

University of Antwerp

Air Transport Colloquium 2013

# Are European low-cost airlines innovative in terms of networks?

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(Brussels Free Universities – ULB-IGEAT & VUB-MOBI)

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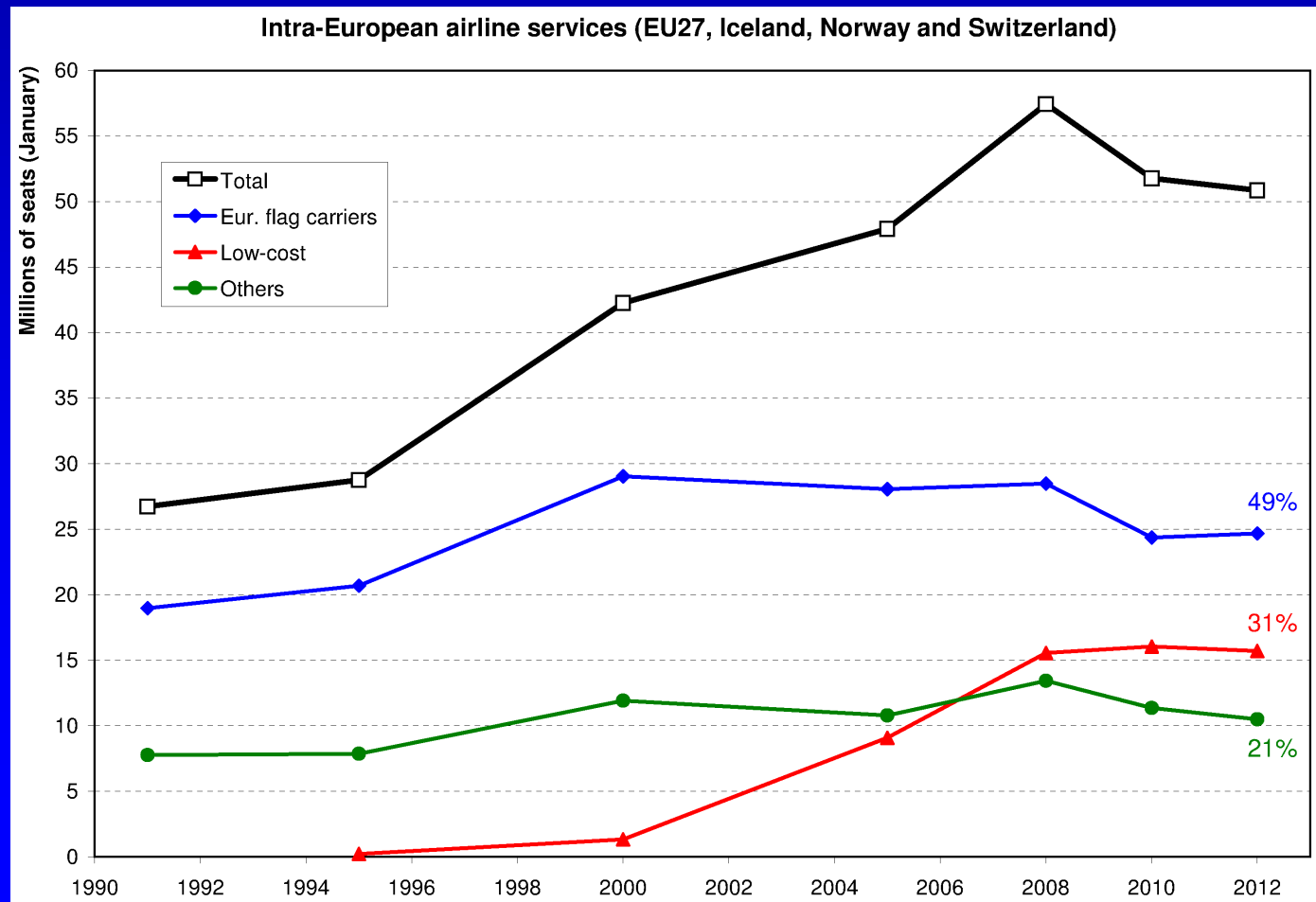


# Framework

1. Background
2. Research strategy
3. Diversity within the European LCA industry
4. Innovative networks?
5. Conclusions

## The low-cost airline (LCA) revolution:

- ‘One of the biggest revolutions in tourism and travel since the package holiday’s arrival half a century earlier’ (Casey 2010)
- ‘The greatest paradigm shift in airline industry’ (O’Connell 2011)



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## Intra-Eur. air services, Jan. 2012:

	Seats		Flights		Seat-km	
	millions	Rank	thousands	Rank	billions	Rank
<b>Ryanair</b>	<b>5.87</b>	<b>1</b>	<b>31.07</b>	<b>3</b>	<b>6.47</b>	<b>1</b>
Lufthansa	5.07	2	42.09	1	3.38	3
<b>easyJet</b>	<b>4.33</b>	<b>3</b>	<b>27.17</b>	<b>4</b>	<b>4.15</b>	<b>2</b>
Air France	3.47	4	34.72	2	2.34	4
SAS	2.45	5	18.30	5	1.59	7
British Airways	2.27	6	16.13	7	1.98	5
Alitalia	1.89	7	13.20	8	1.25	11
Air Berlin	1.85	8	11.82	10	1.79	6
Iberia	1.80	9	17.71	6	1.50	9
<b>Norwegian Air Shuttle</b>	<b>1.69</b>	<b>10</b>	<b>9.40</b>	<b>14</b>	<b>1.53</b>	<b>8</b>

The low-cost airline (LCA) revolution:

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However:

- Simplistic introductions of the LCA networks, neglecting their diversity
- Typically: LCAs would be focused on niche routes, leisure markets and secondary/regional airports

