

# **Virtual hubs & self-connection for LCCs? – An overview**

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European Aviation Conference  
Amsterdam, 17<sup>th</sup>/18<sup>th</sup> November 2016

Knowledge for Tomorrow



# Outline

- Where do we stand?
- What are the benefits?
- What are the challenges?
- What are potential solutions?
- Summary



# Where do we stand?

- Continued growth of low cost carriers
- Anecdotal evidence: passengers create their own connections with LCCs
- Hybridisation of LCC business model(s) ⇒ LCCs increasingly open to transfer connections
- The role of airports ⇒ Facilitated self connection schemes already 5-10 years old but less successful than planned:



- Meta search engines / online travel agencies ⇒ self-hubbing ticketing options displayed, sometimes additional services provided:



# Where do we stand?

- Example of an online travel agent's services:

## Bonn → Palermo

**Departure** 6h 10m

10:05 Fri 18 Nov Bonn CGN

1h 15m [Show detail](#) ▾

11:20 Fri 18 Nov Berlin SXF

🕒 Layover in Berlin for 2h 20m.  
🧳 Collect and recheck your baggage.  
🛡️ **Kiwi.com Guarantee**

13:40 Fri 18 Nov Berlin SXF

2h 35m [Show detail](#) ▾

16:15 Fri 18 Nov Palermo PMO

**Kiwi.com Guarantee**

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1x Passenger	128 €
1x Cabin baggage	FREE
1x Personal item	FREE
<b>Total price including all taxes and fees</b>	<b>128.00 €</b>

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The potentials of LCC connections have been identified by stakeholders. Airports, airlines, online travel agents and meta searchers try to exploit benefits and set up business models accordingly



# What are the benefits?

- For passengers: more alternatives, lower fares

Example: One-way Cologne/Bonn to Valencia, 18<sup>th</sup> November 2016, booked one week in advance

## LCC Self-connection itinerary

**158 €** Ⓢ  
Kiwi.com

Multiple Airlines

9:35 CGN → 20:05 VLC 10h 30m 1 stop (OTP)

View Deal

Hide details Economy

158 € Kiwi.com Good Service

Details		Fares	×
<b>Depart</b> 10h 30m			
→ Blue Air – Flight 122 (economy) ↘			
↗ 9:35	Fri 18. Nov	CGN Cologne, Germany	2h 40m
↘ 13:15	Fri 18. Nov	OTP Bucharest, Romania	
Boeing 737-400 (Narrow-body jet)   2h 40m			
↘ Below average legroom (74 cm)			
● Change planes			
		OTP Bucharest, Romania	4h 05m
→ Wizz Air – Flight 3185 (economy) ↘			
↗ 17:20	Fri 18. Nov	OTP Bucharest, Romania	3h 45m
↘ 20:05	Fri 18. Nov	VLC Valencia, Spain	
Airbus A320-100/200 (Narrow-body jet)   3h 45m			
↘ Below average legroom (74 cm)   🍽️ Fresh food (fee)			

## FSNC itinerary

**341 €** Ⓢ  
Travelgenio

SWISS

6:55 CGN → 14:00 VLC 7h 05m 1 stop (ZRH)

View Deal

Hide details Economy

360 € SWISS Good Service 356 € Opendo Good Service  
 341 € Travelgenio Good Service 347 € Seat24 Good Service  
 345 € flugladen.de Good Service 10 more sites ↓

Details		Fares	×
<b>Depart</b> 7h 05m			
→ SWISS – Flight 3001 (economy) ↘			
Operated by Eurowings			
↗ 6:55	Fri 18. Nov	CGN Cologne, Germany	1h 05m
↘ 8:00	Fri 18. Nov	ZRH Zurich, Switzerland	
Airbus A320-100/200 (Narrow-body jet)   1h 05m   4 seats remain			
↘ Standard legroom (76 cm)   🍽️ Fresh food available			
● Change planes			
		ZRH Zurich, Switzerland	4h 00m
→ SWISS – Flight 2142 (economy) ↘			
↗ 12:00	Fri 18. Nov	ZRH Zurich, Switzerland	2h 00m
↘ 14:00	Fri 18. Nov	VLC Valencia, Spain	
Airbus A320-100/200 (Narrow-body jet)   2h 00m   9+ seats remain			
☑️ Overhead entertainment   ↘ Below average legroom (74 cm)   🍽️ Fresh food provided			

