Findings of the 'Phase 3' Survey on the Barriers to the Delivery of Sustainable Transport Solutions

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A3 – Final Report

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LIST OF ABBREVIATIONS AND ACRONYMS

AQMA	Air Quality Management Area
BVPI	Best Value Performance Indicator
CO	Carbon Monoxide
CO2	Carbon Dioxide
DCLG	Department for Communities and Local Government
DfT	Department for Transport
DISTILLATE	Design and Implementation Support Tools for Integrated Local Land-use,
ECMT	European Conference of Ministers of Transport
EPSRC	Engineering and Physical Sciences Research Council
EU	European Union
GOR	Government Office in the Region
LDF	Local Development Framework
LRT	Light Rapid Transit
LSP	Local Strategic Partnership
LTP	Local Transport Plan
NATA	New Approach to Transport Appraisal
PIA	Preliminary Impact Assessment
PM	Particulate Matter
PSA	Public Service Agreement
PT	Public Transport
PTE	Passenger Transport Executive
PTR	Public Transport Rate
RDA	Regional Development Agency
SEA	Strategic Environmental Assessment
S106	Section 106 planning gain agreement
SPD	Supplementary Planning Document
SS	Seriousness Score
SUE	Sustainable Urban Environment

DISTILLATE: **Barriers to the Delivery of Sustainable Transport Solutions**

A Report for the DISTILLATE research programme by the Heriot Watt University, Edinburgh

OVERVIEW

This report summarises the re-survey in 2007 of transport planners in the 16 DISTILLATE local authorities and their experiences of the barriers to the delivery of sustainable transport solutions. This is the third report on the barriers to delivery produced by the EPSRC-funded DISTILLATE consortium. The first survey (1st Phase) of the 16 DISTILLATE local authorities was carried out in 2004. The second report, produced in 2006, assesses the extent and methods to which different parts of local authorities (transport planning, land-use planning, environmental strategy, public health, and corporate policy) interact in the delivery of transport strategies and schemes and the methods by which they do so.

A common aim of this report (3rd Phase) with the 1st Phase report was to identify what the officers who are actually implementing sustainable transport schemes consider to be the key barriers in the process of delivering sustainable transport systems.

The evidence of this report confirms the existence of key barriers in local authorities' ability to deliver a step change in the way in which sustainable urban transport and land-use strategies are developed and delivered, as:

- Organisational barriers affecting the way in which local authorities are able to work as organisations and together with others
- Technical barriers affecting the ability of officers to make sound, evidence-based judgements for the development of effective strategies
- External barriers arising from the framework and context of decision-making which impinge upon the local delivery of sustainable transport strategies.

This study adds to a body of evidence that identifies similar process barriers in the delivery of sustainable transport plans and policies (e.g. Atkins, ECMT, STELLA, TRANSPLUS, PROSPECTS). The three phases of the Project A research on barriers has fed into the DISTILLATE research and the development of products to inform and aid the more effective use of indicators, option generation, option appraisal, modelling and funding in the process of local transport strategy and scheme delivery. The three Project A reports and other reports and products produced through the DISTILLATE research can be accessed online through http://www.distillate.ac.uk/

EXECUTIVE SUMMARY

DISTILLATE is a consortium of five research institutions, working together with local authorities to help develop, deliver and achieve a step-change in the delivery of sustainable transport and land-use strategies. The research was funded by the Engineering and Physical Sciences Research Council between April 2004 and March 2008. Full details of the research carried out and DISTILLATE "products" aimed at helping local authorities overcome some of the issues they face in implementing sustainable transport policies and schemes can be found at http://www.distillate.ac.uk

This report summarises the findings of the 2007 survey of DISTILLATE local authorities. A collective response was received from transport officers in 11 English local authorities. The aim of the survey was to look at the barriers facing local government transport officers in the delivery of sustainable transport by considering the following questions:

I. Which stages in the process of local transport strategy and scheme delivery are regarded as being most problematic?
II. What difficulties are encountered when working with other stakeholders, and how is it possible to prioritise them?
III. How do internal working arrangements contribute to (or hinder) the technical decision-making process?
IV. Which policy instruments are most difficult to implement, and at which stage(s) of decision making are they most incongruous?
V. What specific difficulties are faced in the development, compatibility and use of the following design and implementation decision-support tools:
    - indicators;
    - option generation;
    - modelling; and
    - appraisal;

    and what more is needed from these 'tools' in order to help overcome the difficulties faced in the implementation of policy instruments?
VI. What funding sources are available, and how do funding and phasing regimes impact upon the implementation and outcomes of local transport schemes?

Regarding organisational barriers inhibiting the delivery of sustainable transport policies, our key findings are that:

- Specific organisational obstacles affect joined-up working within authorities. Pressures on staff time and resources were felt by all 11 authorities. The different timing of writing and publishing plans and the different stakeholder engagement procedures were seen as hindrances all the time or often by over half of the authorities.
- Some of these are sector-(discipline or department) based, and some related to procedures or stages in the planning and delivery process such as modelling and obtaining funding for strategies and schemes.
- Working with stakeholder groups provides serious difficulties. These are most commonly associated with the engagement of business interests, other public services, members of the public, officers from other departments in the authority, and the Local Strategic Partnership.
- Fares, light rapid transit, and restraint-based measures are seen as the most difficult instruments to implement as part of an effective transport strategy. Land-use measures and buses are also associated with serious implementation worries.
- Major scheme project funding, Section 106 agreements and EU grant funding streams have led to delayed implementation and truncation in the delivery of scheme objectives. Authorities are either using, or considering using, planning gain and road user charging to fund transport schemes.
- Obtaining revenue funding (e.g. lack of ongoing operational or maintenance subsidies) is a difficulty. Scheme development costs and infrastructure building are also financially constrained.

From the opinions of the officers involved, these were the key barriers affecting local authorities' ability to use decision-making tools for the delivery of sustainable transport solutions:

- Most of the authorities felt that land use developments being approved make it harder to achieve the national government transport policies. Transport officers were most dissatisfied with indicator use in the option generation stage.
- Construction costs, accessibility, public transport patronage and traffic levels are the most important indicators in small and medium scheme appraisal. Impacts of transport schemes on biodiversity, water pollution and CO2 emissions are the least important. Most respondents are confident in their ability to assign weights to construction cost, accessibility, and traffic level indicators in a multi-criteria appraisal.
- Soft measures, land use measures, walking and cycling provision are the policy instruments transport officers have the most difficulty in modelling.

Perceptions of the adequacy of the external framework for pursuing a sustainable local transport system provide these conclusions:

- The biggest immediate problems faced by local transport officers are the lack of funding for operational subsidies and scheme maintenance and public acceptability of congestion charges.

Different types of public sector organisation (eg unitary; District) responsible for implementing sustainable transport policies have the following differences in attitude:

- A "faint" general pattern emerges from the answers which can be attributed to authority type and therefore "explained" by the extent of its responsibilities and capacity to provide and implement transport policy, schemes and strategies.
- PTEs seem to have more general and diverse transport "interests" than District authorities, who are mainly concerned on the local level and more on the "engineering" and/or "micro-planning" side of transport.

The perceptions of Local Authorities have changed between 2004 and 2007 in the following fashion:

- There is a greater sense that the "implementation" and "monitoring and evaluation" stages of policy delivery have become less problematic in 2007, when compared to 2004.
- The importance of DfT involvement in the overall delivery process for sustainable strategies and schemes is perceived to have reduced since 2004.
- In 2007 there was a general tendency for authorities to be more satisfied by the involvement of most stakeholders than in 2004, implying improvement in cooperation between different organisations and interest groups.
- There is general trend in 2007 to assign more "importance" to the various policy instruments that contribute to the authorities' transport strategy, than the equivalent responses in 2004.
- In discussing the issue of the importance of indicators when assessing small and medium transport schemes, in the 2004 results the number of "no answers" was significantly higher than in 2007. This might imply that the information and the awareness on the various issues addressed by these indicators have increased through the years, which also is supported by the increased importance given to most indicators in A3, compared to A1.
- Concerning modelling issues, the high number of the "don't know" answers in 2004 questionnaire is significantly reduced in 2007, implying increasing knowledge on the issue. This also might signify that the ability of authorities to model various policy instruments has increased between 2004 and 2007, which also might explain the discernible "disillusion" with the importance of modelling in the 2007 results.

1. INTRODUCTION TO THE SURVEY

This report forms the main documentation for the survey of local authorities undertaken by Project A in 2007 as part of the EPSRC funded DISTILLATE research. The aim of DISTILLATE is to help deliver sustainability through improving the design and implementation support tools available for the delivery of transport at a local level, and a better understanding of the decision-making processes that operate at that level.

1.1. Project A research questions

The three phases of Project A, and the Project A reports available on the DISTILLATE website, have focused on the following research questions:

- Which stages in the process of local transport strategy and scheme delivery are recognised as being most problematic?
- What difficulties are encountered when working with other stakeholders, and how is it possible to prioritise them?
- How do internal working arrangements contribute to (or hinder) the technical decision-making process?
- Which policy instruments are most difficult to implement, and at which stage(s) of decision-making are they most incongruous?
- What specific difficulties are faced in the development and use of analytical support tools into the following aspects of decision-making: indicators; option generation; modelling; and appraisal; and what more is needed from these 'tools' in order to help overcome the difficulties faced in the implementation of policy instruments?
- What funding sources are available, and how do funding and phasing procedures impact upon the implementation and outcomes of local transport schemes?

1.2. Background to the survey

Heriot-Watt University carried out a questionnaire survey of 16 transport planning authorities (hitherto "local authorities"[1]) on behalf of the DISTILLATE[2] consortium[3] between August 2007 and

[1] Used in its widest sense to include the following political-administrative layers: Regional Assembly; Passenger Transport Executive; County; Metropolitan Authority; Unitary Authority

[2] The acronym for Design and Implementation Support Tools for Integrated Local Land-use, Transport and the Environment

[3] The DISTILLATE consortium consists of the Heriot-Watt University; the Centre for Transport Studies (CTS) at University College London; the Institute for Transport Studies (ITS) at the University of Leeds; the Stockholm Environment Institute (SEI-Y) at the University of York; and TRL.

January 2008. The survey focussed on the technical, organisational and external 'barriers' faced by transport officers in the delivery of transport at a local level, by investigating the beliefs and experiences of the local authority respondents. The key driver for this second questionnaire survey of the DISTILLATE local authorities was to ascertain to what extent the perceived barriers in 2004 were still a concern in 2007. The questionnaire was also designed to collect data on:

- The use of tools: indicators, option generation and appraisal, modelling, funding
- How the process of delivering transport strategies and schemes has changed at national, regional and local levels.
- Changes within local authorities

The first questionnaire survey was completed by the 16 DISTILLATE local authorities during the period when they were developing their second Local Transport Plan (LTP2). Completion of the second questionnaire, however, occurred during the initial stages of the implementation of LTP2.

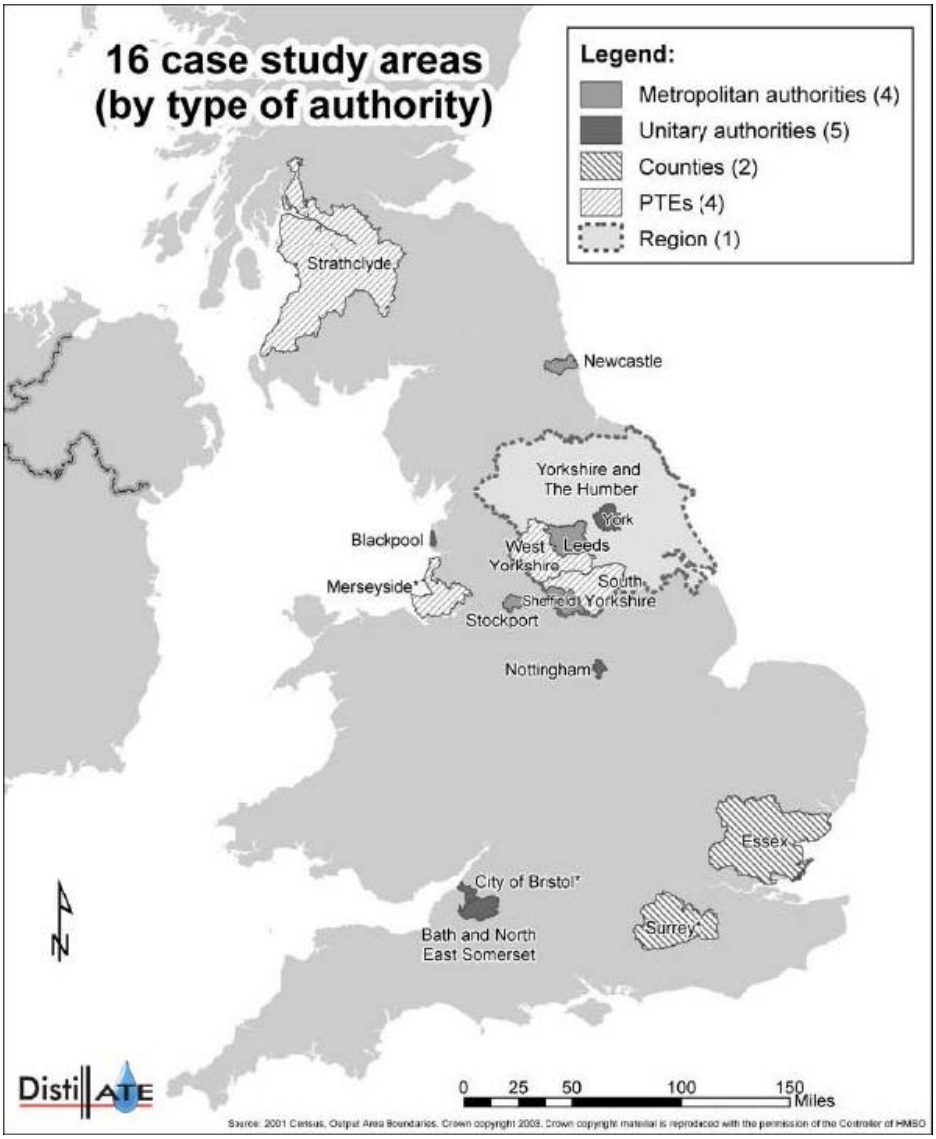
1.3. Profile of survey sample

The survey targeted the 16 DISTILLATE local authorities and, specifically, the transport officers who had been working with the DISTILLATE consortium since the Scoping Study in 2003. These authorities are typical of the range of UK administrative types as can be seen in Figure 1 below.
The DISTILLATE case study area covers a total population of over twelve and a quarter million people (based on 2001 census figures).

2. SURVEY METHODOLOGY

The following section outlines the research methodology used for the preparation and administration of the second questionnaire (the Phase 3 survey), including a background to some of the decisions taken during the formative stages and developmental process, and how the results were analysed. Since this is a follow-up survey, the methodology and the analysis inevitably drew heavily from the Phase 1 questionnaire. The report on the Phase 1 survey (Hull and Tricker, 2005) includes an extensive section reviewing the methodologies used in state-of-the-art surveys. This report should be referred to for details of how the questionnaire was piloted and revised with the help of both the DISTILLATE and other local authorities, and UK transport planning experts.

Figure 1: Geographic distribution and administrative categories of the DISTILLATE local authorities



(* = designated 'super site' status in the research). Map: Michael Horswell, UWE

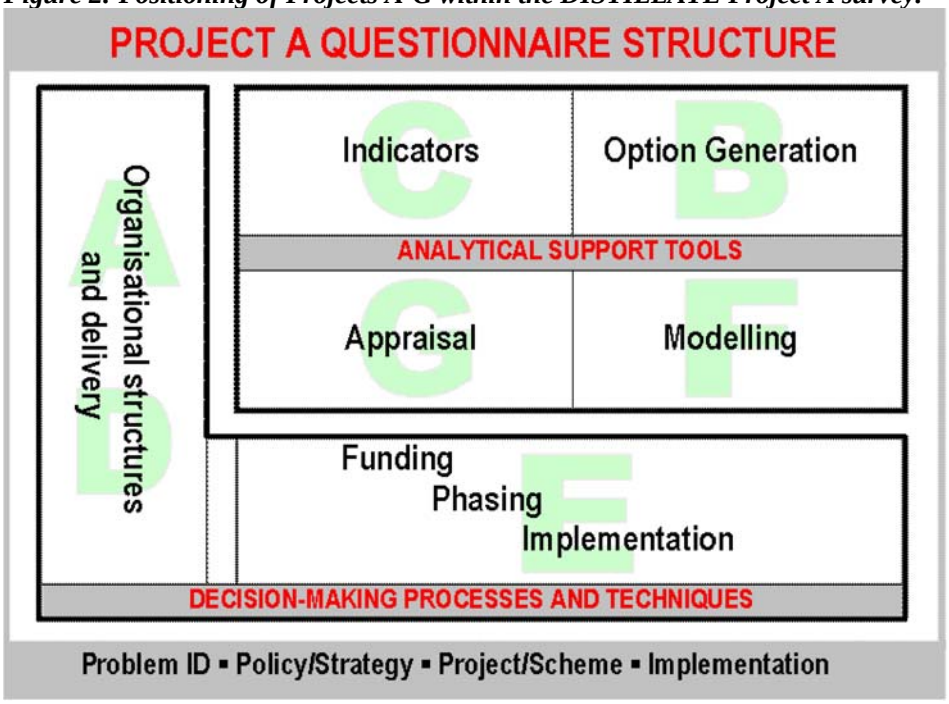
2.1. Structure of the questionnaire

The second questionnaire follows the structure of the first questionnaire, viz:

- Section 1 – The process of local transport strategy and delivery scheme (DISTILLATE Project A, D)
- Section 2.1 – Indicators (DISTILLATE Project C)
- Section 2.2 – Option generation (DISTILLATE Project B)
- Section 3.1 – Option appraisal (DISTILLATE Project G)
- Section 3.2 – Modelling (DISTILLATE Project F)
- Section 4 – Funding, phasing and implementation (DISTILLATE Project E)

The six sections of the questionnaire equate to the separate projects within DISTILLATE. Figure 2 shows the project linkages. The full questionnaire can be downloaded from the DISTILLATE website: http://www.distillate.ac.uk/projects/project-a.php

Figure 2: Positioning of Projects A-G within the DISTILLATE Project A survey.



