

Energy and Sustainability

Are we asking the right questions?

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Apparently -obvious questions

- No more oil - what now?
 - ◆ Oil for what? At what price?
- Travel less
 - ◆ Implies a stability of job/education/social needs
- Use public transport
 - ◆ Economics of lightly loaded systems
- Consume less
 - ◆ An excellent and enduring question
- Use rail for freight
 - ◆ Do the sums on end point distribution
- Price strategies to reduce oil use
 - ◆ Yes- but no substitute for distributional impacts

Why this contribution?

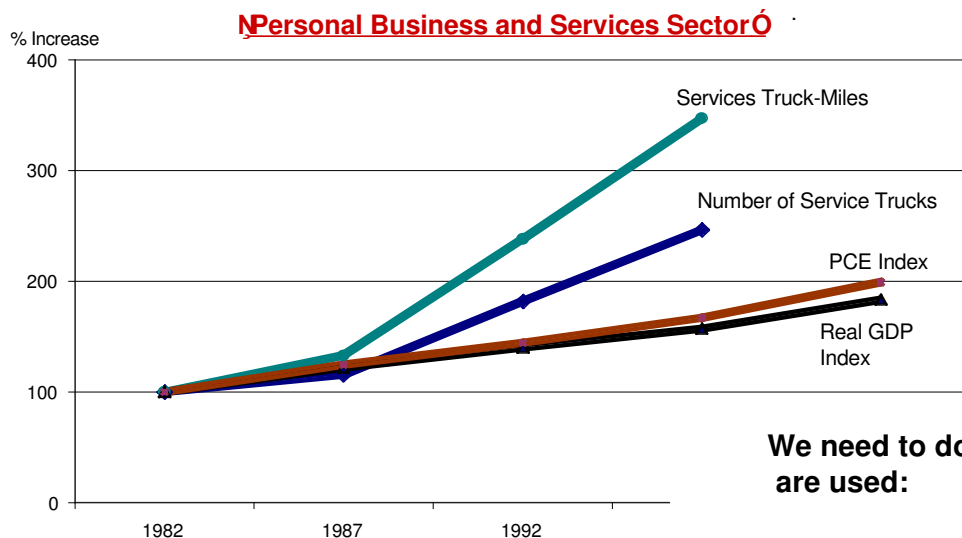
- I was raising issues that addressed the context of the conference.. And asked to do this here
- Several areas of concern
 - ◆ Realisation of the role of freight
 - ◆ Distribution impacts of measures
 - ◆ Systemic assessments through the economy are subject to structural changes
- So to cover some of the ‘obvious’ questions....

Not so obvious questions

- Energy input output : are we really winning?
- Pricing strategies
 - ◆ Do we handle them reciprocally (GHG credits)
- Lifetime lifecycle costs
 - ◆ Shows that choices that look odd are rational
- Constraint bound choices for location at given times
 - ◆ Needs serious social and economic recognition
- The peak problem
 - ◆ Capacity v provision- we have no overall rationality
- Hydrogen economy a solution or a sideways shift?
 - ◆ Where is the energy being generated? Fuel cell catalysts, capitalisation, risk rebalancing- energy cycle

A contribution for Dr Anible: on LGCVs...

Recent Growth in Number of Trucks, Annual Truck Miles, Real GDP and Personal Consumption Expenditures in the United States

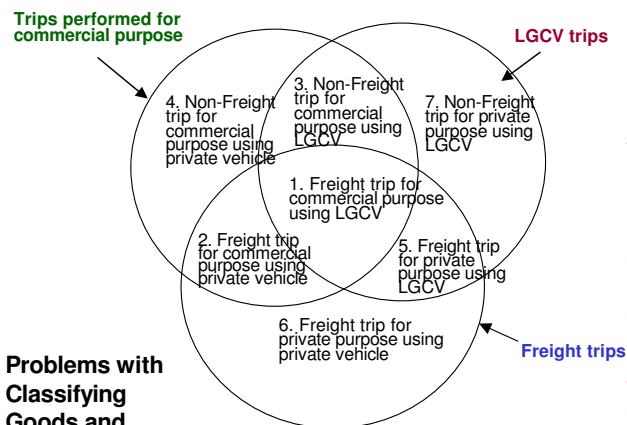


A top 6 issue in the Us view of the STELLA Us-Eu program

A central outcome of the 2001 DfT Freight modelling Review

We need to do a better job of categorizing urban vehicles and how they are used:

A central outcome of the 2001 DfT freight modelling Needs review



Problems with Classifying Goods and Service Trips:

1. **Freight movements** for commercial purposes
 2. **Freight movements** for commercial purposes but in private vehicles
 3. **Freight movements** for private trip purposes in LGCVs
 4. **Freight movements** in private vehicles on private purposes
 5. **Non-Freight movements** in LGCVs for commercial purposes
 6. **Non-Freight movements** in identified LGCVs on private purposes
 7. **Non-Freight movements** in private vehicles on commercial purposes
- 4 Visually identified as a Freight vehicle
Consequently 2,5,6,7 would all be visually misclassified

The next issues

- Base load power v other
- Transport needs portable(?) energy storage
- Persistence in vehicle life, age and utilisation effects
- Logistics is THE top priority
- Structural signals mean pricing - but also information
- Crafting a more persuasive message
- Get past the simplistic 'walking and cycling' for the public transport dependent- these are for younger richer groups- and concentrate on Comparative Advantage
- Trends: home schooling and entertainment, shopping as recreation - but what about social interaction? (myspace etc may be one answer -scan first travel second but communication generates travel...)

