PLANNING TRANSPORT & DEVELOPMENT

ALL CHANGE?

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INTEGRATED LAND-USE AND TRANSPORT
SATELLITE NAVIGATION
HEALTH & WELLBEING
FLEXIBLE WORKING
TRAVEL PLANNING
ONLINE SHOPPING
CAR INSURANCE
SMART PHONES
INFORMATION
CAR SHARING
REAL-TIME PLANNING
INTERNET
BIG DATA
4G

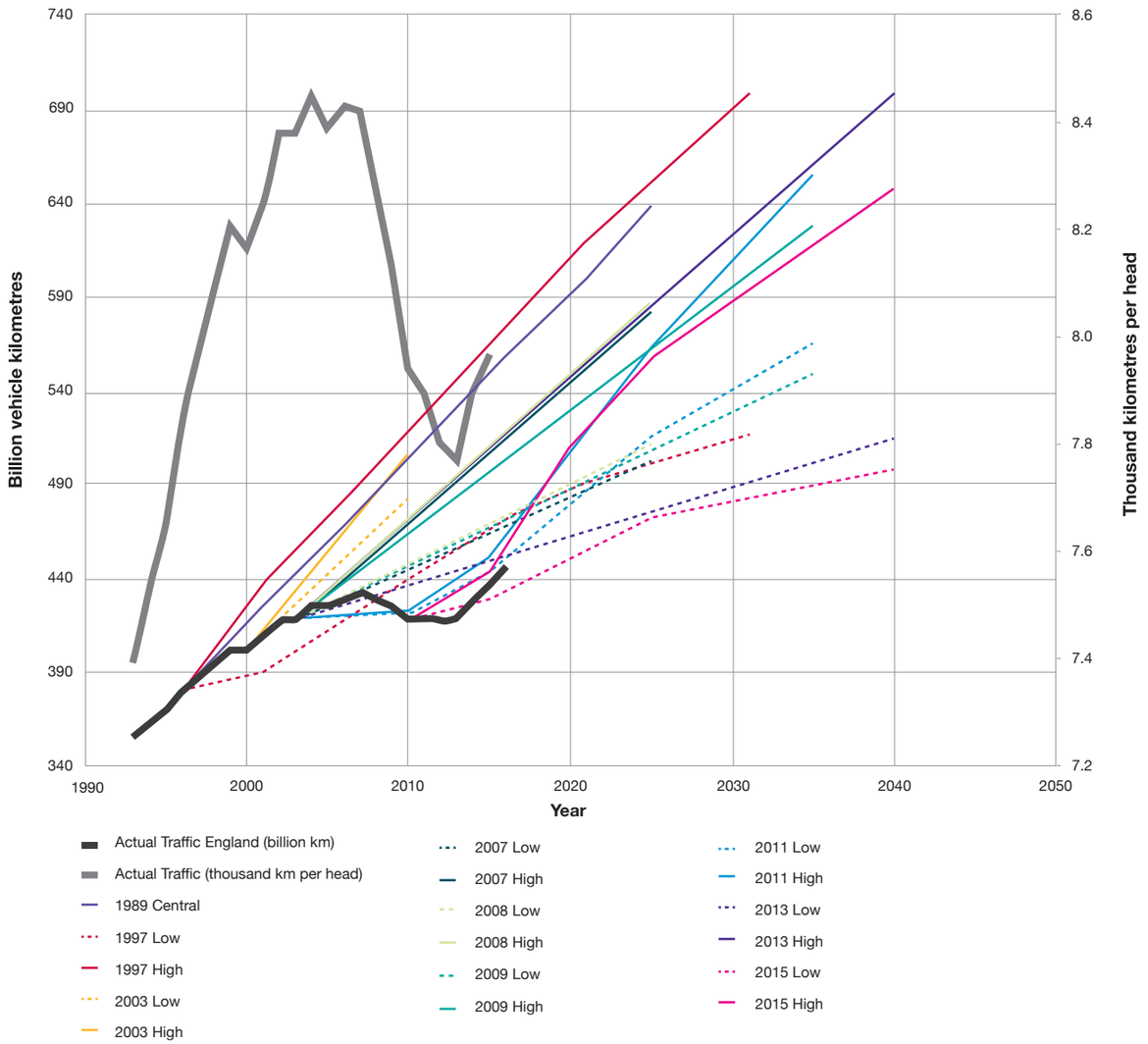
LAPTOPS
FUEL TAX
CAR CLUBS
MOBILE APPS
URBANISATION
SMART TICKETING
24 HOUR OPENING
BIKE HIRE SCHEMES
PART TIME WORKING
VIDEO CONFERENCING
WORKING FROM HOME
SUSTAINABLE TRANSPORT FUNDING
COST OF LIVING VS. COST OF TRAVEL

Forecasting the Future?

