

# Designing Hubs : Market Outlook, Opportunities and Challenges

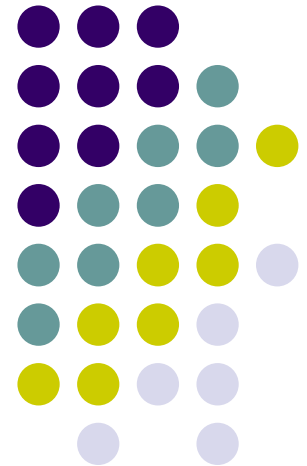
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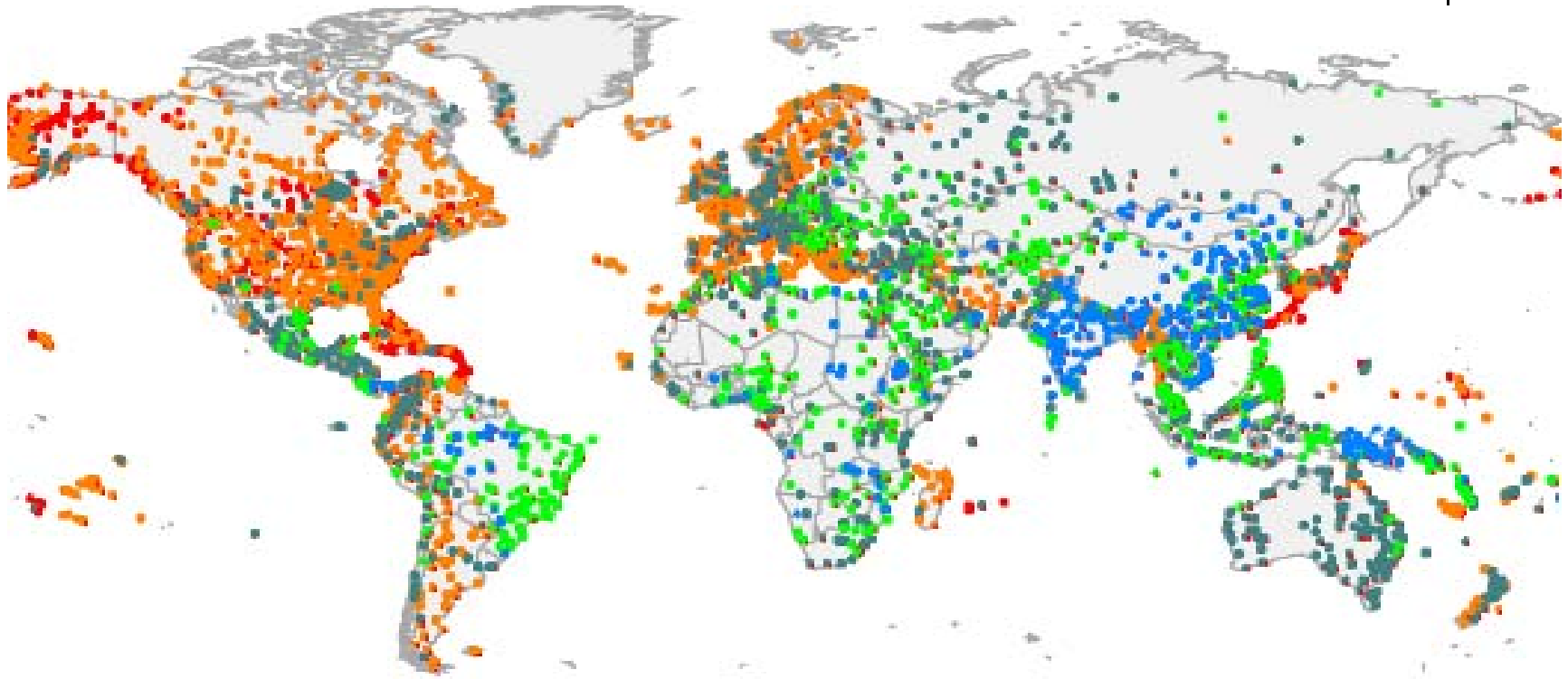
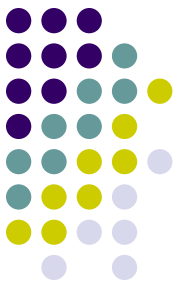
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Presented in Airneth Annual Conference,  
The Hague, Netherlands, 18 April 2012