Productive questions

- Handling social v private prioritisation (or the rich wins in a zero sum game): distributional equity
- Terrorism and tourist crowding as assets in long term adjustments against personal airtravel (but pro freight..)
- Travel down = home energy up.. So....??
- The information commons have been prejudiced by 'security' and media concentration - so what basis for community trusted information?
- Lobbying has replaced rationality in many areas of transport - the safety culture and the neglect of serious all-groups mobility valuations. Information and trust are key: why are we spending them so freely? We need it.... Energy issues are pervasive and critical

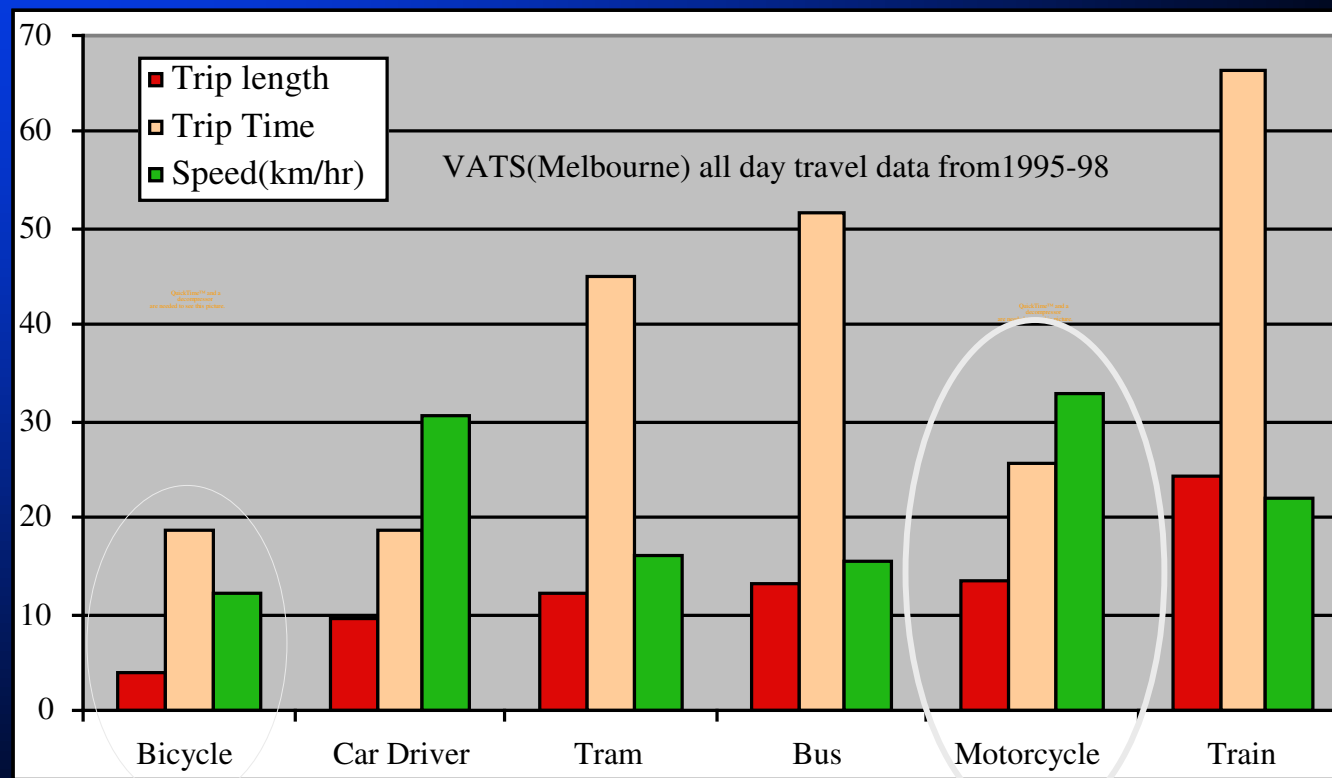
Where next?

- CONTESTABLE evidence based policy will engage the communities - overwhelming with one sided expensive studies will continue to disengage
- We need trusted information and longer term strategies or we WILL get non optimal transitions and increased vulnerabilities and an unwinding of global logistics plus political power via energy management (see Russia and the ex satellites already in use)
- And where are the overall risk assessments? Have we discussed these in an integrated manner? Why not?
- Energy Input output tables (instead of fiscal flows) are a way of assessing the system impacts consistently

Some mobility mixes....



Here are some key mobility mixes



Two Wheels
into the
Future
VACC 2006

Lowest average speed
Shortest trip length

Fastest average speed
Second longest trip length