URBAN TRANSPORT PERFORMANCE AND POLICY: RESULTS OF A EUROPEAN PUBLIC PERCEPTION SURVEY

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ABSTRACT SUMMARY

The paper presents the results of a public perception survey of citizens in urban areas across the EU-15. It illustrates how effective and successful the public perceive urban transport policies to be, and where their concerns and priorities lie.

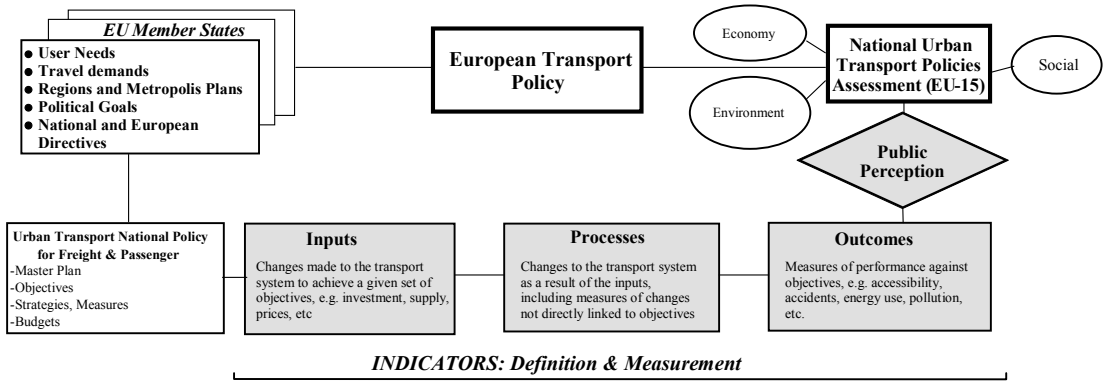
1. INTRODUCTION

This paper describes the findings of a public perception survey conducted on 3000 people in the 15 “old” EU Member States. This survey was carried out as part of the “National Policy Frameworks for Urban Transport” (NPF-Urban Transport) project.

NPF-Urban Transport is a three-year study contract for the European Commission, DG-Energy and Transport (DGTREN), running from 2003 to the end of 2005. The project involves the collection of data to provide a comparative analysis on the performance of urban transport policies in each of the EU-15 (the 10 New Member States were not included in the project brief, as the study commenced before the 2004 EU formal enlargement).

The project covers inputs (such as investment, public transport supply and out-of-pocket travel costs), intermediate outcomes or processes (such as passenger-km by mode) and final outcomes (related to safety, pollution, energy use and economic issues). The focus is on analysing differences between these at a national level and national data is used wherever possible.

The following figure shows the main elements within the project.



Overall Project Framework

(Note: the shaded boxes represent elements within the NPF-Urban Transport project and the white boxes represent external elements)

The two strands of the project concern the collection of statistical data in each of the 15 countries for a number of indicators developed, and the collection of attitudinal data to analyse how citizens perceive urban transport performance and policy in their country. This second strand of the project is the subject of this paper.

The overall terms of reference for the public perception survey, specified by DGTREN, were that a questionnaire be developed to test public perception of "around eight" indicators, and that 200 questionnaire interviews be conducted in each of the 15 countries.

2. QUESTIONNAIRE DEVELOPMENT AND FIELDWORK

In order to provide greatest consistency between countries and to maximise efficiency, it was decided to administer the questionnaire by telephone interview and to contract an international market research company to undertake the required fieldwork. It was therefore necessary to bear in mind while developing the questionnaire that:

- The questionnaire should be kept brief, ideally 7 or 8 minutes, and no longer than 10 minutes, in order to avoid "interview fatigue" (respondents terminating the interview before completion);
- The questionnaire would need to be translated into the national language(s) of each country covered, therefore wording should be kept as simple and clear as possible;
- As different levels of government are responsible for different urban transport functions in each country, questions should not relate to any particular type of administration (city council, county, province, region, etc), but use wording such as "the authorities responsible for (roads, public transport, etc) in your city". Indeed many people do not know who is responsible for what regarding urban transport in their country: the objective is not to test this but to obtain people's perceptions on transport-related outputs and outcomes.

The questionnaire was developed by the project with the assistance of (and validation by) an Advisory Group of six external experts from relevant European and national organisations, as well as DGTREN.

The questionnaire comprised three main parts,

- A factual part, in order to obtain basic information about the respondent (age, transport modes used, etc);
- A perception part, in order to gauge perceptions of problems and levels of satisfaction;
- A policy part, in order to seek views on spending and revenue sourcing for urban transport.

