

**ANNUAL MEETING OF  
THE AUSTRALASIAN CENTRE FOR THE  
GOVERNANCE AND MANAGEMENT OF URBAN  
TRANSPORT – GAMUT**

*A Future Transport Centre of Excellence of the Volvo Research and  
Educational Foundations at the University of Melbourne*

**INAUGURAL ANNUAL MEETING REPORT**



**Multifunction Room, 1<sup>st</sup> Floor, Ian Potter Museum, The University of Melbourne,  
Swanston Street, Carlton**

**28-29 November 2006**

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## INTRODUCTION

At this, the first GAMUT Annual Meeting, we are hoping to achieve several goals. GAMUT research partners, directors, and staff from China, Japan, Singapore, and around Australia have been brought together for the first time. It is an important opportunity, therefore, to build the GAMUT 'community' and for the GAMUT researchers to learn about the GAMUT research program from those who are conducting this work. This meeting aims to be more than a simple exchange of information, but seeks to provide an opportunity for researchers to exchange views and ideas on these projects, especially to consider the potential linkages and connections between them.

We have incorporated a 'community forum' into the design of the meeting for community, non-government, and government groups with an interest in sustainable urban transport. From this forum we can learn of the priorities, interests, and concerns of those often considered to be 'outside' the usual realm of the research community. We also hope that the forum will provide a means by which these groups can learn about GAMUT and its activities. By creating a dialogue between those involved in GAMUT and the community, in a broad sense, we can work to ensure that GAMUT stays in touch with the social dimensions of urban sustainability and responds to explicit community needs in this regard.

Vice-Chancellor of the University of Melbourne, Glyn Davis, will officially launch GAMUT in a public ceremony incorporated into the Annual Meeting. This event coincides with the creation of the GAMUT website.

Finally, the Annual Meeting provides an opportunity to reflect of the progress of GAMUT to date and to consider issues and challenges for the organisation's future from all of those involved in that part of the meeting we have called the 'GAMUT Partners Meeting'.

This report records the main outputs of the first Annual Meeting. Further details on GAMUT, its projects, and on individual research projects can be obtained from GAMUT and much of this material will be available on the GAMUT website.

GAMUT wishes to thank all those who participated in the meeting and also to those who provided materials to assist in compiling this report.

## GAMUT OFFICIAL LAUNCH

### Introduction to the Vice-Chancellor

Nick Low  
GAMUT Director

This is the official launch of our research centre, the Australasian Centre for the Governance and Management of Urban Transport, or GAMUT for short. And I hope people will soon get to know what GAMUT stands for without having to struggle with the long title.

I have asked Professor Glyn Davis, our Vice Chancellor, to launch GAMUT, for two very important reasons.

First, he has been unwavering in his support for GAMUT and for our work at the Urban Planning Program of the Faculty of Architecture, Building and Planning. And the University has committed serious funds to GAMUT in addition to providing the supportive environment in which our research takes place - and all that entails: staff, accommodation and a research culture.

Secondly, Glyn has been responsible for leading the University to add to its traditional mission of research and teaching, a third strand called 'knowledge transfer'.

Now some might say that's rather a dry term! But it means a lot to us because GAMUT is not just about research but also about engagement with the public, with the community, with government, with stakeholders, on key transport issues of the day. It's the role of a university to help solve public problems.

'Knowledge Transfer' is of course a two way process: both from us and to us: 'a vibrant and continuous exchange of ideas and expertise' in the words of *Growing Esteem*.

Before I welcome Professor Davis, I want to note three things that make GAMUT a remarkable venture:

1. A well-known global road vehicle company, Volvo, sets up an independent research foundation to provide advice on the future of urban transport in the next fifty years and beyond.

That foundation well knows the GAMUT agenda, which we put forthrightly in our submission for funding of our proposed GAMUT Centre of Excellence.

We were asked to state our 'vision' for the future, and our vision is a fundamental change from a world view of *motorized mobility* in which road vehicles are dominant to a world view of *sustainable transport*. It is a worldview in which private cars and their use will have a much reduced role; a worldview in which accommodating car traffic on roads ceases to be the Number 1 problem of transport planning.

Our mission is to research the means by which that vision of sustainable transport can be accepted by the community and stakeholders, and can come to shape (not drive) public policy at every level of government.

2. GAMUT takes global warming to be fact. Meeting the challenge of global warming is today the most difficult and most central problem of transport and land use planning. Therefore the Number 1 problem is not about road congestion any more. It's about congestion of the atmosphere.

To illustrate the problem, the Victorian Government has had a greenhouse strategy for transport – well, on and off - since 1990. But today in metropolitan Melbourne greenhouse emissions into the atmosphere from transport are still *growing* by about a million tonnes each year.

The number of cars on the road has become a popular surrogate measure of greenhouse emissions (like Olympic swimming pools are of water). For instance a report in *The Age* this month says: 'The extra 5 million tonnes of greenhouse emissions is roughly the equivalent of leaving 1.1 million cars on the road'.<sup>1</sup>

On average each year, through urban travel by all modes of transport, each Melbournian contributes about 3 tonnes of greenhouse gas.

By 2050 I expect greenhouse emissions from transport to be strictly rationed to no more than 1 tonne per person per year – and that would probably have to include air travel. The freight task of moving goods in cities, which of course spends carbon emissions too, will reduce the carbon allocation to personal travel still further.

Yet 2050 is still just a half-way house. Greenhouse emissions overall have to be reduced still further after 2050. Whether rationing is by price or by regulation is something yet to be decided, but some form of rationing of carbon emissions will have to occur. The sooner it begins the less drastic the cuts will have to be, as the Stern report points out.

How to accommodate people's need to get around cities under those circumstances, how to prevent a drastic economic recession from reduced mobility, and how to govern and manage to provide for mobility needs in the circumstances of climate change, is what GAMUT is trying to think through.

3. Australia cannot act in isolation on transport problems of this kind. In geographical scope, GAMUT looks beyond Melbourne for examples and case studies, and even beyond Australia, to the Asia Pacific region. All cities in our region are of course part of the problem, but they are also part of the solution.

We would have to include among the lead cities: Tokyo, Shanghai, and Singapore. Tokyo is commonly regarded as one of the three 'world cities' in global finance. Shanghai is one of the fastest growing cities of the new industrial world. Both are megacities in population size. Singapore, much smaller in size but still as big as Melbourne, is among the most advanced in policies and programs to manage congestion and provide excellent public transport.

GAMUT is truly proud to include research partners from these three cities, and we are already adding to our geographical scope Hong Kong, and Seoul, South Korea.

All of these cities have much lower per capita greenhouse emissions from transport than Australian cities. These cities are in a real sense lead cities of our region.

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<sup>1</sup> Peter Ker and Liz Minchin (2006) 'Greenhouse move less than warming', *The Age*, p.8, 14<sup>th</sup> November.

GAMUT is privileged to be able to include research on these cities, together with the three cities which comprise our Australian laboratory: Sydney, Melbourne and Perth.

