

Making automated transport systems wanted by citizens: the last hurdle?

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Content of presentation

- Pulling the market: how?
- What want the EU citizen?
- The new EU transport White Paper
- Other supporting initiatives (UITP, local initiatives)
- Conclusions



Pulling the market

- Promoting automated transport means promoting a new form of PT
- Promoting PT means reducing car use
 - The recent take up of tramways in European cities has not been accompanied by a significant car use reduction
- Car use has increased by 30 % in the last 15 years
- Business-as-usual scenario tells car use will increase by 20-30% by 2025



Commuting as a main target?

- Commuting only 20-25% of all trips

But

- Commuting is a relatively « predictable » transport motive
- 2/3 of commuting done by private car and commuting means longer distance trips compared to other transport motives
- During peak hours, commuting represents about 40-50% of all car trips
(Work remains a structuring activity of daily mobility)

→ **Automated transport can bring benefits at peak hours when networks are congested**

→ **Automated transport's prime market introduction must concentrate on commuting**



Modal shift: who is concerned?

- 1/3 of households cannot do without a car (e.g. those living in peri-urban areas)
 - 1/3 cannot use/own a car (e.g. low-income households)
 - 1/3 can do with both car and/or PT
- ▶ Only 1/3 of households having a real modal choice
- ▶ *Increasing PT share means essentially addressing a limited target group of households who i.e. can afford a car and have easy access to PT*



Modal shift: factors of change

Two types of factors: practical and emotional

- **Practical:** convenience and quality
- **Emotional:** pleasure, self-image and prestige
- Most of the efforts so far on the practical factors



Modal shift: practical factors of change

- **Quantitative:** supply increase, diversification of routes, etc.
- **Qualitative:** comfort, common ticketing, on-site and on-line information, etc.
- If done in isolation, little impact on PT share
- Many ongoing efforts but they need to be dramatically expanded (e.g. satisfaction level of Brussels PT users equals 5.4/10)
- Free PT access is not a solution
- Recent Spanish study*: Resources must be directed at reducing waiting times and improving cleanliness and comfort

* Dell'Olio et al., The quality of service desired by PT users, Transport Policy. 18, 217-227



Why car users don't use PT (2011 Eurobarometer Survey)

- Most car users (71%) said that PT is less convenient than a car
- Several reasons not to take PT:

Lack of connections (72%)

Low frequency of services (64%)

Lack of reliability (54%)

Lack of information about schedules (49%)

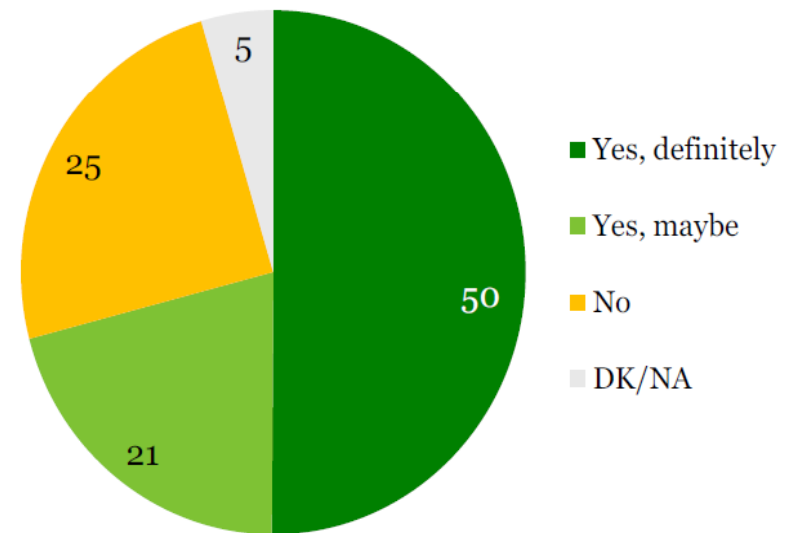
High costs (50%)

Security concerns (40%)



Single ticket covering all means of public transport (2011 Eurobarometer Survey)

- One in two EU citizens would use PT more often if a single ticket of the complete journey would cover bus, train or tram, etc.



