

Trains, planes and automobiles: economic appraisal for a national transport infrastructure plan

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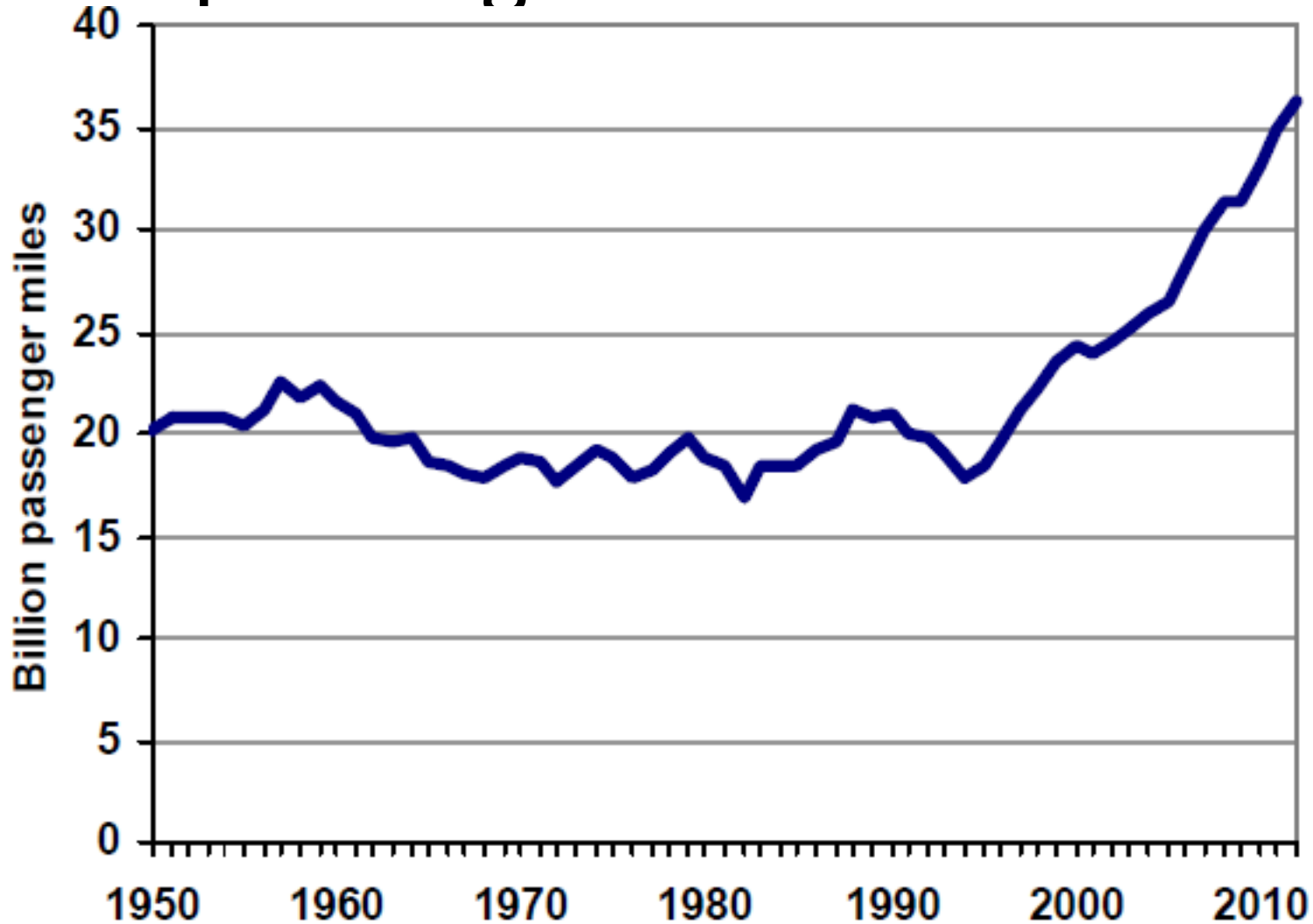
Issues in UK Transport Policy

- Lack of long-term investment commitment through a national infrastructure plan
- But commitment to the need for infrastructure investment in economic recovery – does the new policy provide the means for delivery?
- 2013 National Infrastructure Plan more a list of projects than a targeted plan?
- Little intermodal planning
- Political expediency
- Focus on competition, but lack of understanding of markets
- Emphasis on user pays rather than subsidy, but no move to national road pricing
- Appraisal issues leading to lack of clarity in investment decisions – “paralysis by analysis”

Outline

- Railways
- High-speed rail
- Airports
- Roads
- Economic appraisal
- Some pointers for debate

Rail passenger miles 1950-2012



Source: Office of Rail Regulation (ORR)