In future, we hope to expand our research frontier further to join forces with our colleagues in Beijing and Delhi which are also host to Volvo Foundation funded Centres of Excellence in Future Urban Transport. GAMUT is also a partner in a Centre of Excellence at University College London investigating mega-transport projects around the world.

GAMUT has an ambitious program of research ahead of it, which includes mutual learning and knowledge transfer within the Asia Pacific region.

So it gives me great pleasure to welcome Professor Glyn Davis, Vice-Chancellor of the University of Melbourne to launch GAMUT.

## PROGRAM

### Day 1: Tuesday November 28

8.45 am Coffee/ Tea

9.15 am WELCOME and UPDATE on GAMUT

Nick Low, Director, GAMUT

9.45 am PRESENTATIONS ON RESEARCH PROJECTS BY THEME

#### INTRODUCTION

Bill Russell

Theme presentations to cover:

- project and conceptualisation so far
- progress
- relation to core idea of GAMUT, namely to shift urban transport to 'model 2' in policy, governance and/or funding

10.00-10.45 am THEME 1. "Integrated urban passenger transport systems under resource and environmental constraints"

- Urban Passenger Transport Systems under Resource and Environmental Constraints

Chief Investigators: Paul Mees and Patrick Moriarty - *10 minutes*

- Leading-practice Models of Collective Urban Transport

Chief Investigators: Leigh Glover and Nicholas Low - *10 minutes*

- Developing a Modular Urban Land Use and Transport Tool (MULUTT)

Chief Investigators: Brendan Gleeson and Jago Dodson - Urban Research Program, Griffith University - *10 minutes*

10.30-10.45 am Discussion

10.45-11.00 am Morning Tea/ Coffee

11.00am-12.00 pm THEME 2: "Innovation (and barriers to change) in urban transport"

- Moving Forward from the Dual-mode System: Institutional Development for Sustainable Transport Planning in Shanghai

Chief Investigator: Pan Haixiao -Tongji University - *25 minutes*

- The Capacity of State and Local Government to Deliver Sustainable and Integrated Transport: A case study investigation in Perth and Melbourne

Chief Investigators: Carey Curtis and Nicholas Low - *10 minutes*

- Institutional Enablers to Children's 'Right of Access' to the City

Chief Investigator: Carolyn Whitzman - *10 minutes*

11.45am-12.00 pm Discussion

12.00-1.00 pm LUNCH

On the lawn opposite the Potter Espresso Bar

1.00-2.30 pm THEME 3: "Finance and resource allocation in urban transport"

- The Pattern of Production in Cities and Its Implications for Transport Funding

Chief Investigators: Kevin O'Connor and Sun Sheng Han - *10 minutes*

- Mass Transit Policy and Management in Japan under Distorted Neo-liberalism

Chief Investigators: Fujio Mizuoka, Hitotsubashi University, Tokyo and Izumi Takeda, Hokkaido University of Education at Iwamizawa - *25 minutes*

- Competition versus integration: A Case Study of Urban Rail Transit

Chief Investigator: Paul Mees - *10 minutes*

- Land Transport in Singapore: Policy, Development and Economic Impact

Chief Investigator: Sun Sheng Han - *10 minutes*

- Determinants of Transport Policy in Federations: An Australian Case Study

Chief Investigator: Bill Russell - *10 minutes*

- Investigation of the Assessment of Urban Mega-transport Projects.

Chief Investigators: Nicholas Low, Carey Curtis, and Harry Dimitriou, Bartlett School of Planning, UCL - *10 minutes*

2.15-2.30 pm Discussion

2.30-2.45 pm Afternoon Tea/ Coffee

2.45-3.45 pm RESEARCH THEME MEETINGS (*'Looking forwards'*)

*Small group discussions*

- *Common Issues*
- *International/interstate collaboration opportunities*
- *Lessons learned*
- *New research imperatives identified*
- *Key goals for 2007*

3.45-4.30 pm Report back by theme/ team leaders and full group discussion

4.30-4.45 pm Closing remarks and arrangements for evening and Day 2

7 for 7.30pm DINNER at UNIVERSITY HOUSE

Guest Speaker: Professor Ian Lowe, Emeritus Professor, School of Science, Griffith University, Brisbane and President, Australian Conservation Foundation

Day 2 – Wednesday November 29

8.45-9.00 am Coffee/ Tea

9.00 am COMMUNITY WORKSHOP

Representatives of key local government, non-government and professional organizations with an interest in urban transport

Aim:

- to promote awareness of GAMUT;
- to inform and engage Local Government/NGO sector;
- to seek feedback and suggestions on current GAMUT program and potential collaboration

9.00-9.20 am Introductions

*What is GAMUT? Research, education and knowledge transfer program*

Nick Low

9.20-10.20am Local government and non-government presentations on urban transport research needs

*Five minute presentations by invited organisations, tabling 2 page position/priority research list on urban transport*

**10.30-11.00am GAMUT LAUNCH**

**THE VICE CHANCELLOR OF THE UNIVERSITY OF MELBOURNE, PROFESSOR GLYN DAVIS**

11.00-11.30 am Morning Tea/ Coffee

11.45am-1.00 pm WORKSHOP CLOSING SESSION

“How might GAMUT best collaborate with Local Government/Non Government sectors?”

Chair - Bill Russell

Discussion

1.00-2.30 pm LUNCH

*Elisabeth Murdoch Courtyard – in Building west of Ian Potter Museum*

2.30-4.00 pm GAMUT PARTNERS MEETING (Continued):

- *Strategic Opportunities for 2007*
- *Crystallizing the GAMUT Strategy*
- *Alternative change management approaches and intervention in decision making process for maximum impact*
- *Research including compatible methodologies and presentation of results in case studies and scenario development*
- *Education*
- *Knowledge transfer including conferences, publications, media*

4.00 pm CLOSING REMARKS and SUMMING UP

Nick Low

7 pm DINNER

## PARTICIPANTS

Kate Alder  
Gavin Alford  
Rachel Astle  
Kate Colvin  
Carey Curtis  
Jess Fritze  
Paula Giles  
Brendan Gleeson  
Leigh Glover  
Pan Haixiao  
Sun Sheng Han  
Rowena Joske  
Andrew Korr  
Crystal Legacy  
Nick Low  
Paul Mees

Fujio Mizuoka  
Imran Mohammad  
Patrick Moriarty  
Angela Munro  
Kevin O'Connor  
Tim Peterson  
Julie Rudner  
Bill Russell  
Bongman Seo  
Han Sun Sheng  
Jim Stevenson  
Susie Strain  
John Stone  
Izumi Takeda  
Carolyn Whitzman  
Eleanor Williams

## WELCOME and UPDATE on GAMUT

Nick Low, Director

GAMUT is one of the Volvo Centres of Excellence in Future Urban Transport. The other centres are:

