

**SECOND ICAO MEETING ON THE
SUSTAINABLE DEVELOPMENT OF AIR TRANSPORT IN AFRICA**
28 – 31 March 2017, Accra, Ghana

SUS-DEV/AT2017

Session 1

Regulatory Framework of Air Transport: Update
on ICAO's 39th Assembly and the United
Nations Efforts Towards Sustainable
Development

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Value of Aviation

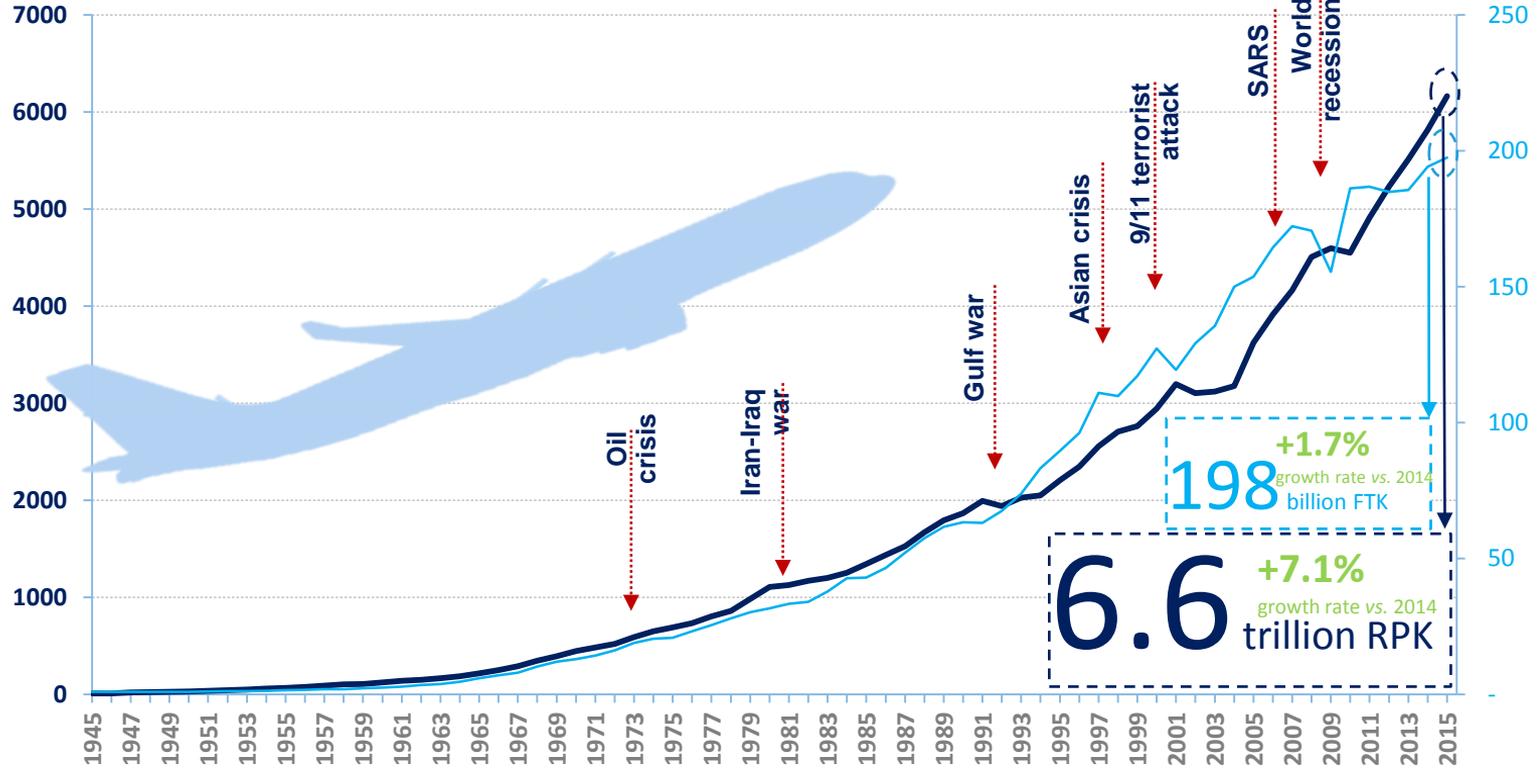
A39 Outcomes

Sustainable Development Agenda



Growth of air transport

Revenue Passenger-Kilometres (billion)



Freight Tonne-Kilometres (billion)



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The size of the industry 2015

- 3.5 billion passengers
- 34 million aircraft departures
- 51 million tonnes of freight
- Over 1 400 scheduled airlines
- More than 27 000 aircraft
- More than 4 130 airports
- 173 air navigation centres