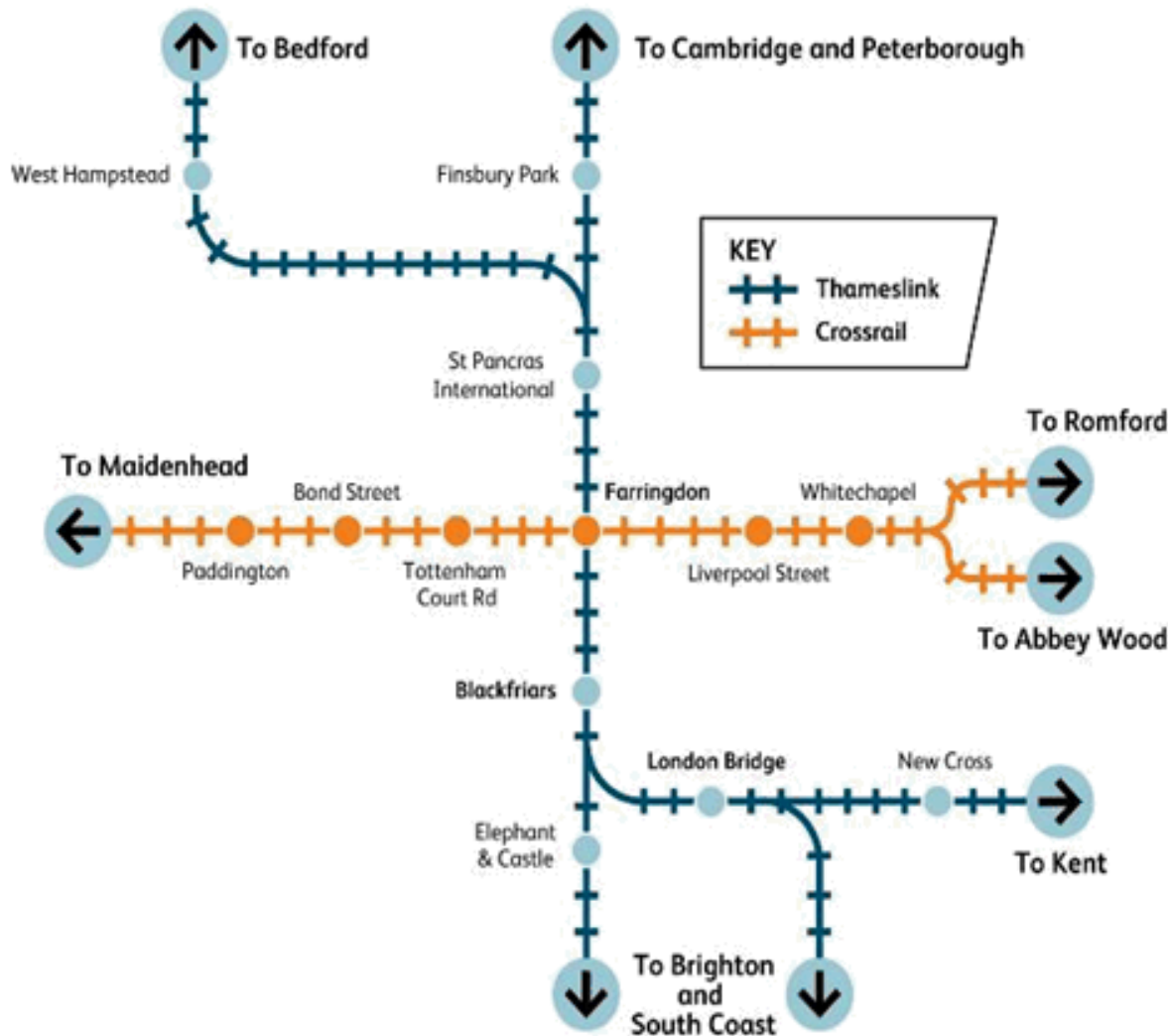
Rail investment

- £37.5 billion by Network Rail between 2014 and 2019
- Crossrail and Thameslink in London
- An 850 mile national programme of electrification
- New fleets of faster trains on the East Coast and Great Western mainlines as IC125/225 replacements
- HS2

Rail Schemes in HLOS

- Upgrading rail tracks and stations:
- Electrifying important railway routes
- Crossrail
- Thameslink
- Intercity Express Programme
- Major main line and station upgrades

Thameslink and Crossrail projects



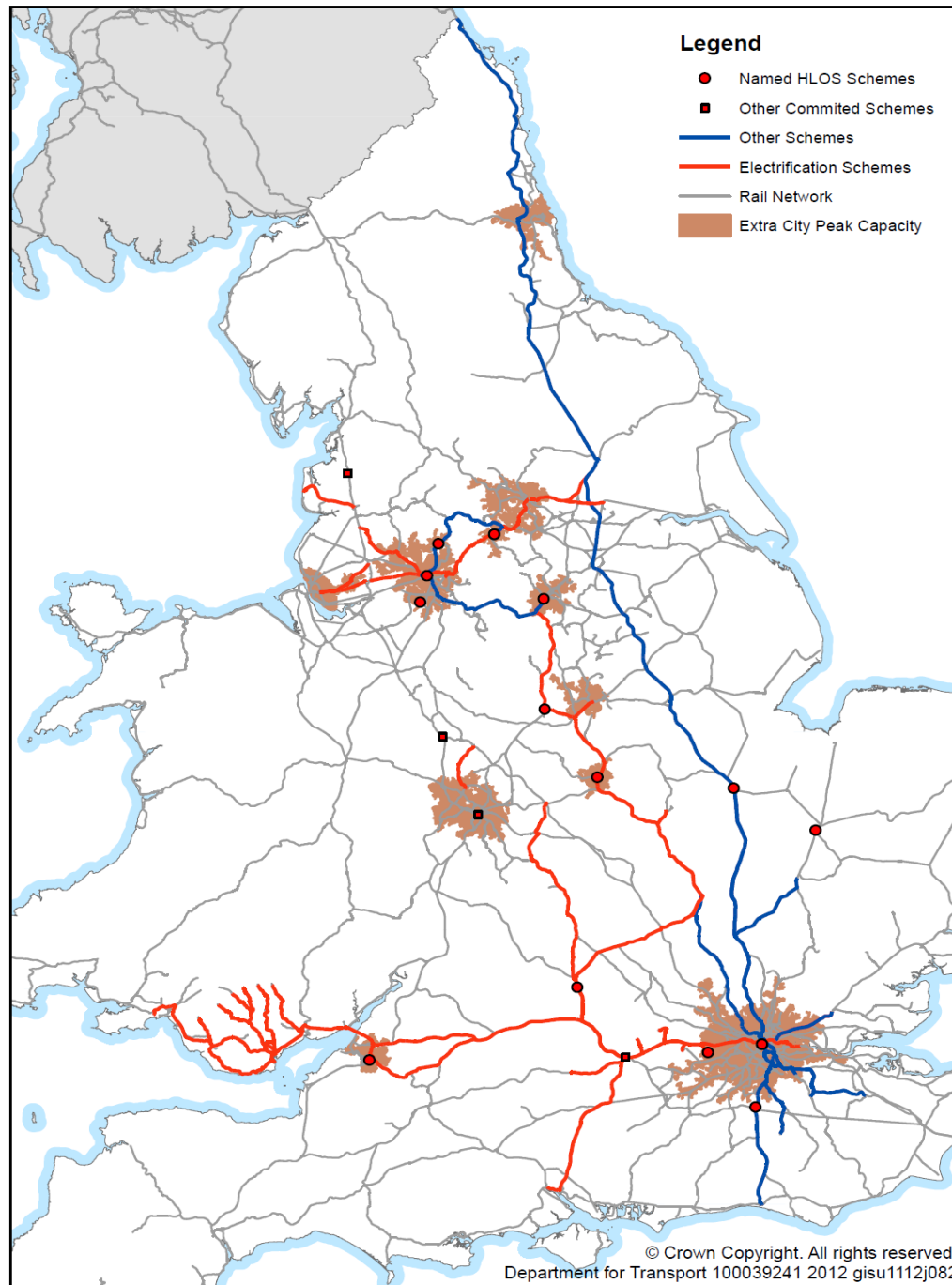
Thameslink:

£6bn improvement to existing routes to provide up to 18 services per hour across central London

