IATA Cargo Strategy



August 2015

Table of contents

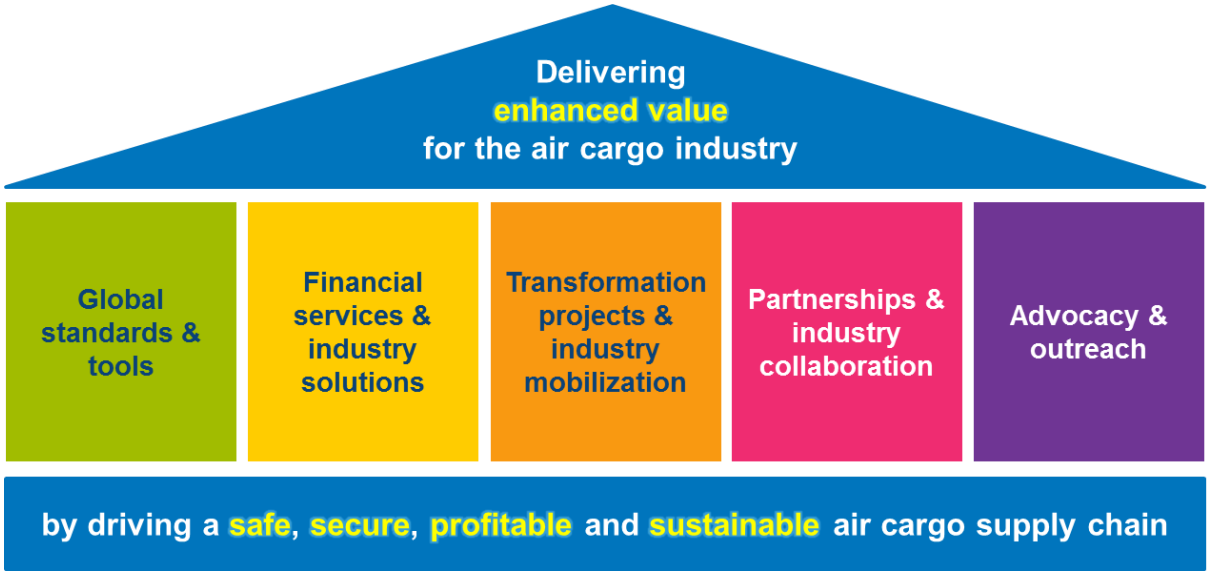
Sources:

- "Airline Industry Freight Forecast 2014-2018", IATA, October 2014
- "Global Market Forecast Freighter", Airbus, October 2014
- "World Air Cargo Forecast", Boeing, October 2014
- "Asia-Pacific Air Cargo Market Trends", PwC Strategy&, October 2014
- "Mode Shift: impact and how to respond", Seabury and IATA, March 2014

Executive Summary

IATA is the trade association representing approximately 250 commercial airlines worldwide, accounting for more than 84% of total air traffic. IATA's mission is to represent, lead and serve the airline industry.

On average, cargo business generates 9% of airline revenues, representing more than twice the revenues from the first class segment. To support this critical business, IATA is committed to: ***deliver enhanced value for the industry by driving a safe, secure, profitable and sustainable air cargo supply chain***.



IATA develops global standards and tools, offers financial services and industry solutions, drives transformation projects, and creates partnerships, and runs campaigns, advocacy and outreach activities.

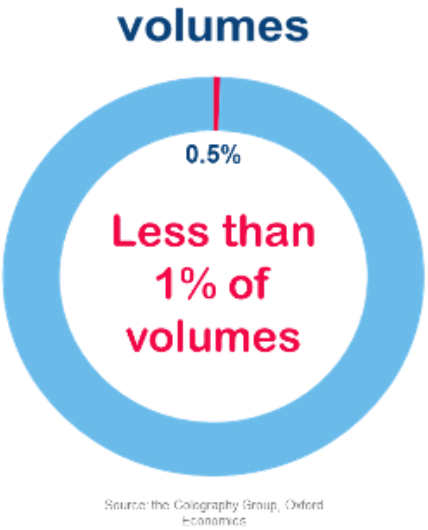
The IATA Cargo agenda is shaped by the IATA Cargo Committee and addresses the ten industry key priorities:

1. ***Enhancing safety***
2. ***Improving security***
3. ***Pushing for smarter regulations***
4. ***Strengthening the value proposition of air cargo***
5. ***Driving efficiency through global standards***
6. ***Modernizing air cargo***
7. ***Improving quality***
8. ***Protecting cash***
9. ***Strengthening partnerships***
10. ***Building sustainability***

Economic Outlook & SWOT Analysis

Air cargo, crucial enabler of the global economy

In 2014, airlines transported 51.3 million metric tons of goods, representing more than 35% of global trade by value but less than 1% of world trade by volume. That is equivalent to USD6.8 trillion worth of goods annually, or USD18.6 billion worth of goods every day.