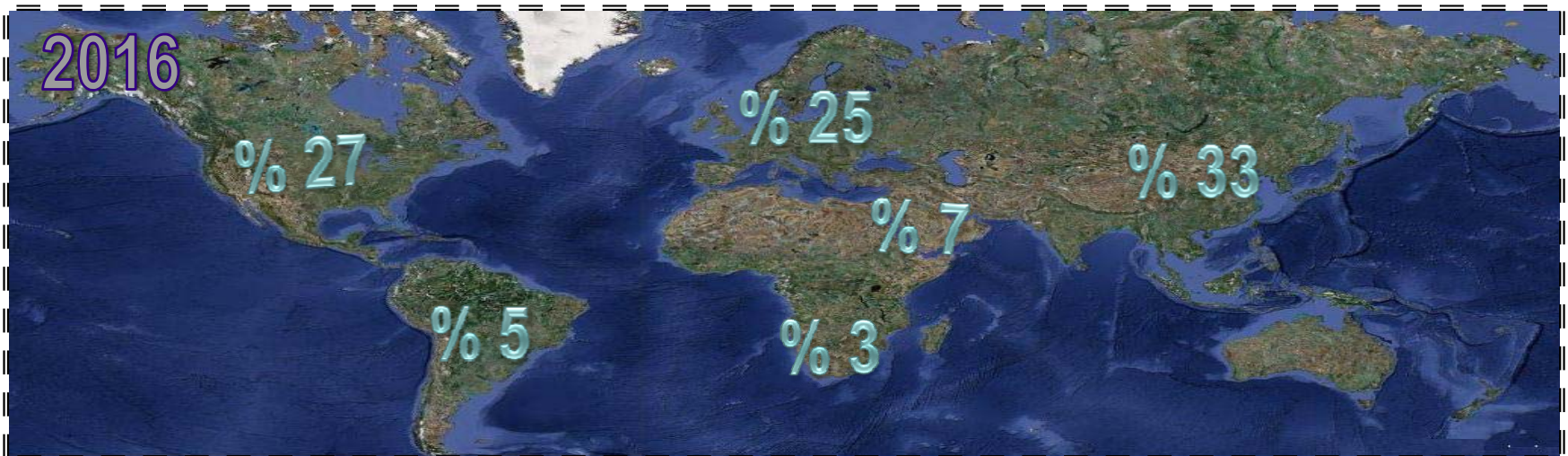
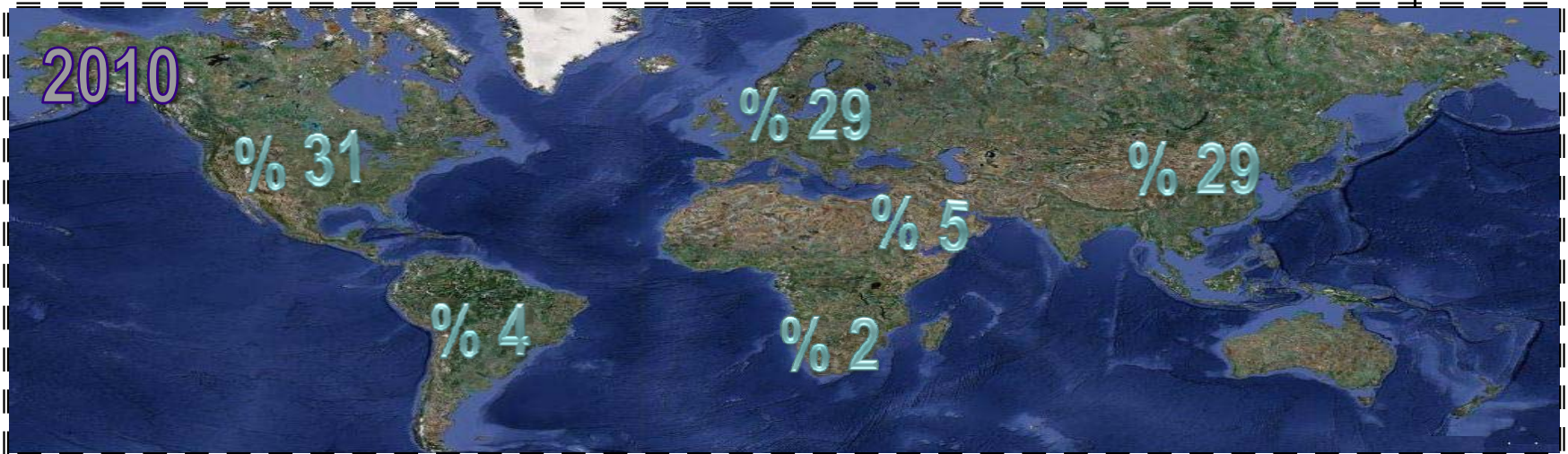
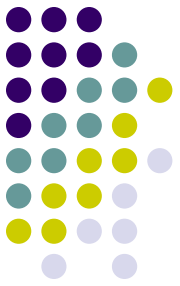
# Larger Growth in the East



2010 - 2020 CAGR



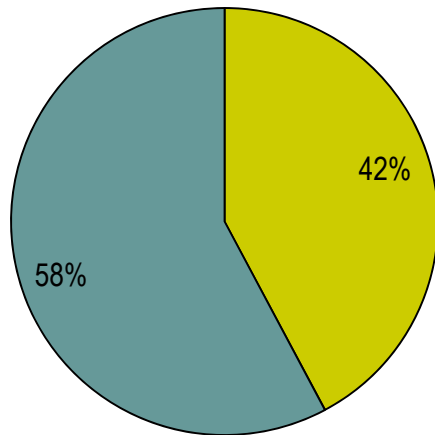
# Gravity is Shifting !



