TC 1.1 - Road System Economics

Fabien Leurent

Committee Chairman

- UPE – Ecole des Ponts
  on behalf of Sétra (French DfT)
- Professor
- fabien.leurent@enpc.fr

Transport system issues

The important role of the road network

- Carrying private cars, transit vehicles, trucks, emergency vehicles
- Cars and trucks provide speed and flexibility
- Overall, the road transport mode provides dense geographical coverage and adequate access to settlements

Positive socio-economic impacts

- Transport networks serve social and economic activities
- Individuals are enabled to specialise and get productive
- Efficient networks extend market areas and facilitate scale economies in firm production

Negative impacts

- On residents and the natural environment: accident risks, space consumption, noise and pollutant emissions, emission of greenhouse gas

The community's scope of activity

System organisation and transport policy

- Regulation of network operation (traffic control, information to users…)
- Transport pricing
- Transport planning using road and non-road modes
- Land-use planning

Development process consists of

- Creating links in order to connect locations
- Interconnecting the links
- Link hierarchy with respect to capacity and level of service

Technical and economic approach to transport planning

- Plan design
- Simulation based on traffic model
- Project appraisal
- Project selection and composition of policy

Committee objectives

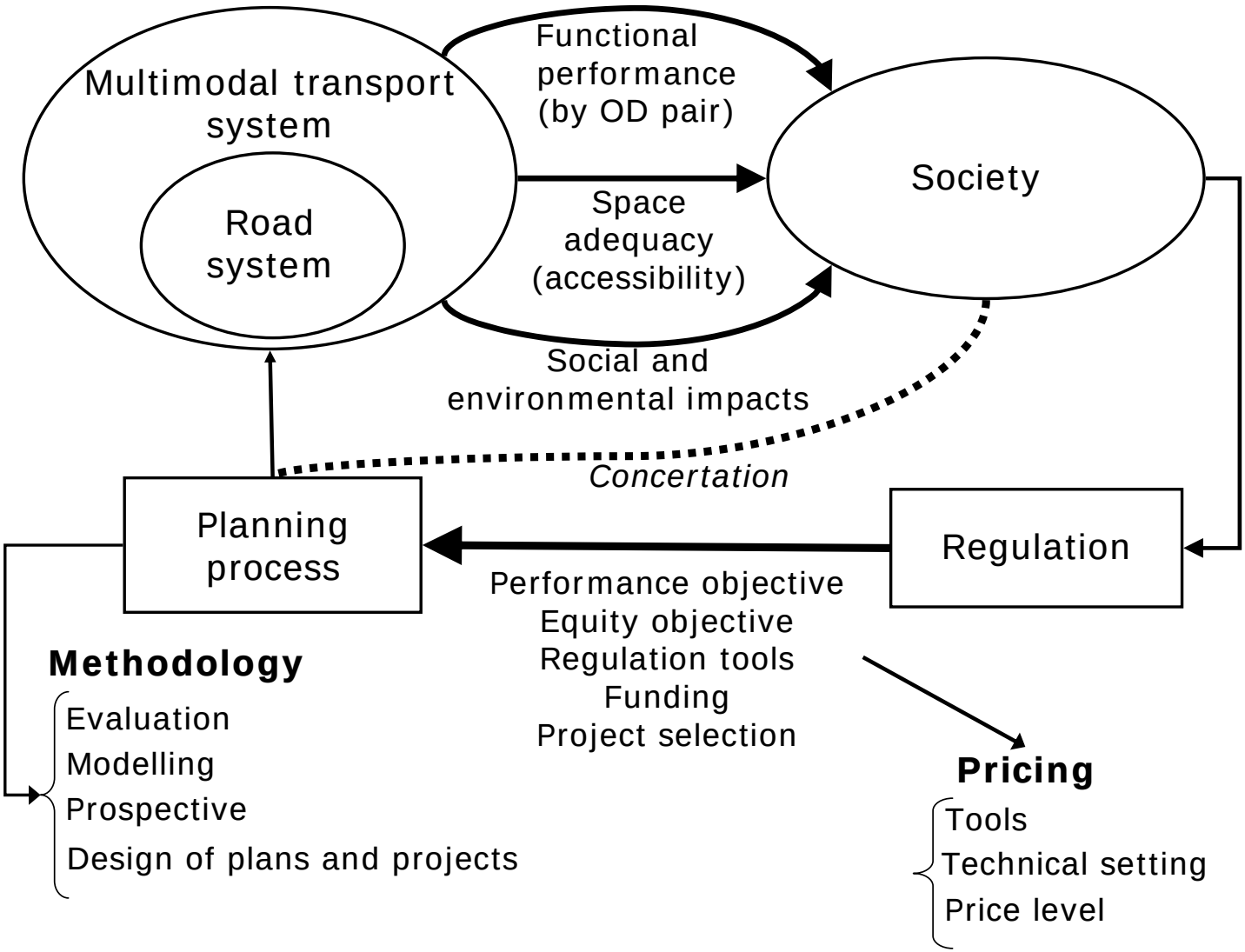
To extend evaluation methods

- To adapt and extend economic evaluation methods in response to changes in societal issues
- Multimodal transport system
- “soft factors” to include social and environmental issues

To analyze road pricing as an instrument for funding or regulating the transport system

- Impetus from recent experiments in road pricing around the world
- Public acceptability?
- The issue of equity, and some ways to achieve it

Overview


Multimodal transport system
Road system
Functional performance (by OD pair)
Space adequacy (accessibility)
Society
Social and environmental impacts
Concertation
Planning process
Regulation
Performance objective
Equity objective
Regulation tools
Funding
Project selection
Methodology
Evaluation
Modelling
Prospective
Design of plans and projects
Pricing
Tools
Technical setting
Price level