- Sustainable Urban Transport Research in Less Motorised Countries: Research and Training ([www.iitd.ac.in/tripp/](http://www.iitd.ac.in/tripp/))
- Studies on the Simultaneous Interactions between Policy and Technology in Urban Transportation ([www.earthinstitute.columbia.edu](http://www.earthinstitute.columbia.edu))
- Sustainable Land Use and Transportation Planning for Rapidly Growing Cities ([www.earthinstitute.columbia.edu/csud/projects/nairobi\\_studio.html](http://www.earthinstitute.columbia.edu/csud/projects/nairobi_studio.html))
- The Global Centre for Mega Projects in Transport and Development. ([www.bartlett.ucl.ac.uk/research/planning/sct.htm](http://www.bartlett.ucl.ac.uk/research/planning/sct.htm))
- China Urban Sustainable Transport Research Center ([www.chinasustrans.org/eindex.asp](http://www.chinasustrans.org/eindex.asp))

### *What is GAMUT?*

GAMUT is a collaborative research centre dedicated to promoting and supporting sustainable urban transport in Australia and the Asia Pacific region. GAMUT works with a network of researchers to focus attention on the need for innovative institutional design for integrated transport systems. GAMUT is about urban passenger transport and seeks to promote a change in thinking about urban transport from Model 1 of Motorized Mobility (as characterised by Individual transport and cheap oil, a conceptualisation of the primary transport problem as the congestion of road space, and proffers the primary solution as 'better roads') to Model 2 of Sustainable Transport (as characterised by seamless public transport, cycling, and walking, the primary transport problem being 'congestion' of the air, and offers the solution of the real integration of land use and transport planning).

### *Organization and Governance of GAMUT*

A hub at the University of Melbourne (in the Urban Planning Program), with two outlying Australian foci at Curtin University in Perth and Griffith University in Brisbane, and three Asian foci at Hitotsubashi University, Tokyo, Tongji University, Shanghai and the National University of Singapore.

### *Contracts and Staffing*

Contracts have been signed with VREF and contracts signed with the outlying centres.

In Melbourne we will have:

- One Project Officer who will provide research assistance over a number of the Melbourne projects;
- One executive officer who will provide administrative assistance to the directors; and
- Four (or possibly five) PhD students working with the Melbourne GAMUTEers on GAMUT themes.

### *Changes*

GAMUT thanks Angela Munro, Executive Officer, who is leaving GAMUT, for her effective management assistance, and especially for setting up the program of this workshop and the Community Forum. Welcome to Dr. Leigh Glover.

### *GAMUT's Relationship with the OMEGA Centre*

Based at University College London and led by Prof. Harry Dimitriou, the OMEGA Centre is funded as a VREF Centre of Excellence at the same fashion as GAMUT. The Centre's project is to conduct a worldwide investigation into the means used to evaluate and decide upon mega urban transport projects. Australia is a participant in the OMEGA Centre's activities through GAMUT's program. OMEGA will be holding its Workshop 1 to report on progress to date and to learn about the research method to be used (to be held Jan 22<sup>nd</sup> to 25<sup>th</sup> 2007).

### *Funding and Budget*

VREF funding is for one year at a time. We have a GAMUT ongoing budget.

Points to note:

- VREF funded 66% of the amount originally requested in Year 1 and 85% of the amount requested in the following years
- The University of Melbourne takes 20% of the funds coming to the Melbourne staff for research infrastructure. But GAMUT has also been awarded additional funding by the University: AUS\$459,073
- The VREF Centre of Excellence at University College London (Global Centre for Mega Projects in Transport and Development - OMEGA) led by Prof. Harry Dimitriou has contracted GAMUT to conduct a research project

### *Further Funding*

We are looking for additional funds for GAMUT. Additional funding sources could include international agencies and local funding channels:

- Climate Adaptation Science and Policy Initiative (CASPI) at the University of Melbourne
- Faculty of Architecture, Building and Planning fund for research clusters.
- Australian State Governments: Commissioned Research.

We need your help in devising new research projects for GAMUT that could target new sources of funds.

### *GAMUT Management*

GAMUT has a Board of Management and charter of responsibilities and an Executive Committee.

### *GAMUT Accommodation*

GAMUT staff offices and Reception area are now located on the First Floor of the Old Commerce Building on the University of Melbourne central campus.

### *Research Outputs*

GAMUT's research outputs will be in various forms; including:

- Progress reports
- Working papers
- Conference papers

As part of its research program, GAMUT is investigating the possibilities for commissioned research, for which GAMUT would award contracts for specific policy papers.

### *Communication*

This meeting provides an opportunity to launch the new GAMUT Website (now available online at: [www.gamutcentre.org](http://www.gamutcentre.org)). We have employed the services of a professional webmaster for administration and updating the website, Andrew Clarkson, of *Raw Solutions*. Please tell me what you think of the website. Coincidentally, we have also finalised the GAMUT logo and letterhead design.

GAMUT will communicate through a number of channels, including the production of Policy papers, releasing materials to the press and media, and conducting conferences and workshops.

#### *Education*

GAMUT, through the University of Melbourne's Faculty of Architecture, Building, and Planning, will conduct a course in Transport and land use planning. It is hoped that an advanced degree in a Master of Transport Management or similar and a PhD Program can be developed in the future.

#### *Visiting Scholars*

GAMUT will be inviting visiting scholars to contribute to its activities. It is hoped that Prof. John Whitelegg, who specialises in sustainable transport, from the UK could be the first GAMUT Visiting Scholar in 2007.

#### *Main Research Program*

##### *Theme 1 (Technical--Managerial): Research Questions*

- What will future constraints imposed by greenhouse policy and oil shortage mean for urban transport?
- If there is to be greater reliance on walking, cycling and public transport, how can these active modes be well connected with the different mechanized modes of public transport – buses, trains, trams and light rail – to deliver a frequent, fast and reliable service, even for cities with dispersed residential and work locations?
- What is the current greenhouse performance of different cities and different modes of transport and how can that performance best be improved?

##### *Theme 2 (Political--Institutional) Research Questions*

- How do long established ways of understanding the transport problem, and methods of delivery of transport systems and infrastructure, stand in the way of new policies for sustainable transport?
- How might these barriers be overcome in the light of new knowledge of future constraints on transport?
- What new policies, organizations and government institutions will be necessary to deliver urban transport systems that meet the needs of twenty first century cities?

##### *Theme 3 (Financial--Economic) Research Questions*

- What biases and distortions exist in the system of funding to urban transport?
- What are the effects of partnerships between the government and private sector, and has privatization of public transport delivered a fair and effective outcome?
- What new methods and sources of funding for public transport can be found and linked to the value of property created by access to public transport?
- How have mega-transport infrastructure projects been evaluated in the past, and how can this evaluation be improved in the future?

