



**Report on Task 16:  
A Report on the City Survey**

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# Preface

PROSPECTS (Procedures for Recommending Sustainable Planning of European City Transport Systems) is a project funded under the European Commission's Environment and Sustainable Development Programme. It is designed to provide cities with the guidance they need in order to generate optimal land use and transport strategies to meet the challenge of sustainability in their particular circumstances. The PROSPECTS consortium is led by ITS, University of Leeds and includes the partners TUW (Vienna), TØI (Oslo), KTH (Stockholm), UPM (Madrid) and VTT (Helsinki).

This note contains the report on task 16 of PROSPECTS, for which ITS has had responsibility. It is not a part of the formal deliverables of the project. The report was written by Bryan Matthews and Tony May. All PROSPECTS partners have contributed to the work on the task. Mary Huby has provided secretarial services.

We gratefully acknowledge national financing to ITS' work in PROSPECTS by the UK Department of the Environment, Transport and the Regions (DETR). We would also like to thank representatives of planning authorities and politicians in the 60 cities who responded to the survey for their contribution. However, the conclusions drawn are not necessarily those of the surveyed cities.

Leeds, February 2001  
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# Summary

The report presents the results of Task 16 - the City Survey - of the first work package of the project PROSPECTS: Procedures for Recommending Sustainable Planning of European City Transport Systems. It seeks to 'test' ideas, developed in close collaboration with six Core Cities: Edinburgh, Helsinki MA, Madrid, Oslo, Stockholm, and Vienna, with a larger group of cities throughout Europe. Surveys were sent to 115 city authorities, from which we received 60 responses. Of the 60 cities who responded, 37 expressed their interest in participating in a City User Group email network as a way of continuing their involvement in the project.

The review of decision-making processes has demonstrated that they are complex, and differ considerably from one city to another. For most attributes, there are differences between cities of differing size and between cities from different regions of Europe. Whilst the survey suggests that there may be scope for identifying alternative definitions of sustainability, there was a good general degree of consensus with our working definition. Our survey has also demonstrated a strong consensus with regard to the sub-objectives which underpin sustainability, with the past trend factors and future scenario attributes which have been and will be important, and with the policy measures and barriers which have the most influence. Nevertheless, we have also been able to identify the ways in which the importance of the identified objectives, scenario attributes, measures and barriers vary by type of city.

The results provide a valuable structure for our further work in the project. However, there are four areas which have been highlighted on which there is still some considerable uncertainty:

- which decision-making structures work best, or are most appropriate in different circumstances;
- what list of indicators, to be used in assessing performance against objectives, would be fully acceptable to European cities;
- what role should scenario planning have in strategy formulation; and
- what are the best ways of combining policy instruments as part of an integrated strategy.

All of these issues will be pursued further in later stages of the study.

## **1. Introduction**

### **1.1. Aim and methodology**

In Tasks 11-15 we developed, in consultation with our Core Cities (Edinburgh, Oslo, Stockholm, Helsinki, Vienna, Madrid), our ideas on an overarching sustainability objective and six key sub-objectives (Minken, 2000); the key attributes of past trends and future scenarios (Ramjerdi, 2000); a list of potential policy measures (May and Matthews, 2000); a summary of approaches to decision making (Jarvi-Nykamen, 2000) and a categorisation of the main barriers to the implementation of policy measures (Monzon, 2000). The PROSPECTS city survey in Task 16 was designed to assess how transferable the results from Tasks 11-15 were, and to obtain a wider range of views of cities throughout Europe. To this end, a survey was carried out amongst a structured sample of European cities, incorporating a questionnaire and project findings summary note.

The questionnaire was designed to be answered relatively quickly by the respondents, and was therefore kept brief and focused on the key issues from Tasks 11 to 15. It consisted in total of a set of twenty questions, addressing in turn the issues considered in sections 3-7. Where possible, questions were designed to be answered by ticks and crosses, to limit the problems of interpreting text answers in a range of languages. To provide more detail, a three page summary was provided of the results from the consultations with the Core Cities, with the sections in the summary presented in the same order as, and cross-referenced with, the survey questions. To assist respondents, the questionnaire, which was initially composed in English, was subsequently translated into French, German, Italian and Spanish. A copy of the questionnaire and summary of city characteristics is provided in Appendix I.

### **1.2. City sample**

A structured sample was selected of cities in all the European Union countries, together with Norway, Switzerland and the Accession Countries. The intention was to select a sample of cities in the population range 20,000 to 2,000,000, thus excluding only the very largest cities, which can be expected to have rather different needs. The sample size was related broadly to the country's population, with between three and ten cities, depending on size, for EU members, Norway and Switzerland, and between two and five for the Accession Countries. In practice the upper bounds were relaxed in a few cases where other cities were keen to contribute. An attempt was also made to provide a geographical coverage of each country, and to include both economically buoyant and economically deprived cities in the sample. Subsequently, for completeness, the Core Cities were also invited to complete the questionnaire.

As shown in Table 1, in total, questionnaires were sent to 109 cities plus the 6 Core Cities. By the end of November 2000, responses had been obtained from 54 cities plus the 6 Core Cities, as also shown in Table 1. Thirty-seven of the 54 cities expressed an interest in continuing to be involved with the project via an on-going email network. Further responses are being encouraged, and the results will be updated at a later stage in the project as a sequel to this report.

**Table 1** Wider city survey.

Country	Questionnaires sent	Responses received	Country	Questionnaires sent	Responses Received
Austria	5+1	2+1	Latvia	2	0
Belgium	2	1	Lithuania	2	2
Bulgaria	3	2	Poland	5	2
Czech Republic	5	1	Portugal	5	2
Denmark	3	0	Netherlands	3	0
Estonia	2	0	Norway	4+1	3+1
Finland	2+1	2+1	Slovakia	2	0
France	9	9	Slovenia	2	0
Germany	10	3	Spain	11+1	10+1
Greece	4	0	Sweden	5+1	3+1
Hungary	5	0	Switzerland	2	2
Ireland	2	2	UK	10+1	7+1
Italy	4	1	<b>Total</b>	<b>109+6</b>	<b>54+6</b>

Table 2 summarises the details of the 54 survey cities from whom responses were obtained, by size and location. The respondents represent a cross-section of sizes, with 26% from small cities of under 100,000, 37% from medium sized cities, and 35% from larger cities of over 250,000. While most of the responses were from western cities, with 46% from northern countries, and 41% from southern ones, 13% were from eastern accession countries. With regard to the core cities, all 6 are larger cities and 5 out of 6 are from northern Europe. The full list of cities is given in Appendix 2.

**Table 2** Characteristics of survey cities

	Less than 100	100-250	Greater than 250	NS
Eastern	2	1	4	0
Northern	8	10	7	0
Southern	4	9	8	1

Tables 3 and 4 summarise the population growth and economic activities details for the 54 survey cities. Along with Table 2, they indicate that our survey response covers a good range of different city types. With respect to the core cities, in the main they are experiencing moderate population growth but with one city experiencing low growth and another whose population is falling. The main economic activities cited by the core cities are (multiple responses from each city): services (4 cities); finance (3 cities); tourism (2 cities); information technology (2 cities); and capital functions, head offices, trade and university (mentioned by one city, but relevant to all).

**Table 3** Population growth in survey cities

Nature of growth	Number of cities
Falling	15
Steady	4
Low	14
Moderate	19
High	2

**Table 4** Economic activities of survey cities (multiple responses from each city)

Activity	Number of responses
Services	34
Tourism	16
Industry	10
Manufacturing	9
Finance	7
Education	4
Information technology	3
Administrative	2
Agriculture	2

## 2. The Decision-Making Process

### 2.1. Responsibilities

Table 5 shows the areas of policy responsibility amongst our survey cities. It can be seen that in all our survey cities there is some division of responsibility across the different policy areas. Considering each policy area individually, significant proportions of the survey cities have exclusive responsibility for land-use (67%) or for traffic management (50%); and have joint responsibility for road building (69%), for public transport infrastructure (59%) or for information provision (54%). Almost half of the cities (48%) stated that public transport operations were not their responsibility, whilst a significant minority of cities (34%) stated that pricing measures were not their responsibility. However, when considering the policy areas together it is apparent that there is much diversity in the precise mix of responsibilities amongst our survey cities, making it difficult to identify any particular patterns. For example, despite the patterns of responsibility identified above, only 13% of cities have exclusive responsibility for land-use, exclusive responsibility for traffic management, joint responsibility for road building and joint responsibility for public transport infrastructure.

**Table 5** Responsibilities in survey cities (number of cities)

Measure	Your Responsibility	Joint Responsibility	Other's Responsibility
Land-use	36	17	1
Road building	9	37	8
Public transport infrastructure	14	32	8
Traffic management	27	23	4
Bus and rail operation	6	22	26
Information provision	13	29	12
Pricing *	11	22	18

\* three cities did not respond

Disaggregating by region of Europe, our survey suggests that there are some differences in the responsibilities of cities from northern, southern and eastern Europe. Firstly, a greater proportion of eastern cities have sole responsibility for road building than do northern or southern cities (57% as against 12% and 9%). Whilst similar proportions of northern and

southern cities have sole responsibility for road building, a greater proportion of northern cities have joint responsibility than do southern cities (84%, as compared with 64%). Secondly, a greater proportion of eastern cities have sole responsibility for public transport infrastructure than do northern and southern cities (71% as against 16% and 23%). A greater proportion of northern cities have joint responsibility for public transport infrastructure than do southern cities (72% as against 55%). Also, 60% of northern cities stated that public transport operations were the responsibility of others, as compared with 45% of southern cities and only 14% of eastern cities. The patterns for land-use, traffic management, information and pricing responsibilities are very similar across cities from the three different regions.

The pattern of responses relating to responsibilities was remarkably similar between small, medium-sized and larger cities.

Table 6 summarises that extent to which individual policy areas are the sole responsibility of the core cities. In most cities, land use and traffic management are the sole responsibility of the city, perhaps with other agencies having a minor role. Conversely, infrastructure projects are predominantly the responsibility of others. Bus and rail service levels, information and pricing are shared in different ways in different cities.

