



Transport Pricing Experiments as 'Decision Support' for Reflexive Mobility?

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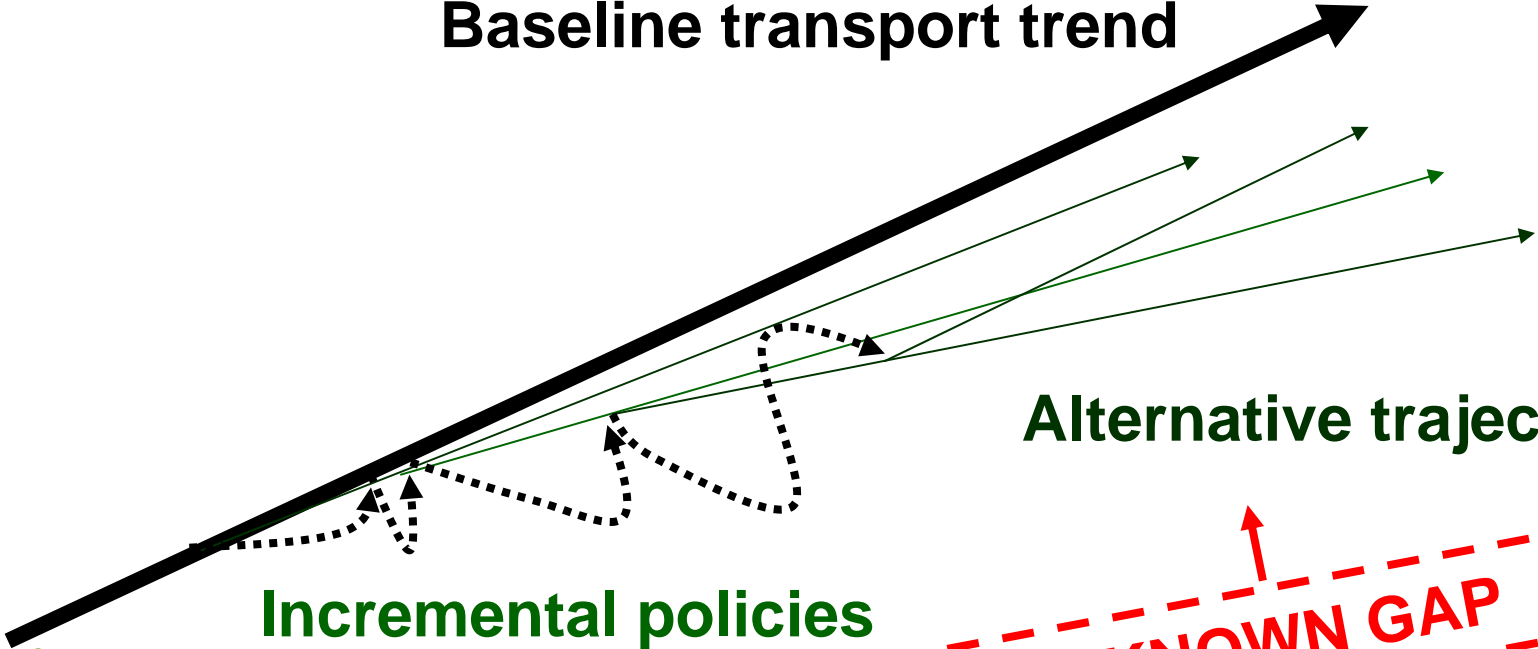
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Transport Pricing Experiments as ‘Decision Support’ for Reflexive Mobility?

Presentation at TransportMistra’s Final Scientific
Conference Lund, November 26-27, 2008

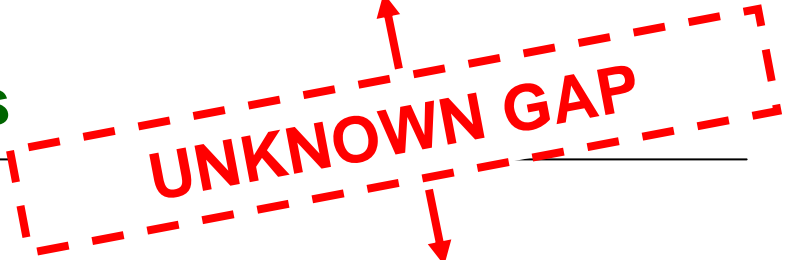
Henrik Gudmundsson, DTU Transport

Baseline transport trend

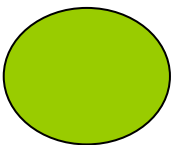


Alternative trajectories

Incremental policies



Impossible route



Sustainability objective

Towards sustainable transport

- ***Incremental steps may not be enough!***
- Sustainable Development is a reflexive process
- 'Transitions' may be needed
- Transitions may require 'reflexive governance' and 'policy learning' to get 'reflexive mobility'
- ***Possible changes are not always known!***
- Policy Learning may require 'social experiments' with mobility and governance
- Can 'Social experiments' in transport serve as 'Decision Support' for reflexive mobility?

