

# airport systems

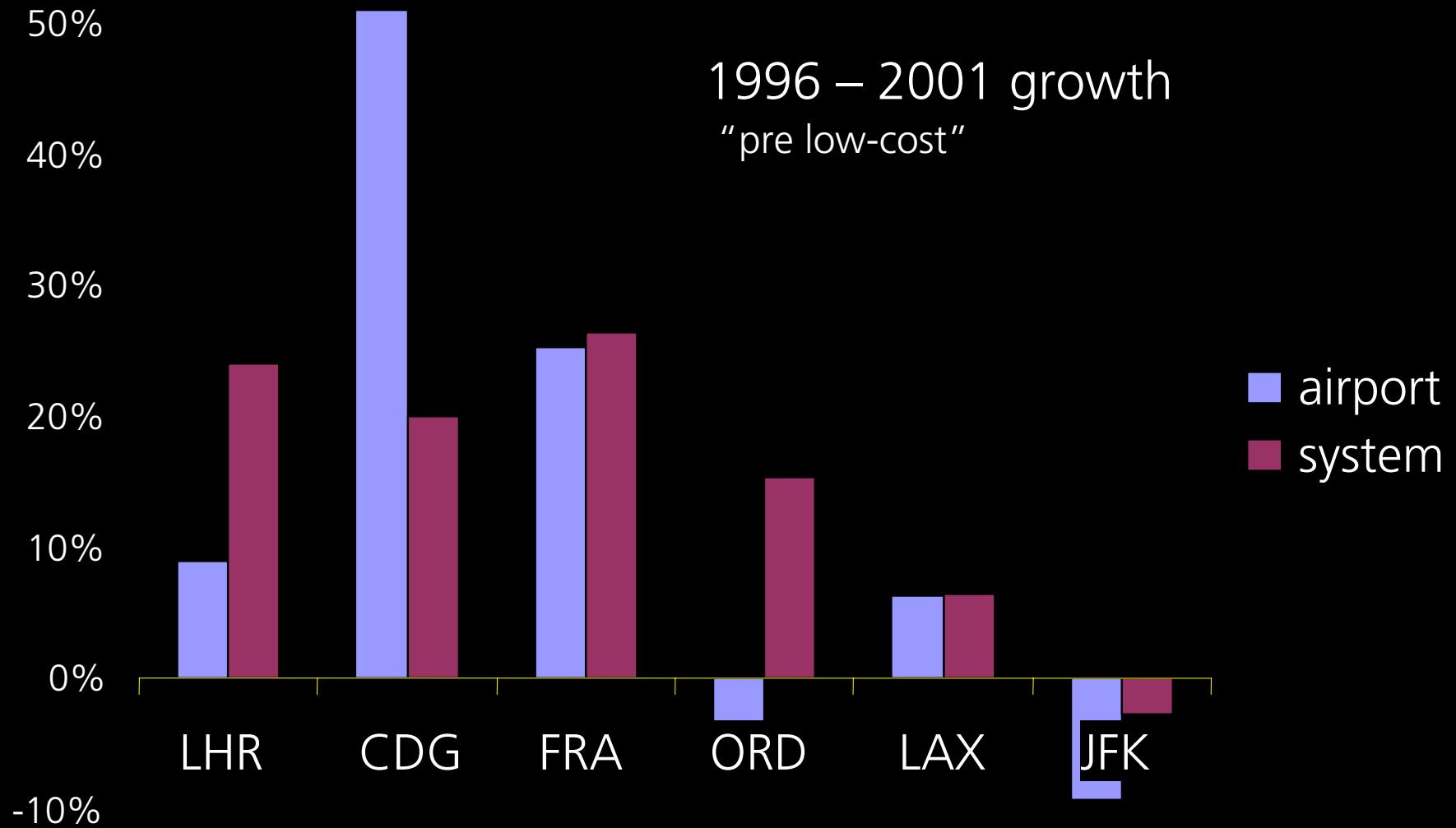


Jordi Candela Garriga  
[jordi@a-ports.com](mailto:jordi@a-ports.com)

