

Business Aviation: Introduction and Market Overview

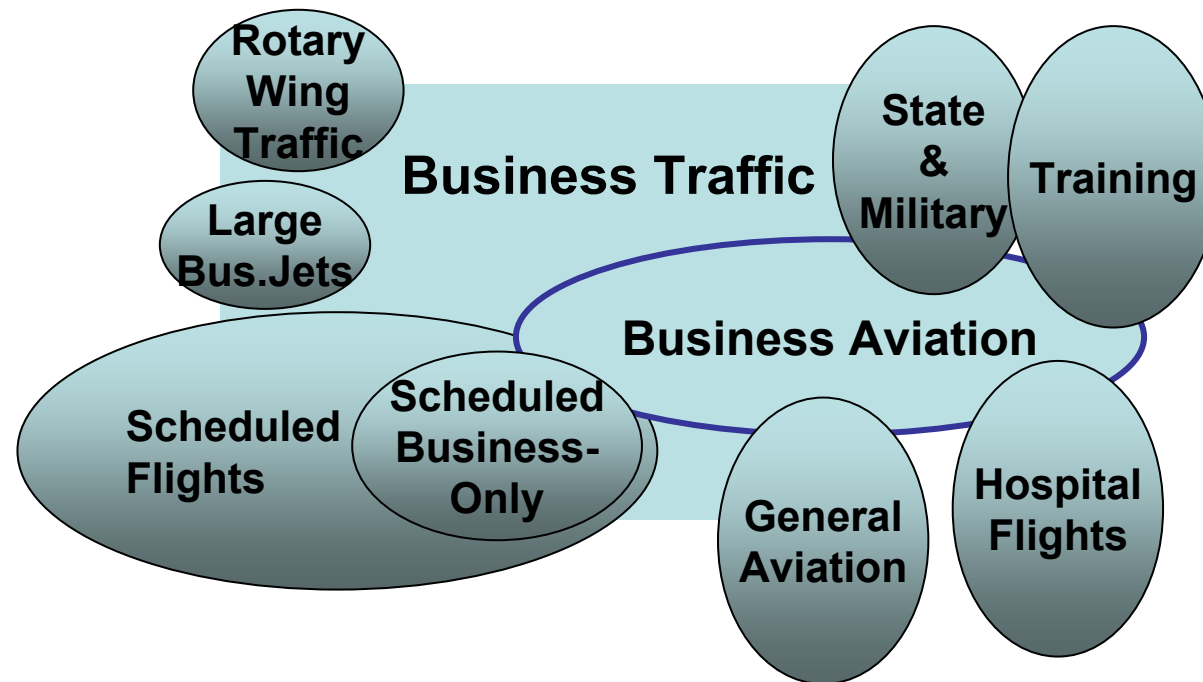
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Content of the presentation

- **Business jet market – European perspective**
- **Difference between VLJ's and traditional Business Jets**
- **Impact of new demand trends and emergence of VLJ's on aviation systems**

