Travel in Britain in 2035

Future scenarios and their policy implications

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Our scope

- **2035**: Focus on 2035 on technologies that are already being developed
- **Technologies that influence transport efficiency**
- **No new infrastructure**
We first identified 6 technologies that could impact travel demand, network capacity or traveller productivity.

- Autonomous vehicles
- Next Generation ICT connectivity / telecommuting / telehealth
- User apps / Big Data / intelligent processing
- Internet of Things
- Advanced manufacturing / 3D printing
- Novel materials and embedded sensors in infrastructure
Our scenarios are based around activities

Influencing Areas are Key Activities that Generate Travel

- Work/business
- Retail
- Healthcare
- Long distance
- Freight
We identified critical factors for each activity

Literature review, Cross-Impact analysis

**Work/business**
- Telework
- Commute distance
- London-centric development
- In-person meetings
- Real-estate prices

**Retail**
- Total consumption
- On-line sales
- Person-to-person sales
- High street retail

**Healthcare**
- Health of nation
- Elderly living at home
- Medical visits
- Healthcare centralisation
- Non-traditional settings

**Long distance**
- Leisure time
- Attitudes environment
- Attitudes security

**Freight**
- Package delivery
- Disintermediation
- Warehousing strategy
- Reshoring
- Port capacity

**Common**
- GDP growth
- Population growth
- Proportion of the elderly
- Strength of sterling
- Cost of travel
- Travel time / convenience
The scenarios are built from projections by experts

- Projections on specific factors
- Projections on common factors
- Impacts of technologies
- Impact on travel
Our three scenarios

- Digital Divide
- Live Local
- Driving Ahead

GDP

Total travel
Governments cannot ‘pick the winner’, but should invest in technologies that are robust across scenarios

Next generation ICT connectivity

- Be aware of the quality of ICT services that are necessary to support new technologies
- Ensure these services are available, across all geographies
Governments cannot ‘pick the winner’, but should invest in technologies that are robust across scenarios.

User Apps / Big Data

- Support development of frameworks to address data governance, value, privacy and security.
- Contribute to brokering discussions on issues related to data ownership and sharing.
- Support Open Data initiatives, where focussed on societal benefits.
- Regulatory balance between beneficial uses of data and consumer protection.
Governments cannot ‘pick the winner’, but should invest in technologies that are robust across scenarios.

Real-world testing / pilot testing of innovative solutions

- Particularly those that bring societal benefits.
Policy implications of the scenarios

- **Demand management**: AVs could lead to increases in road use, because people will be able to do other things while travelling.

- **Uneven distribution of benefits**: Benefits of new technologies are unlikely to be evenly distributed across society, there will be winners and losers.

- **Training and up-skilling of workers**: New technologies may replace (low-skilled) jobs, e.g. lorry drivers, taxi drivers, etc.

- **Maximising technology benefits**: Policymakers need to evaluate the possible benefits of new technology to society, taking account of potential multiplicative effects of multiple technologies, e.g. ICT & AVs.
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Government needs to think about how technologies can provide maximum benefit to society.
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Future scenarios and their implications for technology innovation
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Read the full report here:
www.rand.org/t/rr1377