

# 4<sup>th</sup> Air Cargo Economics Conference

IS A LOW-COST CARGO AIRLINE CONCEPT VIABLE?

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## **A. Characteristics of low cost airlines in the passenger business**



## Five key characteristics form the lowest common denominator of all low cost carriers

Key characteristics	Low cost carriers	Regional carriers	Classical carriers	Charter carriers
<b>Fleet</b>	Standardized fleet, usually B737s	Mixed fleet, e.g. BAE 146, ERJ 145, CRJ	Mixed fleet, e.g. B737, B747, A300/310, A340, A319/320/321	Partially standardized fleet, e.g. B757, B737
<b>Alliances</b>	No alliance partners	Partially member	Definitely an alliance member	Alliance with tour operators
<b>Frills</b>	"No frills" inflight or on the ground	Full inflight and ground services	Full inflight and ground services	Full inflight service
<b>Network</b>	Mostly Point-to-Point	Point-to-point, feeder for classical carrier	Global network	Point-to-Point
<b>Cost base</b>	Low cost base	≈ 2.5 times LCC cost base	≈ 2.0 times LCC cost base	≈ 1.0 times LCC cost base

# The business model of low cost carriers is based on three key success factors

## LOW COST RECIPE FOR SUCCESS – PAX

### 1 Cost management

- On average 50% lower unit costs compared to other carriers due to:
  - High A/C utilization
  - Use of regional airports
  - High crew productivity
  - Single A/C type fleet
  - Direct sales focus

### 2 Cash generation

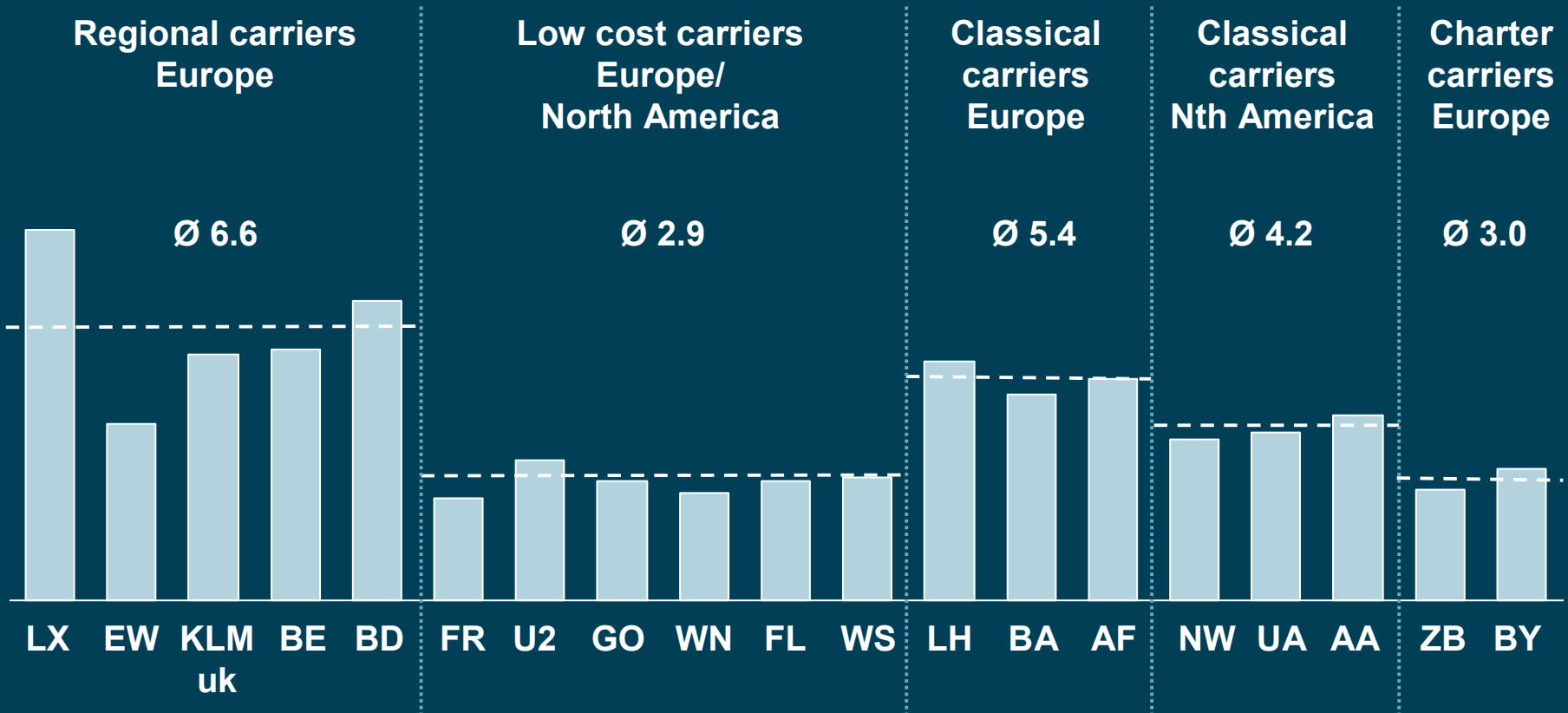
- Relatively high revenues per pax due to:
  - Efficient revenue management
  - Aggressive and flexible pricing
  - Additional non-traffic revenue sources

