

VREF FUT Conference Paper, April 2009

Approach to 'SenseMaking the Narrative' of Hypothesis- led Reports on the Planning and Appraisal of the Channel Tunnel Rail Link, UK

Phil Wright & Harry Dimitriou
OMEGA Centre
University College London

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Centre for Mega Projects in Transport and Development

A global Centre of Excellence in Future Urban Transport sponsored
by Volvo Research and Educational Foundations (VREF)

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Authors: Phil Wright & Harry T. Dimitriou

Affiliation: OMEGA Centre, Bartlett School of Planning, UCL

E-mail: Harry Dimitriou, h.dimitriou@ucl.ac.uk
Phil Wright, philip.wright@ucl.ac.uk

Website: <http://www.omegacentre.bartlett.ucl.ac.uk>

Bios:

Phil Wright:

Phil became a Research Fellow at the OMEGA Centre in October 2006 after thirty years as a professional chartered town planner. He has worked in a variety of environments in the UK and overseas - for local and national governments, urban regeneration agencies and as a consultant in the fields of strategic planning, urban renewal and transportation.

During his career Phil has maintained a strong interest in strategic planning and policy analysis/formulation. Examples of his experience in this respect include:

- Team Leader for the preparation of 'Metroplan' - strategic plan for the metropolitan area of Hong Kong.
- Preparation of development plans for Hong Kong's New Town Programme and rural hinterlands.
- Head of Strategic Planning Department of the Land Development Corporation (Hong Kong) responsible for identifying and assessing potential urban regeneration projects, corporate planning and the preparation of a comprehensive urban renewal strategy for Hong Kong's metropolitan area.
- In local Government, responsible for growth management strategies/plans in Lincolnshire.
- As a planning consultant, the preparation of large-scale commercial and mixed-use development proposals in London, planning advisor to Network Rail and Director for strategic studies of pedestrian environments and recreation facilities.

Prof Harry T Dimitriou:

Harry Dimitriou is Bartlett Professor of Planning Studies at University College London (UCL) and sometime Head of the Bartlett School of Planning. He is Director of the OMEGA Centre at UCL – an international centre of excellence for the study of mega projects in transport and development funded by the Volvo Research and Education Foundations (see www.omegacentre.bartlett.ucl.ac.uk) - undertaking an international study of decision-making in the planning, appraisal and evaluation of 32 mega transport projects in Europe, Asia and USA.

Harry holds a Diploma in Town and Regional Planning from the Leeds School of Town Planning (1969), a MSc. in Urban Science from the University of Birmingham (1970) and a Ph.D. in Transport and Urban Development from the University of Wales (1990). Apart from his teaching at the Bartlett School of Planning in UCL, he has previously taught and undertaken research at Aalborg University, the University of Hong Kong, Sheffield University and the Development Planning Unit (DPU) at UCL. He has also worked in British local government and extensively in international consultancy practice.

His principal areas of research and teaching lie in the fields of urban land-use/transport interaction and planning, urban transport policy and sustainable development, mega transport infrastructure appraisal and planning, strategic and regional Planning and institution-building for urban development and transport. Much of his work has concentrated on cities and regions in the Developing World.

Professor Dimitriou is member of the Royal Town Planning Institute and Fellow of the Royal Society of Arts in UK. He was one time Director of Training and Development Consultants (TDC) S.A, Switzerland, of Renaissance London Ltd. and of the International Institute for Energy Conservation (IIEC) in USA. He has been a member of the Transport Working Group for the Inter-governmental Panel on Climate Change (IPCC); several committees of the US the Transportation Research Board (TRB) of US National Research Council (NRC); the Foresight Built Environment and Transport Panel of Office of Science and Technology (OST) of UK.

He has held numerous advisory and consultancy positions, including for the European Commission, the World Bank, the United Nations Development Programme, the United Nations Centre of Human Settlements, the Economic and Social Commission for Asia and the Pacific, Harvard Institute for International Development, the Hong Kong Government, the Government of Indonesia, South East England Regional Development Agency and the London Development Agency, UK.

Summary

This Paper presents the approach adopted in the OMEGA Project to hypothesis-led investigations currently underway for each of its 32 Case Studies. The key purpose of the approach is to provide a basis for the subsequent 'sensemaking' of patterns of knowledge derived from insights provided by key Case Study stakeholders interviewed.

The paper highlights the key research questions and hypotheses that the research programme seeks to address and explains how these are reflected in a hypothesis-led questionnaires that have been used to extract insights from stakeholders who played a significant role in helping to mould various aspects of the Case Study project - in this case the Channel Tunnel Rail Link. In so doing, the Paper identifies the sources of questions and hypotheses contained in the questionnaires and the approach to stakeholder identification. Finally, the Paper explains the process by which data is extracted from hypothesis-led interview transcripts so as to enable subsequent sensemaking of patterns of knowledge and offers some thoughts on the quantification methods that will be used in comparative case study analyses in later phases of the research.

INTRODUCTION

The purpose of this paper is to present the approach to hypothesis-led investigations that has been adopted for the OMEGA Project - using the Channel Tunnel Rail Link (CTRL) as the basis for explaining the methodological approach employed. The approach provides the basis for the 'sensemaking' of patterns of knowledge based on insights provided by key Case Study stakeholders. It is being used across the OMEGA Network (see below) so as to provide a consistent basis for subsequent compare and contrast analyses.

As a result of the award of a grant from the Volvo Research and Education Foundations (VREF), The OMEGA Centre has been operational since late 2006. Its research programme seeks to foster institutional learning in respect of the planning, appraisal and evaluation of Mega Urban Transport Projects (MUTPs¹) from a comparative analysis of 32 Case Studies in ten countries spanning Europe, USA, Asia and Australia, including a broad spectrum of MUTP types (bridges, tunnels, road, rail links and projects with combinations of these mode types). Through these studies, conducted by a network of nine other international Partners the intention is for the OMEGA Centre to better identify 'what constitutes a successful MUTP' with the ultimate aim of generating a series of generic and context-specific lessons and guidelines to assist industry, commerce and government to enhance future decision-making in the planning, appraisal, evaluation and delivery of MUTPs.

Each Academic Partner is conducting a minimum of three Case Studies, which are due for completion at the end of 2009, using a common set of analytical tools and techniques. These include the assembly of Case Study project templates and timelines using secondary data sources, pre-hypothesis research (the subject of a separate Paper entitled 'Sense-making the Narrative' of Pre-hypothesis Reports on the Planning and Appraisal of Mega Transport Projects: The Case of the Channel Tunnel Rail Link, UK - Dr John Ward and Phil Wright, OMEGA Centre, UCL) and hypothesis-led research. The latter represents the focus of this Paper, with particular reference to the OMEGA Centre's experiences in regard to its first Case Study, the Channel Tunnel Rail Link (CTRL). It should be noted that the methodology for synthesising outputs from the analysis of Case Study findings is presently still being fine-tuned by the Centre and its Partners.

The Paper is structured as follows:

- Background - the key research questions and hypotheses which the research programme seeks to address;
- Sources of Questions - how the main questions and hypotheses were derived for use in the hypothesis-led research phase for the CTRL Case Study;
- Approach to Data Collection - hypothesis-led research interviews;
- Approach to Data Extraction - in particular, the relationships between questions posed in the HLQ and Overall Research Questions/Hypotheses and the consequent process by which data is extracted;
- Data Quantification Methodology, and;
- Concluding Remarks

¹ MUTPs are defined here as completed (post-1990) road, rail, bridge and tunnel projects or a combination of these, each costing in excess of US\$500m (at 1990 prices), located either within urban areas or having a significant impact on urban and metropolitan development.