# Scheduled Traffic Development



Global Airline Industry Passenger Split



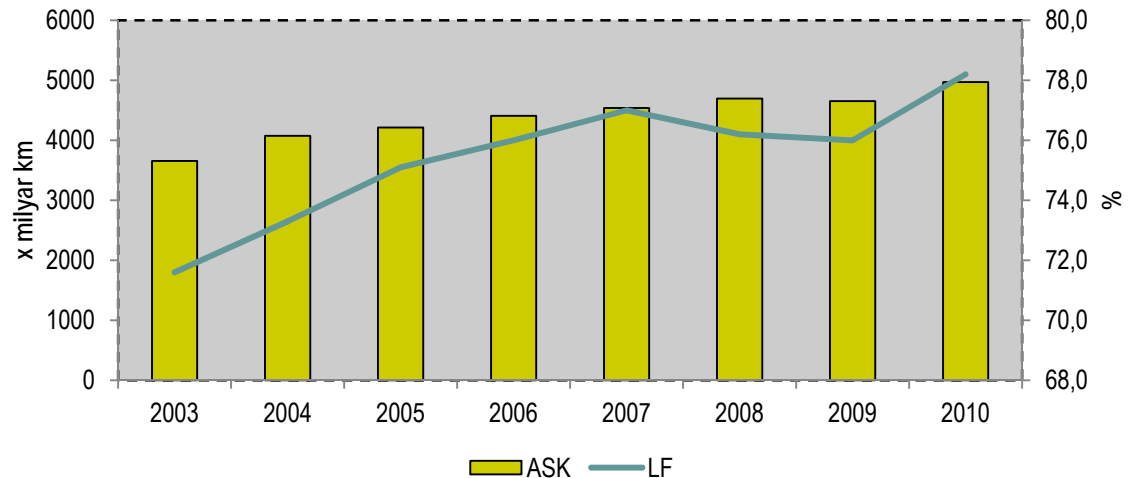
■ International  
■ Domestic

**+0,6**  
Annual average point Load Factor Increase since 2003

- Recent expansion in capacity comes with the concerns regarding overcapacity.
- Since 2005, RPK growth has been faster than ASK growth which indeed increased the average load factors by approximately half percent annually.

**% 2,7**  
ASK increase since 2005 (CAGR)

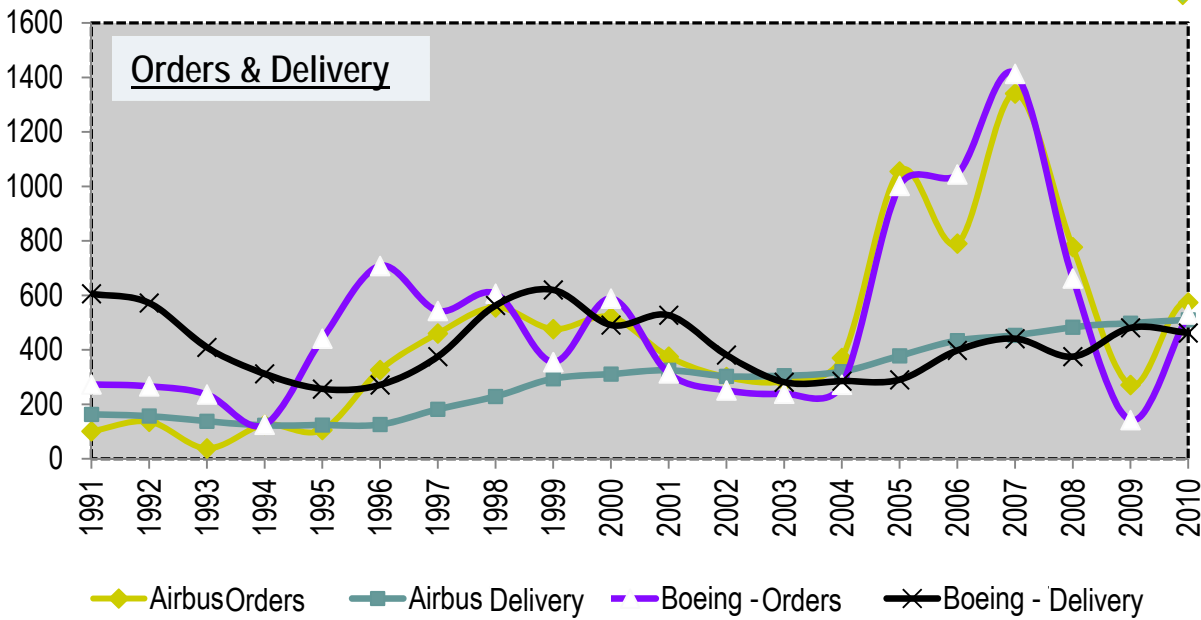
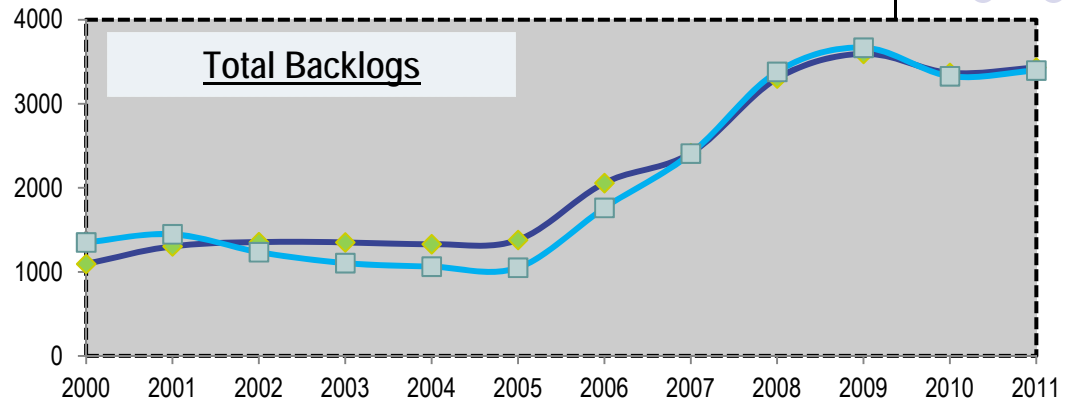
**% 3,3**  
RPK increase since 2005 (CAGR)



# Aircraft Order & Deliveries

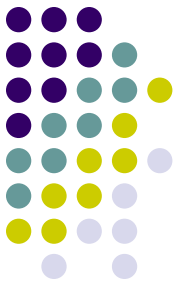


- More orders observed 2006 – 2008
- Narrow bodies compose 2/3 of the overall orders.
- Super wide bodies, new NEO type aircraft and growing market's orders have pumped up the orders.



**%62**  
Backlogs @ Boeing

**%68**  
Backlogs @ Airbus



# Future Trends / De-hubbing ?

## Being a commodity :

- \* Decreasing cost of production
- \* Increasing per capita income
- \* Increasing demand for travelling



## More local demand :

- \* Faster increase in short – haul travel demand
- \* Price sensitive markets
- \* Increasing charter & off-schedule ops.