Air cargo is integral to many facets of modern life. Getting ***perishable*** goods from developing economies to markets in industrialized nations would not be possible without air transport. The ***pharmaceutical*** industry relies on air transport for its speed and efficiency in transporting high-value, time and temperature sensitive cargo, particularly vaccines. In today's modern world, carriage of ***live animals*** by air is considered the most humane and expedient method of transportation over long distances.

Most people have personal ***electronic devices*** that were built using a global supply chain linked by air. Amazon, Alibaba, eBay and other e-commerce websites rely on the ***express*** delivery services made possible by aviation to get those devices, and so much more, to their customers. Almost 340 billion letters and 6.7 billion ***postal parcels*** are sent every year, and air transport plays an essential role in their delivery.

The air cargo outlook for the next five years is positive

A trend of accelerating growth and confidence in air cargo has marked 2014, with the worldwide level of freight tonne kilometers (FTKs) increasing by 4.7% compared to 2013. This follows three years of decline and sideways drift in freight volumes, and confirms the tentative signs of recovery noted in late 2013.

+4.1%

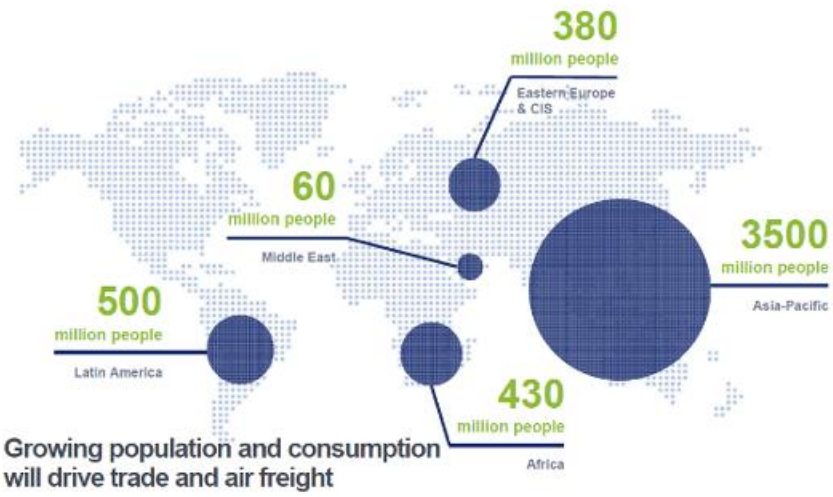
compound annual growth rate

Both the industry and IATA expect solid, but not spectacular, growth in air cargo volumes over the next five years. The IATA's forecast is for an average growth rate of 4.1% per annum.

It is the ***emerging markets and regions*** that are expected to deliver the fastest growth in air cargo volumes over the next five years, led by the Middle East and Africa. Strongest forecasted growth is foreseen on trade lanes between Asia and the Middle East, within the Middle East region, and between North and South America. Growth in mature markets of the North Atlantic and within Europe is expected to be well below the global average. Domestic operations, especially in China and in the US, will also form a large portion of future traffic.

At the top end of the air cargo market, ***integrators*** are taking an increasing share of the business.