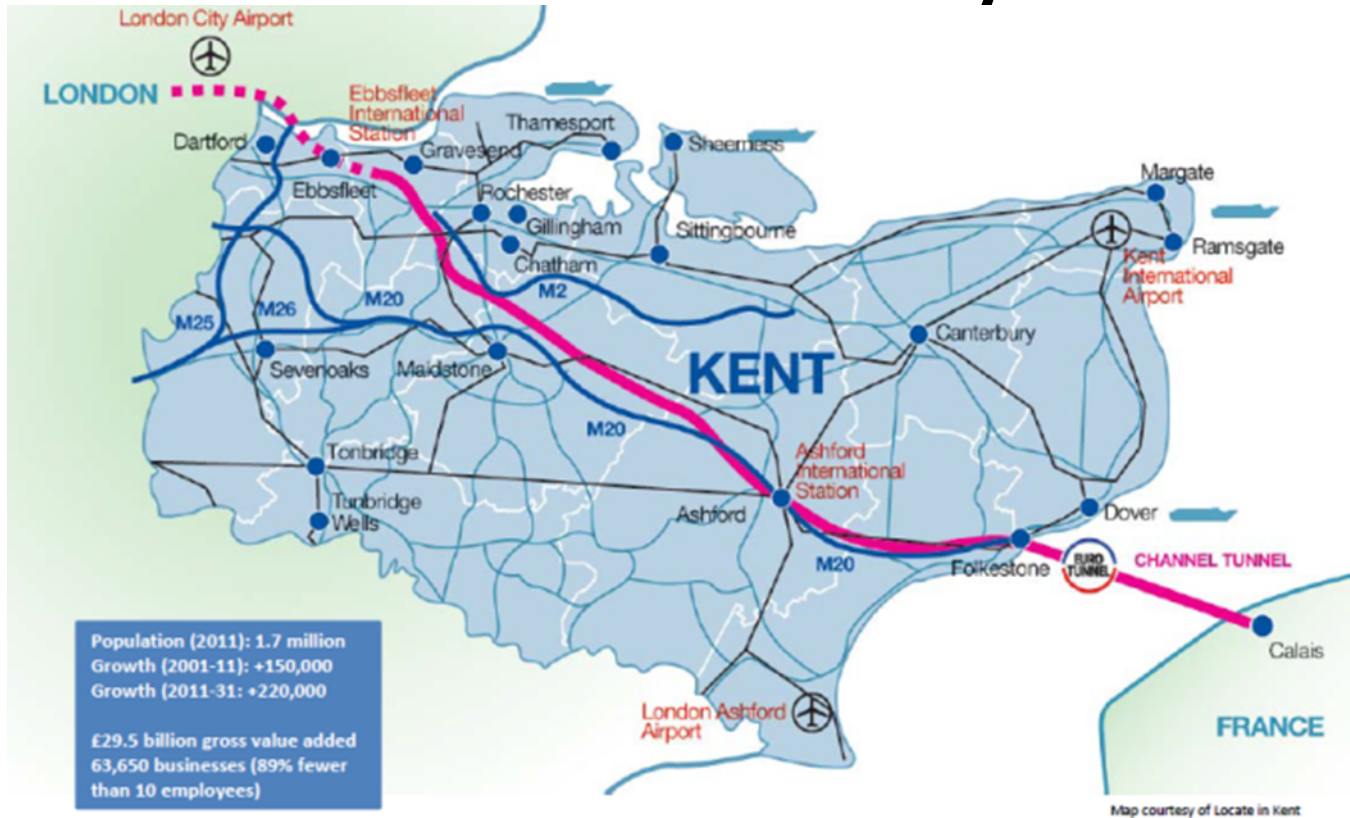
Crossrail:

£15bn investment in 21km new tunnels to provide 24 trains per hour across Central London with 9 new stations

Rail Schemes to 2019



The HS1 story

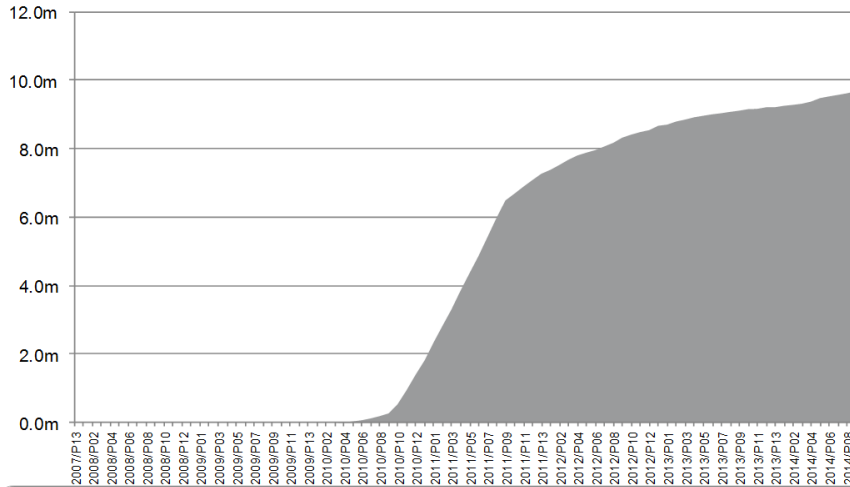


- HS1 links the Channel Tunnel and London
- Carries Eurostar international trains and Southeastern 'Javelin' trains
- Three intermediate stations at Ashford, Ebbfleet and Stratford (domestic only)

The HS 1 story -domestic

southeastern.
working together to bring people together

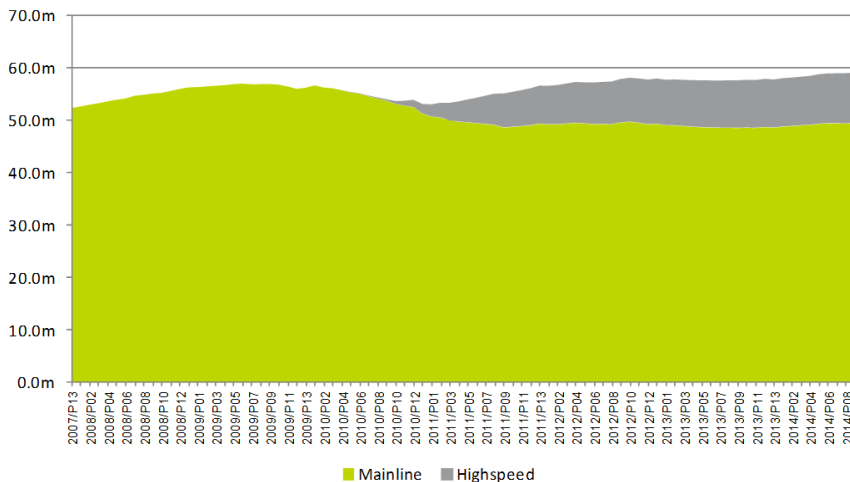
Southeastern Highspeed Journeys
13 Rolling Periods