Questionnaires were stratified by sex (50/50) and into three broad age groups (under 25, 25-59 and 60 or over), with the same number of men and women in each age group interviewed per country. A number of random large towns and cities were chosen as sample points in each country (for the larger countries, 10 sample points with 20 interviews each, for smaller countries there were fewer sample points with more interviews in each one) and telephone directories for these cities were used.

Respondents were asked what modes of transport they regularly use (once a week or more) in their city. Several responses were allowed, as the aim was not to identify a "main mode" or determine modal split, but to compare respondents' responses to the remaining questions to their modal experience. As most urban-dwellers use more than one mode of transport, it is important to reflect this rather than labelling each respondent to a single mode.

The perception part of the questionnaire included three main questions, concerning:

- Whether the respondent sees (a) congestion; (b) traffic accidents; (c) air and noise pollution by transport and (d) petrol and diesel use by transport as a serious problem, a slight problem or not a problem in their city[1];
- Whether the respondent is satisfied, dissatisfied or neither with their national government's performance in addressing the above four issues;
- Whether the respondent is satisfied, dissatisfied or neither with the following aspects of public transport in their city: (a) reliability; (b) frequency and network coverage; (c) level of personal security and (d) overall level of public transport service.

The third part of the questionnaire, dealing with policy issues, comprised two main questions:

- Whether the respondent would like to see, over the next five years, the responsible authorities spending more, the same as at present or less, on the following in urban areas: (a) improving existing roads; (b) building new roads; (c) improving existing public transport services; (d)

[1] Part (d) of the question (petrol and diesel use by transport) related to all levels, not just within the respondent's city.

building new public transport infrastructure; (e) improving provision for walking and cycling. The respondent was also asked to give the first and second most important priorities for spending out of the above.

- If additional funds for transport investment were needed in the respondent's city, would the respondent prefer that revenue be raised by general taxation or by targeted taxation/pricing of those contributing more to pollution or congestion? For those preferring targeted taxation/pricing (or a mixture of general and targeted), a supplementary question was asked, whether they prefer to see higher parking charges, an urban road toll, or another way of raising targeted revenue.

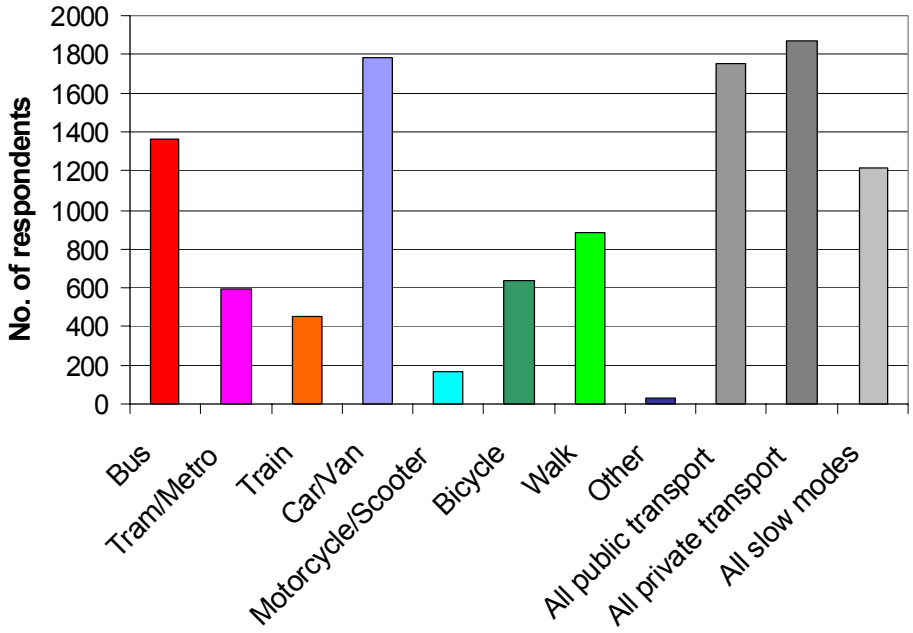
Finally, respondents were invited to make any other comments.

The fieldwork was completed in June 2004 by an international market research company. Native speakers of all eleven EU-15 official languages, based in a single location, administered the questionnaire for each country. Over 9000 attempted telephone calls were made in order to secure the 3000 successful interviews (about 3300 calls resulted in no connection, no reply or an answer-phone, and the most of the remainder were invalid due to not being a private household, no adult being at home, or the respondent being outside the sex/age quota). Of the successful contacts with an eligible potential respondent established, only 12% refused (558 refusals plus 15 premature terminations). Interviews were conducted on weekday evenings and Saturday afternoons.