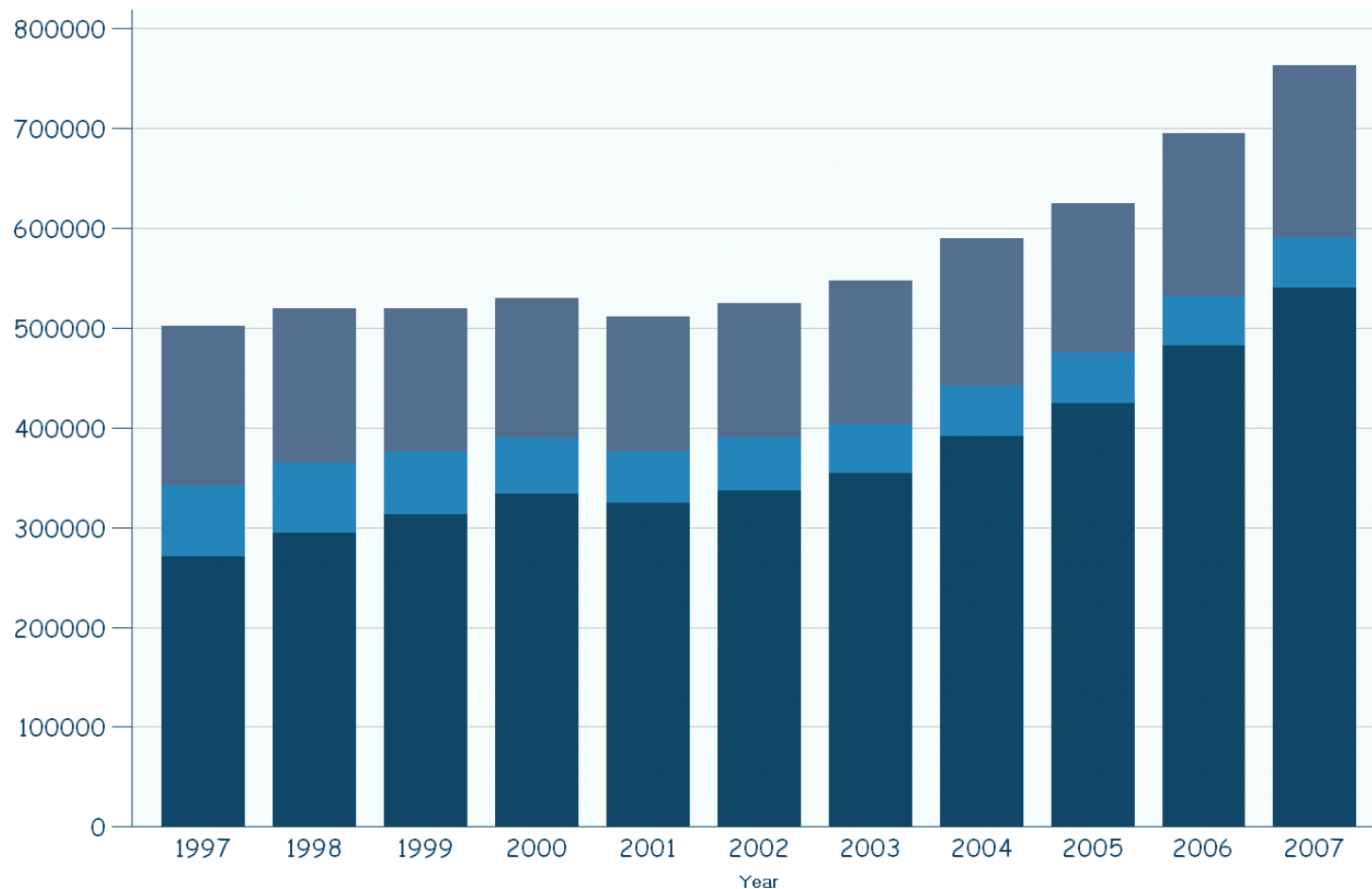


Business aviation overlaps with other types of flight



Business Aviation IFR Arrivals & Departure

Business Aviation IFR Arrivals & Departures



Type ■ Jet ■ Piston ■ Turboprop

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Business flights movements per day