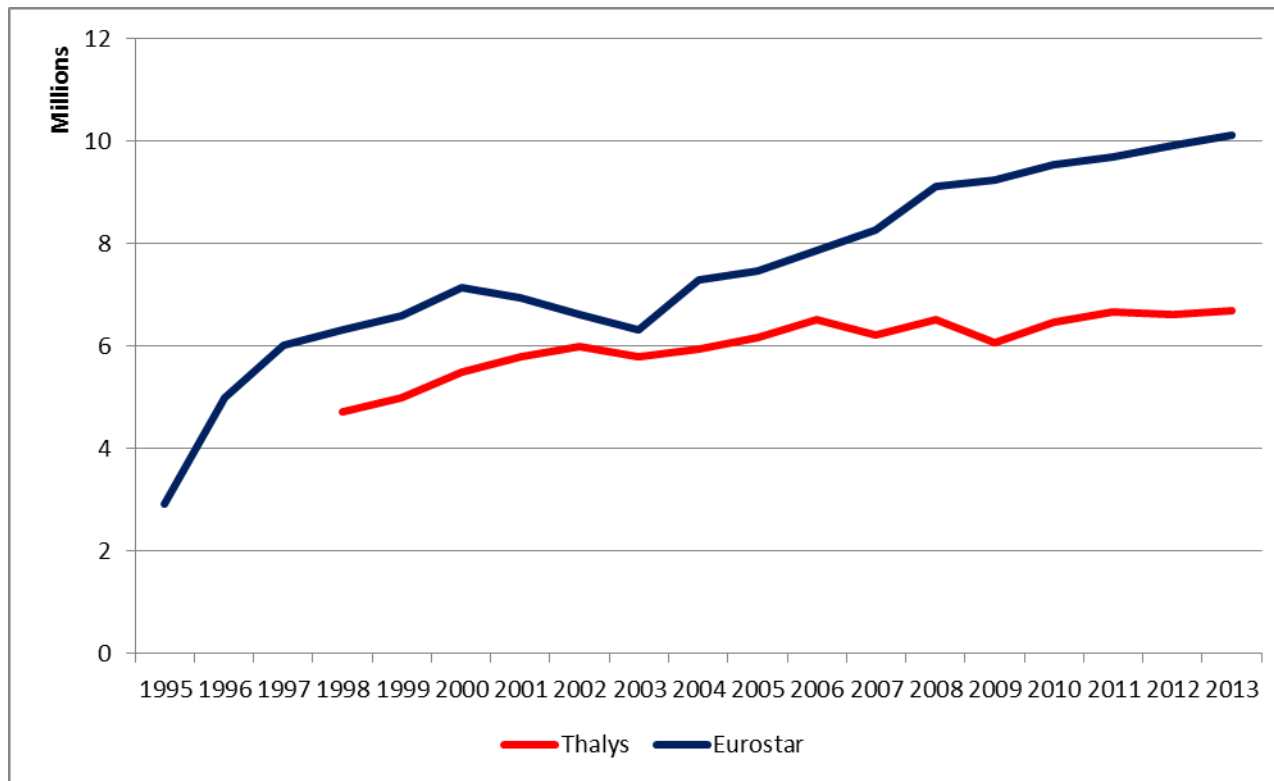
- Initial success of HS1 - immediate growth to 7mn journeys in first year and then continued growth to 10mn
- Some displacement of classic rail journeys but evidence of newly generated traffic
- Overall Customer satisfaction is 95% compared to a UK average of 83%
- Punctuality averaged 92.6% ppm compared to a UK average of 90.1%

southeastern.
working together to bring people together

Mainline + HS Journeys
13 Rolling Periods



The HS1 story - international



- Eurostar services show continued growth – note increase in 2007 (HS1 stage 1) and 2009 (HS1 stage 2)
- Reliability improved from less than 80% in 2003 to 95% in 2009
- For comparison Thalys services did not display same growth

The HS2 story

- Absence of high-speed rail network in UK
- Masked by use of 200-225km/h potential on classic network
- Problems of future capacity even after upgrade on WCML
- HS2 Y-network costed at £42billion
- Continuing argument over economic geography implications – wider economic impacts
 - KPMG approach
- Higgins Review issues
 - Substantiating costs
 - Faster to the North
 - HS2-HS1 link
 - Euston and regeneration potential

HS2 as part of a HSR Network

Total cost £42.6bn

London-Birmingham 140miles
(225km)

Birmingham-Manchester 95miles
(150km)

Birmingham-Leeds 116miles (185km)

Time saving from London:

Birmingham 84 to 49min

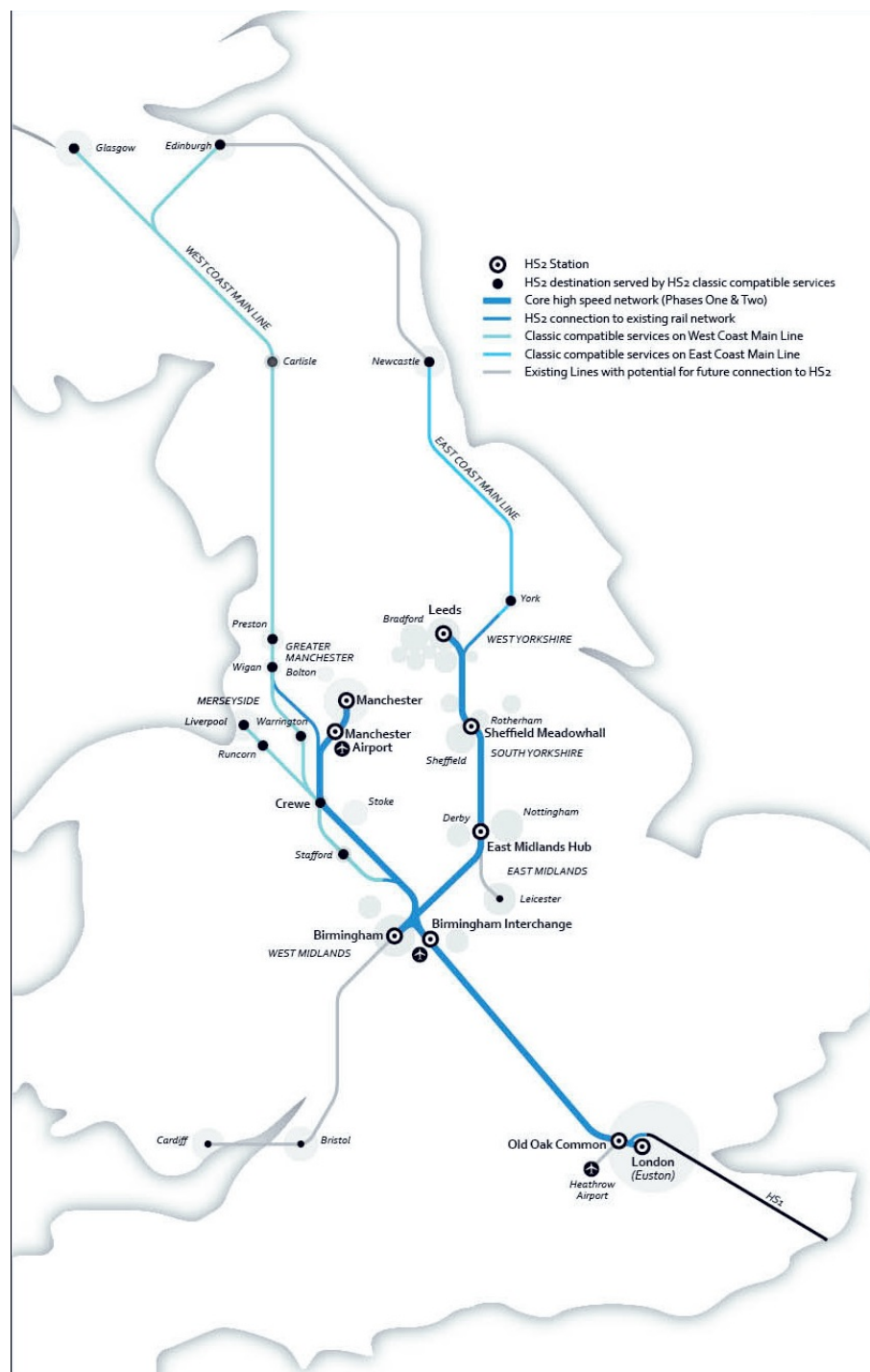
Manchester 128 to 68min

Leeds 132 to 82 min

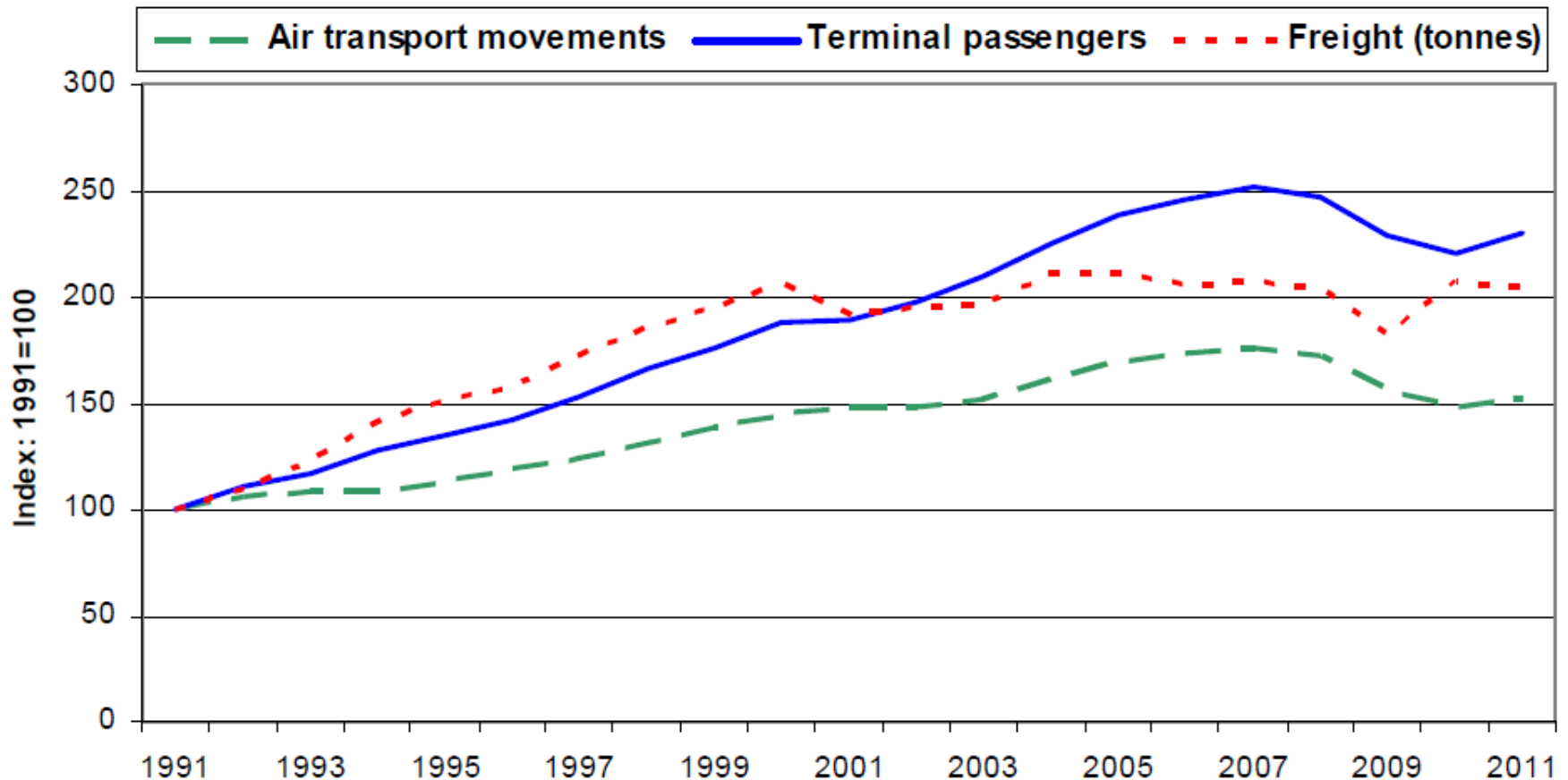
Time saving from Birmingham:

Manchester 88 to 41min

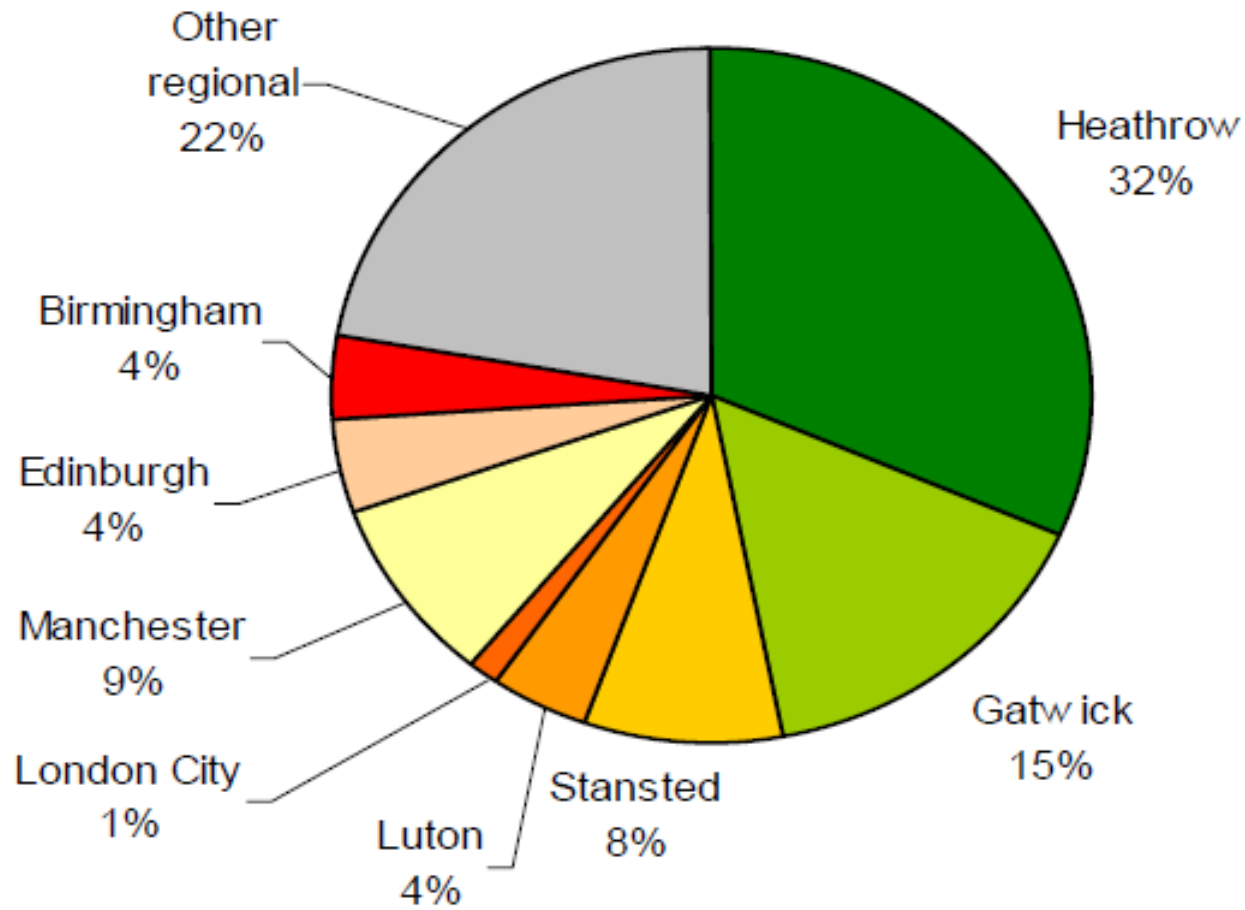
Leeds 118 to 57min



Air traffic at UK airports



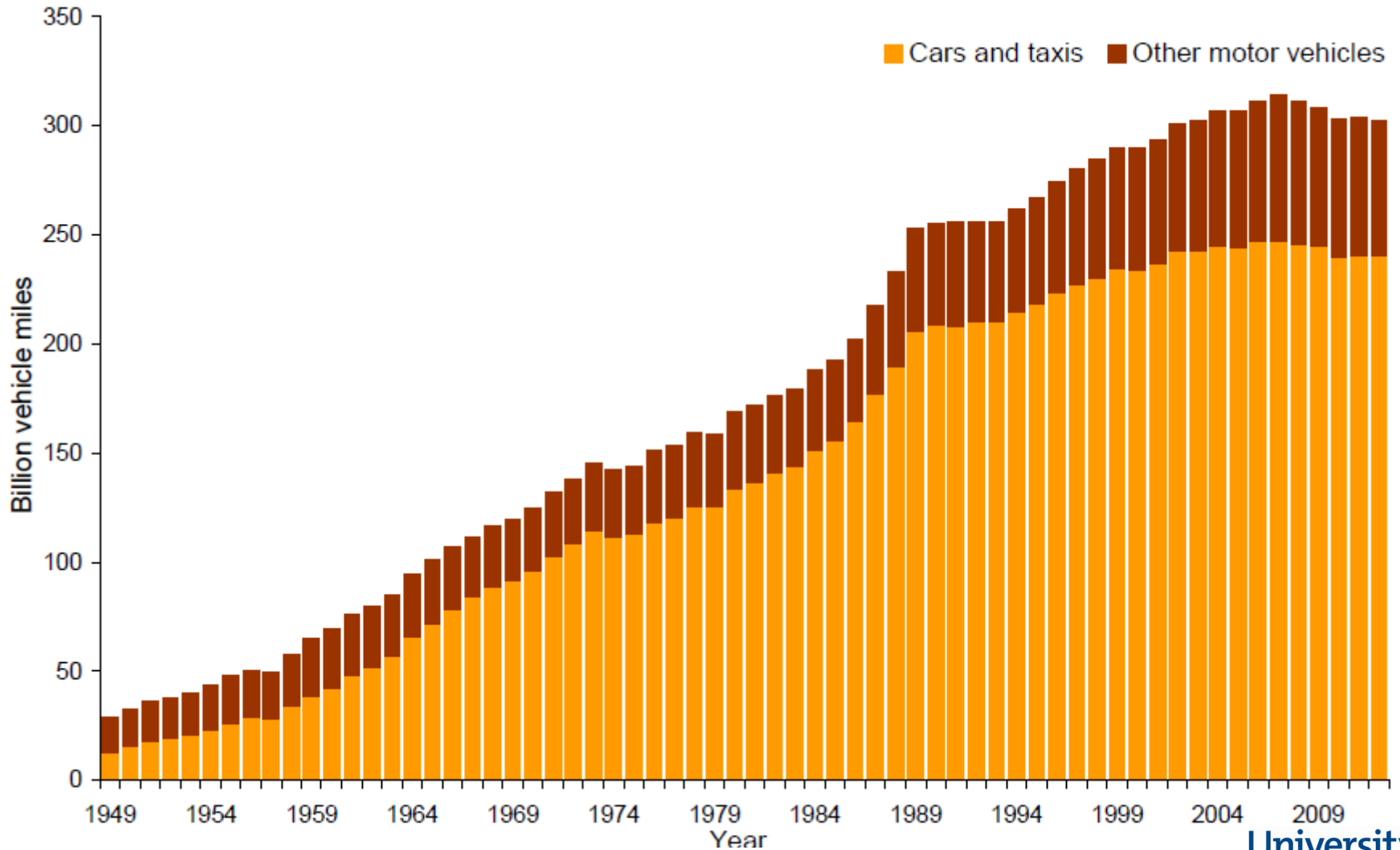
Terminal passengers by airport, 2011



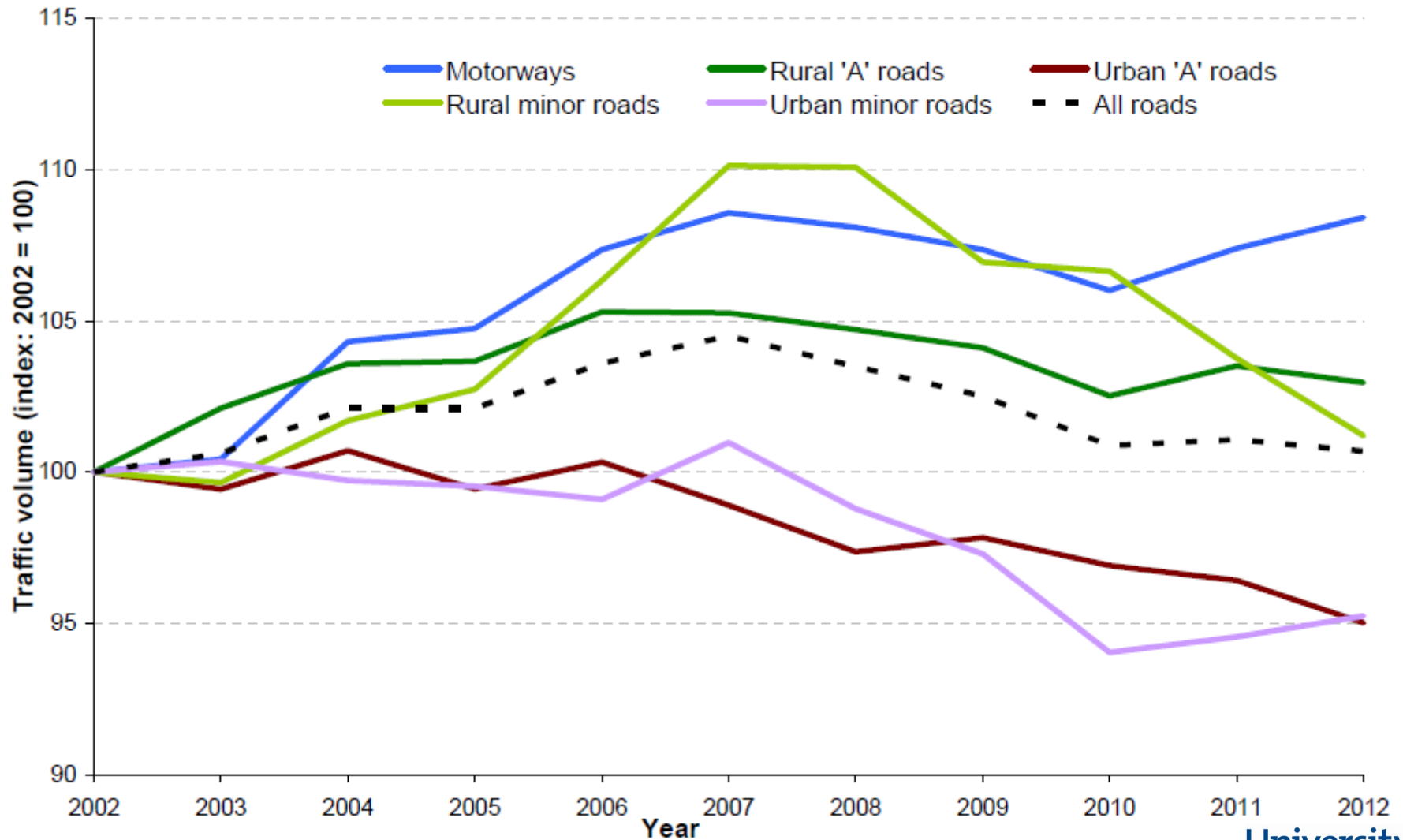
The airport saga

- 50 years of confusion
- Roskill – in hindsight an expensive delaying tactic?
- LHR busiest 2 runway airport in world at 99.5% capacity
- Plans for 3rd runway at LHR victim of politics
- Restrictions on runway developments at LGW and STN
- The Hub airport argument
 - Competition with CDG, AMS and FRA
 - Single hub vs distributed hub
- Confused arguments about link with HSR