BACKGROUND

The OMEGA Centre's research programme seeks to address a series of key **Overall Research Questions** and **Overall Research Hypotheses** emanating from the principal purposes of the study. These questions and hypotheses represent the principal foundations on which the hypothesis-led research phase (and therefore the hypothesis-led questionnaire) for individual Case Studies has been built.

The overall questions and hypotheses are as follows:

Overall Research Questions:

- **Questions #1:** What constitutes a 'successful' mega urban transport project (MUTP) in the 21st Century?
- **Questions #2:** How well has risk, uncertainty and complexity been treated in the planning, appraisal and evaluation of such projects?
- **Questions #3:** How important is context in making judgements regarding the above questions?

Overall Research Hypotheses:

- **Hypotheses #1:** Traditional criteria relating to cost overruns, completion dates, generation of travel time savings for users and rates of returns to investors are inadequate measures of success in the 21st Century as sustainable development concerns become increasingly critical both globally and locally.
- **Hypotheses #2:** The new emerging international and local agenda related to vision(s) of sustainable development is multi-dimensional and goes beyond notions of environmental sustainability, as critical as this may be, in that it also concerns inter-related concepts of economic sustainability, social sustainability and institutional sustainability.
- **Hypotheses #3:** The level of competence in decision-making and planning in today's fast-changing world is best assessed by the adequacy of the treatment of risk, uncertainty and complexity and sensitivity to context – all of which are important demands on Strategic Planning.

A series of definitions for key terms used in the context of the research programme has also been developed - see Appendix 2.

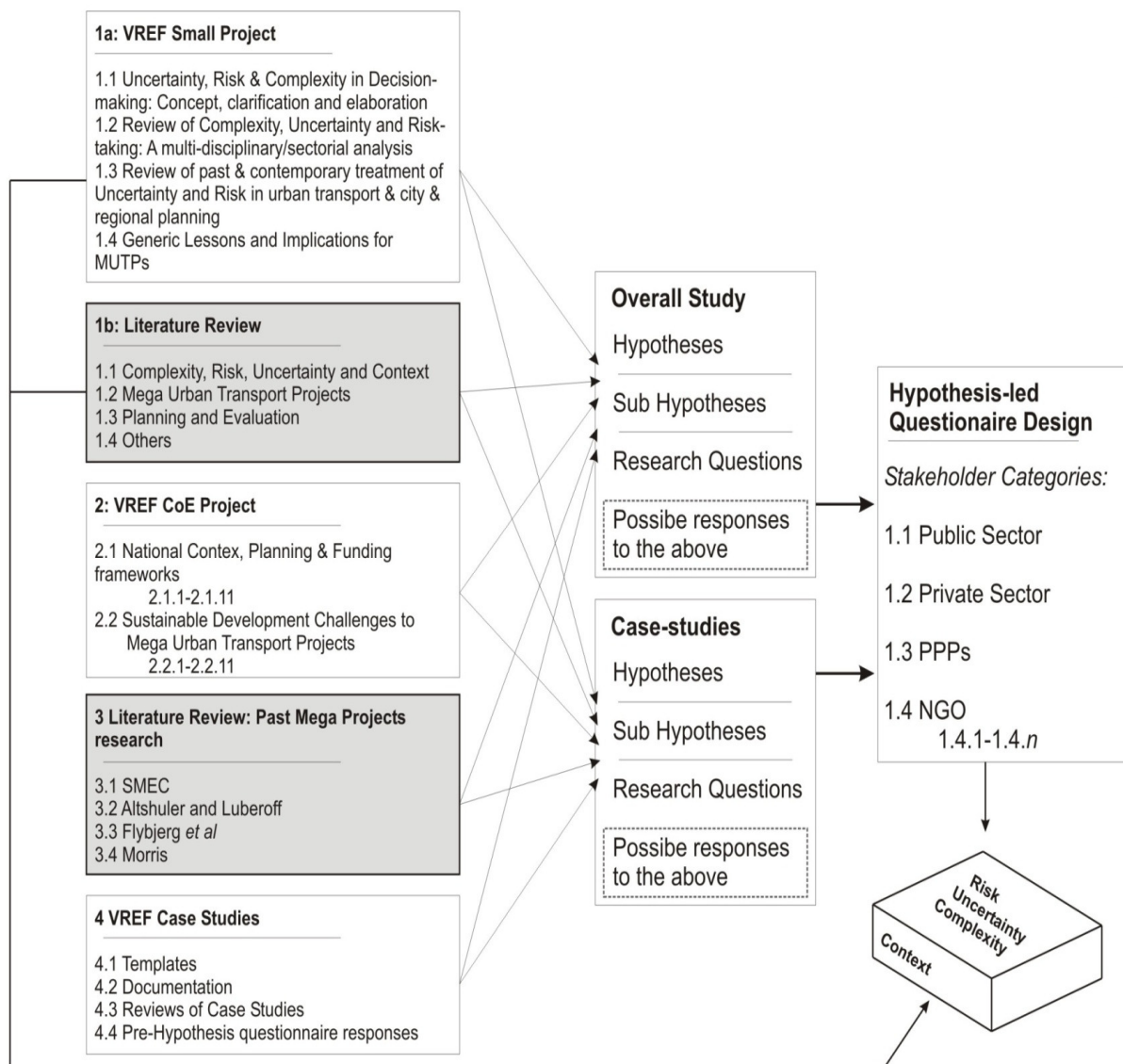
SOURCES OF QUESTIONS

In order to address and explore the above-mentioned Overall Research Questions and Hypotheses, the OMEGA Centre (CoE) and its Partners have developed a hypothesis-led questionnaire for use in interviews with stakeholders (see Appendix 1). The questions posed in the hypothesis-led questionnaires (HLQ) are based on (null and alternative) hypotheses and research questions derived from various sources including (see also Figure 1):

- extensive literature reviews associated with the declared scope of the research programme;
- the collection and analysis of key Case Study data/characteristics contained in bespoke project templates and timelines - which, in particular, informed the formulation of Case Study-specific hypotheses and related questions;

- outputs from a completed VREF Smaller Project on the treatment of risk, uncertainty, complexity and context in decision-making - drawing from sources both within and outside the fields of planning and project management/delivery;
- hybrid pre-hypothesis interviews based on Case Study story-telling;
- CoE Working Paper Series # 1 prepared by partners on the national policy, planning and funding frameworks for the delivery of MUTPs;
- CoE Working Paper Series #2 prepared by Partners on a selected range of sustainable development challenges confronting the planning, appraisal and evaluation of MUTPs;
- MUTP Stakeholders such as the Major Projects Association in the UK and the Contractors Association of New York in USA.

Figure 1: Sources of Research Hypotheses and Research Questions for Hypothesis-Led Questionnaire Design: Methodology for CTRL Case Study



APPROACH TO DATA COLLECTION

For the CTRL Case Study 20 principal stakeholders were interviewed on the basis of the HLQ at Appendix 1 during 2008. Stakeholders were sourced primarily on the basis of knowledge gained from earlier Case Study work (especially the Project Template and Timeline which identifies key actors, pivotal decisions and events in the project's 'history'), from background knowledge possessed by OMEGA Centre team members and from recommendations made by interviewees - the original intention was to undertake up to 15 interviews but such was the quality of the recommendations made by interviewees, that the Centre Team felt obliged to extend the number of stakeholders interviewed.

