How should we judge the ‘success of Mega Urban Transport Projects in the 21st Century: The anatomy of the Channel Tunnel Rail Link?"

Harry T. Dimitriou
Bartlett Professor of Planning Studies
Director, OMEGA Centre
Bartlett School of Planning
University College London

Presentation to
Department of Urban Studies and Planning
Centre for Transportation and Logistics
Massachusetts Institute of Technology
Cambridge, Massachusetts
23rd January 2008
Introduction

- An examination of the CTRL corridor and that part of the Thames Gateway for which it provides a major transport spine and strategic transport hubs (see Figure 1) suggests that since the completion of the Channel Tunnel the sub-region has seen an awkward coalescence (if not in some cases a downright collision) of three sets of strategic forces and related value systems:
  - one set related to the financing rationale of the upgraded rail link ‘ostensibly’ based on an economic rationalist paradigm;
  - another set which implicitly acknowledges the strategic importance of the CTRL and its related infrastructure and urban development spin-off as ‘essential’ to helping advance London’s leading world city region status in the context of the new regionalism agenda; and
  - yet another set which pertain to the real estate micro climate and its reaction to the planning frameworks affecting the future of urban development surrounding the CTRL main transport hubs and beyond, principally based on bargaining and power games among key stakeholders in the pursuit of profit maximisation and cost minimisation.

Each of these sets is presented below as hypotheses which scene-set different contexts to be investigated and tested in the forthcoming research.
CTRL: Two Phases
Channel Tunnel
Ashford International
Ebbsfleet International
Stratford International
Project Timeline

1971  Initial consideration of the high speed rail.

1981  BR and SNCF reached agreement to build a tunnel.

1987  Channel Tunnel Act passed.

1988  LRC was chosen to develop the King’s Cross Railway Lands.

1990  Arup published a route which is later selected by the Government.

1991  Government preference is announced for the route promoted by Arup.

1993  Eurostar International Terminal opens at Waterloo.

1994  Channel Tunnel opens. The Government confirmed the Eastern Route and St Pancras as the London terminus.

Project Timeline


2000  Argent St George are appointed developers of the King’s Cross Railway Lands.

2001  Construction of Section 2 of CTRL commences.

2003  The Prime Minister opens Section 1 for commercial services ‘on time and on budget’.

2007  Opening of Section 2 and completion of the CTRL.
Overall research questions:

1. What constitutes a ‘successful mega urban transport project (MUTP)?

2. How well has risk, uncertainty and complexity been treated in the planning, appraisal and evaluation of such projects?

3. How important is context in making judgements regarding the above questions?
Figure 1: Methodology for data collection

1. Methodology Development
   - National MUTP Background & SD Challenge WPs
   - Pre-Hypotheses Narrative Pattern Analysis
   - Secondary Source Project Data
   - Hypotheses-led Narrative Analysis

2. Data Collection
   - Policy Agenda and Challenges
   - Unstructured Interviews
   - Project Profile and Contextual Information
   - Hypotheses led Structured Interviews

3. Analysis & Synthesis
   - Project Database
   - Pattern Analysis
   - Generic Lessons and Planning Guidelines
   - Hypotheses Testing

4. Findings & Dissemination

Stage 1A/1B
Stage 2
Stage 3

Presentation for MIT 2008
Figure 2: Study methodology framework
The line-haul hypothesis: Scene 1

• The premise presented here is that the financing rationale for the planning and appraisal of the CTRL is “ostensibly” based on a (path dependency) economic rationalist model that treats the ‘line haul’ in essence as a discrete ‘closed system’, for which supply and demand can be clearly forecast with reasonable accuracy as a basis for forecasting accurate future revenues and ultimately judging 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 much 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.