Traffic is for scheduled services



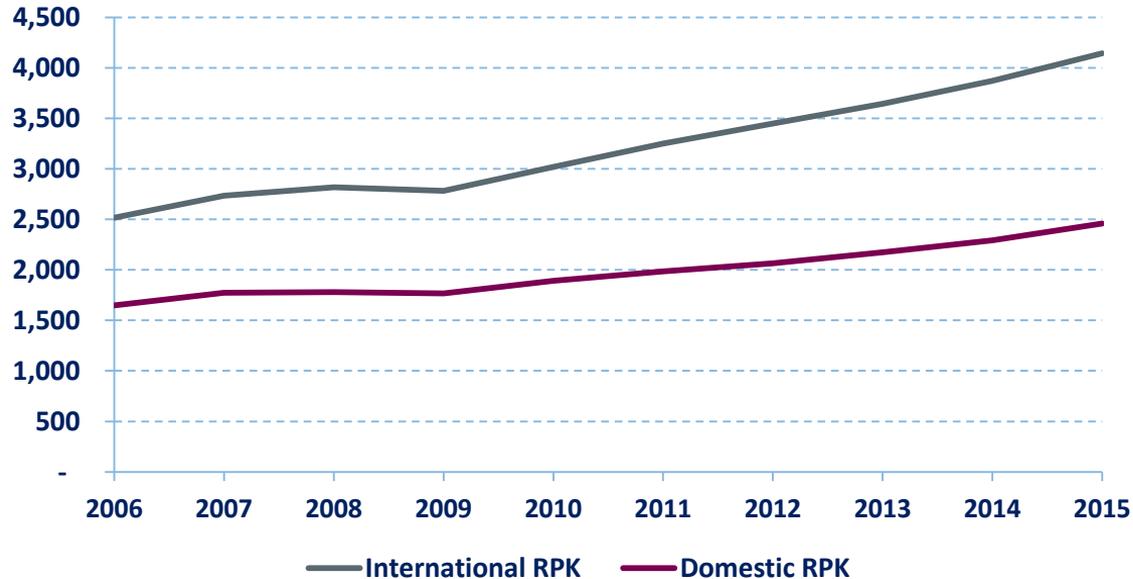
Air route network 2015





International and domestic passenger traffic

Domestic and International Revenue Passenger-Kilometres (RPK)
(in billion)



+7.0% in 2016 (ICAO projection)

+7.3% in 2016 (ICAO projection)



Direct economic contribution of the aviation sector

10.0 million

Direct jobs supported by aviation worldwide

\$718 billion

Direct Global economic impact

Direct, indirect, induced and tourism economic contribution of the aviation sector