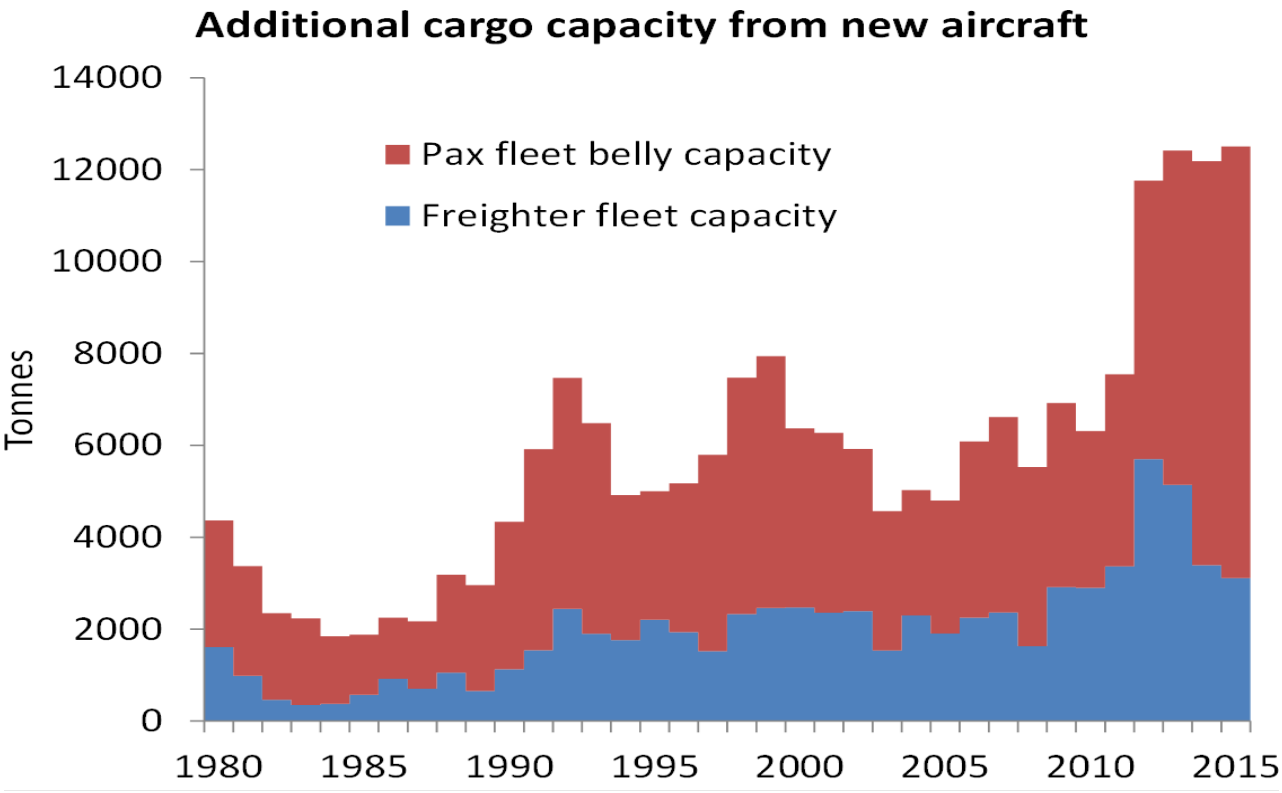
Accelerating ***urbanization*** will increase the number of mega-cities and the emergence of mega-regions; regions anchored with one to three mega-cities of 10 million people or more. These mega-regions, mainly in Asia, create agglomeration of GDP and population and are expected to drive world trade.



Aviation will be critical to support the movement of people and goods between mega-cities and regions. However, the industry should strengthen its value proposition and competitiveness to ensure alternative modes do not capture the growth.

Despite these impressive numbers, the air cargo industry faces significant challenges

Aircraft utilization rates have started to show solid improvement, but air cargo ***load factors*** are hovering around a weak rate of 45%. Looking ahead, aircraft utilization rates will continue to be challenged by ever increasing ***capacity***.



This is coming mainly from the expansion of the passenger business as well as the increase in the freighter fleet. Dedicated freighters remain an essential part of air cargo as certain factors, such as the departure and arrival times, type and size of cargo, and difference between cargo and passenger destinations limit the use of belly cargo.

Air cargo ***yields*** continue to decline slowly, consistent with persisting weakness in load factors, keeping downward pressure on cargo business financial performance.