Principal Stakeholders are defined as those 'key' people and organisations who may *directly* affect, be affected by, or perceive themselves to be *directly* affected by, a decision or activity associated with the a decision(s) or an activity or a 'project' (after www.riskmanagement.qld.gov.au/info/guide/gls.htm). For the purposes of this Study, the term 'principal stakeholders refers to those:

- who's actions/decisions are/were critical to the success/failure of the project as a whole (or a component part thereof) in terms of its planning, appraisal, evaluation, implementation, operation and impacts, and/or;
- who have either possess first hand knowledge of/involvement in the planning, appraisal, evaluation, implementation, operation or impact of the project (or a component part thereof) or are experienced observers thereof, and/or;
- who share information and knowledge about the project (or a component part thereof) so as to influence project outcomes or opinions about project outcomes.

With the above in mind, the main characteristic displayed by all stakeholders was their key (often pivotal) role in determining and/or influencing project planning, appraisal, implementation and operational outcomes in some way. In addition, considerable effort was made to interview as broad a range of stakeholders as possible so as to obtain multiple perspectives on the different stages, facets and processes associated with the CTRL. In this connection it is important to point out that it was never the intention to conduct the hypothesis-led research on the basis of a stratified sample - rather, the intention remains to draw out key insights from those who played a significant role in shaping the CTRL.

Against this background, interviewees for the CTRL Case Study included: senior central and local government politicians (including 2 former Deputy Prime Ministers); leading consultants; central and local government planners and advisors; community group leaders; senior infrastructure managers; developers; lobbyists, and; leading project commentators.

A simple but robust stakeholder classification system was adopted for indexing purposes, as shown below (Table 1).

Table 1: Stakeholder Classification

Private Sector	
Entrepreneur/Business Person	Consultant/Advisor
Business/Financial Adviser	Financial Consortium/Funding Agency
Contractor/Constructor	Other
Public Sector	
Central Government Employee	Politician
Local / Regional Government Employee	Other
Non-Government Organisation/Other	
Work for Regional or Metropolitan Agency	Lobby Group
Local Community Member	Member of Community Action Group
Academic	Other

It is pleasing to note that such was the level of engagement by stakeholders that many of the interviews took more than 2.5 hours to complete and that a very high quality of responses to questions and additional insights into the Case Study were provided - even very senior politicians and company directors devoted a great deal of time to the interviews, and none less than two hours.

In order to enhance access to key stakeholders still further, the HLQ was e-mailed to some 20 additional persons who were known to have played an important role in the CTRL - approximately one third of these took the time to respond in writing.

The above would seem to suggest that: the stakeholders we interviewed were appropriate for the Case Study project, and; that the HLQ contained questions and hypotheses that successfully stimulated discussion about themes and topics which have a direct bearing on CTRL outcomes.

Each interview was recorded (with permission), transcribed and returned to stakeholders for checking and indexing. Following that, the transcripts (raw data) were entered into a series of 'data extract frames' referenced by stakeholder type, and question/hypothesis being addressed which provide the platform for subsequent analysis - see below.

APPROACH TO DATA EXTRACTION

In this section we explore the relationship between questions posed in hypothesis-led questionnaire and the Overall Research Questions and Hypotheses mentioned above as this plays a key role in determining the approach to data extraction and subsequent analysis.

The Hypothesis-led Questionnaire (HLQ) used for the CTRL Case Study at Appendix 1 is divided into three main Parts, plus a series of indexes, as follows:

- **Part 1** – contains a series of both generic and context-related **Key Research Questions** which are used in *all* OMEGA Case Studies. These concern six major topics/themes directly related to the Overall Research Questions and Hypotheses:
 - Project Success
 - Project Appraisal and Evaluation
 - 'Sustainability' Considerations

- Project Decision-making Processes
 - Project Risk, Uncertainty and Complexity
 - Project Context
- **Part 2** - comprises a series of **Hypotheses and Hypothesis-related Questions** specific to each Case Study conducted by the OMEGA Network. For the CTRL, these hypotheses and related questions (derived from sources identified in Figure 1 and explained above) are concerned with:
 - Economic Rationalism - in particular the belief that the CTRL was treated essentially as a 'closed system' and a commodity for which demand and supply could be predicted with reasonable accuracy;
 - New Regionalism - the notion that public sector support for the CTRL was seen as an essential means to service the forces of globalisation by enhancing London's accessibility and competitive position and that this represented a form of policy intervention that overrides models of economic rationalism;
 - Muddling Through - this hypothesis suggests that there was no clear or consistent vision for the CTRL at the outset and that the subsequent introduction of objectives associated with growth management and regeneration was undertaken on an *ad hoc* basis in response to different (sometimes competing) emergent agendas that arose over time;
 - Smoke Filled Rooms - which deals with the role of real estate development as a means to financially support the CTRL and the rather difficult 'bargaining' circumstances this introduces in terms of maximising community benefits;
 - Context is Everything - which postulates that CTRL project outcomes can best be explained by the forces and influences that were at work at the time (and place) of planning and constructing the project, and that the failure to fully appreciate these contributes to much of the misunderstanding about what an MUTP is expected to, and can, deliver.
 - **Part 3** - comprises a set of common **Concluding Questions** about generic lessons that can be learned from the Case Study, including: how and by whom MUTP objectives should be set; the role of community engagement, consultation and participation, and; the need for national planning frameworks.
 - **Indexes** – indexes completed by each interviewee (for each Case Study) represent both lenses through which each set of responses can be viewed and which also pose questions about the respondent's views on the treatment of (i) Risk, Uncertainty and Complexity, (ii) Context, and (iii) Sustainable Development Challenges in carrying out the Case Study project.

We acknowledge here that there exist manifold inter-relationships between the individual questions posed in the HLQ and the Overall Research Questions and Overall Research Hypotheses mentioned above. With this in mind, it is clearly important to recognise the need to draw on *all relevant insights* provided by stakeholder responses when reaching conclusions about the pattern of responses both to individual questions and (ultimately) to the Overall Research Questions and Overall Research Hypotheses. Equally, it is acknowledged that many of these interrelationships will only emerge after extensive 'bottom-up' scanning of the raw data (stakeholder interview transcripts), which we see as a useful contrast to the

'top-down' approach afforded by the need to respond to the research programme's overall research questions and hypotheses. Moreover, we are acutely aware that investigation of the pattern of stakeholder responses to questions in the three Parts of the HLQ may well lead to the postulation of entirely new hypotheses for 'testing' (both generic hypotheses and context-specific hypotheses) and that this process could ultimately become a further source of MUTP lessons and guidelines.

The following explains the above-mentioned relationships in more detail.

Part 1: Overarching Research Questions

The relationship between the questions contained in Part 1 of the HLQ and the overall research questions plus the hypotheses is illustrated by Figure 2 and explained in more detail in Table 2. In order to focus the extraction of data from the HLQ transcripts in a way that enables the Overall Research Questions and Overall Research Hypotheses to be addressed, the approach to Part 1 of the HLQ is being conducted in two principal phases, as follows:

- **in Phase 1**, each Overall Research Question and Overall Research Hypothesis is addressed independently by drawing on responses to: the related generic and context-specific key research questions posed in Part 1 of the HLQ; the responses to related context-specific index questions that accompanied the HLQ; and, other questions contained in the HLQ in which prompted stakeholders to offer insights that have a bearing on the overall research question or hypothesis;
- **in Phase 2**, the patterns of knowledge generated in phase 1 are used to further inform and/or reinforce responses to the Overall Research Questions and Hypotheses.