Combining transport modes for car users (2011 Eurobarometer Survey)

- 65% of car users would combine different modes of transport if they could transfer easily between transport modes
- Better (online) information, attractive terminals and online ticket purchases would encourage about half of EU car users to use different transports instead of their car



Modal shift: emotional factors of change

What makes people, with free choice, using PT?

- Understanding these drivers to design the right instruments

Two key parameters that are determining factors of modal choice:

- **Habits**: Break habits to « decondition » the modal choice
- **Pleasure**: Create pleasure to make PT use as trendy and socially rewarding as e.g. owning an e-tablet

→ **Necessary to focus on the subjective determining factors to influence modal choice**



The new EU Transport White Paper

- A vision for the transport system of 2050
- One target (- 60% of GHG emissions) and ten indicative goals/benchmarks to guide policy action
- **Urban transport:**
 - halve the use of 'conventionally-fuelled' cars by 2030;
 - phase them out in cities by 2050



Other supporting initiatives

UITP

- Context: urban population from 50% (today) to 60 % (2030) with increasing congestion
- 2025: double PT share
- Five pillars to promote modal shift:
 - Adapt PT to modern lifestyle (wifi, ubiquitous information, etc.)
 - Innovative financing means
 - Convince local authorities
 - Efficiently manage the PT companies
 - Develop coordinated mobility policies



Other supporting initiatives

- **1986:** first Urban Road Pricing Scheme in Europe
 - Bergen (Norway), then Oslo and Trondheim
 - **objective:** to raise funds for road construction
- **2008:** around **10 Urban Road Pricing Schemes** in London, Stockholm, Milan, Rome, Bergen, Oslo, La Valetta, Durham (UK), Znojmo (CZ)
objective: to reduce congestion or to reduce environmental pollution, or both
- **Low or zero emission zones:** Milano, a few cities in Germany (through automatic Number Plate Recognition - ANPR), Paris?



Most effective demand measures to reduce car use?

Mixture of

- Pricing (taking equity factors into account)
- Low or zero emission zones
- Creating long term adhesion to PT through innovative communication/education/cultural measures



Conclusions

- **Automated transport cannot be developed in isolation:** necessary alliance with PT operators and city authorities, but also with service (ICT) providers and vehicle producers (i.e. automated transport as one transport means in the intermodality chain to “cover the last kilometre”)
- Pursue efforts on the « practical factors of change” (esp. on pricing and regulating low/zero emission zones)
- Invest new efforts on the “emotional factors of change” (involve social scientists in R&D and demonstration efforts)
- Long-term endorsement requires a substantial behavioural change: i.e. people to adhere to automated transport/PT because they really want it



What is the Flash Eurobarometer?

- Survey on current means of transport that EU citizens use on a daily basis
- Initiative of the DG Mobility and Transport in 2010
- 25.500 interviews in all 27 Member States (roughly 1000 interviews per country) conducted with citizens across all age