An Uncertain Business

For years the DfT has forecast traffic growth, based on information available at the time, and past trends.

The graph below shows these forecasts compared to actual traffic growth in England (includes van and HGV traffic).



As this shows, **predictions since the 1980s have far exceeded actual growth.** This paper provides insights as to why this might be, and how we might plan better for future travel.

The Need for Change

In 1994, the then UK Government published PPG 13, the Planning Policy Guidance Note for Transport. This introduced the concept of sustainable land use and transport planning into policy, and encouraged a break from 'predict and provide' planning, acknowledging the importance of moving away from ever increasing provision for car use, and moving towards a more integrated approach to the planning of sustainable patterns of land use and transport.

In 2012, the principles of PPG 13 were written into the National Planning Policy Framework. Whilst no theoretical changes to the approach were proposed, a more pragmatic approach to planning transport and development was encouraged through the requirement for the transport effects of development to be 'severe', before it could be used as a reason for refusing a planning application for development. Much debate about what this means has followed, but however this has been interpreted, it is still generally underpinned by an assumption that development should mitigate the effects of ongoing increases in demand for travel.

Over 20 years after the publication of PPG 13, the Independent Transport Commission has published On the Move 2. This seminal publication presented compelling evidence that the link between the growth in travel per head and the growth of the economy has been broken, and that significant change in the way in which we are now travelling is taking place. Some practitioners believe that this requires disruptive change in the approach we adopt to transport & land use planning. For others, it is more a matter of adapting current techniques to reflect the latest data, and maintaining a focus on the aggregate demand for travel.

This paper starts to examine these issues, and identifies key reasons why we need to change our approach by emerging changes in personal travel (not van and heavy goods traffic) to the planning for transport & development, to ensure that the places we build are relevant to the way we will be living in the future. We are keen to start a dialogue about what this means in practice, so this will be the first in a series of thought pieces that examine the effects that current trends will have on the built environment, and the way we need to plan for it.

"Plans and decisions should ensure developments that generate significant movement are located where the need to travel will be minimised and the use of sustainable modes can be maximised".

Did you know that despite a 9% increase in population, there has been *no* increase in overall daily travel since 2002?

Over the last 20 years, technology has advanced at a rapid pace, and become integrated in our daily lives. The cost of living has risen, with house prices becoming far less affordable and the proportion of people renting increasing year on year. At the same time, the ongoing shift away from manufacturing industries has continued, with over 80% of people now employed in the services sector.

What has changed during this period to influence how and when we travel?

- Internet
- Smart phones
- Big data
- Online shopping
- Satellite navigation
- Perceived cost of travel
- Real-time information
- Travel planning
- Health and wellbeing
- Urbanisation
- Car clubs
- Bike hire schemes
- Car insurance costs
- Smart ticketing
- Laptops
- Working from home
- Video conferencing
- Mobile apps
- Sustainable transport investment
- Fuel tax
- Integrated ticketing
- Part time working
- 4G
- 24hr opening
- Car sharing schemes
- Flexible working laws
- Improvement in public transport quality and reliability
- Cost of living *vs.* cost of travel