### 3 Market positioning

- Clear differentiation to other carriers:
  - Competition avoidance amongst each other
  - Route selection
  - Aggressive marketing/publicity
  - "Success generates success"

# LCCs operate with an entirely different cost structure than traditional carriers

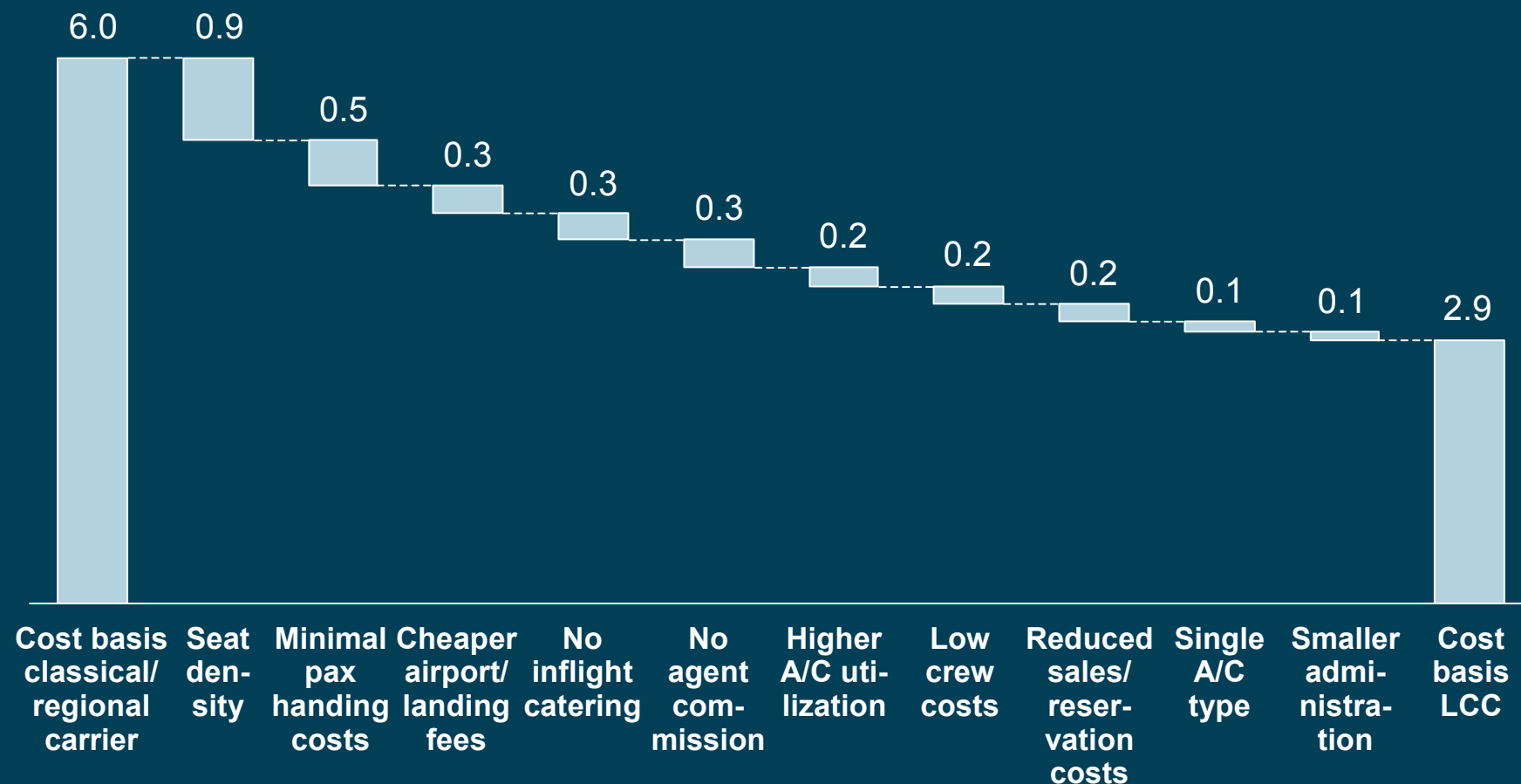
Adjusted<sup>1)</sup> operating expenses per ASK, 2002 [US Cents]



