Team 3
Abram Hernandez, Björn Bierl, Chad Moore, Jason Morris, Johannes N. Grefe
What will we talk about this night?

Agenda

Corporate Overview
  Boeing
  Airbus

Two main strategic directions

Strategy with Airbus – The A380

Strategy with Boeing – The 7E7

Outlook

Conclusion
What will we talk about this night?

<table>
<thead>
<tr>
<th>Corporate Overview</th>
</tr>
</thead>
<tbody>
<tr>
<td>Boeing</td>
</tr>
<tr>
<td>Airbus</td>
</tr>
</tbody>
</table>

Two main strategic directions

Strategy with Airbus – The A380

Strategy with Boeing – The 7E7

Outlook

Conclusion
William Boeing founded Boeing Company in 1908 in Seattle with the purchase of a shipyard area.

Boeing 707 Innovator After Comet Failure

Deregulation in 1978 triggered development of the 747 jumbo jet for large capacity, large volume, and long distance flights.

Sonic cruiser as disruptive aircraft concept was dropped in 2002 due to little market demand and technological struggles.

Today: Diversified fleet with small, mid-sized and jumbo aircrafts with 7E7 as the future concept.
Established in 1970 as an European consortium of French (Aerospatiale) and German (Deutsche Aerospace) companies

- Spain (CASA) joined in 1971

- United Kingdom (British Aerospace) joined in 1979

→ Co-operation to compete against the dominating U.S. aviation industry
Airbus manufacturing
Corporate Structure

Spots all over Europe
- Germany
- France
- Spain
- United Kingdom

- 2 major assembly lines:
  - Toulouse, France (A320, A300/A310 and A330/A340)
  - Hamburg, Germany (A318, A319 and A32)
What will we talk about this night?

Corporate Overview
  Boeing
  Airbus

Two main strategic directions

Strategy with Airbus – The A380

Strategy with Boeing – The 7E7

Outlook

Conclusion
The Point-2-Point principle
Two main strategic directions

What is Point-2-Point?
- Direct city to city connection
- Carriers without central hub
- Generally small to mid-sized aircrafts
- Less frequent connections
What is Hub-N-Spoke?

- **Major centralized** hubs integrate regional spoke airports
- Frequent connections between hubs
- Hubs can serve continents, countries or geographical regions
- Airports: LHR, NYC, FRA, DEN, …
Historical development of the two principles

Timeline

Airline Deregulation

Direct routing

point-to-point

hub & spoke

1978

time
## Point-2-Point vs. Hub-N-Spoke
Comparison of the two principles

<table>
<thead>
<tr>
<th>hub &amp; spoke</th>
<th>point-to-point</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>hub</strong>: central airport that flights are routed through</td>
<td><strong>direct route</strong> concept; airlines fly directly to every airport</td>
</tr>
<tr>
<td><strong>spoke</strong>: routes that planes take out of the hub</td>
<td></td>
</tr>
<tr>
<td>+ efficient economic utilization</td>
<td>+ lowest travel time</td>
</tr>
<tr>
<td>- lots of transfer and layovers</td>
<td>+ homogeneous fleet</td>
</tr>
<tr>
<td>- increased travel time</td>
<td>- Infrastructural disadvantages (traffic control)</td>
</tr>
<tr>
<td>-</td>
<td>- coverage</td>
</tr>
</tbody>
</table>

*conventional airlines* | *no-frills airlines (Southwest)*
What will we talk about this night?