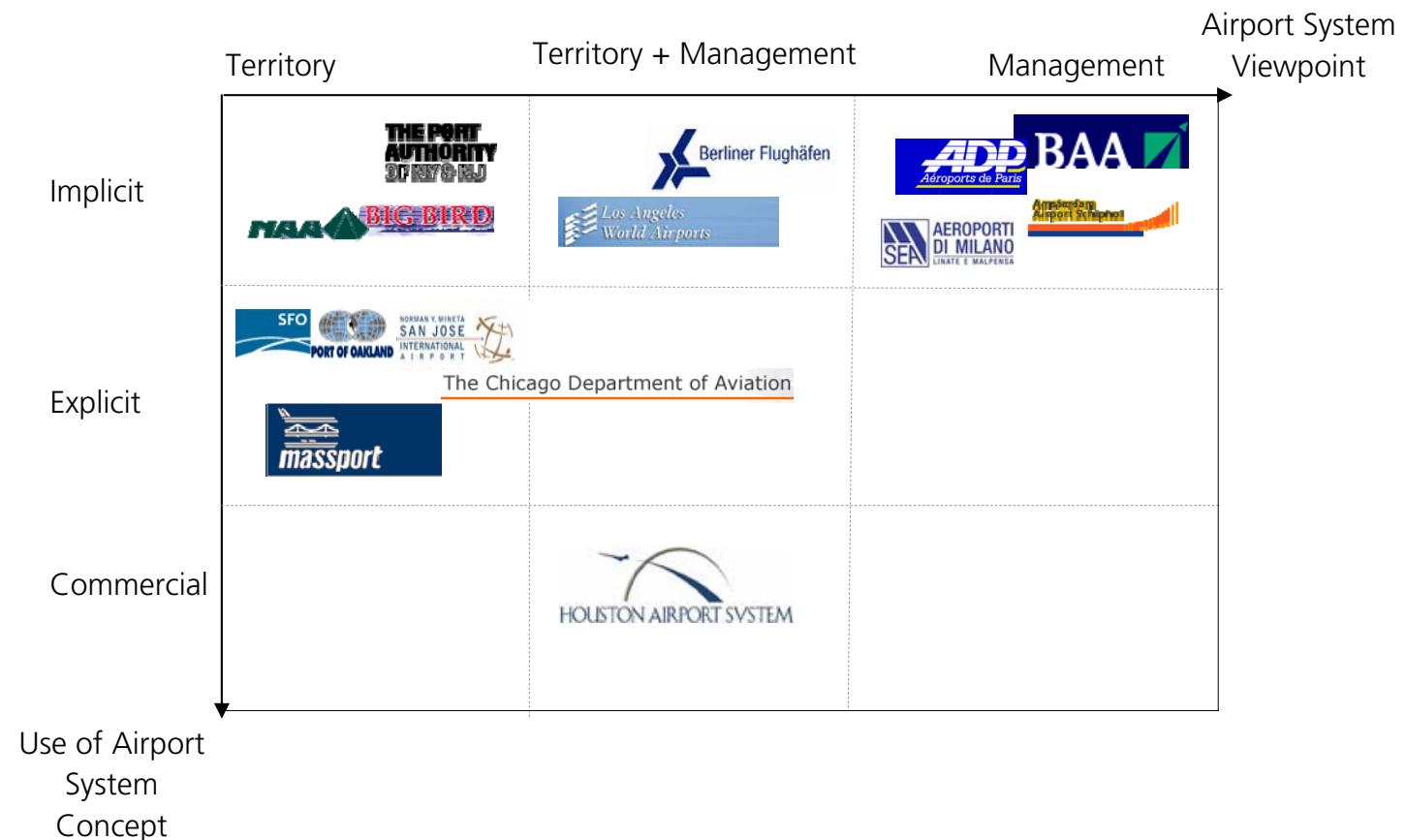
Den Haag  
April 2007

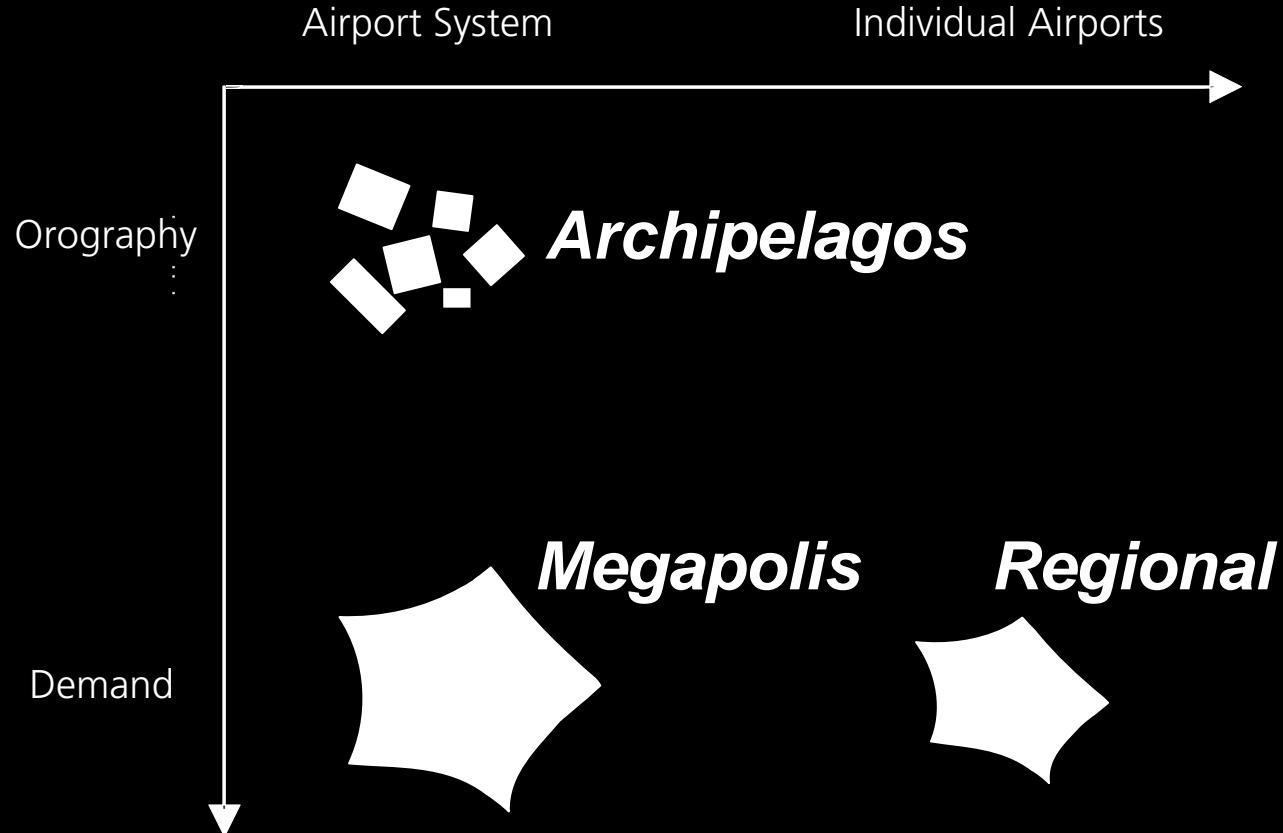


## Major airports' stress









## opportunities

- low-cost
- freight
- non Scheduled – peak periods



easyJet.com



fly baboo a breath of swiss air



excelairways.com



Corendon.com



Germania EXpress

flyglobespan

Scotland's low fares airline

germanwings  
Fly high, pay low.