**Table 6** Responsibilities in core cities

(E = Edinburgh, H = Helsinki, M = Madrid, O = Oslo, S = Stockholm V = Vienna)

Measure	Your Responsibility		Joint Responsibility	Other's Responsibility	If Joint or Other please identify them
	Municipality	Metropolitan Area			
Land-use	EHMOSV			MO	-Regional
Road building	EMS		HSV	EMO	-National -Regional
Public transport infrastructure	EO	S	HMOSV	E	-National -Regional Gov. - PT org.
Traffic management	EHMOSV		S	MO	-National -Regional -police
Bus and rail operation	HO	HOS	MV	EO	-Regional Auth. -PT operators
Information provision	EMOS		S	HMOV	-PT Regional Auth. -PT operators
Pricing	EHMOS		HS	MV	-National Gov -PT Regional Auth.

Of the survey cities, only 35% manage their various responsibilities together. Disaggregating by region of Europe this pattern is approximately replicated. Interestingly, disaggregating by city size shows that two thirds of the smaller survey cities (those with populations of 100000 and under) manage their various responsibilities within a single department, where as almost two thirds of the medium-large survey cities (those with populations between 100,000 and 250,000) do not. Of the core cities, only Edinburgh stated that they manage their various responsibilities within a single department.



2.2. Influence from other levels of government

Table 7 shows the level of influence on decisions in our survey cities from other levels of government. All of our survey cities consider that their decisions are influenced to some extent by other governmental authorities. However, significant minorities stated that adjacent, regional and national authorities influenced them only a little, whilst 50% of cities stated that they were influenced only a little by the EU. A further 36% of cities stated that the EU did not influence them at all. The strongest influence, judging by the number of cities stating that they were influenced very much, appears to come from adjacent authorities, though only 35% of cities stated this.

**Table 7** Authorities and their influence in survey cities (number of cities).

	Influence				
	Very much	Quite a lot	A little	Not at all	Not stated
Adjacent authorities	19	10	22	3	
Regional authorities	13	21	16	2	2
National government	14	19	18	3	
The EU	0	4	27	20	3

Disaggregating by region of Europe, 77% of southern cities stated that adjacent authorities influence them either ‘very much’ or ‘quite a lot’, whereas only 14% of eastern cities and 44% of northern cities, stated this. Whilst the proportions of northern and of southern cities stating that regional authorities influenced them ‘very much’ was very similar, lower proportions of southern cities stated that they were influenced either quite a lot or a little than northern cities (30% as against 40%). The pattern of responses with respect to the influence from national government and from EU was fairly similar across the cities from the different regions.

Approximately 50% of each of the three population types stated that they were either influenced very much or quite a lot by adjacent authorities. The influence of regional authorities appears to diminish with increasing city size - 75% of small cities stated that they were either influenced very much or quite a lot by regional authorities, whereas 65% of medium-sized cities and only just over 50% of larger cities stated this.

Medium-sized cities appear to be most influenced by national government, with 80% of our respondents stating that their decisions were influenced either very much or quite a lot. Small cities, on the other hand, would appear to be influenced least by national government, with only 29% of them stating that they were influenced either very much or quite a lot. Sixty-eight percent of larger cities stated that they were influenced either very much or quite a lot by national government.

The pattern of responses relating to the degree of influence from the EU was quite similar across the three categories of city size, with the proportions of cities stating that they were influenced either not very much or not at all varying between 85% and 90%.

Table 8 summarises core cities’ comments on the influence on them of other authorities. Adjacent authorities and national government have the greatest influence, and the EU the least. The influence of regional authorities depends on the regional structure in place. In

practice influence will depend on the issue under consideration, and there will have been some subjectivity in respondents’ assessments of the degree of influence of different authorities.

**Table 8** Authorities and their influence in core cities.

(E = Edinburgh, H = Helsinki, M = Madrid, O = Oslo, S = Stockholm V = Vienna)

	Influence			
	Very much	Quite a lot	A little	Not at all
Adjacent authorities	O	EMS	HV	
Regional authorities		MS	HO	V *
National government	ES	HOV	M	
The EU		EV	MOS	H

\* Edinburgh: Not appropriate now (Regional Councils abolished 1996 in Scotland)

2.3. Types of decision-making approach

Our survey identified three distinct approaches to decision-making which may be adopted in any particular city:

1. Vision-led: an individual or committee has a clear vision of the measures needed to improve transport and land use in the city, and focuses all action on implementing them
2. Plan-led: objectives are specified, and the measures which best satisfy these objectives are determined, usually by analysis; the resulting plan is then implemented
3. Consensus-led: discussions take place between the stakeholders involved in transport and land use, and the measures implemented are those which attract the greatest support.

In recognition that these three approaches are necessarily simplified, cities were asked to state whether their decision-making process ‘tended’ to any of the above approaches or was some mix of the above approaches Table 9 shows the results obtained.

**Table 9** Approaches to decision-making

Country Type	Tending to 1	Tending to 2	Tending to 3	A mix of 1 & 2	A mix of 1 & 3	A mix of 2 & 3	NS
Eastern	0	0	0	2	1	4	0
Northern	1	2	2	5	3	12	0
Southern	1	0	5	5	3	7	1
Total	2	2	7	12	7	23	1

It can be seen from Table 9 that the most common approach amongst our survey cities was some mix of plan-led and consensus-led decision-making and that the least common approaches were those which tended either towards vision-led or towards plan-led decision-making. Table 9 also shows that amongst northern European cities (and amongst eastern European cities although there were fewer of these) there is a higher preponderance of cities who adopt approaches which are a mix of plan-led and consensus-led.

Closer scrutiny of responses, disaggregated by size of population, reveals that 74% of larger cities (those with population greater than 250000) adopted an approach which was a mix of plan-led and consensus-led, whilst there was more variation in the type of approach amongst medium-sized and smaller cities (size would appear to be the driving factor behind this difference, as the larger cities included 4 from Eastern Europe, 7 from Northern Europe and 8 from Southern Europe).

Two of the core cities (Edinburgh and Vienna) stated that they adopt an approach which is a mix of plan-led and consensus-led, whilst another two (Oslo and Stockholm) adopt an approach which tends towards being consensus-led. Of the other two, one stated that their approach was a mix of vision-led and plan-led (Madrid), where as the other stated that theirs is some mix of vision-led and consensus-led (Helsinki).

#### 2.4. Forward planning

Table 10 shows the planning horizons of our survey cities. It can be seen that the vast majority (80%) of cities have a medium term plan and that the time horizons for these ranged between 6 months and 10 years; most (77%) being between 4 and 10 years. Of the seven cities who did not have medium term plans, five did not have a long term plan either.

Over 60% of the survey cities have long term plans. The time horizons for most of these plans range between 10 and 20 years, though three are for less than 10 years and three are for more than 20 years.

**Table 10** Planning horizons in survey cities (number of cities).

Years	Planning horizons	
	Medium-term	Long-term
4 or less	10	2
5-10	29	1
10-15		13
15-20		13
20-		3
No horizon specified	4	2
No plan	7	14
No response	4	6

Disaggregating the responses by region of Europe, all of the eastern cities have medium term plans, whilst only 84% of northern cities and 68% of southern cities do. However, whilst again 84% of northern cities have long term plans, only 45% of southern cities and 42% of eastern cities do. In fact, 23% of southern cities have neither a medium nor a long term plan.

Disaggregating the responses by size of population, it is noticeable that, whilst 86% of smaller cities and 89% of larger cities have medium term plans, only 70% of medium-sized cities do. More strikingly, 79% of larger cities have long term plans, whilst only 55% of medium-sized cities and only 57% of smaller cities do.

Table 11 below presents a summary of the time-horizons in the core cities. The long-term planning horizon is generally considered to last up to 10-25 years, and the medium-term planning horizon is from 5 up to 15 years.

**Table 11** Planning horizons in core cities

(E = Edinburgh, H = Helsinki, M = Madrid, O = Oslo, S = Stockholm V = Vienna)

Years	Planning horizons	
	Medium-term	Long-term
4 or less	MO	
5-10	EHV	
10-15	S	EMOV
15-20		H
20-		S

## 2.5. Modelling

Half of the survey cities have their own models, though few stated what type of model they had, and most (59%) of cities used consultant's models. Interestingly, 26% of cities used both their own models and those of consultants, whilst approximately 20% did not use models at all. All of the core cities have their own models of the transport system.

All of the core cities use models of some type, with 4 of the 6 using their own models, including VISUM (Vienna), PKS-model (Helsinki), EMMA/FREDRIK (Oslo) and EMME/2 (Helsinki and Madrid). Four of the 6 used consultant’s models, with two cities using both their own models and those of consultants.

Disaggregating by region of Europe, 86% of eastern cities stated that they have their own models, as compared with 52% of northern cities and only 36% of southern cities. In contrast, 68% of southern cities use consultant’s models, as compared with 56% of northern cities and only 43% of eastern cities. Only a small proportion (approximately 10%) of cities from each region do not use models.

2.6. Participation

Table 12 summarises the involvement and influence of other groups in decision-making. Half of our survey cities involve business interest groups formally within the decision-making process, with a further 22% stating that business has a more informal involvement. A little over 25% did not respond to this question. Of those who involved business formally, 63% stated that business had a strong influence on decision-making in their city. Overall, 56% of cities stated that business has a ‘strong influence’ on decision-making, with less than 25% stating that business influence was weak. Again, approximately 25% of cities did not respond to this part of the question.

Only 41% of cities involve environmental pressure groups formally within their decision-making process, with a further 30% of cities where their involvement is informal. Thirty seven percent of cities stated that environmental pressure groups had a ‘strong influence’ on decision-making, with a further 37% of cities stating that their influence was weak.