Substantial air fare savings are possible on “thin” city pairs or one-way bookings, where FSNCs so far have enjoyed substantial pricing power



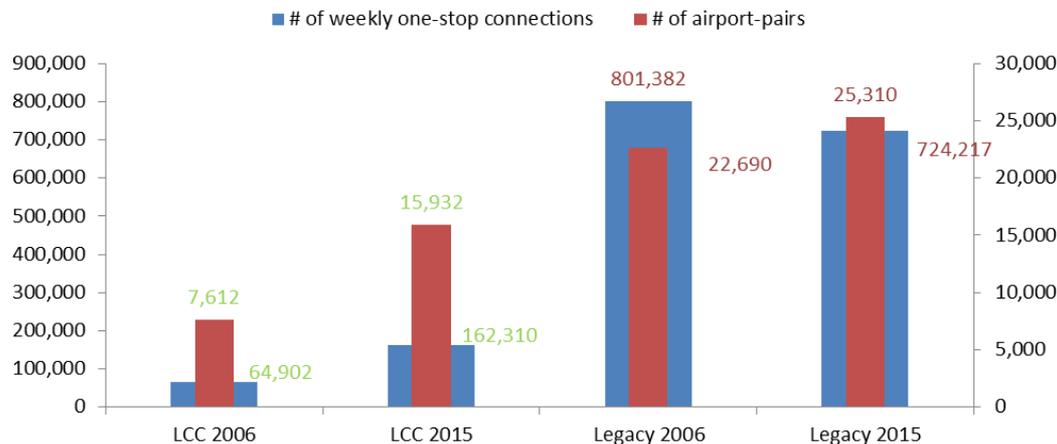
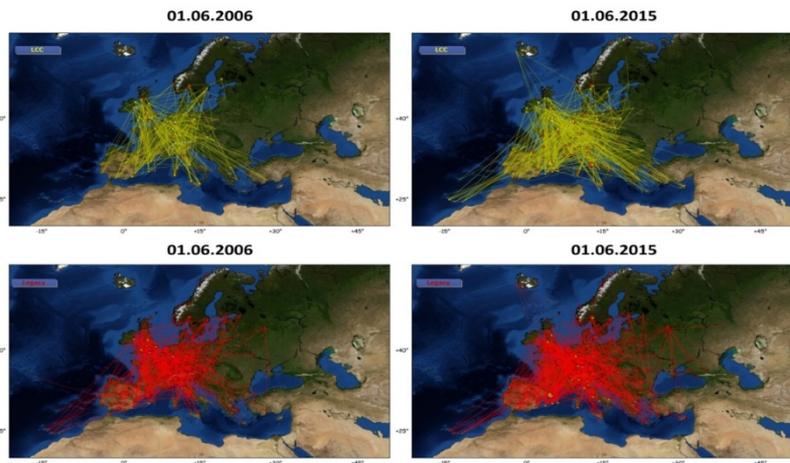
# What are the benefits?

- For airlines: more demand, network effects
  - ⇒ LCCs may not want to promote self-connections actively, due to complexity involved
  - ⇒ Other stakeholders need to become active!
- For airports: Attractiveness for LCCs improved if connectivity can be provided
  - ⇒ Support airlines to offer more routes that would be unprofitable without feed
  - ⇒ Attract more LCCs due to network effects
  - ⇒ Promotion of future long-haul services, when LCCs can provide feeder flights



# What are the benefits?

A quantification of the potentials for LCC transfer connections



15,932 Airport Pairs (+109%)

**LCC 2015 (vs. 2006)**

162,310 Connections (+150%)

25,310 Airport Pairs (+11.5%)

**Network Carrier 2015 (vs. 2006)**

724,217 Connections (-9.6%)

Source: Maertens/Pabst/Grimme (2016), The scope for low-cost connecting services in Europe — Is self-hubbing only the beginning?, in: Research in Transportation Business & Management 21 (2016) 84–93.