Part 2: Case Study Hypotheses

As noted above, Part 2 of the HLQ contains five Case Study-related hypotheses and associated questions (see Appendix 1):

- **Hypothesis 1:** Economic Rationalism - with 3 related questions (Q7, Q8, Q9);
- **Hypothesis 2:** New Regionalism - with 3 related questions (Q10, Q11, Q12);
- **Hypothesis 3:** Muddling Through - with 4 related questions (Q13, Q14, Q15, Q16 - Q14 has 3 sub-parts);
- **Hypothesis 4:** Smoke Filled Rooms - with 4 related questions (Q17, Q18, Q19, Q20);
- **Hypothesis 5:** Context is Everything - with 5 related questions (Q21, Q22, Q23, Q24, Q25).

The broad purpose of Part 2 is to extract knowledge from stakeholders by asking them to react to Case Study-related hypotheses so as to better understand the contexts and processes that moulded the project under examination and in so doing, to determine what 'lessons' may be drawn about project shortcomings and successes. A number of these hypotheses are deliberately phrased in a provocative and leading manner so as to encourage interviewees to actively engage in the interview process - for example, the 'Smoke Filled Rooms' hypothesis.

The broad approach to data extraction from the transcripts (and written responses) is shown by Table 3 below, which also explains the treatment of the different types of questions (direct/indirect) posed in part 2 of the HLQ and the need to record insights that inform responses to the Overall Research Questions and Hypotheses.

It is also envisaged that a number of stakeholder responses to Part 2 questions will yield insights that do not directly relate to the subject matter under consideration but are nevertheless valuable and need to be recorded as these could well inform the level of support for other Part 2 hypotheses, Part 1 findings and/or lead to new hypotheses, lessons and guidelines.

Part 3: Concluding Questions

Part 3 of the HLQ contains four questions intended to drive out *generic* lessons based on Case Study experiences and other similar projects, regarding:

- MUTP objectives;
- community engagement, consultation and participation;
- national planning frameworks for MUTPs;
- other generic lessons.

Insights offered by stakeholders in response to these questions also help to inform the Overall Research Questions and Hypotheses contained in Part 1 and the Case Study Hypotheses contained in Part 2.

Data Extract Frames

In order to arrange data in a manner that readily enables subsequent analysis, a series of self-explanatory 'data extract frames' have been used (see Tables 4-6) which:

- provide an account of how raw transcript/written response data is to be entered - including the treatment of different types of questions (essentially yes/no questions and open-ended questions) and the use of 'gists';
- help address the subsequent quantification of response patterns (by typology and stakeholder classification type). This matter is covered more fully below;

The data extract frames will later be used as a source of valuable quotations which support our overall research programme conclusions - albeit with the appropriate consent having been obtained from the individual stakeholder concerned.

Table 2: Relationship Between Overall Research Questions & Hypotheses and Individual Generic and Individual Context-Specific Questions and Hypotheses Contained in the HLQ

Overall Research Questions and Hypotheses	Informed by:			
	Phase 1			Phase 2
	Generic and context-specific responses to key research questions:	Generic and context-specific respondent insights from:	Responses to context-specific index questions:	Analysis of Related research questions and Hypotheses
Overall Research Question # 1: What constitutes a 'successful mega urban transport project (MUTP) in the 21 st Century?	HLQ Questions 1a, 1b and 1c on Project Success which relate directly to the Overall Research Question #1.	Other questions in Parts 1-3 of the HLQ. Here we refer to insights that are provided by stakeholders when responding to another question (in Part1, Part 2 or Part 3) that have a bearing on the Overall Research Question/Hypothesis under consideration.	NA	Insights Resulting From Analysis of Responses to Overall Research Questions #2 & #3 Insights Resulting From Testing of Overall Research Hypotheses #1, #2, #3
Overall Research Question #2 : How well has risk, uncertainty and complexity been treated in the planning, appraisal and evaluation of such projects?	HLQ Questions 5a and 5b on Project Risk, Uncertainty and Complexity which relate directly to the Overall Research Question #2.	As above.	HLQ Index Question 4 (Risk, Uncertainty & Complexity).	Insights Resulting From Testing of Overall Research Hypotheses #1, #2, #3
Overall Research Question #3: How important is context in making judgements regarding Overall Research Questions 1 and 2?	HLQ Questions 6a, 6b and 6c on Project Context which relate directly to the Overall Research Question #3.	As above.	HLQ Index Question 5 (Context).	Insights Resulting From Testing of Overall Research Hypotheses #1, #2, #3
Overall Research Hypothesis #1: Traditional criteria relating to cost overruns, completion dates, generation of travel time savings for users and rates of returns to investors are inadequate measures of success in the 21 st Century as sustainable development concerns become increasingly critical both globally and locally.	HLQ Questions 2a, 2b and 2c on Project Appraisal and Evaluation which relate directly to the Overall Research Hypothesis #1.	As above.	NA	-
Overall Research Hypothesis #2: The new emerging international and local agenda related to vision(s) of sustainable development is multi-dimensional and goes beyond notions of environmental sustainability, as critical as this may be, in that it also concerns inter-related concepts of economic sustainability, social sustainability and institutional sustainability.	HLQ Questions 3a, 3b, 3c and 3d on 'Sustainability' Considerations which relate directly to the Overall Research Hypothesis #2.	As above.	HLQ Index Question 6 (Sustainable Development Challenges).	-
Overall Research Hypothesis #3: The level of competence in decision-making and planning in today's fast-changing world is best assessed by the adequacy of the treatment of risk, uncertainty and complexity and sensitivity to context – all of which are important demands on Strategic Planning.	HLQ Questions 4a, 4b and 4c on Project Decision-making Processes which relate directly to Overall Research Hypothesis #3.	As above.	HLQ Index Question 4 (Risk, Uncertainty & Complexity).	-

Figure 2: Illustration of Relationships Between Overall Research Questions & Hypotheses and Individual Generic and Individual Context-Specific Questions and Hypotheses Contained in the HLQ.