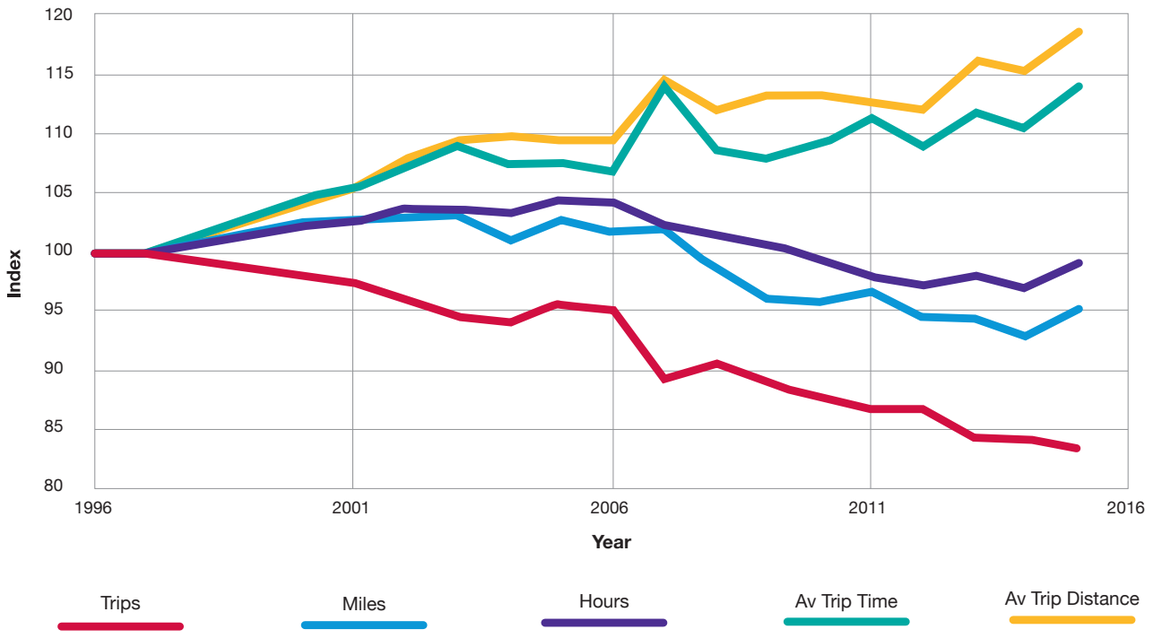
These major societal shifts might well be expected to have had a significant impact on the way we travel, but the way we assess the effects of increasing travel demand – and how we plan for the transport effects of development - has undergone little significant change since the publication of PPG 13 over 20 years ago. The recent publication of On the Move 2, *http://www.theitc.org.uk/our-research/research-reports-2/*, by the Independent Transport Commission assesses what has changed over the last 20 years, by examining the results of the National Travel Survey. This is a household survey carried out by the Department for Transport designed monitor long-term trends in personal travel. Approximately 16,000 individuals in 7,000 households participate each year.

The Impact

The ITC's review of National Travel Survey data demonstrates that there have been huge changes to our travel patterns over the last 20 years. The number of trips and number of miles travelled per person per year have declined since the late 1990s, whilst average trip distance and time have increased.

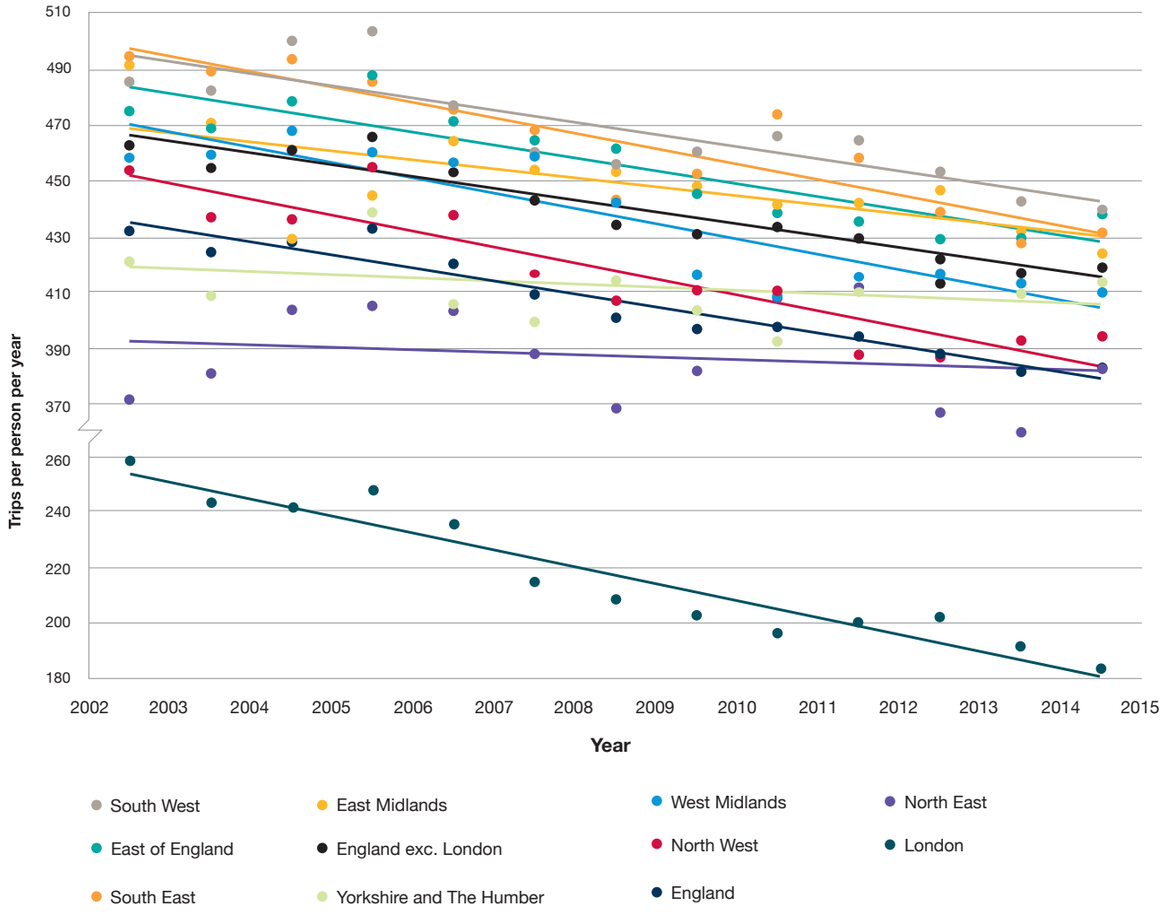
Overall we are travelling less.