The survey consisted of closed (tick-box style, using ordinal semantic scales) and open (text-box style) questions, yielding mostly qualitative data for further analysis and use in the research. Less informative questions from Phase 1 were dropped to keep the Phase 3 questionnaire shorter and to avoid the burden of repetition. Being more specific, 12 open-ended questions and 31 tick-box questions were employed. The questionnaires were self-completed, coordinated by a 'Primary Contact' person from within each authority. A 69% response rate was achieved (11 out of the 16 questionnaires were completed).

25 questions and sub-questions from the first questionnaire are repeated (or had very similar form) in the second questionnaire. Where appropriate the names of organisations have been updated. 35 questions from the first questionnaire have been removed from the second questionnaire. In their place, 18 new questions more relevant to the design and targeting of the DISTILLATE products have been included. There was, also, a slight change in categories between the two questionnaire surveys. The second questionnaire split the category of “demand restraints” into:

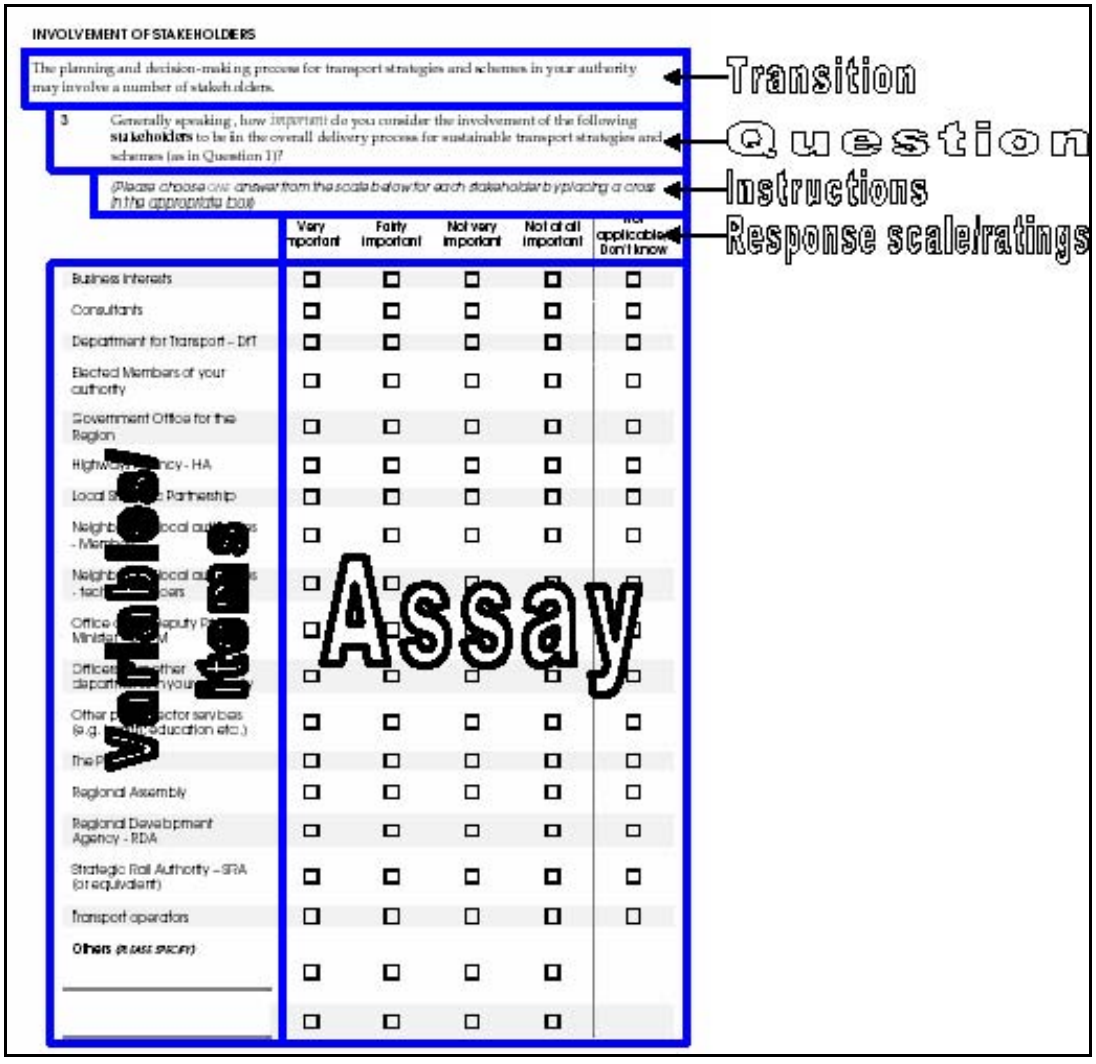
- Demand restraints: parking
- Demand restraints: congestion charging

- Demand restraints: parking and congestion charging combined

The layout and format of the first questionnaire is retained in the second questionnaire (see Figure 3). Questionnaire terminology was checked for consistency by the DISTILLATE management group to ensure best practice survey design, including:

- Clear instructions
- Use of transitions (information between questions)
- Avoidance of filter ('if…') questions
- General aesthetics and clarity of layout, including careful use of typefaces
- Logical grouping and ordering of sections/questions
- Alphabetisation of item lists

Figure 3: An example of the questionnaire format



2.2. Survey response scales

A variety of response scales was used in this survey. These employed nominal ('named') data response categories (using matrices) and ordinal ('ordered') scales (using semantic and/or numerical scales[4]). The most commonly used scales were 'importance' and 'satisfaction' scales. The questionnaire was designed to inquire into the 'beliefs' of our authority partners. The answers therefore rely either on personal expectation, or how they value their performance in relation to external criteria, e.g. in relation to guidance, targets, constraints (e.g. staff availability or other resource issues) or other parameters.

An improvement scale was used in place of the satisfaction scale in some questions to avert the risk of respondents feeling unwilling to exert self-criticism over their own work or practices (or their organisation). A numerical (1-4) system was chosen to allow respondents to spread their answers according to the degree of scope for improvement they accorded to each variable, relative to other variables in the question rather than according to a semantic and pre-defined scale. We were also keen to avoid 'misery research' (Rothstein, 1998), where it could be implied our respondents must be doing something wrong (otherwise why would we be asking some of these questions). For these questions, the survey recognised that practical 'improvements' may be more critical in delivering urban sustainability (within the policy framework authorities have to work within, imparted upon them from a higher level of government in many respects), rather than a feeling of general satisfaction with their ability to deliver. The survey asks them to differentiate or think about where delivery could be improved (e.g. 'what more could they do').

As stated above, most variables required one tick or cross (only) per variable listed. Respondents were offered 'Don't know' or 'Not applicable' (or other equivalent) choices where this was deemed appropriate, however some questions were presented with 'forced choice' scales to minimise the risk of receiving non-committal answers. Other questions were set up in the form of a matrix where a 'tick all that apply' answer for each variable was requested.

2.3. Administration of the survey

All the 16 local authorities have been committed to and involved with the DISTILLATE research and thus are familiar with the nature of the Project A research and the interviews, workshops and other DISTILLATE projects.

[4] See Magenta Book for more detail on the different types of data (Strategy Unit, 2004)

All data was collected using the self-administered questionnaire. Electronic versions and hard copy versions of the survey were sent out to the DISTILLATE contact officers in each of the 16 local authorities in August 2007, with an accompanying one page covering letter requesting a prompt return by the end of the first week in September. Four follow-up reminders were sent to the DISTILLATE contact officers by e-mail during the months of September and October. An attempt was made to establish new contact officers within non-responding local authorities during November 2007. Finally the project manager and the Steering Group chairman each wrote, in December and January respectively, to the second tier heads of departments in which transport planning resided in those authorities that had not responded. 11 full returns and one personal response were received.

2.4. Analysis and reporting

Because of the modest sample size in this research (due to the in-depth nature of the research in DISTILLATE itself, and more qualitative nature of enquiry), any trends in the data are not significant (and should therefore not be applied) at any wider or national scales. The data reflects only the views of those authorities within DISTILLATE during the response period.

As already stated, two types of data were gathered from the survey:

a) text box data (from open-ended questions)
b) tick-box data

Both types of questions yielded qualitative data. The nature of the answers to the tick-box questions meant that the views expressed in the responses could be more easily prioritised graphically, by aggregating responses together across all respondents (or cases). The graphs produced are included in Section 3 of this report.

Text box data were important in interpreting the key determinants behind the tick-box answers given. The data for each section of the questionnaire has been sent to Project Managers for more detailed analysis appropriate to their individual project objectives. A summary from the thematic text analysis from the questionnaire relating to barriers is included in Annex 2.

2.4.1. Seriousness Score[5]

The importance and satisfaction (or improvement, or other equivalents) rating are important, but their combination is also interesting. Similar surveys (e.g. Pacific Consulting Group, 2002) have used an index estimated from the average satisfaction rating that is weighted by the importance rating for each

[5] This section has been reproduced from Hull and Tricker, 2005

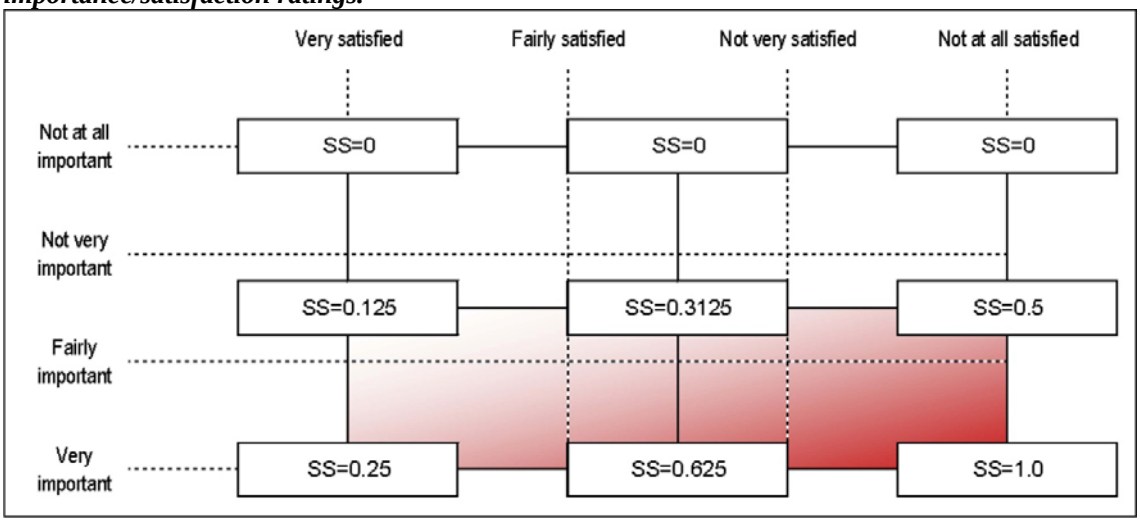
variable. Equation 1 illustrates how the “seriousness score” is calculated, with Figure 4 providing a graphical display of the “seriousness score”. Annex 1 gives the scores for all relevant questions and variables. Equation 1 combines “importance” and “satisfaction”, so that those factors that are most important but least satisfactory are given priority. These represent the weighting or “seriousness” of the 'barriers' as perceived by our local authority respondents. The range and meaning of the seriousness score numbers are further clarified in Figure 5. Table 1 provides an explanation on the coding and its meaning when calculating the seriousness score.

Figure 4: Rationale behind the calculation of 'seriousness' scores

Equation 1: Calculation of the seriousness score using survey data for importance and satisfaction.

$$SS = \frac{\left[1 - \left(\frac{mean\_importance - importance\_scale\_min}{range\_of\_scale}\right)\right] \times mean\_satisfaction}{satisfaction\_scale\_max}$$

Figure 5: Illustrative example of 'seriousness' scores (SS) for end ranges and mid-points for importance/satisfaction ratings.



Darkening of shading indicates an increasing degree of seriousness, or 'locus for focus'

It should be noted that the type of statistical analysis described above merely provides an overview on which to ground further interpretation of the data. Examining the patterns within each case (i.e. all answers given by a particular respondent), and the patterns between cases will provide, through linking answers to different questions together, an initial conception of possible (but not necessarily interdependent or causal) linkages between the different types of barrier being experienced.

Table 1: Equivalents between importance and satisfaction/improvement ratings

Survey rating scales			Data coding	Seriousness calculation		
Importance	Satisfaction	Likely scope for improvement	Original data coding (for Excel spreadsheets)	Re-coding for seriousness calculation (normalised value in brackets)		
				Imp.	Sat.	Impr.
Very important (++)	Very satisfied (+++)	1 Could be improved most (++++)	**1**	4 (1)	1 (0)	4 (1)
Fairly important (+)	Fairly satisfied (++)	2 (+++)	**2**	3 (0.67)	2 (0.33)	3 (0.67)
Not very important (-)	Not very satisfied (+)	3 (++)	**3**	2 (0.33)	3 (0.67)	2 (0.33)
Not at all important (--)	Not at all satisfied (0)	4 Could be improved least (+)	**4**	1 (0)	4 (1)	1 (0)

3. RESULTS OF THE SURVEY

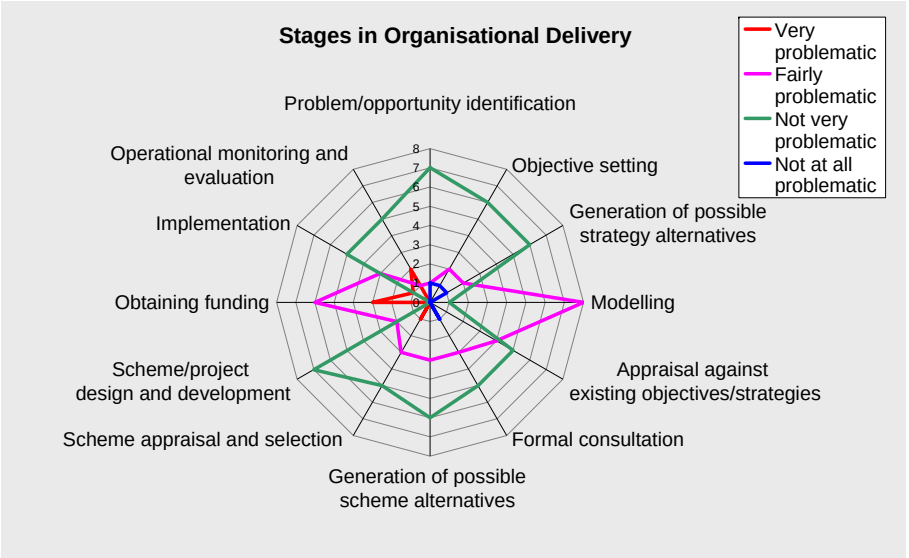
Section three presents the aggregated results (across 11 cases/respondents) for each variable (or item) of each question, for each of the six sections of the questionnaire. The text responses to each of the open-ended questions are presented in Annex 2.

3.1. Section 1 – The process of local transport strategy and scheme delivery

STAGES IN ORGANISATIONAL DELIVERY

The survey asked our authorities about the level of problems they had experienced in the process of delivery for transport strategies and schemes. These stages of delivery were tested in the Phase 1 survey pilot and proved to be the most appropriate to transport practitioners.

1: To what degree do you find each of the following stages to be problematic in the delivery of sustainable transport strategies and schemes?

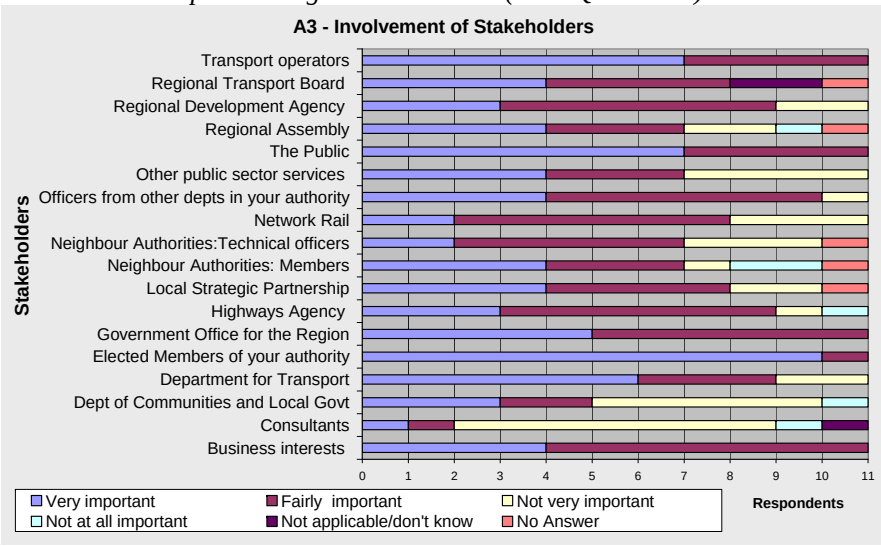


It is clear from the graph that the most problematic stage is obtaining funding, followed closely by the modelling stage. The responses also point to the experiencing of problems during appraisal stages, implementation and generation of possible scheme alternatives. Less problematic stages were reported to be identifying what the problems/opportunities are, and scheme/project design and development.

