Planning for Sustainable Travel

Integrating spatial planning and transport planning

Catherine Seaborn
Senior Consultant, Halcrow Group

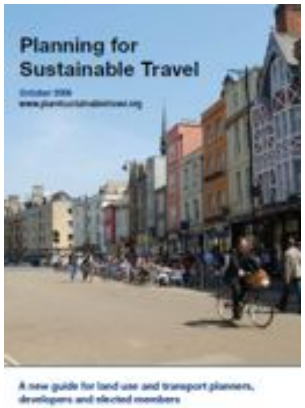
Project Team
Commission for Integrated Transport (client)
Halcrow Group
Peter Headicar (Oxford Brookes)
Prof. David Banister (Oxford University TSU)
Tim Pharoah (Independent)

Outline

- Context
- Literature
- Data trends
- Case studies
- Principles
- Synthesis and conclusions

Planning for Sustainable Travel Study

- Summary guide
- Leaflet
- Website
- Background report



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Remit for the CfIT Study

Objectives

- Review and validate contemporary evidence and data
- Review adequacy of existing guidance
- Identify barriers to better decision -making

Key Issues

- Extent of evidence base
- Planning system policy levers
- Examples of best practice
- Gaps in research

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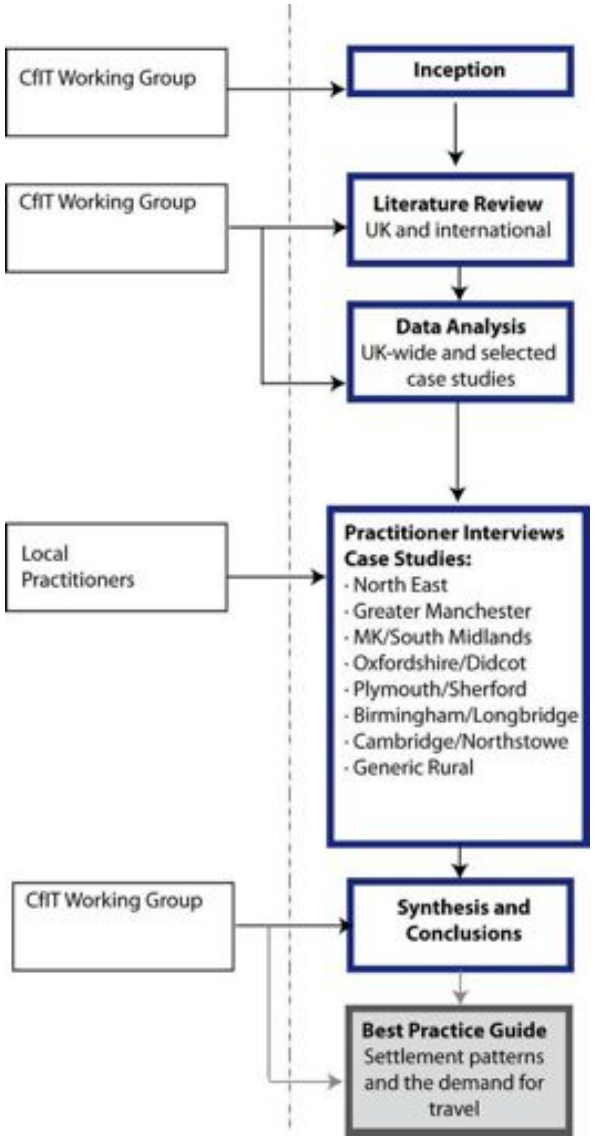
Study Process and Detailed Content

