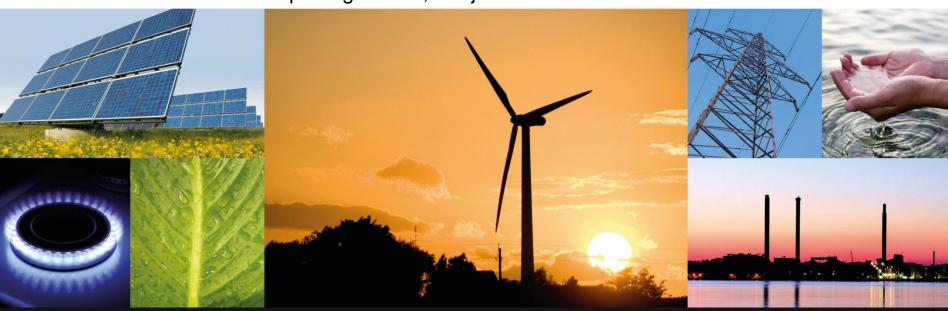


**Energy research Centre of the Netherlands** 

# Clean transport – how do consumers make their choices?

Martine Uyterlinde, ECN Policy Studies, 28 september 2010 Casper Tigchelaar, Marjolein de Best-Waldhober





### The road towards sustainable mobility

#### Drive less

- Kilometre price
- Carpooling
- Modal shift

#### Drive more efficiently

- Driving style
- Maximum speed limits
- ICT: cruise control, navigation

#### Efficient vehicles

- •Type of engine: ICE or electric
- ·Weight, aerodynamics
- Hybrids

#### Alternative fuels

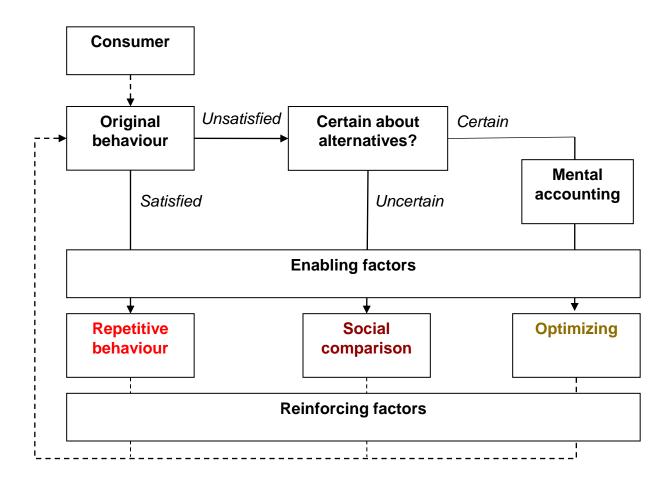
- Biofuels
- Electricity
- Hydrogen
- CNG / biogas

Behaviour: Car purchase, refuelling, choice of mode, driving style...

Innovation: acceptance new vehicles/fuels



#### How does a consumer make choices?





### Car purchase behaviour

- Car: 'a statement about me'
- Misinterpretation of information on efficient cars
  - Subsequent justification by comparison with even less efficient cars
- Mental accounting
  - Evaluate against one reference at a time: current (petrol or diesel) car
  - Loss aversion: additional costs weigh more than additional benefits
  - Framing: higher purchase price deters, even if the cost can be recovered





### Refuelling behaviour



- Routine aspect in favour of biofuel blends
- THRIVE survey:
  - Main considerations are fuel price and location
  - Limited willingess to make a detour (low fuel price)
- Good distribution of filling stations at predictable locations may compensate for limited coverage



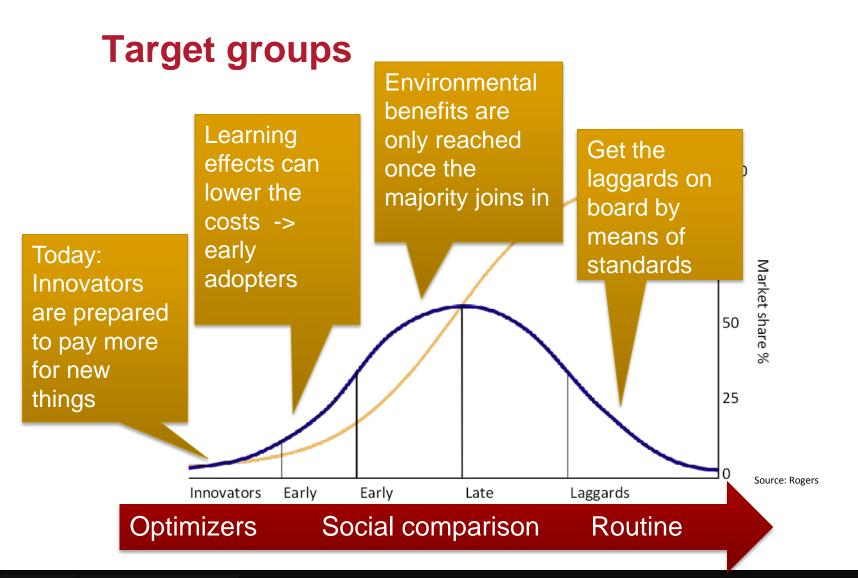


# **Driving behaviour**

- Weak relationship between attitude and actual behaviour
  - Attitude is a prerequisite
- Routines prevent changing behaviour
  - Avoid development undesired routines
- Feedback tools in cars as reinforcing factors
  - Use of colors

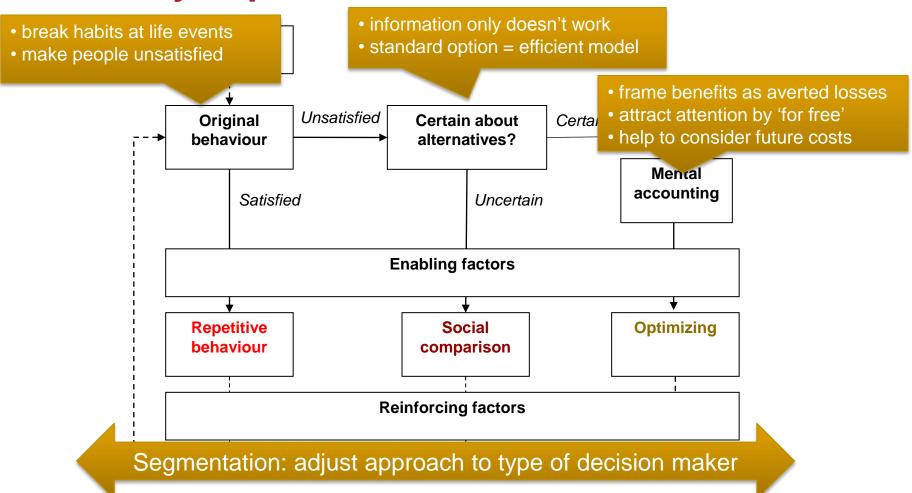








#### **Policy implications**





#### **Conclusions**

- Consumer decision-making key factor in policy effectiveness
- Take into account
  - dominance of routines
  - role of the social environment
  - difference between economic and mental accounting



"It's good, but what about tunnels and bridges?"



### Ongoing research

- Compare current policy with determinants in model
  - Ongoing project (client: EZ)
- Toolkit for policymakers



- Changing Behaviour (EU)
- Acceptance new technologies, e.g. EV, H<sub>2</sub>
  - Grid4Vehicles (EU)



- NextHylights (EU)



- http://www.ecn.nl/nl/units/ps/themas/transport/
- http://www.ecn.nl/nl/units/ps/themas/sociale-aspecten-van-energie-innovaties/



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# Thank you for your attention!

