight into the specificities of the cargo industry and a host of general professions.

In 2012, we were involved in a number of initiatives designed to help youngsters engage in career

selection early on. One of them was Day Care, an initiative led by the Luxembourg arm of CARE, a humanitarian organization that is fighting global poverty. Students who enroll in this project are given the opportunity to spend a day at a company of their choice and become familiar with certain aspects of the work life. Participating companies pay a token salary for every student participant that is donated for vocational training at the world's largest refugee camp in Kenya.

Another initiative that Cargolux supported was the 'Journée de Rencontre entre Militaires et Entreprises'. The objective of this event was to bring together companies and young soldiers who were about to terminate their army service and give them the opportunity to look for an apprenticeship and prepare their future after the military service.

The Girls' Day has been on our agenda for many years. Participating companies present job profiles to young people that are not typically female. Each year, Cargolux invites a group of young girls to discover jobs in aviation, as the air cargo industry is still a male-dominated activity.

All-in-all, the Company supported six initiatives organized to help young people to make their career choice for the future.

# **Community**

# B. Supporting non-governmental organizations

### Flying for help

Cargolux has a long-standing tradition of supporting local and international relief organizations. As a long-range all-cargo airline, it has the possibility to support non-governmental organizations by moving relief shipments free-of-charge or on stand-by basis to any destination within our worldwide network. This kind of support is vital to the success of a project as transportation fees usually form a substantial part of the cost of a project.

In 2012, Cargolux moved twelve shipments free-of-charge or on stand-by basis to destinations in Africa, including the Democratic Republic of Congo, Chad, South Africa, Ghana, and Kenya. The shipments were organized at the initiative of NGOs, individuals or associations in Europe. Three out of the twelve shipments were initiated by Cargolux employees.

# Cargolux employees helping to help

Traditionally, Cargolux staff has shown great commitment to charitable initiatives. All year round, relief items are collected and sent to less developed regions. In 2012, a collection went to Romania to support the families of the poorest students from various schools in the city of Tecuci.

Another initiative supported by Cargolux employees was a fund raising after-work swimming event organized by the International Section of the Luxembourg Red Cross. The money that was collected went towards the Red Cross's Social Groceries, where disadvantaged families can buy discounted foodstuffs and convenience goods. A team of Cargolux employees and their families took on the corporate challenge and successfully competed against other companies.

At the end of the year, Cargolux and its staff supported the Toys for Tots program, organized by the American Women's Club of Luxembourg (AWCL). Companies supporting Toys for Tots host trees decorated with ornaments containing the name, age and gift request of one child from a care home in Luxembourg. Employees were invited to select a label from one of the trees and to make a donation in the amount of the desired gift. Altogether 24 companies in Luxembourg supported the initiative, making it possible; that nearly 700 children and youngsters received a St. Nicolas gift in early December.

Cargolux had a total of 255 ornaments, out of which 216 where sponsored by the staff and the remaining by the Company. It was the first time that Cargolux supported this initiative.

#### International Bazaar of Luxembourg

Cargolux also continued its support of the International Bazaar, one of Luxembourg's major annual charity events, that brings together volunteers from over 50 nations to sell goods and specialties from their home countries. The sales are distributed among a wide number of larger and smaller aid and relief projects throughout the world. In 2012, Cargolux supported the stands of the United States and Hungary.

# C. Supporting the arts and culture

Since its earliest days, Cargolux has sought to support Luxembourg's cultural activities. In 2012, the Company carried five such shipments free-of-charge or on a stand-by basis in addition to the shipments transported for the Luxembourg Museum of Modern Arts (MUDAM). The MUDAM shipments honor a partnership agreement from 2004 to transport artworks on behalf of the museum that are on loan from other museums and collectors worldwide and that become part of themed temporary exhibitions. In 2012, the Company supported eight different exhibitions with free-of-charge transports.

# Customer care

A good relationship with the customer is vital to the long term success of the business; we are lucky enough to enjoy numerous long-lasting partnerships with our clients and we continually strive to maintain their high level.

The awards that Cargolux received over the years are an expression of the excellent cooperation with our partners and we feel honored that they continuously show their satisfaction with our services in this way.

### **Customer survey PR5**

In order to focus our efforts towards offering the best possible customer service, Cargolux conducts a customer satisfaction survey every other year. The survey in 2012 confirmed the good reputation that we enjoy amongst the major industry players. Our expertise in handling outsized cargo and pharmaceuticals in particular was well rated. The customers also showed their satisfaction with the Company's on-time performance.

The clients also have the possibility to address comments and concerns through a number of external channels.

# Cargo 2000 (C2K) platinum membership status

Cargolux gained the C2K platinum membership status in 2012, joining the club of only seven other members that have reached this level of C2K's new classification system. With this step, Cargo 2000 honors the Company's successful integration of Cargo 2000 by implementing processes that are measurable and supported by quality standards, event monitoring and proactive IT systems.