3. PROFILE OF RESPONDENTS

A control question asked what mode or modes of transport the respondent uses within their urban area at least once a week. There was no limit to the number of modes that could be specified: the aim of the question was not to determine modal split, but to measure "experience" of each mode.

The figure below shows the transport modes quoted by respondents (at an EU-wide level).



Modes of urban transport used by respondents (EU-15 country average[2])

4. PERCEPTION OF URBAN TRANSPORT ISSUES

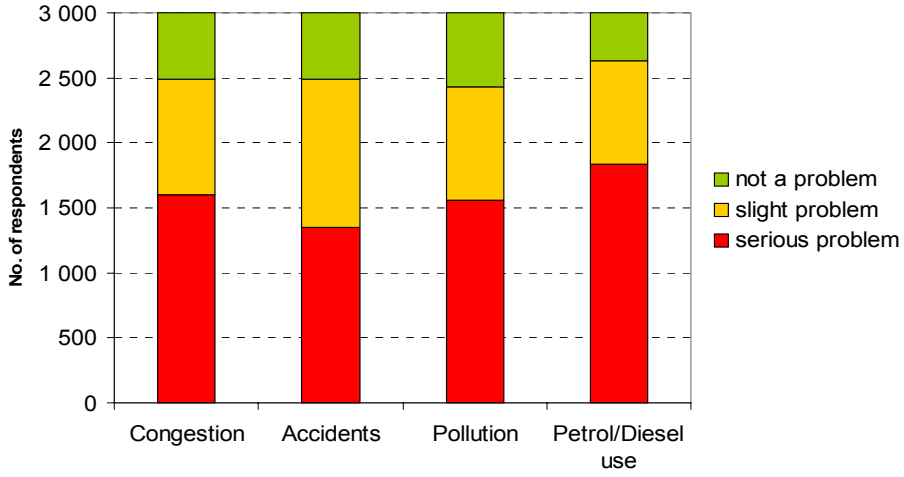
4.1 Opinions on Congestion, Accidents, Pollution and Petrol/Diesel Use

This question asked for each of the issues below, whether the respondent considered it a serious problem, a slight problem or not a problem:

- Traffic congestion in respondent's city;
- Accidents caused by traffic in respondent's city;
- Air and noise pollution caused by traffic in respondent's city;
- Current rate of petrol and diesel use by transport at all levels (not just in respondent's city).

The following figure summarises the responses at the EU-15 level. For each issue, respondents who consider it a serious problem form the largest single group, and are the majority of respondents for all the issues except for accidents. Petrol/diesel use comes first (61% consider this a serious problem), followed by congestion and pollution. Accidents are regarded as a serious problem by the least number of respondents (45%).

[2] Note that in the above graph, and in subsequent graphs, the total figures are for all 3000 respondents. This is not an EU-15 average, as that would imply weighting each country by its population (or urban population). It comprises 200 persons per country, so for example Germany and Luxembourg are weighted equally: it is therefore a "country average" rather and a European average.



Perceptions of transport problems (EU-15 country average)

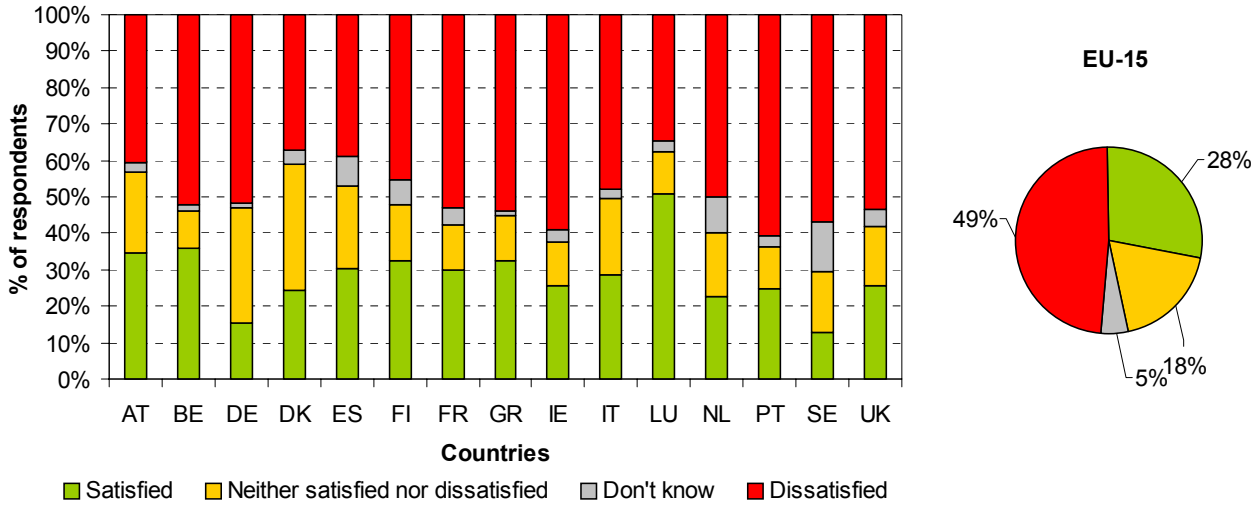
Some comparison can be made with a Eurobarometer survey[3] in 1991 in which over 13000 respondents in the then EU-12 were asked whether they considered the consequences of car traffic in urban areas "unbearable" or "hardly bearable". Almost 60% considered car traffic in urban areas in this way, slightly higher than the average that consider congestion, accidents and pollution a serious problem in the NPF-Urban Transport survey.