Trips, Distance and Hours travelled per person, indexed 1996—2015



The number of car driver trips made per person per year has reduced in all regions of the country...

Car Driver Trips per person per year: Regions



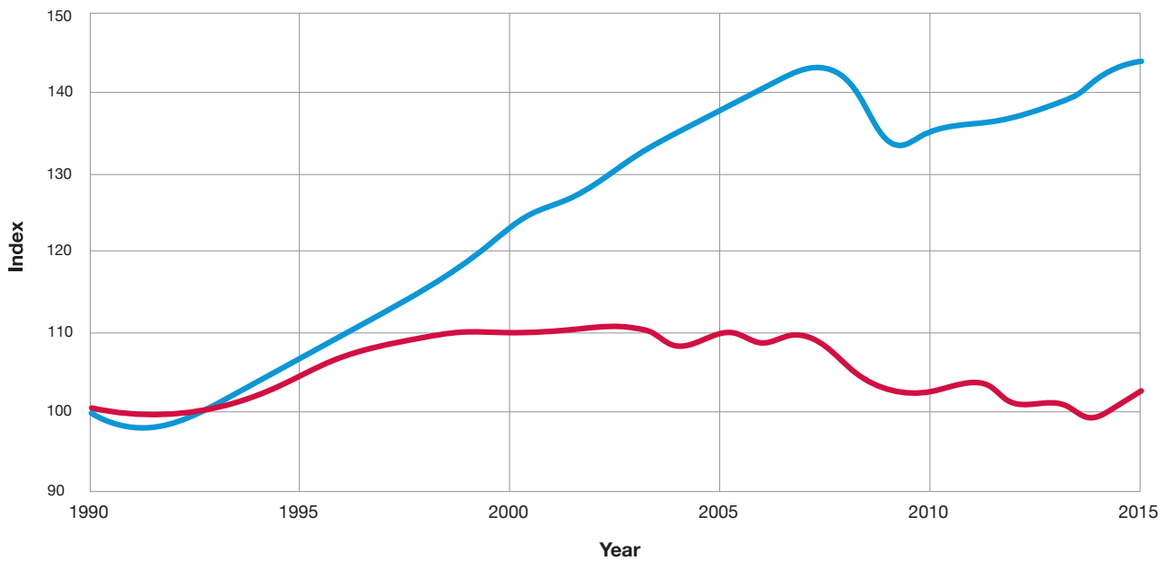
...this is also true for both rural and urban areas.