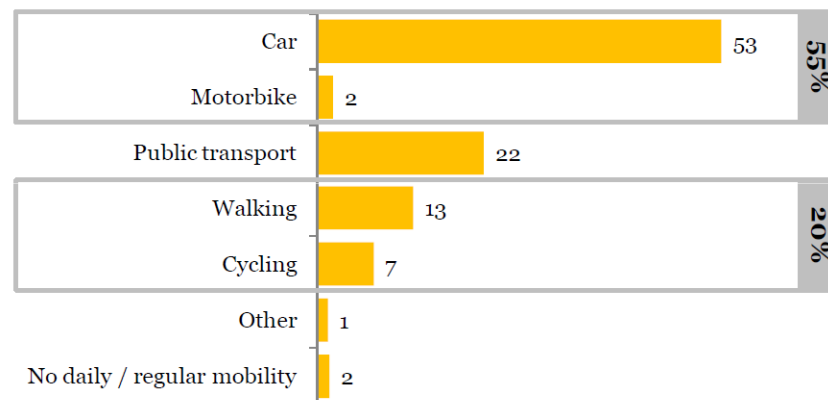
Content of the presentation

- **Main modes of transport**
- **Socio-demographic considerations**
- **Support for “pay-as-you-drive” schemes**
- **Concessions on emissions reduction**
- **Why car user don't use public transport**
- **Single ticket covering all means of public transport**
- **Combining transport modes for car users**



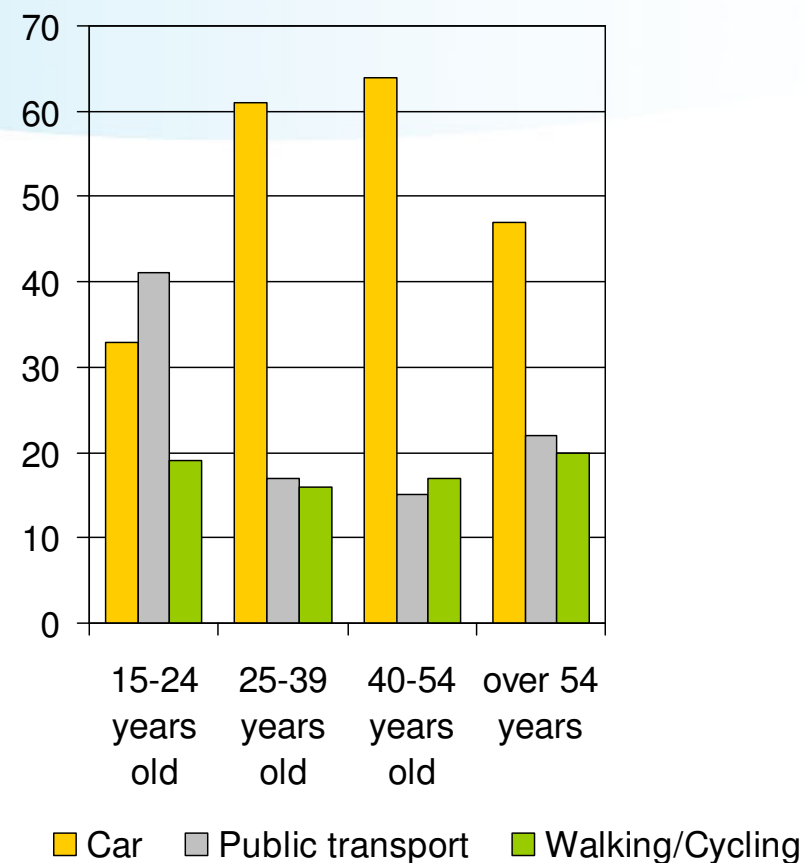
Main modes of transport

Half of EU citizens (53%) use a car as their main transport, whereas 22% use public transport and 20% take non-motorised transport



Socio-demographic considerations

- 62% of the citizens with a higher education prefer the car for every-day transport, in contrast to 42% of those with a lower education
- Generally, men tend to use the car more than women do (59% vs. 47%)
- Differences in transport modes across ages are evident



Support for “pay-as-you-drive” schemes

- Half of EU citizens agree to replace existing car charges through “pay-as-you-drive” schemes, which account the actual use of the car
- Support for “pay-as-you-drive” schemes was highest among men, 25-39 years old and respondents with a high level of education
- The highest level of support for these schemes existed in the Benelux-States, Italy and Cyprus



Concessions on emissions reductions

- The majority of EU citizens (60%) are likely to compromise on car characteristics such as speed, size, range and costs to reduce emissions
- While most respondents would agree to reduce speed, the purchase price was the least to be agreed upon