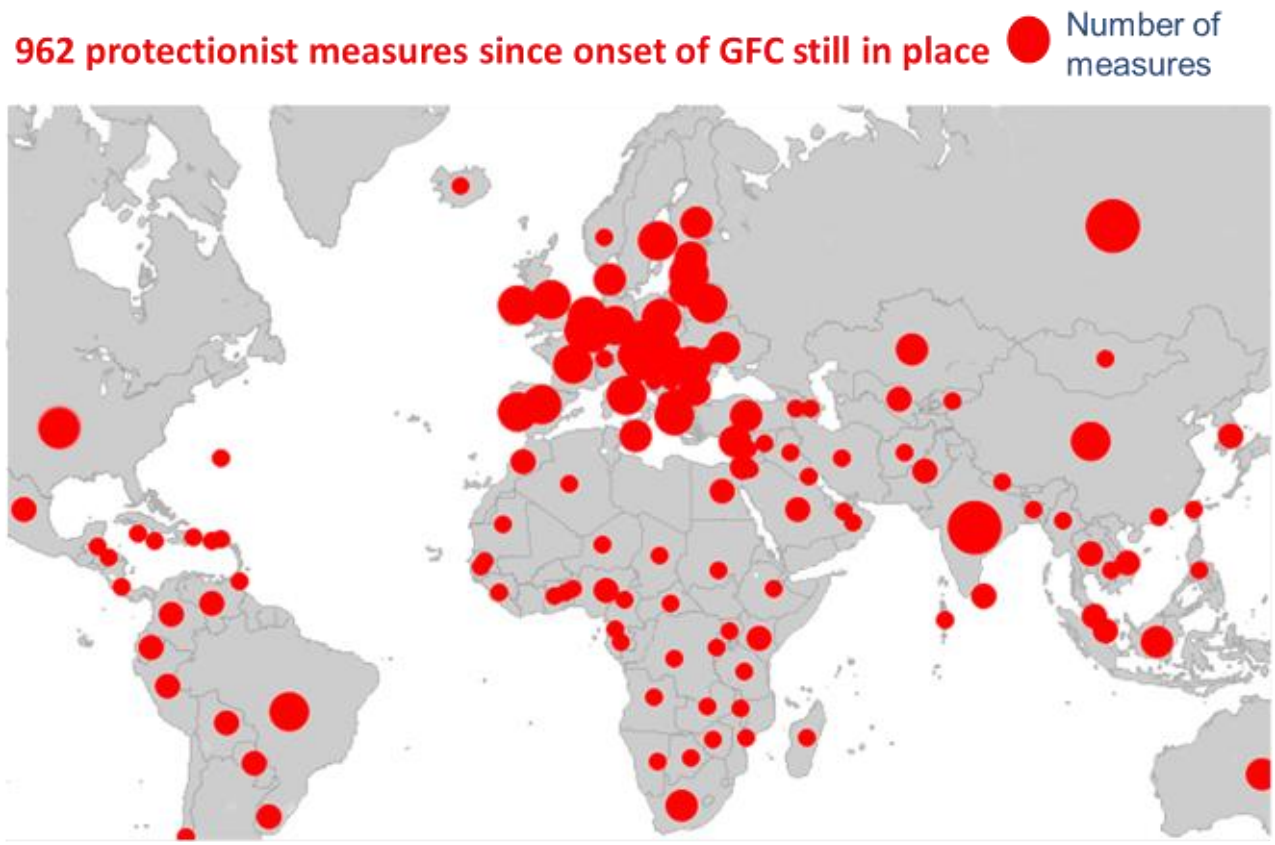
Mode mix optimization and modal shift from air to less-expensive or perceived more-environmental friendly maritime and rail transport has been occurring for some years. Freight forwarders offer more air/sea, air/road or air/rail products that combine to create price and total shipment time flexibility. The new railway and road-based 'Silk Road' network that connects China with Europe is capturing business from sea and air cargo.

Geopolitical concerns, volatility of oil prices, and recent economic trends to ***onshore or closer-to-home manufacturing*** are also affecting the demand for air cargo.

Trade protectionism has an increasingly damaging impact on world trade. According to the World Trade Organization (WTO), between May 2014 and October 2014 alone, 93 new trade-restrictive measures were instigated by G20 governments. The WTO estimates that

since the onset of the global financial crisis in 2008, 1'244 restrictive measures has been implemented of which 962 remain in place. It is hoped that free trade agreement such as the WTO Bali Agreement will assist in reversing this trend.

In addition, the greater need for safety and security when shipping goods by air risks ***delaying shipping times***, or results in the outright ***prohibition*** of transporting certain goods by air.



Source: Global Trade Alert, WTO

Furthermore, ***disruptive innovations*** might negatively impact air cargo volumes. 3D printing that might reduce the number of shipped parts and supplies, crowd shipping services that connect people who want to ship something with travelers are other areas to watch. The rapid and continual growth of passenger transportation is also impacting air cargo as tourists often purchase from the home country of production and self-ship in baggage. IATA projects that passengers' numbers will double to over six billion annual passenger journeys by 2027, so the trend of "***buy & carry***" will continue to impact air cargo.

A SWOT analysis of the air cargo industry highlights a number of very significant weaknesses and challenges which must be addressed in order to further leverage the industry's strengths and successfully secure the opportunities that will arise.