helvetic.com



Jet2.com The low cost airline



Meridiana



RYANAIR.COM THE LOW FARES AIRLINE

SCANDJET SK



SNALSKJUTSEN.COM

snowflake SAS  
www.flysnowflake.com

Sterling.dk

SunExpress

swedeline

Thomsonfly.com



virgin express Virgin

fly VLM

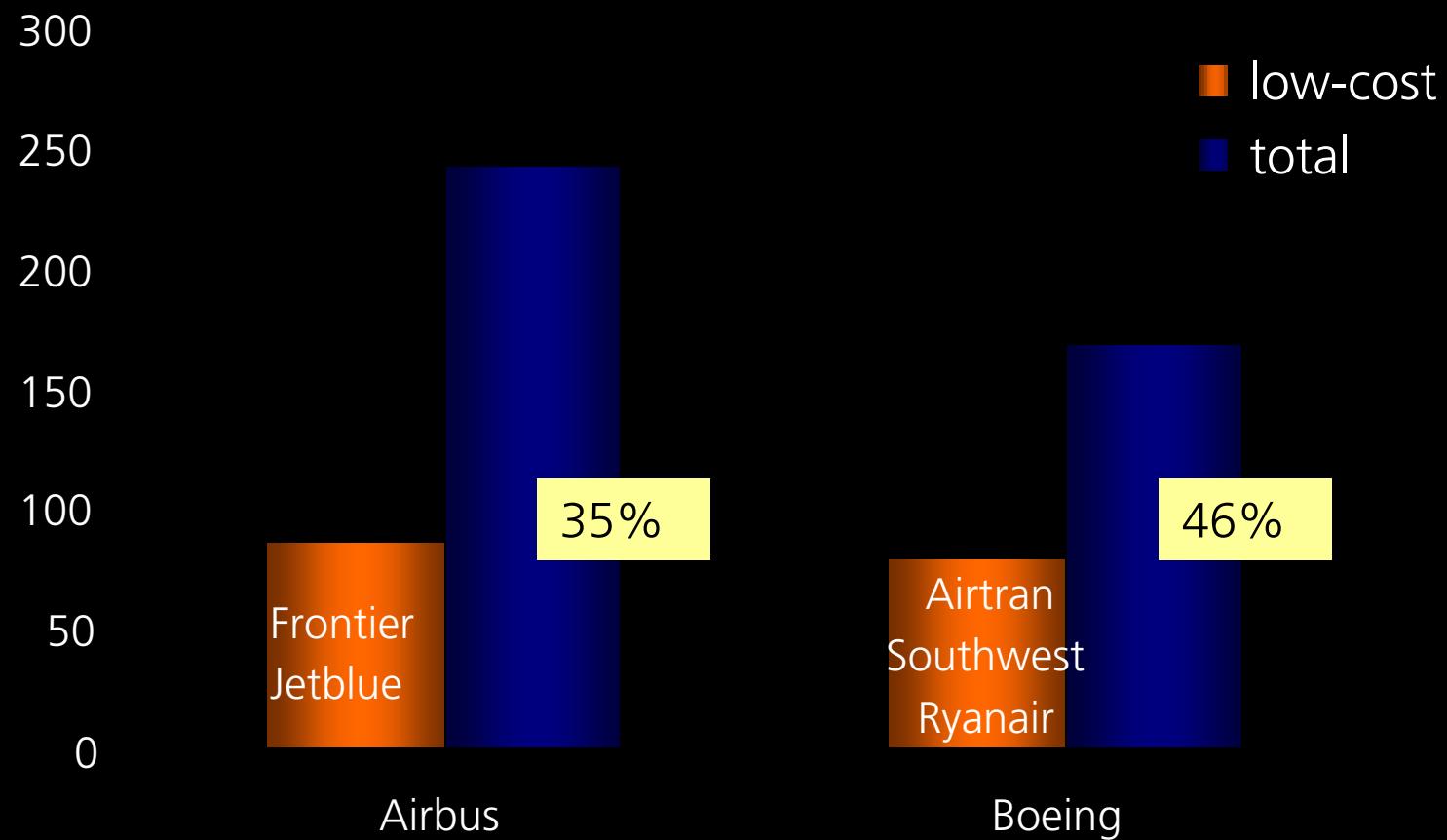
Volareweb.com low cost made in Italy

vueling.com

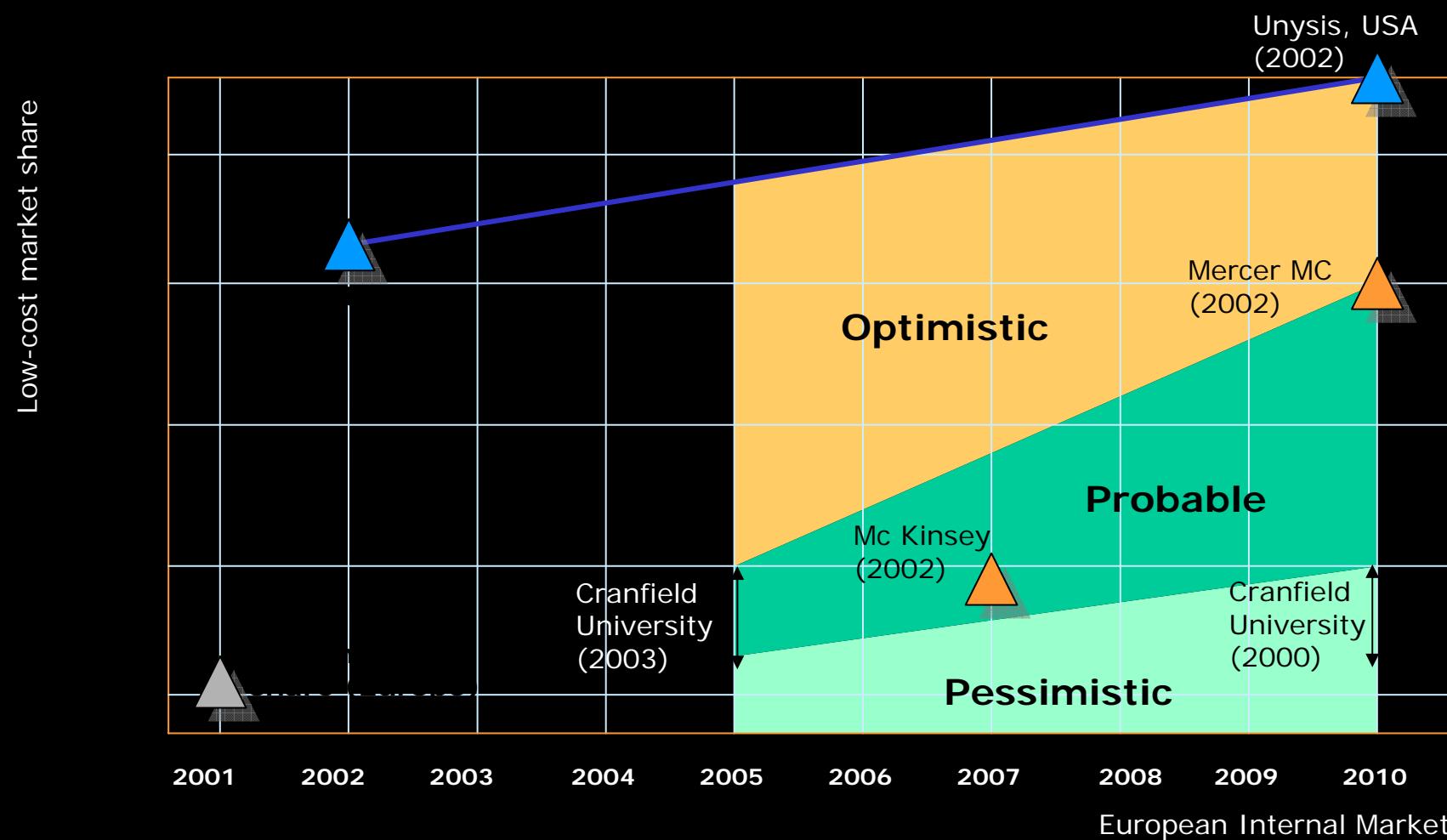
WINDJET

WIZZ

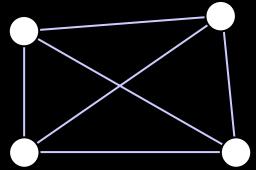
a stronger model



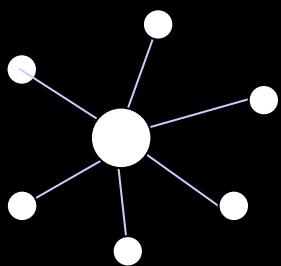
trends



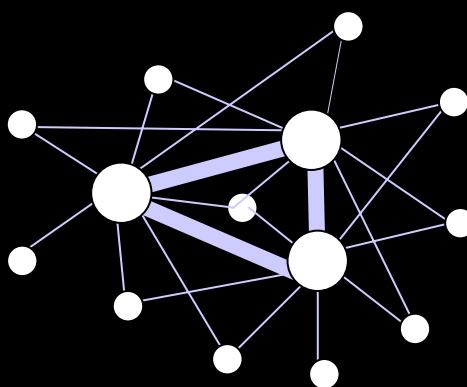
a stronger model



Point-to-point

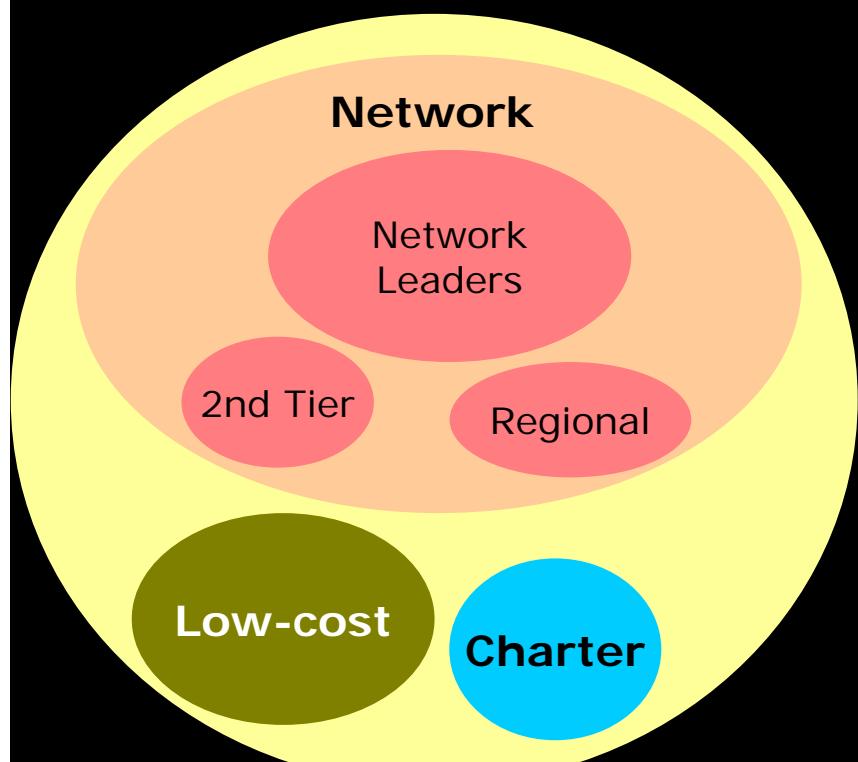


Radial



Polycentric

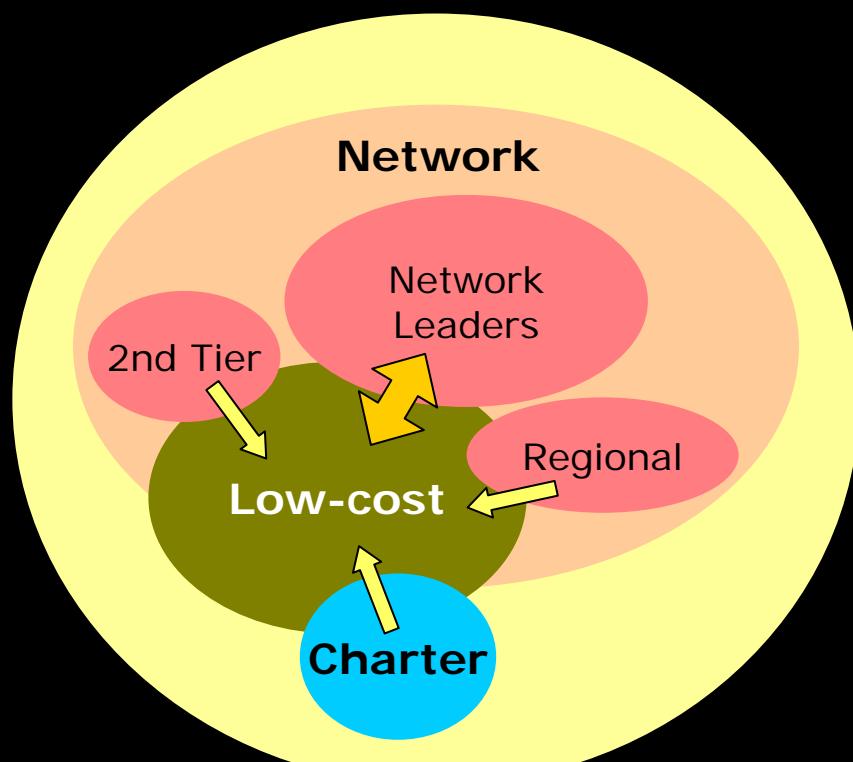
trends



From a static

...