## GAMUT RESEARCH PROJECTS

Presentation Highlights

### **THEME 1. “Integrated urban passenger transport systems under resource and environmental constraints”**

#### ***Urban Passenger Transport Systems under Resource and Environmental Constraints***

Presenter: Patrick Moriarty

##### *Background*

- This study examines how the twin challenges of oil depletion and global climate change will impact on dispersed cities
- The potential for a variety of alternative fuels and vehicles to overcome these problems will be analyzed
- A data base will be formed of travel-related statistics using Melbourne between 1950 and 2005 as a case study of a dispersed city
- Several long-run urban transport scenarios will be created, and in later years, extended to include Tokyo, Shanghai, and Singapore

##### *Resource and Environmental Constraints*

- Annual oil use per capita with EIA projections to 2030 in four countries
- World oil production 1930—2004 with ASPO projections to 2050
- Global atmospheric concentrations in ppm, year 1000—2003
- World electricity production-proportion from renewable energy 1970—2004

##### *Proposed Transport Energy Solutions Must:*

- Give a positive energy return
- Not cause other environmental problems
- Be economically feasible
- Be capable of supplying a major share of transport energy, and do so for many decades
- Be available in the right time frame
- Be politically feasible

##### *Proposed Alternative Transport Fuels/Propulsion Systems*

- LPG and compressed NG
- Bio-fuels — e.g., sugar cane ethanol
- Battery electric vehicles
- Battery hybrid electric vehicles
- Hydrogen fuel cell vehicles
- Hydrogen-fuelled conventional vehicles
- Large increases in vehicle energy efficiency are another possible solution

#### ***Leading-Practice Models of Collective Urban Transport***

Presenter: Leigh Glover

### *Goals & Objectives*

- To review successful integration of: collective transport modes and planning for collective & individualised transport, in Australia & internationally
- To identify case studies for further investigation
- To explore the institutional factors leading to success
- To inform key Australian urban transport decision makers
- To refocus the Australian transport planning debate
- To contribute to transport planning theory

### *Integrated Transport Systems*

Several different interpretations of 'integrated transport' are in use, for example:

- *Viegas (1999)*: Dimensions of integrated transport
  - Physical: Space & time (e.g., interchange stations & coordinated timetables)
  - Logical: System information shared by operators & managers
  - Tariff: Packages of transport services using integrated prices
- European Commission (2003): Influences on efficacy of integrated transport
  - Policy & Institutional
  - Management & Operational
  - Planning, Design, & Implementation
- *Potter & Skinner (2000)*: Integration typology
  - Functional or Modal Integration, which is part of ...
  - Transport and Planning Integration, which is part of ...
  - Social Integration, which is part of ...
  - Environmental, Economic & Transport Policy Integration

### *Thinking about Institutions*

- Values, norms, rules, & formal & informal procedures that determine or influence social behaviour
- Often in the form of organisations or mechanisms (such as rules & laws) that determine social structure & govern social & individual behaviour (as well that set of informal rules within society)
- Competing theories & schools, incl.: Rationalist, Historicist, Sociological, Institutions as actors, Institutions as cognitive frameworks, New Institutionalism

### *Key Transport Institutional Issues*

- Governance & regulation
- Economic productivity
- Management
- 'Territory'
- Technology choice
- Ecological sustainability
- Community interests

### *Indicators of Integration*

- Institutional factors
  - Institutional cooperation between transport actors
  - Integrated strategies between environment and transport actors
  - Transport and environment monitoring services
  - Integrated strategy and policy development and implementation
  - Formal systems of public accountability for system operation
  - Formal legitimacy

- Non-Institutional Factors

Integrated Public Transport Services: Coordination across different modes; Unitary fare/ ticketing system; Coordinated timetables across system; Provision of city-wide service; Inner-city—suburban linkages; Cross-city linkages

Access and Equity

Access to transport services; Services for the disabled; Services for disadvantaged groups; Fare structures

Infrastructure and Services

Infrastructure capacity; Infrastructure investments

Costs and Prices

External costs; Costs of services

Environmental

Energy use, energy efficiency; Greenhouse gas emissions; Accidents and safety measures; Emissions to air and water; Noise levels; Monitoring and performance valuation

Technology Choices

Environmental performance; Economic performance; Safety and comfort; Compatibility with wider system

Transport Demand

Passenger demand; Modal split

Coordination with Private Transport

Coordinated transport planning

*Conventional Model of Institutional Features of Urban Planning and Transport Planning*

- Planning

Role: Urban land use zoning and development control; Shaping urban structure; Infrastructure development; Social and environmental impact assessment; Coordination of public and private investment/ public regulation; Resolve land use conflicts

Orientation: Urban geography; Spatial analysis

Typical Concerns: Urban form (pattern); 'Orderly' development; Management of planning process

- Transport

Role: Transport planning; Transport infrastructure development; Transport operations; Transport management

Orientation: Transport engineering; Public sector accounting

Typical Concerns: Travel demand; Operations and maintenance; Capacity and service levels; Supply costs

*Major Influences on Urban Integrated Transport Systems*

- Governance (esp. Institutions, Organisations, and Policies)

- Guiding Rationale for the Transport System (esp. Values, Principles, and Goals)
- Characteristics of the Transport System (esp. Infrastructure and Services)
- Urban Form and Function (esp. History, Geography, & Economy)

*Path Dependency & Integrated Public Transport*

- 'History matters' in creating institutional support for integration
- History also matters in promoting 'sub-optimal' conditions
- Technology choice issues in public transport important
- Future expectations often highly influential (esp. transport planning)
- 'Collective good' problems and public transport: durable institutions and policies
- Conditions for change are difficult to determine: timing important, many possible equilibria, small events producing lasting effects, and the source for change can be obscure

*Australian Cities and Integrated Public Transport: Overview of Current Status*

- Integration in:
  - Ticketing
  - Journey planning
  - Current planning, esp. for urban expansion
- Less success in:
  - Timetable coordination & Interchange facilities
  - Current planning for existing urban fabric
  - Implementation of integrated plans
  - 'System-wide' integration
- Institutions: Integration typically an 'overlay' on existing arrangements

***Developing a Modular Urban Land Use and Transport Tool (MULUTT)***

Presenter: Brendan Gleeson

*1. The Strategic Institutional Context for Urban Transport Planning*

- Broadening acknowledgement that institutional structures – including technocratic structures – impede inclusion of sustainable objectives in transport assessment
- Ongoing (if eroding) academic and institutional dominance of engineering and economics disciplines
- Relative weakness of land-use and transport planners within key public and private institutions
- Limited consideration – especially technical assessment – of broader issues of sustainability in transport decisions (but shifts in planning: BASIX system in NSW)
- Institutional critique reasonably well established if struggling to bear fruit (e.g., Low, Gleeson & Curtis; Flyvbjerg et al; Mees),
- Technical critique not yet fully elaborated, especially in terms of forwarding alternative techniques and models for assessing transport need

*2. Guiding Premise: Transport Assessment is a Closed Practice*

- Institutional strength of engineering and economics dependent on control of an opaque assessment process (especially transport modelling, but incl. project appraisal, impact assessment)
- Highly socio-technical (data, projections, computers, algorithms that simulate/predict human social behaviour)