STRENGTHS	WEAKNESSES
• Speed (relative, compared to other modes) • Safety • Security (secured mode of transport, no theft) • Reliability • No path congestion • Low land occupancy • Best mode for land-locked countries • No competitor for high value goods in the long ranges	• Over-capacity • Perceived as not price competitive • Value proposition not explained / understood properly • Perceived as not green • Not intermodal • Spatial mismatch in the door-to-door chain • Weak economics of most carriers • Lack of investments to modernize, adapt, innovate • Complexity (processes, stakeholders, regulations) • Security (compliance to multiple security regulations) • Lack of transparency and communication between stakeholders • Lack of relationship with end-customer (shipper/consignee)
OPPORTUNITIES	**THREATS**
• e-Commerce growth need to be supported by fast-delivery solutions • Bali Agreement: special provision given to air cargo only (for expedited customs clearance) • Liberalization of the market • Growth of economy and trade • Globalization of procurement, production and distribution • New logistics concept • Capacity increase in extra-European airports • Urbanization (mega-cities) • Unregulated supply chain participants	• In-flight cargo fires • Unregulated supply chain participants • Increasing competition with other modes • Fuel cost fluctuation • External shocks • Terrorist threats and inadequate security requirements • Increased regulatory oversight on aircraft loading • Trade protectionism • Airport congestion • Ground infrastructure • Night restrictions • Ground waiting times (clearance) • Under-representing of the Cargo sector in policy making processes • Crowd shipping • On-shoring, near-shoring trends

The Case for Air Cargo Transformation

As mentioned previously, our industry must adapt as market and customer evolve. Therefore, air cargo must transform itself into a lean, adaptive and innovative industry centered on increasingly sophisticated customer demands.

The air cargo industry cannot afford to be complacent. To address the competitive pressures facing air cargo, the industry challenged itself in 2014 to meet an important objective by 2020: seeking to ***optimize the air cargo supply chain*** for every commodity type transported by air to provide shippers with greater transparency, reliability and predictability.

Such ***industry optimization*** will help to not just protect the value proposition of air cargo, but will enhance it. One goal of supply chain optimization could be the reduction of the average end-to-end shipping time by 48 hours, where the customer so demands.

To meet this goal, air cargo must modernize its processes, improving quality and reliability, and widen the range of services offered. Key factors of success are data integration, process integration and supply chain partnerships based on common and mutually beneficial scenarios.

10 Industry Priorities

The IATA Cargo Committee defines industry priorities and establishes positions related these priorities on all cargo related issues.

#1 – Enhancing Safety

Safety remains the first priority!

Some commodities transported may, if not shipped in accordance with stipulated regulations, endanger the safety of an aircraft, its passengers and/or crew. The air transportation of these dangerous goods (DG) can either be restricted to carriage on cargo aircraft only, or permitted on passenger aircrafts subject to compliance with the regulatory requirements.

In addition to dangerous goods, global standards are needed for the design and use of unit load devices (ULDs) (fire resistant container) and accessories (fire containment cover), which can significantly contribute to cargo compartment fire protection.

#2 – Improving Security

Equally critical is that security measures be efficient and effective.

Since the Yemen printer cartridge plot in 2010, the security of the air cargo supply chain has been under increased scrutiny. Governments have increased their oversight and often require enhanced advance information about cargo transported, and/or have introduced 100% screening requirements for cargo shipments.

#3 – Pushing for Smarter Regulations

The air cargo industry needs smart regulations.

The effect of increased regulations, if not managed by the industry, will not only dramatically increase costs, but will also slow down transit times, damaging the value proposition of air cargo as a quick way to transport goods.

#4 – Strengthening the Value Proposition of Air Cargo

The industry must seek to optimize the air cargo supply chain for every commodity type transported by air to provide shippers with greater transparency, reliability and predictability.

Such industry optimization will help to not just protect the value proposition of air cargo, but will enhance it. One goal of supply chain optimization could be the reduction of the average end-to-end shipping time by 48 hours, where the customer so demands.

#5 – Driving Efficiency through Global Standards

The air cargo industry relies on global standards for the efficient handling of cargo, the exchange of data, the settlement systems, etc. This is a core activity of IATA, performed through a robust governance mechanism.

#6 – Modernizing Air Cargo

The vision is to have a paperless industry, able to rely on high-quality data available on demand by all relevant stakeholders, and to offer full visibility and transparency to air cargo customers.

The airline industry was once a pioneer in the use of advanced technology. Unfortunately, processes and technology used by air cargo stakeholders have modernized very little in the last decades and air cargo must now catch up to improve cumbersome procedures.

#7 – Improving Quality

The air cargo industry needs to create and implement quality standards from end-to-end. “Quality” should be the watchword for the industry in the next five years, and the aim should be to improve the reliability and consistency of its services.