to

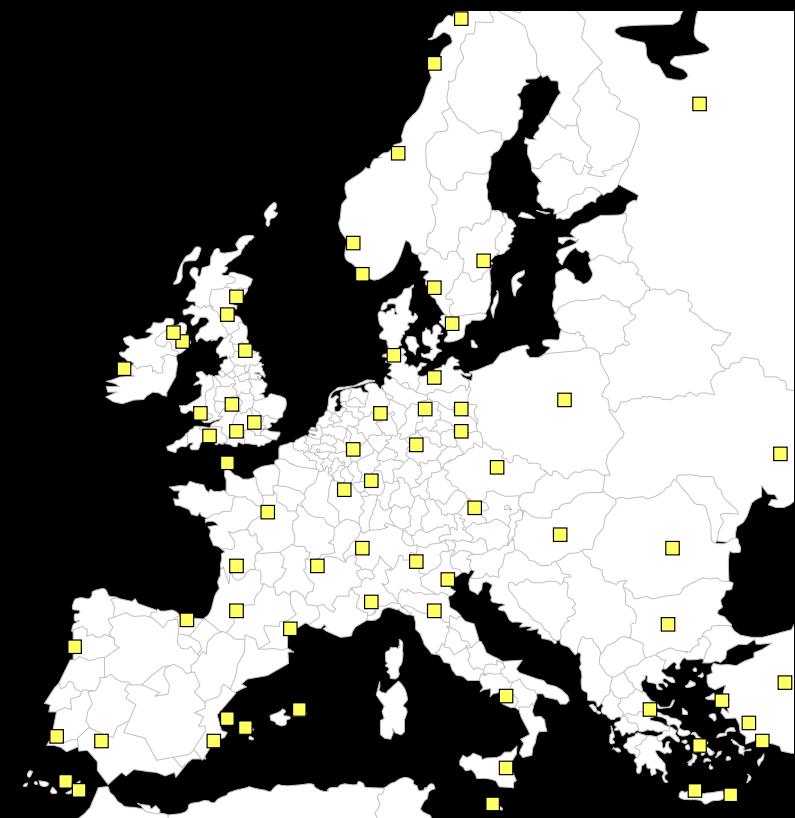


... a dynamic view

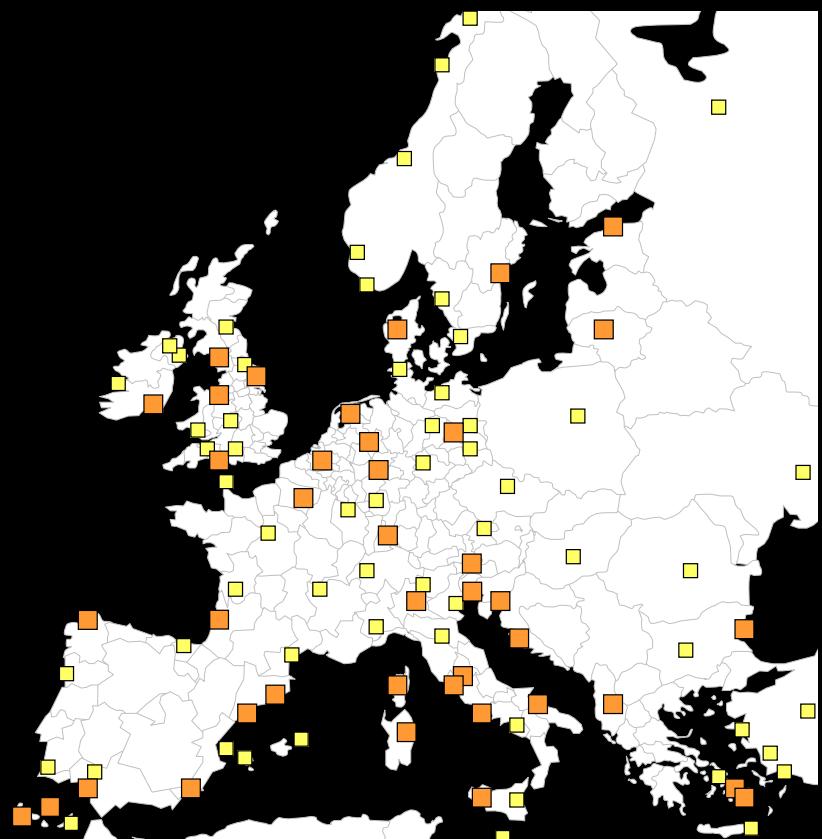
# “the” parallel network



## C Class Airports

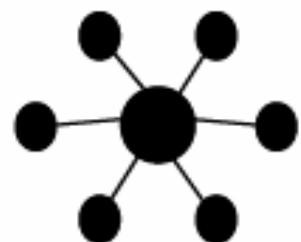


1999



2004

## Major Airports



Transfer



Transcontinental

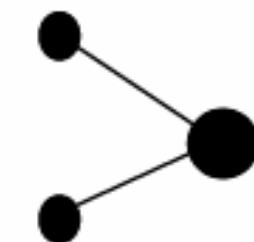


Major Airlines



Passenger + Freight

## Regional Airports



Gate to Gate



International / Domestic



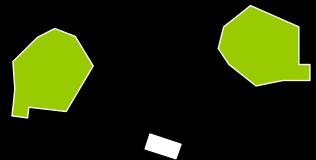
National / Specialists



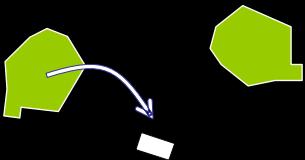
Air traffic niches

Secondary Airports in Megapolis

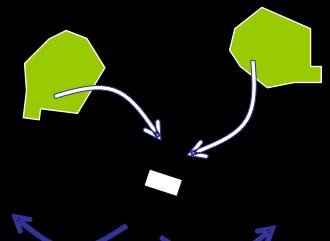
## increasing airport functions



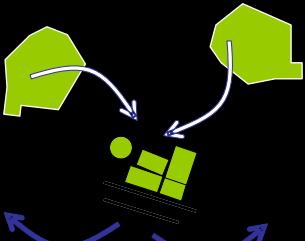
Without integration  
up to 0,5 Mpax



Destination point  
up to 1 Mpax



Excentric regional node  
from 1 to 5 Mpax



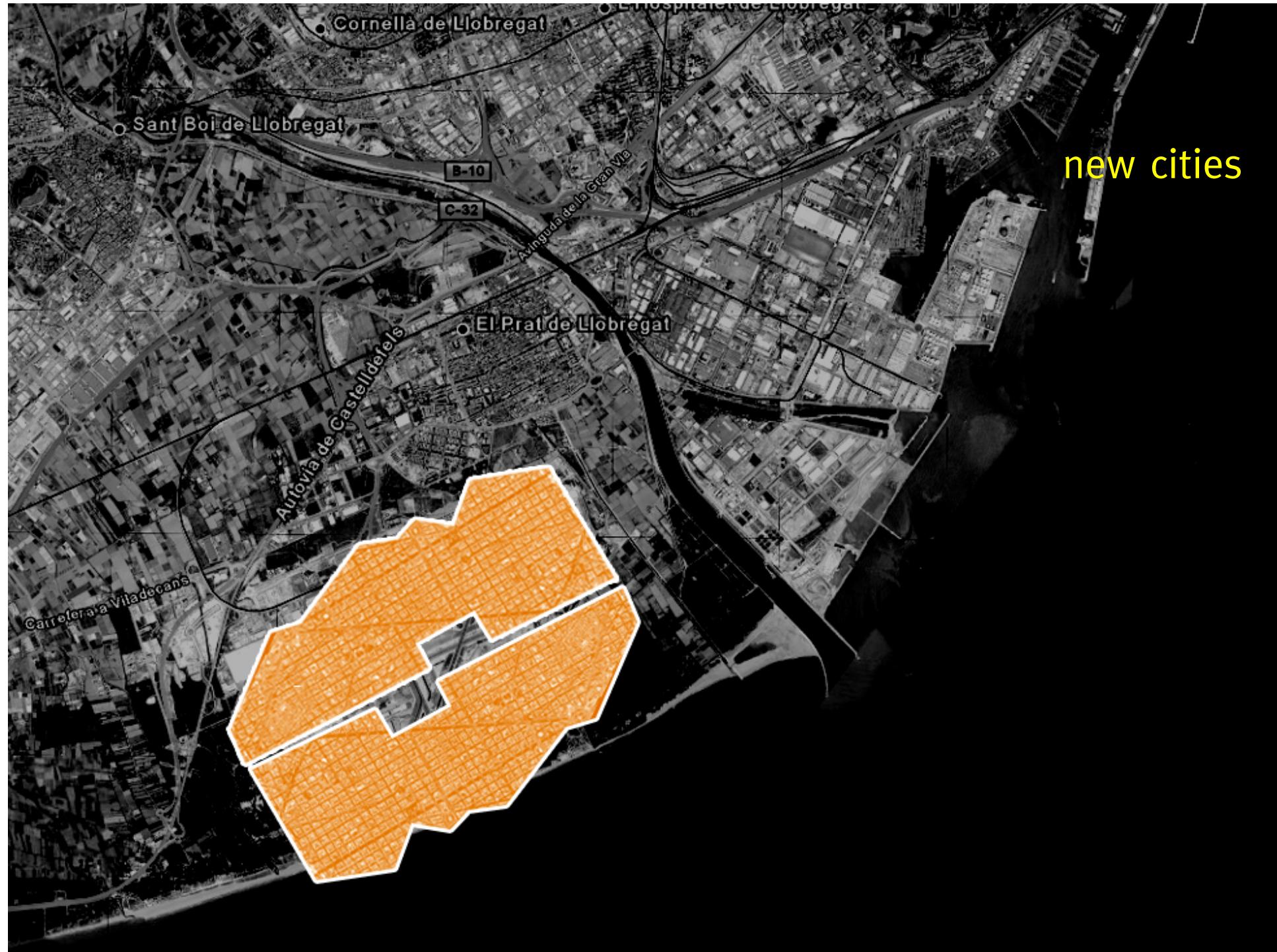
Central regional node  
from 5 Mpax

new cities

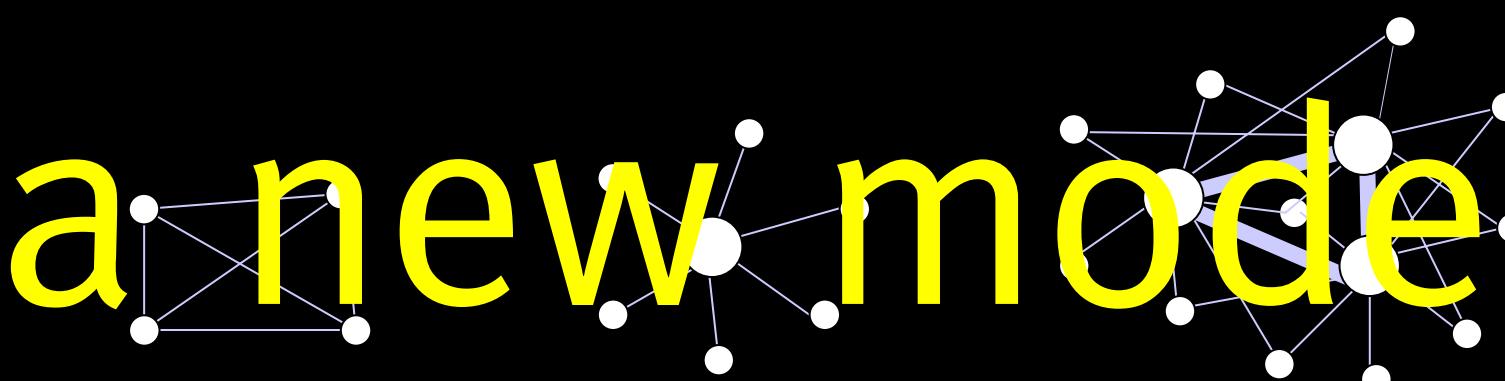


Reus

aeroport



towards  
a new model?



The word "a" is represented by a point-to-point network graph where each letter is a node connected to its neighbors by lines. The word "new" is represented by a radial network graph where all nodes are connected to a central hub node. The word "model" is represented by a polycentric network graph where multiple smaller clusters of nodes are interconnected by lines.