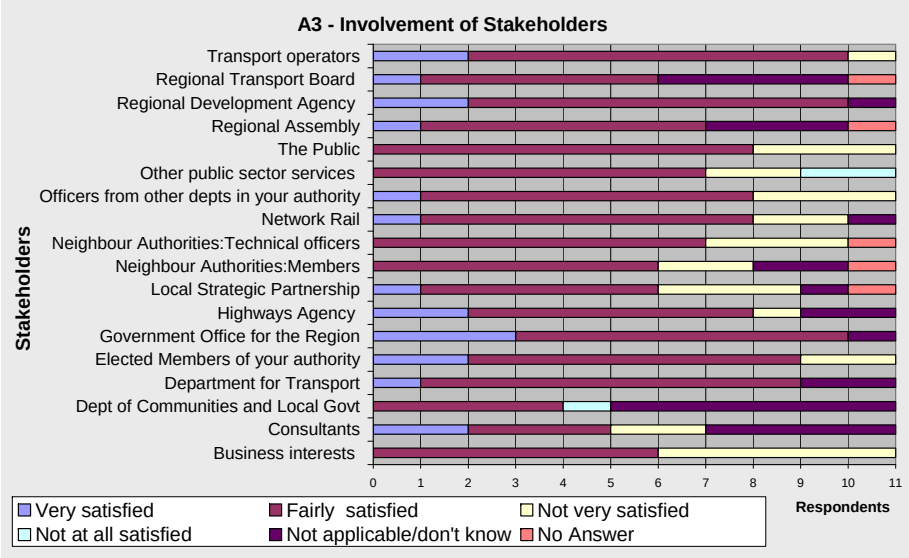
THE INVOLVEMENT OF STAKEHOLDERS

The engagement of relevant stakeholders has been acknowledged as a necessary part of the decision-making process for sustainable development, and in the delivery of effective transport measures. This question looked at the importance authorities attach to the involvement of a pre-selected set of stakeholders. We also explored the levels of satisfaction held by authorities with the way these stakeholders engage in the process, looking towards highlighting those for whom an improvement in engagement could benefit the overall process.

3: Generally speaking, how important do you consider the involvement of the following stakeholders to be in the overall delivery process for sustainable transport strategies and schemes (as in Question 1)?



4a: How satisfied are you with the way in which the following stakeholders engage in the overall delivery process?

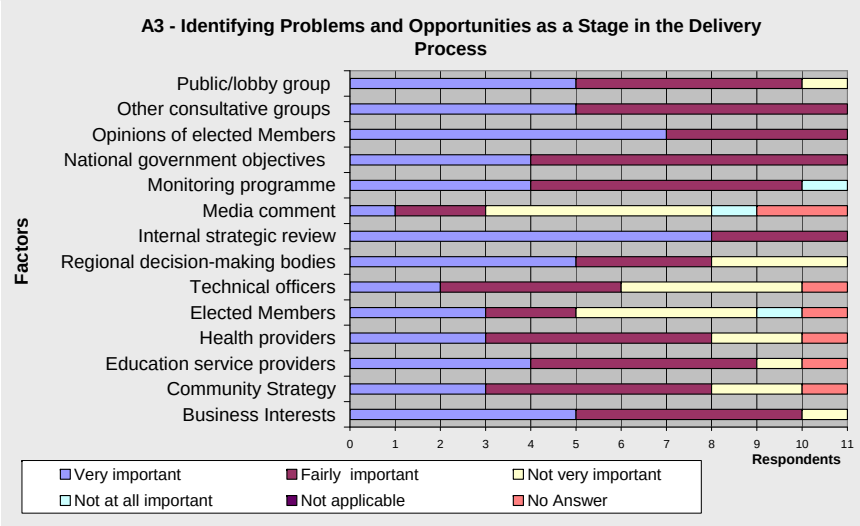


The results show that elected Members, 'the public' and transport operators come out as being the most ("very") important stakeholders, closely followed by DfT, and the Government Offices. Least importance was accredited to consultants, neighbouring authorities' members and Network Rail. Most dissatisfaction was directed towards other public services, business interests and the public. The Government Offices for the Region had the highest levels of satisfaction associated with them in the way they engage in delivery. Regional Development Agencies and Transport Operators were also shown to have satisfactory levels of engagement.

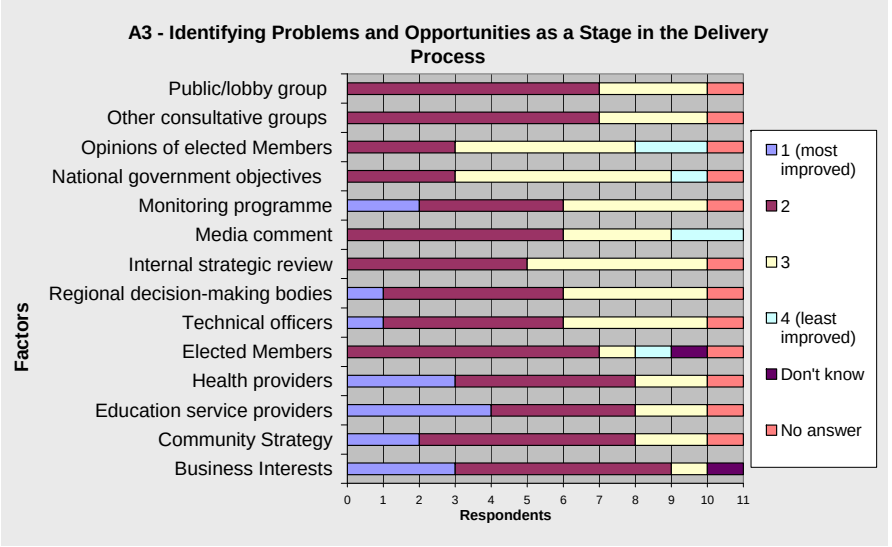
IDENTIFYING PROBLEMS AND OPPORTUNITIES AS A STAGE IN THE DELIVERY PROCESS

This question looked at what was perceived to be the initial 'conception' stage of policies – namely problem (or opportunity) identification. This question compared the effectiveness of the different channels that highlight or give attention to particular issues requiring transport solutions.

5: How important do you consider the following factors to be in the problems/opportunities identification stage in your authority?



6: To what degree do you consider these influences could be improved in order to aid the identification of potential problems or opportunities?

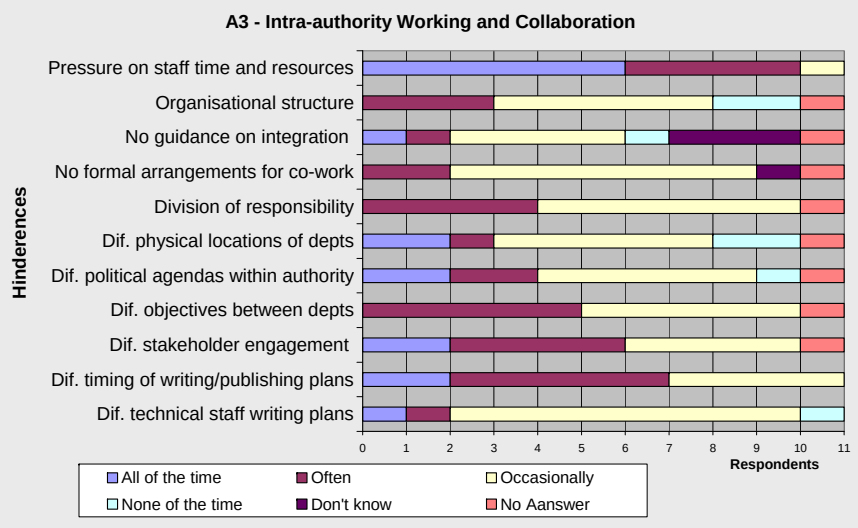


Among the areas in which respondents felt improvements could be made most during 'issue identification' were the business interests, community strategies, the health and education providers; of these, the business interests was felt to be the most important. It was felt that much less could be done to improve the part that the Government and Elected Members play in this stage – with most respondents feeling that Elected Members were the most important inputs into policy conception, alongside internal discussions held among officers. The media was considered to be the least important influence.

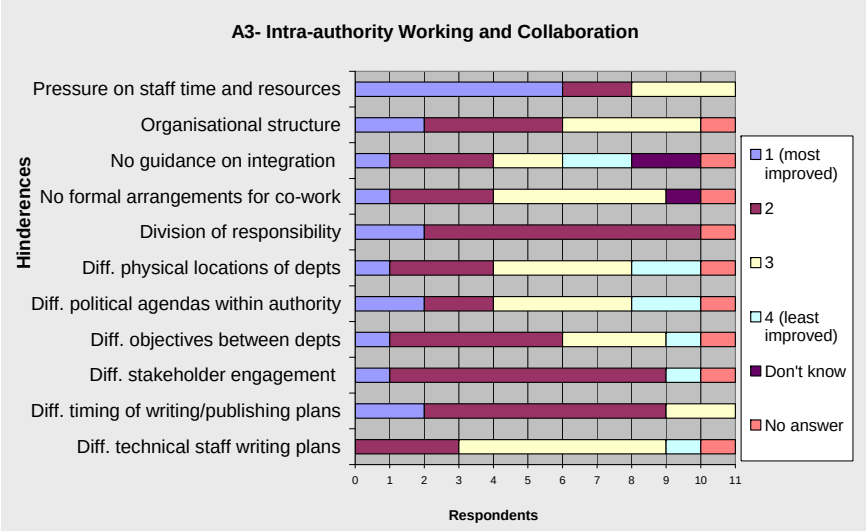
INTRA-AUTHORITY WORKING AND COLLABORATION

A number of hindrances to integrated or cross-disciplinary working within organisations that can effect the degree to which officers are able (and willing) to work together have been highlighted (Atkins, 2003; DfT, 2006). This question was aimed at the practical aspects that have an impact on the delivery of joined-up solutions at a local level.

7: How often when working with other parts of your authority do you consider that the following factors form a hindrance?



8a: To what degree do you consider these factors could be improved to aid the development of transport strategies and schemes in your authority?



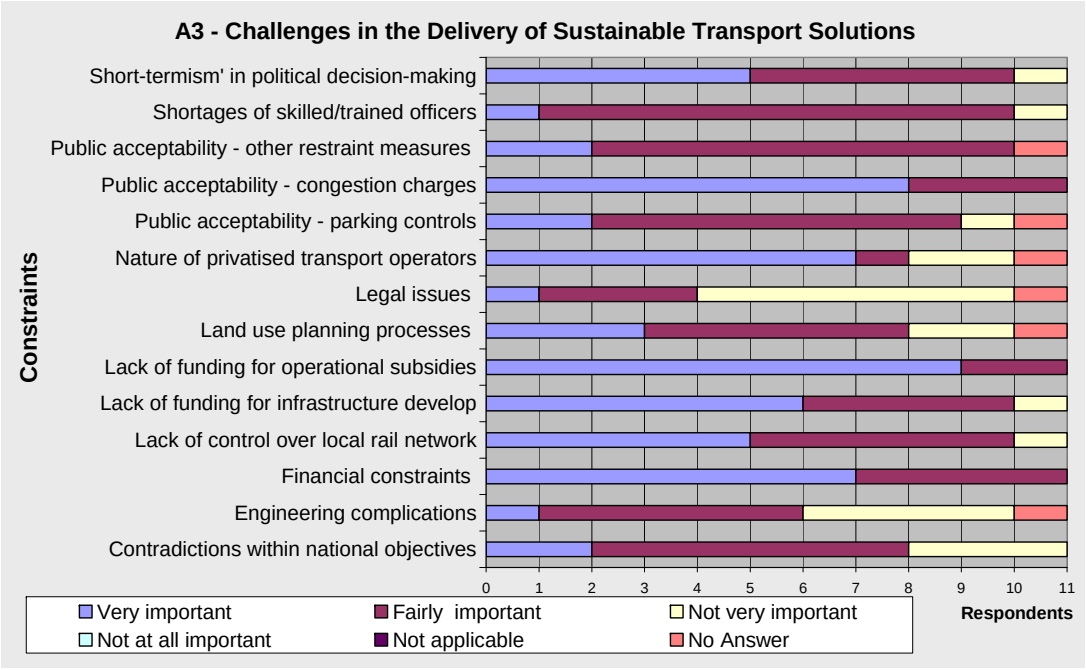
The issue of time and resources was, by far, seen as the most common constraint to intra-authority collaboration. Timing of plan writing and different stakeholder engagement procedures were also reported to act as barriers. It was felt that all these three areas could be improved, with the use of officer time and resources having by far the greater room for improvement. Although the division of responsibility for transport policy delivery was not experienced very often by most, it was agreed that it requires considerable improvement.

Problems reported as being experienced more occasionally, relating to political issues, physical location and different objectives between departments, also had a mixed response on the degree to which improvements were feasible. However, along with guidance on integration, more formal arrangements for co-working and the issue of different staff writing plans, respondents were slightly more inclined to limit the extent to which they believed these factors could be improved.

EXOGENOUS CHALLENGES IN THE DELIVERY OF SUSTAINABLE TRANSPORT SOLUTIONS

External factors can influence the way a local authority selects and shapes the parameters of their transport policy and delivery at the local level. These factors can have both facilitating (resources, etc) and limiting effects in the form of challenges, barriers, constraints and hindrances. The extent to which these external challenges form immediate or future obstacles were assessed in this question, to set the research into its proper context. There is a natural link to the question of the engagement of those stakeholders (in Questions 3 & 4) who have the most influence or control over these encumbrances upon delivery.

9: How important do you consider the following items to be in presenting immediate or future obstacles to the delivery of a sustainable transport system?

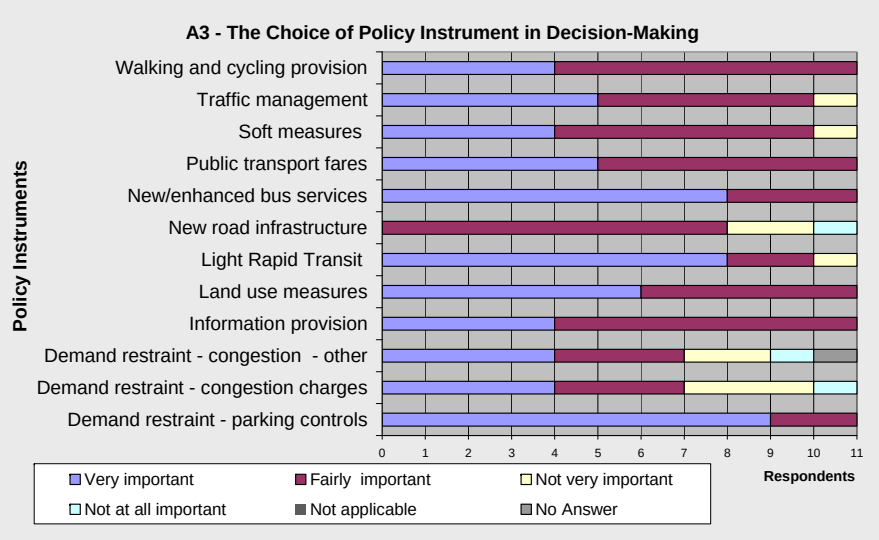


The lack of funding for operational subsidies, public acceptability of congestion charges and financial constraints were judged to be the biggest challenges faced by local authorities in their delivery of sustainable transport solutions. The majority of respondents also felt that, of those issues listed, the privatised operation of public transport, short-term political decision-making, a lack of control over the local rail network, and lack of funding for infrastructure development were very or fairly important problems which would impact on their delivery of a sustainable transport system. Land use planning procedures, public acceptability to parking control and other restraint measures and skills shortages were less severely noted as barriers. Engineering procedures, contradictions within national objectives and legal issues were the least serious external barriers.

THE CHOICE OF POLICY INSTRUMENT IN DECISION-MAKING

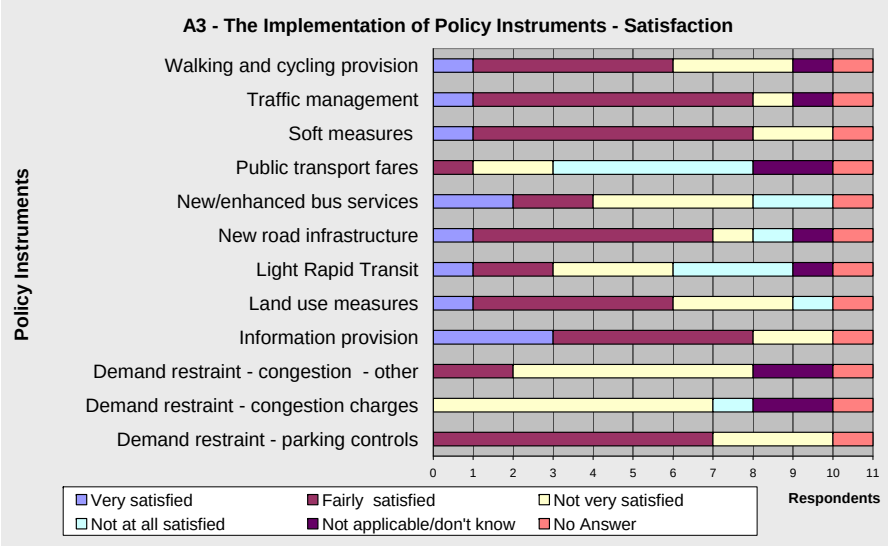
This question looks at the contribution made by various types of policy intervention (instrument) to the transport strategies adopted by local authorities. Disregarding specific attention to the 'packaging' of measures (acknowledged to be important), this question shows priority given to, and awareness of, different types of policy instruments.

