

**World Urban Transport
Leaders Summit 2010**

Prof Anthony May

Research Professor of Transport Engineering, University
of Leeds, UK (LAAB)

Green Transport for Eco- Friendly Cities: A European Perspective

WUTLS Plenary Forum 3

30 June 2010



Institute for Transport Studies
FACULTY OF EARTH AND ENVIRONMENT


UNIVERSITY OF LEEDS

Green transport for eco-friendly cities A European perspective

Professor Tony May
World Urban Transport Leaders' Summit
Singapore
30th June 2010

ITS

A European perspective



UNIVERSITY OF LEEDS

- The EC Urban Mobility Action Plan
- The focus on cities
- Decision making approaches
- The range of transport policy options
- Developing an effective strategy
- The barriers to progress
- Decision support to overcome the barriers
- Ways forward

ITS

The Urban Mobility Action Plan



UNIVERSITY OF LEEDS

- Published in 2009, based on a two year consultation
- A major change in EU thinking
 - From avoidance because urban transport is a local issue
 - To emphasis because it is too important to Europe to get wrong
- Twenty specific actions
- Action 1: accelerating the take up of sustainable urban mobility plans
 - Support for local authorities
 - Guidance material, educational activities
 - Best practice exchange, benchmarking

ITS

The focus on cities



UNIVERSITY OF LEEDS

- European Cities
 - 60 % of population
 - 85% of economic activity
- Urban transport systems problematic
 - €100bn p.a. congestion costs
 - 100,000 premature deaths p.a. from air pollution
 - and 20,000 p.a. from noise
 - 13,000 deaths p.a. on urban roads
 - and 210,000 serious injuries
 - 30% of urban households without cars
 - 14% of all CO₂ emissions
- Urban travel cannot be just a local government problem



ITS

Sustainable urban mobility plans



UNIVERSITY OF LEEDS

- Current European experience limited
- France: Plans de Déplacements Urbains
 - Introduced in 1982 for cities with >100,000 inhabitants
- UK: Transport Policies and Programmes
 - Introduced in 1974 for all local authorities
 - But gradually reduced in scope
- UK: Local Transport Plans
 - Introduced in 2000 for all local authorities in England
- Elsewhere: a range of approaches
 - From specific requirements to laissez faire

ITS

Experience with UK LTPs



UNIVERSITY OF LEEDS

- Successes
 - Strongly supported by local government
 - Raised the profile of transport as a policy sector
 - Increased skills, involvement and funding
- Limitations
 - Less emphasis on environmental objectives, demand management
 - Limited innovation in option generation
 - Policy bias towards infrastructure as a result of shortage of revenue funding

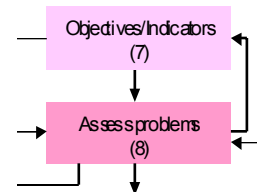


The EC definition of sustainable transport



UNIVERSITY OF LEEDS

- Social
 - Provides basic access and development needs
 - Supports safety, human & ecosystem health
 - Promotes equity within and between generations
- Economic
 - Is affordable, fair and efficient
 - Supports the economy, regional development
- Environmental
 - Limits emissions and waste within ability to absorb
 - Uses resources within renewal, replacement rates
 - Minimises impacts of noise and use of land



Source: EC (2001) in EC DGE_{env} (2005)



A logical structure for transport policy formulation



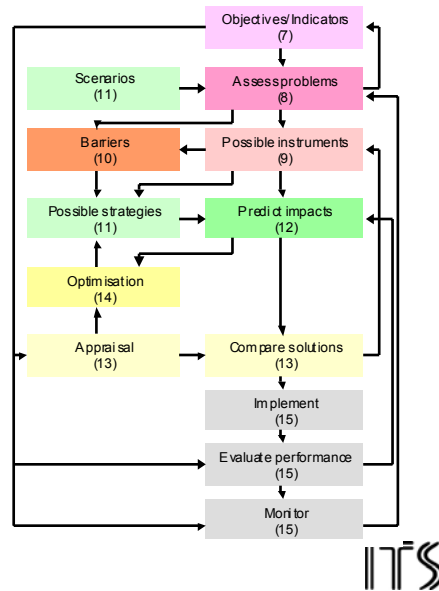
• Included in the 2005 European Decision-Makers' Guidebook