- Frequent failure of that socio-technical form to grasp/predict social need and/or environmental considerations OR to produce transport interventions that meet their own goals (Flyvbjerg)
- Need to open the assessment process to broader disciplinary and public scrutiny: new technical and deliberative assessment
- Opportunity to reconfigure transport assessment to better match public and sustainability objectives in transport planning AND to produce interventions that that satisfy or maximise their own goals

### 3. *In MULUTT's Sights: Conventional Four Step Transport Model*

- Trip generation (land-use activities that 'generate' travel)
- Trip distribution (travel between land-use activities, 'gravity' model)
- Mode assignment (ascribing travel task to modes)
- Traffic assignment (ascribing traffic flows to routes)
- Assess route capacity (congestion)

### 4. *Specific Criticisms of Current Transport Models*

- Origins are traffic/roads focused, rather than travel focussed
- Oriented towards supporting private motor vehicle demand thus generates plans that support this mode
- Provide limited support for sustainable travel demand (PT, walking, cycling) e.g., through transfer penalties in PT assignment
- Singular metric – 'travel time savings' – punishes sustainable modes
- Static: often lack feedback for mode shifts with rising traffic congestion
- Poor simulation of actual travel behaviour (e.g., trip purpose, trip chaining)
- Gross spatial zones – underestimate short intra-zone (i.e., walking, cycling) trips
- Limited attention to pricing – e.g. fuel, carbon, marginal vs total costs (except when tolls considered)
- Flexible projections of population and jobs can produce widely varying outcomes
- Limited capacity to test alternative land use development scenarios

### **Discussion: Issues and Ideas**

- Difficulties in changing current transport planning practice to go beyond the 4-step planning model mentioned by Brendan Gleeson in describing the MULUTT project, and the potential to change practice by offering alternative methods that use broader environmental and social assessments
- Potential for the recent Stern review on the costs of climate change for the UK Blair Government to be used as a lever to change current limited practices in transport modeling and planning
- Proposition that economic analysis of impacts of climate change and implications for transport may not be as useful in promoting change as is the scientific evidence of how little time is left to avert economic and environmental disaster (e.g., 10—15 years) and how little has been done to turn around current practice
- The large scope of the MULUTT investigation task, and to what extent the project should be in dialogue with transport modelers using current limited frameworks — response from MULUTT being that the task is large, but also central, and that there is a need to work with current generation of modelers to build capacity in sustainable transport assessment

- While the MULUTT task to look at transport modeling is huge, there are also other components of the assessment process for transport investments that also will need to be examined
- Need for good data in modeling and the difficulty of getting it, especially on environmental and social issues, and relating those to policy and projections. For example, it is difficult to know precisely how transport impacts on the environment — e.g., traffic counts are not the whole story
- Modeling the social and economic impacts needs to build an evolutionary approach into the model, as the change over time aspect is critical — transport systems evolve rather than being created from scratch
- Non-linearity of change underpins the whole question of dealing with climate change and human behaviour. This is one of the reasons that the current technical assessment practice is so lacking, as it does not recognise the potential for sudden changes. It would be good to be able to draw on international expertise on dealing with non-linearity
- The need for recent data on travel patterns is acute (e.g., Melbourne has not had such a collection since VATS in late 1990s. However MULUTT has been able to draw on data from recent travel survey in Queensland.)
- Knowing how cost curves behave is important in modeling. The MULUTT project has the potential to contribute to understanding of impact of price of fuel and so on
- The problem with integrating cost factors is that realistically costs can only be applied for tried technologies, as future costs of new energy products too fuzzy. Transport models need to be based on more research re costs rather than being based on the most optimistic forecasts of the true believers in 'their' new energy product
- Regarding the international best practice study (presented by Leigh Glover) the case studies will be pithy but sufficiently to form some general insights across cases and to guide next stage of research
- The question then arises as to potential engagement processes for the international best practice project in order to identify institutional barriers to change. The researchers acknowledge that engagement processes are vital - - political actors can make dramatic changes
- The international best practice project will need to get transferable lessons from other cities — ones that can transferred across different institutional contexts — and to identify whether institutional differences (and particular local actors) are critical factors in achieving change
- The best practice project across various cities could incorporate questions from other projects — for example the investigation could pick up on what technical assessment processes are used in each city (and feed this back into the MULUTT project)
- The fit between methodologies used in the various GAMUT processes and potential for cross-fertilization is a question for all participants

## **THEME 2: “Innovation (and barriers to change) in urban transport”**

### ***Moving Forward from the Dual-mode System: Institutional Development for Sustainable Transport Planning in Shanghai***

Presenter: Pan Haixiao

### *Background*

- Shanghai, located on China's coastal line and in front of the Yangtze Delta
- In the following twenty years, Shanghai will be one of the economic, commercial, trade and shipping centers in the world
- Total area of 6,340.5 km<sup>2</sup>
- Population of around 17 million (2003)
- 18 Districts and one County Total area of 6,340.5 km<sup>2</sup>
- Population of around 17 million (2003)
- 18 Districts and one County
- This project will explore the institutional means of moving forward from the dual-mode system to a more inclusive and needs-based urban passenger transport system designed to meet the specific requirements of Shanghai people and the global pressures of ecological sustainability

### *Economic Development*

- Shanghai is the largest city in China, with an average annual growth rate of >10 percent for more than ten years in succession
- Mono-Center Structure, City Expanded in all Directions
- PuDong - the Big Scale New Town
- Poly-Center Structure Strategy Pursued 50 years Ago

### *High Density in the Central City*

- Population density declines sharply with distance from centre
- Density Curve Change in the Near Future forecast; lower central density, higher non-core density

### *Urban Expansion and Development in Rural Area*

#### Three Types of Urban Expansion

- Urban Sprawl
- Isolated-Pancake
- Public Transport Supported

### *Urban Plan to Decentralize and Against Urban Sprawl*

- Master Plan 2000
- Multi-Corridor, Multi-Tier
- Earlier plans: 1940s, Master Plan in 1986

### *Increased Investment in City Centre*

- Construction of new subway system
- New freeways, overpasses, and interchanges

### *Road System*

- Road length: Freeway 485 km (2004)
- Metro: 4 lines, 92.5 km long, 68 stations
- Bus: Buses: 18,000, Bus lines 948, Bus network 22,000 km

### *Institution Involved in Urban Transport*

- Bureau of Urban Planning: Urban Transport Planning, Supervision of the transport system
- Bureau of Transport: Manage construction of the transport system, Administrator of the metro company, bus company and ferry company
- Bureau of Municipal Engineering: Construct and maintain infrastructure (Non-urban)

- Bureau of Public Security: Supervise transport order, maintain traffic facilities