4.2 Level of Satisfaction with National Government on Congestion, Accidents, Pollution and Petrol/Diesel Use

This question asked whether respondents were satisfied, dissatisfied or neither with the way the national government in their country is tackling the four issues above. Only one response was allowed for this question: respondents were not asked for their level of satisfaction separately for each of the four issues mentioned, just a single global response.

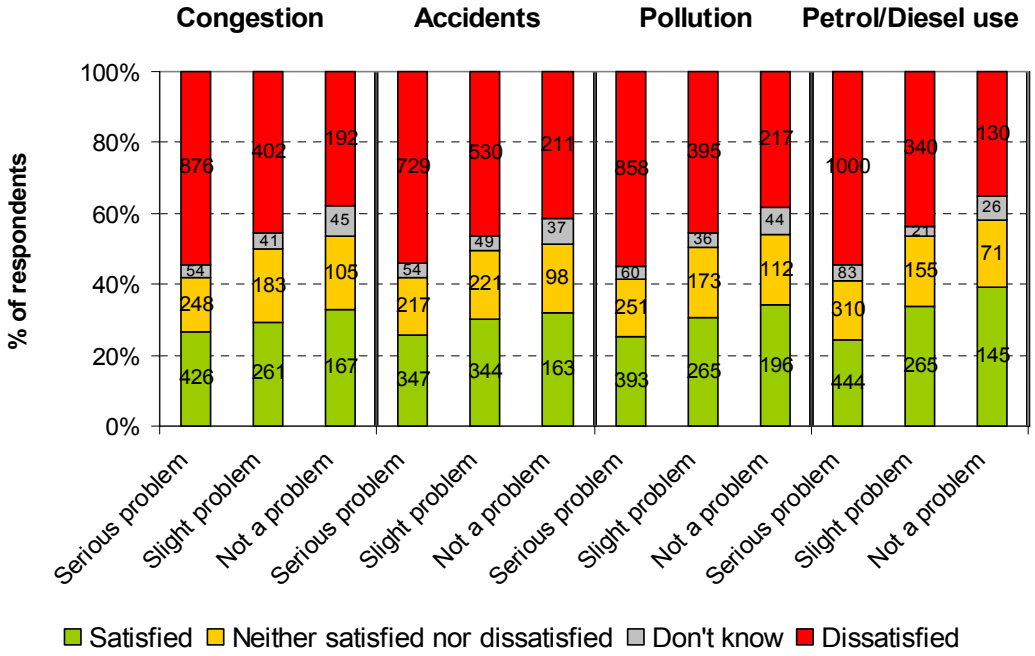
Almost half of the European population interviewed (49%) stated that they were dissatisfied with the ways their national governments deal with problems caused by traffic, and only 28% of respondents said they were satisfied, the remainder being neither satisfied nor dissatisfied (18%), or unable to answer (5%). Significant differences between countries were evident, as shown in the figure below.

[3] Eurobarometer 35.1: European Attitudes towards Urban Traffic Problems and Public Transport" – see ref. 1 of bibliography..



Level of satisfaction with the ways national governments are tackling transport problems (by Member State and EU-15 country average)

Levels of satisfaction with governments were also measured according to respondents' perceptions of the four issues. This was to ascertain whether people who considered congestion, accidents, pollution or fuel use to be serious problems were generally more satisfied or less satisfied with their governments' handling of these than respondents who did not consider them to be problems. Results are shown in the following figure.



Level of satisfaction with the ways national governments are tackling transport problems, by perception of seriousness for each issue (EU-15 country average)

There is an almost identical pattern across the four issues, with respondents citing them as serious problems more inclined to be dissatisfied with their governments' handling of them. Between 24% and 27% of these respondents (depending on the issue concerned) were satisfied with their governments and 54 to 55% were dissatisfied. The respective rates for respondents who perceived the issues to be a slight problem were 29 to 34% satisfied and 43 to 46% dissatisfied.