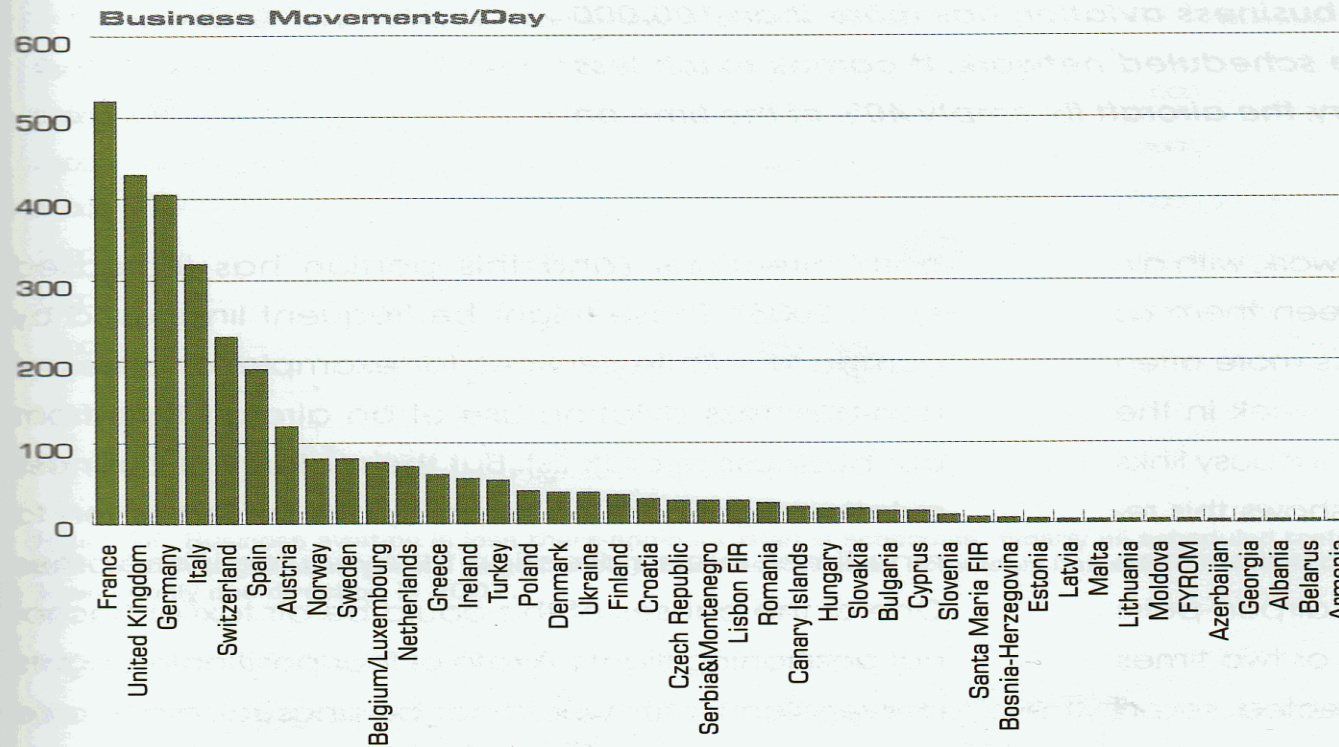