#### *Government Departments Involved in Transport*

#### *JiaDing District Current Land Use/Transport*

- Disorder, Isolation, Highway Solution, But Industry does go with the Highway

#### *Qin Pu District*

- Double the population to 500,000 in Central Qin Pu in the next 15 years

#### *Qin Pu Travel Survey*

- Modal Split: Great use of slower mode (56% powered/ bicycle); 25% walking, 4% Bus, 5% company bus, 5% motorcycle, 1% taxi
- Travel duration: Public transport times are greater (bus, company bus, mini bus); shorter travel times for motorcycles, walking, bicycles

#### *Research Results on Qin Pu Transfers*

- Results describe use and transfers on buses and Qin Pu as transfer hub
- City link and suburb merged together to provide frequent services

#### *JiaDing Town Trip Distribution*

- Intra-town travel: 57%
- Inter-town travel: 40%
  - 69 bus lines, 1665 km networks
  - Problem of low service coverage
    - Long line of 24 km
    - Less integration of mini bus with trunk bus
    - Function conflicts between urban and city lines

#### *Isolation of JiaDing, Independent Small City*

- Survey in three locations in JiaDing District: JiaDing, JiangQiao, ZhenXin
- Location type, employment, income
- Commuting, proximity to employment, travel times
  - Average commuting time: 76 min; Shanghai: 33.5 min
- Recreation travel

#### *Recently Planned Large Scale Metro Supported Development in JiaDing District*

### ***The Capacity of State and Local Government to Deliver Sustainable and Integrated Transport: A Case Study Investigation in Perth and Melbourne***

Presenter: Carey Curtis

#### *Purpose*

- To understand with precision the real barriers created by horizontal and vertical governmental relationships

#### *Objectives*

- To assess the capacity of the governmental system in Australia to deliver sustainable and integrated land-use/transport outcomes,
- To detail the horizontal (interagency) and vertical (intergovernmental – state/local) relationships at bureaucratic level that come into play to restrict integrated land use/transport outcomes and
- To identify how the capacity of the governmental system can be improved.

### *Inception*

- 6 November 2006

### *Stage 1a: Perth*

- Collect and collate policy documents for metropolitan Local Government Authorities (32), Regional Agencies and State Agencies
- Documents include strategic and corporate plans; transport plans and policies; regional transport plans and regional and local planning strategies

### *LGA Profile – Potential Variables*

- City of Armadale - Council Statistics:
- Distance From Perth: 29 km
- Shire Area: 545.0 sq km
- Length of Sealed Roads: 527.0 km
- Length of Unsealed Roads: 14.0 km
- Population: 55400
- Number of Electors: 32776
- Number of Dwellings: 19990
- Total Rates Levied: \$15687000
- Total Revenue: \$30364000
- Number of Employees: 213
- Roadwise Participant: Yes
- Major Industries: Commercial, Manufacturing
- Tidy Towns Participant: Yes
- LCC Participant: Yes
- Zone Member: South East Metropolitan
- Regional Organisation: South East Metropolitan Regional Council

### *Working Paper Format*

- Armadale Profile
- Armadale Transport Profile
- Town Planning Scheme No.4
- Local Planning Strategy
- Armadale Community Safety Plan 2005- 2010
- Disability Access and Inclusion Plan 2005-2009
- Strategic Plan 2005-2009
- State of the Environment Report 2005
- A summary of Armadale Transport Policies

### *Stage 1b: Perth*

Conduct a content analysis using pre-established framework:-

- Measure extent to which “transport policy” reflects “best practice”
- Identify potential case study projects

*An evaluation of the documents will be made against a set of core principles for land use transport integration derived from earlier research ...*

### *Land Use Transport Integration Principles*

- Access
  - The Network
  - Activity function (rather than transport function)
  - Traffic Management

- Service
- Land Use
  - Land-use configuration
  - Density/Intensity
  - Proximity
  - Parking
- People's Places
  - Scale and Design
  - Amenity

*It is envisaged that four potential conditions could occur, or a degree of concordance, where:*

- There is complete concordance between the principles and documents;
- There is a gap in the capacity to deliver the principles;
- There is complete discordance between principles and documents;
- There are new principles in the documents suggesting an enhanced capacity to deliver sustainable transport

#### *Stage 1 Output*

A comprehensive position statement about the degree to which, and in what way public institutions aspire to the delivery of sustainable transport and the extent of their role

#### *Stage 2*

- Case studies will be identified of transport projects in which integration is an issue
- These will be evaluated against principles, and implementation gaps specified
  - These implementation gaps will be investigated through detailed histories of the cases
  - Projects involve many players in the process from decision to action, through project specification, concept design, consultation with those affected, redesign of plans, and implementation

#### *Case Study Project Types*

- *Public transport:* projects involving interchange of transport mode and the relationship between walking and public transport
- *Walking:* projects to improve facilities for walking in urban areas (pedestrianisation schemes etc.)
- *Cycling:* projects to improve the network capacity for bicycle usage and safety as a mode of transport, rather than merely a mode of recreation
- *Roads and streets:* projects aiming to manage road space for ends other than purely maximum movement of traffic (liveable streets, retail environments etc.)

### ***Institutional Enablers to Children's 'Right of Access' to the City***

Presenter: Carolyn Whitzman

#### *What is Children's 'Right to the City'?*

- Children's 'right to the city' can be defined as their ability to experience independent mobility within an urban area
- Independent mobility means being able to access, use and move within/through public space without being escorted by adults

- Independent mobility for children (<18) refers to active transport: walking, cycling, using public transport, wheeling (learner's permits 17-18)

#### *The Problem*

- There has been a huge international generational shift: from children able and allowed to explore cities, using walking, cycling and public transportation; to fearful and car dependent children
- This has environmental (pollution caused by driving children to school), economic (costs of transporting children by car) and social/health (raising obese, fearful children) implications

#### *Trends in Children's Independent Mobility:*

The example of the journey to school

- In the UK in 2001, 50% of children walked to school < 2 km
- In Australia in 2003, 25% of children walked to school < 2km
- In Melbourne, 1/3 children walk < 5 minutes/day
- In South Australia, > 70% of children aged 5 - 12 years old travel to school by car, with # of walking journeys to school decreasing by 46.5% since 1986

#### *Purpose of Research*

- How to reverse this trend?
- How to make cities an 'off lead' area for children?
- How to support 'free range' children?

Aim of research is to identify interventions that facilitate children's independent mobility within urban environments and to determine whether there are principles across interventions that can be replicated in different settings.

#### *Activities to Date*

- Research
- Health/social interventions
- Design interventions
- Role of transport & traffic
- Children's geographies
- Children & parental social & physical environmental perceptions
- Presentation: Walk 21 Conference
- Liaising: Professionals & academics in the field
- Current Research Trends
- Research happening in the UK, Italy, Sweden, Finland, USA, Japan, Australia & other industrialised countries
- Health and Safety focused (physical activity related to child obesity prevention; accident prevention)
- Baseline data: current mobility behaviour of children, environmental perceptions (children & parents)
- Growing Up in Cities Project on children's participation in planning practices (human rights based)

#### *What We Know*

- Children's independent mobility has decreased
- Societal norms have changed (Pedestrian Council of Australia: parents should hold their children's hand when crossing roads until 11)
- Individual negotiations between parents and children over 'licenses' (age at which it is appropriate to do 'x')

- Reasons: parent's fears around traffic and personal safety (stranger danger)

#### *What We Don't Know*

- Urban design & social interventions that may
  - (1) facilitate children's independent mobility,
  - (2) be replicated internationally
- What is the role of spatial planning at the local level with regard to children's independent mobility?