#8 – Protecting Cash

Commercial aviation is a highly integrated, global network of thousands of companies and organizations. That network depends on reliable, efficient, and secure systems to report, collect, and remit funds between the different parts of the value chain. IATA Settlement Systems are the backbone of the global air transport system.

Governed by the Cargo Agency Conference (CAC), the Cargo Account Settlement System (CASS) enables the swift, reliable, and cost-efficient movement of funds among airlines and their cargo partners. It provides agents with industry recognition of their financial and professional competence while airlines gain access to a worldwide distribution network of accredited cargo agents to sell their product.

#9 – Strengthening Partnerships

The industry recognizes that transformation and industry success and sustainability can only be achieved through collaborative efforts. Therefore it is focused on developing partnerships to strengthen air cargo.

#10 – Building Sustainability

Building effective solutions today to create the right tomorrow is the foundation for the sustainability agenda established on the three pillars of People, Planet, and Profit.

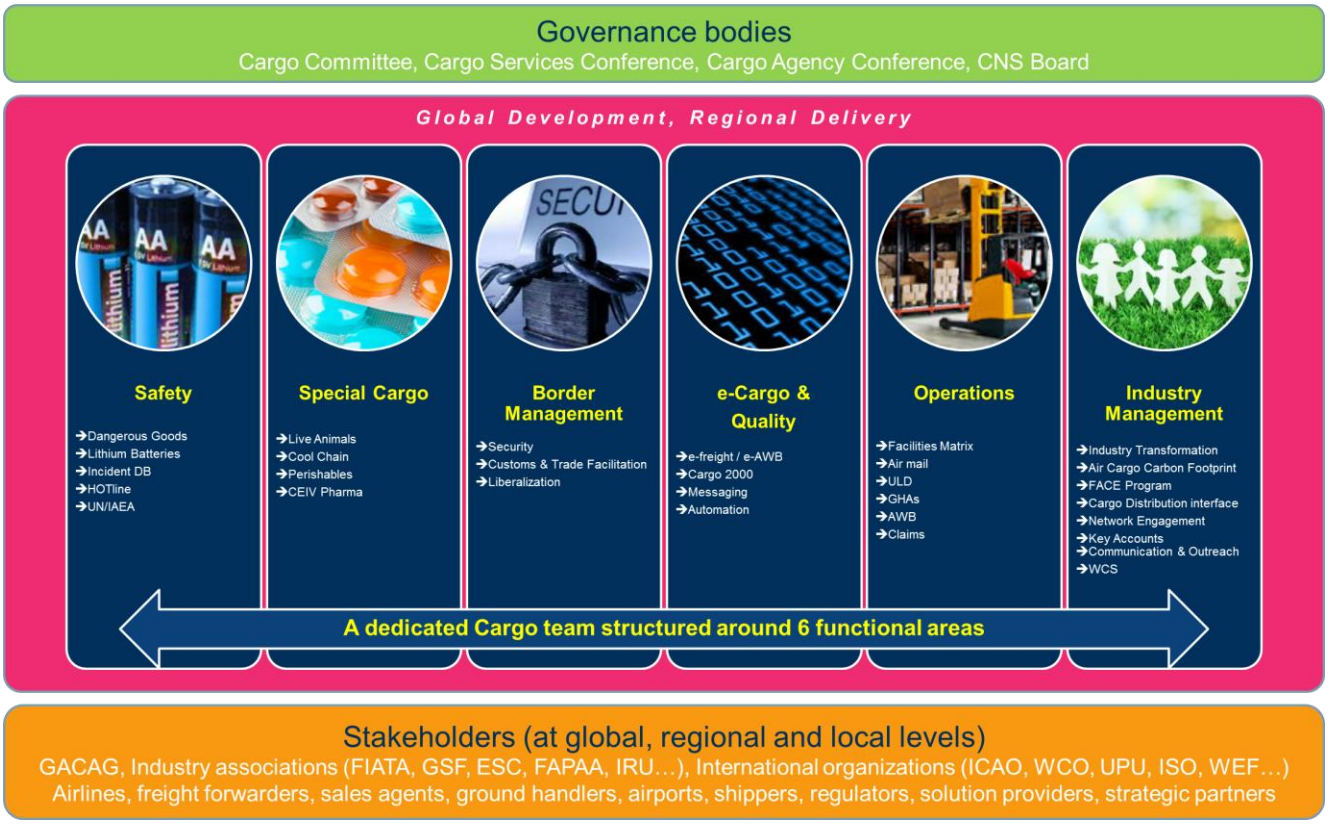
The IATA Cargo Delivery Model

IATA Cargo will be playing an important role in facilitating the transformation of the air cargo business and supporting its members in the delivery of industry objectives.