# **Improved service**

In 2012, Cargolux took another step to further develop its services by introducing new horse stalls that are superior in comfort and safety to the previous models used in the industry. The next-generation HMC container is optimized for the 747 and counts amongst the most durable and efficient collapsible stalls available. Having begun to transport live animals at an early stage in the Company's history, Cargolux has gained a reputation for excellent knowledge and great expertise in livestock transportation, horses in particular. Listening attentively to our customers' needs, we constantly aim to improve the services we offer

# Reporting process and GRI indicators

1. Strategy & analysis			
1.1 Statement from the most senior executive of the organization about the relevance of sustainability to the organization and its strategy			Annual Report 2012
1.2 Description of key impacts, risks, and opportunities		Not reported	'
2. Organizational profile			
2.1 Name of organization			2
2.2 Primary brands, products and/or services			2
2.3 Operational structure of the organization			2
2.4 Location of organization's headquarters			2
2.5 Number of countries where the organization operates			2
2.6 Nature of ownership and legal form			2
2.7 Markets served			2
2.8 Scale of the reporting organization			3
2.9 Significant changes during the reporting period regarding size, structure or ownership			3
2.10 Awards received			2
3. Report parameters			
3.1 Reporting period			4
3.2 Date previous report			4
3.3 Reporting cycle			4
			4
3.4 Contact point			4
3.5 Process for defining report content			4
3.6 Boundary of the report			
<ul><li>3.7 Specific limitations on the scope or boundary of the report</li><li>3.8 Basis for reporting on joint ventures, subsidiaries, leased facilities, outsourced operations,</li></ul>			4
and other entities that can significantly affect comparability from period to period and/or between organizations			4
3.9 -3.13		Not reported	
4. Governance, Commitments, and Engagement			
4.1 Governance			5
4.2 Indicate whether the Chair of the highest governance body is also an executive officer	No		
4.3 For organizations that have a unitary board structure, state the number and gender of members of the highest governance body that are independent and/or non-executive members		Not applicable	
4.4 Mechanism for shareholders and employees to provide recommendations or direction to the highest governance body			5
4.6 Processes in place for the highest governance body to ensure conflicts of interest are avoided			7
4.8 Internally developed statements of mission or values, codes of conduct, and principles relevant to economic, environmental, and social performance and the status of their implementation			7
4.11 Explanation of whether and how the precautionary approach or principle is addressed by the organization			8
4.12 Externally developed economic, environmental, and social charters, principles, or other initiatives to which the organization subscribes or endors	ses		8
4.13 Memberships in associations (such as Industry associations) and/or national/international advocacy organizations in which the organization has point governance bodies; participates in projects or committees; provides substantive funding beyond routine membership dues; or views membership	sitions		8
4.14 List of stakeholder groups engaged by the organization			9
4.16 Approaches to stakeholder engagement, including frequency of engagement by type and by stakeholder group.			9
4.17 Key topics and concerns that have been raised through stakeholder engagement, and how the organization has responded to those key topics and concerns, including through reporting			9
4.5, 4.7, 4.9, 4.10, 4.15		Not reported	

4.5, 4.7, 4.9, 4.10, 4.15 Not reported

Economic performance indicators			
EC1 Direct economic value generated and distributed, including revenues, operating costs, emplo and other company investments retained earnings, and payments to capital providers and go	yee compensation, donations vernment		Annual Report 2012
EC2-EC9		Not reported	
Environmental performance indicators			
DMA Environment			10, 16, 18
EN1 Material used by weight or volume			1
EN3 Direct energy consumption by primary energy source			11, 1
EN4 Indirect energy consumption by primary source.			1-
EN5 Energy saved due to conservation and efficiency improvements			11, 12, 13, 15, 1
EN6 Initiatives to provide energy-efficient or renewable energy based products and services, and r	eductions in energy requirements as a result of these initiatives		12, 1
EN10 Percentage and total volume of water recycled and reused	Nothing to report as we do not have this process in place.		
EN16 Total direct and indirect greenhouse gas emissions by weight	Nothing to report as we do not have this process in place.		11, 1
EN18 Initiatives to reduce greenhouse gas emissions and reductions achieved			11, 12, 13, 14, 15, 1
	Wastewater from our maintenance operations in Luxembourg are the airport sewage system prior to a wastewater treatment plant.		
EN22 Total weight of waste by type and disposal method			1
EN23 Total number and volume of significant spills			1
EN26 Initiatives to mitigate environmental impacts of products and services, and extent of impact r	nitigation		11, 13, 1
EN28 Monetary value of significant fines and total number of non-monetary sanctions for noncomp	liance with environmental laws and regulations		1
EN29 Significant environmental impacts of transporting products and other goods and materials us and transporting member of the workforce	sed for the organization's operations,		1
EN2, EN7, EN9, EN11-EN15, EN17, EN19-EN20, EN24-EN25, EN27, EN30		Not reported	
Social performance indicators			
DMA Social responsibility			1:
HR3 Total hours of employee training on policies and procedures concerning aspects of human righthat are relevant to operations, including the percentage of employees trained	hts		1:
HR1-HR11		Not reported	
SO1-SO10		Not reported	
LA1 Total workforce by employment type, employment contract, and region, by gender			20, 2
LA2 Total number and rate of new employee hires and employee turnover by age group, gender, a	nd region		2
LA4 Percentage of employees covered by collective bargaining agreements			2
LA7 Rates of injury, occupational diseases, lost days, and absenteeism, and number of work relate	d fatalities by region and by gender		2
LA9 Health and safety topics covered in formal agreements with trade unions			2
LA10 Average hours of training per year per employee by employee category			2
LA13 Composition of governance bodies and breakdown of employees per employee category ac minority group membership, and other indicators of diversity	cording to gender, age group,		2
LA15 Return to work and retention rates after parental leave, by gender			2
LA3, LA5, LA6, LA8, LA11, LA12		Not reported	
Product Responsibility performance indicators			

# Independent and Limited Assurance Report



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#### **Independent Limited Assurance Report**

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 ended December 31, 2012 as set out on pages 2-31.

# 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 (G3) of the Global Reporting Initiative (" GRI") as described on pages 4, 30-31 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 reponsibility 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, Assur-

ance 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.
- 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 2012 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 December 31, 2012 is not presented fairly, in all material respects, in

accordance with the Sustainability Reporting Guidelines (G3) of the Global Reporting Initiative as described on pages 4, 30-31 of the Sustainability Report.

ERNST & YOUNG Société Anonyme Cabinet de révision agréé

Werner WEYNAND

Luxembourg, April 15, 2013