1/2

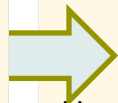
Average per capita trip per year is still around 0.5

63%

Narrow Body Aircraft %  
(Overall indr., 2010)

70%

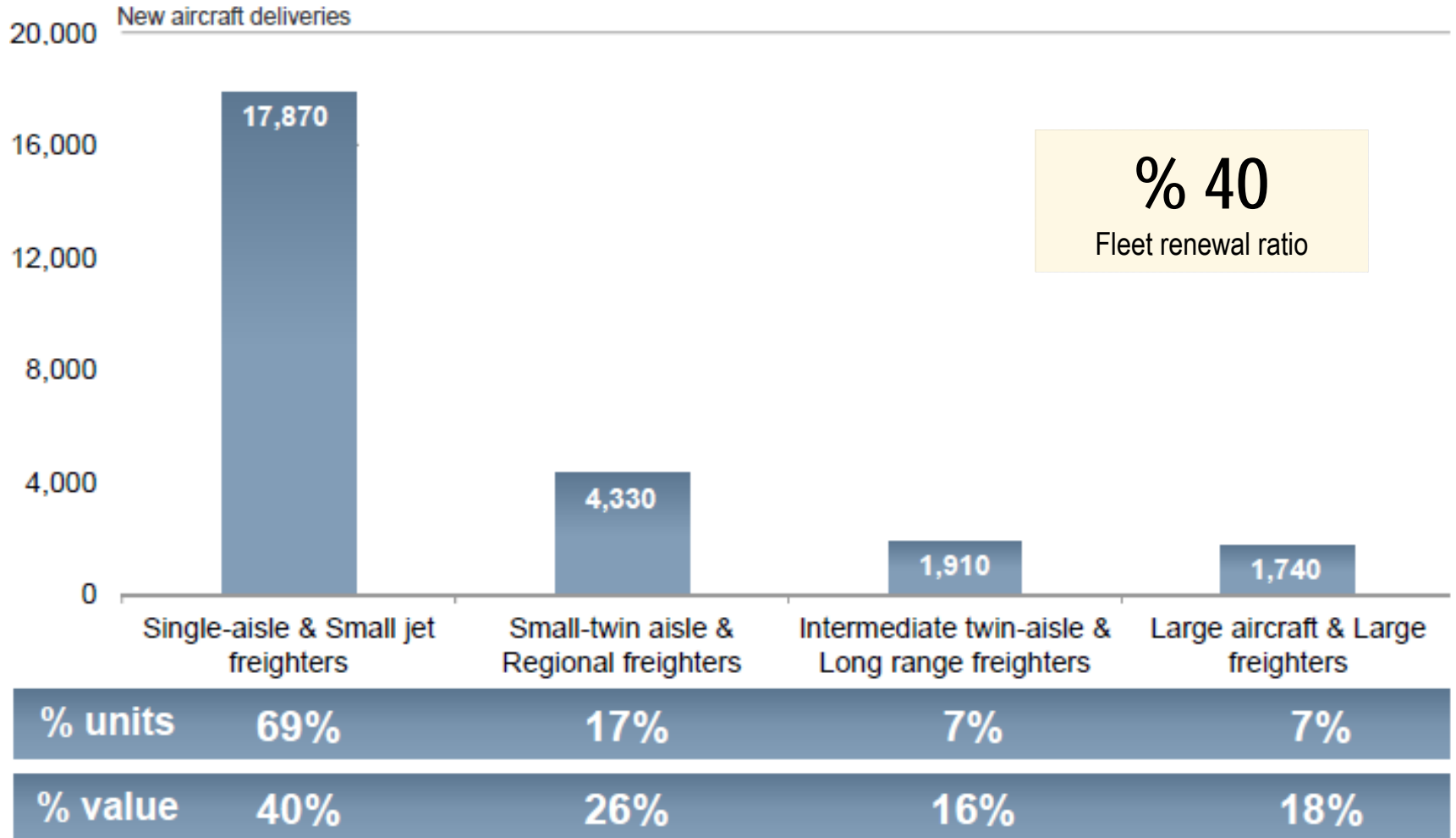
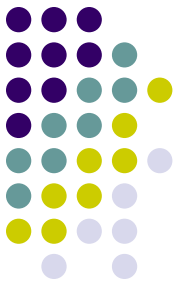
Narrow Body Aircraft %  
(Overall indr., 2020)