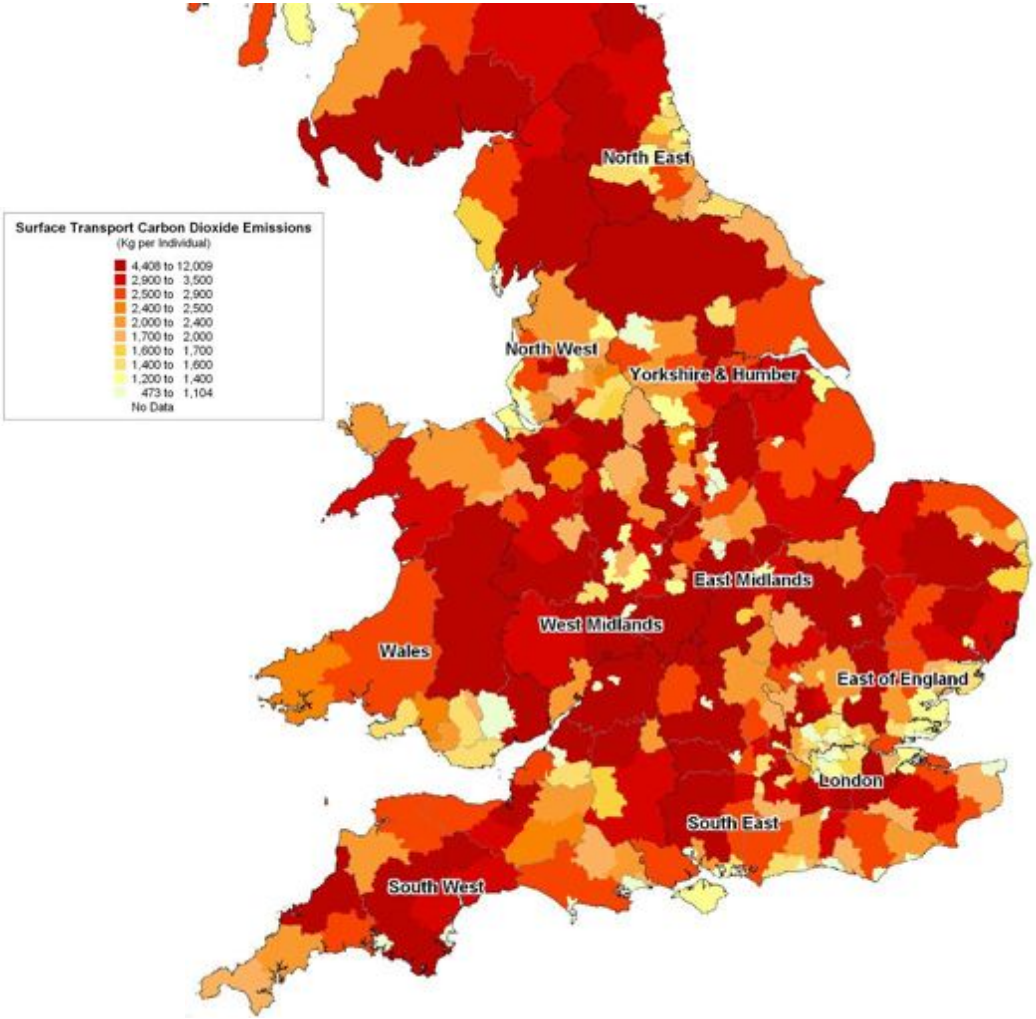


Webpage:
www.plan4sustainabletravel.org

Main Messages

- Urban structure is the ‘physical rationale’ for travel, influencing average distance and travel mode, after controlling for socio-economic status and attitudes
- Planning can be used more fully, alongside other interventions, to encourage more sustainable travel
- ‘Strategic scale’ of the planning process most important, e.g. the location of new development, and the transport consequences of major development proposals

Transport and Climate Change



- 80% reduction in CO2 emissions by 2050 relative to a 1990 base (Ed Milliband, Energy and Climate Change)
- Climate Change Act 2008 – 80% reduction by 2050 with interim budgets
- Climate Change Committee advise on strategy

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The Context

- PPG13 "*Reduce the need to travel*"
- Mass car ownership
- Counter-urbanisation (low density suburban growth)
- Some decentralisation/sub-regional concentration of facilities
- Selective 'urban renaissance'
- 'Many to many' origins and destinations
- Trip length 'explosion'; car dependence
- Certain cohorts more receptive to changed behaviour than others
- Added policy drivers – climate change, oil prices, developmental agenda (3 million houses by 2020)