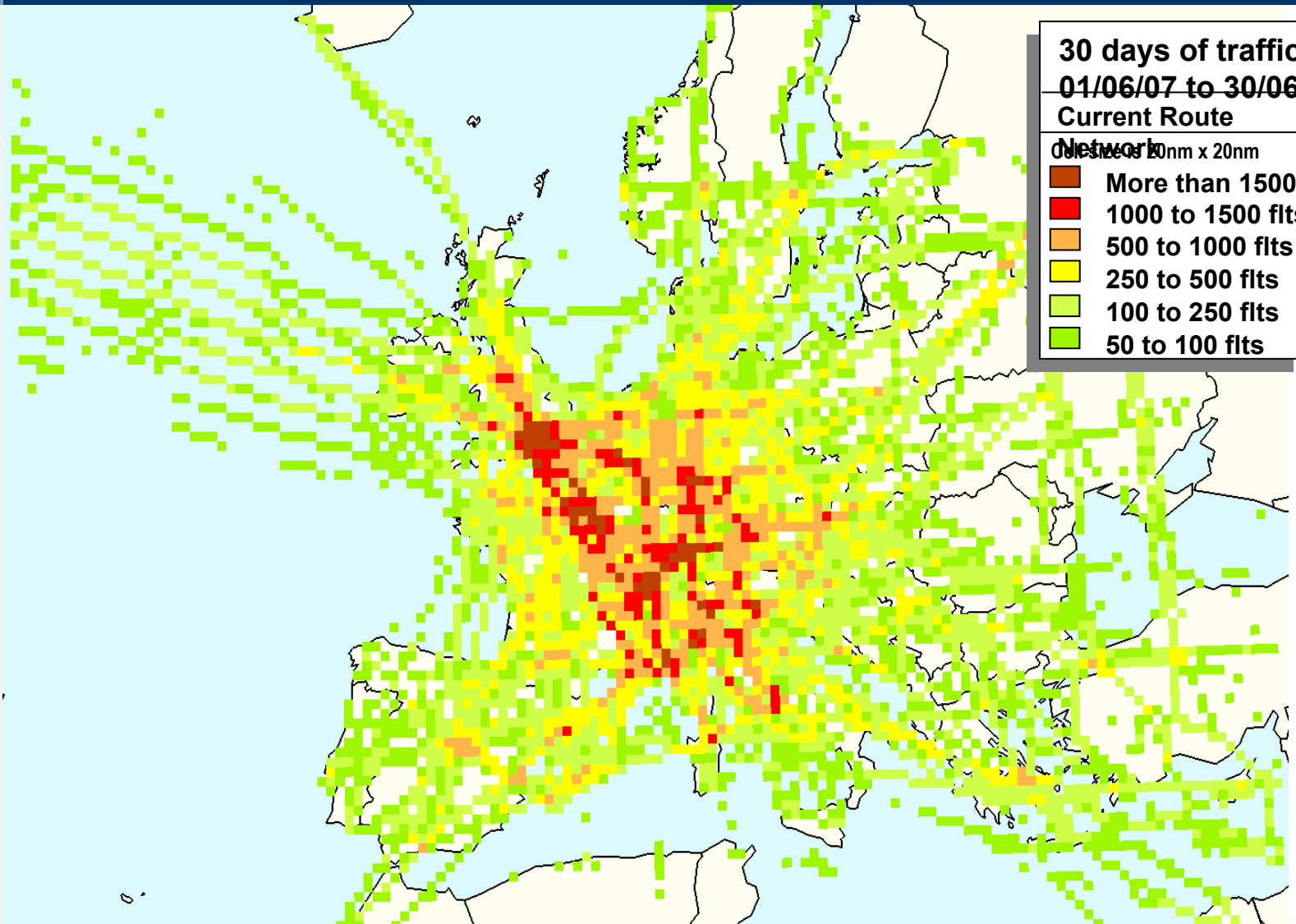