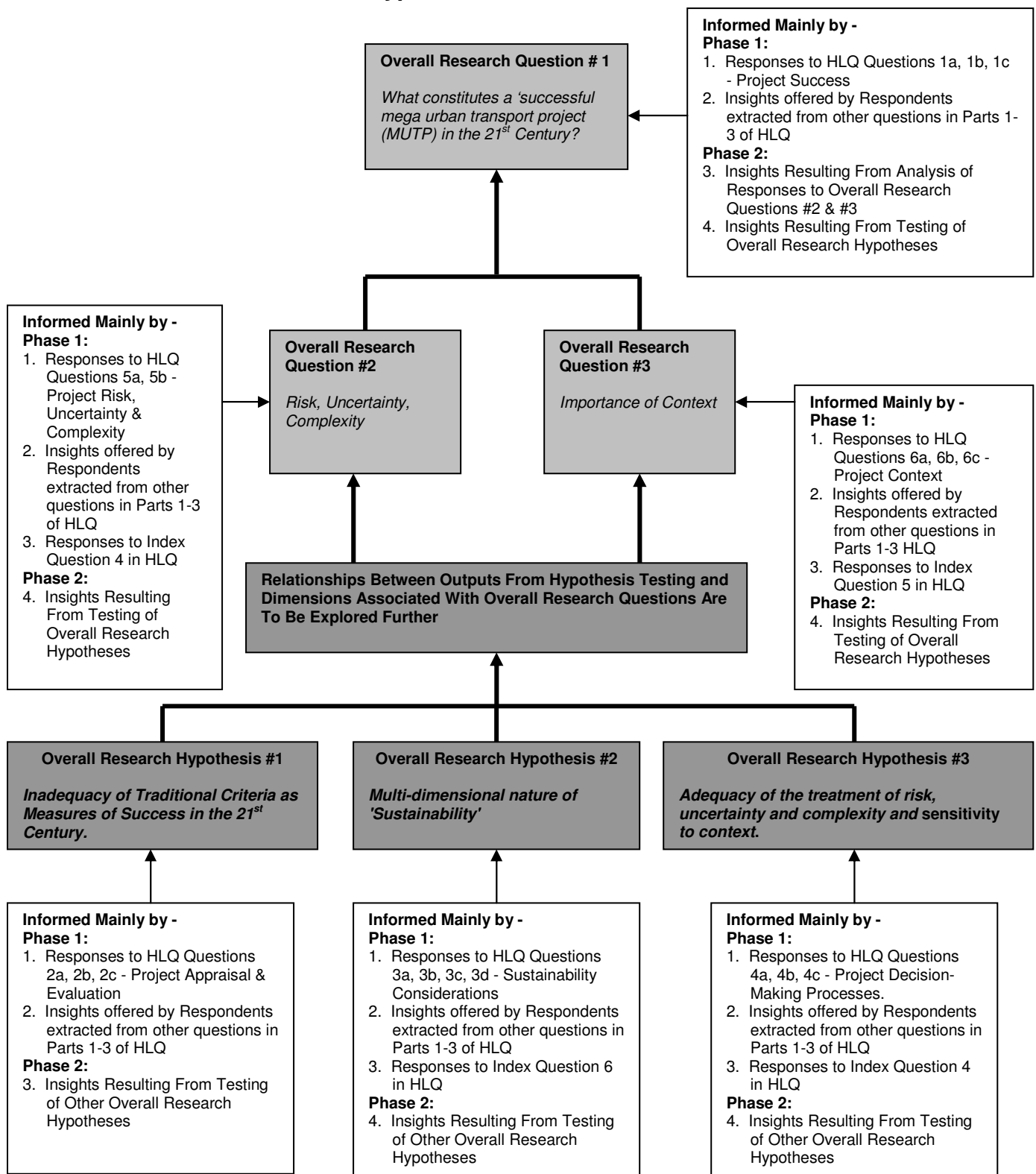


Table 3: Part 2 of the HLQ - Overall Approach To Data Collection

Primary Query - What is the Level of Support for Parent Hypothesis?			
	Question Type		
	'Direct'	'Indirect'	'Unprompted Insight'
Broad Approach	Approach - yes/no type question	Approach - <i>interpretation</i> of responses to indirect questions that help to build the case for support/disagreement with parent hypothesis.	Approach - <i>interpretation</i> of unprompted insights offered by interviewees that help to build case for support/disagreement with parent hypothesis and/or lead to new hypotheses.
Detailed Approach	Does interviewee: <ul style="list-style-type: none"> support all/part of parent hypothesis, if so why? not support all/part of parent hypothesis, if so why? neither support nor disagree with all/part of parent hypothesis, if so why? 	<ul style="list-style-type: none"> What evidence can be extracted from pattern of responses to either support or disagree with parent hypothesis? 	<ul style="list-style-type: none"> What evidence can be extracted from responses to either support or disagree with parent hypothesis? What new hypotheses are suggested? Do insights inform analysis of Part 1 and Part 3 responses?
Specific Questions	Responses to Questions 7, 9, 10, 13, 16,17, 18, 21, 22 and 23	Responses to Questions 8, 11, 12, 14, 15, 19, 20, 24 and 25)	No specific questions
General	<ul style="list-style-type: none"> Record all responses by <u>stakeholder type</u> as shown in Table 2 Identify and record responses to Questions in Parts 1 and 3 that are relevant to Questions in Part 2 (and vice versa) Record responses given to Index Questions 4, 5 and 6 that are relevant to Part 2 Questions 		

Table 4: HLQ Part 1 - Data Extract Frame

Overall Research Question (e.g.)	Question No. & Heading (e.g.)	Stakeholder Type	Relevant Transcript Extract	Record of Responses (explanatory note)
1. What constitutes a successful MUTP in the 21 st Century	1. Project Success	From Table 1	Extracted Text	<p>Record:</p> <ul style="list-style-type: none"> gist of key points for open question - identify and record range of responses provided, including frequency with which generic and/or context-specific ideas, concepts, recommendations are mentioned, by stakeholder type. for yes/no type question - identify whether response supports hypothesis: <ul style="list-style-type: none"> if yes, record why; if no, record why; if neither yes nor no, record why. <p>.... and identify and record broad patterns of generic and/or context-specific knowledge emanating from response, by stakeholder type.</p>

DATA QUANTIFICATION METHODOLOGY

Quantification of the hypothesis-led data seeks to achieve the following:

- to provide evidence for the analysis and synthesis stages of the project;
- to provide 'headline' statistics for the study outputs.

It is important to recognise that quantification of the raw data is essentially a 'bolt on' to the qualitative analysis phase described above and that both the qualification and quantification are achieved where possible in the same 'pass' of the data.

There are a range of options available for how we can go about the quantification process, from the collection of simple Boolean responses to Hypothesis-based Questions, to developing a new set of over-riding hypotheses and accompanying set of filters (to represent independent and dependent variables) similar to the pre-hypothesis led analysis by which to code the hypothesis data sets. Statistical multivariate analysis may follow to build models explaining the relationships between the data and to test the hypotheses. However, the depth of quantitative analysis is restricted both by the time and resources available to conduct such analysis.

The intention is that data extracted will be solely of the Boolean type, which will simply capture the yes/no responses to the questions where applicable or score the responses against a series of typologies. This will allow us to generate comparative metrics such as '80% of all respondents thought context was a key issue in the planning, appraisal and evaluation of mega urban transport projects'.

For the majority of questions where no direct yes/no response can be recorded, a typology is required by which we can quantify the qualitative data found in the respondents transcripts again in Boolean form. For example, question 2a in the HLQ asks '*In generic terms, what are the most important appraisal and evaluation criteria for MUTPs?*'

Quantitative Data can also be derived from the HLQ responses by creating a typology of appraisal criteria and recording the instances of appraisal criteria found within the text against key indexes, as shown by Table 7 below.

This approach raises a number of issues with which the OMEGA Centre is currently grappling:

- an initial typology must be constructed which is applicable to all datasets;
- the scheme of quantification must allow for emergent criteria to be captured and indexed;
- the resulting process needs to be iterative - capturing emergent criteria will require previously analysed texts to be compared against the new criteria;

Table 5: HLQ Part 2 - Data Extract Frame (with example of transcript extract)