➢ Greater impetus for urban planning to contribute to reducing demand for travel

The Context – School Transport

- Increasing choice in education means greater travel distance
- Increased school drop-off by car – ~6% of pupils in 1985/86 vs ~30% in 2006 (National Travel Survey)
- Leads to increased congestion - 12% of car trips morning peak are school run (NTS, 2006)
- Little integration between location of new schools and impacts on travel
- Many initiatives encourage sustainable school travel but difficulty in funding (e.g. Surrey Pegasus school buses)

- Strategic location of schools is critical to travel generation
- Local walk and cycling routes – influenced by urban form and permeability

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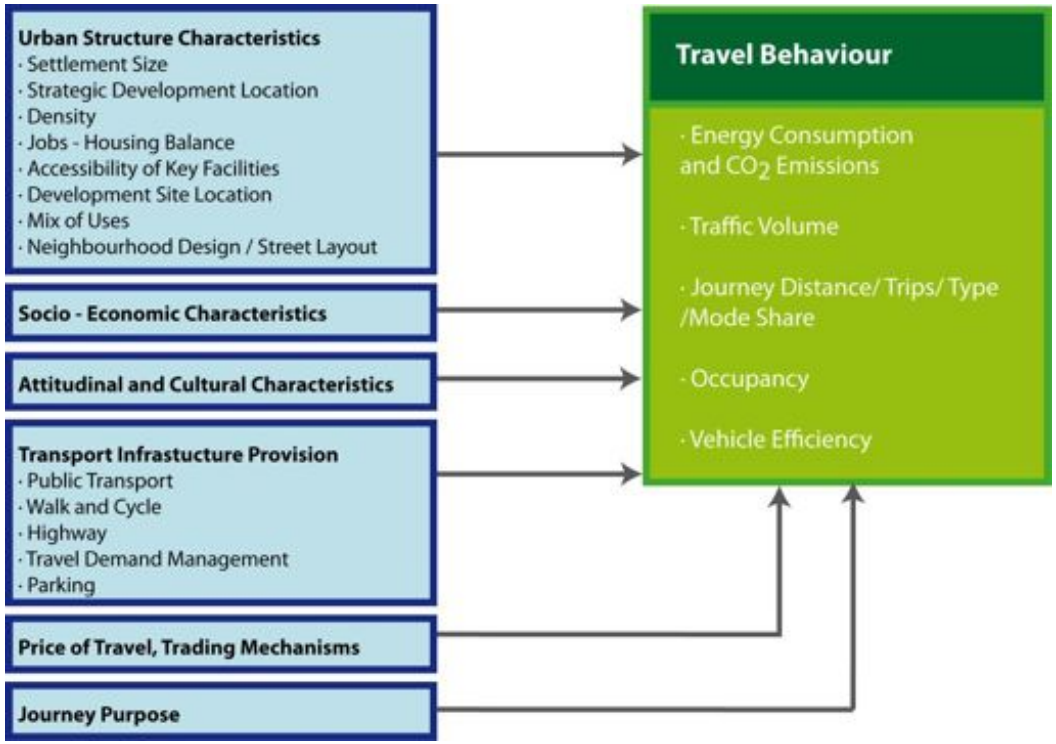
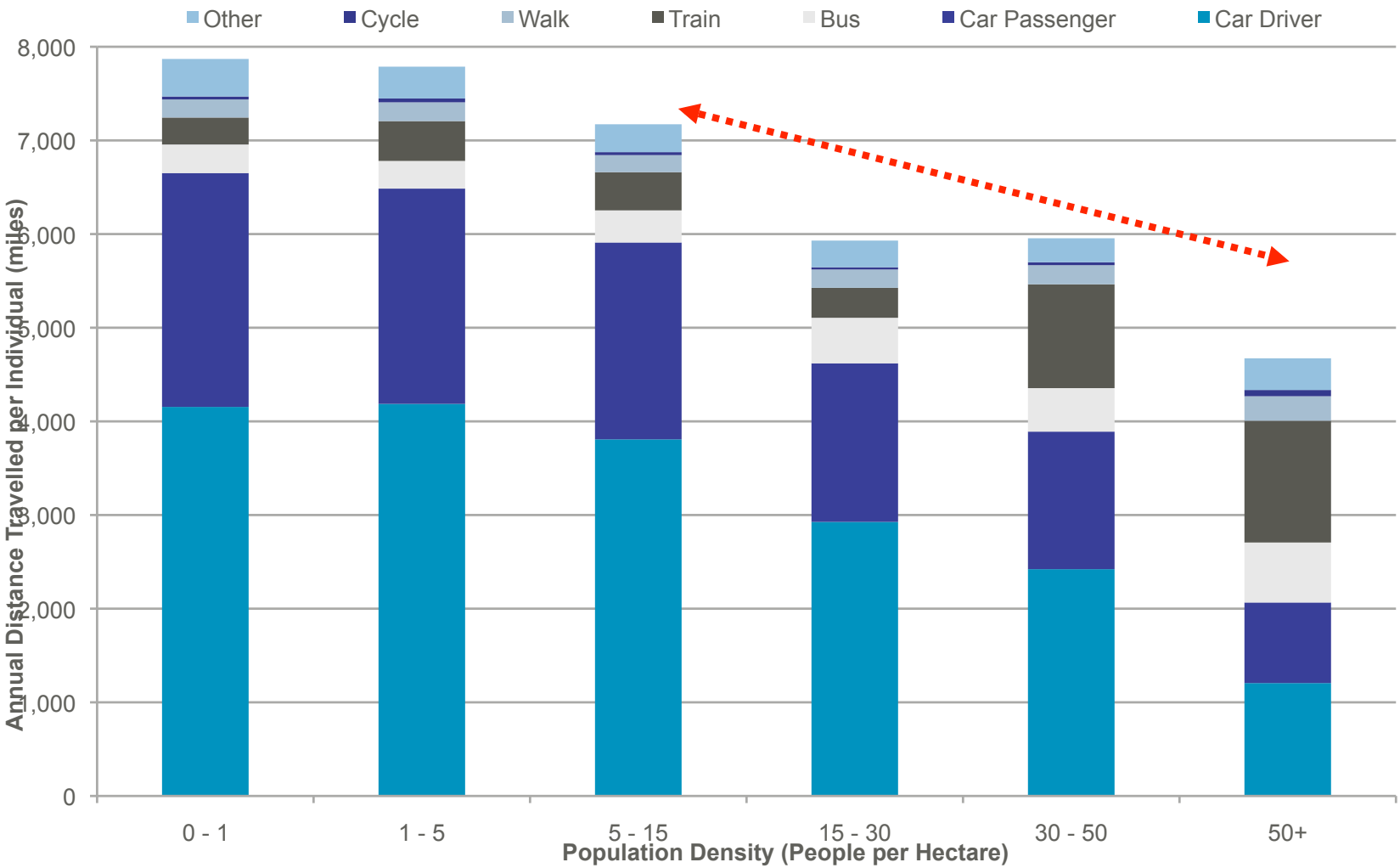
Synthesis