A guiding concept of IATA's structure is "***global development, regional delivery***", where the head office divisions drive the development of global standards, systems and advocacy positions, while the regional and country offices are responsible for implementation.

To deliver its cargo agenda, IATA relies on:

- A dedicated Cargo team structured around six functional areas;
- Cargo regional and local managers in five Regions;
- A dedicated cargo structure in the US, CNS, handling every aspect of the agenda and governed by the dedicated CNS Board;
- Business partners in the Financial and Distribution Services division (handling CASS, Cargo Agency program);
- Business partners and commercial experts managing the extensive cargo products portfolio (publications, training, business intelligence solutions, consulting);
- Business partner expertise in advocacy to develop, conduct and support lobbying and outreach activities related to air cargo;
- Business partner expertise in economics to monitor and forecast the air cargo outlook; and
- Business partner expertise in legal to take a global view of the ever changing legal environment in which we operate.



Safety, including dangerous goods and ULD

IATA works closely with national governments, the International Civil Aviation Organization (ICAO), aircraft manufacturers, and experts from industry to identify and implement regulatory changes to enhance safety. IATA also works with airlines and other industry partners to identify mitigation measures, and produces effective and efficient guidance, standards and safety audits to reduce risks. Safety depends on partnerships, information sharing, and global standards.

Special cargo: live animals, perishables & pharmaceuticals

Not just dangerous goods, but other special cargo such as ***live animals, perishables and pharmaceuticals***, require regulations and standards for documentation, handling and training. IATA works with the industry and regulators to establish appropriate regulations that harmonize handling procedures and promote best practices.

In 2014, IATA also developed the Center of Excellence for Independent Validators in Pharmaceutical Logistics (CEIV-Pharma) aiming to ensure the transport and handling of pharmaceutical products is in accordance with regulatory and manufacturers requirements.

Border management: security, customs & trade facilitation

Equally critical is that ***security*** measures be efficient and effective.

To support regulators and strengthen supply chain security, IATA and the industry are working on global standards such as the ***Consignment Security Declaration*** (CSD) and its electronic version (e-CSD), the transmission of electronic messages to convey cargo-related data (Cargo-XML) and the harmonization of regulatory requirements for ***Advance Cargo Information*** (ACI). IATA has redeveloped the ***Secure Freight*** supply chain security program to focus on implementation and capacity building. IATA also operates its Center of Excellence for Independent Validators (CEIV) to improve air cargo security in compliance with regulation, particularly the EU ACC3 regulations, without disrupting the flow of cargo.

IATA works with the World Customs Organization (WCO) and national ***Customs*** authorities to support global trade by encouraging the adoption of the WCO SAFE framework, e-customs programs, and the WTO Bali Agreement. IATA's objective is to facilitate the movement of cargo and avoid unnecessary delays at points controlled by Customs and other Border Agencies, without jeopardizing the security of the supply chain.

Cargo operations, including air mail, ULD & claims

Cargo operations are performed at thousands of airports all over the world by hundreds of handlers, big and small. This poses a high potential risk for deviations in quality and consistency of handling. IATA actively drives the development of ground handling operations standards, best-practice processes and procedures, and promotes global consistency and harmonization.

IATA works with the industry to modernize the ground handling agreement, including developing a facility capabilities matrix to assess and validate the current capabilities of cargo handling facilities against existing standards, identifying "best in class", and increasing the transparency and capabilities in the industry through adoption of best practices.

IATA also assists airlines in their management of ***cargo claims*** in order to secure the integrity and obligation of all parties within the supply chain.

Air mail represents around 3% of airlines' current cargo business. However, with the growing e-commerce activities, significant expansion is anticipated. To overcome the challenges the air mail industry will face, IATA strengthened its cooperation with postal authorities, especially with the Universal Postal Union (UPU), and develops standards and procedures concerning the handling of mail.

Every year, the total cost of both repair and loss of aircraft unit load devices (***ULDs***) is estimated to be about USD300 million, excluding flight delays and cancelations due to their unavailability, and aircraft damages caused by improper ULD handling.

With the increasing number of wide-bodied aircraft now in operation, ULD management is a key element of high efficiency in air transport. Making sure the right ULD is available in the right place at the right time in the right condition is critical for airline operations and revenue management. IATA develops and maintains standards and procedures concerning the specifications, handling, restraint and maintenance of ULDs. IATA also helps its members to comply with ULD Regulations (ULDR) in place.

e-Cargo, technology & quality, including Cargo 2000

IATA supports ***e-cargo, technology and quality*** implementation by developing industry standards and offering guidance and tools that facilitate the adoption of new initiatives.

