Key Questions to Resolve?

• What low carbon transport futures are possible for cities (and countries and other jurisdictions)?
• If we reach 2 billion cars (by 2020) what does this mean for transport and society – how can we get better at enabling changed behaviours?
• How can scenario analysis and backcasting approaches help?
• What policy interventions are available?
• **CASE STUDIES**: London, Oxfordshire, Delhi, Jinan, Auckland – what are the optimal policy trajectories – how much does context matter?
• Implementability: how might we achieve deep reductions in transport CO2 emissions?
• What is the role of governance and governmentality – how can we more effectively ‘implement’ policy?
The Context

• Cities have become the centres of humanity – but huge difficulties in reducing CO2 emissions from transport, in all contexts – in absolute terms in the ‘developed’ world, and against BAU projection in the emerging cities.
• A small group of pioneering city leaders are signing up to progressive targets – leaving the international negotiations behind.
• Some progressive policy measures and packages are being implemented – but all, as yet, ad-hoc in nature – little understanding of how approaches should differ by context, how ‘best practice’ might transfer.
Main Arguments

- A large gap between the policy makers and the car-owning public (or those aspiring to car use).
- Almost a *hyperreality in transport*: the advertising of the car as a sought after product and the aspiration to own and use a car v. the reality of the impacts in environmental, safety, urban fabric and even economic terms – a mass communication, consumption and materialisation: a heavily-mediated ‘real’ (Baudrillard, 1981).
- We draw on scenario analysis and futures thinking (from Thomas More’s Utopia onwards, to Herman Kahn, Pierre Wack and Peter Schwartz ..) to consider alternative possibilities at the city scale.
Scenario Analysis and Backcasting Process

**WIDER ISSUES AND QUESTIONS**

**DRIVERS OF CHANGE:** what is internal and external to the process?

**BAU PROJECTION:** current trend or impact of current policy?

**INVENTORY:** what is left in and out of the ‘long list’ of measures, how is this framed, who decides, and why?

**COMPLEMENTARITY:** some measures are supportive of others?

**SCENARIOS:** what are the major divergent issues, with high impact and uncertainty?

**QUANTIFICATION:** does modelling help understand the narratives and scales of change required? What modelling tools are available? Are some impacts difficult to model?

**IMPLEMENTATION:** what programmes and pathways are available? How should governance mechanisms be shaped to allow effective implementation?

**PARTICIPATION**

**1. Context and Baseline**
- CO2 baseline and BAU
- Set city transport objectives
- Inventory of measures being considered

**2. Policy Packaging**
- Consider complementary measures
- Package into clusters of measures

**3. Scenario Development**
- Trend and uncertainties
- Scenario matrix or possibility space

**4. Impact Analysis – CO2 and MCA**
- Assess/model likely impact by scenario
- Consider implementability and costing
- Refine scenarios and packages
- Develop simulation software to help discuss results

**5. ‘Backast’ Pathway**
- Develop implementation pathways

**CORE STUDY PROCESS**
Leaving the Opera in the Year 2000, Albert Robida (1848-1926)
Objective: a 60% reduction in CO2 emissions in the transport sector in London by 2025 and 80% by 2050

- A range of policy packages
- Level of application
- Target achieved/achievable?
Backcasting

- Baseline and projection
- Alternative scenario(s) of the future
- Policy measures and packages available
- Appraisal, costing, optimum pathways
London: The Baseline (Transport Only)
TC-SIM London

Local Version 03  
tcsim.html

Web Version 03  
www.vibat.org/vibat_ldn/tcsim3/tcsim.html  
tcsim  
topgear
Discuss and ‘Optimise’ the Strategy
Discuss and ‘Optimise’ the Strategy
The end goal is perhaps a 2050 equity target in transport: around 0.5 tCO₂ per capita (Meyer, 2000; IPCC, 2007; Stern, 2009)
Challenging Travel Behaviours?

Like Truman Burbank: “We accept the reality of the world with which we are presented?”

The Truman Show, 1998, Peter Weir
Conclusions

• Ambitious strategic policy ambitions (CO2) not likely to be delivered (on current progress) – lots of conjecture, little change of spending profiles.

• Emerging set of useful methodologies – scenario analysis, backcasting, MCA – might help progress the debate.

• Wide range of policy packages available – many, if not all, require successful application to achieve ambitious CO2 reduction targets.

• Appraisal - not just CO2; wider MCA quality of life aspects.

• Moving beyond the scenarios: we need to understand potential for changed behaviours (adaptive capacity and adaptive pathways), and to invest very differently in transport infrastructure, vehicle emission technologies and behavioural change initiatives.

• Participatory elements critical – people need to be able to choose their future travel lifestyles, ideally consistent with policy goals.

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