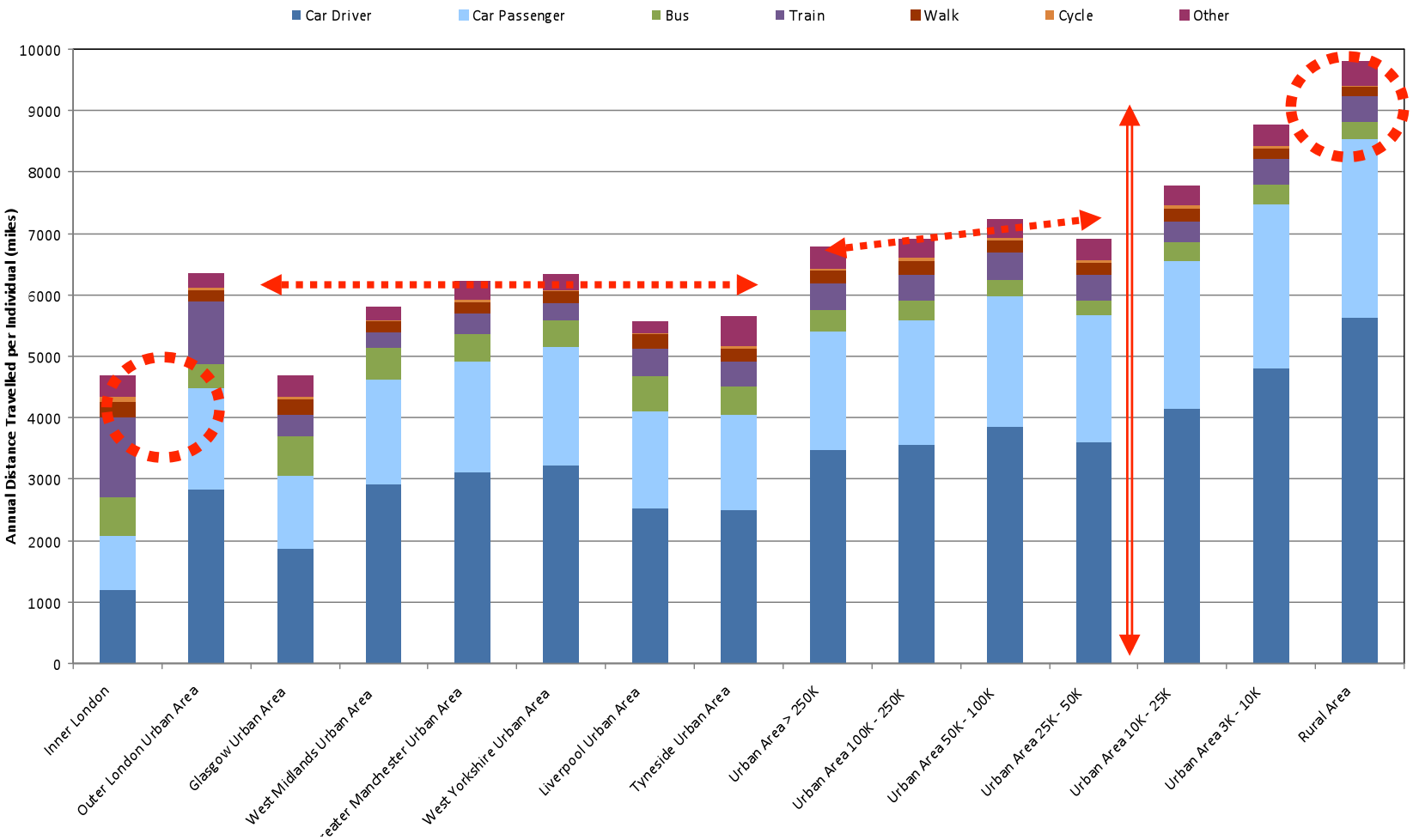
- Rich body of research
- A complex subject – multiple relationships
- Urban structure, socio -economic, contextual and attitudinal rationale for travel
- All things being equal "significant associations" between built environment and travel
- Little general knowledge of the academic debates – dissemination very important