12: Generally speaking, how important do you consider the following policy instruments to be in contributing to your transport strategy?



Parking controls and new or enhanced bus services were seen as the most important policy instruments in the pursuit of a sustainable transport strategy; with land-use measures, information provision, public transport fares, cycling-walking provisions and LRT being also assigned high importance. Other demand restraint measures were seen as less important by many of the respondents.

13a: To what degree are you satisfied with your authority's ability to implement these policy instruments?



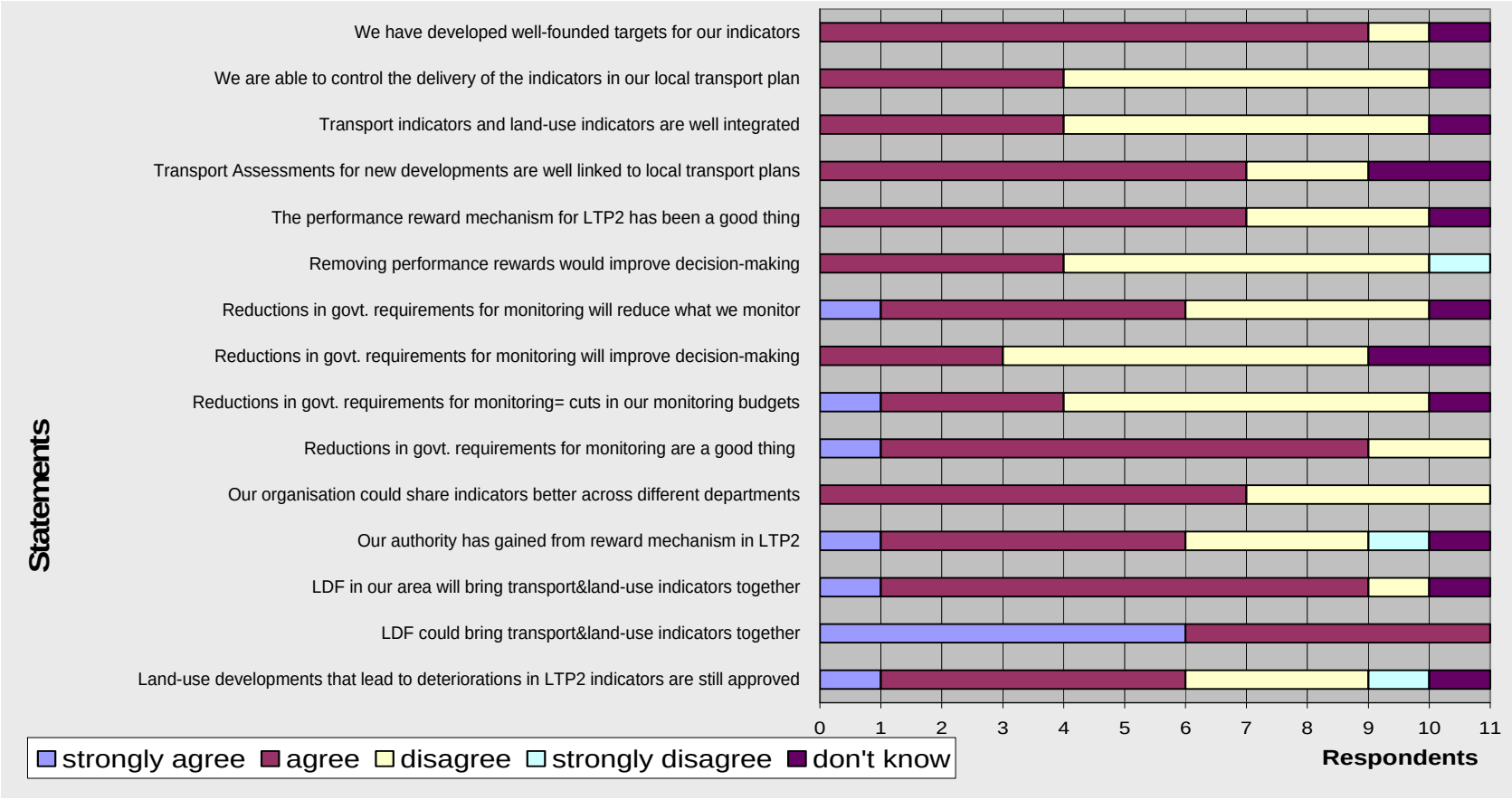
No respondent was satisfied with the authority's ability to implement congestion charges and there is general dissatisfaction with the ability of introducing other demand restraint measures. Most respondents also stressed their dissatisfaction with their ability to control PT fares, with only one respondent being fairly satisfied. "Information provision", "traffic management" and "soft measures" policy instruments were implemented in a satisfactory manner according to the perception of most respondents. The opinion on the other policy instruments with regard to satisfaction is divided.

3.2. Section 2.1 – Indicators

INDICATOR USE IN THE POLICY/DECISION-MAKING FRAMEWORK

Indicators may be used to measure performance, monitor achievement of strategic objectives and/or inform strategy development. This question enquires about the how the decision making process and the policy framework interact with the use of indicator.

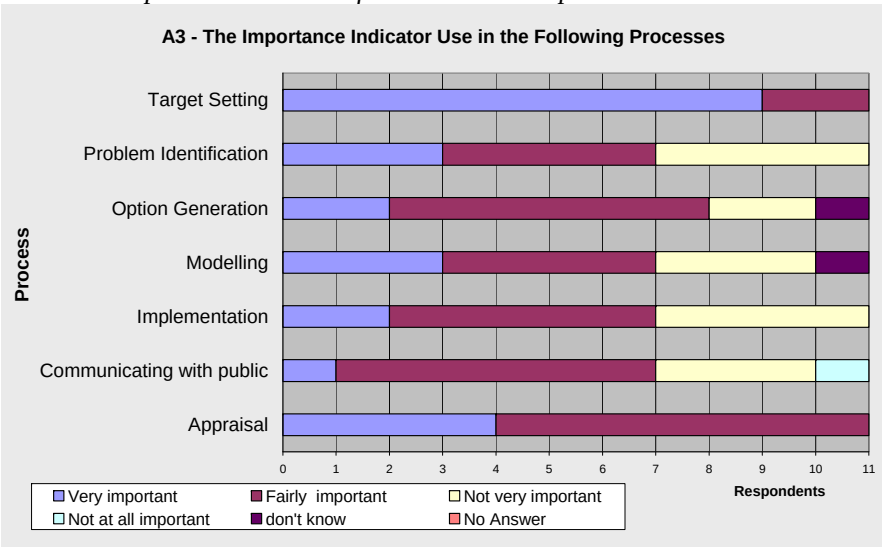
14: Please consider the following statements and choose one answer from the scale below



It is agreed by all that Local Development Frameworks (LDF) could generally bring transport and land use indicators together. There also seems to be much agreement with the statements that "we have well-founded targets for our indicators" and "reduction in government requirements for monitoring is a good thing". However, the reduction in government requirements for monitoring is not seen to improve decision making or to result in cuts for authorities' monitoring budgets. For the other issues the opinions are divided and there is no clear consensus, except the statement that "removing performance rewards would improve decision making", to which most authorities disagree.

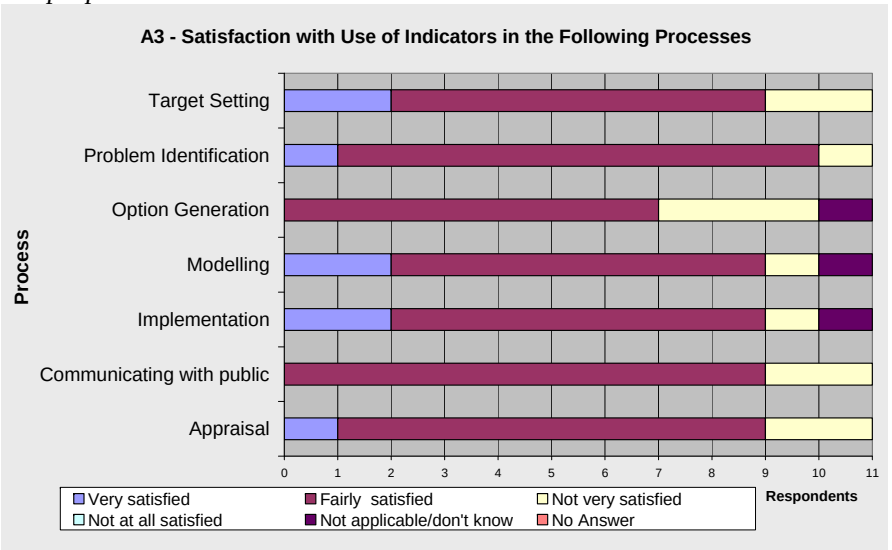
The following two questions deal with the use of indicators through the various stages of the decision making process. First, the importance of using indicators in the various stages is enquired, followed by the satisfaction with each authority's indicator use for each stage.

15a: How important is the use of indicators in the process?



Target setting is the stage in which indicator use is most important, closely followed by appraisal. In all other stages most of the authorities consider the use of indicators important, but there is a minority that disagrees with this importance.

15b: How satisfied are you with your organisation's use of indicators for this purpose?



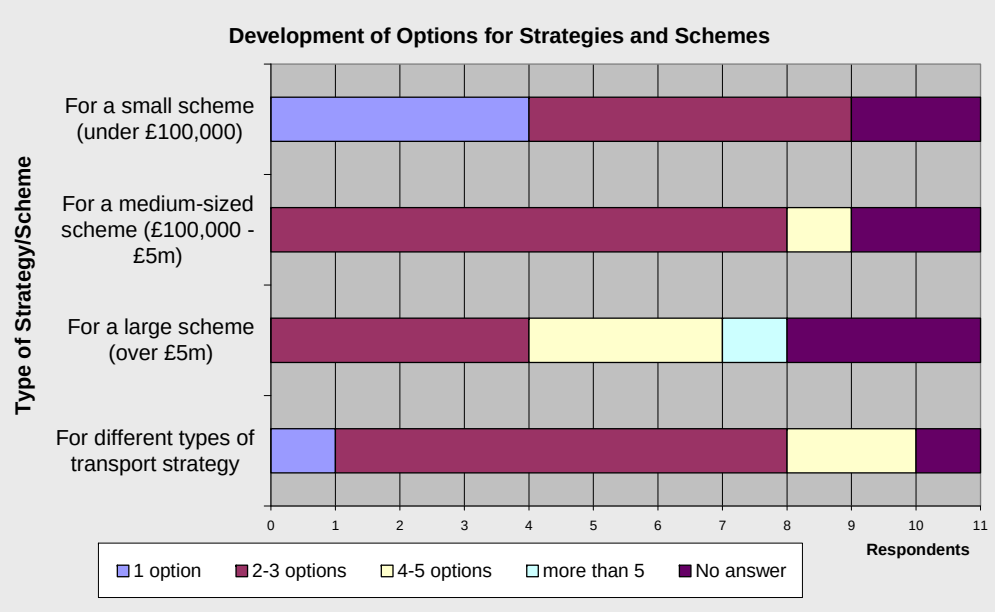
The option generation stage has the highest dissatisfaction about indicator use. In all other stages most authorities are at least fairly satisfied with the use of indicators.

3.3. Section 2.2 – Option generation

THE DEVELOPMENT OF OPTIONS FOR STRATEGIES AND SCHEMES

Option generation is a very interesting area, in that for effective solutions to be implemented the appropriate solution must first have been 'generated', before it can be assessed or analysed and taken forward (or discounted) (e.g. SE, 2001). A wide range of policy options may contribute towards fulfilling a given set of objectives, and this question looks at the number of alternatives which are commonly considered when developing different types of strategy or scheme.

16: How many options does your authority typically develop for the following items?

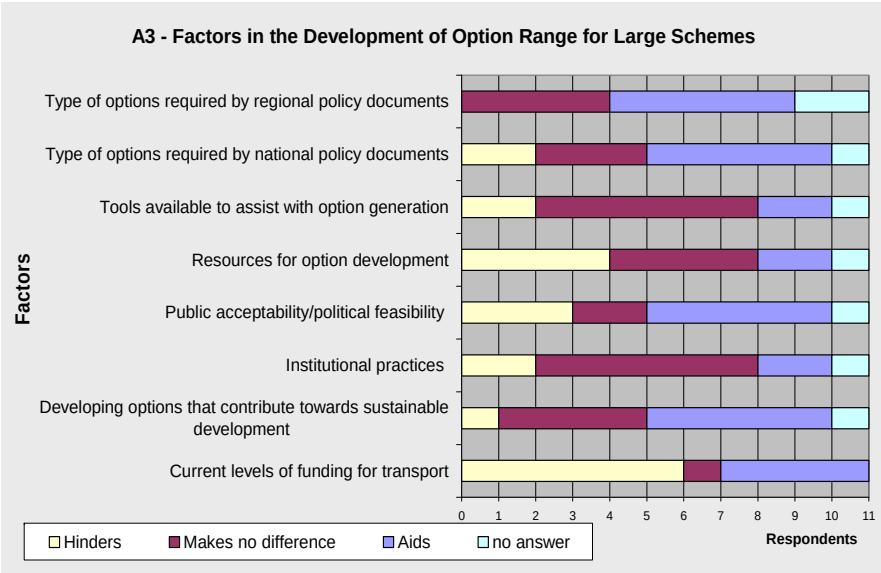


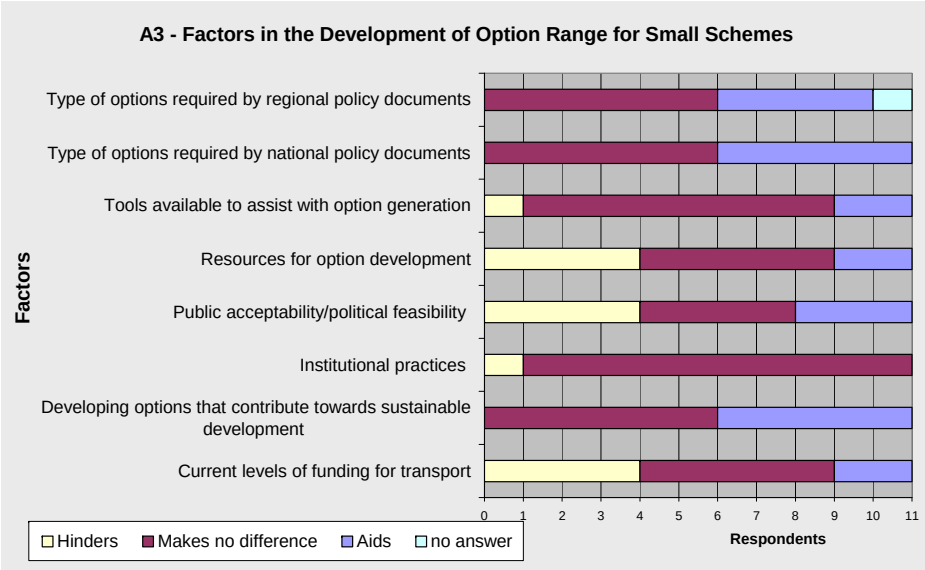
A higher number of options is more commonly generated for large schemes. For medium-sized schemes 2-3 options are normally developed; only one authority indicated they develop 4-5 options. The opinions are divided in option development for small schemes that usually have a fewer options. Five authorities develop 2-3 options, whereas 4 authorities develop only 1 option. Generally, for transport strategies 2-3 options are developed.

THE ENABLING FACTORS IN THE GENERATION OF ALTERNATIVE OPTIONS FOR SCHEMES

This question looks at what stimulates the development of a broad range of options for schemes, by seeking opinion on what aids or hinders option generation in a local authority transport setting. This question helps to identify the areas which have the most pertinent influence on this area of practice.

17: What effect do you consider each of the following items to have on the development of a broad range of options when preparing large schemes, and small schemes?



