Chapter 9
Delivering Major Infrastructure Projects with Predictable Success

Roger James Allport
Allport Associates Ltd., UK

ABSTRACT
The inconvenient truth is that metro development, that is the focus of this paper, with some notable exceptions, fails to deliver the outcomes promised when implementation was committed. This fact undermines the confidence city leaders and national treasuries have in supporting metro development in furtherance of public policy. This matters because metros can become the catalytic centre-piece of sustainable development for some cities, and because the cost of failure is so large. There are exemplars of good practice worldwide and a strong evidence base on which to determine what is needed to improve success. This paper reviews the evidence and presents new research findings to recommend an Agenda for Change. This can practically be implemented and lead to progressive improvement.

INTRODUCTION
Today’s economic austerity has raised the bar for infrastructure justification as city and national leaders face difficult resource allocation decisions. Never has this issue been more relevant or urgent. But increasingly the success of these megaprojects is being questioned, with empirical research revealing a wide-scale problem. Some commentators have sought to explain why this happens and what is required to remedy the identified failings.

New research reveals new insights into the nature and cause of problems, and develops a practical Agenda for Change that is considered appropriate to the problems identified. The purpose of the paper is to describe these results. This requires a change in approach for central government bureaucrats and authority sponsors, together with major change to the practices of planning and project management. Its implementation will depend upon most stakeholders doing things differently and better. Its consequence will be different projects developed in different ways that – crucially – deliver predictable success. Then
support for metro development where it is appropriate can grow with the expectation that it will secure its promised strategic benefits without unwelcome surprises. To this extent this paper may be seen as fundamental to sound planning, and therefore to supporting the efficacy of public sector decision-making.

BACKGROUND

Metros as Megaprojects

Governments effect change by means of projects, policies and institutional reforms. Major change is increasingly associated with major projects – or ‘megaprojects’. The capacity to develop these projects to deliver success is at the heart of public policy; and to the extent this is unsuccessful, so is public policy. This paper takes the case of metros as a particularly challenging form of megaproject, and concludes by questioning whether this experience can be read across to other sectors and megaprojects. The term ‘metros’ is used here as shorthand for any rail system that carries a mass ridership rapidly in urban areas; this includes heavy rail transit systems, light rail transit (LRT) systems that are mainly segregated, and suburban rail systems.

Major projects such as metros are not normal projects, because they have long-term transformational impacts. The city of fifty years’ time that has a metro system is likely to be very different from that which has developed without one. Metros by bringing about a step change in capacity and accessibility facilitate the continuing expansion of a dynamic CBD and a dense city configuration. This has knock-on effects in lower journey lengths, smaller dwellings/offices, and smaller geographical, energy and CO2 footprints. Such dense cities tend to be super-productive and enhance the quality of their citizens’ lives too. But metros are hugely costly and require great resource to develop well; and when not developed well they have large unintended consequences. So metros are a high-risk endeavour.

There are important consequences of these metro ‘facts of life’.

- Metros need to be justified in terms of their long-term impact upon city sustainability. Several recent and current initiatives provide new insights. University College London’s OMEGA Centre completed an international research project based on thirty land transport projects (including metros) over five years (UCL-OMEGA, 2012). It concluded that these projects should often be planned not ‘just’ as transport projects but as transformational ‘agents of change’ that are promoted to secure much wider economic, social and environmental benefits; and that their identification and development should recognise their defining characteristics – of complexity, risk and the challenge of managing unforeseeable changes (opportunities and threats) that emerge as the project is developed.
- Great care is required when comparing metros with modes that do not have its transformational impacts.
- Making comparisons is difficult because there is as yet no robust way to quantify many long-term transformational benefits. Understanding and learning from the experiences of comparable cities is necessary.
- Metros should always be considered exceptional projects, and never the ‘obvious’ solution to an identified problem. They should be considered and developed only when demanding conditions exist.