Perspectives on Multi-disciplinary Research Opportunities at the National and International Levels

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Overview

• National – AusLink
• International – OECD
• Disciplines – Economics, Engineering, Law, Science (IT), Planning
1. AusLink - Impacts

- The four major impacts are:
  - increased investment in land transport infrastructure
  - a national and forward looking approach to planning
  - better investment decision making; and
  - rail investment
Shared Responsibility

• Under AusLink there will be shared responsibility:
  – for project planning and project funding
  – across the more extensive National Network
5 Year Plan: Strategic Priorities

- establishing long-term, integrated planning
- improving eastern seaboard north-south corridors
- improving interstate & interregional corridors
- addressing urban congestion on key links
- utilising technology
- improving safety and security
- protecting past investment
- supporting regional and local economic growth
Corridor Strategies

• National Network corridor strategies will:
  – identify shared government priorities
  – encourage non-government stakeholder contributions
Project Assessment Methodology

• Nationally consistent project assessment methodology:
  – developed in partnership with the States and Territories
  – applies to road, rail and multi-modal infrastructure projects
  – will be implemented progressively

Technology
Technology
What is ITS?

- Intelligent Transport Systems (ITS) is the application of computing, information and communications technologies to the vehicles and networks that move people and goods.
2. Infrastructure Assessment

1. Develop a multi-modal transport system management framework (strategic planning)
2. Develop a project appraisal methodology
3. Implementation of a National Transport Data Framework
Strategic Planning Objectives

- Responsive to government priorities
- Forward looking
- Multi-modal in outlook
- Considers alternative solutions
- Takes account of project interactions
- Encourages private sector participation
- Brings together all relevant considerations
- Takes account of stakeholder’s views
- Based on Australian-State/Territory-Local government cooperation
- Focused on project appraisal and programme development
Phases

• 1: Identification of transport system objectives
• 2: Policy choices
• 3: Network planning
• 4: Corridor planning
• 5: Project appraisal & programme development
• 6: Project implementation
• 7: Post-completion review
Assessment Methodology for Transport Proposals

Transport System Objectives
- Strategic Planning
- Project Identification
- Strategic Merit Test
- Rapid Project Appraisal
- Detailed Project Appraisal
- Business Case
- Program Development
- Decision Maker (Minister)
- Project
- Delivery/Implementation
- Post - Completion Evaluation

External Project Proposals

Feedback, affordability checks, other reality checks
Corridor studies

• Identify infrastructure and non-infrastructure solutions
• Assist in formulation of corridor objectives
• Explore relationships between projects
• Provide data to assist analysis (eg. BCA)
Project appraisal: Framework overview

• Objectives already set by strategic planning process (e.g. corridor strategies)
• Develop an investment program out of project proposals submitted
  – consistent with objectives
Guiding principles

- Select and rank projects according to specified objectives
- Cost-effective
- Defensible, comprehensive, transparent, rigorous
- Consistent across projects
- Able to compare different types of projects including different modes
Specific project assessment methodology
- three stages

• I  Strategic merit test

• II  Rapid BCA  Adjusted rapid BCA

• III Detailed BCA  Adjusted detailed BCA
Strategic Merit Test

• Consists of a series of questions
• Alignment with government strategies and policy choices
• Consideration given to
  – alternative solutions (eg. ITS)
  – options
  – broader context of the project
BCA

• Rapid BCA
  – cost-effective way of gauging whether a project is likely to pass a detailed BCA
  – assesses the ‘economic merits’ of options
  – supports the SMT by helping to clarify objectives of the project
  – application to small-scale projects

• Detailed BCA

• Adjusted BCA
Business Case

- Combines the results of all the assessments and analysis
- Presents information about proposal to decision-maker
- Self-standing document
  - supported by detailed documents eg. Environmental Impact Statement and BCA, financial analysis, social impact assessments, regional and distributional impact assessment, employment impact assessment, etc.
National Transport Data Framework
Working Group - objectives

• Examine the feasibility of developing a NTDF
• Assess availability and accessibility of existing datasets
• Identify gaps in transport data and options for addressing gaps
• Provide a Framework that facilitates the management of data relevant to national transport planning
Priority data needs

- Development of databases on land transport infrastructure and demand for transport services
- Collection of better origin-destination demand data
- Collection of better transport system performance and operational data
Key features of the NTDF

• Equal partnership across jurisdictions
• Three data categories – foundation data, new structured data, and unstructured data
• Central website node with three levels of access – public, subscriber access, private access
• Incremental approach
• Priority to meet strategic planning needs (road and rail)