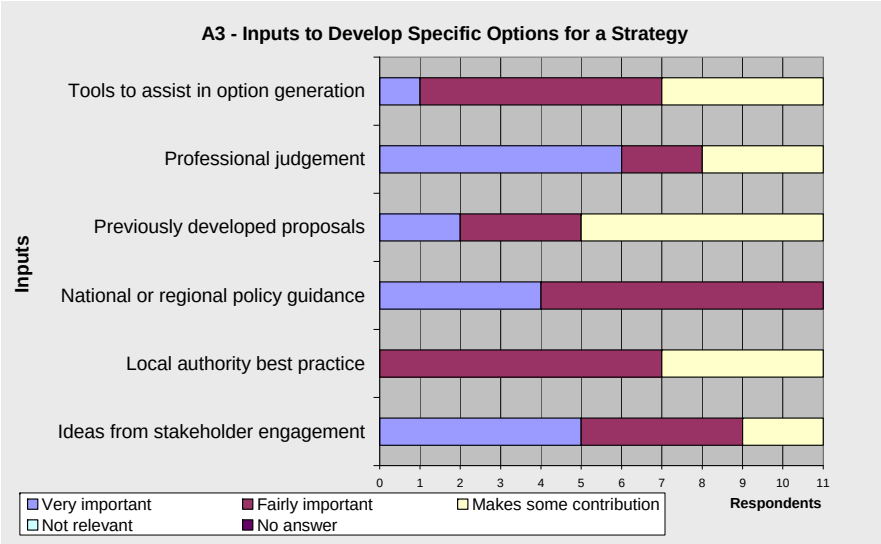


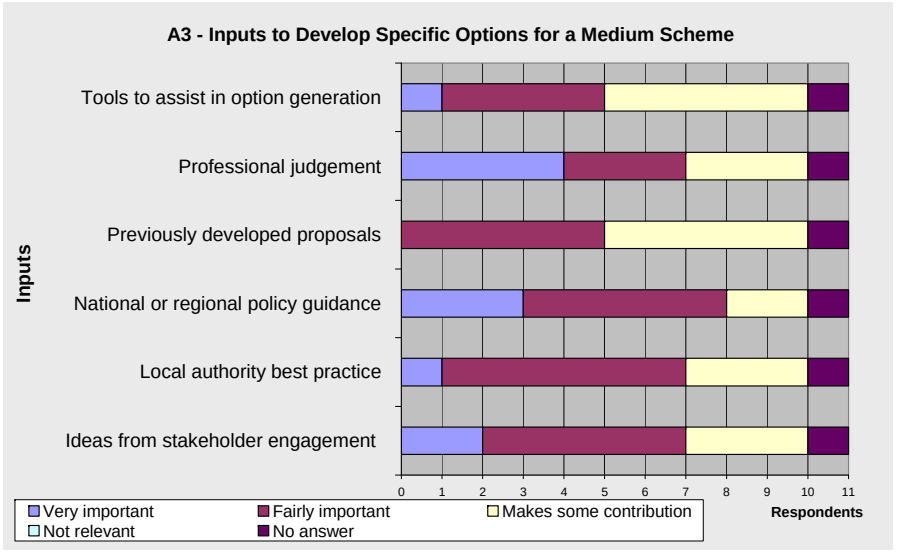
"Regional policy requirements" was the only factor that was seen by all respondents to aid and not to hinder option range development in both large and small schemes. For small schemes two other factors were not seen to cause any hindrance, "type of options required by national policy documents" and "developing options that contribute towards sustainable development". For large schemes there is the perception of hindrance only by a couple of respondents, regarding these two latter factors. "Institutional practices" in small schemes were thought as irrelevant by most. The current levels of funding for transport are seen as hindrance by more authorities than those who think it as an aid, for both small and large schemes. Opinions are divided about the other factors.

THE INPUTS DRIVING THE GENERATION OF ALTERNATIVE OPTIONS FOR STRATEGY AND SCHEME DESIGN

Option generation 'tools' are not widely well-recognised, in the sense that as a stage in its own right option generation may not have received significant attention in practice or research. This question links with Questions 5 and 6 on how problems/opportunities are identified, and looks specifically at the inputs which feed, embellish or drive the option generation process. In generating specific options, the question asked which of these inputs are most important, and which of them our authorities are satisfied with.

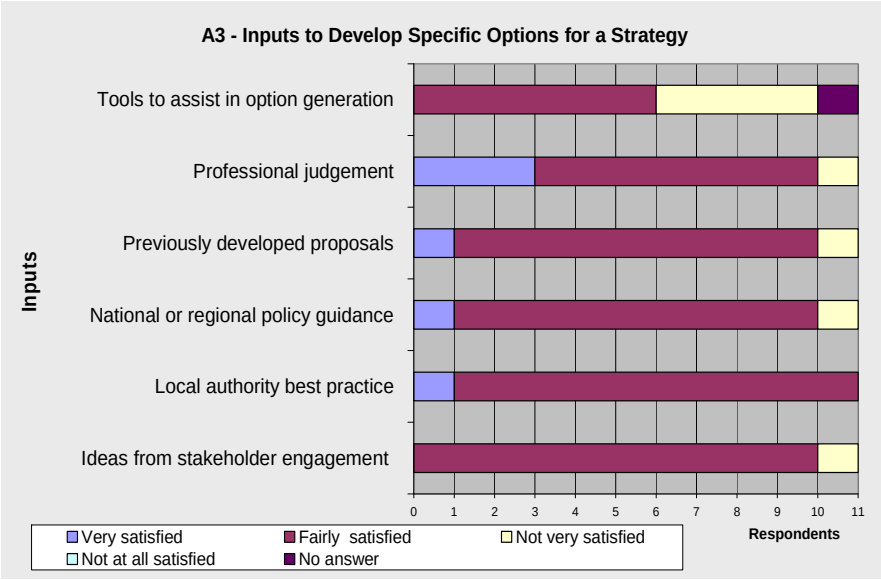
18: How important do you consider the following items to be for the development of specific options for a strategy, and for a medium-sized scheme?

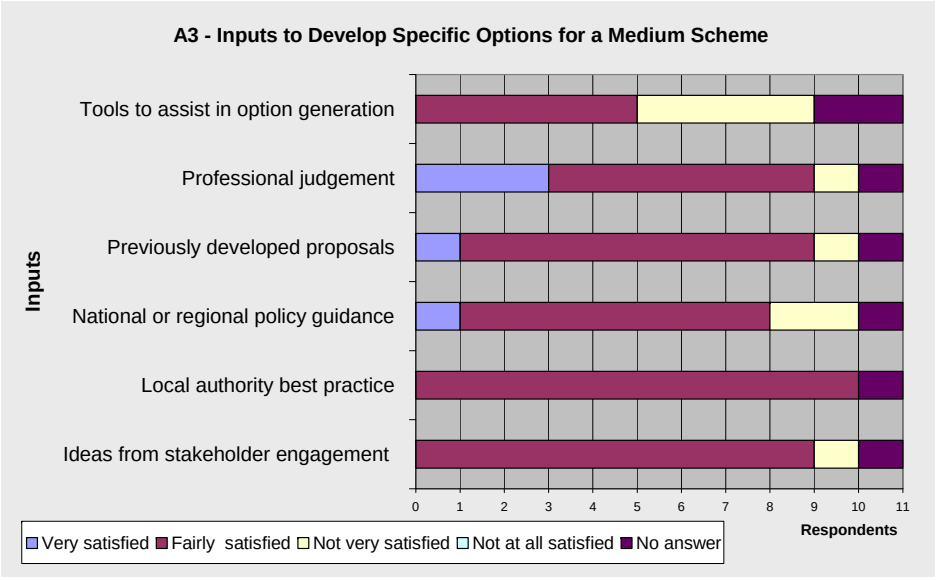




National and regional guidance is very important in the generation of strategy-level options. Professional judgement and ideas from stakeholder engagement are relied upon for both strategies and schemes, whilst local authority best practice makes more contribution in the generation of options for medium-sized schemes. Tools and previously-developed proposals have mixed levels of support for developing options for either type of scheme.

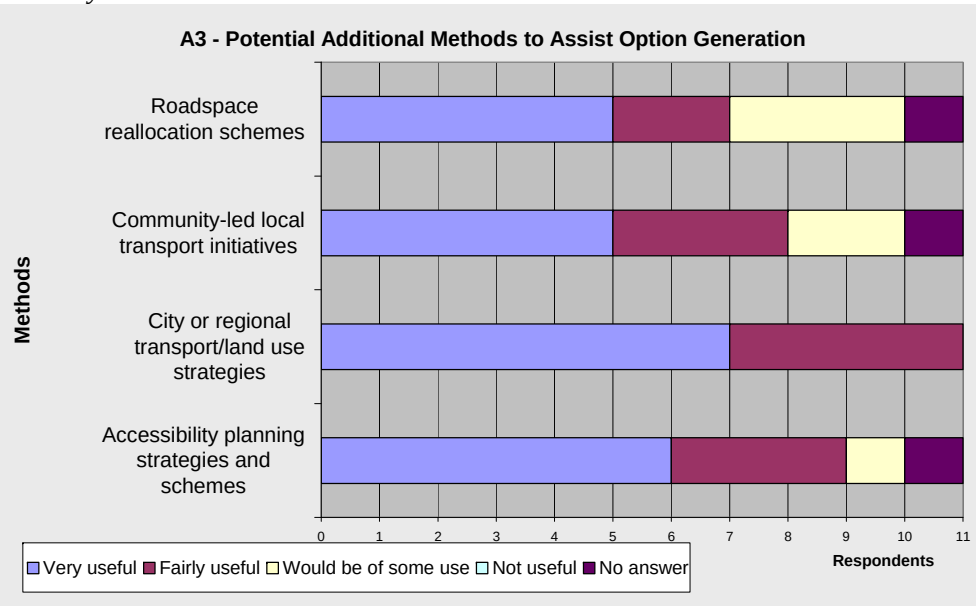
19: To what degree are you satisfied with the inputs currently provided by these items in the development of alternative options for a strategy, and for a medium-sized scheme?





Respondents were least satisfied with tools at both strategy and scheme level, but most happy with the professional judgement they were able to use. Overall, the level of satisfaction regarding inputs into option generation at the strategy and scheme level showed similarity to each other, although a slightly stronger degree of dissatisfaction was expressed for all inputs at the scheme level by a small minority of authorities.

20: How useful do you think it would be to have additional methods to assist with generating options when developing the following in your authority?

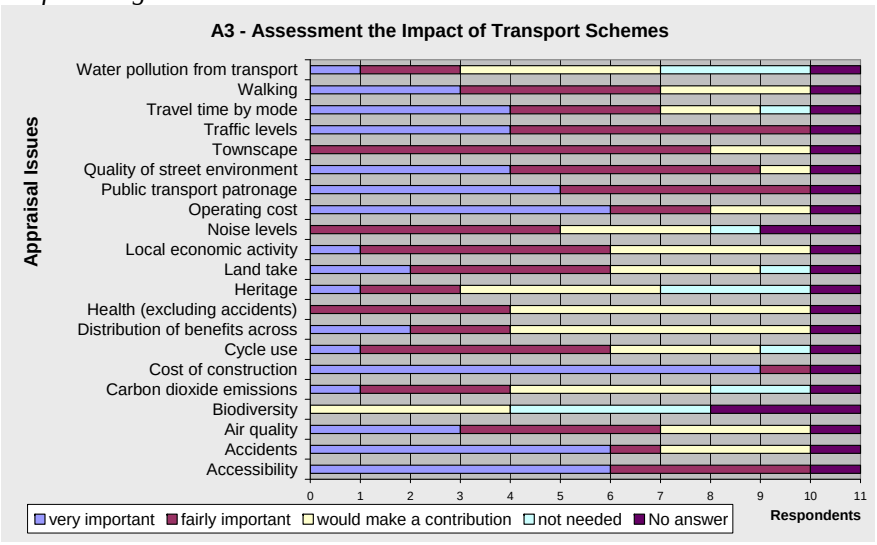


Naturally, respondents indicated that all potential additional methods to assist option generation would be of some use. However, city or regional transport and land use strategies are thought as having the most need for additional methods. This is closely followed by accessibility planning strategies and schemes.

3.4. Section 3.1 – Option Appraisal

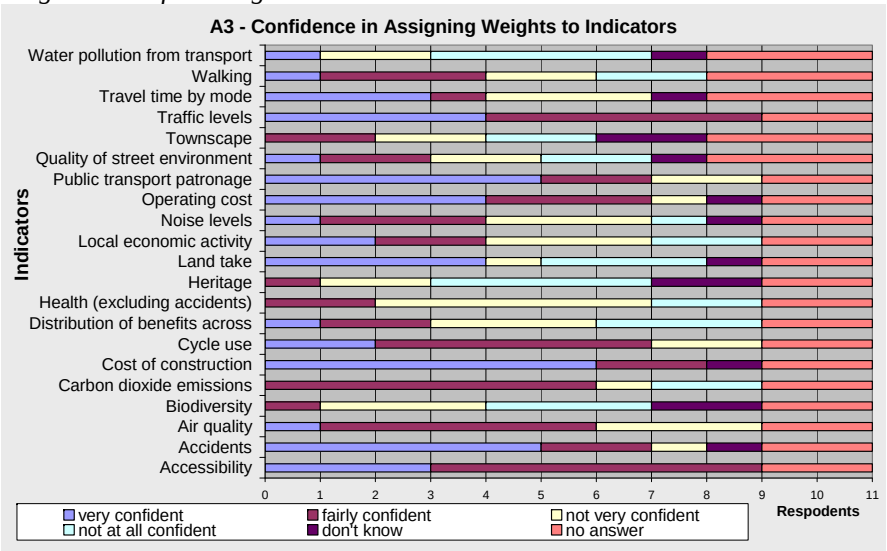
ASSESSING THE GENERIC IMPACTS OF TRANSPORT SCHEMES
These questions addressed issues which are commonly used when comparing transport schemes against each other, and asked about the levels of importance attached to these issues. This compares to a similar list of questions for indicators. It also enquires about the degree each authority would be confident in assigning weights to these indicators.

21: In assessing small and medium transport schemes, how important are the following indicators?



Construction cost was an issue given notably higher importance. Accessibility, PT patronage and traffic level indicators are also considered by all to be very or fairly important. The biodiversity indicator is seen as unimportant by all.

22: A multi-criteria appraisal method would require you to assign weights to the indicators used. How confident are you that you could assign weights to the following indicators?

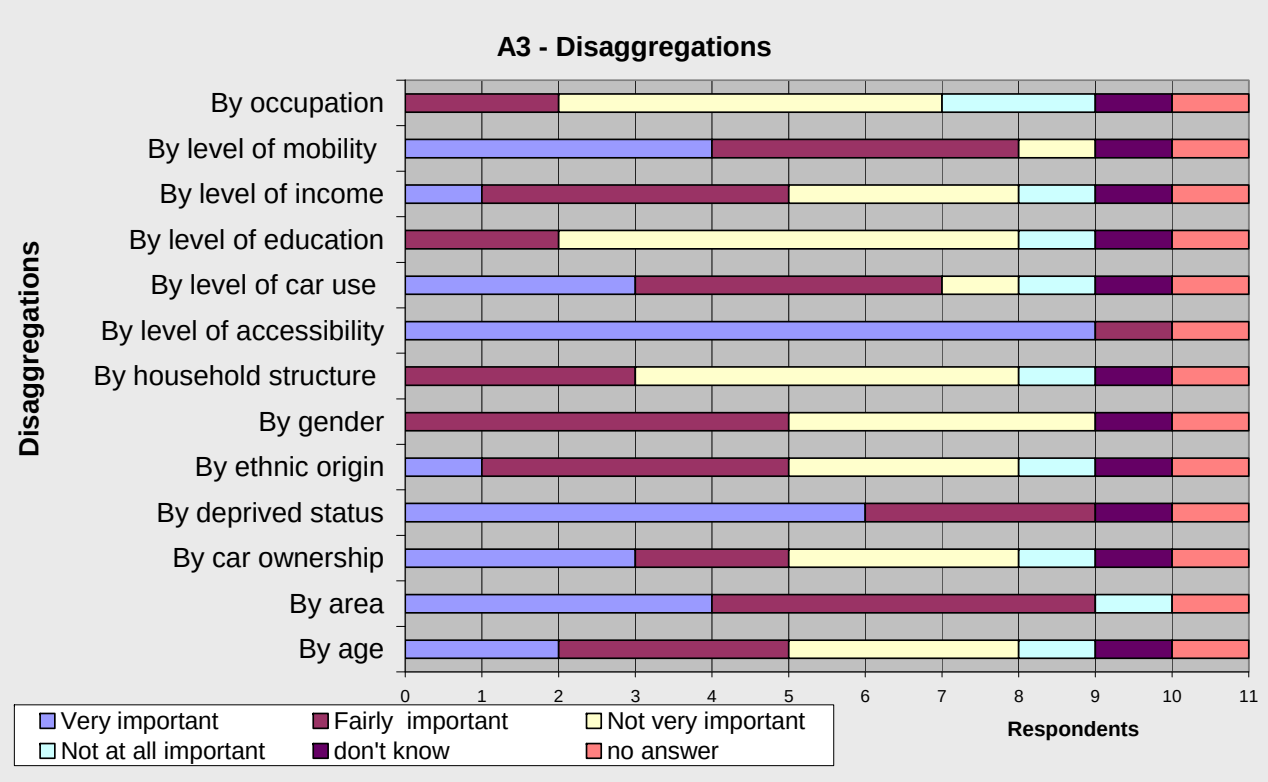


The indicators that are considered to have a high degree of importance by all respondents seem to command the highest confidence in weight assignment, namely construction cost, accessibility and traffic level indicators. Public transport patronage was also considered important by all respondents, but two authorities are not very confident in their ability to assign weights. Accidents and operating costs are two indicators where there also is high confidence among authorities in assigning weights. In general, the importance of the indicators and the confidence in assigning weights seem to correlate in most cases. The exceptions are the townscape and quality of street environment indicators that most authorities feel are important, but very few are confident enough to be able to assign weights.

DISAGGREGATION OF IMPACTS

Transport strategies and schemes have variety of impacts that affect different parts of the population in different ways. This question examines this issue by ascertaining which demographic factors are considered important in assessing strategy or scheme impact.

23: When examining the impacts of strategies and schemes, how important is it to disaggregate them in the following ways?