Point-to-point

Radial

Polycentric

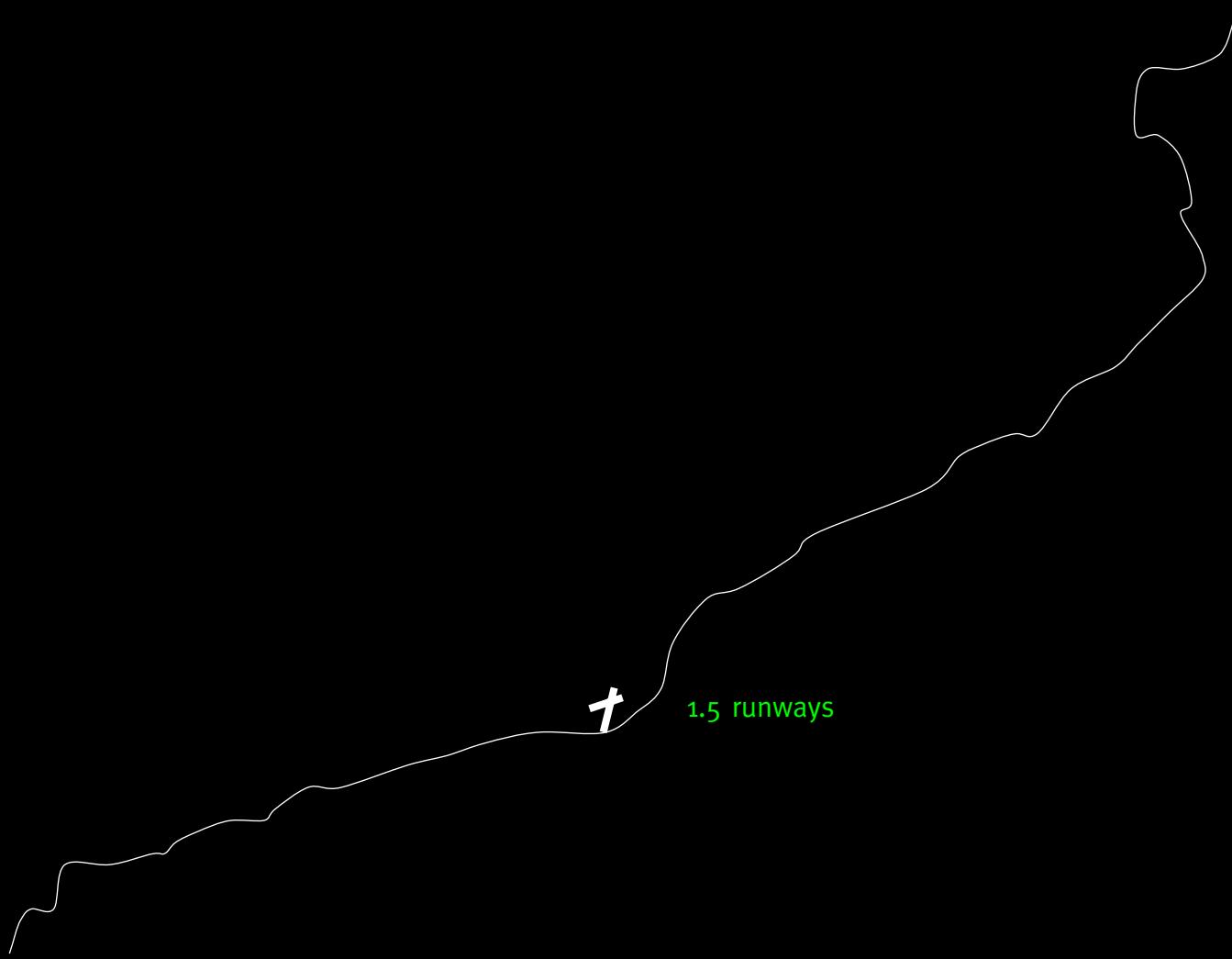
product segregation



## low-cost airports

- *former* cargo airports
- *former* international airports
- *former* almost abandoned / seasonal airports