63.5 million

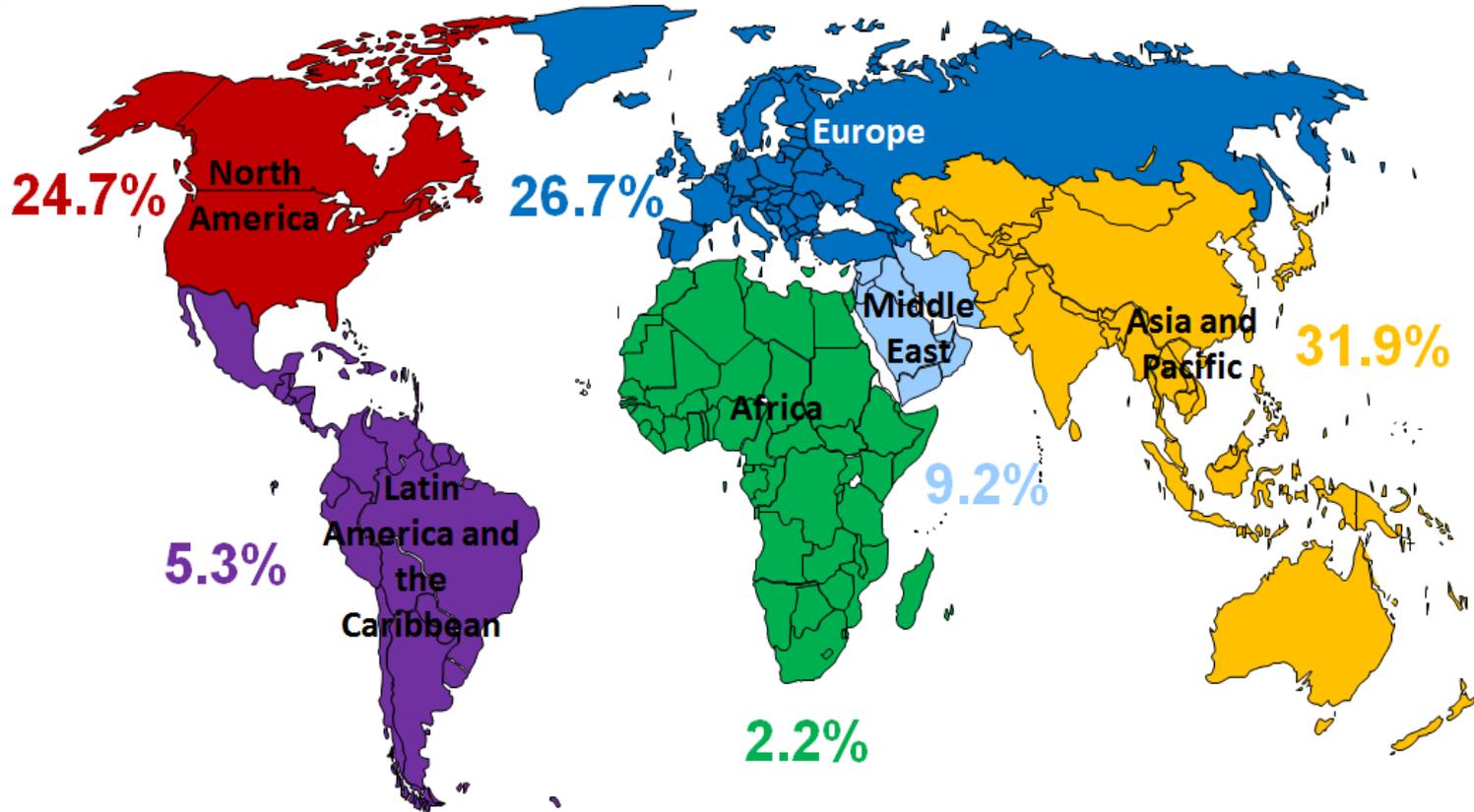
Jobs supported by aviation worldwide

\$2.7 trillion

Global economic impact

In collaboration with the United Nations, States and international organizations, ICAO is developing a universally-accepted methodology to measure aviation's gross domestic product (GDP) relative to overall economic activity, to better showcase the economic benefits of aviation to the public.

Share of Revenue Passenger-Kilometres by region in 2015



International Scheduled Revenue Tonne-Kilometres (RTK)

| Rank | State of AOC | RTK 2014 | RTK share (%) | Cumulative (%) |
|------|----------------------|----------------|---------------|----------------|
| 1 | China (1) | 62,661,657,151 | 11.76083% | 11.76083% |
| 2 | United States | 62,359,064,486 | 11.70404% | 23.46486% |
| 3 | United Arab Emirates | 46,892,720,885 | 8.80119% | 32.26605% |
| 4 | United Kingdom | 30,158,001,753 | 5.66029% | 37.92634% |
| 5 | Germany | 28,814,799,214 | 5.40819% | 43.33453% |
| 6 | Republic of Korea | 20,764,711,405 | 3.89728% | 47.23181% |
| 7 | Singapore | 18,511,391,369 | 3.47436% | 50.70617% |
| 8 | France | 17,732,411,000 | 3.32816% | 54.03433% |
| 9 | Netherlands | 15,962,395,348 | 2.99595% | 57.03028% |
| 10 | Japan | 14,581,032,148 | 2.73668% | 59.76696% |
| 11 | Qatar | 14,293,445,230 | 2.68271% | 62.44967% |
| 12 | Turkey | 13,771,403,581 | 2.58472% | 65.03439% |
| 13 | Canada | 11,983,608,812 | 2.24918% | 67.28357% |
| 14 | Ireland | 11,868,967,019 | 2.22766% | 69.51123% |
| 15 | Russian Federation | 11,802,890,290 | 2.21526% | 71.72649% |
| 16 | Malaysia | 9,593,485,831 | 1.80058% | 73.52707% |
| 17 | Australia | 8,855,781,434 | 1.66212% | 75.18919% |
| 18 | Thailand | 8,473,871,575 | 1.59044% | 76.77963% |
| 19 | Spain | 7,995,446,551 | 1.50065% | 78.28028% |
| 20 | India | 6,510,575,876 | 1.22196% | 79.50223% |

| Rank | State of AOC | RTK 2015 | RTK share (%) | Cumulative (%) |
|------|----------------------|----------------|---------------|----------------|
| 1 | China (1) | 70,403,245,196 | 12.42421% | 12.42421% |
| 2 | United States | 61,944,119,667 | 10.93141% | 23.35562% |
| 3 | United Arab Emirates | 52,100,507,516 | 9.19429% | 32.54991% |
| 4 | United Kingdom | 31,065,034,269 | 5.48211% | 38.03203% |
| 5 | Germany | 30,507,251,927 | 5.38368% | 43.41571% |
| 6 | Republic of Korea | 21,802,605,943 | 3.84755% | 47.26326% |
| 7 | Singapore | 18,615,753,428 | 3.28516% | 50.54842% |
| 8 | France | 18,295,414,100 | 3.22863% | 53.77705% |
| 9 | Qatar | 17,359,871,880 | 3.06353% | 56.84059% |
| 10 | Netherlands | 15,732,743,524 | 2.77639% | 59.61698% |
| 11 | Turkey | 15,587,345,360 | 2.75073% | 62.36771% |
| 12 | Japan | 15,527,311,664 | 2.74014% | 65.10785% |
| 13 | Ireland | 13,165,546,390 | 2.32335% | 67.43120% |
| 14 | Canada | 13,040,382,256 | 2.30126% | 69.73246% |
| 15 | Russian Federation | 11,635,019,200 | 2.05326% | 71.78572% |
| 16 | Australia | 9,368,848,020 | 1.65334% | 73.43906% |
| 17 | Spain | 9,215,837,003 | 1.62634% | 75.06540% |
| 18 | Thailand | 9,113,598,830 | 1.60830% | 76.67370% |
| 19 | Malaysia | 8,966,590,598 | 1.58235% | 78.25605% |
| 20 | India | 6,994,194,840 | 1.23428% | 79.49033% |