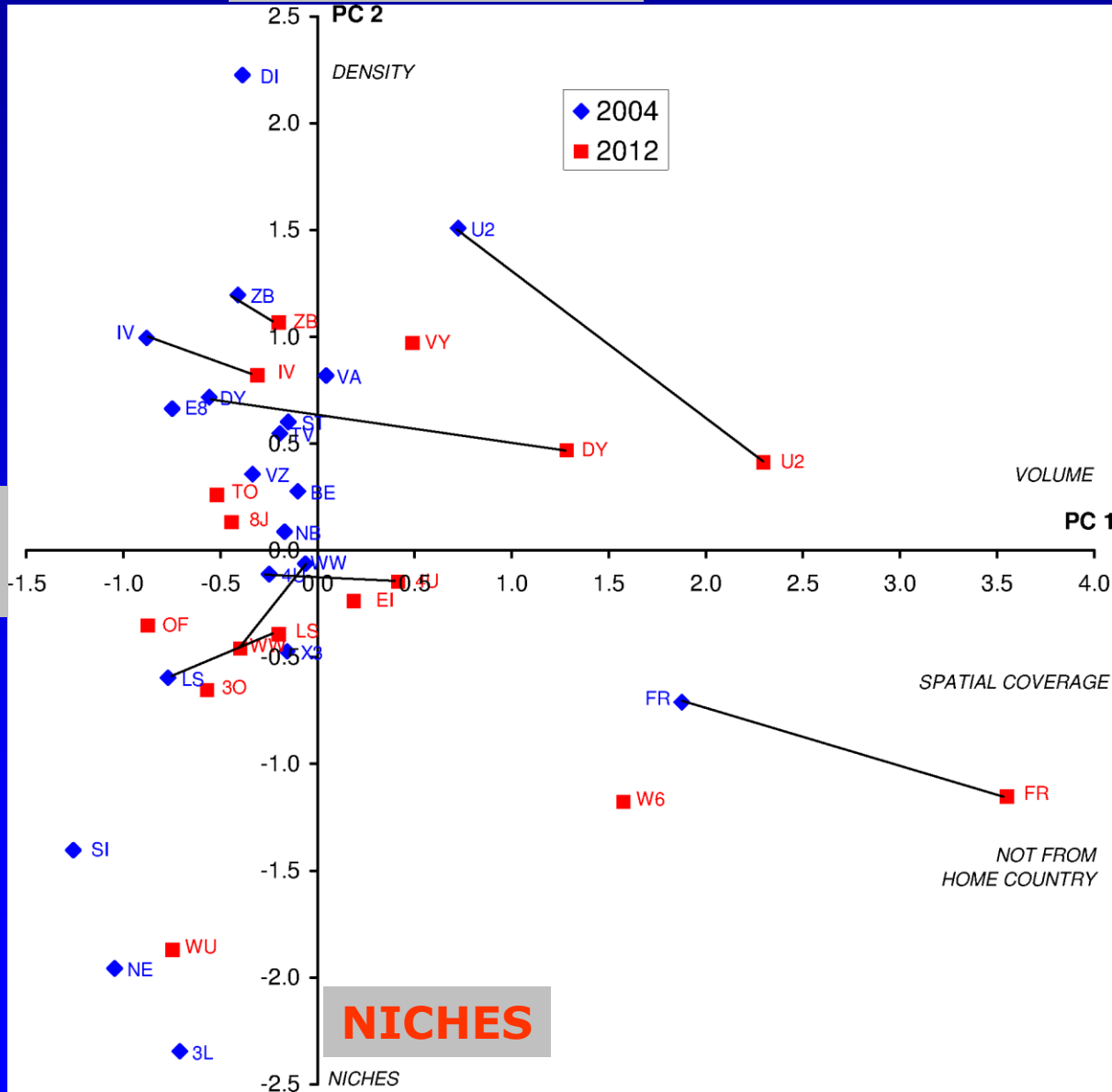
**Today’s goal: innovative networks?**

## Empirical analyses:

- OAG datasets (comprehensive, disaggregated data)
- LCAs identified through Internet-based fares analysis
- City/inter-city analysis (e.g. Paris = Orly+CDG but not Beauvais 85 km away)
- LCA network typology using factorial analysis techniques (PCA)