1) adjusted for stage length (IATA cost weight factor)

# Cost differences exist across the board – a matter of fundamental differences in the business model

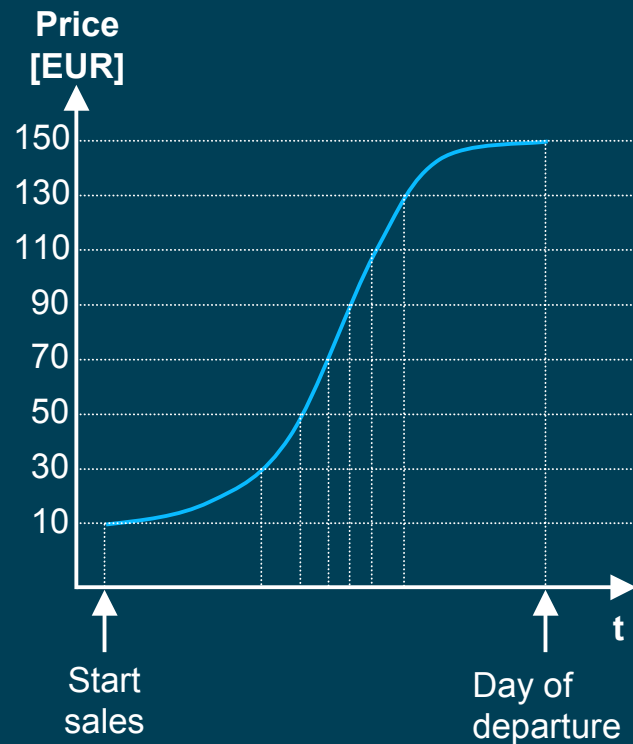
Operating expenses per ASK, 2002 [US Cents]



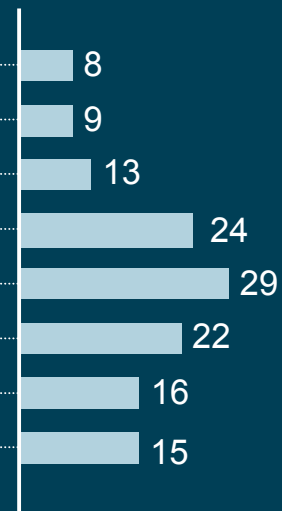
# Low cost carriers use a simple, but effective revenue management

Ticket sales for Low Cost Carrier Boeing 738 One-Way

## Variation of ticket price



## Seats sold per fare



- 161 Seats
- 85% load factor
- Average fare 71 EUR

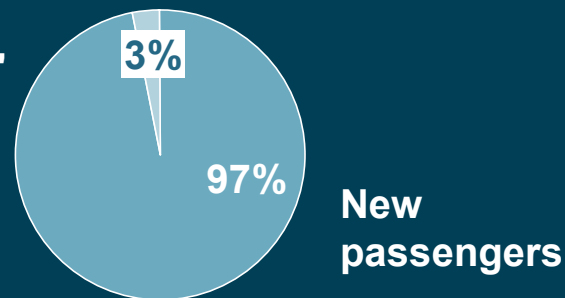
- Low entry fares create a positive price image
- In spite of low entry fares, the average yield is quite acceptable

# Most low-cost carrier growth is achieved by stimulation of new traffic

Cannibalization or market niche?