Capacity growth stimulating traffic

International capacity growth – Top 20 in terms of ASK

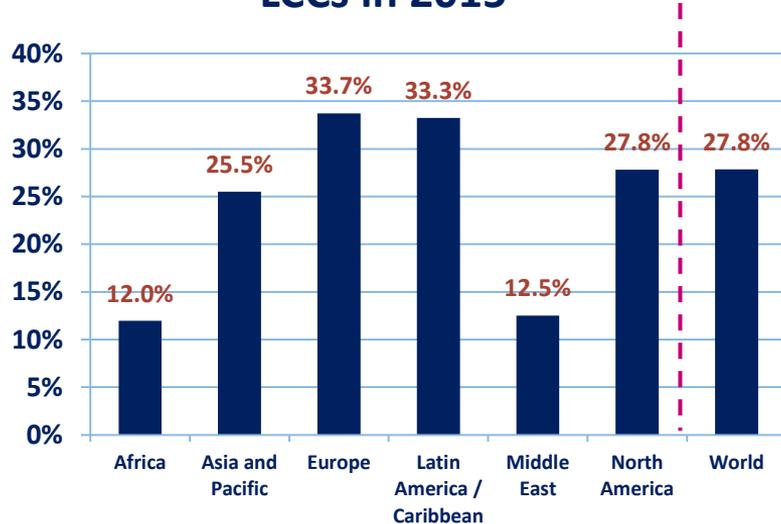
| Rank | State | Percentage Increase in ASK |
|------|----------------------|----------------------------|
| 1 | China | 17% |
| 2 | United Arab Emirates | 15% |
| 3 | Turkey | 17% |
| 4 | Qatar | 19% |
| 5 | Canada | 11% |
| 6 | Spain | 12% |
| 7 | Ireland | 8% |
| 8 | Germany | 4% |
| 9 | United States | 2% |
| 10 | Japan | 8% |
| 11 | Republic of Korea | 5% |
| 12 | Mexico | 22% |
| 13 | United Kingdom | 2% |
| 14 | India | 8% |
| 15 | Oman | 37% |
| 16 | Hungary | 18% |
| 17 | Philippines | 10% |
| 18 | Brazil | 14% |
| 19 | Ethiopia | 16% |
| 20 | France | 3% |

Top 20 new routes in ASK in 2015

| City Pair | Country Pair |
|----------------------------|---------------------------------------|
| Istanbul - San Francisco | Turkey – United States |
| Abu Dhabi - Brisbane | United Arab Emirates - Australia |
| Taipei - Istanbul | China - Turkey |
| Istanbul - Jakarta | Turkey - Indonesia |
| Dubai - Denpasar-Bali | United Arab Emirates - Indonesia |
| Hong Kong - Boston | China - United States |
| Melbourne - Beijing | Australia - China |
| Houston - Taipei | United States - China |
| Edinburgh - Abu Dhabi | United Kingdom - United Arab Emirates |
| Orlando - Dubai | United States - United Arab Emirates |
| Dallas - Beijing | United States - China |
| Brisbane - Tokyo | Australia - Japan |
| Istanbul - Manila | Turkey - Philippines |
| Sao Paulo - Addis Ababa | Brazil - Ethiopia |
| Salt Lake City - Amsterdam | United States - Netherlands |
| Guangzhou - San Francisco | China - United States |
| Vancouver - Osaka | Canada - Japan |
| San Jose - Beijing | United States - China |
| Nairobi - Hanoi | Kenya - Vietnam |
| Osaka - Los Angeles | Japan - United States |

Low-cost carriers (LCCs) stimulating traffic

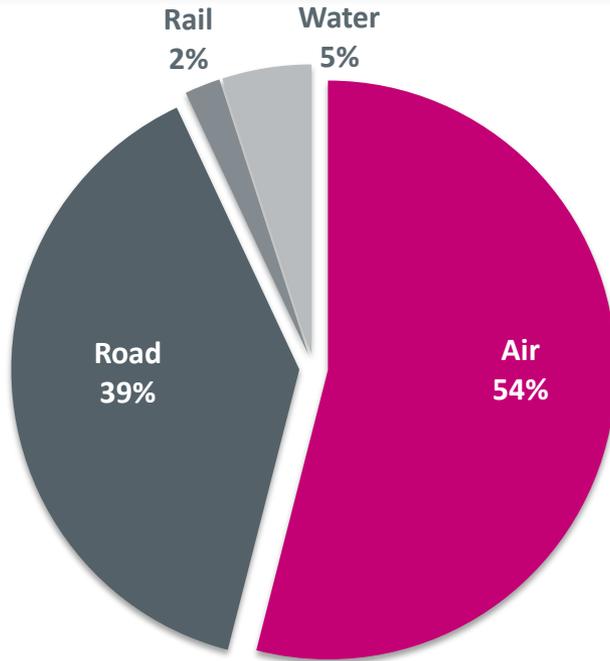
Share of passengers carried by LCCs in 2015