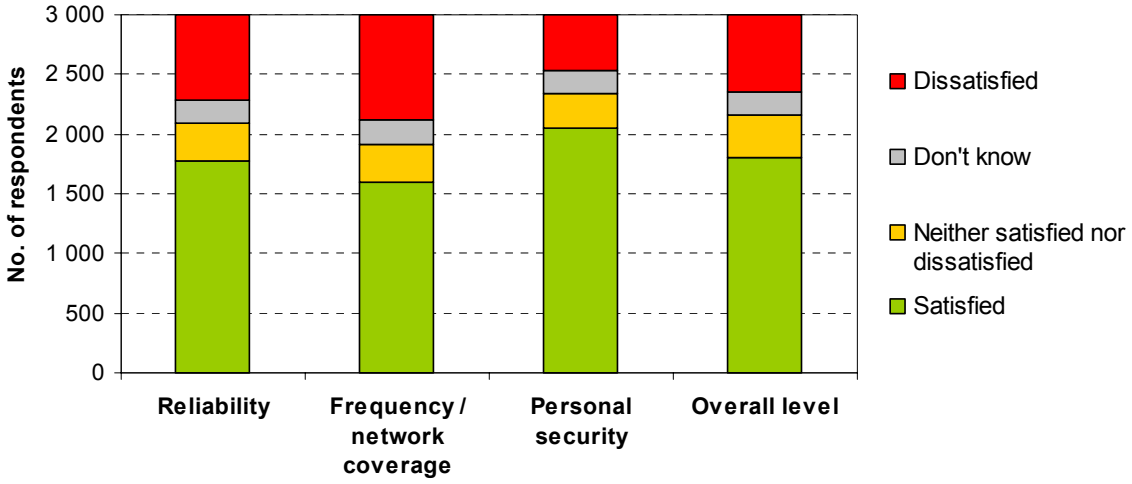
4.3 Satisfaction with Public Transport in Respondent's City

This question asked respondents whether they were satisfied, dissatisfied or neither with four aspects of public transport in their city:

- Reliability;
- Frequency and network coverage;
- Level of personal security;
- Overall level of satisfaction with public transport.

The question made no distinction as to whether the respondent was a public transport user or not, as this information is in the modal use question at the beginning of the questionnaire.

Overall, respondents appeared to be satisfied with their local public transport services (see figure below). At the EU-15 level, over 50% of respondents were satisfied on all four criteria, the greatest satisfaction level being for personal security (68% satisfied and 15% dissatisfied) and the least being for frequency and network coverage (53% satisfied and 29% dissatisfied).



Levels of satisfaction with public transport (EU-15 country average)

In terms of satisfaction with public transport according to modes used, it was found that users of public transport are more likely to be satisfied than non-users. The least satisfied group are those who use cars and/or motorcycles only and those who walk and/or cycle only, although even for these groups, there are more satisfied respondents than dissatisfied ones. Interestingly, people who use a mix of public transport and other modes (car, walk, cycle) are generally more satisfied with public transport than those who use public transport only. It can thus be inferred that people who have access to a car,

but choose to use public transport for some trips and their car for others, are more satisfied than those who use public transport only, most probably out of necessity because they do not have a car.

For users of different public transport modes, it was found that train users were slightly more likely to be satisfied than bus users, and bus users were more likely to be satisfied than tram or metro users. As most train users also use other modes, this reinforces the likelihood that satisfaction with public transport is greater among those who use a variety of different modes on a regular basis, possibly because such people have a choice and decide on the most appropriate way of travelling for each trip.