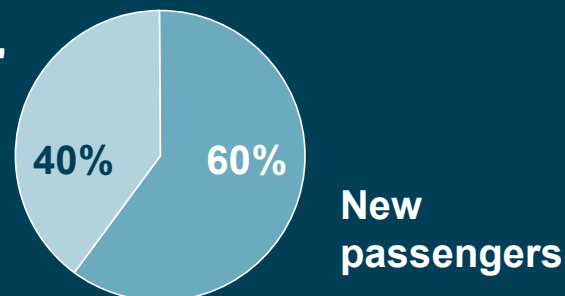
**New route:**  
Example  
LON-TRS  
(Ryanair)

**"Stolen passengers"**



**Existing route:**  
Example  
MIL-FRA  
(Ryanair)

**"Stolen passengers"**



- The largest portion of LCC growth comes from newly generated air traffic
  - Cannibalization of other means of transport
  - Completely new traffic
- The high LCC growth rates can only be explained by their stimulation of new traffic



## **B. Viability of a low-cost carrier concept in the air cargo industry**

# Many cost levers from the LCC pax business model appear to be applicable to the air cargo industry

## Cost lever Applicability to cargo

<b>A</b> Seat density	X
<b>B</b> Minimal handling costs	✓
<b>C</b> Cheaper airport/landing fees	✓
<b>D</b> No in-flight catering	X
<b>E</b> No agent commission	X
<b>F</b> Higher A/C utilization	(✓) <sup>1)</sup>
<b>G</b> Lower crew costs	✓
<b>H</b> Reduced sales/reservation costs	✓
<b>I</b> Single A/C type	(✓) <sup>2)</sup>
<b>J</b> Small administration	✓

- Many cost levers can be applied to cargo
- Based on pax LCC figures, the possible savings for a cargo LCC carrier amount to **20-25% of total costs**

1) Mainly applicable to short-haul operation

2) Already in place for most cargo carriers

## The use of secondary airports for freighter operation has shown mixed success

	History	Remarks	
<b>CASE 1: LUX hub for CV</b>	<ul style="list-style-type: none"> <li>CV has gradually built up a fleet of eleven 74F operating from LUX</li> </ul>	<ul style="list-style-type: none"> <li>Considerable blocked space sold to forwarders</li> <li>Extensive road feeder network connects LUX</li> </ul>	<b>Success factors:</b> <ul style="list-style-type: none"> <li>Network <b>size</b></li> <li><b>Blocked space</b> agreements</li> <li>Good <b>RFS</b> connections</li> </ul>
<b>CASE 2: HHN for MASKargo</b>	<ul style="list-style-type: none"> <li>7/7 freighter services KUL-HHN; 1/7 on to ORD</li> <li>Flight reallocated to FRA and AMS in June 2001</li> </ul>	<ul style="list-style-type: none"> <li>In spite of cheaper handling and landing fees results were unsatisfactory</li> </ul>	
<b>CASE 3: Macao (MFM) for SAS Cargo</b>	<ul style="list-style-type: none"> <li>3/7 freighter service GOT-SHJ-MFM since 1995; 2/7 on to KIX</li> <li>Flights replaced by blocked space on Lufthansa-flights to HKG in 2002</li> </ul>	<ul style="list-style-type: none"> <li>Almost 90% of cargo originating from HKG</li> <li>SAS had no traffic rights to operate freighters into HKG</li> </ul>	

# The product portfolio has consequences for both the reservation and the handling processes

## Lufthansa Cargo

td.services: td.Pro, td.X, td.Flash

Service packages:

	td.Pro	td.X	td.Flash
Care/td	✓		
Cool/td	✓	✓	✓
Fresh/td	✓	✓	
Safe/td1			✓
Safe/td2	✓	✓	✓
Smooth/td	✓	✓	
Live/td			✓

Specials:

Big & Heavy, Fashion, Airmail

## Cargolux

General Cargo

Special Cargo

- Perishables
- Live animals
- Off size
- DGR

- Sales is generally interested in a comprehensive product portfolio
- A high number of variants increases complexity for reservation and revenue accounting
- Shipment variants also increase cargo handling complexity and costs