Figure 9. Excluding overflights, seven states had more than 100 business movements per day in 2007.



Scheduled services in Europe with broad range of distances

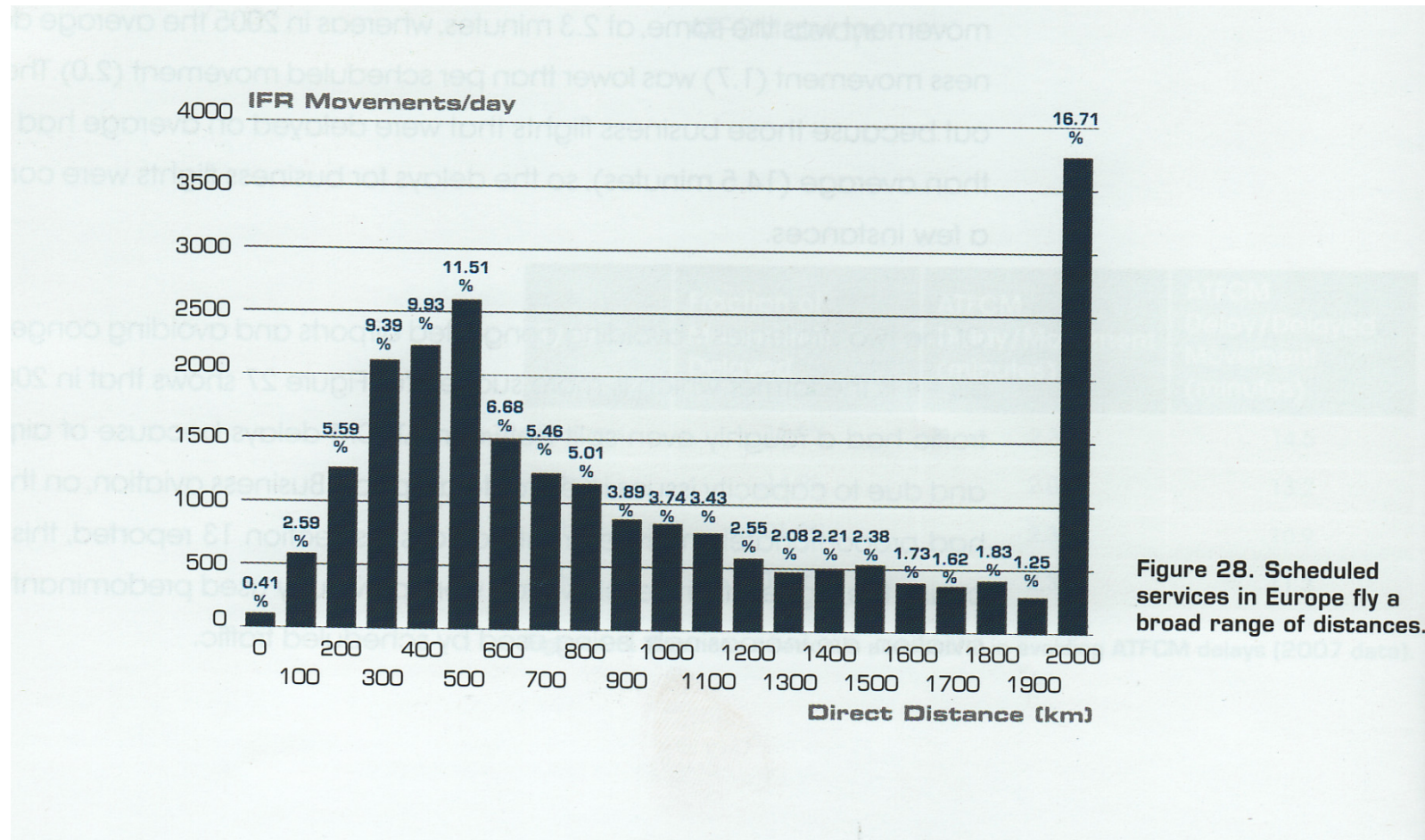


Figure 28. Scheduled services in Europe fly a broad range of distances.

Key figures about Business Jet Market

- Demand in the next 10 years:
 - **Business Jets:** > 11,000
 - **whereof VLJ's:** 2,500 – 3,000
- Value: USD 169 billion
- World Fleet:
 - 49,152 aircraft
 - Annual growth: 3.3%
- European Fleet:
 - 2,551 aircraft
 - Annual growth: 5%

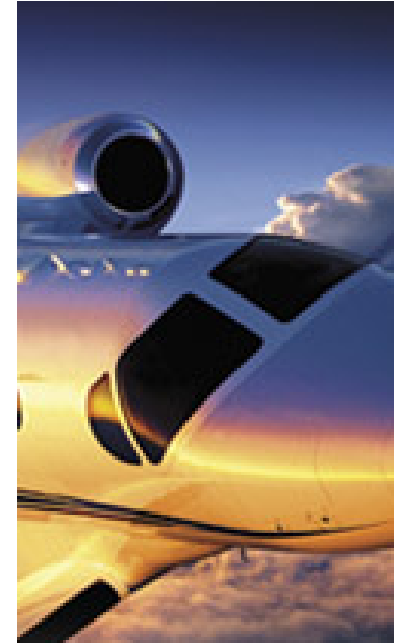


Key figures about Business Jet Market

- 866 Air Taxi Companies in Europe
- 1,190 Business Aircraft operated by European Air taxi companies
- 25,980 people employed directly by Air taxi companies in Europe
- 42,600 total people employed including indirect employment in Europe

Source: European Business Aviation Society

Source: Embraer



Forecast jet delivery scenarios 2008 - 2017

Scenario	Worldwide yearly deliveries	European deliveries
High growth	1400	280
Central forecast	1200	216
Low growth	700	112



Structure and development patterns of the Business Aviation market in Europe

- Jet domination
- widespread network with focus on north – south relations
- short and big distances: two markets?
- potential to east – west relations
- potential point to point and medium range

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VLJ's vs. traditional Business Jets

	Traditional Business Jets	Very Light Jets
Range	up to 12500 km	1500 – 2500 km
Price range	up to 45 million \$	1.5 – 3 million \$
Max. Speed	800 – 950 km/h	700 – 800 km/h
Max. operating altitude	15000m	11000 – 12500 m
Max. take off weight	42000 kg	~4500 kg
Take off runway length	1500 – 2000m	700 – 1200m
Number of crew	2 – 4	1 – 2
Number of passengers	up to 20	4 – 6