- Designed to help decision-makers develop strategies to meet their own needs and aspirations
- Available in English on www.kon.sult.leeds.ac.uk

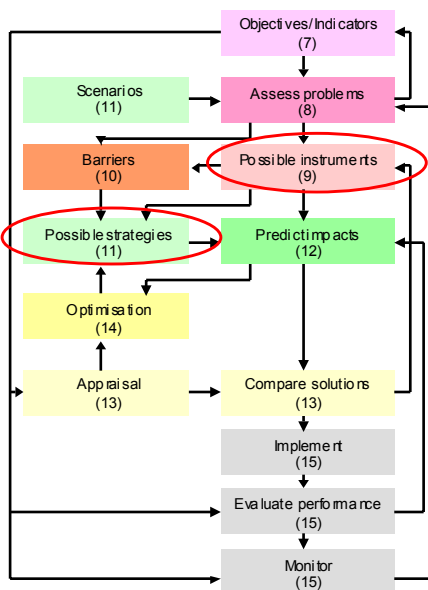
• Developed to provide a structure for the Guidebook

• Encouraging a logical sequence for problem solving

• While accepting that conventional decision-making is not necessarily so sequential



The search for solutions



• Many cities start here

- With preconceived ideas on solutions

• But are such ideas necessarily the best solutions to a city's problems?

- Frequently too much emphasis on expensive supply-side infrastructure
- And too little consideration of demand-side management



A growing range of policy instruments



UNIVERSITY OF LEEDS

- Management
 - Car and bicycle sharing
 - Walking buses
- Information
 - Trip planning systems
 - In-vehicle real time guidance
- Awareness
 - Personalised travel advice
 - Company travel plans
- Pricing
 - Road user charging
 - Private parking controls



The KonSULT Knowledgebase



UNIVERSITY OF LEEDS

- Knowledgebase on Sustainable Urban Land use and Transport (www.konsult.leeds.ac.uk)
- Designed to provide consistent information on a wide range of policy instruments
- Using a consistent 11 point scale
- Based on first principles and on international empirical evidence



The contributions of different policies



UNIVERSITY OF LEEDS

	Technology	Land use	Infrastructure	Management	Information	Pricing
Climate Change	● ● ●	● ●	●	●	● ●	● ● ●
Congestion	●	● ●	● ●	● ●	● ●	● ● ●
Economy	●	● ● ●	● ● ●	● ● ●	●	● ●
Pollution/Noise	● ●	●	●	● ●	● ●	● ●
Safety/Health	●	●	● ●	● ● ●	● ●	●
Exclusion		● ●	●	● ● ●	●	

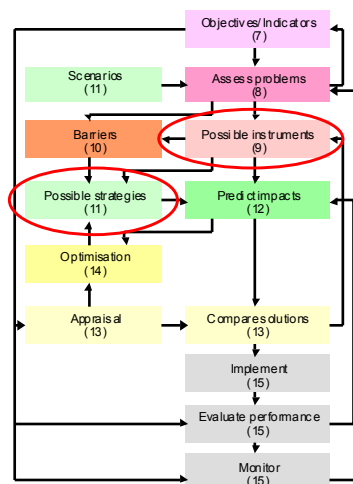


Developing a strategy



UNIVERSITY OF LEEDS

- No one policy instrument will be sufficient alone
- An effective strategy
 - Uses the full range of policy instruments
 - Ensures that each policy instrument reinforces the others
 - Uses one policy instrument to help overcome the barriers to using another



What are the “best” combinations of instruments?



UNIVERSITY OF LEEDS

- Optimal strategies typically involve
 - Substantial reductions in fares area-wide
 - Increases in service frequency within urban areas
 - Peak period city centre road user charges
 - Low cost increases in road capacity
 - And “soft measures”? (not tested)
- Optimal strategies typically cost more
 - But financially neutral strategies can be found
 - For only 15% lower benefit
 - Typically reducing car use by 15%
 - Achieve €6000 to €10000 benefits per capita

Source: Optimal Strategies Project



ITS

The ECMT study, 2002



UNIVERSITY OF LEEDS

- Survey of 168 cities worldwide
- Widespread agreement that integrated packages are needed:
 - public transport enhancements
 - charging for road use
 - better road network management
 - compatible land use plans
- But implementing such integrated policy packages “has proven easier said than done”
- Need to tackle the barriers to policy development and implementation