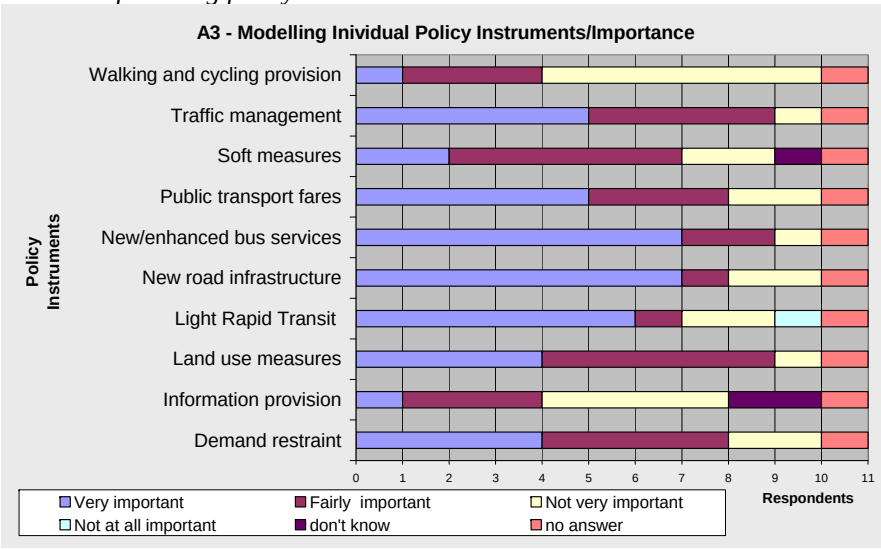
There is a very strong consensus among the authorities that disaggregation by the level of accessibility is very important when examining impacts. Disaggregations "by deprived status" and "by area" are also seen as important by all. The majority of respondents also think disaggregations by "level of mobility" and "level of car use" to be important. Conversely, disaggregations by occupation, by level of education and by household structure are not seen as important. Opinions are divided for the remaining types of disaggregation, namely by age, by car ownership, by ethnic origin and by income level.

3.5. Section 3.2 – Modelling

MODELLING INDIVIDUAL POLICY INSTRUMENTS

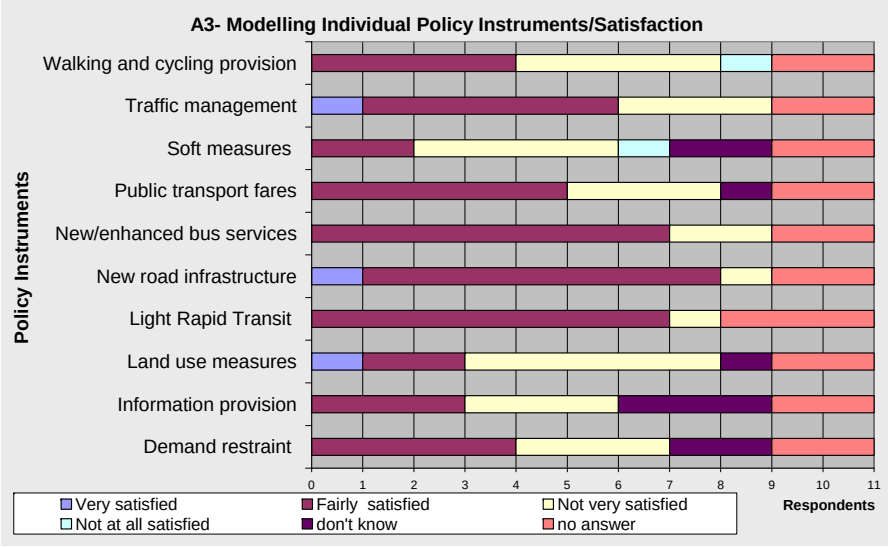
Looking again at specific policy instruments, this question aimed to interrogate authorities on the importance they attached to the modelling of different proposed interventions, and their perceived abilities and/or barriers in doing so. The compositions of model outputs for different policy instruments in terms of behavioural responses were also reviewed.

25: How important do you consider it to be for your authority to be able to model the following policy instruments?



Public transport (LRT, buses, fares), new road infrastructure, land-use measures, traffic management and demand restraint were felt to have the highest requirement from modelling, of those instruments listed. It was seen to be less critical by a number of respondents to model information provision or 'soft' measures.

26a: How satisfied are you with your authority's ability to model these policy instruments?



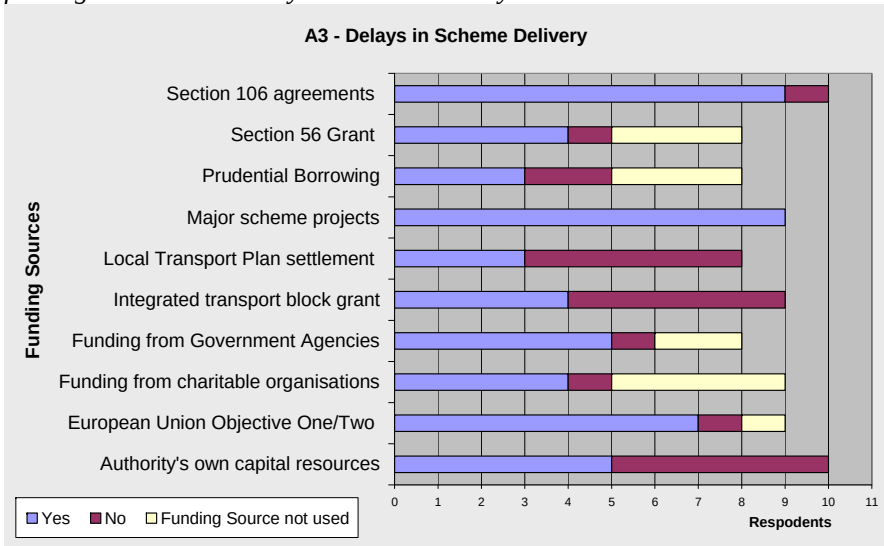
There was a low degree of satisfaction associated with the modelling of some of the 'less important to model' instruments, such as information, cycling and walking provisions. Furthermore, there was dissatisfaction associated with modelling of policy instruments that are considered as more important, such as demand restraint, PT fares, traffic management and land use measures.

3.6. Section 4 – Funding, phasing and implementation

FUNDING SOURCES AND SCHEME DELIVERY

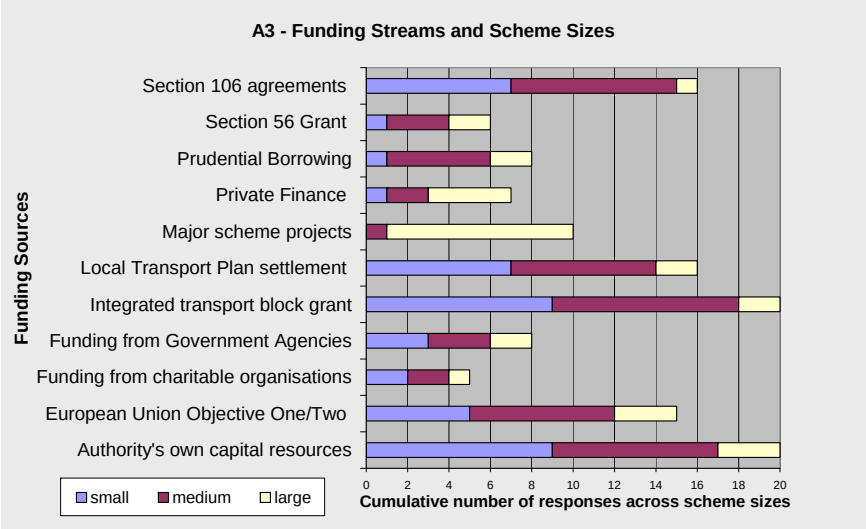
Moving away from a focus on specific policy instruments, the funding questions aimed to retrieve a detailed overview of this aspect of the delivery process. The initial question asked whether or not specific capital funding sources had ever delayed the delivery of schemes, and there followed a query on the extent to which (if at all) the type of funding sources had ever compromised the outputs achieved for any scheme. A question was also asked about the size(s) of scheme supported by these same sources.

27: In your experience, has access to, or use of, any of the following funding sources ever delayed scheme delivery?



Major scheme project funding and Section 106 agreements were seen by most to cause delay, followed closely by EU grants. LTP monies is the source of funding that was considered by most not to cause delays. The opinions are divided for the other sources of funding, or they are not used extensively.

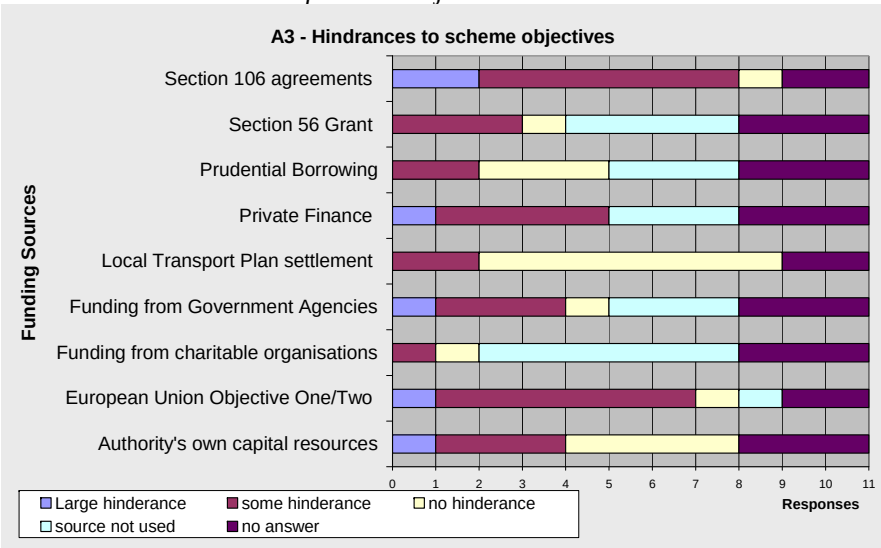
28: What sizes of scheme are funded by the funding sources you use (in Question 27, above)?



As expected major scheme project funding is used mainly for large schemes. Private financing is also used proportionally more for large schemes. The other sources of funding seem to be divided between different size schemes (with less funding proportionally going to large size schemes from these sources).

The most widely used sources of funding are the integrated transport block grant and the Authority's own capital. EU funds, Section 106 agreements and LTP settlement are also very widely used sources of funding. Conversely, funding from charitable organisations is least often used.

29: In your experience, has the use of the following funding sources ever hindered the achievement of scheme objectives?



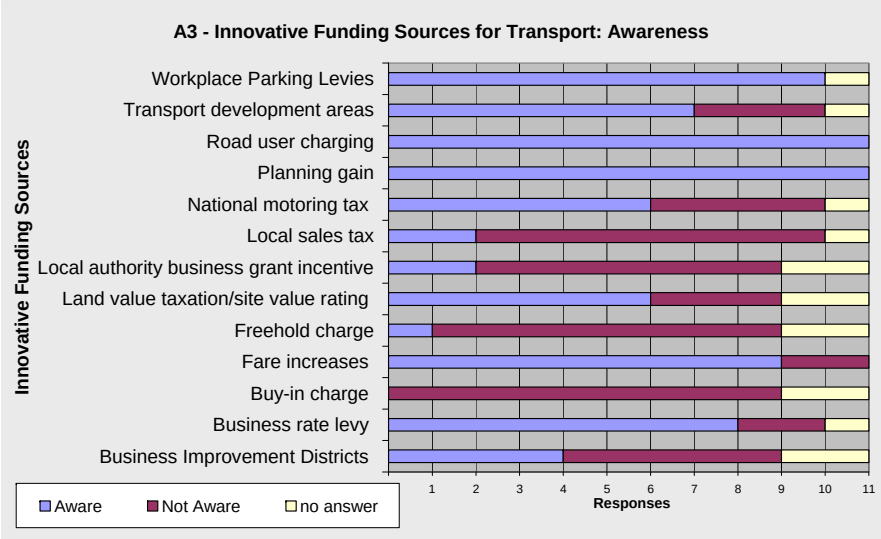
As with delays, Section 106 agreements and EU grants were seen to hinder the meeting of scheme objectives. LTP settlement was the funding source thought by most authorities to involve no hindrances.

For all funding sources there were authorities who had not been adversely affected by particular funding streams hindering the achievement of scheme objectives, as well as those who had experienced some level of hindrance.

INNOVATIVE SOURCES OF FUNDING FOR TRANSPORT

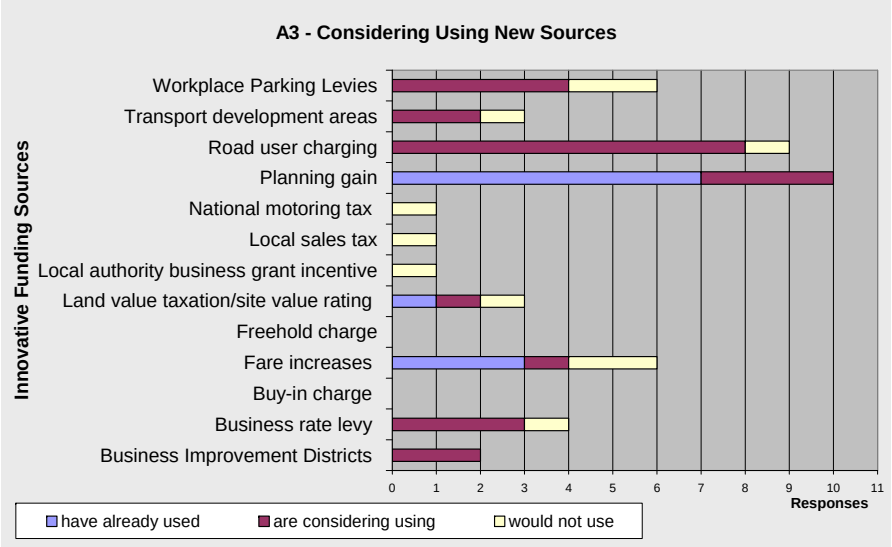
A final set of questions looked at the potential funding available from 'innovative sources' – whether authorities have been made/are aware of them and if they would be considering their use or indeed if they had any experience of using them previously.

32a: Are you aware of any of the following more innovative sources of potential funding for transport?



Planning gain and road use charges are the two innovative funding sources that all authorities are aware of. Most of the authorities are also aware of workplace parking levies, fare increases and business rate levy. None is aware of the "buy-in charge" as an innovative funding source. There is very limited awareness about the freehold charge, the local authority business grant incentive and the local sales tax.

32b: Would you consider using any of these sources?



As to the use of these innovative sources of funding, most authorities have used "planning gain" and three are currently considering its use. Most of the authorities are also considering the use of road user charges, but none have implemented it. Workplace levies are considered by four authorities and two authorities indicated that they will not use them. Fare increases have been used by three authorities, one is considering it and two will not use this source.

4. DISCUSSION OF THE A3 RESULTS

Section 4 highlights the main messages arising from the survey analysis of the 11 responses from transport authorities to the questionnaire. This section draws upon data from Section 3, the seriousness scores in Annex 1 and also discusses the differences in attitudes across the varying types of authorities.

4.1. The process of local transport strategy and scheme delivery

The most problematic stages in delivery were obtaining the necessary funding and in modelling. Most authorities felt that the other stages were not problematic. A small number of responses expressed that difficulties were encountered during the appraisal stages, the generation of scheme alternatives and implementation. The specific problems encountered by different types of public sector organisation (eg unitary; District) responsible for implementing sustainable transport policies will be discussed in Section 4.7.

Elected members, members of the public and transport operators were considered to be the most important stakeholders. When combined with how satisfied local authority transport officers are in the involvement of stakeholders in the delivery of sustainable transport solutions, the high value Seriousness Scores (SS) are attributed to members of the public (SS: 0.5), elected members (SS: 0.48), and business interests (SS: 0.48). This reflects the importance of these stakeholders during the implementation stage of LTP2. Business interests, in particular, gained a high SS of 0.63 in the problem / opportunities identification stage. Interestingly, the media were perceived to have the least important influence on problem/ opportunity identification with an SS of 0.26.

The overwhelming issue for transport officers in securing more effective intra-authority working and collaboration is the pressure on staff time and resources. There are also external challenges or difficulties arising from access to funding, particularly for operational subsidies, gaining public acceptability for the implementation of congestion charging, and the privatised nature of local transport operators. At the current time, parking controls, new/ enhanced bus services and Light Rapid Transit are the most important policy instruments for the surveyed authorities. The seriousness score suggests that it is public transport fares (SS: 0.72) and Light Rapid Transit (SS: 0.63) which are perceived to be the most serious issues. It is stressed here that public transport fares have the highest seriousness score in all of A3 results, thus this issue calls for extra attention.

4.2. Indicators

The transport officers surveyed expressed strong feelings that the Local Development Framework could bring transport and land use indicators together, and that this may have an impact in their area. Many respondents have confidence in the indicators their authority has developed, that these are especially important for target setting and in appraisal. However, targeting setting and appraisal recorded the highest seriousness scores of 0.47 and 0.41 respectively for the use of indicators in the decision making process. Many also perceive fewer requirements for monitoring from central government as a positive action.

4.3. Option Generation

A higher number of options are generated for large schemes than small and medium schemes. Nearly half of the respondents consider that the current levels of funding for transport and the resources available for option development hinder the development of a broad range of options. These two factors, and public and political acceptability, were also perceived to hinder the development of a range of options for small schemes.

Professional judgement and ideas from stakeholders are considered the most important inputs to option generation in strategy development, whilst professional judgement and national/ regional guidance are very important in generating specific options for medium sized schemes. In both cases, respondents were most satisfied with (their own!) professional judgement. These points are reflected in the seriousness score, for example “ideas from stakeholder engagement” have the highest score of 0.40 and “local authority best practice (for a strategy)” has a very low SS of 0.26.