# LCA network typology

## DENSE ROUTES



**SMALL NETWORKS**

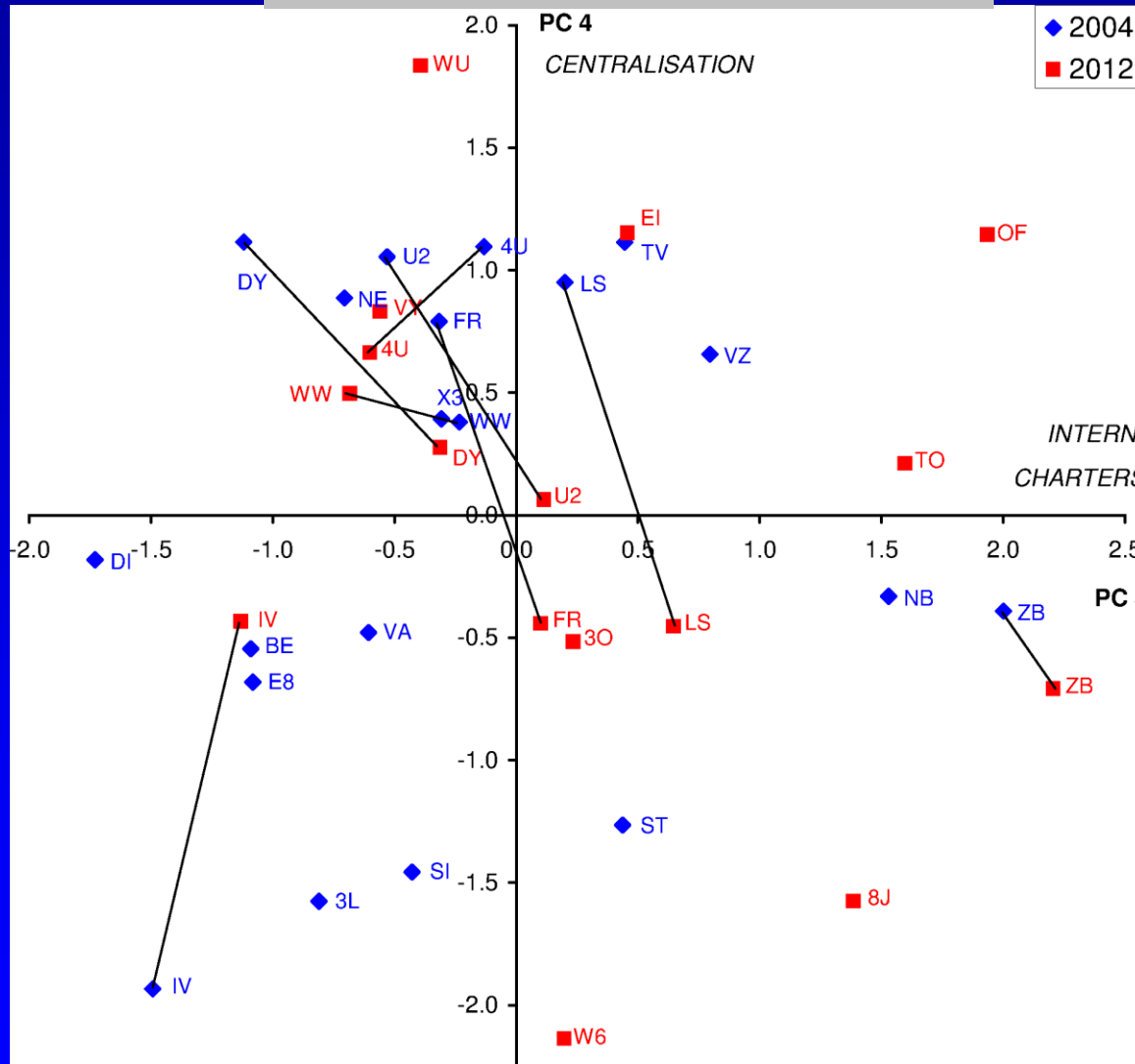
**LARGE NETWORKS**

**NICHES**

Source: Dobruszkes (2013)

