Foundation for Science and Technology

OPTIONS FOR MANAGING URBAN CONGESTION

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Department for Transport

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National policy context

Aims for transport

- tackling congestion
- improving accessibility
- reducing casualties
- respecting the environment
- supporting the economy

Transport also contributes to other Government priorities

- tackling crime
- protecting the environment
- fostering social inclusion
- thriving communities
- economic growth
- e-Government

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National policy implementation

- policy and programme -Transport White Paper, Ten Year Plan and after
- powers - Transport Act 2000, Traffic Management Bill
- funding - increased from 2000 onwards; long term commitment
- DfT objectives and targets in public service agreement (PSA) - including urban congestion and local public transport
- delivery often through others, so partnership needed
- local authorities are key in urban areas
- other stakeholders involved too

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Growth of urban congestion

1991 - 2001	car traffic nationally up by	15%
	goods vehicles	16%
	light vans	22%
1991 - 2001	traffic on urban roads up by	12%
	[major roads	2%]
	[minor roads	19%]
1999/00 - 2002	peak traffic speeds in major urban areas outside London down	2.3%
	30% of time in peak spent below 5 mph	

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Growth of urban congestion

1989/91 - 1999/01 change in number of trips and distance by car by residents of:

	Trips	Distance
London	- 4%	- 3%
Metropolitan areas	+10%	+16%
Large urban areas	+ 1%	+ 5%
Medium urban areas	+ 4%	+10%

Forecast is for traffic demand to continue to grow

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Urban congestion

- a widespread but local problem
- nature of congestion can differ - duration, geographical spread, source etc.
- impact of measures to tackle congestion can differ
- local problems need local solutions within national and local framework
- Local Transport Plans prepared by local authorities provide the process

Pressures on road space

capacity….

very little scope to add to capacity

demand….

traffic growing with income, car ownership, lifestyle etc

….expanded

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More pressures on road space

capacity….

...being eroded

utility works, highway works, accidents, incidents, illegal parking, inefficient junctions

demand….

more space for pedestrians, cyclists, buses, goods vehicles, more reliable traffic movement

….further expanding

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Making the most of existing capacity

- reduce the impact of utility and highway works through:
  - reducing duration (overstaying charges, lane rental, contracts)
  - timing and method of working (directions, permits, contracts)
  - better co-ordination (including other road occupation)
  - new techniques (trenchless technology)
- responding quickly to accidents/incidents and clearing up afterwards
- pro-active management for events

Making the most of existing capacity

- focussing parking enforcement (main roads, key junctions)
- utilising technology (area wide signal control systems (UTMC), information systems, intelligent transport systems (ITS))
- regular maintenance and review of traffic management infrastructure (signs, loops, signal timings)
- bringing all strands together - The Traffic Manager
- all of which maximises capacity and increases options
- not forgetting that streets are for more than movement

Influencing demand

- planning policies (location of development)
- public transport policies (Quality Bus Partnerships, ticketing, light rail etc)
- parking strategy and management (quantity, availability, price)
- charging policies (congestion charging, workplace parking levy)
- encouraging cycling and walking
- soft measures (transport plans, awareness programmes)
- information strategy and provision (Transport Direct, travel information services)

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Potential role for technology

- Department working with LAs and others in many of the following areas to facilitate the use of technology
- to manage the network:
  - monitoring performance (CCTV, incident detection)
  - controlling traffic (signal control systems)
  - information to drivers (variable message signs, in vehicle systems)
  - efficient execution of works (trenchless technologies)

Potential role for technology

- to make the alternatives to the car easier:
  - making bus services more reliable (bus priority using vehicle location)
  - making public transport information easier to find (real time information at bus stops or via mobile phone)
  - making multiple journeys easier (Smartcards, through ticketing)
  - better facilities for cyclists and pedestrians (intelligent crossings)

Potential role for technology

- to influence travellers:
  - better information before and during journeys (Transport Direct, traffic control centres)
  - charging regimes (electronic charging, GPS, automatic number plate recognition)
- to help manage the processes
  - co-ordination of works (databases, internet, GIS)
  - enforcement (CCTV, ANPR)

Technology is not enough

- technology underpins many measures but these need to be harnessed to policy objectives through Local Transport Plan
- there is no single answer, no magic bullet. Each urban area needs its own appropriate combination of measures for managing and influencing behaviour
- LAs need necessary powers - possible new legislation
- need institutional framework - internal structure, stakeholder relations
- need resources - capital and revenue funds and people with appropriate skills

Summary

- urban congestion management needs local solutions within a national framework providing policy, legislation, advice, funds
- wide range of measures are available - many but not all underpinned by technology - for
    - making the most of the existing network
    - making the alternatives to the car more attractive
    - influencing demand and choice
- LAs need powers, funds, skills and organisational structure
- working with other stakeholders, including Government, to improve conditions in towns and cities