Passenger number growth for LCCs and other carriers

| | 2014 | 2015 |
|--------|------|-------|
| LCCs | 9.8% | 10.3% |
| Others | 4.2% | 5.5% |
| Total | 5.7% | 6.8% |

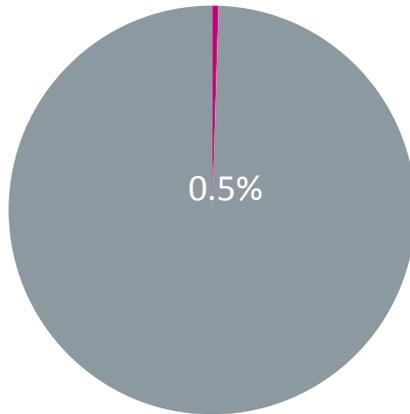
LCCs growth has been consistently twice as much as other carriers' growth



More than **half** of international inbound tourist arrived by air in 2015

Volume of world international cargo shipment

Aviation

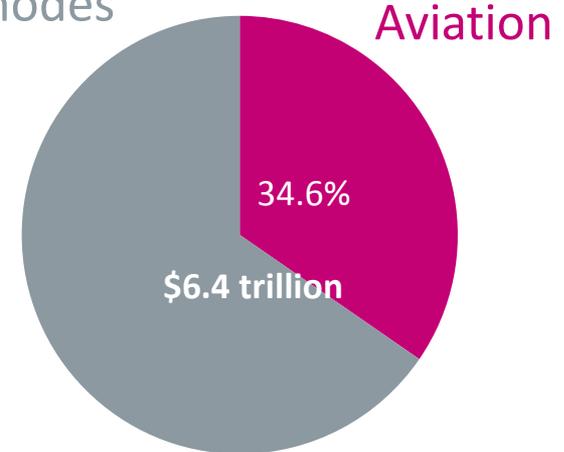


Surface modes

One third of the value of world trade is shipped by air

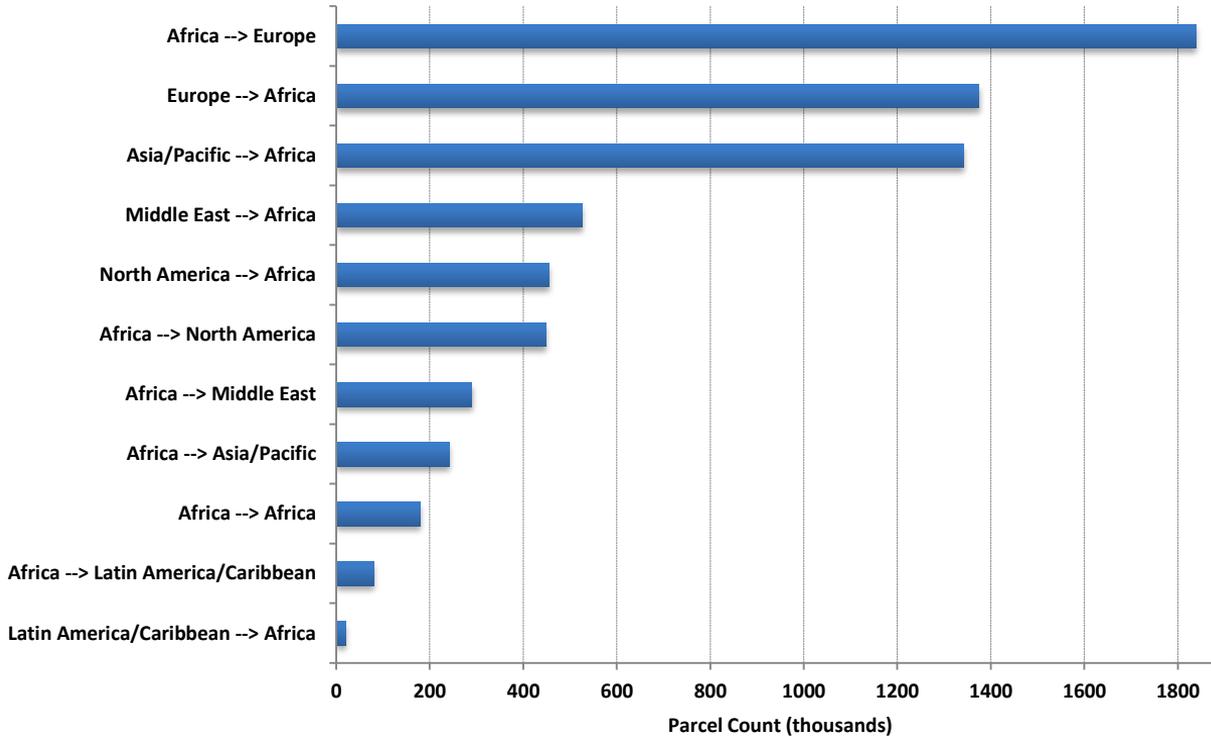
Value of world international cargo shipment