HYPOTHESIS 1 'Economic Rationalism'				
Stakeholder Type	Hypothesis	Question	Transcript Extract	Gist (explanatory note)
Question 7: CTRL - a closed system?				
Politician	1	9	<p>"Yes, it is, because that's the way things have always been done. We've always had a link-based approach to any economic appraisal. We've never been able to master a network approach. <i>Are you lamenting that?</i>"</p> <p>"Yes, absolutely, yes. I think it's a problem with roads as much as it is with rail, but a particular problem with rail. The interesting thing with the CTRL was of course that because it didn't stack up on that basis, the wider economic benefits, regional benefits to Kent etc, were sort of tacked on without any real analysis or justification.....I think it was entirely flawed, entirely spurious. I think it was wrong."</p>	<ul style="list-style-type: none"> • gist of key points • for 'direct' yes/no type question - identify and record whether response supports parent hypothesis: <ul style="list-style-type: none"> ○ if yes, record why; ○ if no, record why; ○ if neither yes nor no, record why. and identify and record broad patterns of generic and/or context-specific knowledge emanating from response, by stakeholder type. • for 'indirect' question - identify and record extent to which response reflects support for parent hypothesis, negates parent hypothesis or offers neither support nor disagreement • identify and record whether response also informs other Hypotheses in Part 2, Part1 questions and hypotheses and Part 3 generic lessons. • identify and record 'unprompted insights' that inform other Hypotheses in Part 2, Part1 questions and hypotheses and Part 3 generic lessons - and/or may lead to new hypotheses, lessons and guidelines.
Consultant/ Advisor	1	9	<p>"I'm not an expert. My personal view of this question is there had to be a degree of 'closedness' in order to reach a base case to push through the system, in terms of the economics. It doesn't sound right to me with my planning hat on, 'closed system' sends all the wrong signals. The complicated fare structure, which I know exists and is the premise for the Eurostar franchise as one that must relate to this and I think closed can't, be right. I like the term economic rationalism, but as a basis for accurately forecasting revenues, you need a fundamental set of resilient assumptions, or you have false premises."</p>	
Central Govt Employee	1	9	<p>"What you described is what happened at BR and DfT. They took an eyes down, calculator appraisal and no doubt there was a powerful case along those lines. I don't dismiss it but those calculations never stand the test of time. Basically you can prove whatever you like, a lot of those are judgemental and determined by those that are looking for a certain solution. I am prepared to believe there was a rationale case, it just lacked any vision."</p>	

Table 6: HLQ Part 3 - Data Extract Frame

Stakeholder Type	Qu No.	Transcript Extract	Gist (explanatory note)
Politician	26	Relevant Text	<ul style="list-style-type: none"> • gist of key points • identify and record patterns of generic knowledge emanating from response, by stakeholder type. • identify and record whether response also informs Part 1 and Part 2. • identify and record 'unprompted insights' that inform Part 1 and Part 2 questions and hypotheses and/or may lead to new hypotheses, lessons and guidelines.
Consultant/ Advisor	26	Relevant Text	
Central Govt Employee	23	Relevant Text	

Table 7: Example of Emergent Typology Table

Appraisal Criteria Typology	Mentioned (yes/no)	Important (yes/no)
Cost		
Revenue		
Environmental Standards e.g bio-diversity		
Economy e.g. Regeneration Benefits		
Accessibility e.g. Commuter Benefits		
Integration e.g landuse, strategy for area		
Other...		

CONCLUDING REMARKS

As is evident from the above, the OMEGA Centre is currently actively engaged in analysing raw data from the hypothesis-led interviews it conducted. This work had to be preceded by considerable methodology development not only in relation to the hypothesis-led research phase, but also in anticipation of the development of a comparative analysis and synthesis framework that will shortly be discussed in-depth with OMEGA Partners.

The consolidated outputs from the hypothesis-led phase of the CTRL Case Study should be completed in May 2009. Such outputs must necessarily be considered as somewhat *tentative* however, in that they will reflect findings relating to just one of the 32 Case Studies being conducted. Additional inputs will clearly be required from other Case Studies before meaningful generic and context-specific lessons and guidelines can be properly formulated. These additional inputs will be derived from full Case Study and Country-based syntheses of findings using the analysis and synthesis framework mentioned above which is to be discussed at the forthcoming OMEGA Workshop in April 2009.

With this in mind, it is perhaps also worthwhile pointing out that further thought is required on the part of the Centre and Partners in regard to the relationships within and between the three Overall Research Questions and Overall Research Hypotheses (though it would seem clear, for example, that Overall Research Hypothesis #3 has a very close relationship with all other Research Questions and Research Hypotheses). It is considered that evidence of these relationships will emerge as our work progresses.

APPENDIX 1: HYPOTHESIS-LED QUESTIONNAIRE

PART 1: Overarching Research Questions

The questions below are posed to help ascertain what constitutes a 'successful' MUTP in the 21st Century in generic terms and in respect of the [Case Study] project.

Question 1: Project Success

- Q1a.** In generic terms, what in your view constitutes a 'successful' MUTP?
- Q1b.** Do you consider that this [Case Study] project has been a successful MUTP? If so, why? If not, why not?
- Q1c.** What constitutes a MUTP - what are their main defining features and characteristics?

Instructions to Interviewer for above questions:

- Explain that a technical definition of 'success' (or 'failure') requires consideration of multiple criteria, and that an objective decision under such circumstances requires evaluation and weighting of each criterion.
- First ask open question (1a) about what constitutes a successful MUTPs in general and then in relation to the Case Study project (1b).
- Conclude by asking Question 1c.

Question 2: Project Appraisal and Evaluation

- Q2a.** In generic terms, what are the most important appraisal and evaluation criteria for MUTPs?
- Q2b.** What were the most important appraisal and evaluation criteria for this [Case Study] project?
- which criteria proved adequate and which inadequate? Why/why not?
 - did concerns about sustainable development influence the appraisal or evaluation process? If so, how? And to what effect?
- Q2c.** What value do 'traditional' appraisal and evaluation criteria (project cost overruns, completion dates, travel time savings and rates of returns etc.) have as measures of the 'success' of MUTPs in the 21st Century as sustainable development concerns become increasingly critical both globally and locally?

Instructions to Interviewer for above questions:

- Explain that for the purposes of the OMEGA Study 'appraisal' refers to pre-project assessments and 'evaluation' refers to post-project studies assessments.
- First ask open question about the criteria that should be used for all MUTPs (2a) and then query which criteria were important in relation to the Case Study project (2b).
- Conclude by asking Question 2c.

Question 3: 'Sustainability' Considerations

- Q3a.** What do you consider to be the main sustainability considerations in the context of MUTPs? Do you consider that 'sustainability' considerations should play a major part in the planning and delivery of MUTPs? If so, why and how? If not, why not?
- Q3b.** Did 'sustainability' considerations play a major part in the planning and delivery processes of this [Case Study] project? If so, how? If not, why was this?

- Q3c.** Do new/emerging visions of sustainable development offer a better framework for judging success?
- Q3d.** Do you consider that it is possible to introduce 'retrofit' strategies that would enable MUTPs in general, and this [Case Study] project in particular, to achieve more sustainable outcomes?

Instructions to Interviewer for above questions:

- First ask open question about interviewees views on the main sustainability considerations.
- Then ask open question about relationship between sustainability and MUTPs in general (3a) *and then* in relation to Case Study project (3b).
- Conclude by asking Question 3d - explain that 'retrofit' broadly comprises strategies that are introduced retrospectively in order to alter projects so that they more closely match needs associated with new/emerging visions of sustainable development.

Question 4: Project Decision-making Processes

- Q4a.** What do you consider to be the most important factors and actors that determine the outcome of decision-making process in the planning and delivery of MUTPs?
- Q4b** What were the most important factors determining the outcome of the decision-making process in the planning and delivery of this [Case Study] project?
- Which actors had most influence on the decision-making process?
 - And which factors and influences worked positively and which negatively with respect to the key appraisal and evaluation criteria that you identified in response to question 2?
- Q4c.** What influences are generated by (other) specific factors and actors (e.g. political power, rationality of technocrats, lobbying from business, community/environmental activism, influence of mega events etc.)?

Instructions to Interviewer for above questions:

- First ask open questions about factors and actors (4a) and then in relation to Case Study project (4b).
- In order to provide a frame of reference, interviewees should be asked to provide responses to Questions 4a-4c against the background of what they perceive to be the most significant/pivotal events or decisions in the planning and delivery of MUTPs in general (Question 4a) and the Case Study project in particular (Questions 4b and 4c).

Question 5: Project Risk, Uncertainty and Complexity

- Q5a.** What do you consider to be the main generic sources of risk, uncertainty and complexity in the planning and delivery of MUTPs?
- Q5b.** What were the main sources of risk, uncertainty and complexity faced by this [Case Study] project?
- How have these issues been treated in the decision-making process?
 - What worked well and what failed in this respect?