regional landscape



$t$

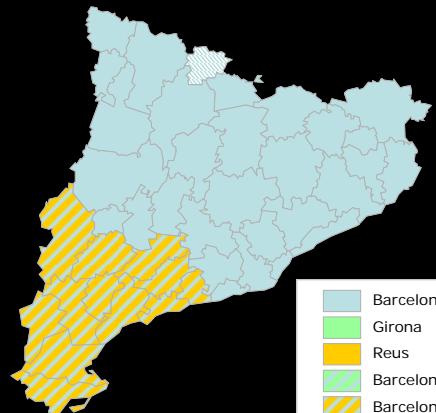
1.5 runways

regional landscape

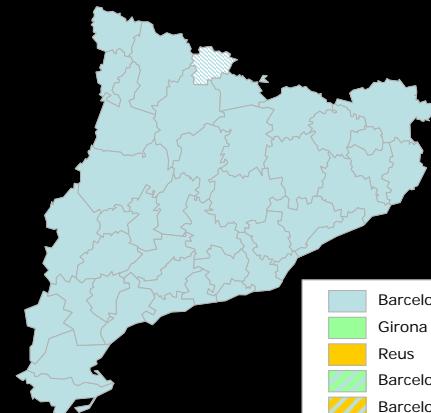


2.5? + 2 runways

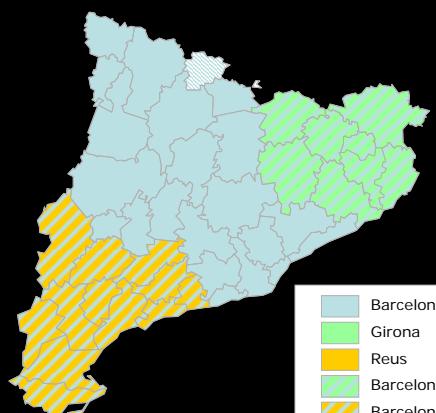
## catchment areas



network



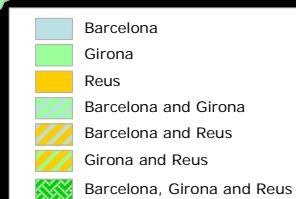
long-haul charter



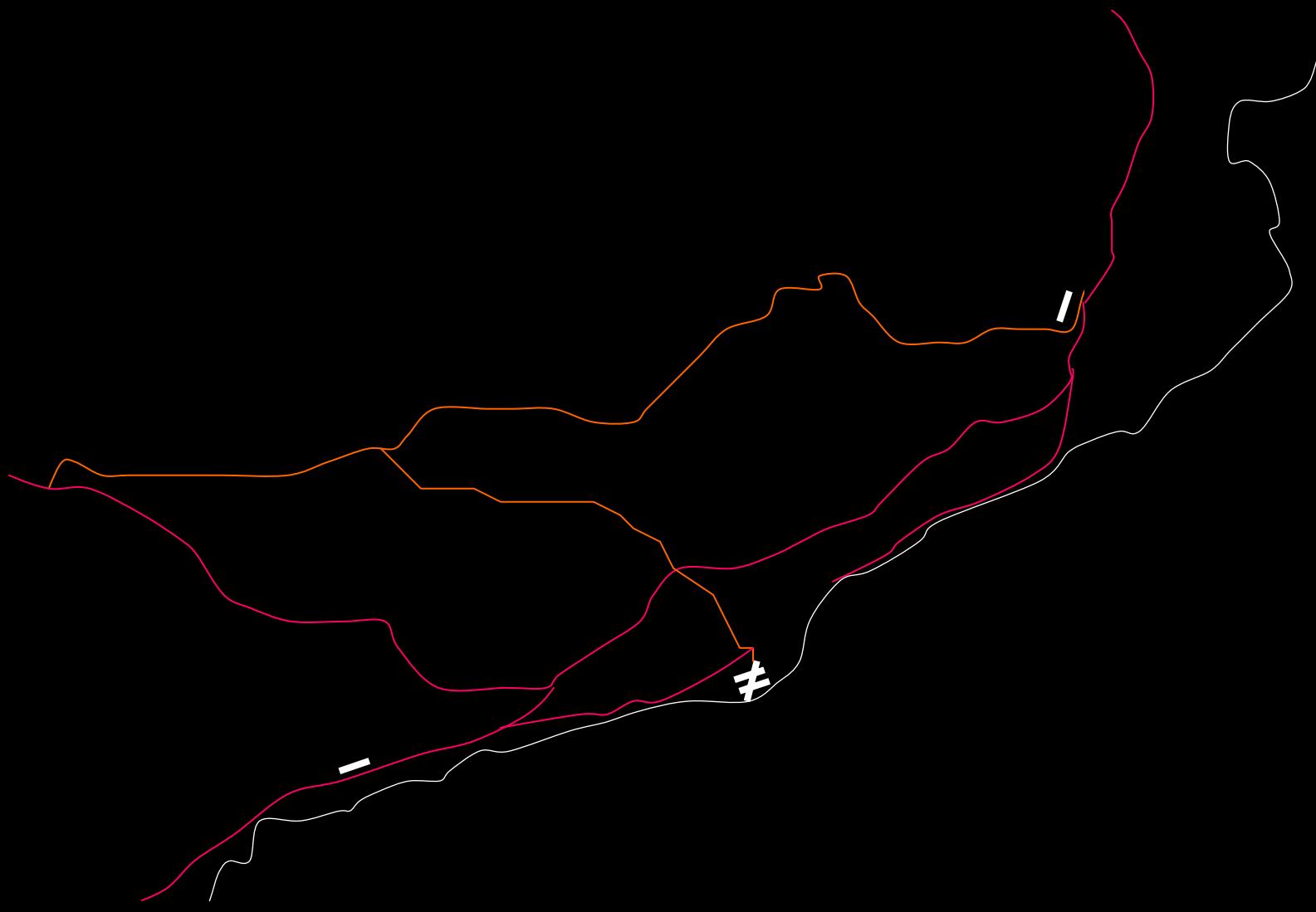
short-haul charter



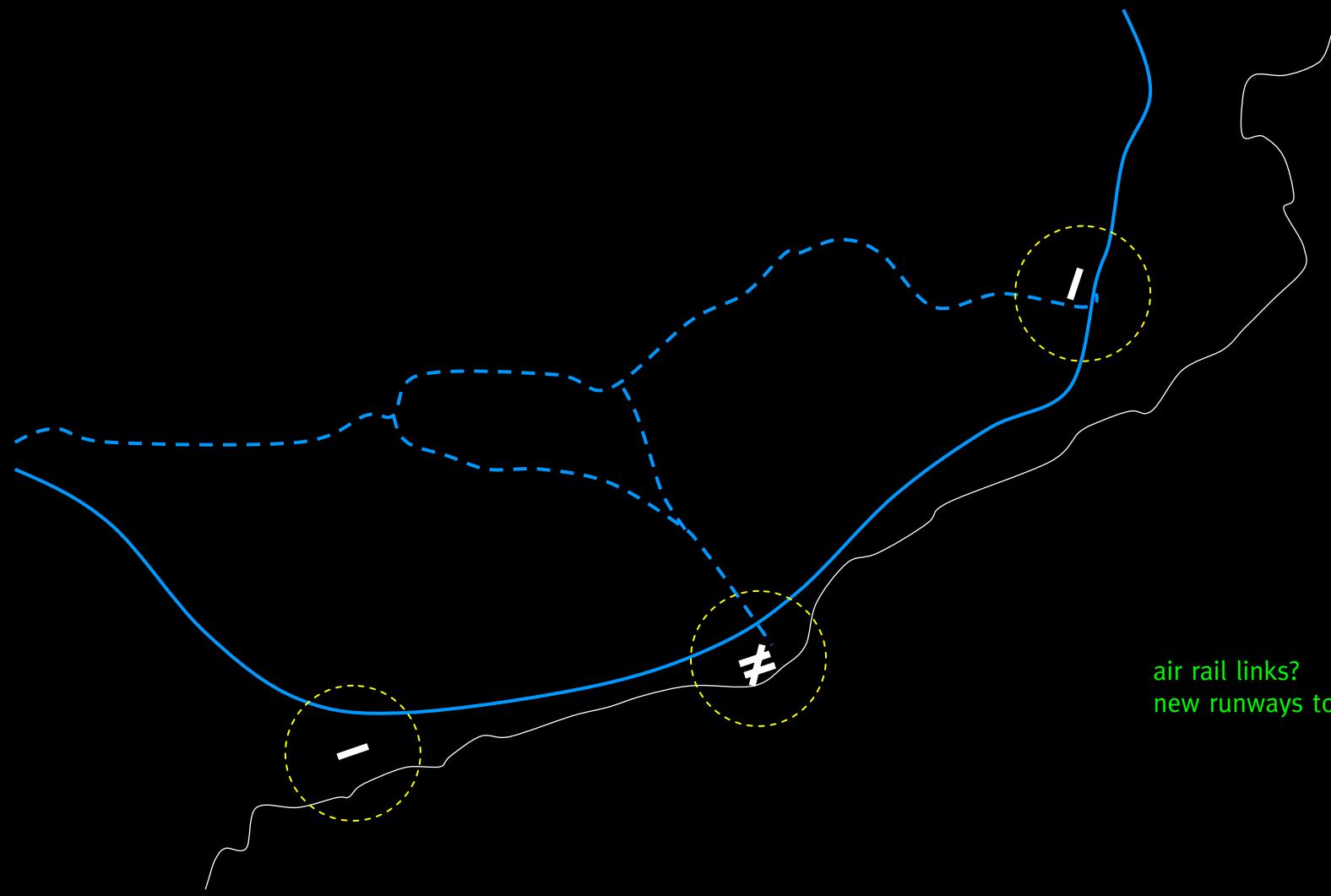
low-cost



regional landscape

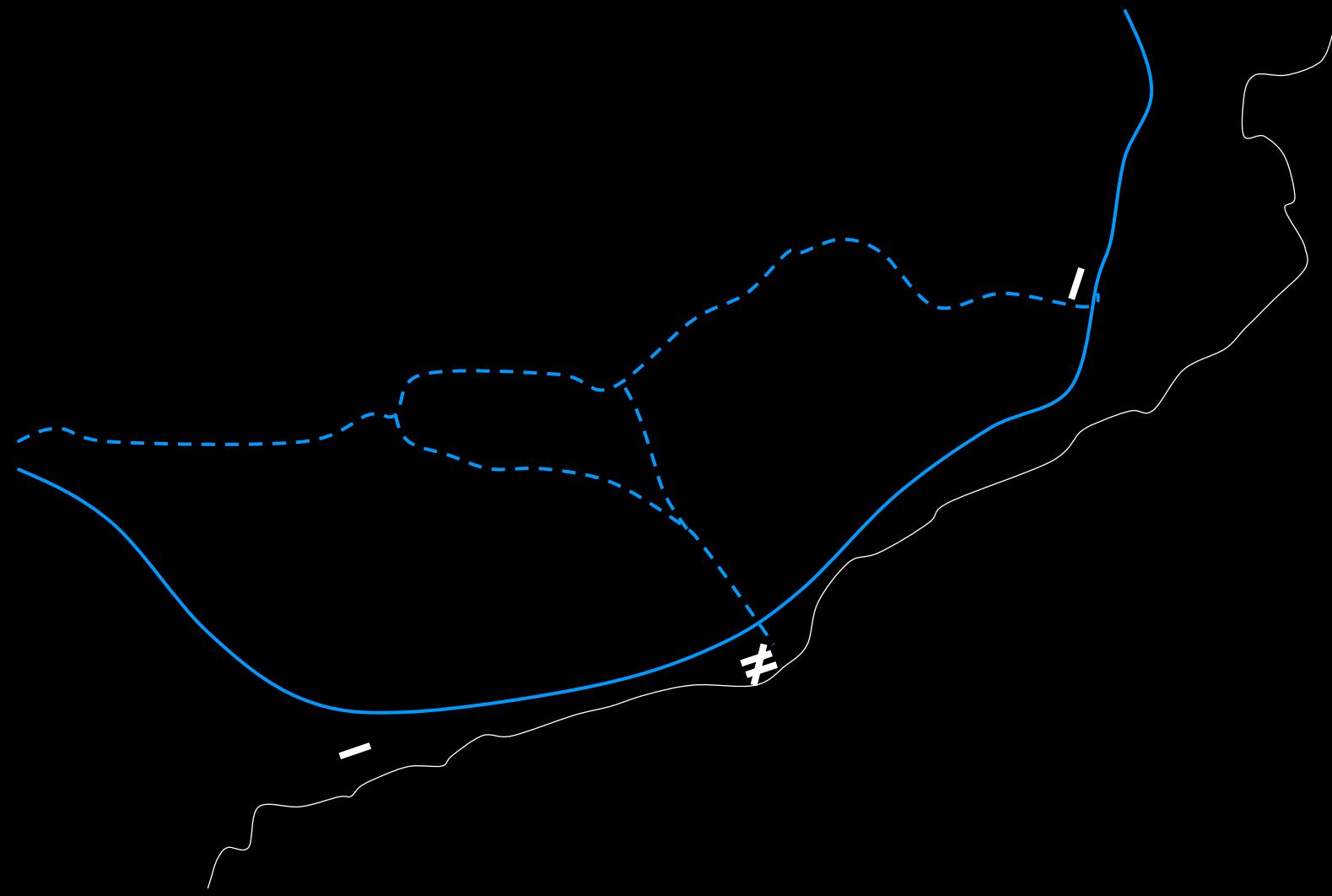


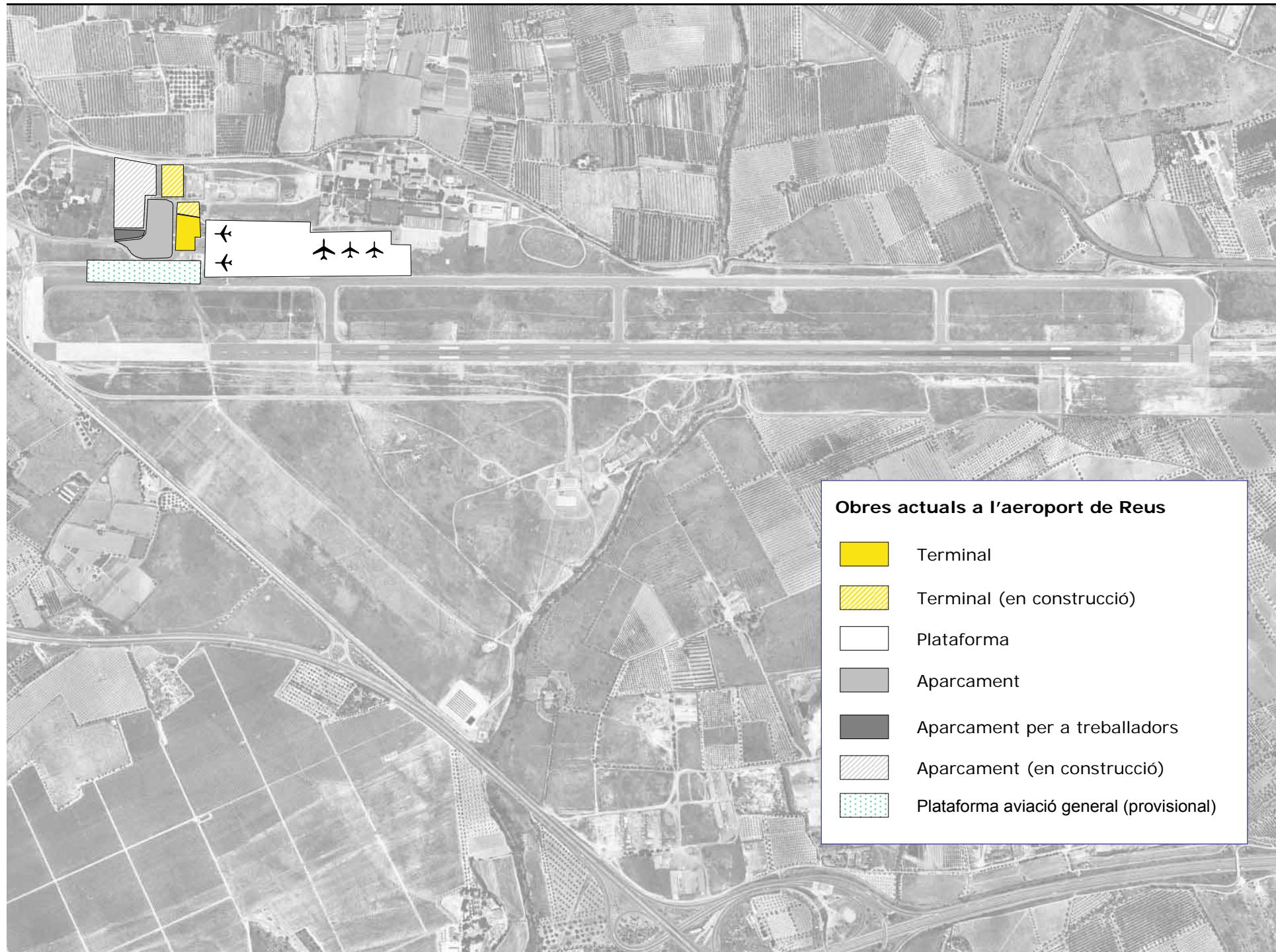
## regional landscape





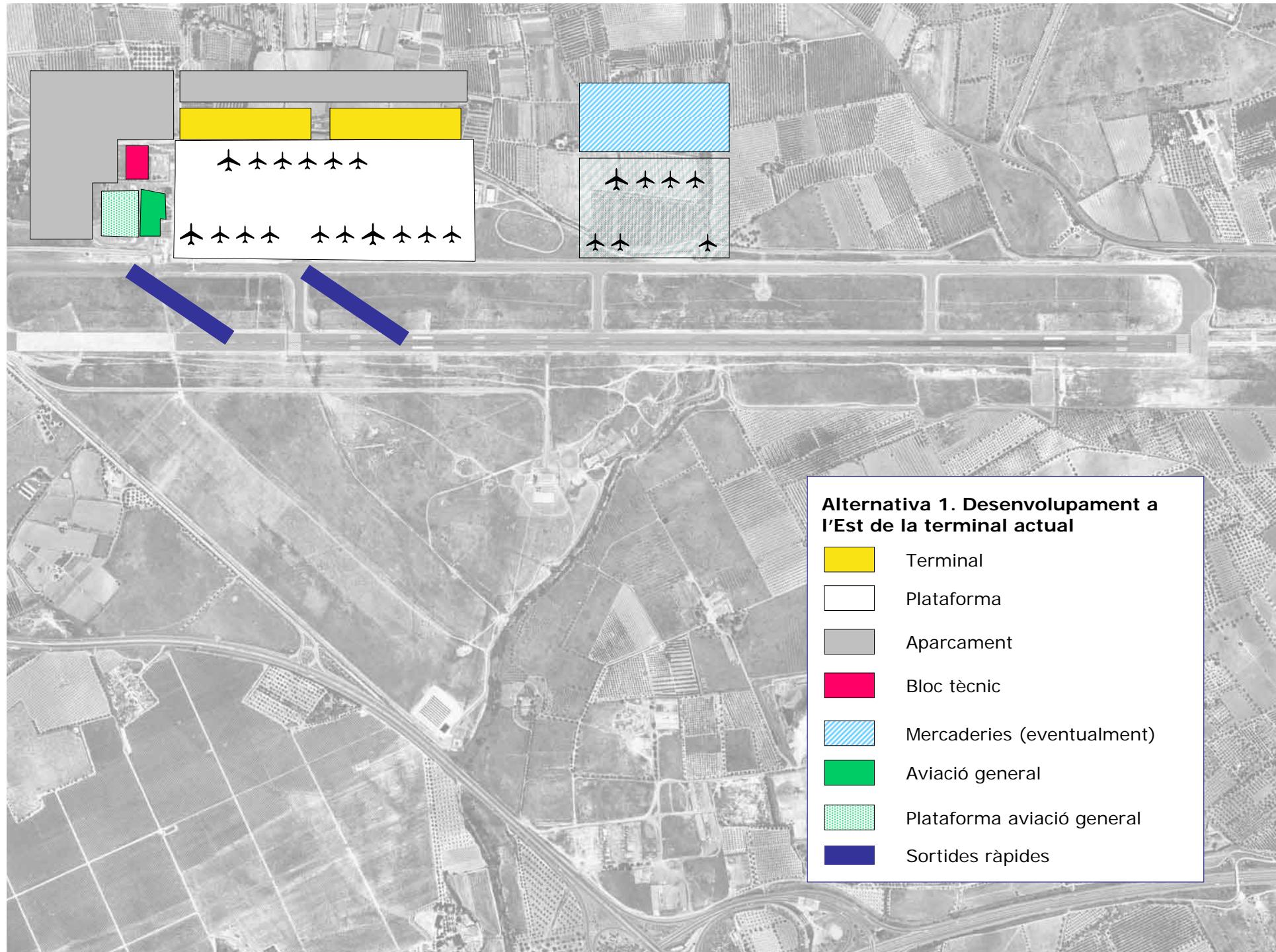