# LCA network typology

## CENTRALISED NETWORKS



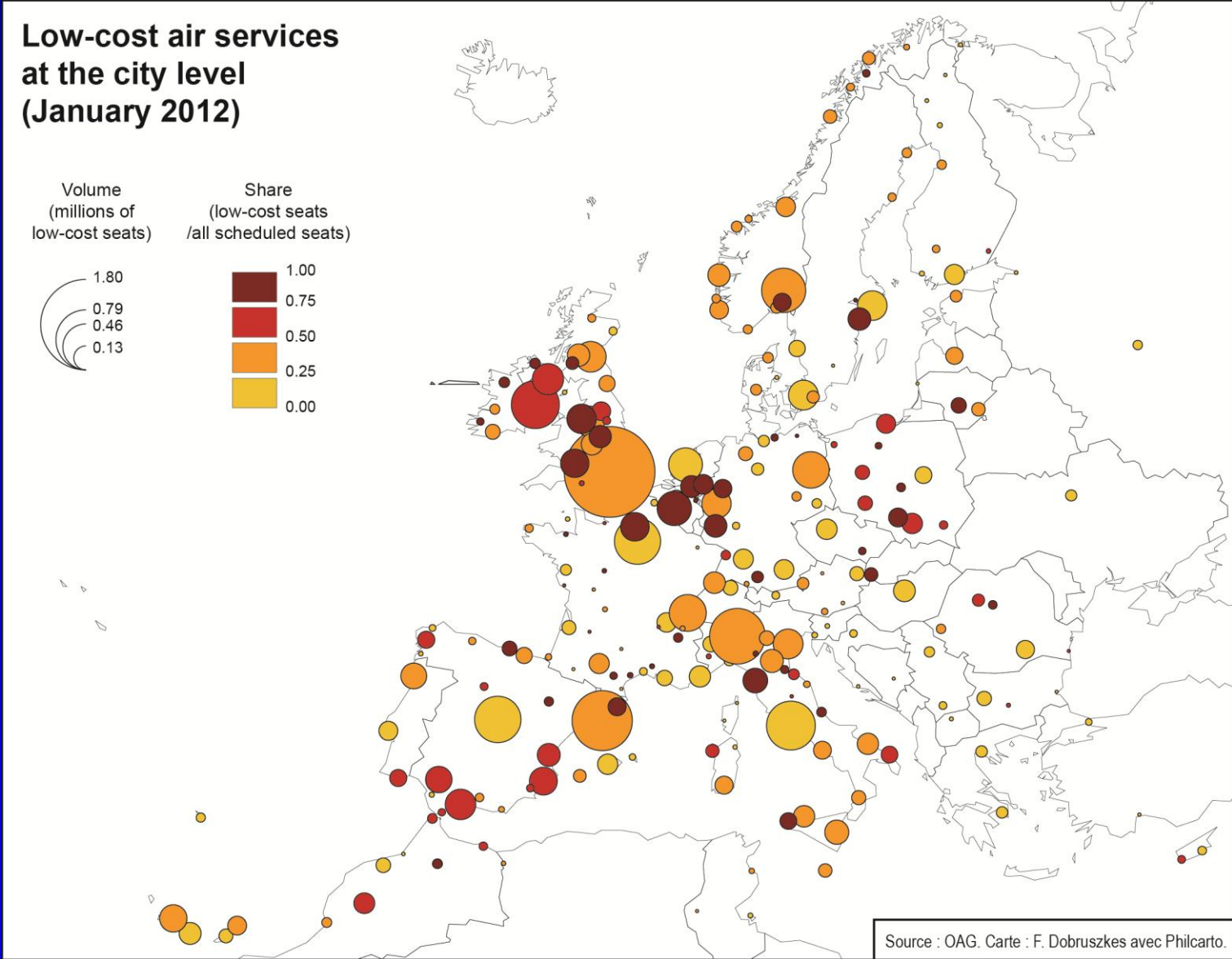
DOMESTIC ROUTES

INTERNAT. ROUTES

## SCATTERED NETWORKS

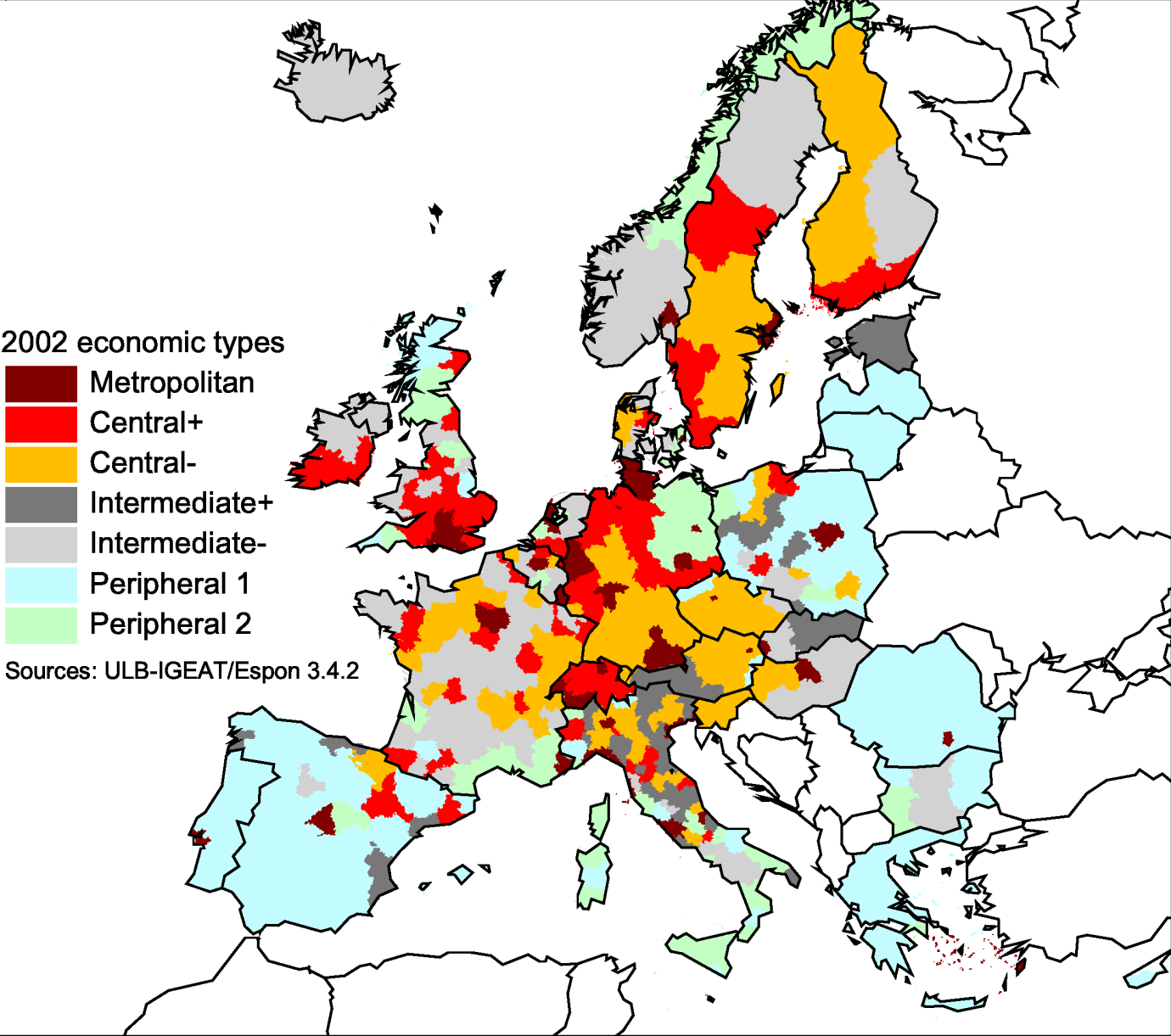


# CITY LEVEL: nothing special?



Source:  
Dobruszkes (2013)