**Table 12** Participation and influence of interest groups in survey cities (number of cities)

Interest group	Participation			Influence			No answer
	Formal	Informal	NS	Strong	Weak	NS	
Business Interest Groups	29	12	10	31	11	9	3
Environmental Pressure Groups	23	16	13	21	20	11	2
Transport User Pressure Groups	22	15	14	14	27	10	3
General Public	25	14	12	31	9	11	3
Media	13	21	17	21	22	8	3

Almost 40% of cities involve transport user groups formally within their decision-making process, with just over 25% of cities where their involvement is informal. However, 50% of cities stated that the influence of these groups was ‘weak’, with less than 25% of cities where their influence was strong.

Forty four percent of cities stated that they involved the general public formally in their decision-making process, whilst 26% stated that they involved the general public informally.

However, over 50% of cities stated that the general public had a ‘strong influence’ on decision-making, with less than 20% stating that their influence was ‘weak’.

Less than 25% of the survey cities stated that the media were formally involved in decision-making in their city, with a further 39% of cities stating that they were involved informally. However, 37% stated that the media has a ‘strong influence’ on decision-making and 41% stated that they had a ‘weak influence’.

In addition to the stake-holder groups identified above, survey cities highlighted associations of local transport operators, health institutions, academic institutions and ethnic minority/disability/women’s groups as being involved in and having an influence on decision-making in their city.

Disaggregating by region of Europe, only 29% of cities in eastern Europe formally involve business in their decision-making, as compared with 45% of Southern cities and 68% of Northern cities. Only approximately 45% of eastern and of southern European cities stated that business has a strong influence on their decision-making, where as in northern European cities this figure is 72%.

Only 23% of southern European cities and only 43% of eastern European cities formally involve environmental pressure groups in their decision-making, where as 60% of northern European cities do so. However, only 48% of northern European cities stated that environmental pressure groups have a strong influence on their decision-making and still fewer eastern and southern European cities (14% and 36% respectively) stated this.

No eastern European cities formally involve transport users in their decision-making process and only 36% of southern European cities do so, where as for northern European cities the figure is 56%. Only 14% of southern European cities, 29% of eastern European cities and 36% of northern European cities stated that transport users have a strong influence.

Less than a third of eastern European and southern European cities formally involve the general public in their decision-making process, where as almost two thirds of northern cities do so. Only 29% of eastern European cities stated that the general public have a strong influence on decision-making, where as 50% of southern cities and 72% of northern cities stated this.

Only 14% of eastern European cities formally involve the media in their decision-making process, and only approximately 25% of southern and northern European cities do so. Half of the southern European cities stated that the media has a strong influence on their decisions, whereas only 36% of northern cities and only 14% of eastern cities stated this.

Approximately 50% of small and 50% of medium-sized cities stated that business had a formal involvement in decision-making, with an equal proportion of each also stating that they had a strong influence, whereas over 60% of larger cities stated that business had a formal involvement, with an equal proportion also stating that they had a strong influence.

The proportion of cities stating that environmental groups had a formal involvement increases with city size; 36% of small cities stating that environmental groups have a formal involvement, 40% of medium-sized cities and 53% of larger cities. The proportion of medium-sized and large cities stating that environmental groups have a strong influence is

very similar (45 and 47% respectively), whilst the proportion of small cities stating this is much smaller (21%).

The pattern of involvement and influence of transport user groups for the three categories of city size is broadly similar to that for environmental groups. Approximately 50% of each category of city size involve the public formally within their decision-making processes and between 50% and 60% of each category stated that the public have a strong influence. Only 11% of large cities stated that they involved the media formally within their decision-making processes, where as relatively higher proportions of small and medium-sized cities (36% and 30% respectively) stated a formal involvement. Very similar proportions of each city type (36%, 35% and 42% for small, medium-sized and large cities respectively) stated that the media had a strong influence.

Table 13 presents the core cities’ assessments of the influence of different interest groups in determining their land use and transport strategies. They differ widely, with business and commercial interests being thought to have very much influence in three of the cities, but only the media being assessed as having quite a lot of influence in all cities. The majority of the core cities considered that the public had rather limited influence.

**Table 13** Participation and influence of interest groups in core cities

(E = Edinburgh, H = Helsinki, M = Madrid, O = Oslo, S = Stockholm V = Vienna)

Interest group	Participation			Influence			No answer
	Formal	Informal	NS	Strong	Weak	NS	
Business Interest Groups	EOV	O	M	EMOV			
Environmental Pressure Groups	EO	V	M	EV	MO		
Transport User Pressure Groups	EO	V	M	EO	MV		
General Public	EO	EV	M	E	MOV		
Media	E	EMOV		EMO	V		

**3. Objectives and Indicators**

**3.1. Objectives**

Our survey cities were asked to consider how appropriate our definition of sustainability was to their circumstances and what importance they placed upon the six sub-objectives. The definitions for these can be found in Section 4 of Deliverable 1 and in the Task 11 report. Whilst a relatively small proportion (24%) considered the definition of sustainability to be ‘very appropriate’, the majority of cities (61%) considered the definition to be ‘quite appropriate’. Only two cities considered that the definition was ‘quite inappropriate’, the remainder either stating neutrality or no response. No alternative definitions of sustainability were offered by the survey cities.

Disaggregating by region, the strongest level of agreement with our definition of sustainability appears to come from southern European cities who, with the exception of one city which did not respond to the question, all stated that the definition was either very appropriate or quite appropriate.

Amongst the core cities, two (Edinburgh and Oslo) stated that our definition of sustainability is very appropriate, whilst three further cities (Helsinki, Stockholm and Vienna) stated that it is quite appropriate. One city (Madrid) stated that they were neutral.

There was a strong level of agreement amongst the survey cities with the list of sub-objectives outlined. For example, 83% of cities believed liveable streets to be either an important or very important sub-objective and 93% of cities believe economic growth to be either important or very important. The sub-objective with the lowest level of agreement, with 70% of cities stating that it was either important or very important, was that of equity.

**Table 14** Importance of sub-objectives to survey cities (number of cities)

	Very important	Important	Quite important	Not at all important	NS
Economic efficiency	25	20	8	0	1
Liveable streets	20	26	5	1	2
Environmental protection	20	23	8	2	1
Equity	18	20	11	2	3
Safety	25	22	5	1	1
Economic growth	28	22	3	0	1

Disaggregating by region, northern and southern European cities appear to be very similar to each other in terms of the importance they place on economic efficiency, liveable streets, environmental protection, equity and economic growth. Eastern European cities appear to place slightly less importance on liveable streets, environmental protection, equity and economic growth objectives than do northern and southern European cities, though this may be influenced by the smaller sample size of eastern European cities. Southern European cities appear to place a little less importance on the safety objective than do eastern and northern European cities, with only 77% of southern European cities stating that it is very important or important, as opposed to 100% of eastern and 96% of northern European cities.

Disaggregating by city size, a high proportion of all three categories stated that economic efficiency was an important or very important sub-objective (79%, 80% and 89% for small, medium-sized and large cities respectively). The importance of ‘liveable streets’ appears to decrease with increasing city size, 93% of small cities stating that it was important or very important, as opposed to 85% of medium-sized cities and 79% of large cities. The importance of ‘environmental protection’, of ‘equity’ and of ‘safety’ appear to be very similar across the different city sizes, with 79% of small cities, 80% of medium-sized cities and 84% of large cities stating that environmental protection was important or very important, 71% of small cities, 70% of medium-sized cities and 74% of large cities stating that equity was important or very important, and 86% of small cities, 85% of medium-sized cities and 89% of large cities stating that safety was important or very important.. Medium-sized cities appear to give less importance to economic growth than do small and large cities, with 80% of medium-sized



cities stating that economic growth was important or very important, as compared with 100% of small and large cities.

Table 15 summarises the core cities’ views on the importance of these six objectives. All thought economic growth and economic efficiency important or very important. Some thought environmental protection and safety only quite important. The lowest assessments were given to equity and liveable streets, which some considered unimportant.

**Table 15** Importance of objectives to core cities

(E = Edinburgh, H = Helsinki, M = Madrid, O = Oslo, S = Stockholm V = Vienna)

	<b>Very important</b>	<b>Important</b>	<b>Quite important</b>	<b>Not at all important</b>
Economic efficiency	MOSV	EH		
Liveable streets		EOSV		HM
Environmental protection	S	EHO	MV	
Equity	E	S	HOV	M
Safety	ES	HOV	M	
Economic growth	HMOSV	E		

3.2. Indicators

Our survey found that most (81%), though not all, cities use indicators of some type, be they quantified in monetary terms, quantified in non-monetary terms or qualitative. Only 35% of cities use indicators which are quantified in monetary values, whilst 57% use indicators which are quantified in non-monetary terms and 72% use qualitative indicators. Just over 25% of cities use all three types of indicator.

**Table 16** Use of indicators by survey cities (number of cities)

	<b>No</b>	<b>Yes</b>	<b>Not stated</b>
Quantified, with money values	27	19	8
Quantified, without money values	15	31	8
Qualitative	7	39	8

Disaggregating by region, 88% of northern European cities, as compared with 86% of eastern European cities and 77% of southern European cities, use indicators of some type, be they quantified in monetary terms, quantified in non-monetary terms or qualitative.

Only 23% of cities from southern Europe and only 40% of cities from northern Europe use indicators which are quantified in monetary values, as compared with 57% of cities from eastern Europe. Approximately 55% of cities from northern and southern Europe use indicators which are quantified in non-monetary terms, whilst 71% of eastern European cities do so. Eighty-four percent of northern European cities use qualitative indicators, as compared with 68% of southern but only 43% of eastern European cities. Forty-three percent of eastern European cities, as compared with 36% of northern but only 14% of southern European cities, use all three types of indicator.

Disaggregating by city size, 95% of small cities, as compared with 84% of large cities and only 70% of medium-sized cities use indicators of some type, be they quantified in monetary terms, quantified in non-monetary terms or qualitative. Only 20% of medium-sized cities use indicators which are valued in money terms, and only 42% of large cities and 50% of small cities use them. Use of indicators which are valued in non-monetary terms appears to increase with increasing city size, so whilst only 29% of small cities use such indicators, 55% of medium-sized cities and 79% of larger cities do so. Nearly 80% both of small and of large cities use qualitative indicators, whereas only 60% of medium-sized cities do so.