Personal travel is no longer increasing in line with economic growth

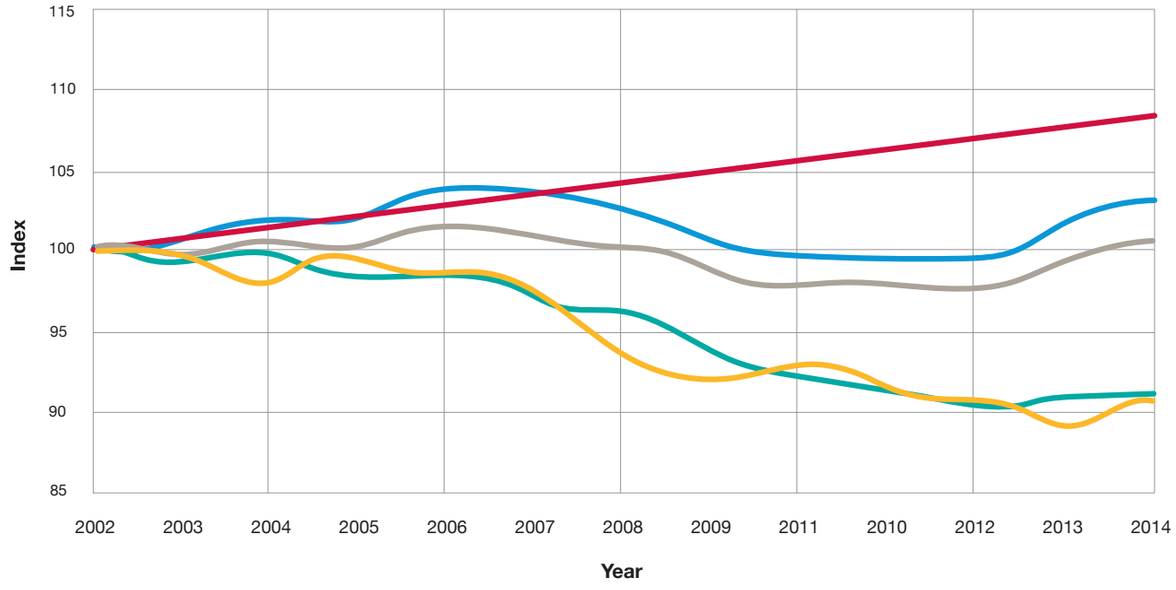
Since the late 1990s **GDP per capita has increased whilst travel has decreased.** The graph below shows that the recession in 2008/9 had a limited short-term impact on this trend.

Despite a 9% increase in population, total personal car traffic has remained broadly constant between 2002 and 2014.

GPD per head (UK) and Miles per head, indexed 1990—2015



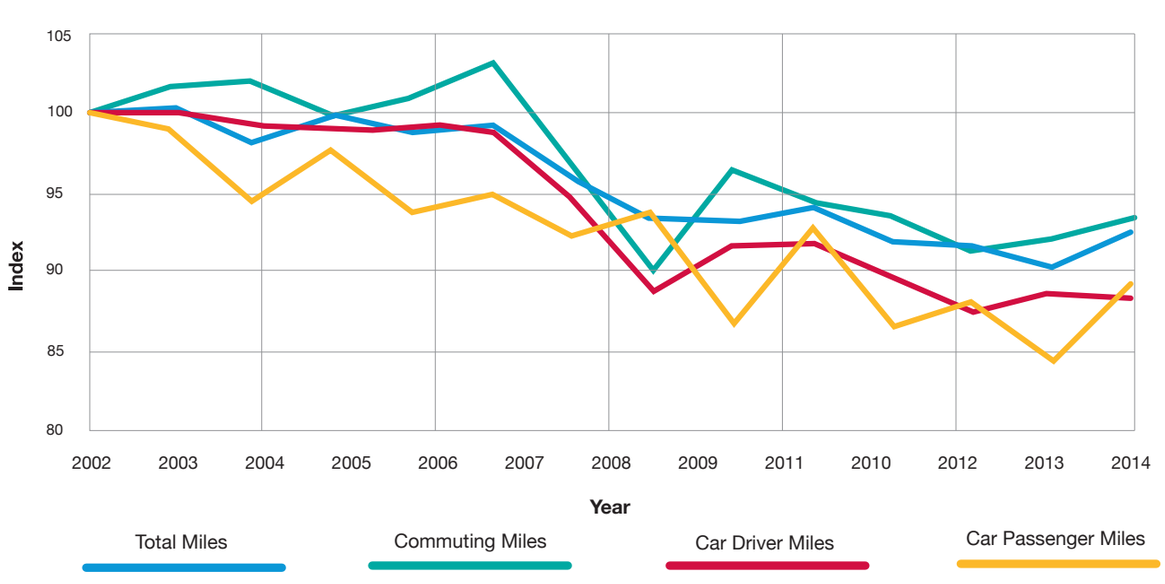
Population, Car Traffic and Distance, indexed 2002—2015