Surface modes

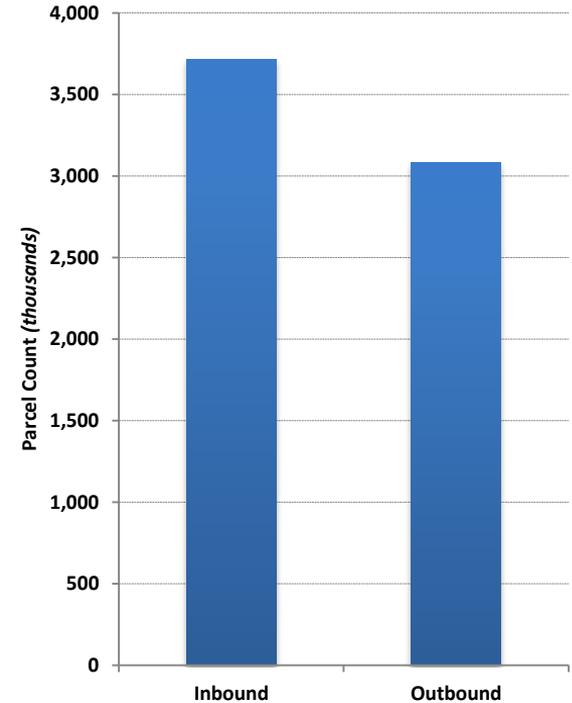




Africa E-Commerce* Activity 2015 (one Way)