Table 17 indicates that most of the core cities use all three types of indicator. Indeed, all of the core cities use indicators which are quantified in non-monetary terms.

**Table 17** Core city comments on the use of indicators

(E = Edinburgh, H = Helsinki, M = Madrid, O = Oslo, S = Stockholm V = Vienna)

	<b>No</b>	<b>Yes</b>
Quantified, with money values	V	EHMOS
Quantified, without money values		EHMOSV
Qualitative	M	EHOSV

## 4. Trends and Scenarios

### 4.1. Past trends

Table 18 shows how the survey cities view the importance of the five past trend variables which the core cities identified as being most important. In general, there appears to be a good level of agreement between our core cities and the survey cities. It shows that 76% of cities feel that employment location has been important (or very important) to them, whilst population growth, economic growth and car ownership have been important to approximately 70% of cities and employment structure has been important to 44%. In addition, survey cities have suggested a number of other variables which have been important in their city, including location of schools, urban and social structures and the development of environmental legislation.

**Table 18** Importance of principal trends for survey cities (number of cities)

	Very important	Important	Quite important	Not at all important	Not stated
Population growth	23	14	11	4	2
Economic growth	13	24	11	5	1
car ownership	23	15	12	3	1
Employment structure	10	14	24	5	1
Employment location	15	26	10	1	2

Disaggregating by region, there appear to be few differences between Eastern, Northern and Southern European cities in the importance they place on the past trend variables identified. Except, that is, for employment location for which 100% of Eastern cities stated that it is either very important or important, as opposed to 80% of Northern cities and 64% of Southern cities.

Disaggregating by city size, small cities appear to place more importance on population growth than do medium-sized and large cities; 79% of small cities stating that population growth was important or very important, as compared with 60% and 68% of medium-sized and large cities respectively. Medium-sized cities appear to place less importance on past trends in economic growth and in car ownership than do small or large cities, with only 60% of medium-sized cities stating that economic growth or car ownership were important or very important, as compared with 79% of small cities and 80% of large cities. The survey also suggests that small cities place less importance on past trends in employment location than do medium-sized and large cities; only 29% of small cities stating that employment location was important or very important, as compared with 50% and 47% of medium-sized and large cities respectively. The importance placed on past trends in employment location appears to increase with increased city size; 64% of small cities, 75% of medium-sized cities and 89% of large cities stating that it was important or very important.

The key past trend variables set out in Table 18 were derived from our discussions with the core cities. Therefore, we do not here analyse the core cities' responses to the question concerning the key past trend variables.

4.2. Future scenarios

The survey cities’ view of the importance of the five future scenario variables which the core cities identified as being most important is summarised in Table 19. In general, there is again a good level of agreement between our core cities and the survey cities, with over 80% of cities stating that economic growth and or employment location would each be important (or very important) in the future and between 61 and 72% of cities stating that population growth, car ownership and or size of urban area would be important. In addition, cities suggested a number of other variables which they felt would be important to their city in the future, including political will, the financing environment and, again, school location and urban and social structures.

**Table 19** Importance of principal scenario variables to survey cities (number of cities)

	<b>Very important</b>	<b>Important</b>	<b>Quite important</b>	<b>Not at all important</b>	<b>NS</b>
Population growth	22	15	13	2	2
Economic growth	23	23	6	0	2
Employment location	26	18	8	1	1
Car ownership	19	14	16	4	1
Size of urban area	26	13	9	4	2

Disaggregating by region, Southern European cities appear to place more importance on population growth than do Eastern European cities, with 77% of Southern cities stating that it is very important or important as opposed to 70% of Eastern cities. Only 60% of Northern European cities stated that population growth was either very important or important. Northern European cities appear to place greater importance on employment location as a future scenario variable than do Eastern or Southern cities, with 92% of Northern European cities stating that it is important or very important, as compared with approximately 70% of both Eastern and Southern cities. Southern European cities appear to place greater importance on the size of the urban area than do Eastern or Northern cities, with 82% of Southern European cities stating that it is important or very important, as compared with 71% of Eastern cities and only 64% of Northern cities. There was little difference between the regions with regard to the importance they placed upon economic growth and car ownership.

Disaggregating by city size, our survey suggests that medium-sized cities place more importance on population growth than do small and large cities; 75% of medium-sized cities stating that population growth was important or very important, as compared with approximately 65% of small and of large cities. It would appear that economic growth is of greater importance for large cities than for small or for medium-sized cities; 100% of large cities stating that economic growth was important or very important, as compared with approximately 75% of small and of medium-sized cities. It would further appear that small cities place less importance on employment location and on car ownership than do medium-sized and large cities; 71% of small cities stating that employment location was important or very important, as compared with approximately 85% of both medium-sized and of large cities, and 50% of small cities stating that car ownership was important or very important, as compared with approximately 65% for both medium-sized and for large cities. There is little variation between different categories of city size with respect to the importance they place on

the size of the urban area, though medium-sized cities place most (75% of them stating that it was important or very important) and large cities place least importance on this (68% of them stating that it was important or very important).

As with the key past trend variables, the key future scenario variables set out in Table 19 were derived from our discussions with the core cities. Therefore, we do not here analyse the core cities' responses to the question concerning the key future scenario variables.

## 5. Policy Instruments

### 5.1. Importance of different policy instruments

Table 20 shows the survey cities' assessment of the importance of the 10 policy measures identified by our core cities as being most important to them. In general there is a good level of agreement between our core cities and the survey cities as to what policy measures are important. For example, over 80% of cities stated that bus priority, bus/rail frequency and parking charges were important (or very important) and over 59% stated that development pattern, public awareness campaigns, new rail lines, real-time information and bus/rail fares are important (or very important). However, only 20% said that flexible working hours were important and only 30% of the survey cities stated that road pricing is important (or very important). In addition, the survey cities identified a number of other policy measures which they believed to be important, including park and ride, supplementary housing construction, mobility management and pedestrianisation.

**Table 20** Importance of different measures in survey cities (number of cities).

Policy Measure	Very important	Important	Quite important	Not important	N/S
Development	21	19	10	3	1
Awareness	9	23	16	5	1
Flexible hours	0	11	27	15	1
Rail infrastructure	15	17	7	13	2
Bus priorities	23	23	8	0	0
Service frequencies	26	20	6	1	1
Real time info	8	28	15	3	0
Parking charges	17	27	7	2	1
Road Pricing	6	10	14	19	5
Bus/Rail fare Levels	12	22	11	6	3

Disaggregating by region, Eastern European cities appear to place greater importance on development pattern than do Northern or Southern European cities, with 100% of Eastern cities stating that it is important or very important, as compared with approximately 70% of Northern and of southern cities. Whilst the overall view seems to be that flexible working hours are of relatively little importance, Northern European cities appear to view it as of very little importance, with only 12% of cities stating that it was important or very important, as compared with almost 30% of Eastern and of Southern European cities. Southern European cities appear to place greater importance on new rail lines than do Eastern or Northern cities, with 68% of Southern European cities stating that they are important or very important, as compared with approximately 55% of Eastern and of Northern cities. Eastern European cities

appear to place less importance on public transport frequencies than do Northern and Southern European cities, with 71% of Eastern European cities stating that they are important or very important, as compared with 88% and 86% of Northern and southern European cities, respectively. Eastern European cities place greater importance on real-time information than do Southern or Northern European cities, with 86% of Eastern cities stating that it is important or very important, as compared with 73% of southern cities and only 56% of Northern cities. Northern European cities place greater importance on parking charges than do Eastern or Southern European cities, with 92% of Northern cities stating that they are important or very important, as compared with approximately 70% of Eastern and of Southern cities. There was little difference between the regions in the importance they placed on awareness campaigns and on bus priority. Northern and Southern European cities appear to have very similar views on the importance of road pricing, with approximately 25% of both stating that it is important or very important. Whilst 57% of Eastern European cities stated that European cities stated that road pricing was important or very important, the significance of this should be set against the much smaller number of Eastern European cities in our sample.

Disaggregating by city size, the survey suggests that larger cities place less importance on development pattern than do small and medium-sized cities; only 63% of large cities stating that development pattern is important or very important, as compared with 79% of small cities and 80% of medium-sized cities. It would appear that small cities place less importance on awareness campaigns, on new rail lines, on bus priority and on real-time information than do medium-sized and large cities. Only 50% of small cities stated that awareness campaigns are important or very important, as compared with 65% of medium-sized and 63% of large cities; only 43% of small cities stating that new rail lines are important or very important, as compared with approximately 65% of medium-sized and large cities; 71% of small cities stated that bus priority is important or very important, as compared with approximately 90% of medium-sized and large cities; 57% of small cities stated that real-time information is important or very important, as compared with 70% of medium-sized cities and 74% of large cities. There is a remarkable degree of consistency amongst each of the three city sizes with regard to how they view the importance of flexible working hours and bus/rail frequency, though only approximately 20% of each group stated that flexible working hours is an important measure, as opposed to over 85% of each group who stated that bus/rail frequency is important or very important. The survey suggests that medium-sized cities place greater importance on parking charges than do small or large cities, with 90% of medium-sized cities stating that parking charges were important or very important, as compared with 79% of small and of large cities. It would further appear that medium-sized cities place less importance on road pricing than do small or large cities, with only 15% of medium-sized cities stating that road pricing is important or very important, as compared with 43% of small cities and 37% of large cities. Lastly, it would appear that the importance of bus/rail fares decreases with increasing city size; 71% of small cities, 65% of medium-sized cities and 58% of large cities stating that it was important or very important.

Table 21 summarises the core cities' assessment of the importance of the 10 key policy instruments. It can be seen that each of the instruments, except flexible working hours and real-time information, is seen as very important by at least one of the six cities. All of the core cities view bus/rail frequency as important or very important, whilst five of the six view development pattern as important or very important and four view new rail lines, bus priority and parking charges as important or very important.