what's next?





**Obres actuals a l'aeroport de Reus**

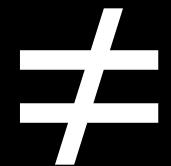
- Terminal
- Terminal (en construcció)
- Plataforma
- Aparcament
- Aparcament per a treballadors
- Aparcament (en construcció)
- Plataforma aviació general (provisional)



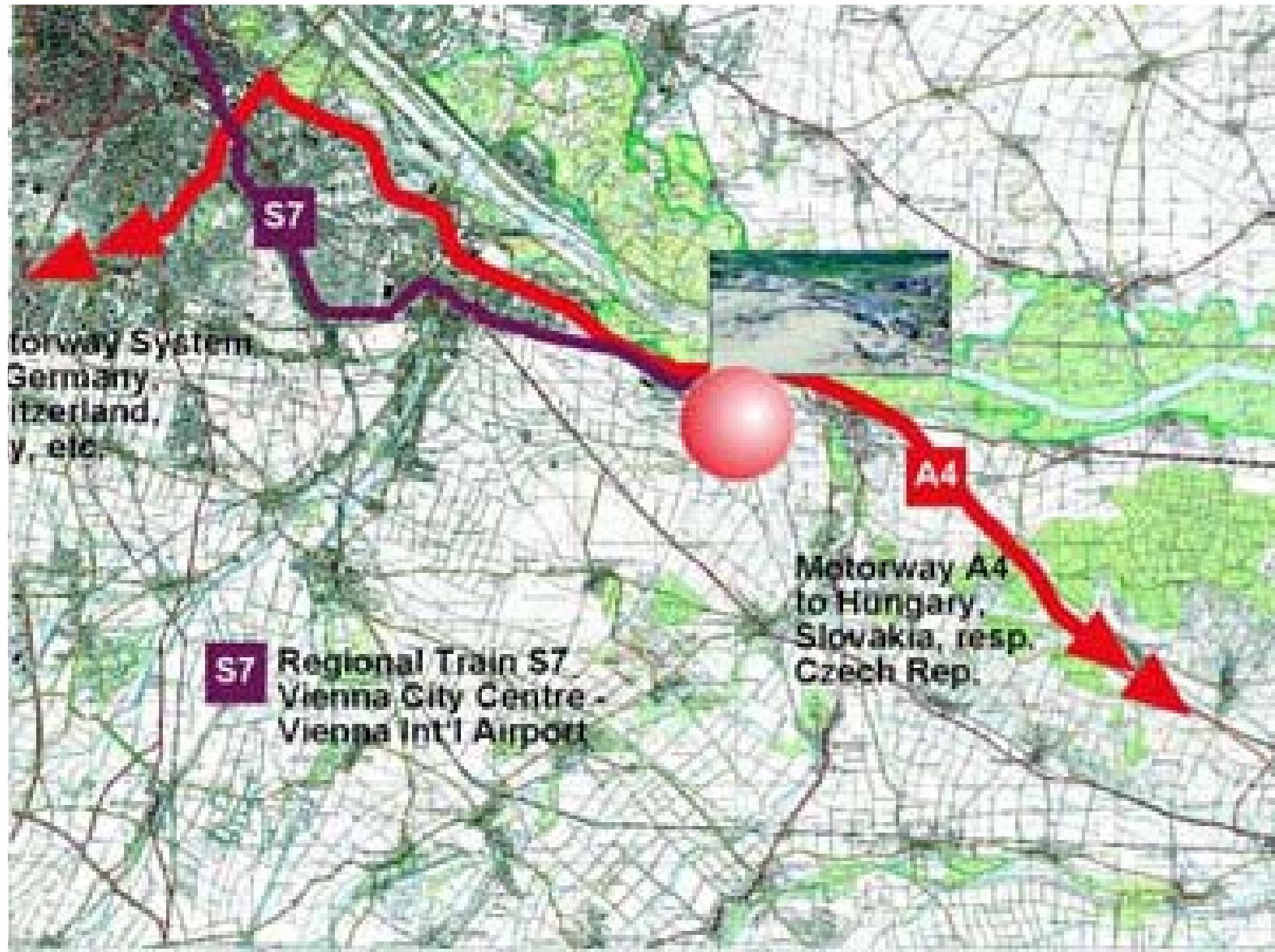


transnational systems

Airport system



Administrative concept



# Twin City Vienna – Bratislava

Two Centres – One Economic Region

A region for  
9 million people  
in the centre of Europe

Nowhere  
else in Europe ...