A transition...

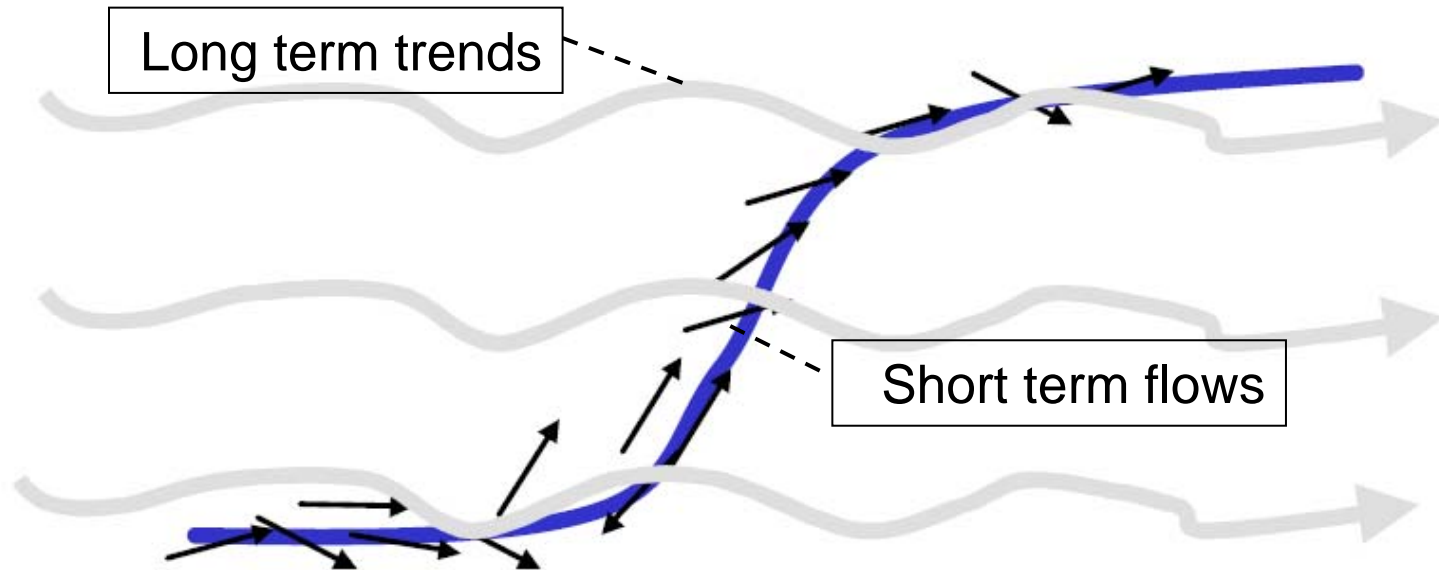
- ... is the shift from an initial dynamic equilibrium to a new dynamic equilibrium
- ... is characterised by fast and slow developments as a result of interacting processes
- ... involves innovation in an important part of a societal subsystem

Kemp and Rotmans (2001)

- ...when society or a complex subsystem of society changes in a fundamental way

Kemp and Rotmans (2002)

Transition image



Kemp & Rotmans (2002)

Transition and governance

- ‘Transition has a focus on *modes of governance* and *intervention approaches*, not only on ‘instruments’
- ... ‘.....**experiments** undertaken as part of transition agendas and programmes of system innovation, are considered to be just as important as the actual policies (...) for dealing with (...) issues of non-sustainability’

Kemp & Rotmans (2002)

'Reflexive governance'

'**Reflexivity**' means awareness of risks and unintended consequences;

Beck (1986)

- **Reflexive governance** involves that actors reflect on how their frames, structures and patterns of action contribute to persistent problems
- ...requires innovative and strategic thinking to transform existing practices and structures
- '**Adaptive governance**' takes an expressly experimental approach to developing policy and understanding.