**Table 21** Importance of different measures in core cities

(E = Edinburgh, H = Helsinki, M = Madrid, O = Oslo, S = Stockholm V = Vienna)

Policy Instrument	Very important	Important	Quite important	Not at all important
Development pattern	ES	HMO	V	
Awareness campaigns	V	EH	MS	
Flexible working hours			EH	MOSV
New rail lines	MOS	H	EV	
Bus priority	ES	OV	H	M
bus/rail frequency	SV	EHMO		
Real-time information		HS	EMOV	
Parking charges	EH	SV	O	M
Road pricing	V	E	HO	MS
Bus/rail fares	H	MV	ES	O

## 5.2. Combinations of instruments

Most of the survey cities (72%) stated that they combined at least some of the identified policy measures with one another. The most commonly combined policy measures are development pattern, bus priority, bus/rail frequency and parking charges, with at least 50% of cities stating that they used each of these policy measures in combination, though only 31% of cities actually used all four in combination with one another.

**Table 22** Measures which are packaged with others by survey cities (number of cities).

Policy Measure	Yes	No	Not stated
Development	33	5	16
Awareness	18	16	20
Flexible hours	10	24	20
Rail infrastructure	17	17	20
Bus priorities	29	9	16
Service frequencies	27	10	17
Real time info	19	18	17
Parking charges	28	10	16
Road Pricing	9	24	21
Bus/Rail fare Levels	14	19	21

Due to the relatively poor response to the question, we do not analyse policy packaging in survey cities disaggregated by city region and by city size.

All of our Core Cities accepted that they could not tackle their transport problems by using one or two measures alone, and that they needed to use them in combination. Table 23 shows the way in which our core cities combine the key policy measures. It can be seen that many of the cities use these policy measures in combination with one another and with other complementary measures. The measures identified appear to complement one another in two ways. Firstly, measures often tend to be combined by mode, e.g. bus priority with bus frequency and with real-time information, so that several mode-specific enhancements build

upon one another. Secondly, measures are combined such that one acts as a ‘carrot’ and the other a ‘stick’, e.g. combining parking charges with public transport improvements.

**Table 23** Measures which are packaged with others by Core Cities.

(E = Edinburgh, H = Helsinki, M = Madrid, O = Oslo, S = Stockholm V = Vienna)

Policy Measure	Yes	No	If so, which
Development	EHMOS	V	New PT lines, activity location
Awareness	EV	M	Bus priorities, service frequencies, parking charges
Flexible hours		EMV	
Rail infrastructure	EHMOS	V	Level of service improvement
Bus priorities	EMV		Bus/rail frequency, comfort improvement, awareness, service frequencies, parking charges
Service frequencies	EMSV		Real time info, awareness, bus priorities, parking charges
Real time info	EM	V	Priority
Parking charges	HMOSV	E	PT improvement, awareness, bus priorities, service frequencies
Road pricing	ES	V	Infrastructure investments, public transport fare levels
Bus/Rail fare levels	HS	EV	Road user charges, parking charges

## 6. Barriers and Constraints

### 6.1. Legal barriers

Table 24 identifies the scale of the legal barriers to different types of measure. It suggests that land-use, road building and pricing are the policy areas most commonly subject to legal constraints, with between 31 and 41% of cities stating that there were major legal barriers. Information provision, traffic management and public transport infrastructure are least commonly affected by legal barriers.

**Table 24** Measures for which legal barriers are a constraint in survey cities (number of cities).

Measure	Major constraint	Minor constraint	No constraint	NS
Land-use	17	24	10	3
Road building	18	25	8	3
Public transport infrastructure	12	27	12	3
Traffic management	8	25	18	3
Bus and rail operations	14	22	14	4
Information provision	0	13	39	2
Pricing measures	22	20	10	2

Disaggregating by region, approximately 40% of Eastern and Southern cities view legal barriers as a major constraint on their land-use policy, whereas only 20% of Northern cities stated this. Whilst 40% of Southern cities also viewed legal barriers as a major constraint to road building, only about 30% of Eastern and of Northern cities stated this. Almost 30% of Eastern cities viewed legal barriers as a major constraint on public transport infrastructure policy, in comparison with only approximately 20% of Northern and Southern cities. Approximately 40% of Eastern and Northern cities stated that legal barriers were a major constraint on public transport operations policy, whilst only 10% of Southern cities stated this.



With regard to pricing policy, 57% of Eastern cities stated that legal barriers posed a major constraint, where as only 40% of Northern cities and only 27% of Southern cities stated this. The patterns of responses were very similar with regard to traffic management and information policies.

Disaggregating by city size, all three categories appear to view legal barriers to land-use policy quite similarly, though greater proportions of small and large cities view legal barriers as posing major constraints than do medium-sized cities. Interestingly, a greater proportion of large cities view legal barriers as posing major constraints on road building than do small or medium-sized cities, with 42% of large cities stating that legal barriers pose major constraints, as compared with 29% of small cities and 25% of medium-sized cities. A greater proportion of medium-sized cities stated that legal barriers posed no constraint to information provision than did small and large cities, with 80% of medium-sized cities stating that legal barriers pose no constraint to information provision, as compared with 64% of small cities and 68% of large cities. A greater proportion of large cities viewed legal barriers as posing a major constraint on pricing measures than did small and medium-sized cities, with 53% of large cities stating that legal barriers pose a major constraint on pricing, as compared with 43% of small cities and only 30% of medium-sized cities.

Table 25 summarises the extent to which legal barriers are seen by the core cities as a constraint on different elements of their land use and transport strategies. In general, the core cities appear to view legal barriers as relatively minor constraints, with most cities stating that they are minor or no constraint on most elements. However, pricing is a notable exception to this, with most of the cities stating that legal barriers are a major constraint.

**Table 25** Measures for which legal barriers are a constraint in Core Cities.

(E = Edinburgh, H = Helsinki, M = Madrid, O = Oslo, S = Stockholm V = Vienna)

Measure	Major constraint	minor constraint	no constraint
Land-use	MS	EOV	H
Road building	MS	EHV	O
Public transport infrastructure		MS	EHO
Traffic management	M	EHOS	
Bus and rail operations	EV	HOS	M
Information provision		OSV	EHM
Pricing measures	EMSV	OH	

6.2. Financial barriers

Table 26 summarises survey cities’ views on financial barriers. It suggests that road building and public transport infrastructure are the two policy areas which are most commonly subject to financial constraints, with over 78% of cities stating that finance was a major barrier. Information provision, again, was the least affected in terms of financial constraints.

**Table 26** Measures for which financial barriers are a constraint in survey cities (number of cities).

Measure	major constraint	minor constraint	no constraint	NS
Land-use	18	20	13	3
Road building	42	8	1	3
Public transport infrastructure	43	8	1	2
Traffic management	15	28	8	3
Bus and rail operations	29	16	6	3
Information provision	6	23	23	2
Pricing measures	20	21	11	2

Disaggregating by region, a smaller proportion (24%) of Northern cities than of Eastern (29%) or Southern (45%) cities view financial barriers as posing a major constraint on their land-use policies. All of the Eastern cities stated that finance posed a major barrier to their road building policies, whereas only 80% of Northern cities and 68% of Southern cities stated this. Approximately 85% of Eastern and Northern cities stated that financial barriers imposed a major constraint on their public transport infrastructure policies, whilst relatively fewer Southern cities (72%) stated this. A majority of Eastern cities (57%) stated that financial barriers posed a major constraint also to their traffic management policies, whereas in Northern and in Southern cities only 28% and 19%, respectively, stated this. An overwhelming majority of Northern cities (72%) stated that financial barriers posed major constraints on policies relating to public transport operations, whereas only 41% of Southern cities and 29% of Eastern cities stated this. Lastly, whilst approximately a third of Northern and of Southern cities stated that financial barriers posed a major constraint on their pricing policies, the majority of Eastern cities (57%) stated this. There were few differences between the regions in relation to information policies.

Disaggregating by city size, a smaller proportion of small cities view finance as posing a major constraint on land-use policy, with only 14% of small cities stating that financial barriers pose a major constraint on land-use, as compared with 45% of medium-sized cities and 37% of large cities. A greater proportion of large cities view finance as being no constraint on information provision than do small and medium-sized cities, with 53% of large cities stating that financial barriers pose no constraint on information provision, as compared with 35% of both small and medium-sized cities.

Table 27 shows the extent to which core cities view financial barriers as constraints on their land-use and transport policy. All cities view finance as a constraint, be it major or minor, on their land-use, road building, public transport infrastructure, traffic management and public transport operations policies, with all but one city also viewing finance as a constraint on their information and pricing policies. In the case of public transport infrastructure, all six of the cities stated finance as a major constraint.

**Table 27** Measures for which financial barriers are a constraint in Core Cities.

(E = Edinburgh, H = Helsinki, M = Madrid, O = Oslo, S = Stockholm V = Vienna)

Measure	major constraint	minor constraint	no constraint
Land-use	E	H MOSV	
Road building	HSV	MO	
Public transport infrastructure	EHMOSV		
Traffic management	EM	HOSV	
Bus and rail operations	MOSV	H	
Information provision	E	MOSV	H
Pricing measures	EMSV	H	O

### 6.3. Political barriers

Table 28 summarises survey cities' assessments of political barriers. It suggests that road building and pricing are the two policy areas which are most commonly subject to acceptability constraints, with almost 50% of cities stating that acceptability was a significant constraint on road building and 54% stating that it was a major constraint on pricing measures. Public transport operations and information provision were the least affected by acceptability constraints.