Density & Annual Travel Distance



- **Density band & travel distance/car mode share: Inverse quasi-linear relationship**

Settlement Size & Annual Travel Distance

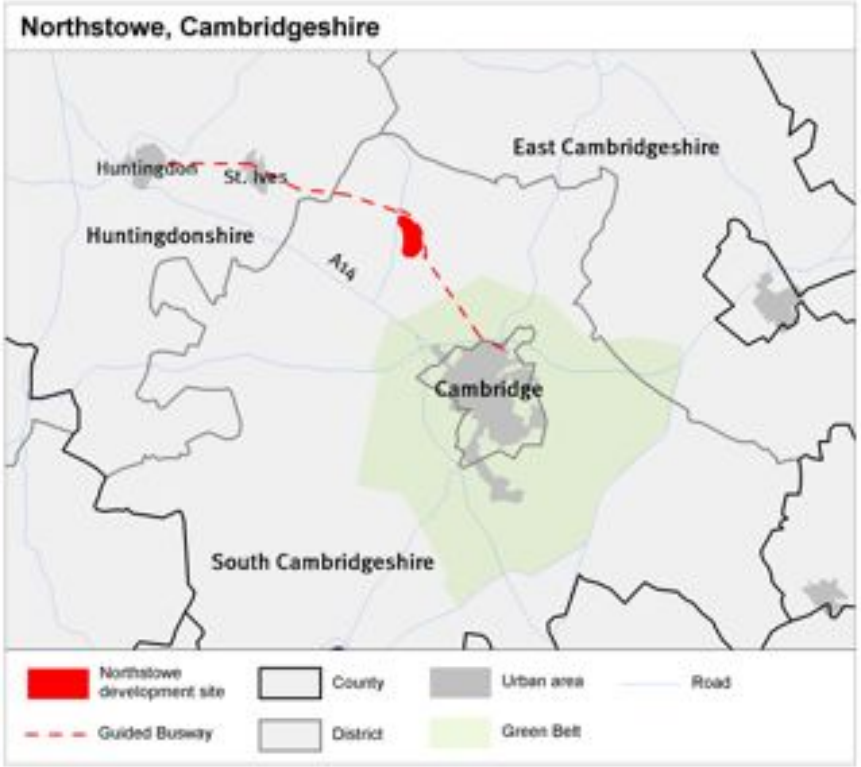


- Area type and travel distance/car mode share: [broadly] inverse linear relationship
- Inner London (4,673m); rural areas (9,806m);
- Non Met urban areas similar (no differentiation between), except below 25k

Case Studies: Understand Current Practice

Scale	Range of Options	Case Study
Regional	9 English regions	(1) North East
Metropolitan Area/City Region	7 metropolitan areas	(2) Greater Manchester
Growth Area	4 Growth Areas	(3) Milton Keynes/South Midlands
Growth Point	29 Growth Points	(4) Oxford/Didcot (5) Plymouth/Sherford
Large brownfield site, previous traditional industrial area	Various	(6) Birmingham/Longbridge
Smaller scale planned new communities/eco towns (proposed)	Various self standing new community proposals/ 10 shortlisted eco town proposals	(7) Cambridge/Northstowe
Rural	Various	(8) Generic rural experience

Case Studies



Northstowe 'proto-type' eco-town (Cambridgeshire)

- 9,500 dwellings; 9,000 jobs, schools - a 'model' for sustainable living, 5km from Cambridge
- Cambridgeshire Guided Busway – disused railway
- Sequential approach to location of development – infill first
- Housing affordability and congestion in Cambridge meant growth had to be accommodated
- Selection criteria used for sites (Northstowe no.1 – but probably a unique situation?)
- Transport Assessment again ambitious (<50% car mode share, high self containment)
- Barriers to good practice: uncertainty, funding, process

Practice Advice: Key Themes

1. Settlement Size
2. Strategic Development Location
3. Strategic Transport Network
4. Density
5. Jobs-Housing Balance
6. Accessibility to Key Facilities
7. Development Site Location
8. Mix of Uses
9. Neighbourhood Design and Street Layout
10. Traffic Demand Management
11. Parking