... are two capital cities located at a distance  
of no more than 50 km from each other.

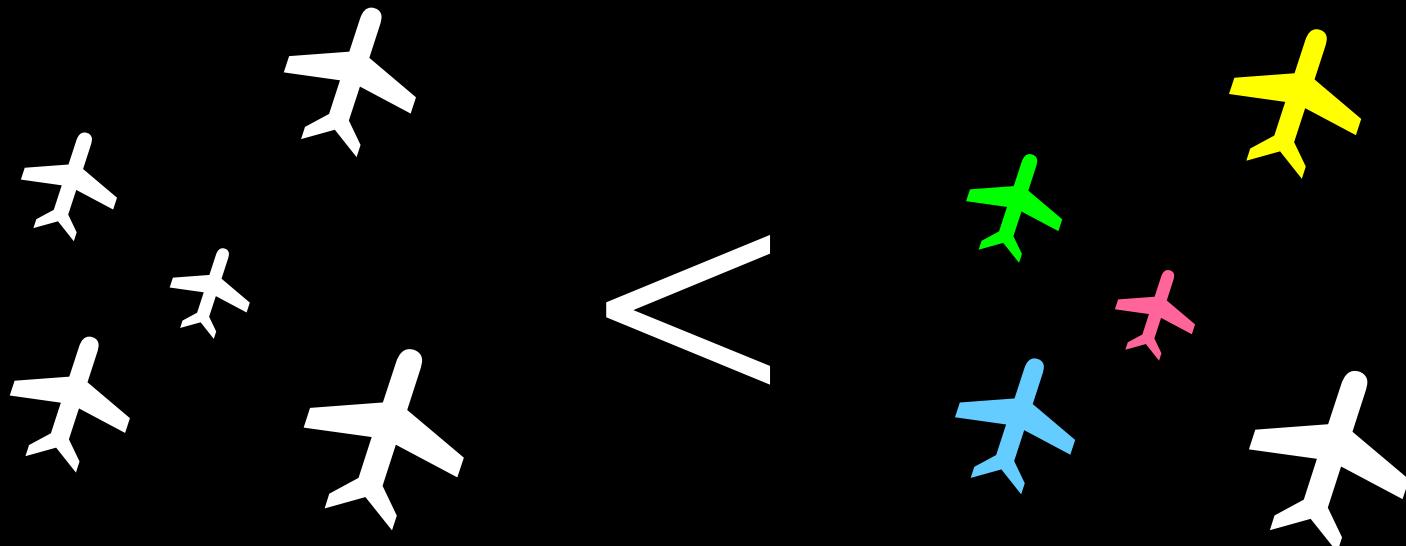




airport synergies

$\Sigma$  airport<sub>i</sub>

System



win / win agreement

Major 

Quality

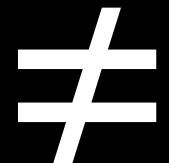
win

Regional 

Quantity

management of the system

Airport system

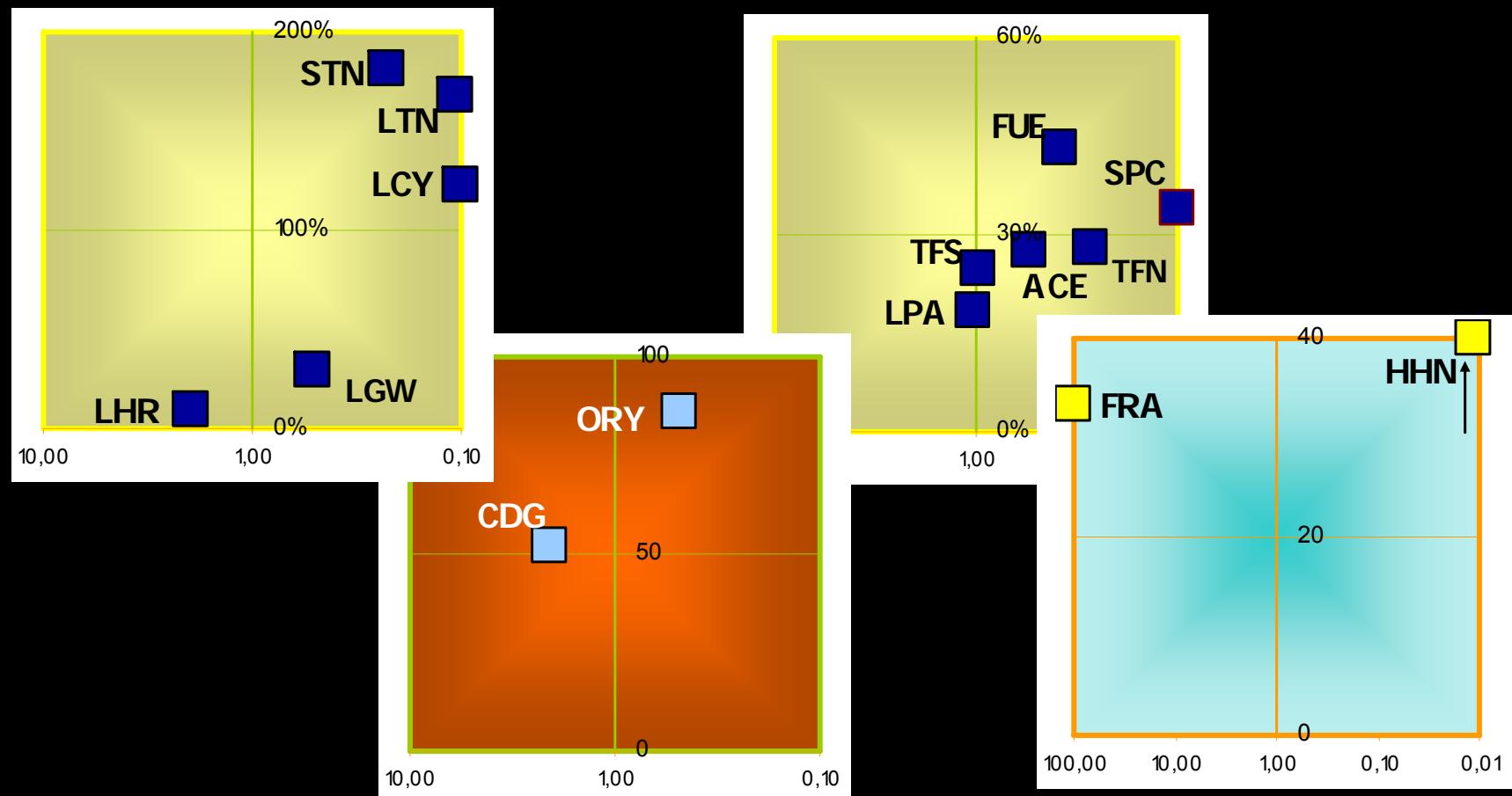


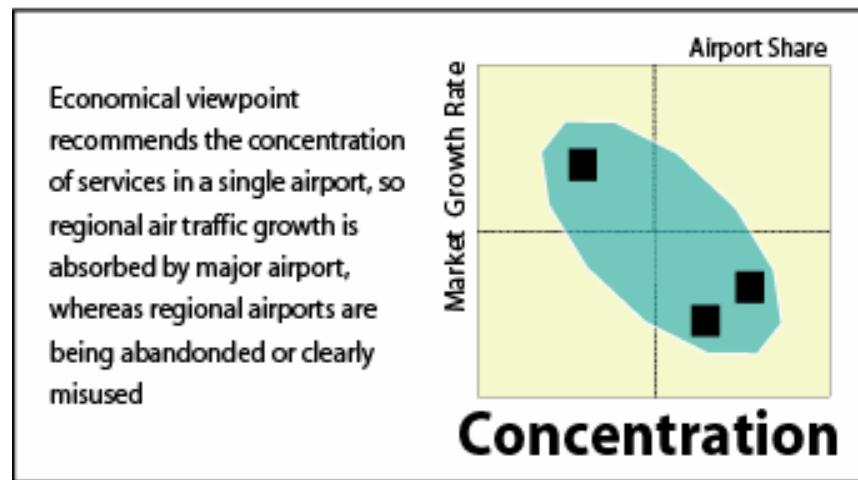
Joint management

Better results in competition

... and methodology ...

## System's (Internal) Matrix





		<p>Major airport is close to its operative capacity. Its expansion is not possible, so regional airports are promoted, absorbing the increase of regional air traffic. The saturation is solved thanks to regional airport participation</p>
	<p>Regional positions following the natural tendency of concentration</p>	<p>The generation / attraction of air traffic has ran out. The region is "exhausted" and its members have low increases of air traffic. The air traffic strongly depends on main airport behavior.</p>
	<p>Animated</p>	<p>The region is far from reaching its capacity and all airports are having high increase ratios. The participation of regional airports is being conceived, but the major airport has still margin to grow, meaning a general growth in all airports.</p>

airport system

*“Group of airports  
belonging to a particular  
territorial unit whose  
management can be  
either separate or joint”*

# efficient...

- economically
- environmentally
- socially
- territorially
- ...

# isn't it?

# airport systems



Jordi Candela Garriga  
[jordi@a-ports.com](mailto:jordi@a-ports.com)

Den Haag  
April 2007