**Table 28** Measures for which political barriers are a constraint in survey cities (number of cities).

Measure	major constraint	minor constraint	no constraint	NS
Land-use	22	25	3	4
Road building	26	18	5	5
Public transport infrastructure	21	20	8	5
Traffic management	14	25	11	4
Bus and rail operations	6	34	10	4
Information provision	1	12	36	4
Pricing measures	29	16	3	6

Disaggregating by region, only 14% of Eastern cities stated that political barriers posed a major constraint on land-use policies, in contrast with 40% of Northern cities and 50% of Southern cities who stated this. Similarly, only 14% of Eastern cities stated that political barriers posed a major constraint on their road building policies, whereas 50% of Southern cities and 57% of Northern cities stated this. Only about a quarter of Northern cities stated that political barriers posed a major constraint on their public transport infrastructure policies, whereas 50% of Southern cities and 57% of Eastern cities stated this. A small proportion of Eastern cities - 14% as compared with almost 30% of Northern and Southern cities - stated that political barriers posed major constraints on their traffic management policies. Lastly, significant proportions of Northern and Southern cities (56% and 50% respectively) stated that political barriers posed a major constraint on their pricing policies, whereas none of the Eastern cities stated this. The pattern of responses with regard to public transport operations and information policies was very similar across the different regions.

Disaggregating by city size, all three categories appear to view political barriers to land-use policy quite similarly, though 16% of large cities stated that political barriers were no constraint to land-use policy, as compared with small or medium-sized cities, none of whom stated this. The proportion of cities who stated that political barriers presented major constraints to road building and public transport infrastructure increases markedly with increasing city size; only 14% of small cities stating that political barriers were a major constraint to road building or public transport infrastructure, as compared with 50% of medium-sized cities and 68% of large cities who stated that political barriers were a major constraint to road building and 25% of medium-sized cities and 68% of large cities who stated that political barriers were a major constraint to public transport infrastructure. Greater proportions of small and large cities stated that political barriers were a constraint (major or minor) than did medium-sized cities, with only 5% of medium-sized cities stating that political barriers were a constraint, as compared with 43% of small cities and 32% of large cities. Lastly, the proportion of cities stating that political barriers presented a major constraint to pricing policies decreases with increasing city size; 64% of small cities stating that political barriers presented a major constraint to pricing policies, as compared with 55% of medium-sized cities and 42% of large cities.

Table 29 shows the extent to which political barriers act as constraints on the transport and land-use policies of the core cities. All of the cities view political barriers as constraints, be it major or minor, on their land-use, road building, public transport infrastructure, traffic management and pricing policies. In the cases of road building and pricing, all six of the core cities view political barriers as a major constraint.

**Table 29** Measures for which political barriers are a constraint in Core Cities.

(E = Edinburgh, H = Helsinki, M = Madrid, O = Oslo, S = Stockholm V = Vienna)

Measure	major constraint	minor constraint	no constraint
Land-use	MOSV	EH	
Road building	EHMOSV		
Public transport infrastructure	HOS	EMV	
Traffic management	MO	SV	
Bus and rail operations	OS	V	HM
Information provision		SV	EHMO
Pricing measures	EHMOSV		

**7. Changes**

All but seven of the survey cities identified major changes in the past. Twelve mentioned objectives which had become more important; for most this was the environment and sustainability, but two mentioned safety and one each equity, congestion relief, energy and quality. Five mentioned economic trends, predominantly growth. Seven mentioned the introduction of a new strategy at either local or national level. Twenty identified new policy measures being introduced; these were predominantly public transport and demand management, but five mentioned new roads. Eight referred to new land use policies, with all but one involving tighter controls and increased densities. Six mentioned improvements in government decision-making processes; most of these reflected significant changes in France and the UK. Four from Eastern Europe listed reductions in public ownership. Seven identified

financial or public acceptability constraints. Apart from those mentioned, there were no obvious differences by type of city.

The same number predicted major changes which would influence future policy. Eight mentioned objectives which would become more important; again these were mainly environment and sustainability, but two mentioned quality and one energy. Five anticipated substantial urban growth. Two mentioned the introduction of a new local or national strategy. The majority (25 of the 47) listed policy measures which would become more important. Of these 18 were public transport improvements and 13 demand management, including three listing road pricing; five mentioned new roads. Ten anticipated greater control over land use, and increased density of development. Eight expected improvements in government decision-making structures, two reduced public ownership and involvement, and two greater public involvement.

The core cities also identified the key changes which they had experienced over the past 10 years or so. In terms of objectives, three cities referred specifically to the increasing attention on sustainability and, in particular, on environmental issues. In addition, one city referred to the increased emphasis on objectives for local communities. The core cities offered views on how the decision-making process has changed. Two cities referred specifically to a trend towards the greater involvement of citizens in decision-making and one city referred to a greater awareness of the influence of external factors (i.e. those which city authorities cannot plan/control). Interestingly, one city referred to a shift away from strategic planning towards plans which are more mode oriented, with a short term vision.

In terms of actual policies, two cities referred to the increasing emphasis on economic instruments, such as toll rings and parking charges. Two cities referred to public transport 'friendly' land-use patterns. Cities also referred to a movement away from road building and towards policies favouring public transport and the non-motorised modes, i.e. walking and cycling.

Core cities also identified the key changes which they believe likely to occur during the next 10 years or so, though it is more difficult to draw the common threads from the different visions of the future. One city anticipated there being a greater public understanding of possible solutions to problems, whilst another envisaged a world in which a combination of international commitments, environmentalist movements, new technological possibilities and requirements from business representatives will (slowly) draw attention to increased willingness to use new and more wide-ranging policy measures (such as those referred to in section 5 of this report). Two cities referred to an ever increasing role for economic instruments as a means of restraining demand and raising revenues; another city referred to a growth in public transport networks. Two cities envisaged the further development of integrated policies and the growing role for partnership working. Related to this perhaps, another city referred to the reduced influence of public authorities and to increasing deregulation and privatisation. However, two cities specifically indicated that they expected the pace of change, in terms of reducing transport problems, to be slow.

## 8. Conclusions

The review of decision-making processes has demonstrated that they are complex, and differ considerably from one city to another. In particular:

- cities are more likely to have direct responsibility for land use and traffic management and more likely to share responsibility for infrastructure; public transport services, information and pricing are more likely to be the responsibility of others;
- cities' decisions are often strongly influenced by adjacent authorities and national government; the impact of regional authorities depends on the local government structure; the EU currently has only limited impact;
- most cities consider that their decisions are based on a combination of objective-led and consensus-led approaches, but there is considerable diversity;
- while the majority of cities develop medium and long term plans, the time horizons vary considerably;
- cities are most likely to involve the business community in their decisions, and least likely to involve the media;
- the business community is considered to have the greatest influence on decisions, followed by the media and environmental groups; transport users are considered to have the least influence.

For most of these attributes, there are differences between cities of differing size and between cities from different regions of Europe.

- cities from Eastern Europe are more likely than cities from Northern and Southern Europe to have exclusive responsibility for road building and public transport infrastructure, though cities from Northern Europe are more likely than cities from Southern Europe to have some responsibility in these areas. Northern cities are least likely to have any responsibility for public transport operations;
- small cities are more likely to manage their various transport and land-use responsibilities within one department;
- cities from Southern Europe are more likely than cities from Eastern or Northern Europe to be influenced by adjacent authorities and less likely to be influenced by regional authorities;
- the influence of regional authorities decreases with increasing city size; the influence of national government is strongest amongst medium-sized cities and weakest amongst small cities;
- three quarters of large cities adopt an approach to decision-making which is a mix of planned and consensus-led;
- cities from Southern Europe are less likely than cities from Eastern and Northern Europe to have a medium term plan or to have a long term plan, with a significant minority of them having neither;
- larger cities are more likely than medium-sized and small cities to have long term plans;
- cities from Eastern Europe are most likely to use their own models, whereas cities from Southern Europe are least likely; in contrast, Southern cities are most likely to use consultant's models and Eastern cities are least likely to do so;
- cities from Northern Europe are more likely than those in Southern or Eastern Europe formally to involve the business community, environmental pressure groups, transport users and the general public in their decision-making process;

- larger cities are more likely than medium-sized and small to involve the business community and environmental pressure groups in their decision-making process;
- cities from Northern Europe are more likely than cities from Eastern or Southern Europe to be strongly influenced by the business community and by the general public; cities from Southern Europe are more likely to be strongly influenced by the media.

Whilst the survey suggests that there may be scope for identifying a definition of sustainability which is more appropriate to the circumstances of European cities, there was a good general degree of consensus with our working definition. Our survey has also demonstrated a good deal of consensus with regard to the sub-objectives which underpin sustainability, with the sorts of past trends and future scenario attributes which have been and will be important, and with the policy measures and barriers which have the most influence. Nevertheless, we have also been able to identify the ways in which the importance of the identified objectives, scenario attributes, measures and barriers vary by type of city. In particular:

- cities from Eastern and Northern Europe place greater importance on the ‘safety’ objective than do Southern European cities;
- the importance of the ‘liveable streets’ objective appears to decrease with increasing city size;
- smaller cities placed more emphasis on population growth, and less on economic growth, in past trends and future scenarios;
- smaller cities were less interested in awareness campaigns, rail infrastructure, bus priorities and real time information; medium sized cities placed greater emphasis on parking charges and less on road pricing; large cities were less concerned with land use policies and fares;
- large cities were more likely to experience legal barriers on infrastructure projects and pricing measures;
- small cities were more likely to perceive political barriers to pricing measures, and large cities to infrastructure projects.

While these results provide a valuable structure for our further work in the project, there are four areas which have been highlighted on which there is still some considerable uncertainty:

- while we have identified a range decision-making structures, there is as yet little evidence on which of these work best, or are most appropriate in different circumstances;
- while we have begun to classify indicators to be used in assessing performance against objectives, we have yet to develop a fully acceptable list of such indicators, and there remains considerable doubt among cities on the value of these indicators;
- while most cities accept the need to define scenarios, there is as yet little understanding of the role of scenario planning in strategy formulation; and
- while many cities accept the need to develop packages of measures as part of an integrated strategy, there is as yet incomplete awareness of the ways in which this can best be done.

All of these issues will be pursued further in later stages of the study.

## 9. References

Jarvi-Nykanen, Rasanen and Nokkala (2001) Report on Task 14 of PROSPECTS: Cities’ Decision-Making Processes, VTT, Helsinki.