- Airports Commission not due to report until after 2015 election – interim report end 2013 narrowed options but not argument

Road traffic, 1949-2012

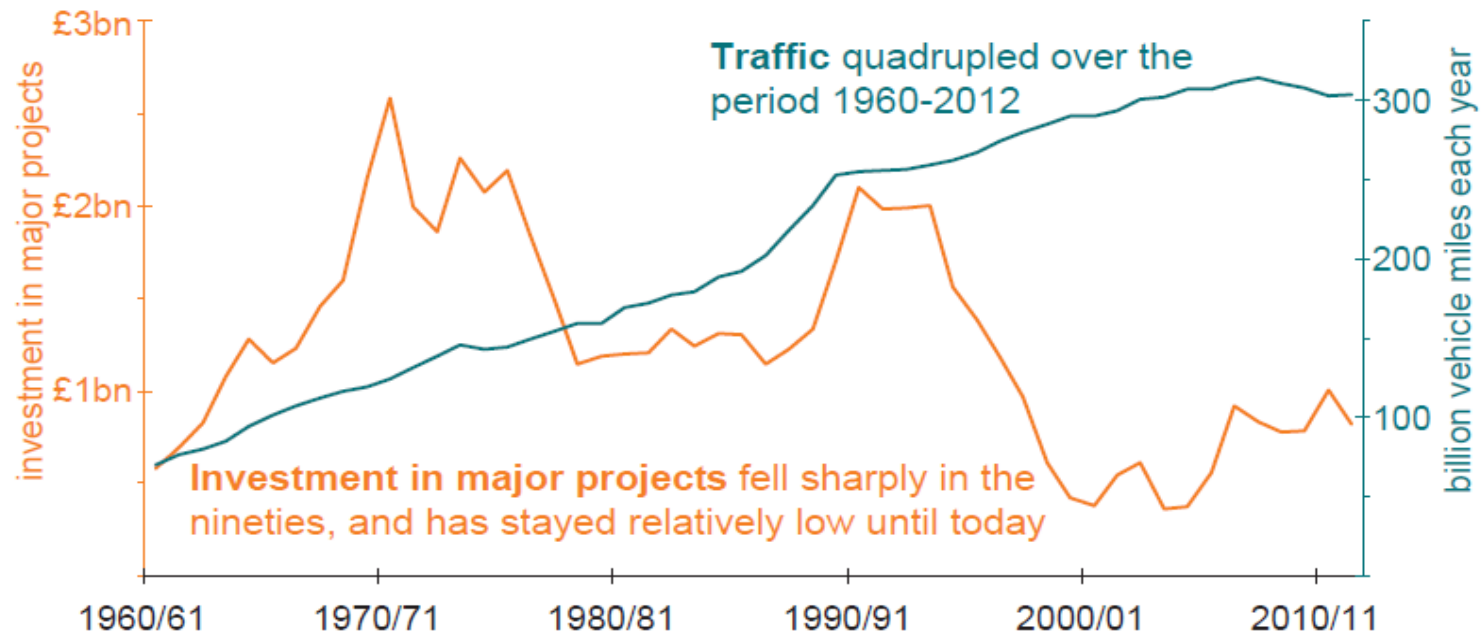


Road traffic by class of road, 2002-12



Road investment

Figure 1.4 – Spending on trunk road schemes



Source: Transport Statistics Great Britain table TRA0101; spending data before 1997 collected from a range of published government documents, and subsequently from internal data. The data on major improvements is an accurate reflection of the trend in central spending on improving the network, but note there have been minor changes in some years to the classification of some road projects