5. OPINIONS ON SPENDING PRIORITIES AND POLICIES TO RAISE REVENUE

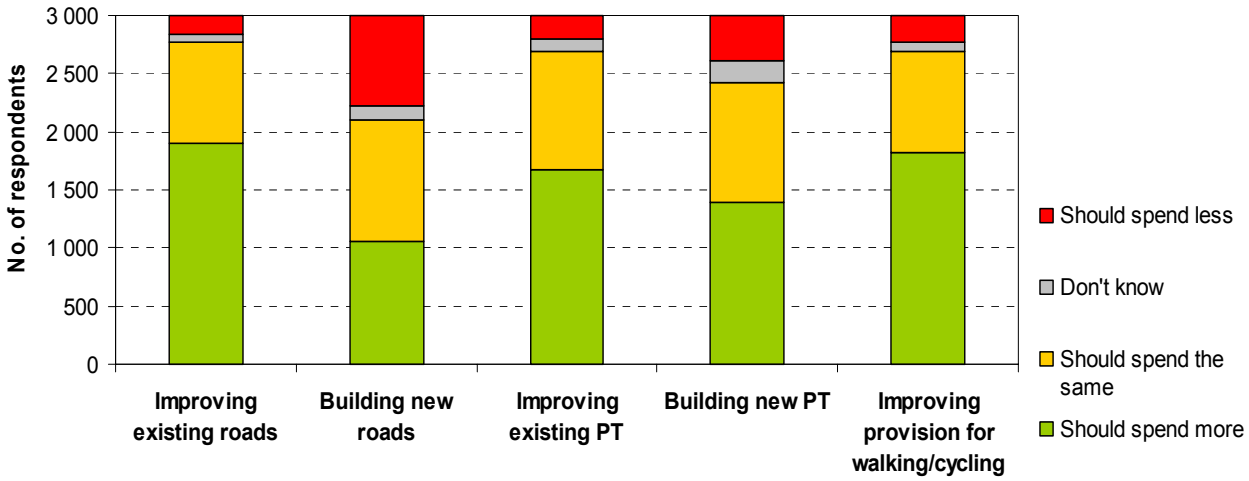
5.1 Opinions on Spending Priorities

This question aimed to gather views on whether public authorities (at all levels) have got their spending priorities right. It asked whether respondents feel that the authorities responsible for transport should spend more, less or the same over the next five years on the following:

- Improving existing roads;
- Building new roads;
- Improving existing public transport services;
- Building new public transport infrastructure;
- Improving provision for walking and cycling.

In all cases, more people wished to see spending increased than decreased. At the EU-15 level, the most popular areas for spending were improving existing roads (63% wanted more spending and only 5% thought that spending in this area should be reduced). This was followed by improved provision for walking and cycling (61% for more spending and 8% for less), and improving existing public transport services (56% for more spending and 7% for less).

The least popular option for increased spending was building new roads, where only 35% wanted to see spending increase, about the same number wanting it to remain the same, and over a quarter of respondents wanting spending to be reduced in this area.



Opinions on transport policy issues (EU-15 country average)

There was no great difference between opinions on road investment by city size, but more respondents from large cities (over 1 million population) favoured increased public transport and walking/cycling investment than in smaller urban areas. Support for more spending on roads was strongest in Greece and Ireland, as was support for increased public transport spending. General opinion in Germany, Austria and Finland was in favour of less spending on new roads.

In the above analysis, it must be considered that some respondents (15% of the total) wanted more spending on everything, so their relative priorities were also asked. The most popular top priority for spending was on improving existing roads (first priority for 45% of respondents), followed by walking and cycling investment.

However, taking respondents' top two priorities, existing roads still comes first, but by a smaller margin, and the next most popular is improving existing public transport services, followed by walking and cycling as the third priority. More than half of respondents mentioned one of these three as one of their top two priorities. On the other hand, less than half mentioned new construction (roads or public transport systems) as either a top or a second priority for spending.

Some comparison can be made with the 1991 Eurobarometer survey in which respondents in the then EU-12 were asked whether building new roads was a suitable remedy for urban congestion. 59% felt that new urban roads were an effective solution, against 29% who did not. This however masked significant differences between countries. Over 70% of Dutch and Danish respondents in the Eurobarometer survey considered new urban roads were not a solution. In the NPF-Urban Transport survey, the greatest numbers of Dutch and Danish respondents felt that spending on new roads should remain the same, with the next biggest group supporting increased spending in this area. The countries in the NPF-Urban Transport survey which were most in favour of reducing spending on new roads, Austria and Finland, were not included in the Eurobarometer survey, as they were not in the EU at the time. Strongest

support for new roads in the Eurobarometer survey was found in Italy and Portugal (82% support), Greece (74%) and France (73%). Greek support for new roads is mirrored in the NPF-Urban Transport survey, whereas in the other three countries mentioned, support is greatest for spending to remain at current levels, with the number of Italian and Portuguese respondents wanting increased expenditure on this being at the EU-15 average, and the number of French respondents in favour of new roads is below the EU-15 average.

The spending preferences in the NPF-Urban Transport survey were analysed in terms of respondents' perceptions of urban transport problems. A full analysis is not given here as it is rather complex, however in brief, it was found that respondents who consider congestion or accidents to be a serious problem were more likely to desire increased spending in all five areas. However, even among those who do not consider congestion to be a problem at all, 61% wish to see more money spent on improving existing roads (against 64% of those who consider congestion to be a serious problem).