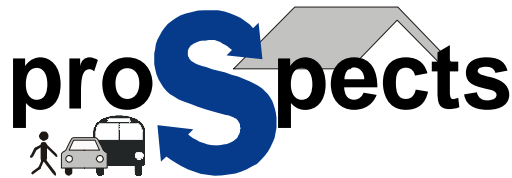
Matthews and May (2001) Report on Task 13 of PROSPECTS: Policy measures, ITS, Leeds.

Minken (2001) Report on Task 11 of PROSPECTS: Objectives and indicators, TOI, Oslo.

Monzon (2001) Report on Task 15 of PROSPECTS: Identification of Barriers and Constraints, UPM, Madrid.

Ramjerdi (2001) Report on Task 12 of PROSPECTS: Trends and Scenarios, KTH, Stockholm.





## APPENDIX A

Dear Colleague

### **PROSPECTS: Procedures for Recommending Sustainable Planning of European City Transport Systems**

The PROSPECTS project is funded under the European Commission's Environment and Sustainable Development Programme. It is designed to provide cities with the guidance which they need in order to generate optimal land use and transport strategies to meet the challenge of sustainability in their particular circumstances. So far, we have held a series of detailed discussions with our six Core Cities (Edinburgh, Oslo, Stockholm, Helsinki, Vienna and Madrid) to help specify their approaches to decision-making; the objectives and indicators which they use; the scenarios which they consider in planning for the future; the range of policy measures which they employ; and the barriers to their use.

We are very conscious, however, that our six Core Cities are not necessarily typical of cities across Europe, and we are therefore approaching around 100 cities, chosen to reflect a range of sizes and to cover all the member states and accession countries, so that we can understand the range of contexts in which land use and transport strategies are formulated. This in turn will help us to ensure that the guidance which we prepare is as widely applicable as possible. We are writing to invite you to participate as one of our group of 100 cities, and we would be most grateful if you would now complete the attached questionnaire, which need take no more than 30 minutes. Please then return it to Bryan Matthews at the address, fax number or email address at the end of the questionnaire. All city-specific information will be treated as confidential, and we will not identify individual cities in our report.

We have structured our questionnaire around a series of headings, and have tried to keep it as short and simple as possible. In some cases you might find it helpful, in answering our questions, to know something of the results which we have obtained from our Core Cities. These are set out in the following brief summary document, which uses the same headings, and provides cross-references to the relevant question numbers. However, it is not essential for you to read this summary document in order to answer the questionnaire.

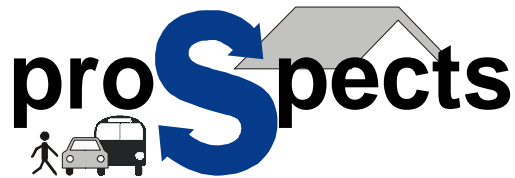
The summary document is itself based on a series of longer documents describing each of the main tasks. These will be placed on our website ([www-ivv.tuwien.ac.at/projects/prospects.html](http://www-ivv.tuwien.ac.at/projects/prospects.html)), and you are very welcome to read them if you wish. We would welcome any further comments which you have on them or on the overall approach which we are adopting.

Once you have completed and returned the questionnaire, we will, if you wish, include you in our City User Group email network, which will keep you informed of the progress of our study, and enable you to participate in our project workshops.

Many thanks for your support for our project to date.

Yours sincerely,

Professor Tony May [or local contact]  
Institute for Transport Studies  
University of Leeds



## **CITIES' DECISION-MAKING REQUIREMENTS**

### **A Summary of Responses from Core Cities**

#### *A APPROACHES TO DECISION-MAKING*

**Responsibility for different policy measures (Q1)** Most cities retain direct control of land use, road building, traffic management and parking control. In some cases the private sector provides and operates public transport, and determines fare levels and information provision. Frequently the national government is responsible for major roads and rail lines.

**Other agencies (Q2)** There are substantial differences in the level of regional control over a city's strategy, ranging from direct control to encouragement to consult. In all cases national governments have a direct influence on strategy, but to date the influence of the European Union is very limited.

**Approaches to decision-making (Q3)** In most of our Core Cities, the strategy is developed through a process which we have styled "Plan-led": the city specifies a series of objectives, identifies the measures which best meet those objectives, and develops its strategy on this basis. However, we are aware from our discussions of at least two other models, which we have styled "Vision-led" and "Consensus-led" as defined in the questionnaire.

**Forward planning (Q4)** All our Core Cities develop long and medium term plans. Long term plans have a horizon of between 10 and 30 years, and in most cities are treated flexibly. Medium term plans are typically for 5 to 10 years ahead, and are often legally binding. They in turn help determine short term plans for the next year or two.

**Modelling (Q5)** All of our Core Cities have their own models of the transport system; in many cases they have land use models as well. Model results are used to inform decision-making, but are not used alone; judgement is also very important.

**Participation (Q6)** This is an area in which practice varies widely between our Core Cities. Some are required to consult with the public and business interests; others do so informally; few do so intensively. Most cities consider that the most important influences on their strategies come from the media and business interests.

#### *B OBJECTIVES AND INDICATORS*

**Sustainability (Q7 & 8)** The main focus of PROSPECTS is on increased sustainability, and we have defined a sustainable urban transport and land use system as one which

- provides access to goods and services in an efficient way for all inhabitants of the urban area
- protects the environment, cultural heritage and ecosystems for the present generation, and
- does not endanger the opportunities of future generations to reach at least the same welfare level as those living now, including the welfare they derive from their natural environment and cultural heritage.

This definition is broadly supported by our Core Cities, who agree that it is a fundamental objective.

**Sub-objectives (Q9)** In order to achieve sustainability, a number of other sub-objectives need to be met. In discussion with our Core Cities, we have agreed that the following represent the range of objectives which they are pursuing:

- *economic efficiency* in the use of resources in transport, infrastructure, housing and labour markets
- *livable streets and neighbourhoods* including freedom of movement for vulnerable road users, and encouragement of social, cultural and recreational activity
- *protection of the environment* including reduced use of non-renewable resources and energy; reduced pollution, noise, health problems and urban sprawl; and protection of cultural heritage, vulnerable areas and biodiversity
- *equity and social inclusion* including improved accessibility for those unable to use cars, fairer shares in the benefits of policies, and compensation to those adversely affected
- *safety* focusing on reduction in the number and severity of accidents
- *support for economic growth* and for cities' development plans and financial and economic stability.

Implicitly we have excluded others, including the sustainability of the global patterns of production and trade of which the city's economy is part.

**Indicators (Q10)** Our Core Cities agree that, to measure the level of achievement of their sub-objectives, indicators may be useful at three levels. Level 1 attempts to quantify and provide a monetary value for the aggregate impacts; level 2 quantifies the impact, but allows the distribution of effects to be measured; level 3 is purely qualitative. The table illustrates these levels; it is still being completed based on our discussions.

Table 1

Sub-objective	Level 1	Level 2	Level 3
Economic efficiency	Cost-benefit analysis	Time and money costs	
Liveable streets and neighbourhoods		Accidents by location, mode, victim	Feeling of freedom of movement, danger
Protection of the environment	Environmental costs	Energy and land use, emissions	
Equity and social inclusion	Accessibility for those without a car, mobility impaired	Losers and winners by category	
Reduce traffic accidents	Accident costs	Accidents by location, mode, victim	
Support economic growth	Changes in local GDP		

## *C TRENDS AND SCENARIOS*

**Past trends (Q11)** Cities' current transport conditions are determined by a number of past trends. The Core Cities differed in their perceptions of the most important trend factors, but the five most frequently mentioned were population growth; economic growth; changes in car ownership; changes in employment structure; and changes in employment location.

**Future scenarios (Q12)** All our Core Cities specified a range of scenarios for planning over the next 10 to 25 years. They differed in the factors (outside the transport system) which they considered, but the five most frequently mentioned were population growth, economic growth, changes in employment location, changes in car ownership and changes in the size of urban area.

## *D POLICY MEASURES*

**Types of measure (Q13)** We have identified some 70 types of policy measure which our cities are using. Most of these have been listed and defined more fully in a project working paper. We have found it helpful to categorise them under the seven broad headings which are used in Questions 1, 15, 16 and 17. The ten measures most frequently mentioned by cities as ones which they are actively pursuing are those listed in Question 13.

**Combinations of measures (Q14)** All of our Core Cities accepted that they could not tackle their transport problems by using one or two of these measures alone, and that they needed to use them in combination. The combinations which they used, and the reasons for them, however, differed considerably from one city to another. The key reasons for combining measures are to reinforce the effect of a measure; to offset its adverse effects; to compensate losers; to increase public acceptability; and to generate revenue.

## *E BARRIERS TO IMPLEMENTATION*

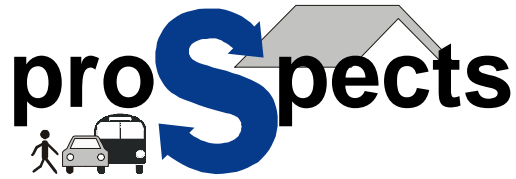
**Legal barriers (Q15)** Several cities identified legal barriers on their ability to implement some of the policy measures identified in (D). The most frequent was lack of legislation, for example for road pricing. Legislation often limited the ways in which a measure could be used. In some cases legal structures of responsibility (see (A)) meant that cities were legally unable to determine fares or frequencies.

**Financial barriers (Q16)** Most cities were constrained as to how much they could do by availability of finance. Usually an overall budget constraint was imposed, but in some cases finance was limited specifically for infrastructure provision or other measures. Some cities could raise revenue from drivers, but were limited as to how it could be used. Few were able to draw on private finance.

**Acceptability constraints (Q17)** While the public generally supports sustainable transport plans, they are often opposed to measures which impose extra financial costs on them. Also there is frequent opposition to new roads and car-based solutions.