# CITY LEVEL: nothing special?

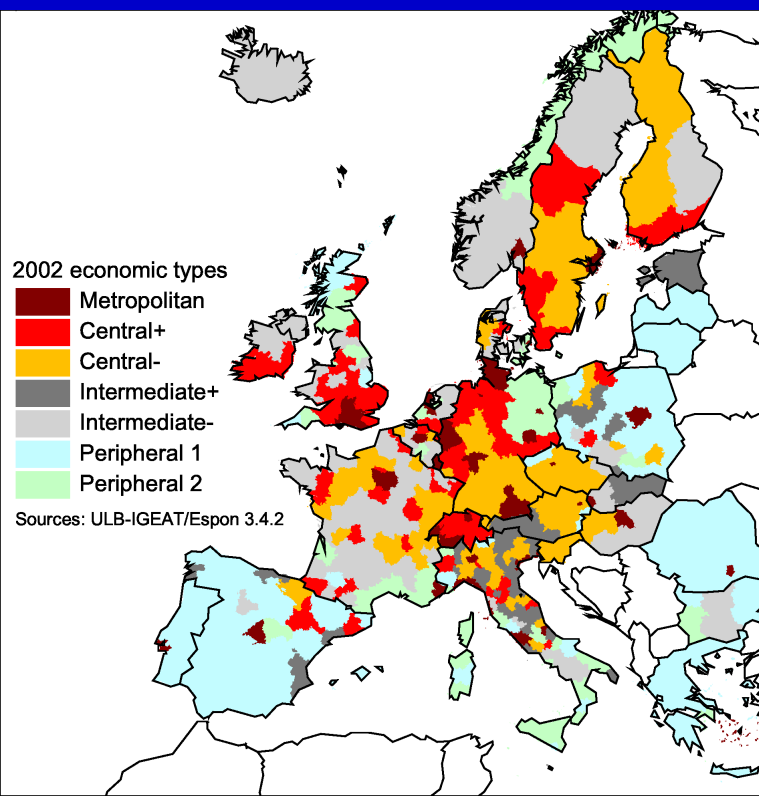


## CITY LEVEL: nothing special?

→ The LCAs 'over-serve' the non-metropolitan areas

Seats	All (A)	LCAs (B)	Trad. (C)
Metropolitan	59%	34%	67%
Central+	15%	26%	11%
Central-	4%	8%	3%
Intermediate+	2%	4%	2%
Intermediate-	4%	8%	3%
Peripheral 1	8%	10%	7%
Peripheral 2	8%	10%	7%
	<b>100%</b>	<b>100%</b>	<b>100%</b>

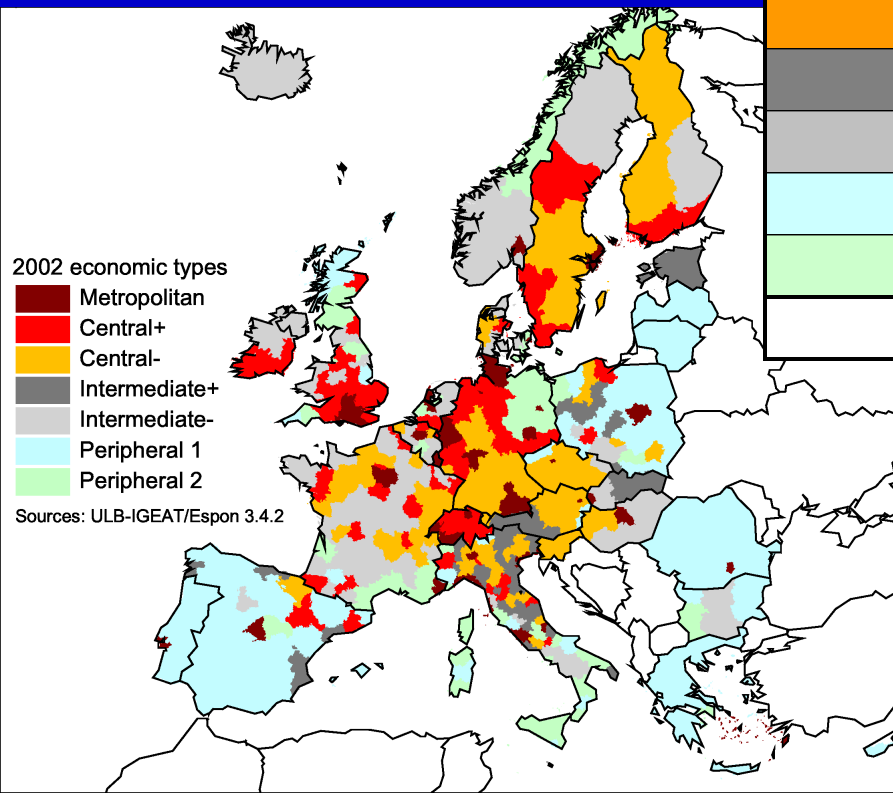
Specificities	LCAs (B)/(A)	Trad. (C)/(A)
Metropolitan	0.58	1.14
Central+	1.73	0.75
Central-	1.90	0.69
Intermediate+	1.73	0.75
Intermediate-	1.90	0.69
Peripheral 1	1.29	0.90
Peripheral 2	1.32	0.89



## CITY LEVEL: nothing special?

→ Central and intermediate regions significantly rely on the LCAs

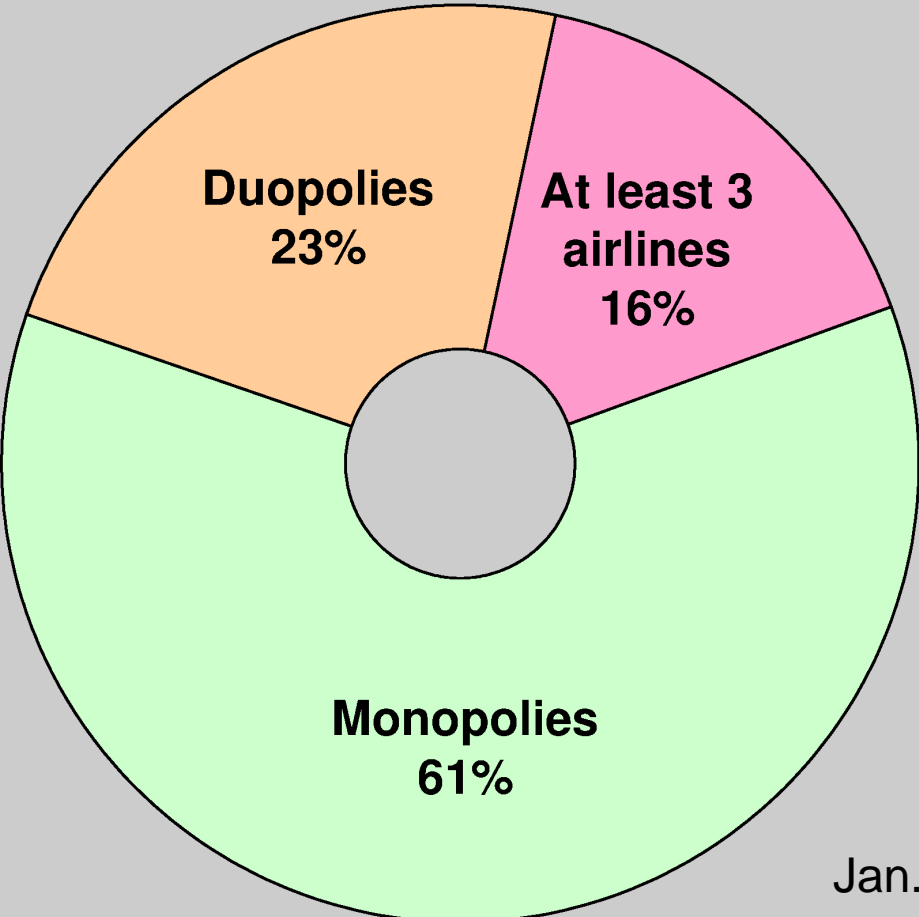
Market shares	All	LCAs (B)/(A)	Trad. (C)/(A)
Metropolitan	100%	15%	85%
Central+	100%	44%	56%
Central-	100%	48%	52%
Intermediate+	100%	44%	56%
Intermediate-	100%	48%	52%
Peripheral 1	100%	33%	67%
Peripheral 2	100%	34%	
	<b>100%</b>	<b>25%</b>	<b>75%</b>