Corporate Overview
  Boeing
  Airbus

Two main strategic directions

Strategy with Airbus – The A380

Strategy with Boeing – The 7E7

Outlook

Conclusion
The development of strategic positions
Differences in Strategy

Airbus vs. Boeing

Strategy

Announcement of A380  now

Airbus as...
imitator
innovator

Hub & spoke

Boeing

Airbus

time
The A380 – the initiator of a new era
Strategy of Airbus

Specifications:

- Passenger capacity: 555
- Operating cost-savings: 15-20%
- Increased distance capacity: 10-15%
  - travel distance: 14,800 km
- Gross weight maximum: 540,000 kg

- Reduced fuel consumption
- Reduced noise
- Reduced pollution/fumes output
- 49% more usable passenger space

Decision for: **Hub-N-Spoke**
Market Assumptions made by Airbus

- Demand for air travel increases with 5% per year
- Asia-Pacific market uprising
  - new market demands for efficient, long-range airplanes to link region to Northamerica & Europe
- Market is price driven
  - demand for efficient airplanes
- 40% of actual fleet will retire
- Growing urban population
  - high passenger volume; passenger/flight
### Characteristical regional development

#### Strategy of Airbus

<table>
<thead>
<tr>
<th>North America</th>
<th>Europe</th>
<th>Asia-Pacific</th>
</tr>
</thead>
<tbody>
<tr>
<td>• fragmentized market with major hubs to serve</td>
<td>• highly fragmentized market</td>
<td>• concentrated market 25% population density in cities</td>
</tr>
<tr>
<td>• mature market</td>
<td>• Growing market</td>
<td>• major spots with high population density</td>
</tr>
<tr>
<td>• most airplanes</td>
<td>• most deliveries</td>
<td>• fastest growing market</td>
</tr>
</tbody>
</table>
### Key Parameters

<table>
<thead>
<tr>
<th>Passenger a/c 100 seats and above</th>
<th>End 2002</th>
<th>End 2022</th>
</tr>
</thead>
<tbody>
<tr>
<td>World RPKs (billion)</td>
<td>3,165.7</td>
<td>8,473.1</td>
</tr>
<tr>
<td>World ASKs (billion)</td>
<td>4,514.2</td>
<td>11,407.3</td>
</tr>
<tr>
<td>Number of aircraft</td>
<td>10,789</td>
<td>20,554</td>
</tr>
<tr>
<td>Number of installed seats</td>
<td>1,944,992</td>
<td>4,527,891</td>
</tr>
<tr>
<td>Number of departures (000)</td>
<td>15,864.8</td>
<td>31,510.0</td>
</tr>
<tr>
<td>Seats per departure</td>
<td>163</td>
<td>200</td>
</tr>
<tr>
<td>Average flight distance (km)</td>
<td>1,437</td>
<td>1,516</td>
</tr>
<tr>
<td>Block hours per aircraft per year</td>
<td>3,450</td>
<td>3,739</td>
</tr>
</tbody>
</table>

Source: Airbus forecast
Melting the profit pool
Strategy of Airbus

Number of new aircrafts

<table>
<thead>
<tr>
<th>Seat Category</th>
<th>Number of Aircraft</th>
</tr>
</thead>
<tbody>
<tr>
<td>Single-aisle</td>
<td>10,075</td>
</tr>
<tr>
<td>Small twin-aisle</td>
<td>1,782</td>
</tr>
<tr>
<td>Intermediate twin-aisle</td>
<td>2,612</td>
</tr>
<tr>
<td>Large aircraft</td>
<td>1,163</td>
</tr>
</tbody>
</table>

New passenger aircraft delivered 2003 - 2022
Total = 15,632

Revenue of new aircrafts

2003 $ (billion)

<table>
<thead>
<tr>
<th>Seat Category</th>
<th>Revenue</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mainline single-aisle</td>
<td>640</td>
</tr>
<tr>
<td>Small twin-aisle</td>
<td>196</td>
</tr>
<tr>
<td>Intermediate twin-aisle</td>
<td>440</td>
</tr>
<tr>
<td>Large aircraft</td>
<td>339</td>
</tr>
</tbody>
</table>

Higher profit margins for large aircrafts

40% 12% 27% 21%

Source: Airbus forecast
Most aircraft will fly from airports in the US & Europe – with Tokyo’s Narita also in the Top Ten

In 2022, 14% of the world mainline fleet will be used on flights from just the Top Ten airports

Source: Airbus forecast
Interpreting the forecast
Strategy of Airbus

We have seen…

… an uprising global market…

… with major hubs to serve…

… causing high demand for new large-scale aircrafts…

The A380 – the plane of the future?
What will we talk about this night?