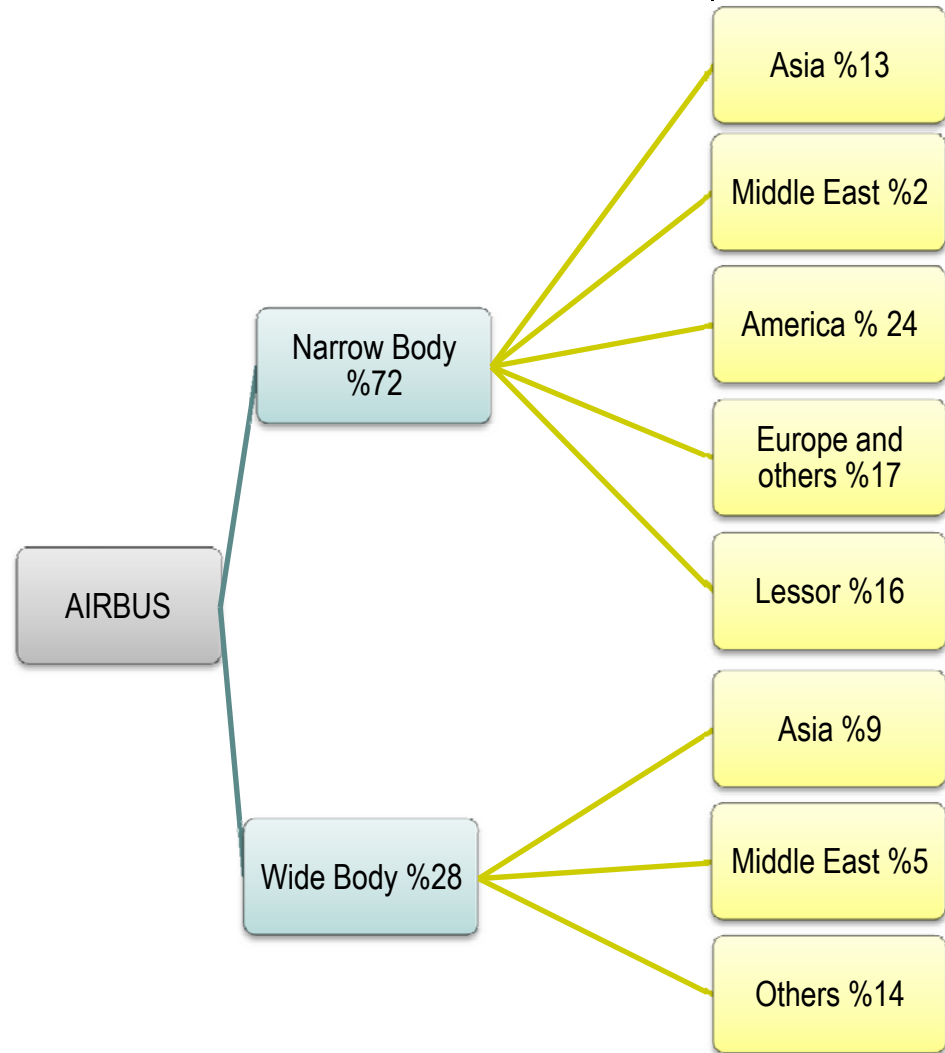
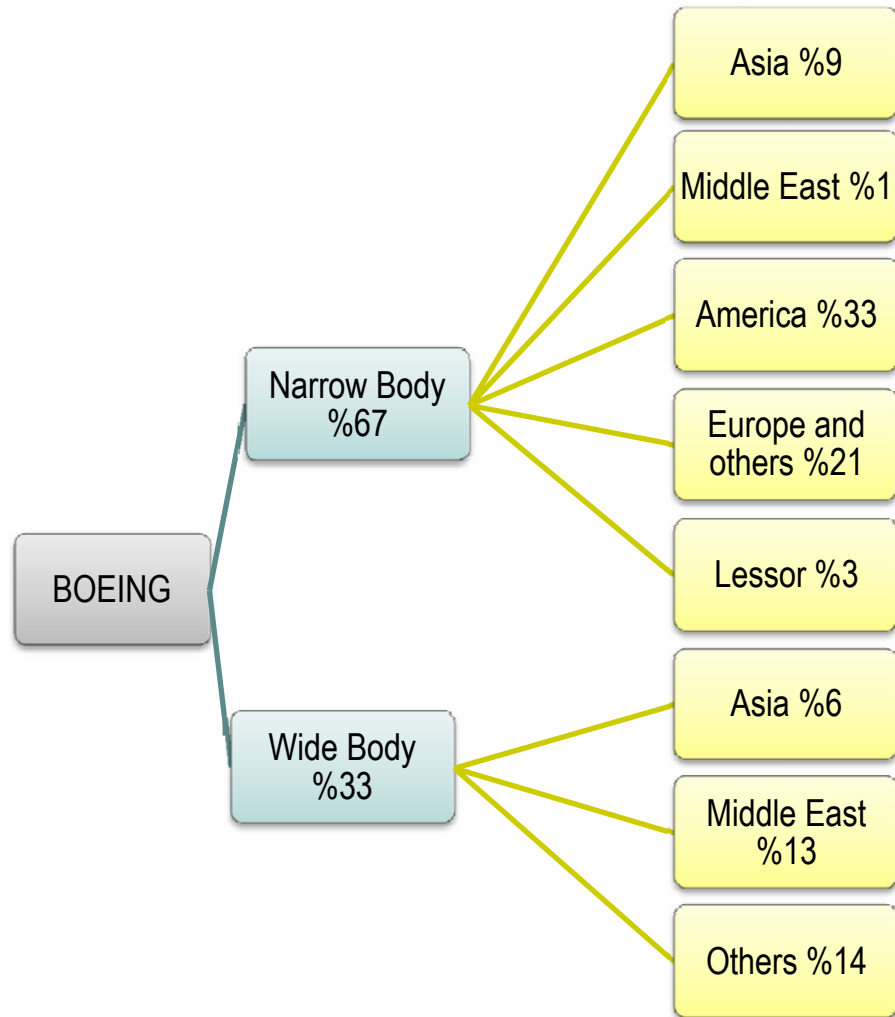
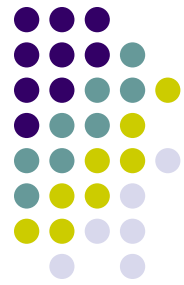
## Increasing Demand for Narrow Bodies :

- \* Cheaper operation despite increas. costs
- \* Profitable low – cost ops
- \* New generation narrow bodies
- \* Market liberalization

# Fleet Orders



# Fleet Orders

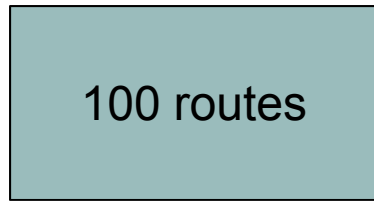






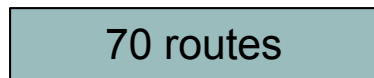
# Why mega-hubs ?