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**CITY SURVEY ON DECISION-MAKING IN LAND USE AND TRANSPORT STUDY**  
**BACKGROUND INFORMATION**

**To help us categorise responses, please indicate the following:-**

Your city \_\_\_\_\_

Its population (in thousands) \_\_\_\_\_

Its rate of population growth  
(falling, low <1% pa, moderate 1-3%, high >3% pa,  
don't know) \_\_\_\_\_

Its principal economic activities  
(e.g. finance, manufacturing, tourism, services) \_\_\_\_\_

Your country \_\_\_\_\_

Your name \_\_\_\_\_

Your position \_\_\_\_\_

*Note: this information will be treated in confidence. Individual cities and respondents will not be identified*

If you wish to be included in the City email network,  
please provide your email address: \_\_\_\_\_

## A APPROACHES TO DECISION-MAKING

### Responsibilities

Q1. Please indicate, for each of the types of measure listed below, which are your city's responsibility, which are a joint responsibility and which are the responsibility of others? Where others are responsible, please identify them.

Measure	Your Responsibility	Joint Responsibility	Other's Responsibility	If Joint or Other please identify them
Land-use	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Road building	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Public transport infrastructure	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Traffic management	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Bus and rail operation	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Information provision	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Pricing	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Are all those measures which are your city's responsibility managed together (rather than in separate departments)? Yes  No

### Influences on your responsibilities

Q2. Please indicate the extent to which your ability to make decisions across the range of policy measures in question 1 is influenced by each of the following:

	Very much	Quite a lot	A little	Not at all
Adjacent authorities	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Regional authorities	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
National government	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
The EU	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

## Types of decision making approach

Q3 We have identified in our discussions three broad types of approach to decision-making:

1. Vision-led: an individual or committee has a clear vision of the measures needed to improve transport and land use in the city, and focuses all action on implementing them
2. Plan-led: objectives are specified, and the measures which best satisfy these objectives are determined, usually by analysis; the resulting plan is then implemented
3. Consensus-led: discussions take place between the stakeholders involved in transport and land use, and the measures implemented are those which attract the greatest support.

These are of course deliberately simplified descriptions, and many cities adopt a mix of them.

Which one of the following options best describes the approach in your city:

Tending to (1) <input type="checkbox"/>	Tending to (2) <input type="checkbox"/>	Tending to (3) <input type="checkbox"/>
A mix of (1) and (2) <input type="checkbox"/>	A mix of (1) and (3) <input type="checkbox"/>	A mix of (2) and (3) <input type="checkbox"/>

## Forward planning

Q4. Does your city have:

	No	Yes	Over what period
A medium term plan	<input type="checkbox"/>	<input type="checkbox"/>	(years)
A long term plan	<input type="checkbox"/>	<input type="checkbox"/>	(years)

## Modelling

Q5. In analysing your plans, does your city use:

	No	Yes	If so, which models?
Its own models	<input type="checkbox"/>	<input type="checkbox"/>	
Consultants' models	<input type="checkbox"/>	<input type="checkbox"/>	

## Participation

Q6. For each of the groups below, please tick as many columns as apply for your city:

	Formally involved	Informally involved	Strong influence	Weak influence
Business representatives	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Environmental Pressure groups	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Transport user pressure groups	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
General public	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Media	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Other (please specify)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

## B OBJECTIVES AND INDICATORS

### Objectives

Q7. We have defined a sustainable urban transport and land use system as one which

- provides access to goods and services in an efficient way for all inhabitants of the urban area
- protects the environment, cultural heritage and ecosystems for the present generation, and
- does not endanger the opportunities of future generations to reach at least the same welfare level as those living now, including the welfare they derive from their natural environment and cultural heritage.

How appropriate is this definition to your city?

Very appropriate	Quite appropriate	Neutral	Quite inappropriate	Very inappropriate
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Q8. If you answered neutral, quite inappropriate or very inappropriate, please suggest an alternative definition:-

Q9. Please indicate how important each of the following sub-objectives is to your city

	Very important	Important	Quite important	Not at all important
Economic efficiency	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Liveable streets	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Environmental protection	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Equity	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Safety	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Economic growth	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

### Indicators

Indicators can be:

- quantified, with money values assigned (e.g. time savings in Euros)
- quantified, without money values (e.g. time savings in hours)
- qualitative, (e.g. perceptions of congestion).

Q10. In monitoring performance, does your city use indicators which are:

	No	Yes
Quantified, with money values	<input type="checkbox"/>	<input type="checkbox"/>
Quantified, without money values	<input type="checkbox"/>	<input type="checkbox"/>
Qualitative	<input type="checkbox"/>	<input type="checkbox"/>



**C. TRENDS AND SCENARIOS**

**Past trends**

Q11. How important has each of the following been in determining trends in transport and land use in your city?

	Very important	Important	Quite important	Not at all important
population growth	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
economic growth	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
car ownership	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
employment structure	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
employment location	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Other (please specify)				
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**Future Scenarios**

Q12. How important is each of the following likely to be in determining future scenarios for transport and land use in your city?

	Very important	Important	Quite important	Not at all important
population growth	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
economic growth	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
employment location	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
car ownership	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
size of urban area	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Other (please specify)				
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

## D. POLICY MEASURES

### Policy Measures

Q13. How important is each of the following policy measures as a contribution to your land use and transport plan?

	Very important	Important	Quite important	Not at all important
Development pattern	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Awareness campaigns	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Flexible working hours	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
New rail lines	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Bus priority	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Bus/rail frequency	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Real time information	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Parking charges	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Road pricing	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Bus/rail fares	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Other (please specify)				
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

### Combinations of Measures

Q14. For each of the measures listed below (including any others you have specified in Q13) do you attempt to combine it with other policy measures and if so which?

	No	Yes	If so which?
Development pattern	<input type="checkbox"/>	<input type="checkbox"/>	
Awareness campaigns	<input type="checkbox"/>	<input type="checkbox"/>	
Flexible working hours	<input type="checkbox"/>	<input type="checkbox"/>	
New rail lines	<input type="checkbox"/>	<input type="checkbox"/>	
Bus priority	<input type="checkbox"/>	<input type="checkbox"/>	
Bus/rail frequency	<input type="checkbox"/>	<input type="checkbox"/>	
Real time information	<input type="checkbox"/>	<input type="checkbox"/>	
Parking charges	<input type="checkbox"/>	<input type="checkbox"/>	
Road pricing	<input type="checkbox"/>	<input type="checkbox"/>	
Bus/rail fares	<input type="checkbox"/>	<input type="checkbox"/>	
Other (please specify)			
	<input type="checkbox"/>	<input type="checkbox"/>	
	<input type="checkbox"/>	<input type="checkbox"/>	
	<input type="checkbox"/>	<input type="checkbox"/>	

## E. BARRIERS TO IMPLEMENTATION

### Legal barriers

Q15. For each of the types of measure listed below, please indicate the extent of the legal constraints on your ability to implement or modify measures. The summary gives examples of legal constraints.

Measure	major constraint	minor constraint	no constraint
Land-use	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Road building	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Public transport infra structure	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Traffic management	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Bus and rail operations	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Information provision	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Pricing measures	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

### Financial barriers

Q16. For each type of measures listed below, please indicate the extent of the financial constraints on your ability to implement or modify measures.

Measure	major constraint	minor constraint	no constraint
Land-use	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Road building	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Public transport infrastructure	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Traffic management	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Bus and rail operations	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Information provision	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Pricing measures	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

### Acceptability constraints

Q17. For each type of measures listed below, please indicate the extent of the acceptability constraints on your ability to implement or modify measures.

Measure	major constraint	minor constraint	no constraint
Land-use	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Road building	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Public transport infrastructure	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Traffic management	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Bus and rail operations	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Information provision	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Pricing measures	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Q18. Are there other significant constraints which limit your ability to implement any of the types of measure listed?

Yes  No

If yes, please describe briefly

**F. FINALLY ...**

Q19. Considering all of the issues covered above, please describe briefly what you consider to have been the most significant changes in policies and policy-making in your city over the last decade

Q20. Considering all of the issues covered above, please describe briefly what you think are likely to be the most significant changes in policies and policy-making in your city over the next decade. Please also indicate how probable it is that they will occur.

Thank you for taking the time to fill in this questionnaire. Please return it by October 20<sup>th</sup> to:

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## **APPENDIX B**

### **List of cities who responded to the survey**

The following is the list of cities from whom, at time of writing, we had received a response. It includes the 6 core cities and 54 further responses which have been analysed in the report, as well as two additional responses which have not been incorporated into the analysis as yet. These two, and any further additional responses we may receive, will be incorporated into the analysis when the report is up-dated.

Klosterneuburg (Austria);  
Steyr (Austria);  
Vienna (Austria);  
Gent (Belgium);  
Rousse (Bulgaria);  
Silistra (Bulgaria);  
Litomysl (Czech Republic);  
Saarbrücken (Germany);  
Leipzig (Germany);  
Dortmund (Germany);  
München (Germany);  
Helsinki (Finland);  
Kuopio (Finland);  
Jyvaskyla (Finland);  
Bordeaux (France);  
Brest (France);  
Dijon (France);  
Lyon (France);  
Marseille (France);  
Metz (France);  
Rennes (France);  
Saint-Etienne (France);  
Toulouse (France);  
Tours (France);  
Cork (Ireland);  
Dublin (Ireland);  
Firenze (Italy);  
Kaunas (Lithuania);  
Vilnius (Lithuania);  
Kristiansand (Norway);  
Oslo (Norway);  
Stavanger and Sandnes (Norway);  
Troms (Norway);  
Krakow (Poland);  
Lodz (Poland);  
Amadora (Portugal);  
Coimbra (Portugal);  
Alcala de Henares (Spain);  
Aranjez (Spain);

Arganda (Spain);  
Barcelona (Spain);  
Ciudad Real (Spain);  
Granada (Spain);  
Madrid (Spain);  
Pamplona (Spain);  
Salamanca (Spain);  
Santander (Spain);  
Valencia (Spain);  
Malmö Gatukontor (Sweden);  
Stockholm (Sweden);  
Umeå (Sweden);  
Uppsala (Sweden);  
St. Gallen (Switzerland);  
Zürich (Switzerland);  
Brighton (UK);  
Chesterfield (UK);  
Edinburgh (UK);  
Leeds (UK);  
Milton Keynes (UK);  
Norwich (UK);  
Sunderland (UK);  
Swansea (UK)