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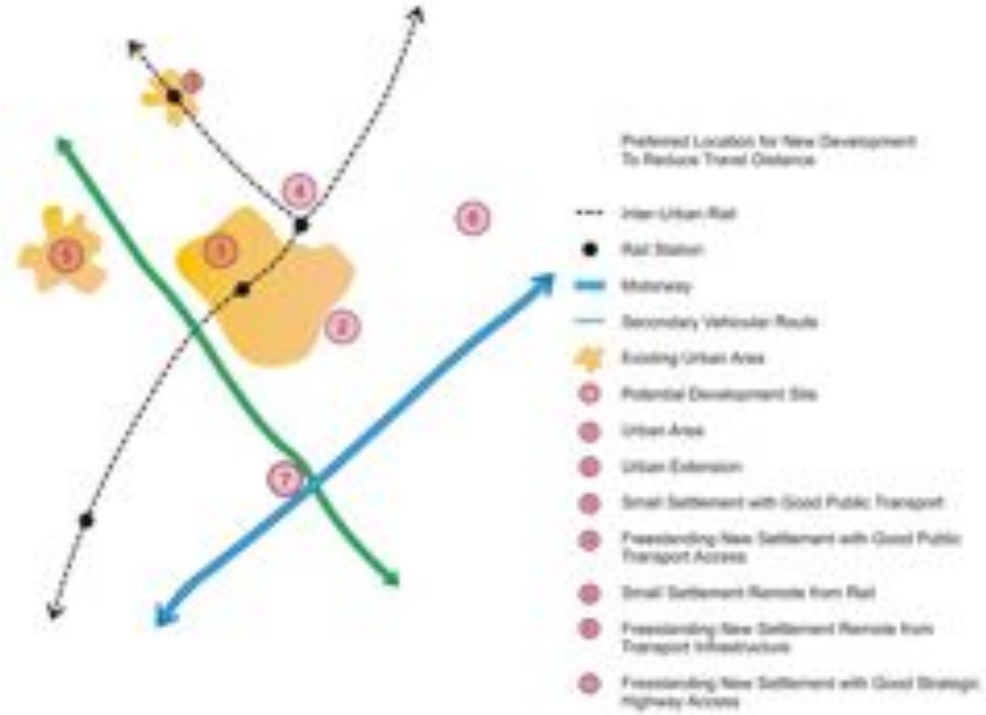
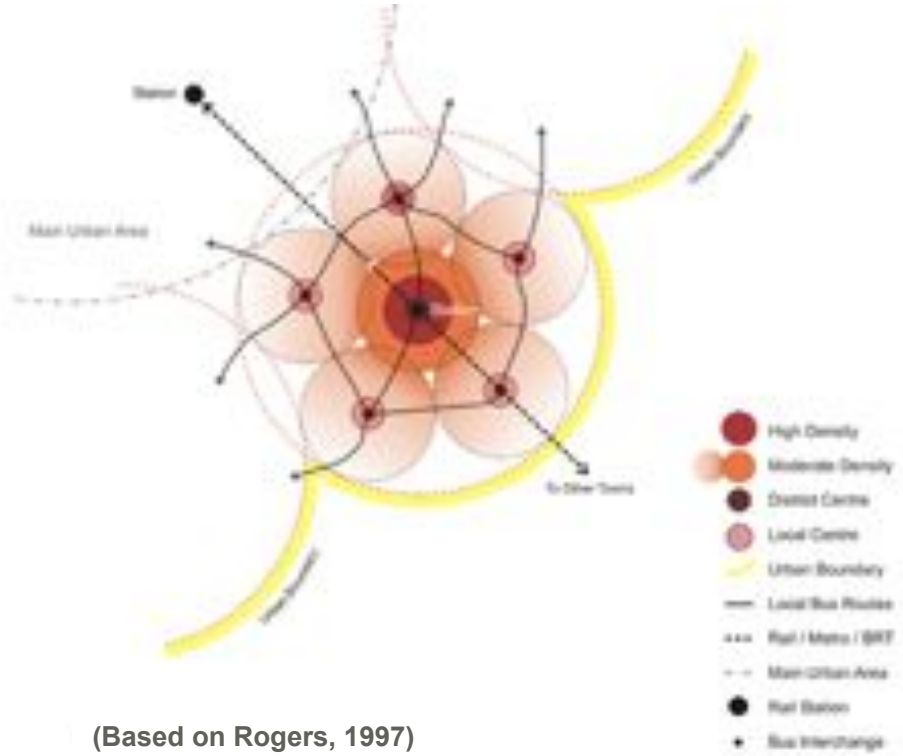
Practice Advice: Key Themes