**Single Hub**



$100 \times 99 = 9.900$  O&D's can be served.

**Dual Hub**



$70 \times 69 = 4.830$  O&D's can be served.

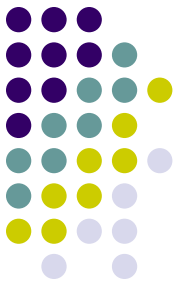


$30 \times 29 = 870$  O&D's can be served.



5.700 O&D's are served (In sum)

- By transferring 30% of the routes (operations) to a secondary hub, 42% of the connections are lost.
- Transferring to a secondary hub is optimal if and only if **100 routes are connected to less than 57** destinations only. (when assumed that dual hub alternative enables full connection.)



# For a strong hub ...

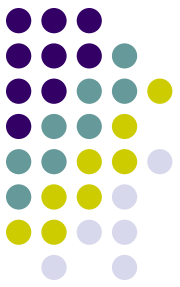
- Geographical advantage is a must.
- Strong demand flow should surround the hub.
- Local demand of the home market provides significant advantage.
- Technical infrastructure and the capacity of the airport needs to be sufficient enough to accommodate the demand. (and of course service quality!)
- A hub candidate airport can never become a real hub without a large enough airline using it as the base of its operations.

The nature of hubs have a slightly different nature in the western part of the Atlantic.

Due to the huge domestic traffic in the US and the different business models of the airlines, we observe a quite different nature of hubs there.

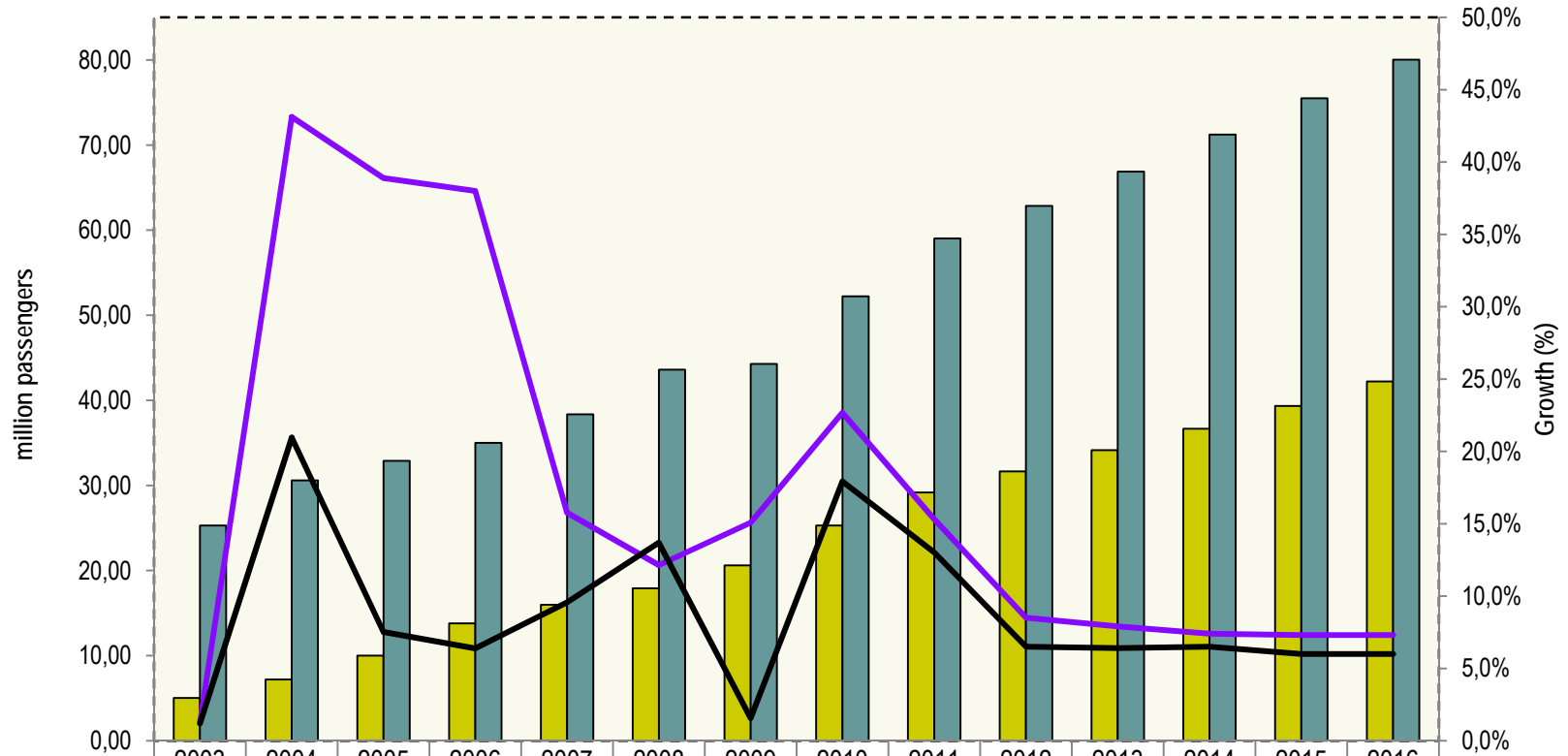
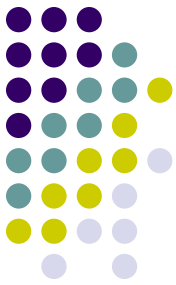