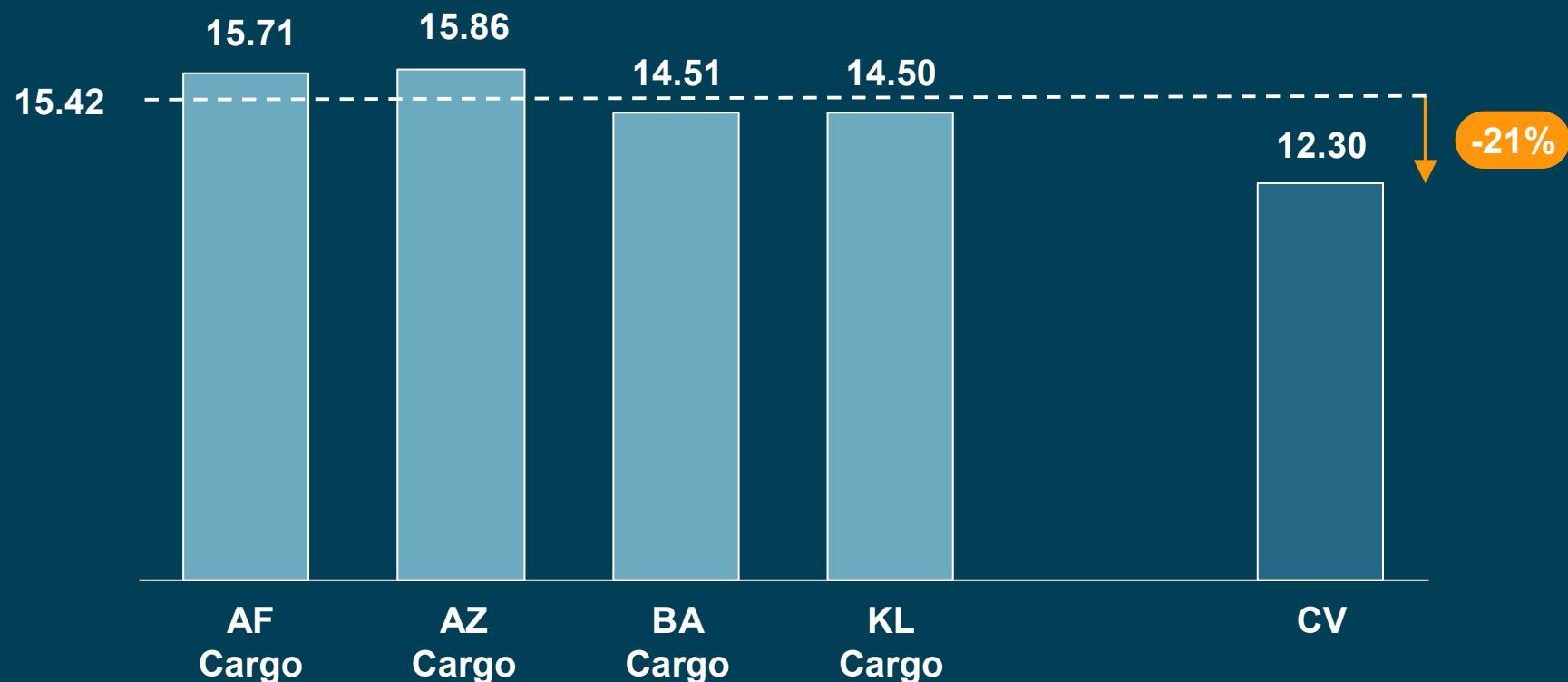
## Electronic booking can lead to further savings in the reservation process

- Possible savings from electronic bookings are estimated to be around 75%
- Some forwarders like Exel already use electronic booking channels with a rate of 65% and more
- However, the worldwide use of electronic booking is well below 20%
  - Many forwarders are not prepared to switch from their established processes using telephone and fax
  - Airlines have not adjusted their internal processes to the new communication opportunities








**A switch to electronic booking is a challenging task, but appears nevertheless possible**

# Cargolux already realizes a 20%-cost advantage – An example for a cargo low cost carrier?

Cost/ATK for European cargo carriers, 2002 [US Cents]



# Cargolux already applies many low cost levers

Low cost lever	Degree of utilization	Comment
<b>B</b> Minimal handling costs		<ul style="list-style-type: none"> <li>• Lowest possible product complexity</li> </ul>
<b>C</b> Cheaper airport/landing fees		<ul style="list-style-type: none"> <li>• Besides the hub in LUX only few secondary airports are used</li> </ul>
<b>F</b> Higher A/C utilization		<ul style="list-style-type: none"> <li>• A/C utilization stands high at 15:25 hours per day</li> </ul>
<b>G</b> Lower crew costs		<ul style="list-style-type: none"> <li>• Pilot costs at CV are considerably lower than at, e.g., AF, LH or KL</li> </ul>
<b>H</b> Reduced sales/reservation costs		<ul style="list-style-type: none"> <li>• Simple product structure and large share of blocked space</li> </ul>
<b>I</b> Single A/C type		<ul style="list-style-type: none"> <li>• Cargolux uses a pure 747-400F fleet</li> </ul>
<b>J</b> Small administration		<ul style="list-style-type: none"> <li>• Lean headquarter at low personel costs</li> </ul>