Since 2002 in England:

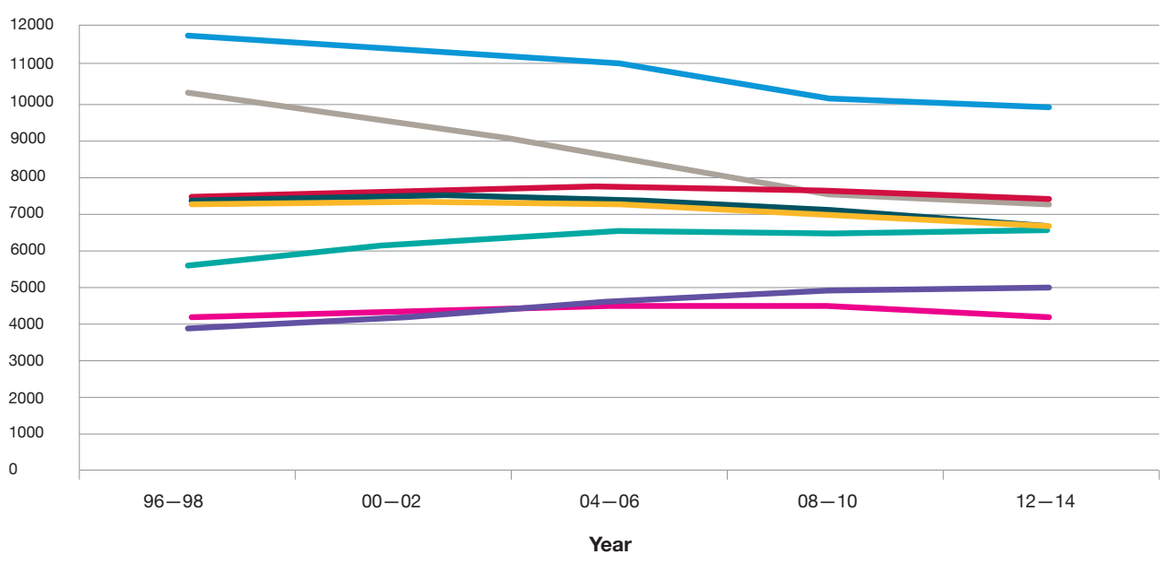
- **Commuting miles** per person per year have **reduced by 7%**
- **Total miles** travelled per person per year has **reduced by 7%**
- **Car driver and passenger travel** has **reduced by 11%**

Miles per person per year



There has been a reduction in car travel in all age and gender bands, except men and women over 60. The most significant reduction in car travel is in men aged 17 to 34, and then men aged 35 to 59.