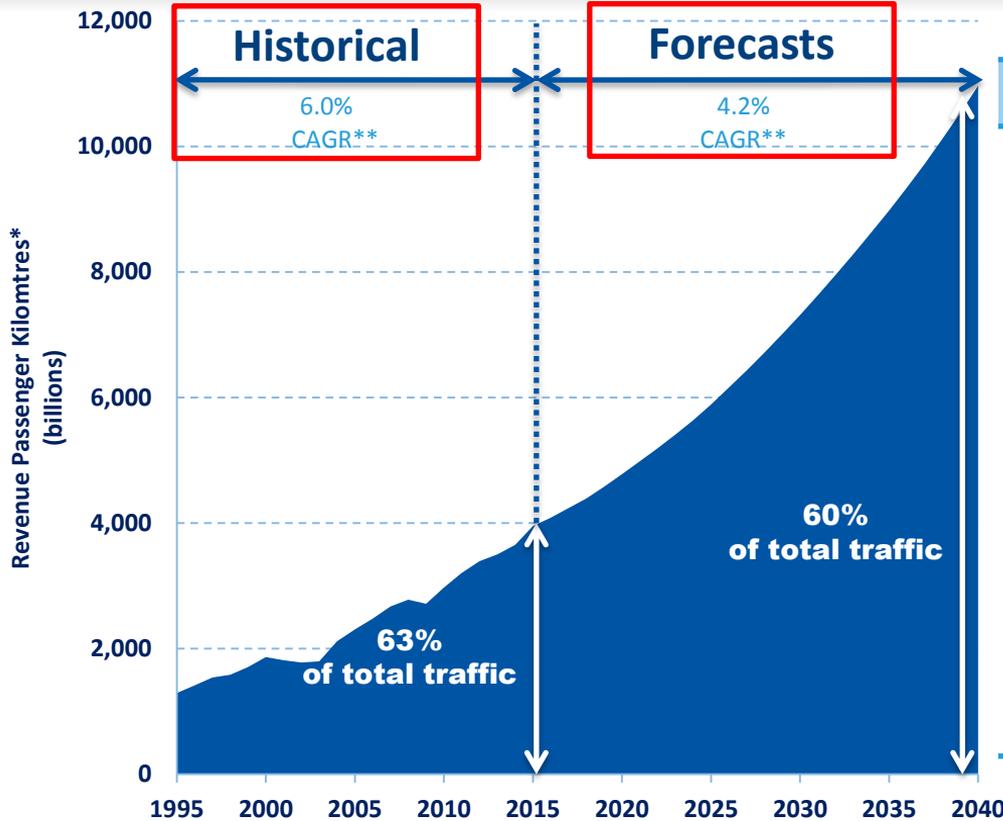
Africa Overall E-commerce Activity 2015





Long-term air traffic forecasts

Scheduled international passenger traffic



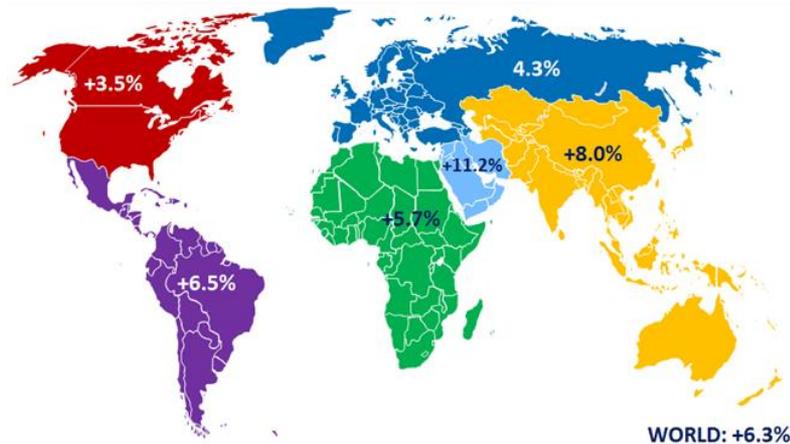
Projected Top 10 Routes 2040

| Rank 2040 | Rank 2015 | Long Term Forecast Route Group | Share 2040 | Share 2015 |
|-----------|-----------|--|------------|------------|
| 1 | 4 | Central Southwest Asia - Pacific South East Asia | 11.9% | 5.4% |
| 2 | 1 | Intra Europe | 11.5% | 15.8% |
| 3 | 8 | Central Southwest Asia - Middle East | 11.3% | 3.9% |
| 4 | 2 | Europe - North America | 9.0% | 11.8% |
| 5 | 3 | Central Southwest Asia - Europe | 7.3% | 5.8% |
| 6 | 5 | Intra Pacific South East Asia | 6.1% | 4.5% |
| 7 | 7 | Central Southwest Asia - North America | 5.9% | 4.1% |
| 8 | 18 | Central Southwest Asia- North Asia | 4.6% | 1.9% |
| 9 | 6 | Europe - Middle East | 3.6% | 4.5% |
| 10 | 9 | Europe - Pacific South East Asia | 3.5% | 3.6% |

ICAO 2016 preliminary results

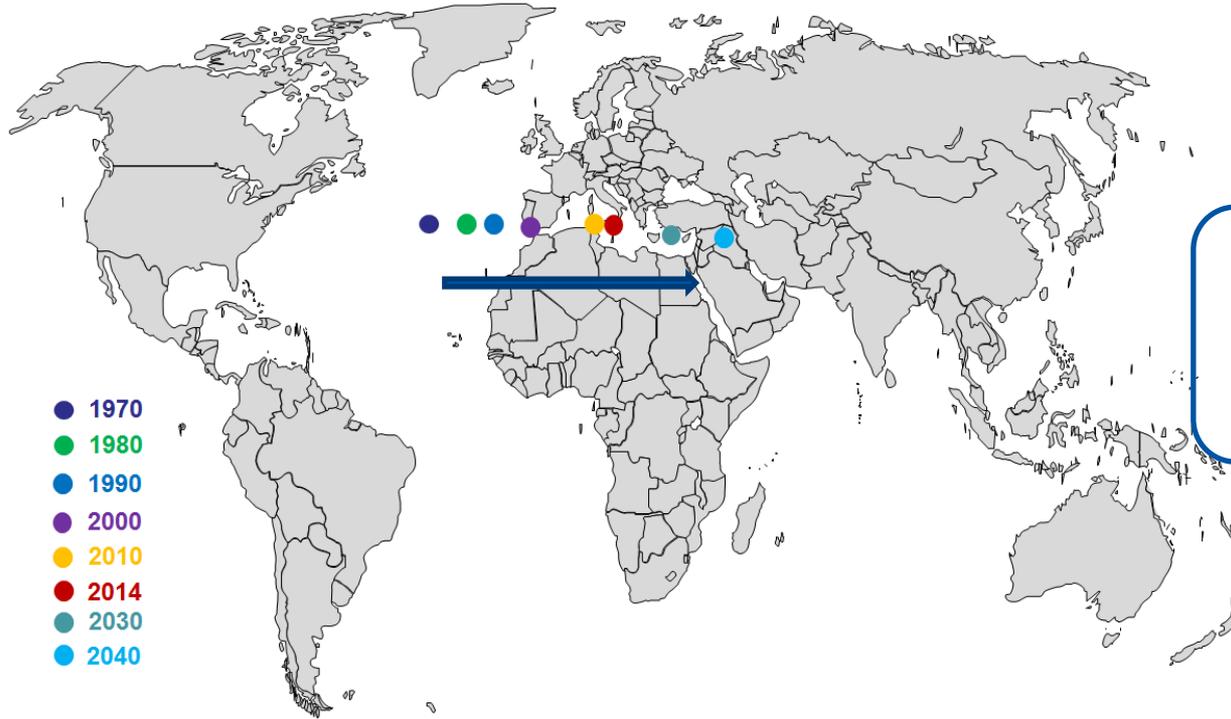
Number of passengers: +6.0% in 2016, 3.7 billion pax carried in 2016 (+6.8% in 2015)

Revenue Passenger-Kilometres: +6.3% in 2016 (+7.1% in 2015)



**International scheduled passenger
traffic growth in 2016**

Centre of gravity



The **centre of gravity** has been steadily moving from the **middle of North Atlantic** to the **middle of the Mediterranean sea** in the last four decades. It is expected to move further east by 2040.