Network carriers: On average 29 weekly frequencies per airport pair

LCCs: : On average 10 weekly frequencies per airport pair



# What are the benefits?

Which airports could benefit from LCC connections?

- Centrality measurement of LCC connections
- As with FSNC hubs, concentration effects observed
- Top 5 – LCC hubs include Barcelona, Gatwick, Stansted, Dublin and Oslo

Largest LCC Hubs 2015				
LCC Rank	Hub	# Connections	share	cumulative
1	BCN	27313	17%	17%
2	LGW	20830	13%	30%
3	STN	11745	7%	37%
4	DUB	11165	7%	44%
5	OSL	7533	5%	48%
6	FCO	6435	4%	52%
7	AMS	4544	3%	55%
8	DUS	4358	3%	58%
9	LTN	4171	3%	60%
10	PMI	4116	3%	63%
11	MPX	3721	2%	65%
12	BGY	3055	2%	67%
13	CGN	2640	2%	69%
14	GVA	2632	2%	70%
15	CDG	2565	2%	72%
16	CPH	2480	2%	74%
17	MAN	2395	1%	75%
18	MAD	2272	1%	76%
19	STR	2212	1%	78%
20	HAM	1925	1%	79%
21	ARN	1771	1%	80%
22	ORY	1709	1%	81%



# What are the challenges?

## Customer search process / asymmetric information

- Why should a traveller wishing to travel from Valencia to Hamburg look at the websites of Milano or Cologne/Bonn airport for booking a trip?

## Frequency issue

- Many LCCs operate routes at a low frequency (<7 frequencies per week)
- Routes via one particular LCC “hub” may not be available on a specific day demanded by the traveller

## Directionality issue

- Many transfer connections work in one direction, but not in the other – example: It is possible to connect from Cologne via Bergamo to Palermo, but not in the opposite direction

⇒ Limiting the LCC transfers over one particular hub is insufficient for passengers and does not exploit the potential benefits of LCC connectivity



# What are the challenges?

## Baggage handling

- To be attractive, LCC transfer connections should feature through baggage handling
- Data exchange between airlines and airports necessary

## Passenger handling in case of missed connections

- Who should care for passengers (re-booking, hotel accommodation...)
- LCCs dislike any additional complexity / costs

## Passenger processes at LCC airports to be improved

- LCC airports not built for accommodating transfer passengers
- Need to leave terminal air side for check-in ⇒ double security checks

⇒ Innovations needed outside the established IATA processes to create an attractive product for all travellers



# What are potential solutions?

- Hypothesis: A single airport cannot provide the connectivity required by travellers in terms of travel alternatives (low frequency and directionality issue)
- LCCs' aversion to complexity opens chances for airports to increased participation in the value chain
- Airports should carefully consider if costs of baggage handling, maintaining transfer desks, provision of passenger assistance can be offset by additional revenues
- Airports could cooperate and create an information and technology platform to solve key issues on baggage and passenger handling (regular & irregular)
- Airports should move pro-actively, otherwise IT / technology providers may develop their own business models



# Summary

- LCC transfer connections are a growing market ⇒ particularly meta search engines offer comfortable market comparisons already today (“facilitated/supported self-hubbing”)
- Risk of missed connections is a perfectly insurable risk ⇒ some limited offers by online travel agents (e.g. kiwi.com) or airports (ViaMilano) exist
- Benefits for passengers, airlines and airports are substantial ⇒ high potential also for current/future long-haul LCCs
- Solutions focussed on a single airport insufficient ⇒ high potential for multi-airport cooperative solutions or solutions from technology companies
- Low-complexity technological solutions for processes (particularly through-baggage handling) still to be developed