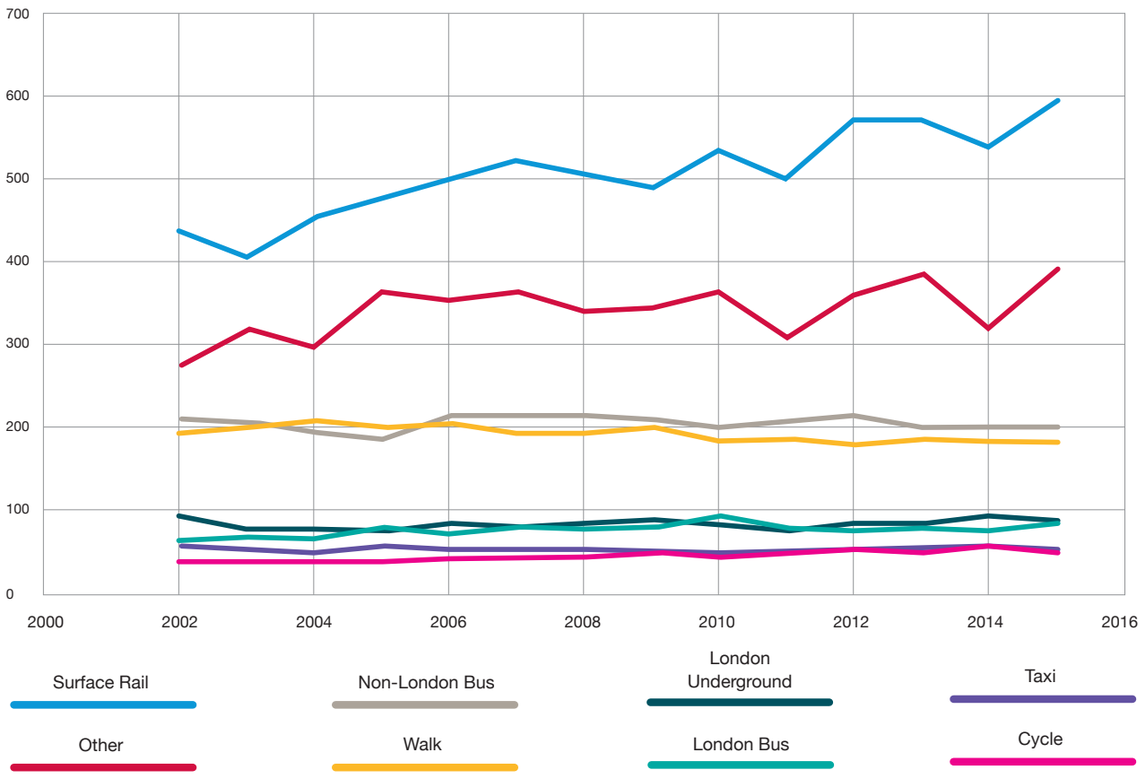
Car driver: Miles per person per year by age and gender 1996—98 to 2012—2014



Since 2002 in England:

- Travel distance by **non-car modes** has **increased by 19%**, with the biggest increase being seen in surface rail travel
- **Rail usage** has **increased in** all areas, except the most rural areas of the country

Miles per person per year by mode (non-car only)



Note: Other includes motor cycle, other private transport (mostly private hire bus), non-local public buses; and air, ferries, light rail and trams.

What might the future hold?

There are six 'game changers' that could significantly change the way we travel. These are:

- **Big data** – The digital revolution has bought us so much data that it is possible to plan better for people's needs. The opportunities are vast.
- **Internet of things** – this is about connecting devices over the internet, letting them talk to us, applications, and each other, allowing the travel industry to track people and vehicles to reduce the need to travel or co-ordinate seamless travel.
- **Connected vehicles** – a system that allows vehicles to communicate with each other and the world around them, connecting them to the Internet of Things. It supplies information to allow drivers make informed decisions about their travel.
- **The sharing economy** – we are sharing cars, taxis, lifts, driveways, houses, tools and many more things. This could change when and how we travel, and whether we do it together.
- **Mobility as a Service** – Maas will offer consumers access to a range of vehicle types and journey experiences. It is a digital interface to source and manage the provision of transport related services. Basically, it's a contract for travel, similar to a mobile phone contract – pay as you go, monthly or annually for different levels of service. An app would allow you to select your travel choice. Alerts and information will guide you on your journey to your destination, giving real-time information, on where and when to get each means of travel.
- **Driverless vehicles** – these already exist and are being trialled by many manufacturers. The UK has one of the best regulatory regimes for testing automated vehicles in the world, therefore providing a good platform for developments in this industry.

Other new transport measures could also drive change – it should not be forgotten that around £5 billion per year has been invested in the UK's rail network. This includes large scale schemes such as High Speed 2 (HS2) and Crossrail, as well as rolling stock renewal, track and signalling improvements, information technology, asset management and intelligent infrastructure, together with devolved investment in increased connectivity to major interchanges. This will improve capacity, accessibility, journey times and reliability, as well as journey experience when travelling by rail.

There has already been significant change amongst young men between 17 and 35, and to a lesser extent, young women. What happens when these people get older and are faced by the six games changers, plus ongoing sustainable land use planning, urbanisation and rail investment? And how are the even younger people, who will be young men and women in the 17 to 35 year group in ten or twenty year's time, going to respond to these? These are significant uncertainties, which make it harder to assess future transport effects of development with any certainty, and to reach agreement about transport schemes that meet the needs of the future.

What does this mean for future planning of Development and Transport?

- Will we make fewer trips?
- Will our journeys be shorter?
- Will we travel by car less?
- Will car ownership reduce?