Respondents were specifically asked to rate the usefulness of the DISTILLATE option generation products. Enhanced methods for city and regional transport/land-use strategies are considered to be very or fairly useful by all respondents. This was closely followed in usefulness by accessibility planning strategies and schemes. Nearly half of respondents, however, thought that methods for road-space re-allocation schemes and community-led local transport initiatives would be very useful.

4.4. Option Appraisal

Indicators on the costs of construction, operating cost, accidents, and accessibility are the most important inputs for assessing small and medium transport schemes. Roughly half of respondents are confident in their ability to assign weights to indicators on construction costs, accidents and public

transport patronage in a multi-criteria appraisal. Overwhelmingly it is considered important to disaggregate the impacts of both strategies and schemes by the level of accessibility. Also important is disaggregation by the level of deprivation experienced, the level of mobility, and by area.

4.5. Modelling

Two thirds of respondents consider it is very important for their authority to be able to model new/ enhanced bus services and new road infrastructure. Other policy instruments considered very important by half of the respondents are: Light Rapid Transit, traffic management, and public transport fares. However, levels of satisfaction with their authority's ability to model these policy instruments are much lower. Only one response of "very satisfied" was received for traffic management, new road infrastructure, and land use measures. Generally, the seriousness scores are not very high for the elements of these questions. The highest SS of 0.48 is shared by "New/enhanced bus services", "Land use measures" and "Soft measures", while the lowest SS is 0.33 for "Walking and cycling provision".

4.6. Funding, phasing and implementation

Delays in scheme delivery were seen by most respondents to be caused when "major scheme project" funding, "Section 106 agreements" and EU grants were used as funding sources. LTP settlement is the funding source that was considered by most authorities not to cause delays. As with delays, Section 106 agreements and EU grants were seen to hinder the meeting of scheme objectives. LTP settlement was again the funding source thought by most authorities to involve no hindrances.

As expected major scheme project funding is used mainly for large schemes. Private financing is also used proportionally more for large schemes. The other sources of funding seem to be used for all sizes of scheme. The most widely used sources of funding are the "integrated transport block grant" and the Authority's own capital. EU funds, Section 106 agreements and LTP settlement are also widely used sources of funding. Conversely, funding from charitable organisations is least often used.

Planning gain and road user charges are the two innovative funding sources that all authorities are aware of. Most of the authorities are also aware of workplace parking levies, fare increases and business rate levy. None is aware of the "buy-in charge" and there is very limited awareness about the freehold change, the local authority business grant incentive and the local sales tax. As to the use of these innovative sources of funding, most authorities have used "planning gain" and some are

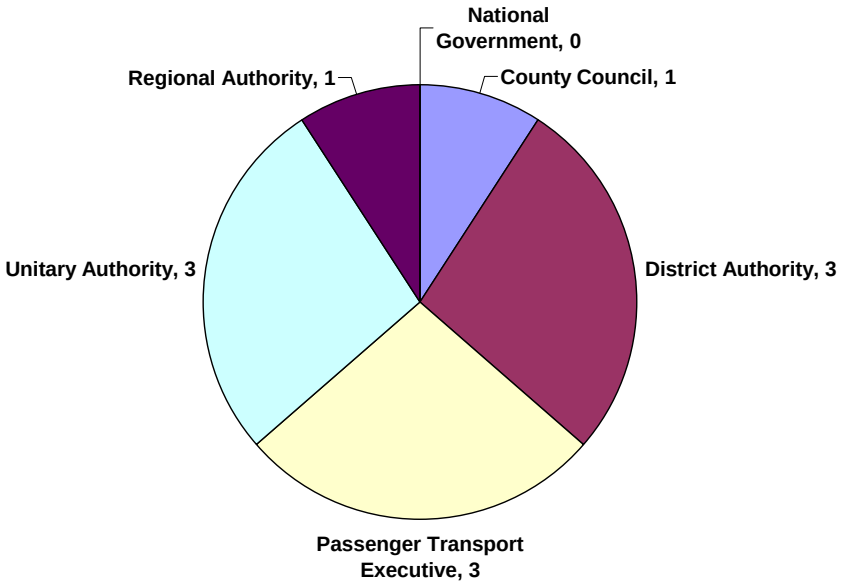
considering its use. Most of the authorities are also considering the use of road user charges, but none have implemented it, although one authority stated that they will not use this funding source.

In summary, many of the barriers encountered are related to the competencies of both the authorities surveyed and the stakeholders involved in the delivery process. Specific organisational obstacles were highlighted that affected joined-up working within authorities, together with external challenges, and in the use of tools to design and implement strategies and schemes or policy instruments.

4.7. Differences in Attitudes across the varying Types of Authorities

Since the sample authorities were chosen to represent the range of local government types in the UK, the analysis compared the pattern of responses according to the type of authority. Statistically, the sample is very small within each authority type. The following discussion will not include County Councils and Regional Authorities, having only received one response from each authority type. However, an attempt will be made to highlight any prevailing patterns concerning differences between the PTEs, Unitary and District authorities, even though the sample size prohibits any statistical analysis. It is stressed that the answers within each authority type do not exhibit a high degree of uniformity, making comparisons difficult. Therefore, only points will be discussed where all authorities of the same type agree; meaning that if a question or a point is not discussed there is no clear "correlation" between authority type and the answers given.

Figure 6: The Responses categorised by Type of Local Authority



There are discernible differences between authority types in identifying problematic stages in organisational delivery. Modelling and obtaining funding is equally problematic for all authorities. Neither PTEs nor Unitary authorities find the "problem/opportunity identification" stage very problematic. PTEs, also, have few problems with "operational monitoring and evaluation" and "appraisal against existing strategies". Unitary authorities do not consider the stages of "objective setting" and the "generation of possible strategy alternatives" as very problematic. District authorities differ in their perception of what are "not very problematic stages", they mention "scheme/project design and development", "scheme appraisal and selection" and "generation of possible scheme alternatives" as not very problematic

Concerning stakeholder involvement in the delivery of transport schemes and strategies, only District authorities are fairly satisfied with business interests, with most respondents in the other two authority types being not very satisfied. On the other hand, only Unitary authorities are satisfied with public involvement, whereas in the other two authority types there is some dissatisfaction with this stakeholder group.

There is relative agreement between the different authority types as to the importance of several factors or stakeholders in identifying problems and opportunities relating to transportation. Contrary to the other two authority types, only District authorities seem to consider technical officers from neighbouring authorities as fairly important. As to the potential for improvement, all PTEs and Unitary authorities find that the involvement of "business interests", "other permanent local consultative groups" and the "monitoring programme" as needing improvement. However, most of the District authorities have a contrary view from that above. Only Unitary authorities consider "media comment" as not needing much improvement.

District authorities consider that the "pressure on staff time and resources" as a permanent hindrance to intra-authority working and collaboration. This is also a big hindrance for Unitary authorities and a bit less of a problem for PTEs. District authorities are in agreement that the "pressure on staff time and resources" could be most improved; the other two authority types do not share this agreement.

Only District authorities find engineering complications will present "fairly important" obstacles in the immediate future when delivering a sustainable transport system. PTEs agree that "legal issues" are fairly important in imposing obstacles; an opinion that is not shared by the other two authority types.

There is no discernible pattern as to the importance of policy instruments, but there is difference in the satisfaction of their use. PTEs are not fully satisfied by any instrument, except information provision.

District authorities are the only authority type to all agree in being fairly satisfied by "land use measures". Unitary authorities are the only authority type to be satisfied by "Light Rapid Transit".

In the section addressing how indicators are used in decision-making, PTEs disagree with the statement that "reductions in the government requirements for monitoring will reduce what they monitor"; a statement to which District authorities agree (and some strongly). Unitary authorities are divided on this issue. PTEs are also the only authority type to uniformly agree to the statement that "Land-use developments that lead to deteriorations in LTP2 indicators are still approved".

A peculiarity, in developing alternative options for a scheme or strategy, is that only District authorities state that they consider 4-5 options for large schemes. Most of the other authorities consider 2-3 options or less in the range of scheme sizes listed.

Concerning the importance of inputs to a transport strategy and for medium-sized schemes, PTEs answer that "Local Authorities Best practice" is fairly important, whereas Unitary Authorities are of the opinion that this input would "make some contribution". All PTEs think it would be useful (and most think it very useful) to have additional methods[6] to assist with option generation. This opinion is not shared uniformly by the other two authority types.

Touching on the theme of the importance of indicators in assessing schemes, PTEs have the view that the "accident indicator" would make a contribution, whereas the most of the other authority types think that it is fairly or very important. For PTEs the "Land economic activity" indicator is fairly important; an opinion that is not shared uniformly by the other authority types. Only District authorities consider "cycle use" and "walking" as fairly and very important. The other authority types have mixed opinions on the matter.

Unitary authorities do not consider that it is important to disaggregate the impacts of a scheme or strategy by age, ethnic origin, household structure, level of education and/or occupation. The perception of importance for each disaggregation above is mixed between the other authority types.

PTEs seem to be the least satisfied by their ability to model policy instruments, especially with "land use measures" and "soft measures", where all PTEs agree to not being very satisfied. From the other two authority types, no discernible pattern emerges since there are some missing answers and some respondents had no knowledge on the issues.

[6] Accessibility planning strategies and schemes; City or regional transport/land use strategies; Community-led local transport initiatives; Road-space reallocation schemes

All PTEs have found their own sources of capital to have caused delays in scheme delivery, but this funding stream was not perceived as a source of delay for the Unitary Authorities (opinions are divided among District authorities). No District authority has used a Section 56 Grant.

In conclusion, a "faint" general pattern seems to emerge, namely that the answers and perceptions of each authority type is perceptibly linked to the extent of its responsibilities and capacity to provide and implement transport policy, schemes and strategies. Looking through this filter, PTEs seem to have more general and diverse transport "interests" than District authorities, who are mainly concerned on the local level and more on the "engineering" and/or "micro-planning" side of transport. This is highlighted by the following examples of differences between the two types of authority, namely PTEs consider "legal issues" as fairly important in imposing obstacles, whereas District authorities find engineering complications to present "fairly important" obstacles. For PTEs "Land economic activity" indicator is fairly important, on the other hand District authorities consider "cycle use" and "walking" as fairly and very important. The behaviour of the Unitary authorities is not very clear, they seem to be in the "middle" of PTEs and District authorities, but the data limitations prevent more detailed analysis and conclusions.

5. THE CHANGES IN LOCAL AUTHORITIES PERCEPTIONS BETWEEN 2004 AND 2007

This section discusses the difference in perceptions and opinions between the 2004 and 2007 survey results, concerning the 11 authorities that answered the 2007 questionnaire. These differences are examined through the answers to 12 "closed format" questions that are common in both the 2004 (A1) and 2007 (A3) questionnaires. It is noted that the sample size is statistically small and there are some missing data from A1 questionnaires (not all authorities that answered in A3 did the same for A1 questionnaires). Therefore, small differences in opinions between 2004 and 2007 will not be commented on; this discussion will only address distinct changes in perceptions about the focus of individual elements in the questions or where there is a discernible pattern of change across all the elements of a question.

There is some change between 2004 and 2007 concerning the perception of what are the problematic stages in organisational delivery. In A1 the stages of "implementation" and "monitoring and evaluation" were considered more problematic than in A3 questionnaire answers; the pattern remains similar between 2004 and 2007 for the other stages in organisational delivery.

As to the importance of the involvement of stakeholders in the delivery process of sustainable transport strategies and schemes, only the perception of DfT involvement changes significantly. In 2004 DfT involvement was seen as very important by almost all authorities, whereas in 2007 over 20% of the respondents no longer perceive DfT involvement as very important. In 2007 there is a general tendency for authorities to be more satisfied by the involvement of most stakeholders than in 2004. This "extra" satisfaction in A3 compared to A1 is especially centred on "transport operators", "the regional development agency", "the regional assembly" and "the highway agency".

Looking at the specific factors that can help authorities in the problem/opportunity identification stage, a significant change between 2004 and 2007 is the increased importance placed in A3 results to "public/lobby group consultation", "other permanent local consultative groups" and the "monitoring programme".

There was some limited change in the perception of factors that constitute a hindrance to intra-authority cooperation. The change was primarily focused on the issue of "different political agendas" that hinders "often" or "always" according to 4 authorities in 2007, only 1 authority in 2004 had the same opinion. In 2007 the "division of responsibility for implementing different aspects of the delivery process" was seen as a factor needing much improvement by all authorities, whereas one third of the authorities in 2004 did not consider that this was a factor in need of much improvement.

Between 2004 and 2007 there was some change in the perception of the importance of various factors which present immediate future obstacles to the delivery of a sustainable transport system. A1 questionnaire results show that all respondents consider "fairly important" and "very important" the "nature of privatised local transport operations" and the "land use planning processes". Conversely, around 19% of the respondents in A3 survey did not think that the two items above are important.

There is general trend in 2007 questionnaires of more "importance" being assigned to the various policy instruments that contribute to the authorities' transport strategy, than the equivalent responses in 2004. Being more specific "walking and cycling provisions" are seen as important and very important by all authorities in 2007, with one third of the authorities in 2004 not agreeing with this opinion. There is also change in the importance of "new road infrastructure"; 44% of the respondents in 2004, who did not think this policy instrument was very important, reduces to 19% in 2007. LRT and "information provision" are considered as important and very important by almost all authorities in 2007, whereas in 2004 around a quarter of the authorities did not see these instruments as very important. As to the satisfaction in the use of these policy instruments, strangely, all authorities were fairly satisfied with the information provision in 2004, while in 2007 around 19% of the respondents are not very satisfied by this instrument. In 2004 all respondents, but one, were not very or not at all

satisfied with the "new or enhanced bus services"; this attitude changes in 2007 with 36% of the authorities being fairly or very satisfied with the use of this policy instrument.

In discussing the issue of the importance of indicators, when assessing small and medium transport schemes, it has to be noted that in the 2004 results the number of "no answers" was significantly higher than in 2007. This might imply that the information and the awareness on the various issues addressed by these indicators have increased through the years. "Water pollution by transport" and "distribution of benefits across society" in 2004 were seen as not important by all. This perception changes in 2007, with 27% of the authorities for the former indicator and 40% of the authorities for the latter, considering these indicators as fairly or very important. "Quality of street environment" is thought as important or very important by 50% of authorities in 2004, which goes up to 82% of authorities in 2007. The same pattern is seen for "operating costs", with 40% of the respondents seeing it as important in 2004 compared to 73% of authorities in 2007." Land-take" and "heritage" indicators are also considered important by more authorities in 2007 than in 2004. The reverse is true for only two indicators - "air-quality" and "cycle use" - that were thought as important by almost all respondents in A1; in A3 however, 27% and 36% of the authorities respectively view these indicators as not very important.

Turning to the issue of modelling, the perceived importance and satisfaction by each authority in their ability to model various policy instruments exhibits some interesting changes in perceptions between 2004 and 2007. A general trend in the 2007 results implies that authorities consider their ability to model various instruments as less important than their considered view back in 2004. In 2004 many of the respondents did not know whether they were satisfied with the modelling of policy instruments. For two of the policy instruments (LRT and land use measures), half of the respondents in 2004 had no knowledge on the issue. In 2007 the number of the "don't know" answers is significantly reduced, implying that there is more knowledge about modelling issues. This might signify that the ability of authorities to model various policy instruments has increased between 2004 and 2007, which also might explain the discernible "disillusion" with the importance of modelling in 2007 results. The increased "disillusion" is observed in 2007, compared to 2004, with the importance of modelling "walking and cycling provisions", "new road infrastructure", "LRT" and "demand restraint". The satisfaction with modelling policy instruments does not change significantly between the two survey dates, except the "don't know" answers, which makes a more detailed discussion about individual instruments difficult.

Despite the limitation of the sample size, some interesting conclusions can be drawn regarding the changes in the authorities' perception between the A1 and A3 surveys. There is a greater sense that the "implementation" and "monitoring and evaluation" stages of policy delivery have become less

problematic in 2007, when compared to 2004. The importance of DfT involvement in the overall delivery process for sustainable strategies and schemes is perceived to have reduced since 2004. Furthermore, in 2007 there was a general tendency for authorities to be more satisfied by the involvement of most stakeholders than in 2004, implying improvement in cooperation between different organisations and interest groups. This is also reflected in the generally higher "seriousness scores" about stakeholder involvement in A1 compared to A3.

There was limited change in the factors that are considered to constitute a hindrance to intra-authority cooperation or those that might present future obstacles to the delivery of a sustainable transport system. There is general trend in 2007 to assign more "importance" to the various policy instruments that contribute to the authorities' transport strategy, than the equivalent responses in 2004. In discussing the issue of the importance of indicators when assessing small and medium transport schemes, it was noted that in the 2004 results the number of "no answers" was significantly higher than in 2007. This might imply that the information and the awareness on the various issues addressed by these indicators have increased through the years, which also is supported by the increased importance given to most indicators in A3, compared to A1. Concerning modelling issues, the high number of the "don't know" answers in 2004 questionnaire is significantly reduced in 2007, implying increasing knowledge on the issue. This also might signify that the ability of authorities to model various policy instruments has increased between 2004 and 2007, which also might explain the discernible "disillusion" with the importance of modelling in 2007 results. These changes are also reflected in the lower seriousness score for most of the policy instruments in 2007 compared to 2004.

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ANNEX 1: SERIOUSNESS SCORES

Annex 1 provides an indication of the highest rated barriers faced by the DISTILLATE Local Transport Authorities from the questions asked of them in the "Phase 3" survey. The calculation of the "seriousness" score is demonstrated in Section 3.1. This is done in accordance with the "Phase 1" report, thus keeping consistency and comparability between the analysis methods and results of the two surveys (Phase 1 and 3)

The variables above the value of 0.3125 are those which can be defined as 'serious' issues. It is therefore implicit that it is worthwhile addressing these issues from a local authority perspective.