This research aims to address these questions.

#### *Possible Factors*

- City Size (cannot explore in this research)
- Traffic amount and speed
- Location and quality of public spaces & facilities
- Perceptions of local environment by parents & children
- Children having family in the area
- Parents' belief in children's competence
- Expectation that other adults should & will watch out for kids & ensure appropriate behaviour

#### *Preliminary Propositions*

- Children will have higher independent mobility if:
  - Both parents and children view their environment positively
  - Children can access facilities/activities locally
  - Traffic in the area is lower and slower
  - Parents have greater confidence in their children's competence
  - Goals of local policies, programs, parents & children converge

#### *Methodology*

##### Contrasting Cities:

Melbourne 'safe' city & Cape Town 'unsafe' city

- Commonalities: Commonwealth, post-colonial British influence (Dutch influence in CT too), urban form based on American and British theory/practice
- Differences: Crime rate and traffic deaths, racial issues & segregation, level of car ownership by middle classes, acceptability of gated communities

#### **Discussion: Issues and Ideas**

- Whether it is possible to look at both public and private institutions and their impact, including the potential impact of the World Bank, in the course of the research into institutional development for sustainable transport planning in Shanghai. The response noted that a major difficulty in extending city-based transport services to the disadvantaged residents of areas on the periphery of the Shanghai urban area is the cost, and that private investment will be important
- The work on the city from a child's point of view is commended (Brendan Gleeson). It is suggested that the researchers look at Bob Tranter's work on perceptions held by parents of child safety and the impact that these perceptions on their children's mobility. Gleeson noted a project in Sydney that he had worked on regarding child mobility
- In regard to the research into local and state governmental capacity to deliver sustainable transport in Perth Melbourne, the question is raised as to whether

the project will be able to look at the outcomes of those policies which are analysed, and implications for actual behaviour in areas; e.g., walking and cycling participation. In response, it was noted that another related project looks at the actual impact of project such as the new Mandurah rail line in Perth

- The most direct effect on children's travel mode choices and more limited mobility may well be the pattern set by their car-dependent parents. This 'modeling' effect is evident in other aspects of child rearing, e.g., establishment of smoking habits. The researchers acknowledge this point but maintain that it is important to understand the impact of a range of social and physical factors in the environment in order to reverse the transport patterns and perceptions that are currently being established for children

### **THEME 3: "Finance and resource allocation in urban transport"**

#### ***The Pattern of Production in Cities and Its Implications for Transport Funding***

Presenter: Kevin O'Connor

##### *Background*

- This project will explore ways in which the cost of providing transport services within a metropolitan area can be linked to a city's productive activity so that income can be raised to meet the cost of operation of services

##### *The Transport Service → Spatial Distribution of Urban Development*

- Is it Possible to match the benefits from urban development to the cost of providing the Service?

##### *Data Base on Distribution of these Measures*

- Production →
  - Land Value → Housing Value
  - Commercial Value → Commercial Building
  - Economic Value → Jobs
  - Firms

##### *The Transport Service*

- Geography of Service → Measures
- Cost → Aggregate, Local?

##### *Policy Issues*

- Setting costs/ levy/tax
- High on high service locations; low in low service locations
- To cover costs
- To contribute to costs
- To contribute to capital

#### ***Mass Transit Policy and Management in Japan under Distorted Neo-liberalism***

Presenters: Fujio Mizuoka and Izumi Takeda

##### ***Neo-liberalism – Solution to the Public Transit Problems?***

Neo-liberalists claim:

- It enhances efficiency in operation, which shortens time to reach your destination!

- It encourages competition to lower your fare!
- It gets rid of unnecessary bureaucracy and monopoly to increase your convenience!
- It is just because you will get what you paid for – no need to support the people in the rural areas!
- Therefore, neo-liberalist reform on public transport is ALWAYS GOOD FOR YOU!!

*The Key to Produce Integrated Transit System: Cross Subsidy*

- A society creates a network of transportation and communication consisting of one-dimensional sectors (lines) in order to physically integrate the society, developing across two-dimensional plane
- However, profitability of each sector differs across the network, depending on population density, topography, relative position in the network, etc.
- In order to maintain the homogenous network, less profitable sectors need to be CROSS-SUBSIDISED by more profitable ones

*The Public Transit under Neo-liberalism/1*

SELF-SUPPORTING ACCOUNTING SYSTEM

- Neo-liberalism, presupposing self-sustaining and independent atomic economic men, has inherent hatred for the rich's giving to the poor
- Corollary to this, each sector of the network is now asked to be managed independently
- Eventually, less profitable lines are closed down, or remain in operation on higher fares

→ NETWORK IS THUS DISTORTED

*The Public Transit under Neo-liberalism/2*

PRIORITY given to HIGH-SPEED TRANSIT SYSTEM:

- Neo-liberalism encourages competitiveness and efficiencies. Creation of the NATIONWIDE HIGH-SPEED TRANSPORTATION then becomes a key
- The conventional system of public transportation for the local traffic is sacrificed behind this move

*The Public Transit under Neo-liberalism/3*

CORPORATISATION OF PUBLIC BODIES

- The egalitarian principle in public provision of transport system is no longer be fulfilled; and investment decision of public transportation system is made under the short-run profit motives
- Imprudent abandonment of physical transportation asset with utility in longer-term decision criteria often ensue

*Distortion of Neo-liberalism under Government Failure*

- Neo-liberalist reform is often grafted onto the existing management structure of government, which has been infested with the vested interests
- Bureaucrats and even private interest groups in charge of public transportation often exploit 'neo-liberalist reform' aiming at maximising their private benefits and enhance their own powers

*Some Examples of Government Failure in Public Transportation Policies*

- Failure of internalising the externalities that the service has created, which otherwise could have reduced fare. (to assist real-estate capitals)
- Discrepancies in policies to subsidise public transit between local government jurisdictions resulted in the fragmented network of urban mass transit

- Imprudent abandonment of existing or obsolete past transport infrastructure, coming from short-run consideration of profitability or emphasis on private modes of transportation

#### *Hypothesis*

- Neo-liberalism has in itself inherent logics of creating a network of public transportation that is geographically uneven and less egalitarian across space
- There are various arbitral and distorted applications of neo-liberalism in the mass transit planning, arising from the government failure
- The resulting systems of public transportation will be more distorted, more costly and user-hostile
- This will encourage the use of private means of transportation