Instructions to Interviewer for above questions:

- First ask open question about which risk, uncertainty and complexity in relation to MUTPs in general (5a) and then in the context of the Case Study project (5b).

Question 6: Project Context

- Q6a.** What aspects of 'context' do you consider to be the most influential generically in the planning and delivery of MUTPs? Why is this?
- Q6b.** What aspects of 'context' were the most influential in the planning and delivery of this [Case Study] project? Why was this? What aspects of context were not adequately assessed?

Q6c. What was the impact of Mega Events on this [Case Study] project (if appropriate and if not covered by response to Question 4)

Instructions to Interviewer for above questions:

- Explain that 'context' concerns include cultural, spatial, political, financial, institutional, environmental and other conditions.
- First ask open question about contextual influences for MUTPs in general (6a) and then in relation to Case Study project (6b).
- Conclude by asking Question 6c if appropriate.

PART 2: Case Study Hypotheses

A number of hypotheses are forwarded here to help explain why and how the case study has developed the way it has. The following questions invite interviewees to respond to the plausibility of these hypotheses which also explore some of the aspects of the research questions posed in Part 1 in more detail.

The hypotheses cited below are for illustrative purposes alone and pertain to the first UK Case Study – The Channel Tunnel Rail Link (CTRL). They were derived from the extensive literature reviews that pertain to the case studies which preceded the questionnaire design.

HYPOTHESIS 1 – 'Economic Rationalism'

The hypothesis posed here is that the financing and economic rationale for the planning, appraisal and evaluation of the CTRL is “ostensibly” based on an *economic cum financial rationalist* model that treats the ‘line haul’ as a discrete ‘closed system’, for which supply and demand can be forecast with reasonable accuracy - as a basis for forecasting whether sufficient revenues can be generated from the operation of the link to pay for its construction. This relies on travel forecasting methods that pay explicit attention to the economics of travel time savings and some implicit but less precise attention to spin-off benefits generated by the new infrastructure and its services with new transport links increasingly seen more as ‘commodities’ rather than a ‘public services’.

Question 7: CTRL - a closed system?

Was the financing rationale for the planning, appraisal of the CTRL based on the belief that the ‘line haul’ could be treated a discrete ‘closed system’, for which supply and demand can be forecast with reasonable accuracy as a basis for accurately forecasting whether future revenues would be sufficient to pay for its construction?

Question 8: flawed appraisal models?

Were the appraisal and travel demand models used to forecast potential CTRL revenues fundamentally flawed and if so, why and how? Or, were they manipulated so as to generate levels of revenue that were acceptable politically in the face of new/emerging imperatives?

Question 9: CTRL - a commodity or a service?

Was the CTRL treated more as delivering a ‘commodity’ in direct competition with other modes of transport rather than a ‘public service’ to the region and its urban areas, despite the considerable aspirations and rhetoric associated with the urban regeneration agenda that this new transport investment will spawn in east London and the Thames Gateway?

HYPOTHESIS 2 – 'New Regionalism'

The hypothesis forwarded here is that public sector support for the construction of the CTRL was seen by the powers that be (namely, Central Government and the Regional Development Agencies, as well as many local authorities and industrial and commercial interests in London and the South East) as *essential*, despite its apparent poor financial prospects. Thereby, suggesting: Firstly, that the importance of CTRL can *only* be understood in a much broader context where the CTRL corridor is seen as essential to better servicing the forces of globalisation by enhancing access to London and its region to Europe, and the world economy and thus sustaining/enhancing London's competitive position as a 'world city region'. Secondly, that the continued support for the project represents in some way a form of policy intervention that overrides models of economic rationalism.

Question 10: globalisation and policy intervention?

Do you support the above hypothesis and related two emerging premises? If so why and if not, why not?

Question 11: promoting 'New Regionalism'?

If you accept the above hypothesis, how inevitable was/is it and who were/are the principle actors who promoted this New Regionalism agenda? Who would you say ultimately benefits this vision and who pays (both in the short *and* long term)?

Question 12: decision makers and champions?

In Part 1 we talked about the key decision makers and champions for the CTRL overall and for the hubs at the critical planning stages of the project. But, what did/do they stand to gain?

HYPOTHESIS 3 - 'Muddling Through'

The hypothesis posed here is that there was no clear, consistent, properly articulated or widely agreed vision of the role of CTRL at the outset, other than an imperative to link the Channel Tunnel to London in what it saw at the time was the most cost-effective manner. This position had to change when the British Government was faced with the embarrassment of high speed French trains 'grinding to a halt' in Kent when the Channel Tunnel opened. Subsequent decisions regarding such matters as upgrading the line, the approach to project funding, promoting the CTRL as the key spine for the Thames Gateway and facilitating major development around key stations/hubs were thus made on an *ad hoc* basis in response to different (sometimes competing) agendas that arose over time. This lack of clarity of vision has resulted in the introduction of delayed, ill-thought out and sub-optimal strategies by both public and private agencies in response to changing government agendas that sought different economic and political outcomes at different times (after Wright, 2008).

Question 13: an evolving project? (after Wright, 2008)

Do you subscribe to the above hypothesis? Would a more clearly articulated set of objectives (and/or vision) for CTRL at its inception have made the project less vulnerable to political and financial influences?

Question 14: influences on planning and delivery? (after Wright, 2008)

Given the CTRL was characterised by lengthy planning and implementation periods, do you believe it was inevitable over time that the interplay of competing forces, emerging agendas and changing contexts reinforced all/some/none of the following:

- The need for a 'time to breathe' – so as to allow it to evolve in response to changing circumstances over time;
- The realization that it is unrealistic to expect every aspect of the planning and delivery of the CTRL to be tightly controlled from the outset;
- 'Carpe diem' – i.e., moments in time in the planning and delivery of the CTRL when circumstances were ripe for key players to seize the occasion and adjust its focus.

Question 15: emerging agendas?

Do you believe the subsequent Sustainable Communities and Sustainable Development visions promoted by Central Government led to the emergence of new/changing stakeholder agendas and a Central Government belief that the implementation of CTRL should *not* be seen to be at the expense of the public purse but instead be the provider of new sustainable development benefits?

Question 16: responses to 'muddling through'?

Do you attribute the introduction of delayed, some ill-thought out and many sub-optimal strategies by both public and private agencies to the 'muddling-through' approach described above? If so, what scope exists for CTRL to be better retrofitted to serve the sustainable communities vision(s) advocated by Central Government and others?

HYPOTHESIS 4 - 'Smoke Filled Rooms'

The hypothesis posed here is that whilst developments at the CTRL hubs are largely positioned as maximising on the increased accessibility and travel time savings that the project delivers in order to promote 'regeneration' and 'sustainability', it would seem that (in reality) the right to engage in such development *also* represents a significant means to support the financing of the CTRL - with promises of access to some of the 'spoils' of real estate development for line-haul investors made with varying degrees of transparency. An underlying premise here is that the development at the CTRL transport hubs is characterised by the uneasy relationship between the real estate industry's profit maximisation imperative and the public sector obligations to ensure that such development results in real benefits to the community and the environment, and that the public sector is armed with insufficient planning instruments to extract such benefits, leaving private developers with considerable room for manoeuvre. A further related premise is that these circumstances generate a difficult bargaining atmosphere often *not* conducive to 'partnership' initiatives, especially where the delivery of infrastructure support is uncertain and given the lack of clarity over the visions of sustainability that different parties promote.

Question 17: public v private sector interests?