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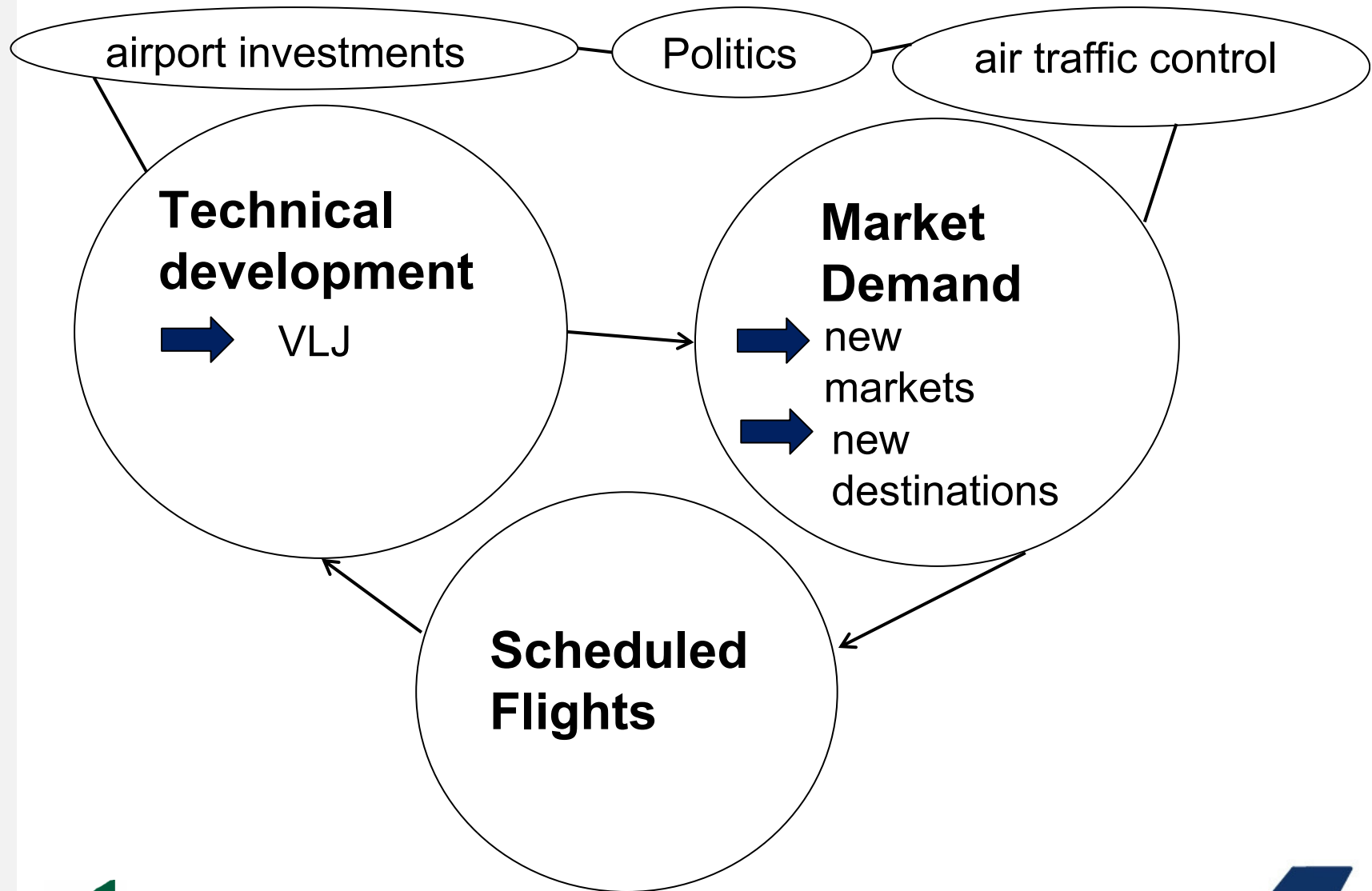