# Local Demand



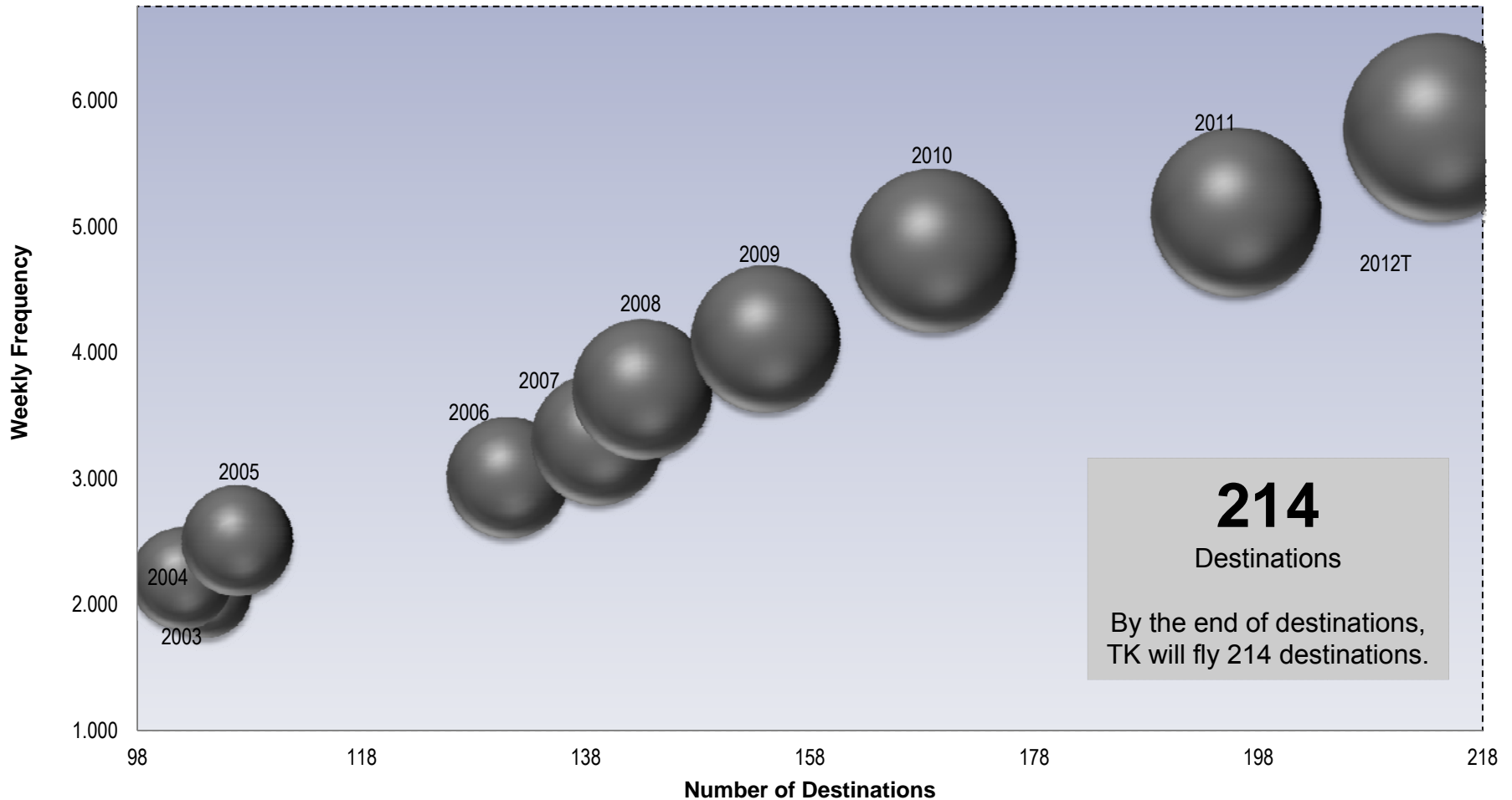
Country	Population (million)	# Int. Passengers	# Dom. Passengers
UK	~ 62	164.2	24.2
The Netherlands	~ 16	44.6	N/A
France	~ 65	91.9	21.3
Germany	~ 82	137.9	26.0
Austria	~ 8	22.0	N/A
Turkey	~ 74	31.4	15.3
Qatar	~ 2	15.2	N/A
UAE	~ 9	57.5	N/A
China	~ 1.345	59.5	243.6
India	~ 1.214	34.0	47.3
Singapore	~ 5	38.7	N/A
Australia	~ 23	25.7	51.9