• Here the new transport link is seen more as delivering a ‘commodity’ rather than a ‘public service’ and in direct competition with other modes of transport. Accordingly, the principle determinant of need for the CTRL and it’s financing, is firmly based on traffic forecasts rather than the wider benefits that such infrastructure might produce, despite the considerable aspirations and rhetoric of the urban regeneration agenda this new transport investment might/will spawn in east London and the Thames Gateway.
Scene 1 - Related main issues/questions:

- Why is it that Government was so determined to complete CTRL as a private sector funded initiative even though traffic and cost forecasts did not match those predicted in the financial appraisals and at levels that indicated the project to be ‘unviable’?

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

- To what extent can economic rationalism as a philosophy/ideology/paradigm adequately accommodate risk, uncertainty, complexity (and context) both generically and in the context of transport and urban planning?

- What methods were used to sense-make scenarios for the future, identify associated uncertainties and minimize risk, especially financial?
• In the case of CTRL, risk transfer to the private sector was essentially short-lived as the 1997/98 restructuring effectively returned risk to government. Was this anticipated at the time of signing the original financial arrangement with LCR (by both parties) or did the government fall into a trap knowingly set by the consortium?

• Is the PPP/PFI approach inherently problematic for viable rail infrastructure investment given that very few (if any) rail systems in the world are profitable when land value development capture returns are not brought into the equation? If this is the case, is the use of linked property development a necessary pre-requisite for the successful application of PFI/PPP to mega rail projects, and if so, under what circumstances could it work?
The new regionalism hypothesis: Scene 2a

• The premise presented here is that public sector support for the construction of the CTRL was seen ultimately as ‘essential’ by the powers that be, namely, Central Government and the Regional Development Agencies (RDAs), as well as many local authorities and industrial and commercial interests in London and the South East and that the strategic status of CTRL can only be truly understood in the broader context of the new regionalism agenda.

• Here the CTRL corridor is seen as critical to servicing the forces of globalisation by enhancing the access to London and its region from Europe and beyond, thereby, sustaining better London’s competitive position as a ‘world city region’ and the most important global financial centre.
• It is seen as questionable in this hypothesis whether the key CTRL decision makers went ahead with the project, despite its poor financial prospects, because they felt that they had politically and/or financially got to a point of ‘no return’ (a common phenomenon in mega project planning (see SMEC, 2002)) or whether they came to understand over time the ‘greater good’ the project could provide in supporting London’s competitive edge.

• The hypothesis is then that the continued support for the project should be seen as a form of policy intervention into the normal workings of the market rather than the outcome of Machiavellian manoeuvring of the kind described by Flybjerg et al (2003) who argue that the forecasts were known from the outset to be inadequate but were ‘enhanced’ to provide biased forecasts that fitted political and commercial agendas.
Scene 2a - Related main issues/questions:

- Who were/are the principle actors who promoted the New Regionalism agenda and how inevitable was/is it?
- Who should meet the costs of the funding the project shortfall(s)?
- Why did these costs arise in the way they did and at the scale that they did?
- Who were the key CTRL project champions and what was their agenda(s)?
- Who are/will be the ‘winners’ and ‘losers’ of the project - both in the short run and the long run?
- To what extent has the New Regionalism vision also been mirrored and justified in spatial strategies for London and the South East (and since when)?
- To what extent was closer integration with the EU a major (but intentionally underemphasised) part of the reasoning for the CTRL?
- Was the continued promotion of London’s pre-eminent position via CTRL also seen as a means to assuage Euro-sceptics or an accident of fate waiting to happen?
The Muddling-through Hypothesis: Scene 2b

• Alternatively, broadly within the same scene, it is possible that initially Central Government had no clear, consistent or widely agreed vision of the role of CTRL other than an imperative to link the Channel Tunnel to London in what it saw at the time was the most ‘acceptable’ cost (hence the early reliance on existing rail links).

• Essentially, in this premise, central government clearly understood the inevitability of providing a (non-fast) rail link once the decision had been made to build the Channel Tunnel. This position, however, had to change, so the argument goes, when Government was faced with the embarrassment of high speed French trains ‘grinding to a halt’ in Kent when the Channel Tunnel opened.