Geographical centre of gravity of departing/arriving passengers



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- Acknowledgement of need to consider a new ICAO Global Air Transport Plan.
- Endorsement of action plan for the finalization of the international agreements being developed by ICAO for the liberalization of market access, air cargo and air carrier ownership and control.
- Endorsement of the action plan for further customization of long term traffic forecasts for global and regional forecasts for aviation personnel (Doc 9956) to meet the requirements of the ICAO Next Generation Aviation Professional (NGAP) programme.



- Promote the strengthening of partnerships in the area of data sharing and analysis with the UN, its agencies, international, regional organizations and academia to increasing financing and investments for the development of air transport activities.
- Increased awareness and promotion of various updated policy guidance and tools.
- Increased awareness and promotion of the ICAO long-term vision for air transport liberalization and core principles on consumer protection.
- Increased awareness and promotion of various tools and analysis jointly developed by partners.



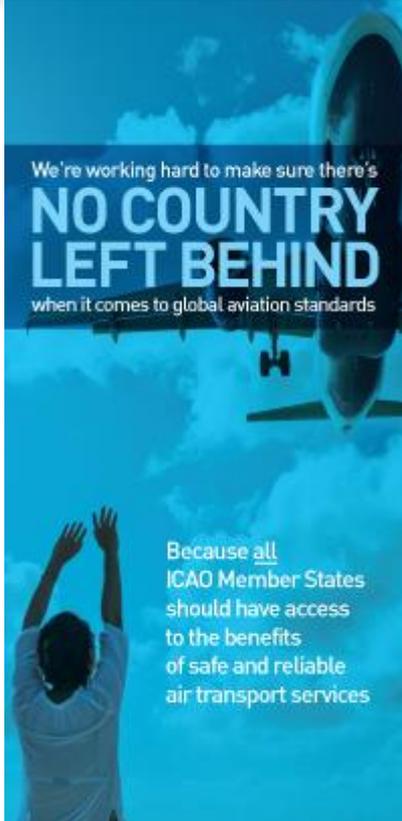
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No Country Left Behind

- assist States in **implementing ICAO Standards and Recommended Practices (SARPs)**
- ensure that SARP implementation is better **harmonized globally**
- all States to have access to the **significant socio-economic benefits** of safe and reliable air transport
- Ultimately contribute to the achievement of the **UN Sustainable Development Goals (UN SDGs)**

Sustainable Development Goals



Goal 9. Build resilient infrastructure, promote inclusive and sustainable industrialization and foster innovation

9.1 Develop quality, reliable, sustainable and resilient infrastructure, including regional and trans-border infrastructure, to support economic development and human well-being, with a focus on affordable and equitable access for all.



Sustainable Development Goals

9.1.2 Passenger and freight volumes, by mode of transport (by ICAO)

2014 -Passenger and Freight Volumes for Air Transport

| | Total passengers | Share of passenger | Total freight tonnes carried | Share of freight tonnes carried |
|--|------------------|--------------------|------------------------------|---------------------------------|
| World | 3,303,349,219 | | 50,351,508 | |
| Developing Regions | 1,488,317,905 | 45.05% | 26,087,125 | 51.81% |
| Northern Africa | 27,465,990 | 0.83% | 167,082 | 0.33% |
| Sub-Saharan Africa | 44,853,931 | 1.36% | 612,980 | 1.22% |
| Latin America and the Caribbean | 240,229,220 | 7.27% | 1,922,358 | 3.82% |
| Eastern Asia | 522,639,082 | 15.82% | 12,444,007 | 24.71% |
| Southern Asia | 114,948,811 | 3.48% | 1,247,289 | 2.48% |
| South-Eastern Asia | 279,378,708 | 8.46% | 3,584,099 | 7.12% |
| Western Asia | 244,116,326 | 7.39% | 5,984,751 | 11.89% |
| Oceania | 4,172,294 | 0.13% | 56,351 | 0.11% |
| Caucasus and Central Asia | 10,513,543 | 0.32% | 68,208 | 0.14% |
| Developed regions | 1,815,031,314 | 54.95% | 24,264,383 | 48.19% |
| Least Developed countries | 26,381,089 | 0.80% | 514,474 | 1.02% |
| Landlocked developing countries | 97,713,083 | 2.96% | 667,942 | 1.33% |
| Small island developing States | 54,464,259 | 1.65% | 1,276,418 | 2.54% |