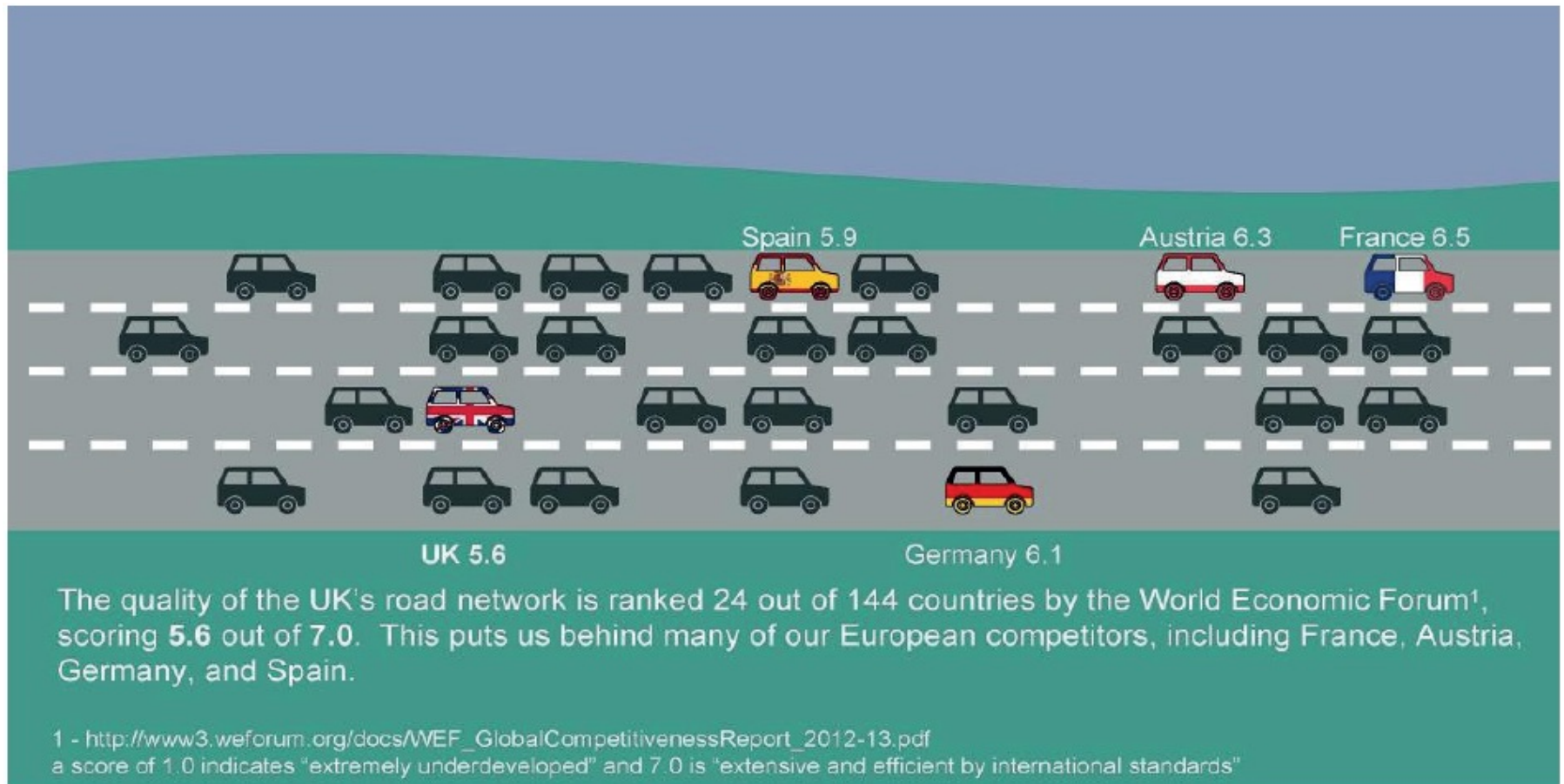
Motorway networks in Europe

	Motorway network (miles)	Density of network (UK=100)	Motorways built (miles):		Traffic density on motorways (million vehicle miles/mile)
			Since 1990	Since 2000	
France	6950	115	2700	850	39
Germany	7950	237	1200	680	47
UK	2300	100	300	46	113

Source: *EU Transport in Figures: statistical pocketbook 2012*

<http://www.internationaltransportforum.org/statistics/investment/inindex.html>

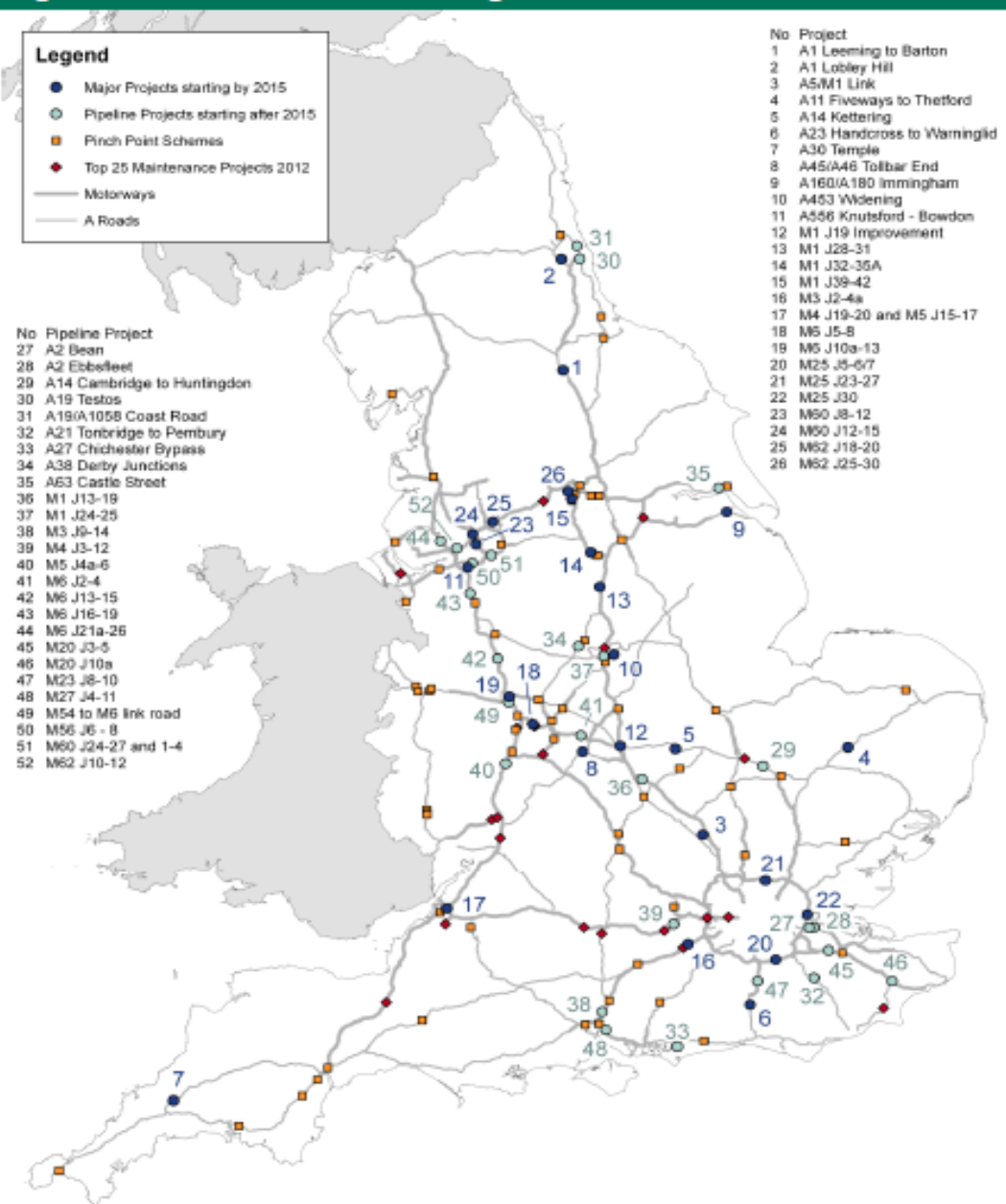
International comparisons of road networks



Action for Roads (2013)

- Investing £15.1 billion in strategic roads by 2021 to counter the effects of past underinvestment.
- Adding a further 221 lane miles of extra capacity to the busiest motorways.
- Building 52 national road projects in this parliament and the next, subject to value for money and deliverability.
- Investing more than £12 billion in maintaining the network, including over £6 billion to resurface over 3,000 miles of the strategic road network.
- Identifying and funding solutions to tackle some of the most notorious and longstanding road hot spots.

Figure 2.3 – Investment in the strategic road network



Road Schemes in Action for Roads

Economic appraisal

- How complete is an economic appraisal?
- Advanced system developed for roads – COBA and NATA
- Principles spread to rail
- And air?
- Wider economic impacts post SACTRA and Eddington
- Agglomeration and regional impacts
- The ‘connecting cities’ argument
- The value of business time savings debate
- Future traffic growth and the ‘is travel necessary’ debate
- What other elements can reduce arbitrary decisions?

Concluding thoughts

- Analysis, risk and paralysis
- Realities and perception in the investment for growth argument
- Can transport rebalance the economy?
- Can the economy be rebalanced without investment in transport?
- What are the outstanding issues?
 - Competition
 - Accessibility
 - Clarity
- Can we/should we have a genuinely multi-modal transport plan at national level?
- Are the real issues at local/regional level, do these offer a better rate of return than major multi-billion investments?