Theme 2. Strategic Development Location

- Locate major development in existing centres or at other locations easily accessed by public transport
- Avoid development close to junctions with motorways, except where exceptional public transport accessibility
- If significant out-commuting is inevitable, new housing should be located in settlements which already enjoy good, or can receive improved, public transport accessibility

Practice Advice: Key Themes



(Based on Rogers, 1997)

Theme 4. Density

- Distance travelled by public transport increases with density, particularly over 30 persons per hectare (pph) and walking distance is similar over all densities except the highest – over 50 pph
- PPS3 (DCLG, 2006) advises a "working minimum of 30 dwellings per hectare" (dph) but much higher densities can be achieved
- Public transport nodes (approx. 800 metre radius catchment) can be the focus for densities of upwards of 50-100 plus dph, depending on context.

Practice Advice: Key Themes

Theme 9. Neighbourhood Design and Street Layout

- Encourage walking, cycling and public transport use (where applicable) through permeable, well-connected, 'traditional' grid street networks
- Ensure integration with surrounding street network and services
- Schools integral to the settlement with good walk /cycle links

Practice Advice: Key Themes

Theme 10. Traffic Demand Management

Organisational

- Travel plans, car pooling, sharing, clubs
- Working hours and flexi-working
- Home retailing, tele-activities

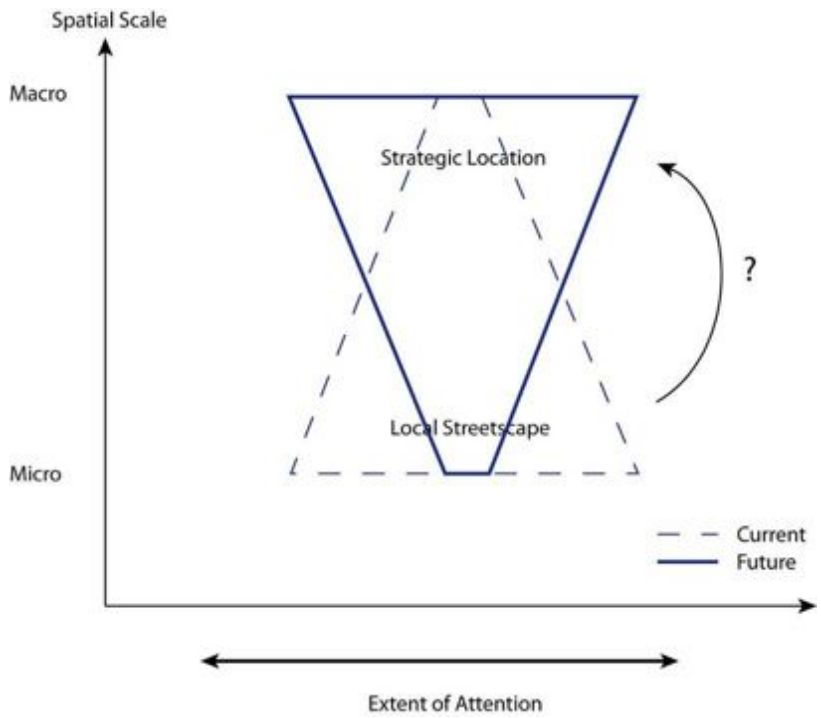
Financial

- Pricing regimes
- Vehicle ownership taxes
- Public transport investment
- Parking charges

Infrastructure

- National Rail, Underground, LRT, BRT
- Demand-responsive
- Walking and cycling
- Streetscape design
- Parking

Final Conclusions



"The inverted pyramid": greater strategic analysis important

Hence greater focus needed on:

- **Consideration of school location with likely travel generation impacts**
- **Improved walk/cycle /bus facilities for school travel**
- **Capital and revenue funding**

Planning has an important role to play in achieving sustainable travel: "[School] development location and transport investment decisions made today will influence travel for many years to come."

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School Travel Conference January 2010

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