Consequences of VLJ's

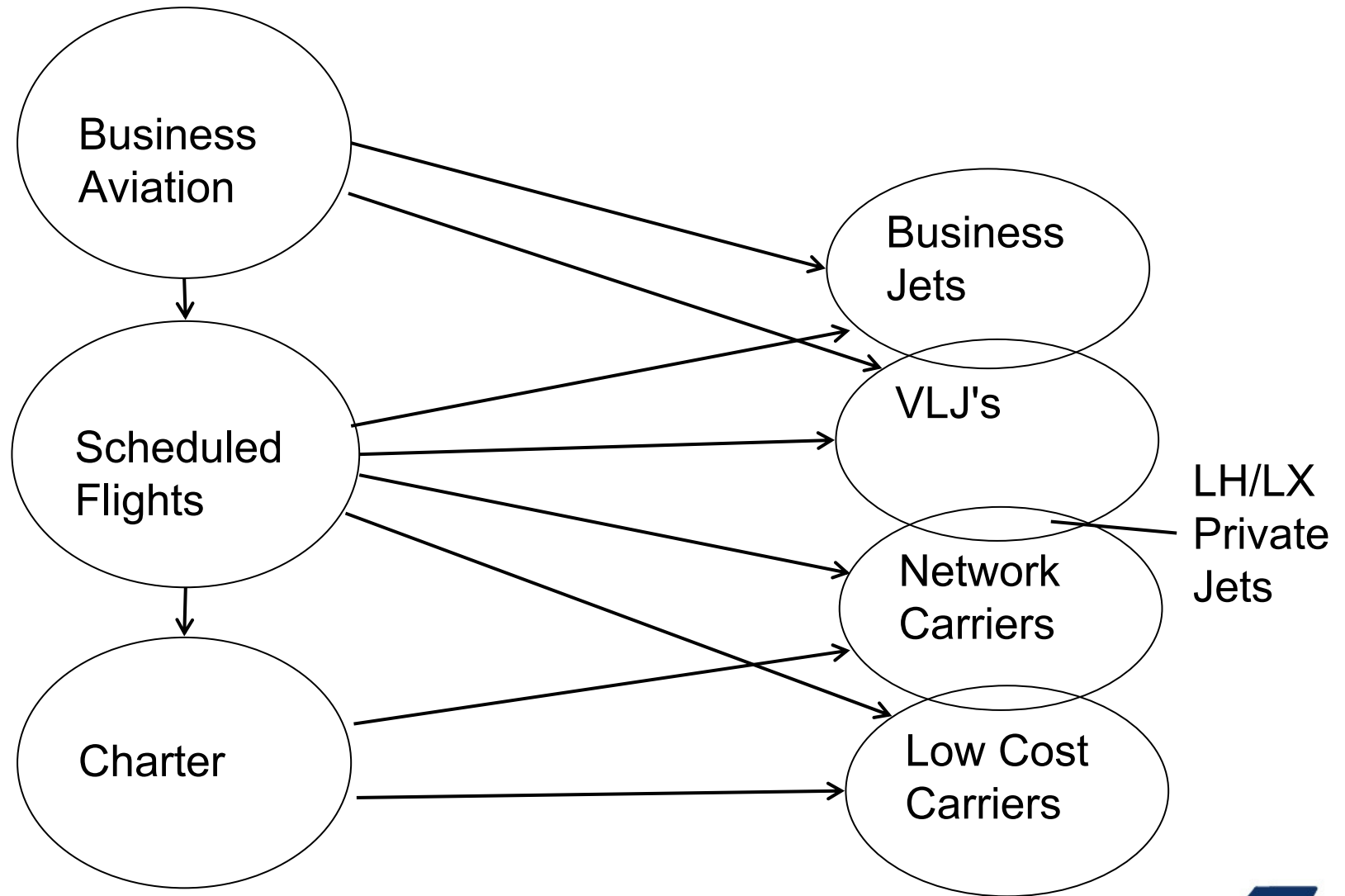
- new markets (to segment middle class)
- new destinations (small airports)
- but only limited substitution of traditional Business Jets