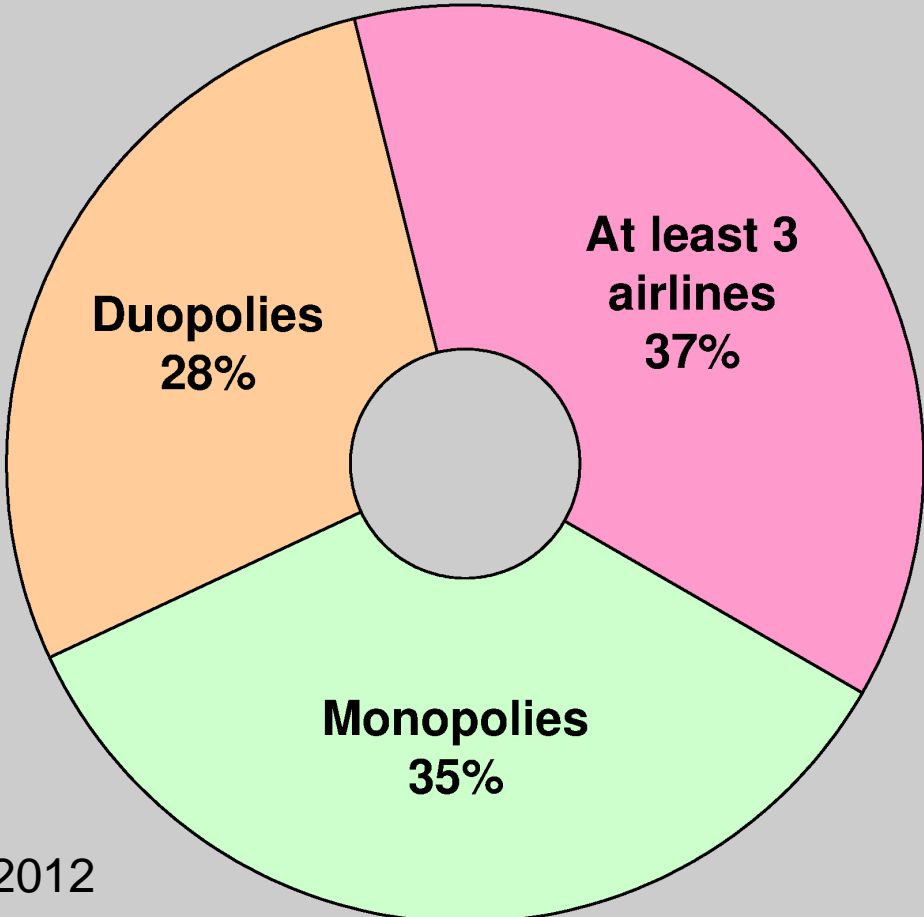
ROUTE LEVEL:

Lots of low-density, niche routes (network diversification thus innovation)...  
... and significant contribution to competition

**LCA routes**



**LCA seats**



## ROUTE LEVEL:

### Operations out of the airlines' home country

#### Conventional airlines:

- Operate mostly from their home country
- Penetrate foreign market through share in foreign airlines (e.g. Lufthansa owns 45% of Brussels Airlines) → Brand names may be an illusion!