• There is also the related premise that rather than the ‘go ahead’ to build the CTRL indicating a commitment to greater integration with the EU, it was more reflective of the strong ‘Euro-scepticism’ in the UK and the need by the UK government to ‘hedge its bets’ and go ahead with the project in case the thesis that greater integration with the EU became overwhelmingly critical in the future.
The Agent of Change Hypothesis – Scene 2c

The underlying premise here is that the lack of a clearly defined and unified vision of the roles and functions of CTRL at its inception, especially in light of the subsequent Sustainable Communities legislation and Sustainable Development Visions promoted by Central Government, led to:

– The emergence of new/changing stakeholder agendas – e.g. the lobbying for regeneration initiatives and real estate development at key hubs;

– The development of a Central Government belief that the implementation of CTRL should *not* be seen to be at the expense of public purse but instead also to be the provider of new benefits associated with the promotion of sustainable development visions;

– The introduction of delayed, some ill-thought out and many sub-optimal strategies introduced by both public and private agencies in response to the changing government agendas that seek to do different (sometimes conflicting) things that seek to reap the full economic benefits of the project, generate new sustained urban regeneration outcomes, and enhance sustained environmental and community benefits - ostensibly pursued in partnership by a mixture of stakeholders which led/lead to much competing for the ‘spoils’ of the project and ‘hedging’ against its possible risks.
Scene 2c - Related main issues/questions:

• What are the preferred roles/objectives for CTRL relative to sustainable development, urban regeneration, economic growth, the Olympic Games, forging links with the EU and the re-structuring of the sub-regions to better promote freight carriage and long-distance passenger travel from within the UK to EU, and how comfortably do these objectives sit with each other and compare with original CTRL objectives?

• Were stakeholders ‘managed’ or ‘involved’ in the CTRL routing and transport hub selection process? Who were/are the key decision makers at the critical stages of the project? Who were/are the main CTRL champions, overall and for the hubs, and what did/do they stand to gain?

• Did the apparent lack of clarity of the vision at the outset of the project encourage the emergence of new/changing stakeholder agendas? If so, what are they and who are their champions?

• Would a more clearly articulated set of objectives (and/or vision) for the CTRL at its inception have made the project less vulnerable to political and financial power games associated with route selection, hub development, real estate etc.?

• Based on lessons learned from the CTRL, how should other MUTP objectives be set – by whom, in what forum, and how should they be evaluated monitored?
Smoke-filled room bargaining hypothesis: Scene 3

• The premise here is that while developments at the CTRL hubs are largely positioned to maximise the increased accessibility and travel time savings that the project delivers to promote ‘regeneration’ and ‘sustainability’, in reality, the right to engage in such development *ultimately* 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.

• An associated hypothesis is that development at the CTRL transport hubs is characterised by the uneasy interface between the real estate industry’s profit maximisation imperative and public sector obligations and attempts to ensure that such development result in real benefits to the community and the environment.

• A further related hypothesis is that the public sector (i.e., the local authorities and central government sponsored quangos) are armed with limited planning instruments to extract such benefits, leaving private developers with considerable room for manoeuvre, inactivity and profit maximisation where public sector subsidised infrastructure are guaranteed but with high risk developments where such guarantees are not forthcoming.

• A final premise is that these circumstances generate a very difficult context which is not conducive to partnership between public and private sector agencies, especially where the delivery of infrastructure support and public transport services are uncertain.
Scene 3: Related main issues/questions:

- To what extent have there been efforts to retrofit regional/local strategies to accommodate CTRL?

- How dependent is the development potential (at the transport hubs) on the provision of CTRL and the adequacy of its services? And who defines the performance criteria?

- How wide will the CTRL regeneration benefits spread – spatially, temporally and socially (by sector, interest group etc)?

- Could plans for existing transport hubs served by the CTRL be retrofitted to achieve higher levels of sustainability and if so, how can this be achieved?
• Can CTRL be better retrofitted to serve the sustainable communities vision? And if so, how robust would such retrofitting be to different scenarios.