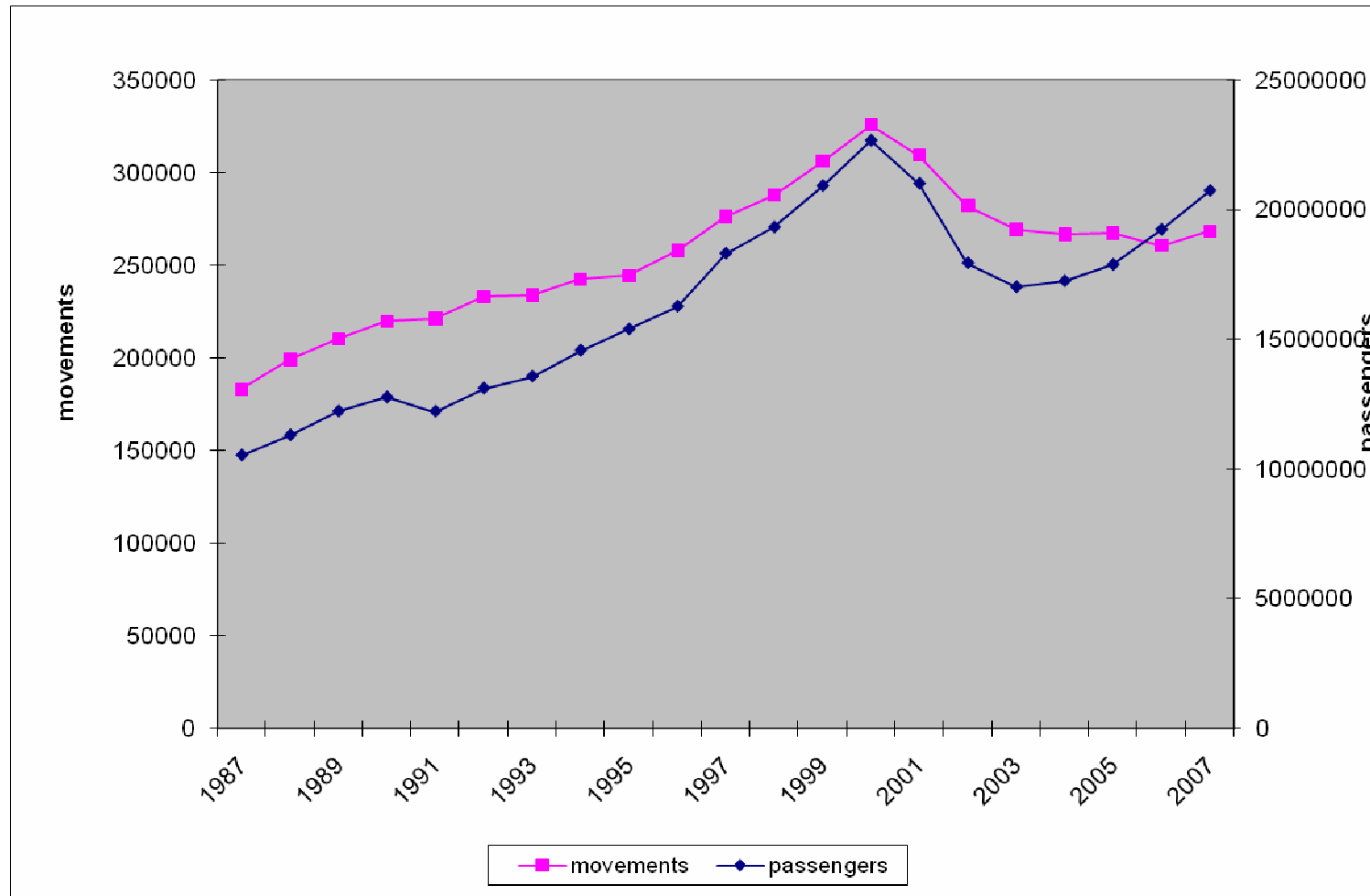
Impact of demand trends and emergence of VLJ's on the aviation system



Business models of scheduled flights



Unique Zurich Airport



Source: Unique Yearbook 2007, p.5

Hypothesis for further discussion

1. VLJ's will increase total market for Business Aviation.
2. Congestion of main airports will increase since normally one airport in point to point traffic is a capital business center.
3. Increased movements on main airports and pressure on air traffic control will raise political issues.
4. Business models will include more business migration elements.
5. Operational configuration with or without traditional network carriers based on net economies.