For respondents who consider pollution to be a serious problem, a different picture emerged, with these people much more likely to desire increased spending on existing and new public transport services and on walking and cycling facilities. Differences between people wanting more or less spent on existing or new roads are not significant between those considering pollution to be a serious problem and those for whom it is not a problem.

Respondents' use of different modes of transport also had some impact on their opinions on authorities' expenditure and policy priorities, the most marked differences being views on increasing or reducing expenditure on new roads: 40% of motorcyclists and 36% of car users wish to see more spending on new roads, compared to 33% of bus users, 26% of tram/metro users and 24% of train users. Among users of buses, trams/metro, trains and bicycles, more wish to see spending on new roads reduced than increased. Car users were slightly more likely than public transport users to advocate more spending on existing roads, while bus, tram and metro users (but not train users) were more likely than motorists to support more spending on existing public transport. Walkers and cyclists were also more likely to support more spending on walking and cycling facilities than other respondents, although the difference was only slight.

Finally, there was no noticeable "trade-off" in spending, i.e. people wanting more spending on one thing and less on another. Rather, people who wish to see more spending in one area (e.g. existing roads) are more likely to also desire increased expenditure in other areas (public transport and walking/cycling).

5.2 Opinions on Raising Revenue for Transport Spending

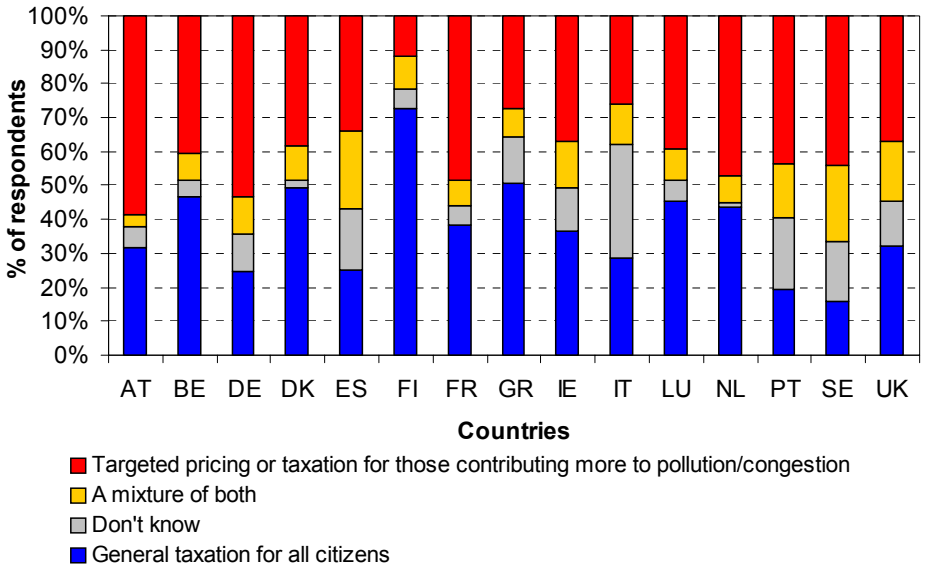
Given that it was expected that most respondents would advocate more public spending, the next logical question is where the additional funds should come from. This question therefore asked which policy would be the best way to

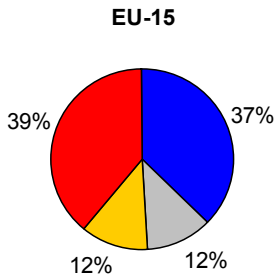
raise the money, if additional funds for transport investment were needed in the respondent's city. Two options were given:

- To get the money from all citizens by general taxation;
- To get it from those contributing more to pollution and/or congestion by targeted pricing or taxation.

In addition, the responses "a mixture of both these options" and "don't know" were accepted, although they were not read out.

The split between respondents favouring general taxation and those favouring targeted taxation or charging was remarkably even, at 37% of respondents across the EU-15 for the first option and 39% for the second. The remaining 24% were evenly split between preferring a mixture, and "don't knows". However, this evenness at European level masks significant differences between views in the different Member States, shown in the following figure. For example, a majority of Austrians and Germans favoured targeted taxation or pricing, while a majority of Finns and Greeks favoured general taxation.





Opinions on raising funds for transport spending (by Member State and EU-15 country average)

The second part of the question asked (only for those opting for targeted pricing/taxation or a mixture of targeted and general taxation) which method of targeted pricing they would prefer. The options given were:

- Higher parking charges;
- A road charge or urban toll;
- Another way (specify).

Again, "a mixture of these" or "don't know" were accepted as responses, although not read out.