Michel (2009)

'Policy learning'

- 'Relatively enduring alterations of thought or behavioral intentions which result from experience and which are concerned with the attainment (or revision) of policy objectives.'
Sabatier (1988)
- 'Deliberate attempt to adjust the goals or techniques of policy in the light of the consequences of past policy and new information so as to better attain the ultimate objects of governance.'
Hall (1988)

Learning type	Who learns	Learns what	To what effect
Instrumental learning	Policy elites — policy analysts and managers, analysts from stakeholder peak bodies	Viability of policy interventions and implementation design	Understanding of source of policy failure, or improved policy performance
Governmental learning	State officials — senior departmental bureaucrats and government ministers	Intelligence on the efficacy of structures and related policy processes	Organisational change in structure and process within agencies and delivery systems
Social learning	Wider policy communities who are less closely engaged in policy design	Social construction of policy problems, scope of policy or policy goals	Changed normative and legal expectations concerning existing goals and values
Political learning	Coalitions of policy advocates	Political feasibility of a given idea through manoeuvring of the policy process	More sophisticated advocacy of a policy idea or problem

'Reflexive Mobility'

'Reflexive mobility: 'self-critical mobility', aware of its own consequences, leading to change the way people and organisations conceptualise mobility -> sustainable transport

Four stages:

- a) self-reference: Transport turns against itself (e.g. congestion)
- b) self-analysis: Impact Assessments
- c) self-interpretation: Policy implications
- d) self-criticism: Promoting structural change of mobility

Beckmann (2001, 2002)

'Social experimentation'

- **Philosophical view:** '...methods of trial and error, inventing hypotheses which can be practically tested;
Popper (1965)
- **Narrow view:** field trials that randomly allocate individuals to programme and control groups for the purposes of evaluating social programmes
- **Broad 'transition' view:** denotes a process of trying to accomplish something new, and assuming that the objectives will be achieved through recurrent trial and error, self-evaluation, problem solving, and mid-course correction.

Vergracht & Brown (2006)

Road user charging



Road user charging

Existing urban systems

- Singapore, Oslo/Bergen, Rome, London, Stockholm, Durham, Valetta...

Existing toll roads

- *Japan, US, France, Italy, Spain, Norway...*

Future programs

- *Netherlands, US cities, Manchester? Copenhagen?, Helsinki?...*

Major Experiments

- Hong Kong (passed, failed)
- Stockholm (passed, success)
- Japan (passed, success)
- Milan (ongoing)
- New York (postponed)