• If CTRL services were to be reduced, how would this impact on the growth and sustainability of communities associated with it? What can the experience of Ashford suggest here?

• Development rights already seem to have been ‘sold off’ close to CTRL transport hubs – does this mean that there are now no opportunities to restructure spatial development patterns with a view to achieving better/higher densities?
‘Context is everything’ hypothesis - Scene 4

• The principal hypothesis here is that to have a reasonable chance of being perceived as a ‘success’, the planning, delivery and operation of every MUTP must pay due regard to its specific context – where context concerns temporal, cultural, spatial, political, financial, institutional, environmental and other conditions.

• Despite this, the premise offered in the case of the CTRL is that a number of forces were at work which meant that insufficient attention was paid to the importance of context as verified by the following:

  – **Prevalence 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 leading to the rather narrow transferring of skills and knowledge. It is important to note that even when the (new) government had the opportunity to seriously change its position on the CTRL (i.e. when the restructuring of the financial deal was underway in 1997), it chose to follow the path of its predecessors by maintaining the sham belief that the major risk could be transferred to the private sector.
Contagious big ideas’ and/or rhetoric – CTRL seems to have been impacted by many so-called ‘big ideas’ that tipped into favour over the course of the project, without sufficient thought being given to their applicability and appropriateness these include the big ideas of PPP, urban regeneration and sustainability.

Political agendas – whether for altruistic or self-aggrandisement reasons, politicians had a very significant impact on the planning and delivery of the CTRL (abandonment of route options affecting marginal constituencies, the promotion of Thames Gateway by Heseltine, the apparent slavish attachment to PPP by successive Tory and Labour governments, and so on). Whatever the reasons, the impact of these agendas meant that contextual matters received less consideration.

Community engagement – since stakeholders along the route were ostensibly ‘consulted’ on route alignment and station location on the basis of already-prepared proposals (rather than being fully ‘engaged’ in the project planning process), the project sponsors missed significant opportunities to gather evidence about both local and more generic contextual items which were of concern to communities. As a result most of the consultation effort concerned the mitigation of impacts and other compensatory measures.
Scene 4 - Related main issues/questions:

• Given the above hypotheses, where and how are public benefits generated and public interests protected - at the transport hubs, within the CTRL service and within the sub-region as a whole?

• Is the reality of the circumstances such that these public benefits are in reality expected to ‘trickle’ down to the wider community or can one argue that there is considerable evidence of public sector intervention to ensure such benefits are delivered where market failures occur?

• What is a reasonable ‘rate of community return’ from a project such as CTRL which has been heavily backed (both financially and in policy terms) by the public sector? Has the public been short-changed in the long run for short run returns?

• Given that there has been little apparent enthusiasm for extending fast train projects to other regions, the current provision of the link seems solely concerned with integrating London and the South-East with the EU? Is this a failure of national spatial planning and national transport policy?
• Despite the apparently increasing integration/globalisation of markets, and the potential for CTRL to assist in this process by providing additional capacity for freight movement between the UK and the rest of Europe (and in so doing reduce HGV movements), why was this role not fully pursued when deciding the project’s specification?

• Given the preceding questions can one deem the delivery of the CTRL to have been a success/failure or is it too early? How can/should the success/failure of CTRL be assessed?

• Do current spatial strategies associated with CTRL serve to reduce the need for travel (especially by car)? This is a key part of Government guidance on sustainability and should have some bearing on the judgment of the success of the project.

• Is high-speed rail necessarily sustainable? Does it encourage longer distance commuting and over what distance does high speed rail travel become ‘sustainable’?