Corporate Overview
  Boeing
  Airbus

Two main strategic directions

Strategy with Airbus – The A380

Strategy with Boeing – The 7E7

Outlook

Conclusion
The development of strategic positions
Differences in Strategy

<table>
<thead>
<tr>
<th>Boeing</th>
<th>Airbus</th>
</tr>
</thead>
<tbody>
<tr>
<td>Announcement of A380</td>
<td>Sonic Cruiser</td>
</tr>
<tr>
<td>7E7</td>
<td>Hub &amp; spoke</td>
</tr>
<tr>
<td>imitator</td>
<td>innovator</td>
</tr>
<tr>
<td>now</td>
<td>Point to point</td>
</tr>
</tbody>
</table>
The 7E7 – Dreamliner is Boeing’s answer to the strategy of Airbus

The 7E7 concept is different from the A380:
- Mid-sized aircraft
- Long-range (up to 8900 miles) and fast (0.85 mach)
- High Operating Efficiency
- High Operating Flexibility
- Environmentally Compatible
- High Passenger Comfort

Decision for: Point-2-Point
Evolution rather than Revolution

- Need for differentiation from revolutionizing A380 concept and lessons learned from the Sonic Cruiser

- Biggest cities in US and Europe cover only ~15% of entire population → *This aspect of fragmentation will also dominate Asian market demand for Point-2-Point compatible aircrafts*

- Generating profit: Focus also on internal cost-structure → *Lean Enterprise Initiative* for operational excellence
Boeing’s view of the future
Strategy of Boeing

Single-Aisle Airplanes Dominate Future Deliveries

2004–2023
- Regional jets
- Single-aisle
- Twin-aisle
- 747 and larger

24,993 airplanes
59%
17%
21%
3%

$2.0 trillion delivery dollars*
43%
41%
11%
5%

* In year 2003 dollars

Source: Boeing forecast

→ Boeing expects a trend towards Point-2-Point
**What will we talk about this night?**

<table>
<thead>
<tr>
<th>Corporate Overview</th>
</tr>
</thead>
<tbody>
<tr>
<td>Boeing</td>
</tr>
<tr>
<td>Airbus</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Two main strategic directions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Strategy with Airbus – The A380</td>
</tr>
<tr>
<td>Strategy with Boeing – The 7E7</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Outlook</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Conclusion</th>
</tr>
</thead>
</table>
The critical factors for future success

Outlook

- Factors that cannot be influenced:
  - Global and regional economical development (with their discrepancies)
  - Demographical development
  - Natural resources

  ⇒ Co-existence of Hub-N-Spoke and Point-2-Point is likely

- Factors that can be influenced:
  - Corporate strategy and product portfolio
  - Quality and objectiveness of forecasting
  - Operational excellence: internal cost-structure

  ⇒ Future profit is dependent of how successful a company deals with these factors
What will we talk about this night?

Corporate Overview
- Boeing
- Airbus

Two main strategic directions

Strategy with Airbus – The A380

Strategy with Boeing – The 7E7

Outlook

Conclusion
What is the essence of this strategy issue?

Conclusion

- The move from imitator to innovator is possible → *Airbus is successful due to its strategic repositioning*
  - Companies have to be aware of their strategic positions within an industry

- Strategy as a function of forecasting → *predicted global market developments are determining a company’s strategy*
  - Forecasting with high impact on corporate strategy

- Strategy characteristics → *Airbus’ strategy with high risk whereas Boeing with more conventional strategy*
  - Company has to be aware of the risk-rate of its strategy

- Strategic failure and lessons learned → *Boeing’s failure with the Sonic cruiser and the 7E7 as a consequence*
  - Company strategy has to build upon experience and integrate lessons learned
“This issue is not which manufacturer has the newest airplane. It is not which airplane has the most composite materials or the most aluminum alloys. Nor is it whether the pilots are looking at liquid crystal displays rather than CRTs. The question is: have we met customers' needs and added value?"

Phil Condit, Boeing CEO
Thank you for your attention!