Please note that for any importance/satisfaction set of questions, if the satisfaction answer is "not at all satisfied" and the importance response is "fairly important", then the seriousness score will be 0.67. Only four items in the table below are near to such a *serious* "seriousness score". This suggests that these items should urgently be given attention.

4-5: Problems/Opportunities Identification	**Seriousness Score**
Business Interests	0.63
6-7: Hindrances to Integrated Planning & Decision Making	
Pressure on staff time and resources	0.67
10-11: Policy Instruments	
Public transport fares	0.72
Light Rapid Transit (LRT)	0.63

Table 2: The Seriousness Score for all importance/satisfaction questions

2-3a: Involvement of Stakeholders	Seriousness Score
The Public	0.50
Elected Members of your authority	0.48
Business interests	0.48
Other public sector services	0.42
Transport operators	0.42
Officers from other depts in your authority	0.41
Local Strategic Partnership	0.41
Regional Transport Board	0.38
Department for Transport	0.37
Neighbour Authorities: Technical officers	0.36
Neighbour Authorities: Members	0.36
Government Office for the Region	0.35
Network Rail	0.33

Dept of Communities and Local Gov	0.33
Highways Agency	0.31
Regional Development Agency	0.31
Regional Assembly	0.31
Consultants	0.20
4-5: Problems/Opportunities Identification	Seriousness Score
Business Interests	0.63
Education service providers	0.61
Internal strategic review	0.57
Other consultative groups	0.55
Health providers	0.54
Public/lobby group	0.53
Community Strategy	0.53
Monitoring programme	0.51
Regional decision-making bodies	0.49
Opinions of elected Members	0.46
National government objectives	0.43
Technical officers	0.41
Elected Members	0.38
Media comment	0.26
6-7: Hindrances to Integrated Planning & Decision Making	Seriousness Score
Pressure on staff time and resources	0.67
Different timing of writing/publishing plans	0.45
Different stakeholder engagement procedures	0.44
Division of responsibility	0.37
Different objectives between departments	0.33
Different political agendas within authority	0.30
No formal arrangements for co-work	0.26
Organisational structure	0.26
No guidance on integration	0.25
Different physical locations of departments	0.25
Different technical staff writing plans	0.22
10-11: Policy Instruments	Seriousness Score
Public transport fares	0.72
Light Rapid Transit	0.63
New/enhanced bus services	0.59
Demand restraint - parking controls	0.54
Land use measures	0.51
Demand restraint - congestion charges	0.50
Demand restraint - congestion - other	0.46
Walking and cycling provision	0.44
Soft measures	0.40
Traffic management	0.39
Information provision	0.37
New road infrastructure	0.30
15a-15b: Use of Indicators in Decision-making Process	Seriousness Score
Target Setting	0.47
Appraisal	0.41
Option Generation	0.38
Problem Identification	0.32
Modelling	0.32
Communicating with public	0.30

Implementation	0.29
18-19: Inputs for developing strategies and schemes	Seriousness Score
Ideas from stakeholder engagement (strategy)	0.40
National or regional policy guidance (strategy)	0.39
National or regional policy guidance (med/size scheme)	0.37
Tools to assist in option generation (strategy)	0.35
Professional judgement (strategy)	0.34
Ideas from stakeholder engagement (med/size scheme)	0.33
Tools to assist in option generation (med/size scheme)	0.33
Professional judgement (med/size scheme)	0.32
Local authority best practice (med/size scheme)	0.30
Previously developed proposals (strategy)	0.27
Local authority best practice (strategy)	0.26
Previously developed proposals (med/size scheme)	0.25
25-26a: Modelling of Policy Instruments	Seriousness Score
New/enhanced bus services	0.48
Land use measures	0.48
Soft measures	0.48
Public transport fares	0.46
Demand restraint	0.45
Traffic management	0.44
New road infrastructure	0.42
Light Rapid Transit	0.39
Information provision	0.34
Walking and cycling provision	0.33

ANNEX 2: TEXT ANSWERS IN A3 QUESTIONNAIRE

This Annex presents the responses to the open ended questions of the A3 DISTILLATE questionnaire. Below follow all the text answers given by the different authorities for each question, identifying each authority with the questionnaire code, in order to keep confidentiality, the questionnaire code (e.g. Q10) is used instead the name of the authority, if there is a reference to the name in the text answer. The code of the questionnaire is also displayed prior to each the text answer, to distinguish between different responses. Please note that one authority did not provide any text answers and a second authority gave only one text answer.

3b: What improvements have you made in the engagement of any of the stakeholders (in Question 3a, above)?

Q: 04

Our community links team does a lot of good work engaging with hard to reach groups. Also our Travelwise team has re-branded the local transport plan and promotion of transport using colour coding and icons to create a more attractive image for transport. This then is linked with a clear, consistent and coordinated program of marketing campaigns.

Q08

Working relations with rail industry definitely latter, since SRA established

Q10

The council has purchased licence for Limehouse publishing to be used in the consultation process for large documents for transport planning. This enables better consultation/collection of comment for consultations. It also improves the ability to internally consult and comment/edit such a document.

Q11

Presentations to DfT, GO (Government Office), others and members plus external grants such as Environment Agency and University of the Third Age

Q13

Improvements to working arrangements with:

Business community;

Public opinion/local press;

Transport providers

Q16

- More proactive inputs/support for LSPs
- More focused engagement with transport operators via review of working groups
- Business level improvements for wider (economic) strategy

Q17

Use workshops to gather stakeholders together

Q18

Capital projects have a list of consultees, individuals and organisations who receive plans and information for schemes and programmes. A list of strategy consultees is held by Transport Policy Team and is referenced as required.

A scheme consultation and development proforma for inclusion within a scheme files has been developed. This will formalise the consultation process.

3c: What solutions have you introduced in the last three years?

Q: 04

Rebrand of the local transport plan by our Travelwise team under the Travelwise Q04 banner with colour coding and use of icons to create a more attractive image for transport across LTP strategies, literature and marketing campaigns.

Q08

Now Regional Transport Board

Q11

?

Q13

Establishment of Q13 first partnership/ local area agreement

Establishment of traffic summit process with Q13 newspaper

Appointment of transport planning communications coordinator

Establishment of Q13 LTP team

Establishment of corporate transport programme board

Q17

Use workshops to gather stakeholders together

Q18

Monthly Highways Projects meetings with council involvement.

Cycling forum – quarterly

Bus user forum –currently lapsed

Coach industry liaison group – quarterly

Transport Projects Board – provides a link to multi-disciplinary regeneration schemes

8: What would most help integration of transport and land-use decision-making?

Q: 04

In recent years we have been working with the Districts to compile a joint Transport SPD across Q04 encompassing car parking standards, cycle parking, transport assessments and travel plans. This is

currently about to go through the adoption processes of the Districts. It will follow further forwards along a level playing held across Q04 and integrate land use and transport planning.

However, there are some areas that could be improved. PTEs should have greater involvement in the planning system by being made a statutory consultee for development plans and strategic planning applications.

Also unlike London where there is a spatial plan along the Transport Strategy, in PTEs areas there is no spatial plan at the sub-regional / city regional level to accompany the local transport plan (and successor strategies). This is a missing link in enabling greater integration of land use and transport at the sub-region/city region level.

Q08

Difficult question as we actually face pressures for less integration.

Assembly to be abolished – danger of losing expertise. Uncertainty over planning for rigs (regional) projects.

Draft Local Government Bill suggests LTPs will be abolished/changed

Q09

Properly resourced transportation and planning departments with clearly set objectives

Q10

That those who should be involved clearly understood that they needed to be involved and a clear understanding within management of the importance of the work and the need to allocate time to (too) it.

Q11

Less emphasis on transport economics in appraisal

Better recognition of sustainable development location and regeneration in appraisal.

Q13

Consistency of DCLG and DfT objectives – and consistency e.g. of LTP and development framework time scales

Greater clarity of delivery mechanism – how developers would be required to contribute including likely contribution if based on tariffs

Q16

Clearer policy – agreed with local Authority Planning … – in place and applied

Q17

Transport needs a higher priority in the decision making process for land use. Dare one suggest a veto.

Q18

Procedures and appropriate working parties, combined with good working relationships, are in place to ensure effective integration between these disciplines

14c: Which of your LTP2 indicators reflect local environmental quality?

Q: 04

LTP8 Pollutant concentrations within air-quality management areas (AQMA)

17 Vehicle mileage in the AQMA or area of exceedance

18 Environmental standard of bus fleet

16 Estimated transport related emissions (tonnes/year) of CO, nitrogen oxides and PM

Q08

N/A

Q09

We have local indicators:

- to increase rail patronage
- to increase P & R usage
- to increase use of community transport

While not explicitly about environmental quality if these targets are achieved then there would be an environmental improvement. Also mandatory NO_2 reduction target is a measure of local environmental quality.

Q10

Air quality, climate change, congestion

Q11

LTP8 NO_2

L14 Carbon Dioxide Emissions (further indicators identified in SEA)

L15 Brownfield development

Q13

LTP8. Air Quality; Pollutant concentrations in AQMAs and further work in progress

Q16

NO_2 concentrations in designated AQMAs

Q17

LTP 8 – Air quality target. This indicator looks at nitrogen oxide concentrations associated with traffic.

Q18

LTP8 – Nitrogen dioxide

14d: Which of your LTP2 indicators reflect health impacts?

Q04

LTP3 Cycling indicator: index of usage

19 Physical ability indicator

Q08

Measuring developments and access to health services

Q09

As above (i.e. answer in question 14c)

Q10

Walking, cycling

Q11

BVPI 99 Road Safety

LTP3 Cycling Trips

L17 Walking Trips

Q13

Work in progress – development of accessibility cycling and walking indicators in conjunction with Q13 PCT

Q16

Cycling

Use of PT

Q17

NONE. However, a number of indicators have associated health benefits, such as:

LTP8 Air quality

BUP1 102+ public transport usage

BUP1 99a Total killed or serious injured

BUP1 99b Child killed or serious injured

BUP1 99c Total slight casualties

LTP3 Cycling index

Q18

LTP3 – Cycling

LTP4 – mode share of journeys to school

LTP8 – Nitrogen dioxide

14e: Do you measure how transport impacts on productivity? If so, how?

Q09

Productivity??

Q16

Only for some major scheme (including TIF) appraisal (modes?) on wider economic benefits

Q17

There is currently no direct indicator relating to productivity; however, such as:

- LTP7 congestion
- SYLI 1 mode share of journeys to urban centres

could be used as proxies.

24: Can you give any examples of projects or proposals where you feel there has been a tension between the requirement to show value for money and the desire to improve the sustainability of the transport system?

Q04

Q04 tram is a project that had local support and would have delivered significant transport and accessibility improvements. However, it did not go ahead as DfT withdrew its support and funding contribution due to concerns about cost and value for money.

Q11

Turning Point – DISTILLATE Case Study

Q13

Delivering better places to live though high quality public realm and Home Zones.

Q16

Deployment of on street real time information has been at busy bus stops on high frequency routes – therefore more users; at the expense of low frequency, low usage sites where impact may be higher.

Q17

Most public transport schemes suffer from the NATA bias towards car transport savings at the expense of public transport

Q18

There is an inevitable and constant tension between value for money and the need to provide sustainable modes, particularly as it is difficult to enumerate sustainable transport's benefits. There are no specific examples of this. Schemes are considered against the perceived benefits of others and the resources available. A weighted scoring system is used initially to appraise schemes under consideration for the LTP programme.

26b: Are there any new modelling requirements such as behavioural responses or output requirements which current models do not address?

Q04

Modelling techniques are good at economic and transport benefits but they need to be also able to model wider cross-sectoral factors such as social, environmental or health benefits. They are not able to do this at the moment.

Q09

The economic/ health benefits to all of improved public realm need to be modelled in order to be able to better justify funding on such schemes.

Q10

?

Q11

Smarter choices are modelled as an input requiring fairly heroic assumptions to be made – an output would provide more robust results

Q13

Behavioural models in general

Any improvements to walking/cycling modelling

Q16

- Travel shifting
- influence on destination choice
- car sharing

Q17

No

Q18

None

30 Please indicate any particular positive or negative impacts on scheme delivery that have arisen from the use of the funding sources identified in Question 29, above…

Q04

EU and objective funding tends to come with a lot of constraints and often with fixed time periods. They are also mainly aimed at delivery of jobs and so can be hard to apply to transport.

The Regional Funding Allocation and the NATA appraisal have constraints and are very focused on road schemes and exclude rail schemes. This is a major difficulty in delivery of public transport improvements as one major model is ignored.

Q09

Section 106 funding may often only be used in a certain way, thus stopping some of the initial scheme objectives from being reached.

Q11

Major Scheme appraisal is extremely protracted and onerous

PIAs for PFI

S106 – lot of negotiation needed but a good source of additional funding

Q13

Private Finance – extremely high total cost and extremely difficult contract specification

Q16

- Delay with major funding decisions for delayed scheme delivery
- DfT now micro manage delivery process which adds delay

Q17

N/A (this may be because of an error in the questionnaire, in some questionnaires this question refers to question 32 instead of question 29)

31a: Please list any sources of revenue funding used for the delivery of transport schemes in your authority...

Q04

The main revenue funding sources we use are the levy from the Districts, Objective funding and other bid funding.

Q09

- L.A. funding
- Urban / Rural Challenge Funding (DfT)

Q11

Bus subsidy grant

Parking enforcement

Workplace parking levy (from 2010)

Q13

Revenue funding is remit of SYPTE

Limited revenue funding from planning gain – e.g. "Tesco" funding of park and ride service

Q16

Standard PIA sources plus S106

Q17

- Distinct issues funding for ITA/ ITE
- Objective 1 funding which can be used as revenue
- Developer contributions

Q18

- Permitted proportion of LTP used for revenue
- Road safety and bus promotion resources
- Miscellaneous balances of Transport Policy Team budget

31b: What difficulties with revenue funding do you consider affect the implementation of schemes in your authority, if any?

Q04

The local Transport Plan settlement funding has some constraints as it can only be used for LTP capital projects. This means that it cannot be used for revenue funding for things like supported bus services and marketing, even though these are core elements of the Local Transport Plan.

It would be better if the LTP settlement could be used to fund all aspects of the LTP rather than just on LTP capital projects.

Q09

The increase in capital funding available over the last 5/10 years has enabled many new schemes to be completed. However, revenue funding to maintain / operate these schemes has not been forthcoming leading to a loss of benefits initially achieved.

Q11

Ongoing commitment is onerous

Q13

Particular difficulty funding future maintenance of high quality public realm/infrastructure schemes

Q15

Not enough allocated – especially for bus services also project development.

Q16

- S106 difficult to manage
- Not permitted to adequately access increases in pre-tax revenues

Q17

Revenue shortfalls affect generation of schemes such as Park & Ride sites

Bus service provision

Q18

Lack of consistency in revenue provision plus constant shortage. No revenue stream within LTP. As the council is short of revenue for essential schemes, there will be none coming over for sustainable transport promotion.

32c: If you have used any of the potential funding sources mentioned in Question 32b, please provide some information on the scheme type they have been used for…

Q09

Public Transport Services.

New capital schemes e.g. junction improvements, pedestrian crossing etc

Q11

Generally small scale walking, cycling and bus integration schemes

Q13

Land value etc: major projects such as Q13 super-tram and Q13 inner relief road.

Planning Gain: routine requirement for highway, public realm improvements, and e.g. Travel Plans.

Q17

Planning gain and S106 grants

Q18

Developer contributions for necessary road improvements are required through the development control process.

ANNEX 3: LIST OF LOCAL AUTHORITIES INVITED TO PARTICIPATE IN "PHASE 3" SURVEY

Bath and North East Somerset Council http://www.bathnes.gov.uk/

Blackpool Borough Council http://www.blackpool.gov.uk/

Bristol City Council http://www.bristol-city.gov.uk/ (no response to A3 questionnaire)

Essex County Council http://www.essexcc.gov.uk/

Leeds City Council http://www.leeds.gov.uk/

MerseyTravel PTE http://www.merseytravel.gov.uk/; http://www.pteg.net/merseytravel.htm

Newcastle City Council http://www.newcastle.gov.uk/ (no response to A3 questionnaire)

Nottingham City Council http://www.nottinghamcity.gov.uk/

Sheffield City Council http://www.sheffield.gov.uk/

South Yorkshire PTE http://www.sypte.co.uk/

Stockport Borough Council http://www.stockport.gov.uk/

Strathclyde PTE http://www.spt.co.uk/ (no response to A3 questionnaire)

Surrey County Council http://www.surreycc.gov.uk/ (A3 questionnaire was not completed)

West Yorkshire PTE (Metro) http://www.wymetro.com/

York City Council http://www.york.gov.uk/ (no response to A3 questionnaire)

Yorkshire and Humber Regional Assembly http://www.yhassembly.gov.uk/index.cfm

ANNEX 4: LIST OF DISTILLATE PROJECT MANAGERS

Project A	Angela Hull	A.D.Hull@hw.ac.uk
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Project C	Gregory Marsden	G.R.Marsden@its.leeds.ac.uk
Project D	John Forrester	jf11@york.ac.uk
Project E	Charlotte Brannigan	cbrannigan@trl.co.uk
Project F	Simon Shepherd	s.p.shepherd@its.leeds.ac.uk
Project G	Matthew Page	m.page@its.leeds.ac.uk