# Case : Turkey Pax Figures



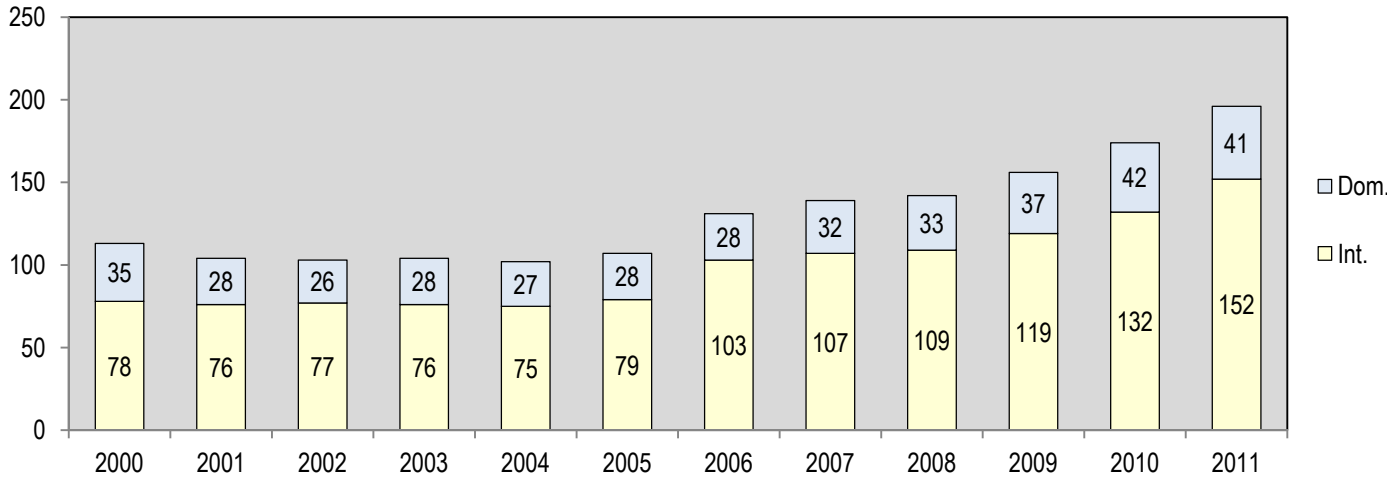
Domestic Pax	5,03	7,20	10,00	13,80	15,98	17,92	20,62	25,29	29,17	31,64	34,14	36,67	39,35	42,22
International Pax	25,30	30,60	32,90	35,00	38,35	43,60	44,28	52,22	59,02	62,86	66,88	71,23	75,50	80,03
Domestic Growth %	1,2%	43,1%	38,9%	38,0%	15,8%	12,1%	15,1%	22,7%	15,32%	8,50%	7,90%	7,40%	7,30%	7,30%
International Growth %	1,2%	20,9%	7,5%	6,4%	9,6%	13,7%	1,6%	17,9%	13,02%	6,50%	6,40%	6,50%	6,00%	6,00%

# TK – Network Development





# Destinations



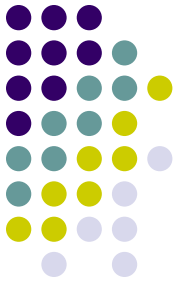
- Routes to be launched soon**
- Novorsibirsk
  - Abidjan
  - Kano
  - Ulanbatur
  - Bilbao
  - La Caruna
  - Misrata
  - Isfahan
  - Bremen
  - Edinburgh
  - Marsilya
  - Leipzig
  - Kinshasa
  - Buenos Aires
  - Oran
  - Krakov
  - Aalborg
  - Billund



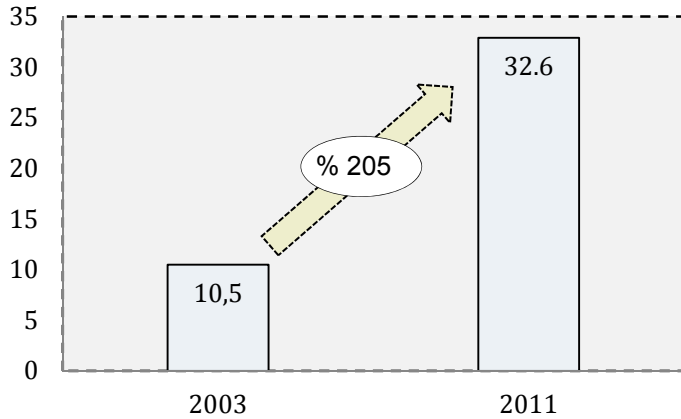
**10**  
TK is one of the ten largest network owner airline of the globe



# TK Figures from 03 to 11



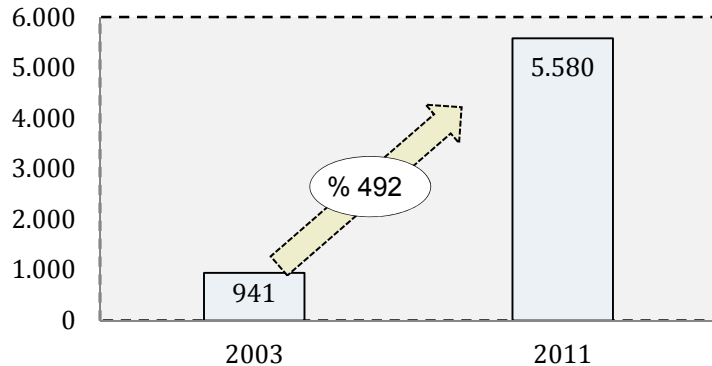
**Total Passenger Count ( x million)**



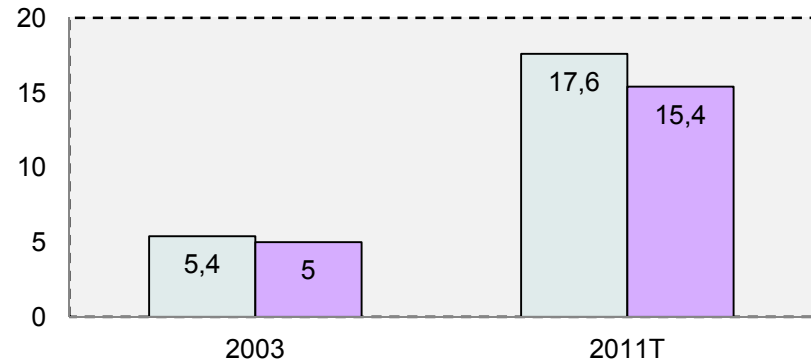
**32.6**  
million

# of passengers by the end of 2011

**International Transfer Pax ( x 1000)**



**International and Domestic Pax (mil.)**



Light blue → Int. Pax  
Purple → Dom. Pax

# Thank you for listening !

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