# The revenue aspects of the passenger low cost carrier business model cannot be transferred

## LOW COST RECIPE FOR SUCCESS – CARGO ???

### 1 Cost management

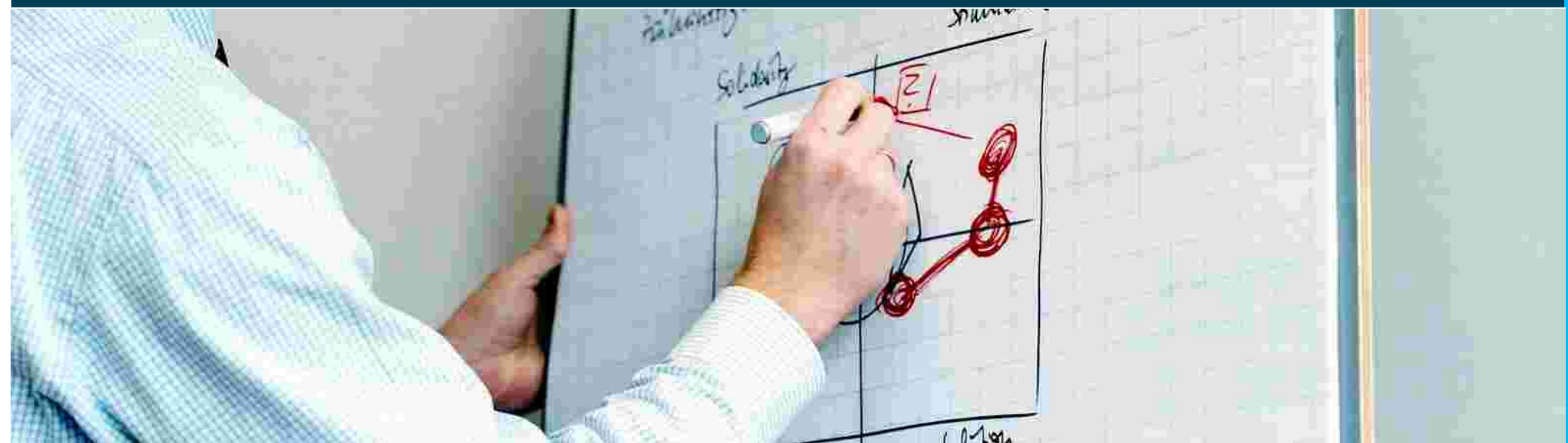
- **Up to 25% lower unit costs** are achievable compared to traditional combination carriers
- Strict cost control remains the main lever in air cargo competition

### 2 Cash generation

- With clients often requiring regular capacity access, revenue management can only be applied within limitations
- Tapping additional non-traffic revenue sources is not possible

### 3 Market positioning

- Demand is much more difficult to stimulate
- Selection of routes only offers a limited amount of freedom
- In a B2B environment aggressive marketing is less effective than in a B2C market



## C. Takeaway/lessons learnt

## Main lessons learnt

- The **success of low cost carriers** on the passenger side is **based on low cost, cash generation** as well as **market positioning**
- Cargolux has demonstrated that **low cost ideas can be implemented in the cargo industry**
- Unlike in the passenger industry, the **product proposition of a cargo low cost cargo carrier**, however, **needs to be close to the one of a traditional carrier**
- Since **revenue aspects do not apply** for differentiation, **traditional carrier need to rely on cost levers to remain competitive**

# Traditional carriers can typically save up to 9% without substantial change in business model

## Levers for cost reduction

## Typical savings as % of overall costs

<b>B</b> Minimize handling costs	1.1 – 1.9
<b>C</b> Cheaper airport/landing fees	0.3 – 0.5
<b>F</b> Higher A/C utilization	0.0 – 0.4
<b>G</b> Lower crew costs	0.1 – 0.9
<b>H</b> Reduced sales/reservation costs	0.5 – 1.1
<b>I</b> Single A/C type	0.0 – 0.4
<b>J</b> Small administration	0.7 – 1.6
Renegotiate belly compensation <sup>1)</sup>	0.0 – 2.3
	<b>2.7 – 9.2</b>

1) No effect for overall group

**Thank you for your attention!**

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