Quo Vadis Europe? Mobility trends, future perspectives & implications for urban transit in Spain

¿Dónde vas Europa? Tendencias de futuro y sus implicaciones en la movilidad urbana en España

Tobias Kuhnimhof

Knowledge for Tomorrow
This talk is about the long term structural development, not about short term cyclical changes.

Automobile Travel Demand per Person in Spain

Source: BITRE 2012
Overall, Spain’s mobility patterns develop along a relatively typical European path.

Therefore, developments in other countries help understand developments in Spain.

But travel demand in metropolitan areas in Spain is likely to turn out lower and more transit oriented than in other European metro areas.
Compared to other industrialized countries, car ownership in Spain is moderate.

Source: ifmo 2014, BITRE 2012, Spain statistical yearbook 2014
But if corrected for income, car ownership development in Spain is on a typical European path.

Source: ifmo 2014, BITRE 2012, Spain statistical yearbook 2014
Spanish mode shares are not far from the European average.

Distance Based Mode Shares

Source: COST Action Shanti 2013
On average, the Spanish travel less than other Europeans in the context of everyday activities.

**Km per Traveler per Day**

Source: Shanti

Source: COST Action Shanti 2013
High densities may explain low travel demand & suggest that Spanish cities develop transit & walk oriented.

Source: Kenworthy, Laube (Millennium Cities Database) 2000
There will be growth of total travel in some metropolitan areas due to population growth.

But overall, everyday travel of Europeans shows signs of saturation.

The group of captive transit riders will continue to decrease in the future.
Economically well-off metro areas continue to grow, the population in other areas decreases.

Change in population 2010 to 2030 in %
- to under -20
- -20 to under -10
- -10 to under -3
- -3 to under 3
- 3 to under 10
- 10 and more

Source: BBSR 2010
„Peak Travel“: On a per capita basis, travel in the context of everyday activities doesn’t grow anymore.

Kilometers per Traveler per Day

Source: author’s analysis on the basis of national travel surveys
Europe is aging. Germany is spearheading this development – with substantial consequences for travel.

Source: US Census Bureau, international data base, 2014
About 1 hour per person per day: relatively stable travel time budgets may also help explain „peak travel“.
In the future, urban travel will be more multimodal, more diverse and increasingly shaped by non-routine travel.

If urban transit adapts to this situation, there will be substantial opportunities.
Young drivers have become much more multimodal in the recent years.

Share of young car owners (Age 20-29), who drive every day:

1999: 65%
2008: 47%

Source: ifmo 2012
As a result car travel has recently decreased for young adults while it increased for seniors.

Source: author’s analysis on the basis of the German Mobility Panel
Moreover, there is a rebound of cycling, specifically in urban areas.

Travellers entering London in the Weekday morning peak

Index 1979 = 100

...by bicycle

...by car

...by public transport

Source: Hansen 2013 on the basis of data from Transport for London
As opposed to everyday travel, tourism and long distance travel grow substantially.

Development of Transport Indicators in Germany since 1995

Source: author’s representation on the basis of data from Verkehr in Zahlen 2014 and Destatis 2014
Saturation of every day travel

More non-routine travel

Population growth in urban areas

Aging populations

Fewer captive transit riders

Increasingly automobile seniors

Young people are less car oriented

Saturation of every day travel

Rebound of cycling

More multimodality

More tourists and transients