• To what extent are the skills and expertise associated with MUTP planning and delivery transferable?
Emerging broader hypotheses

Emerging broader hypotheses 1:

• The ultimate determining factor of the decision-making process in mega transport project delivery is political power - not the power of the rationality of technocrats. In the case of CTRL, this was illustrated by the successful intense political lobbying for Stratford Station as a new CTRL transport hub and the foci of new regeneration and real estate benefits associated with the success of the transport infrastructure project and the Olympic Games centred in NE London.
Related main issues/questions:

• How can stakeholders’ relative bargaining power be evaluated and how do the hierarchical relationships between organizations which aim to deliver sustainable development, mega urban transport projects (MUTPs), urban regeneration (UR) and international mega events (MEs) function?

• How do MUTPs, UR and MEs share financial resources at the local, regional and national scales or is one sector promoted at the others expense?
Emerging broader hypothesis 2:

- There is a difference in the perception of urban regeneration initiatives and priorities between central government, local authorities and other stakeholders. Perceptions of project agendas/goals vary according to stakeholder needs and aspirations. There are, as a result, many different (often colliding) perceptions regarding the roles, functions and scope of regeneration projects at central government and local government levels – a phenomena very prevalent in London and the Thames Gateway Corridor in particular where there is a plethora of stakeholders and partnerships many of which are new and under resourced which affects their performance.

- This lack of a common consensus (and understanding) concerning the nature and role of ‘regeneration’ amongst central government, local authorities and local communities, effectively produced a situation which could be exploited by developers associated with the delivery of development projects at key CTRL hubs at King’s Cross, Stratford and Ebbsfleet who are understandably seeking to maximise profit.
Related main issues/questions:

• How can the vision(s) of MUTPs, UR and MEs be reconciled? How can they best be integrated given the multiple levels and disciplines involved, the very different ethos’ employed? Can such parties construct and abide by a long-lasting consensus of a vision of sustainability?

• In such a consensus, who’s initiatives and rationalities prevail or can they equally apply across the various fronts of mega transport project development, urban regeneration developments and mega events development?

• How can the ideologies and visions underlying: sustainable development, mega transport project delivery, urban regeneration and mega events delivery be made more transparent and genuinely compatible within sensitive environmental concerns?

• Who will offer leadership and provide the main locomotive to catalyze the others or can they be planned and delivered in a manner whereby they truly mutually encourage each other?

• Do mega events play a major catalyst role in speeding up the delivery of urban regeneration and mega transport projects? What does the CTRL show us here?
Emerging broader hypothesis 3:

Every transport hub along the CTRL corridor has its own regeneration initiatives which to a degree are context-specific. For example, the regeneration projects in Stratford associated with the CTRL are very much influenced (at least in the first instance) by the Olympic Games development agenda, whereas the King’s Cross/St. Pancras development is much more devoted to generating commercial benefits for retailers and office real estate interests with significant high income housing provision inter-mixed with some affordable housing.

Related main issues/questions:

• How can/should MUTP planning and execution influence urban regeneration strategies in different contextual situations?

• How can the planning and execution of MUTPs, urban regeneration initiatives and mega-events be brought together so as to achieve unity of purpose in relation to promoting the sustainable development vision?
Emerging broader hypothesis 4:

Planning decisions relating to high value sites are controlled by key stakeholders in the form of landowners, developers and investors. The basis of the resultant development is thus essentially commercial rather than social (or even environmental). This predetermines the vision from the outset of any development that may be pursued and limits the visions of other players in the decision-making process. This is further marred by a lack of consensus-building in the inter-governmental coalition which poses an obstacle to policy delivery and clouds judgment about the viability of development.
Main issues/questions:

• Who are the main beneficiaries of the King’s Cross/St. Pancras regeneration scheme?

• Are potential community benefits solely dependent on ‘trickle down’ effects from this major CTRL transport hub development?

• What is the power relation between landowners, developers, investors, local authorities and (most importantly) community groups?

• What are the criteria of landowners for selecting developers/partners and what are the criteria of local authorities in appraising process of development proposal?

• How to evaluate the transparency and accountability of the King’s Cross Regeneration Scheme’s decision-making process?