More than twice as many preferred road user charging or tolling to parking prices at the EU level. 16% of respondents who were asked this question opted for higher parking charges and 37% opted for an urban road user charge. A further 16% suggested a mixture of these, 21% chose another way and 10% did not know.

Many of the "other ways" mentioned were not concerned with revenue raising, e.g. "reduce traffic", "better parking facilities", "free travel on urban public transport", "improved public transport" and "educate the population". These were mentioned by 115 of those preferring "another way". Of the miscellaneous opinions which could actually raise revenue, the main ones were:

- Fuel taxes, car taxes and taxes on the automobile industry: 70 respondents;
- Better management of existing funds, reduce wastefulness: 65 respondents;
- Distance-based taxation for motorists (possibly on a nationwide basis, as otherwise this would be the same as an urban road charge): 31 respondents;
- Road use charges for foreign vehicles or transit traffic: 24 respondents;
- Road tolls for lorries and freight transporters: 20 respondents.

6. CONCLUSIONS

This exercise provided an interesting snapshot of public perception towards urban transport problems, issues and policies in Europe. It must be emphasised that this public perception survey does not provide a statistically-representative picture of urban population's concerns and opinions for each Member State due to the low numbers sampled (200 per country), the use of telephone interviews with their bias towards respondent accessibility, availability and limited interview lengths, and also due to the different selection of cities in each country.

However, at an EU-15-wide level, with 3000 responses, the data provides a first attempt to place user-oriented urban transport issues within a pan-European context, despite the contextual variances in urban areas within and between the Member States. The exercise can be seen as an "eye-opener" for problems and priorities perceived on a broad-basis by the public within a pan-European survey context.

This public perception exercise can be useful to national urban policy making bodies within the Member States in order to assess how well their policies are received and what are the problems, priorities and issues seen by their urban populations with respect to their own national urban transport policy framework. In essence, national authorities should not only focus on budgets, process and outputs (lane-km built, public transport line operations, etc); national urban transport policies should be oriented also towards the outcomes (mobility, accessibility, environment, etc) and how the urban population perceives the outcome of their policies and measures.

It is also important to note that urban transport policy making at the national level differs in functions and scope among Member States, with the majority of respondents' focusing on urban transport problems and issues in their own urban areas, rather than the urban transport issues from a national perspective.

Key conclusions at the European level are:

- A majority of respondents consider congestion, accidents and pollution in urban areas to be a problem, and in around half of cases, a serious one. Less than 20% are unconcerned about these issues.
- Regarding the use of fossil fuels (petrol and diesel) in transport (at a national level), almost 88% consider this a problem (and most of these consider it a serious problem).
- Most respondents were dissatisfied with the way their national governments are tackling the above issues: only 28% were satisfied with their governments.
- Most respondents were however satisfied with public transport in their city, even those who do not actually use it. Levels of personal security gained the greatest satisfaction. Overall satisfaction with public transport exceeded satisfaction with its reliability, frequency and network coverage.
- A significant majority of European respondents (over 60%) felt that the authorities responsible for transport should spend more over the next five years on improving existing roads and on provision for walking and cycling. 56% wanted to see more spending on existing public transport services and 47% wanted more spending on new public transport infrastructure. Only 35% wanted more spending on new roads and a similar number wanted to see spending on new roads reduced.
- In terms of raising additional revenue for transport investment, the Europe-wide split of those favouring general taxation and those favouring targeted pricing or taxation (e.g. parking charges or urban road tolls) is remarkably similar (37% and 39% respectively). 12% favoured a mixture and 12% did not know. However, these figures mask significant differences between individual countries.
- Of those who supported targeted pricing or a mixture of both (39+12 = 51% of respondents), 37% preferred an urban road pricing solution, 16% preferred higher parking charges and 16% supported a mixture. 21% supported another way, such as higher fuel taxes or increased efficiency within public administrations. Note that these figures may well be influenced by the fact that urban tolling and parking charge increases were the only two specific options put to the interviewees, in addition to " mixture" or "another way".
- Opinions do not vary significantly between age groups and sex, but do vary according to the modes of transport used in a typical week and the country of residence of the respondent.

Finally, it should be remembered that expectations and circumstances differ between countries and possibly between other groups (age, etc). Therefore degrees of satisfaction and dissatisfaction do not necessarily reflect good or bad policies or transport systems, and opinions in favour of less spending on

certain aspects of urban transport may be because recent spending (e.g. on a major investment) has been high and future investment will not need to be sustained at this level.

For further information on the NPF-Urban Transport project, to contact the project team, or to download the complete survey report, visit www.npf-urbantransport.org

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