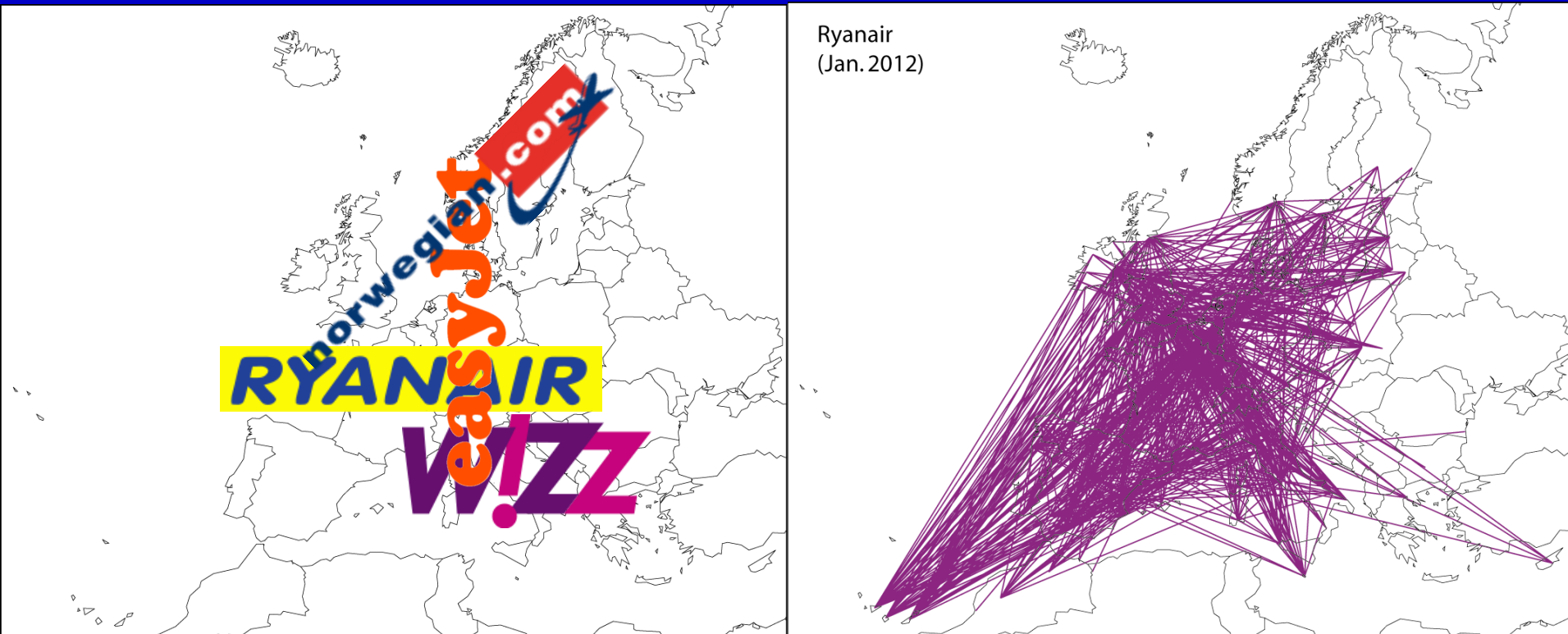


## ROUTE LEVEL:

Operations out of the airlines' home country

Large LCAs:

- Operate lots of flights not serving their home country

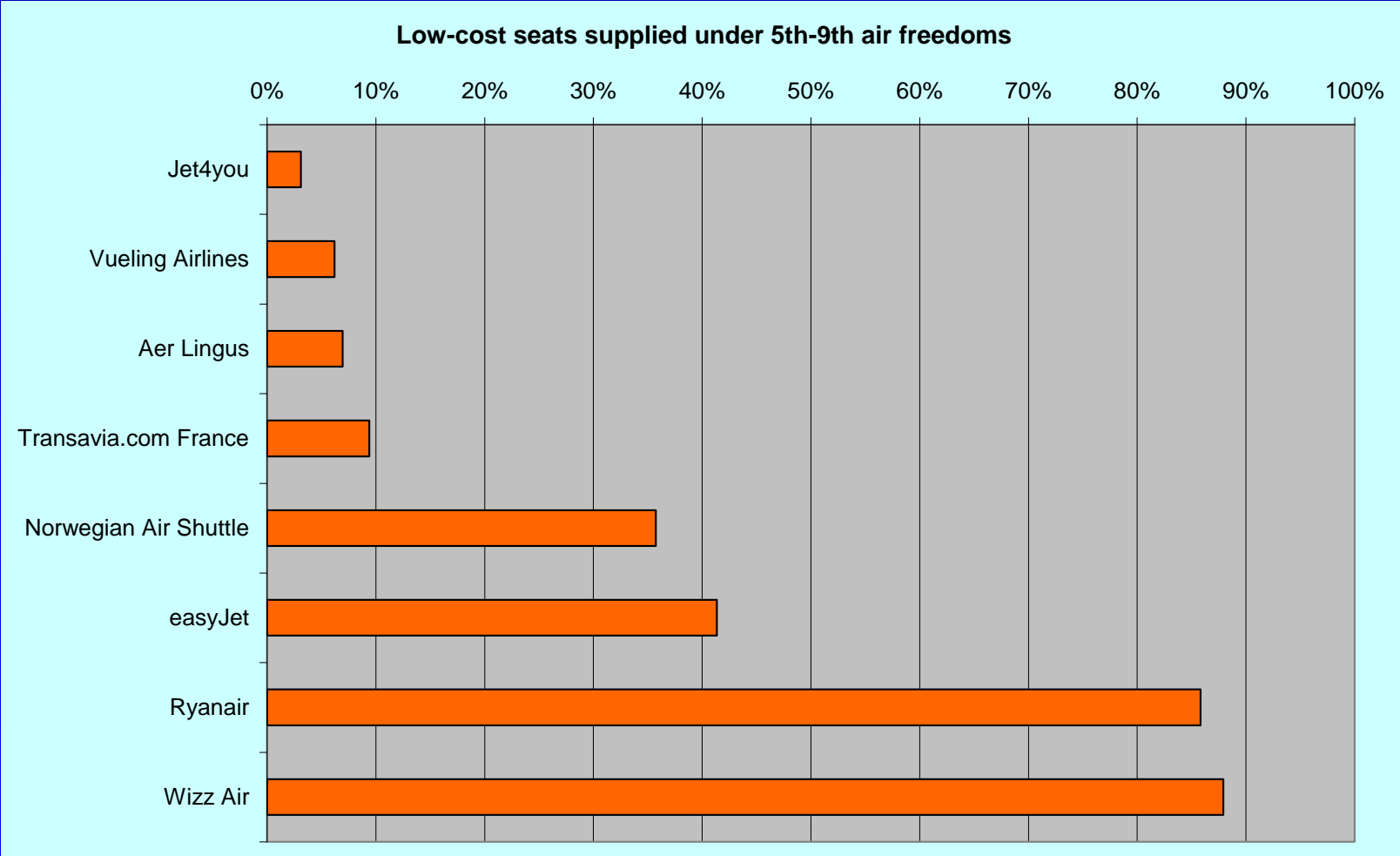


# ROUTE LEVEL:

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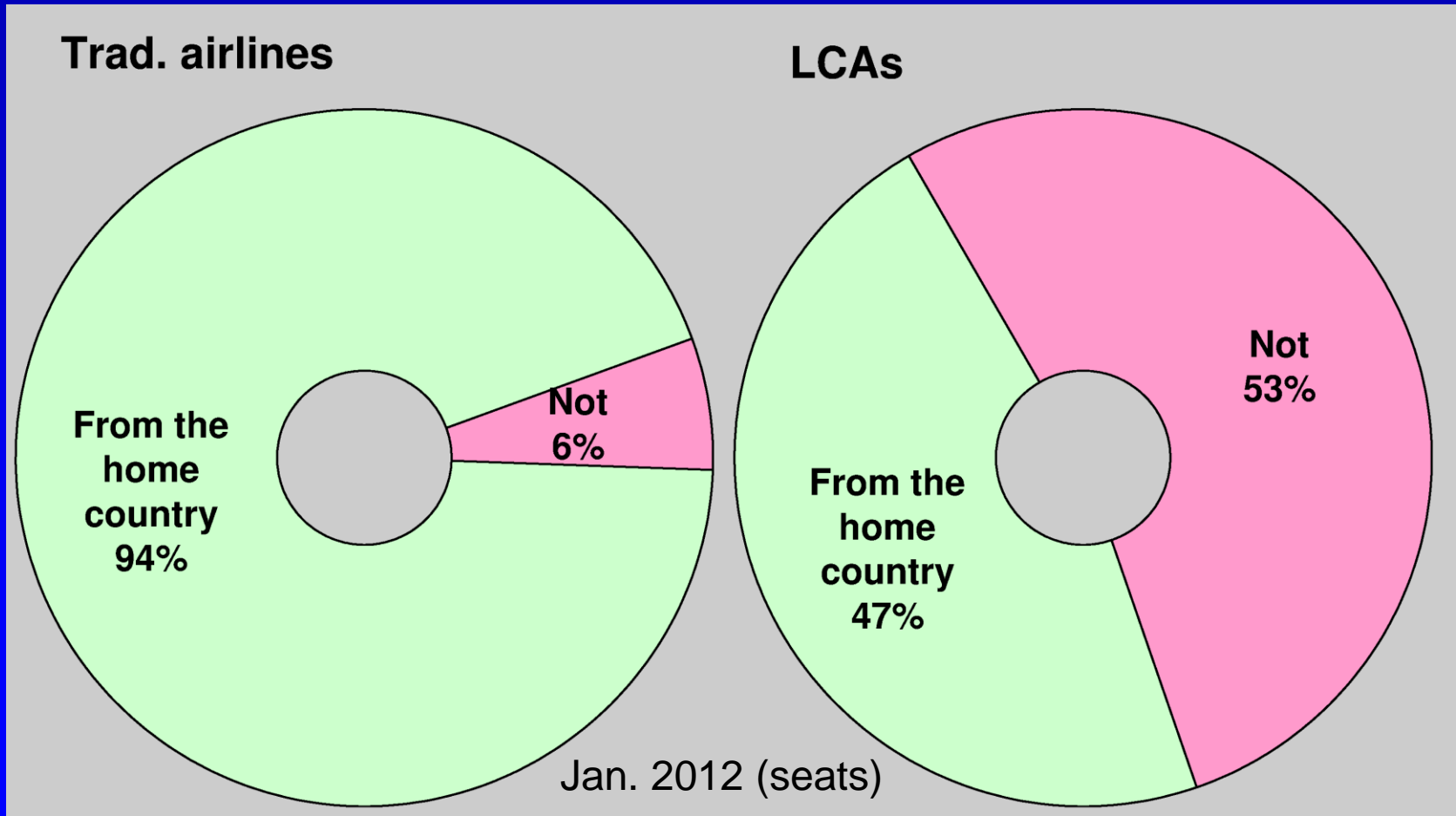


## ROUTE LEVEL:

### Operations out of the airlines' home country

#### Large LCAs:

- Operate lots of flights not serving their home country
- Are the only ones doing so



## Which futures?

### Two opposite trends:

- Easyjet is moving to new, thinner routes
- Ryanair seems interested in larger airports, including Brussels 'Zaventem'

### Open questions:

- Hybrid models and LCA/global airlines integration?
- Any market saturation?
- Increasing competition with high-speed rail?

## Conclusions: innovative networks?

### NO:

- Significant focus on the main urban/tourist areas
- Serve many trunk European/domestic routes

### YES:

- Specific focus on non-metropolitan areas
- Major contribution to route diversification (niche routes)
- True transnational networks/brand names



“For in recent years, Stelios Haji-Ioannou and Michael O’Leary, the two pioneers of Europe’s low-cost airlines, have done more to integrate Europe than any numbers of diplomats and ministers. They have helped to create a new generation for whom travelling to another European country is no longer exotic or expensive, but utterly commonplace.”

The Economist, 27/1/2005

## Further readings

Journal of Transport Geography 28 (2013) 75–88



Contents lists available at [SciVerse ScienceDirect](#)

### Journal of Transport Geography

journal homepage: [www.elsevier.com/locate/jtrangeo](http://www.elsevier.com/locate/jtrangeo)



## The geography of European low-cost airline networks: a contemporary analysis

Frédéric Dobruszkes \*

Journal of Air Transport Management 29 (2013) 23–34



Contents lists available at [SciVerse ScienceDirect](#)

### Journal of Air Transport Management

journal homepage: [www.elsevier.com/locate/jairtraman](http://www.elsevier.com/locate/jairtraman)



## Aviation liberalization as a means to promote international tourism: The EU–Morocco case

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***THANK YOU!***