Minor tests etc

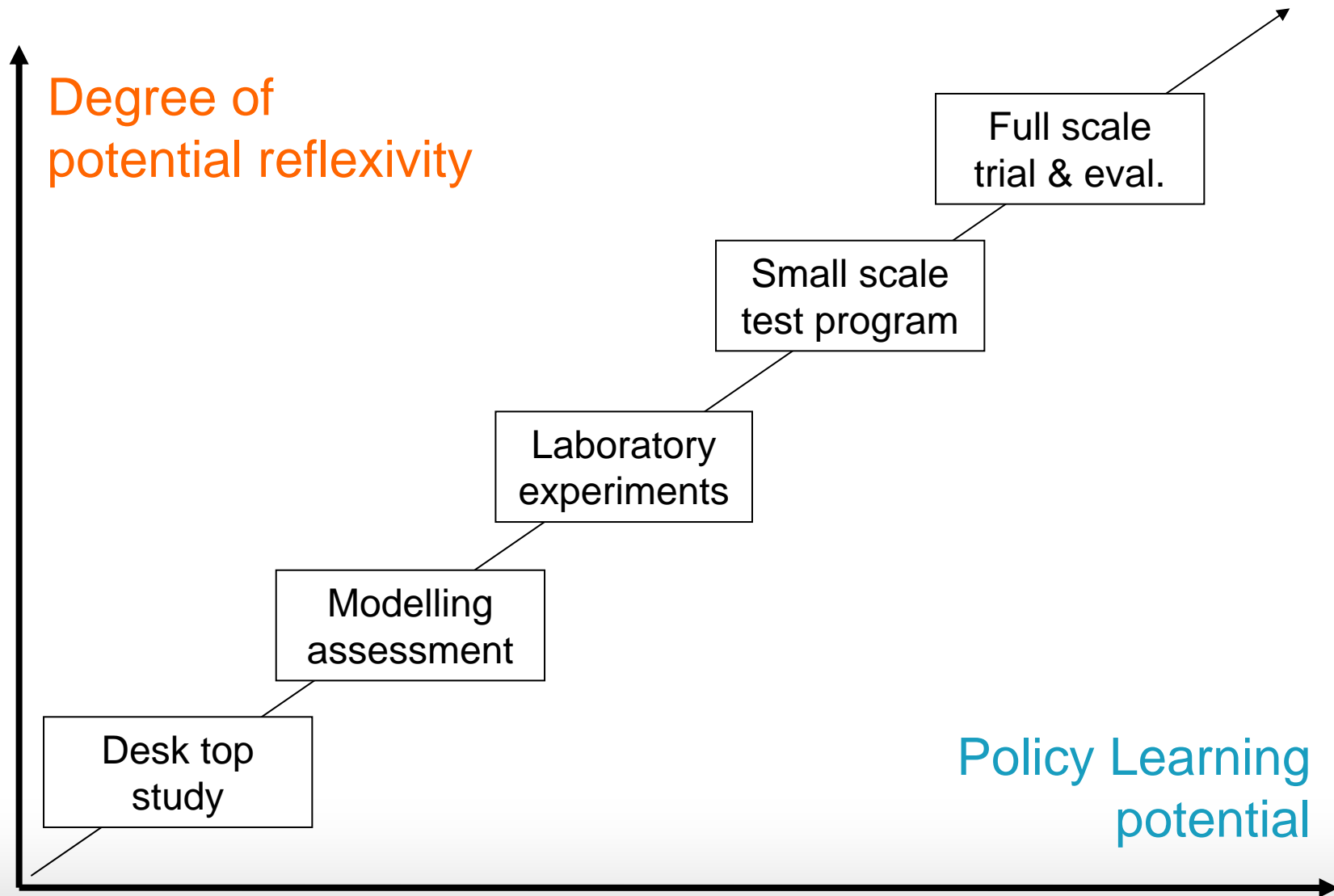
- Netherlands (rewards)
- Copenhagen (test drivers)
- Many EU, US, Asia projects....

Road user charging

Name	Description	Objectives
Road toll (fixed rates)	A fixed fee for driving on a particular road or network	To raise revenues.
Congestion pricing (time-variable)	A fee that is higher under congested conditions than uncongested conditions.	To raise revenues and reduce traffic congestion and/or pollution
Cordon fees	Fees charged for driving in a particular area.	To reduce congestion and/or pollution in major urban centers.
High Occupancy Toll lanes (US)	A high-occupant-vehicle lane that accommodates a limited number of lower-occupant vehicles for a fee.	To use HOV lanes more efficiently and raise revenues
Distance-based fees	A vehicle use fee based on how many km a vehicle is driven.	To raise revenues and reduce various traffic problems.

Adapted from VTPI (2008)

Decision Support for pricing



3 different experiments

- **'Spitsmeiden'** in Netherlands – rewarding drivers for keeping off the Peak at the A12
Purpose: peak management. (N=340 direct inv).
- **Stockholm**, introducing CC + extra public transport+P&R for 6 months
Purpose: -congestion; +environment (N=1mio?)
- **'Shakai-Jikken'** in Japan program of > 75 'social experiments' over 3 years to vary charges for using expressways, participatory set-up
Purpose: -congestion on other roads (N=> 20 mio?)

Each experiment a 'policy success'

'Spitsmeiden':

"...an innovative policy experiment ... illustrating that the instrument worked ...was sufficient to change the policy actors' attitudes from cautious to curious" *Noordegraaf & van de Riet (2008)*

Stockholm CC

"...the finding that almost half of the respondents changed their opinion about congestion charges during the trial show that citizens need personal experience before they know what they really think about such a complex issue as road charges. (...) This would imply that trials, generally, may be a more useful tool than information in the process of implementing 'difficult' policy measures, such as congestion charges.... *Winslott-Hiselius et al (2008)*

'Shakai-Jikken'

"... is a strong tool to make the more realistic plan and it would contribute to smoother implementation ... gives a good chance to stakeholders to communicate to each other." *Nagasawa (2007)*

Final points

- **Reflexive mobility:** Indications of 'self-reference', 'self-analysis', and 'self-interpretation', but hardly 'self-criticism (no 'structural change' of mobility)
- **Policy learning:** Indications of instrumental learning, some governmental, but possibly limited social or political learning (change of values and ideas)
- Pricing trials **may have potentials** as reflexive and transitional 'Decision Support', but conditions and effects need to be explored and researched