Recent trends indicate that the answer to these four questions is YES! even without the key future game changers, which might fundamentally affect how we travel.

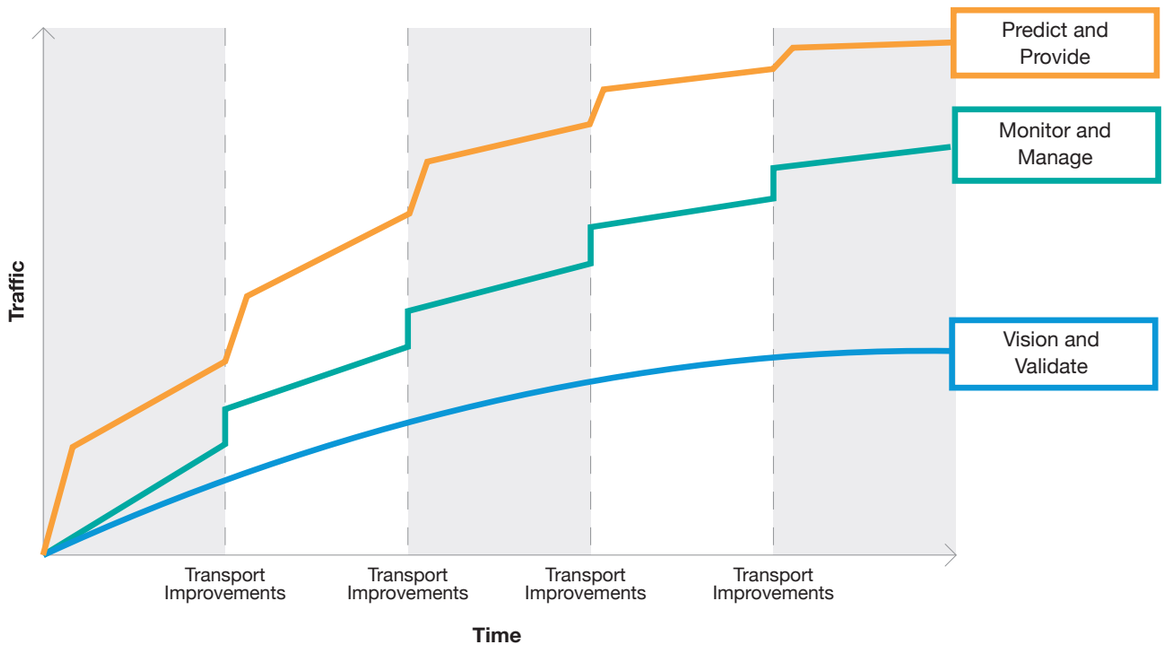
Our approach to travel planning needs to take account of these changes. We believe our transport networks need to be resilient and able to adapt to the changes the future could bring. This means that new developments need to be designed for the future too, to influence travel with investments developed and prioritised to support and encourage sustainable travel in line with the DfT's user hierarchy.

Consider first

- Pedestrians
- Cyclists
- Public transport users
- Specialist service vehicles (e.g. emergency services, waste, etc.)
- Other motor traffic

Consider last

Predict & Provide vs Monitor & Manage vs Vision & Validate



Towards Vision & Validate…

The end of the 'Predict and Provide' approach for planning the transport effects of land use development was signalled in PPG13 in 1994. Despite this, often, practice on the ground still looks like a Predict and Provide approach, in which demand for future traffic growth is forecast and, where possible, provided for.

The DfT transport planning hierarchy does encourage proper assessment of sustainable modes before planning for residual traffic growth, and this is a step forward – but this analysis is included in an otherwise very much 'business as usual' transport assessment environment. 'Monitor and Manage' techniques have been employed in a limited way in order to encourage investment in new highway capacity only when necessary, as determined by intermediary evidence. This is a step forward.

But what is really needed now is to adopt a 'Vision and Validate' approach to transport planning (as advocated by Professor Peter Jones, UCL in Local Transport Today issue 708), in which we seek to envisage the places we want to create, and to use our transport and land use planning skills to plan ways of getting there, taking in to account the current disruptive changes now taking place.

PBA is keen to work with the Independent Transport Commission and other interested parties to consider how this approach might apply to the necessary planning and design for the homes and jobs that underpin continued sustainable economic growth, taking into account changing travel environment and emerging travel trends.

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