European Parliament Hearing

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Transport is complex

Supply / demand tension plus many additional pressures.

Traditional 'remedies' are reduce demand [pricing and legislation] and increase supply [more infrastructure].

Intelligent Transport Systems (ITS) can increase supply without building more infrastructure

The mega-trends (not just transport)

- Digitisation
- Affordable & powerful mobile devices
- 24/7 connectivity
- Smartphones, computers and vehicles are data collection devices
- Open Data is transforming transport markets
- Service Provision displacing Asset Management
- Digital systems that react faster than humans
- Vehicles becoming hardware controlled by software, not vice versa

ITS

Combine

- Information Technology
- Communications
- Sensors
- Maps and Databases

To deliver mobility that is

- More efficient
- Safer
- "Greener"
- More comfortable

For all modes

Where is ITS technology lacking?

- Rapid electric vehicle charging ↔ battery technology; Inductive charging
- Making infrastructure 'smart' for asset management and condition monitoring
- Developing pathways to high automation via connected vehicles
- Cheaper sensors
- 5G telephony matching transport needs
- Secure connectivity of vehicles and "Internet of Things"
- H₂ distribution networks and fuel cells

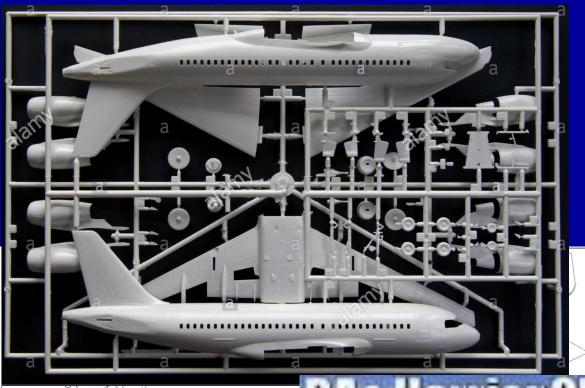
What else is missing? 1

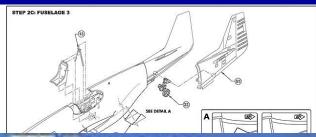
Understanding:

- Future transport demand and its likely impact on conventional tax revenue
- Driver behaviour, distraction and underload
- Vehicle emissions in real-world driving
- That Connected vehicles [C-ITS] are here now and can deliver substantial benefits faster and more cheaply than driverless
- The impact of highly automated vehicles on congestion, parking, safety, tax income
- The role of drones in transport

What else is missing? 2

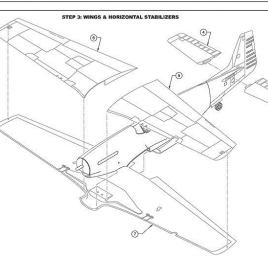
- Standards in many areas eg mapping
- Cost-benefit data on ITS deployments
- Wider cooperation between automotive companies and infrastructure operators
- Liability & institutional frameworks for highly automated vehicles [HAVs] in mixed traffic
- Experience of small [≈ 5%] quantities of HAVs in conventional fleets
- More trials of highly automated freight vehicles eg "platooning"
- A common European strategy on connected AND highly automated mobility







BAe Harrier GR. III.





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