The ***e-freight*** program aims to take the paper out of the process of moving air cargo and to replace it with the exchange of electronic data and messages. Facilitated by IATA, the program is an industry-wide initiative involving carriers, freight forwarders, ground handlers, general sales and service agents, shippers, and regulators. The electronic Air Waybill (***e-AWB***) is the first step to realize the e-freight vision. The vision is to achieve 100% e-AWB on feasible trade lanes by the end of 2017, with the following incremental targets: 45% by the end of 2015 and 80% by the end of 2016.

The ***IATA Cargo-XML*** messaging standard is emerging as the preferred standard for electronic communication between airlines and other air cargo stakeholders. This new standard replaces Cargo-IMP messages and aims to facilitate cargo business processes, fulfill customs requirements for ACI filing and comply with security regulations such as e-CSD. IATA's role is to develop and maintain Cargo-XML messages and support industry adoption through guidelines, workshops and training.

The ***New Communication Standard (NCS)*** and the ***Data Backbone Investigation*** projects will be launched in 2015. They support the vision of full industry connectivity and on-demand data availability by investigating the opportunity to build data sharing

platform(s) for the industry facilitated by seamless connectivity between the supply chain participants.

Cargo 2000 (C2K) is an IATA interest group with the mission of creating and implementing quality standards for the worldwide air cargo industry. The principle basis of the quality management system is the Master Operating Plan (MOP) which defines and details 19 critical steps in air cargo transportation. Making the MOP an industry standard is one of five objectives in C2K's current transformation. Other priorities include developing a new set of industry performance measurements, growing the membership and redefining the audit program to give C2K even more relevance for a quality-conscious consumer and shipper.

Industry management, including optimization, sustainability & collaboration

To address the competitive pressures facing air cargo, the industry challenged itself in 2014 to meet an important objective by 2020: seeking to optimize the air cargo supply chain for every commodity type transported by air to provide shippers with greater transparency, reliability and predictability. To meet this goal, air cargo must modernize its processes, improving quality and reliability, and widen the range of services offered. Key factors of success are data integration, process integration and supply chain partnerships based on common and mutually beneficial scenarios. In order to support the required ***industry optimization***, IATA will launch a project designed to identify industry pain points, categorize into priority topics and propose a subsequent series of initiatives designed to support and lead where required the desired transformational outcome.

Acknowledging the need for the air cargo industry to develop long-term strategies and investments, IATA is working on several ***cargo sustainability*** initiatives tackling environmental, social and economic issues. It includes the Future Air Cargo Executive (FACE) program and its three-pillar strategy to attract, develop and retain talents in the air cargo industry; the air cargo carbon footprint (ACCF) work on the environment side; as well as the value of air cargo marketing campaign.

The industry recognizes that transformation and industry success and sustainability can only be achieved through collaborative efforts. Therefore it is focused on developing partnerships to strengthen air cargo. One key element of ***industry collaboration*** is the Global Air Cargo Advisory Group (GACAG) comprised of the International Federation of Freight Forwarders Associations (FIATA); The International Air Cargo Association (TIACA); the Global Shippers Forum (GSF); and IATA. Their activities are centered on areas of common interest and establishing a unified voice for air cargo. Current work is focused on the priority areas of e-commerce, customs and trade facilitation, security, and sustainability. Until end of 2016, IATA will act as the Chairman and Secretary of GACAG.

In collaboration with FIATA, IATA is evolving the ***Cargo Agency Program*** to better address contemporary issues of accreditation, governance, training, and supplier and buyer collaboration. The role of today's freight forwarder has evolved significantly to the extent that the forwarder is on most occasions acting on behalf of the shipper and procuring space from an airline. This principle-to-principle relationship between airlines

and their direct customers will be reflected in a new Cargo Agency program (the IATA-FIATA Air Cargo Program – IFACP).

Organized every year in March, the ***World Cargo Symposium (WCS)*** has evolved to become a major industry decision-making platform. This event also serves to raise the profile of air cargo with governments as a strategic partner, helping to ensure cargo has the regulatory environment and infrastructure needed to successfully drive growth. Other events are organized by IATA to raise awareness, educate stakeholders and foster collaboration on specific areas (such as Security and Facilitation Forum, e-Cargo Conference, etc.) or at regional/local levels (such as the CNS Partnership Conference, local DGR workshops, etc.).

IATA Cargo

Supporting the industry in delivering
A safe, secure, profitable and sustainable air cargo supply chain