Do you subscribe to the above hypothesis? If so why, and if not, why not?

Question 18: obtaining wider benefits from CTRL?

Do you support the underlying premises - particularly that the public sector (local authorities and central government sponsored quangos) are armed with insufficient planning instruments to extract the necessary benefits from the private sector, leaving private developers with excessive room for maneuvers, inactivity and profit-making, especially where public sector infrastructure is 'guaranteed'?

Question 19: the role of real estate in CTRL?

Do you agree that the rights to engage in property development associated with CTRL, particularly around the transport hubs, represent an effective means to support (subsidize) the financing of the CTRL with promises of access to some of the 'spoils' of real estate development for line-haul investors seen as sweeteners? How dependent is the success and viability of the development potential at the CTRL transport hubs on the provision of adequate train services? And who defines/should define the adequacy and performance criteria for such services?

Question 20: the nature and role of regeneration?

Do you consider that there has been a lack of a common consensus (and understanding) concerning the nature and role of 'urban regeneration' amongst Central government, local authorities and local communities which has produced a situation that could be/is exploited by developers associated with the delivery of development projects at key CTRL hubs (at King's Cross, Stratford, Ebbsfleet and Ashford)?

HYPOTHESIS 5 - 'Context is Everything'

The hypothesis presented here is that the CTRL project outcomes can be best explained by the forces and influences that were at work at the time (and place) of planning and constructing the project, and that the failure to fully appreciate these contributes to much of the misunderstanding about what an MUTP is expected to, and can, deliver. These context-moulding forces include those of:

- *Path dependency* – in particular, the notion that past practice in planning and implementing MUTPs represents 'best practice' and the consequent dismissal of institutional and professional learning from other projects worldwide has led to a rather narrow transference of skills and knowledge in the field;
- *'Big ideas' and government rhetoric* – CTRL appears to have been impacted by a number of 'big ideas' that tipped into favour over the course of the project, including the ideas of 'PPP', 'urban regeneration' and 'sustainability', without sufficient thought being given to their applicability and appropriateness for CTRL;
- *Political agendas* – there is evidence that politicians have had a very significant impact on the planning and delivery of the CTRL - whether for altruistic or self-aggrandisement reasons. The impact of these political agendas have meant that some contextual sensitivities received more attention than other while others were ignored where they collided with the political interests of the 'powerful';
- *Community engagement* – stakeholders along the CTRL were 'consulted' rather than fully 'engaged' in the project planning and appraisal process, thereby limiting the sponsor's full understanding of the contextual sensitivities of the route and contributing to missed opportunities to gather evidence about both local and more generic contextual items of concern to communities (after Wright, 2008).

Question 21: do you subscribe to the notion that 'context is everything' and that this explains much about the planning, appraisal, delivery and evaluation of the CTRL?

Question 22: path dependency?

Is there any evidence of path dependency practices which have acted to the detriment of the project?

Question 23: transparency, trust and politics? (after Wright, 2008)

Is there any evidence of events where politicians have had a significant impact on the planning, appraisal and delivery of the project? Do you consider that political interventions of this kind, where they have taken place, have meant that contextual matters received much less consideration than the 'big ideas' and has led to reduced transparency and trust in decision-making?

Question 24: wider public benefits?

What is a reasonable 'rate of community return' from a project such as CTRL? Has the public been short-changed in the long run for short run returns? Where and how are public benefits generated and public interests protected (at the transport hubs, within the CTRL service itself and within the sub-region as a whole) or is the reality of the circumstances such that the public benefits for the CTRL project are expected to 'trickle' down to the wider community?

Question 25: risk transfer?

Do you consider it a missed opportunity when the New Labour Government in 1997 had the chance to seriously change its position on CTRL, when the restructuring of the financial deal was underway in 1997, but instead chose to follow the path of its predecessors by maintaining the 'sham' transfer of risk to the private sector?

PART 3: Concluding Questions

On the basis of the preceding questions and responses by interviewees to these, the following questions seek to identify generic lessons that can be extracted from the case study experiences and other similar projects and applied elsewhere.

Instructions to Interviewer for above questions:

The following questions are to be used as a 'prompt' to elicit interviewees' thoughts on generic lessons that may be derived from the [Case Study] project. Interviewees, therefore have a 'free choice' of which questions to address. Again the questions are based on the UK case study *purely* for illustrative purposes.

Question 26: MUTP objectives?

On the basis of the case study experience, how should MUTP objectives be set – by whom, in what forum, and how should they be appraised, evaluated and monitored?

Question 27: engagement, consultation and participation?

What generic lessons, if any, are there to be had from the case study regarding community involvement (engagement, consultation and participation) in MUTP planning, appraisal and delivery – along the line-haul route and around major transport hubs?

Question 28: national planning frameworks for MUTPs?

Do you consider it essential that MUTPs such as the case study should only be promoted and delivered against the background of a planning framework which puts forward national development proposals expressing agreed economic, social and environmental (and other) objectives and priorities?

Question 29: other generic lessons?

What other generic lessons do the case study experiences offer?

INDEXES

By completing the following indexes you will be greatly helping us to analyze the data collected in your interview. The indexes are divided into two parts:

- **About You** - questions about you and your involvement in the case study and/or its associated developments (Questions 1-3 below);
- **Your Views on the case study** - questions about your attitude towards certain aspects of the planning and delivery process (Questions 4-6 below)

About You

1. **What You Do** (please tick the box(es) that best describes what you do)

Private Sector	
<input type="checkbox"/> Entrepreneur/Business Person	<input type="checkbox"/> Consultant/Advisor
<input type="checkbox"/> Business/Financial Adviser	<input type="checkbox"/> Financial Consortium/Funding Agency
<input type="checkbox"/> Contractor/Constructor	<input type="checkbox"/> Other
Public Sector	
<input type="checkbox"/> Central Government Employee	<input type="checkbox"/> Politician
<input type="checkbox"/> Local / Regional Government Employee	<input type="checkbox"/> Other
Non-Government Organisation/Other	
<input type="checkbox"/> Work for Regional or Metropolitan Agency	<input type="checkbox"/> Lobby Group
<input type="checkbox"/> Local Community Member	<input type="checkbox"/> Member of Community Action Group
<input type="checkbox"/> Academic	<input type="checkbox"/> Other

5. Which of the following types of context do you consider most important in the planning of the case study (please rank each one out of ten in terms of importance, where one represents the highest priority and ten the lowest):

Types of context	1	2	3	4	5	6	7	8	9	10
National background, policy, planning and funding frameworks?										
Sustainability visions to be serviced?										
Geographical, special and location considerations?										
Cultural contexts?										
Temporal contexts?										
Others? (please specify)										

6. How successfully do you consider the case study has coped with the Sustainable Development Challenges (SDCs) below? (please assign a value of one to ten to each, where one represents the highest weighting and ten the lowest):

Sustainable development challenges (SDCs) confronted by CTRL	1	2	3	4	5	6	7	8	9	10
Ensuring accountability in decision-making										
Providing transparency in decision-making										
Ensuring institutional capacity building & public consultation										
Addressing concerns of biodiversity										
Addressing concerns of ecology										
Promoting health										
Addressing concerns of safety										
Promoting energy saving										
Contributing to social cohesion										
Contributing to goals of equity										
Promoting economic competitiveness										
Successfully involving the private sector										
Addressing forces of globalisation										
Enhancing operations efficiency										
Guaranteeing affordability of project										
Ensuring economic viability of project										
Promoting enhanced accessibility										
Contributing to planned spatial & territorial re-structuring										
Addressing concerns of subsidiarity										
Others (please specify)										