ITS

The ECMT barriers to implementation



UNIVERSITY OF LEEDS

- Institutional
 - Split or duplicated responsibility
- Process
 - Identifying objectives, specifying problems
 - Selecting possible solutions, appraisal, implementation
- Political and public acceptability
- Information and skills
- Financial
- Legislative and regulatory



[Source: ECMT, 2002, 2006]

ITS

The DISTILLATE programme



UNIVERSITY OF LEEDS

Design and Implementation Support Tools
for Integrated **Local Land Use, Transport and**
the **Environment**

www.distillate.ac.uk



Vision:

supporting a step change in the development and delivery of sustainable transport and land use strategies

Principal objective:

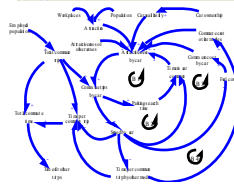
to develop ways of overcoming the barriers to effective development and delivery of sustainable transport and land use strategies

ITS

The DISTILLATE products



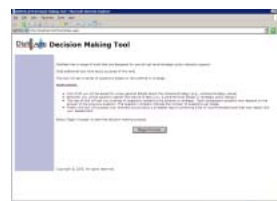
- 18 products: 9 tools; 9 guides
 - Advice on specifying indicators and targets
 - Option generation tools for strategies and schemes
 - Guidance on the effective use of different sources of finance
 - Simpler models and better representation of more policy instruments
 - Simpler, more consistent appraisal methods
 - Good practice in collaboration within and between institutions and stakeholder groups
- And a web-based tool to encourage use



The web-based tool



- Asks users if they have sufficiently high quality information to make an informed decision on...
 - Objectives, indicators and targets
 - Problem assessment
 - Possible instruments
 - Assessing the effects of instruments
 - Barriers
- If not, provides a link to the relevant tool or guidance
- With the potential to link to products developed by others
- Now hosted on the UK Local Transport Planning Network
 - www.ltpnetwork.gov.uk
- But evidence suggests that few are using LTPN



Barriers to learning (Source: Volvo)



UNIVERSITY OF LEEDS

- Organisational learning culture
 - Risk, openness, encouraging change?
- Staff time and resources
 - Too little time to explore new ideas, new sources
- Search process is unsystematic
 - Undue reliance on Google: multiple sources, but which are best?
 - This may have benefits but participants saw it as a cost
- Information may not be available or reliable
 - How reliable are claims made by cities, consultants?
 - More information needed on failures and lessons learnt

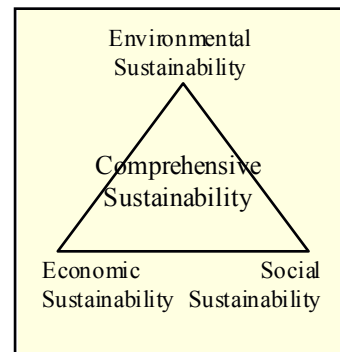
ITS

So how can we make cities more sustainable?



UNIVERSITY OF LEEDS

- Sustainability is a direction of travel rather than a measurable goal
- But we know how to make cities more sustainable
 - A greater focus on public transport, charging for car use and controls on land use
 - With most transport provision paid for by the user
 - And greater use of “soft” measures
- But the main barriers are outside the traditional sphere of transport planners and engineers



ITS

**Recommendations:
institutional** (Source: ECMT)



UNIVERSITY OF LEEDS

- Coherent national policy framework for transport and land use
- Coordination between government ministries
 - Transport, Finance, Planning, Environment
- Devolution of responsibility, finance and skills to lower tiers of government
- Local transport and land use planning focused on travel-to-work areas
- Local level coordination between transport and land use, and across all transport modes
- Political champions and more positive involvement of the public and media
- Private sector involvement designed to coordinate commercial and public policy goals



**Recommendations:
process** (Source: ECMT, Volvo)



UNIVERSITY OF LEEDS

- Consistency over the long term
- Clearly stated objectives and priorities
- Problem-based search for solutions
 - Employing the full range of supply-side and demand-side instruments
- Strategies designed to
 - Improve performance, overcome barriers
 - Based on integrated packages
- Appraisal, monitoring and evaluation based on agreed objectives and indicators, consistently applied
- Better understanding of good practice in implementation
- Best practice guidance and benchmarking in the process as well as the solutions