#### *Cases to be Studied*

- The research will focus on cases of public transit network that experienced neo-liberalism and government failure
- The project will investigate various cases where inherent failures of neo-liberalism is found, and neo-liberalism is grafted onto the conventional system of mass transit governance
- The cases will be selected from Japan, South Korea and Hong Kong SAR of China
- Case 1. Farewell to Cross Subsidy: Breaking-up of the Urban Underground Transit (MRT) Network in Tokyo
- Case 2. Localised Neo-liberalism Distorts the Integrated Public Transit System: The Public Bus System in Seoul Metropolitan Region, Korea
- Case 3. Rail Network in Hokkaido – before and after privatization: From JNR Chihoku Line to PPP Chihoku Ginga Railway

#### *Case 1. Farewell to Cross Subsidy: Breaking-up of the Urban Underground Transit (MRT) Network in Tokyo From One Integrated System to Horizontal Disintegration*

- In pre-war era, futile attempts have been made to unify the operational bodies of urban public transit in Tokyo. As a result, however, Imperial Capital Rapid Transit Authority (TRTA) was set up to manage underground train service
- Tokyo metropolitan government, which had been managing tramcars in urban area, was eager to enter the underground train operation
- The compromise: two different bodies -- Tokyo Metro (formerly Teito Rapid Transit Authority) and the Tokyo Metropolitan Government – manage underground transit system
- A segment stretching into Chiba Prefecture (Tozai, or East-West Line) which started operation in 1969 has been managed by TRTA ever since
- However, a segment of similar nature stretching into Saitama Prefecture (Namboku, or North-South Line, operation started in 2001) was, in spite of the request from Saitama Prefecture, horizontally disintegrated and managed by a public-private partnership called Saitama Railway Corporation

#### *The History of Saitama Railway*

- 1968: First mention in the Urban Transport Council Report to the possibility of building underground train in Saitama
- 1985: Transport Policy Council formally recommended to extend 'Line No.7' (Namboku Line) for another 14.6km with 8 Stations towards Saitama, from Akabane Iwabuchi to Urawa Misono (i.e. the line was planned as a part of Tokyo underground (MRT) network by all means)

- 1992: A public-private partnership called 'Saitama Railway Company' was founded, and license to build a railway line was granted by the Government. The president of the company was the Governor of Saitama Prefecture
- 1995: The Construction works began. The engineering was carried out by the TRTA. Total cost: JPY 258.7billion
- 2001: The trains began running. Almost all the services operate through into the TRTA system – it is treated essentially an integral part of the TRTA underground system, yet a separate fare for Saitama Railway

#### *Problem-ridden Saitama Railway*

- The fare is the highest of all the underground trains in Japan, due to lack of cross-subsidy principle with the TRTA network. Higher fare means less ridership
- The physical asset was built according to the TRTA standard, making competitive express operation unfeasible
- Many people along the new railway line did not change their travel patterns. They kept travelling by city buses to nearby JR stations, where they could catch the cheaper JR East urban service to downtown Tokyo
- The Company suffers from annual deficit. This deficit is made up by additional investment from the local government and loans from private banks

#### *Fares for the initial rides*

- From Kawaguchi Motogo (Saitama Railway): 44 min, JPY590
- From Kawaguchi (JR East): 28 min, JPY210

#### Case 2. Localised neo-liberalism distorts the integrated public transit system: The Public Bus System in Seoul Metropolitan Region, Korea

Transportation Reforms in July 2004: Three main changes in the Bus system:

- Quasi-Public Bus Transportation Management System: the metropolitan government manages the loss and profit of private bus companies, providing subsidies in case of deficit and channelling profits to transportation infrastructure development in case of surplus
- Reorganisation of Bus Lines and Establishment of the Central Bus-Exclusive Lanes: Previous Bus Lines are organised into four types depending on the types of connections (refer to next slide). On major trunk roads which link major centres of Seoul, a central lane on each way is reserved only for buses in order to ensure their smooth and timely operations
- Introduction of Integrated Pricing System: fares are largely determined by the distance that passengers travel. T-Money (prepaid transportation fare card with IC chip) is introduced to resolve various issues regarding payment and fare calculation

#### *New Types of Buses*

- Blue Bus serves the longest lines (on average) connecting sub-centres and downtown of Seoul
- Green Bus serves the routes from and to major underground railway stations or bus terminals within hinterlands of sub-centres
- Red Bus serves those commuting between downtown Seoul and other satellite cities in the metropolitan area
- Yellow Bus circle downtown Seoul

### *Facing Challenges /1*

Despite positive outcomes including higher bus-ridership, lower accidents and upgraded services, the operating deficit, i.e. the amount of subsidy to bus companies, expanded much larger than expected.

Careless budget planning has simply transferred the deficit from the balance sheets of bus companies to that of Seoul metropolitan government in much larger amount

### *Facing Challenges/ 2*

Spatially the current Seoul metropolitan transportation system is largely confined to the city of Seoul, creating inter-governmental conflicts regarding who will provide subsidies to the bus routes traveling through both Seoul and *Kyeonggi* province. Currently about 50 percent of the budget deficit arise in inter-city routes

### *Facing Challenges/ 3*

The deficit problem continues to pressure on the unprofitable routes. According to Seoul metropolitan government statistics, 49 percent of route modifications in 2005 are based on the profitability of the routes. In the guise of the project's original motto, 'to improve the citizen's transportation amenity,' frequent route shifting by bus companies illustrates the limit of neo-liberalist reform

### *Case 3. Rail Network in Hokkaido – before and after privatization: From JNR Chihoku Line to PPP Chihoku Ginga Railway*

#### *Problem of deficit-ridden railway lines in Hokkaido:*

- In sparsely populated Hokkaido, many of the former national railway lines were money-losing
- Initially, prefectural government strongly insisted that all the lines should remain in operation even after privatisation of the JNR
- The political compromise made under influence of a powerful MP to put one line under a PPP management, and to discontinue other rural rail services

#### *Chihoku Ginga Railway – the rail service that survived:*

- PPP operation started in 1989
- Running 140km between Ikeda and Kitami
- Built in 1911 by government as a trunk line connecting Sapporo and the Okhotsk sea coast, but lost long-distance traffic after the shortcut rail line was constructed in 1932
- Running through depopulated farmland, with some suburban traffic in the Kitami suburbs, but no major tourist attractions along the line

#### *15 years of operation under PPP*

##### TOWARDS 'MORE EFFICIENT AND ATTRACTIVE' OPERATION

- Introduction of flamboyant lightweight diesel railcars, which supposedly enabled lower fuel cost, higher speed, more frequent service than the JNR operation
- Major stations were rebuilt as plush community halls

##### DWINDLING RIDERSHIP

- Little management attempts were made to promote ridership
- Emphasis was put almost solely upon cost-cutting measures, making the service less user-friendly

#### *Dwindling Ridership under PPP: Financial & Political Crises*

##### FINANCIAL FAILURES

- Annual deficit ca. JPY 400 million (USD 3.4 million)

- Low interest rate after the collapse of bubble economy made 'Management Stabilisation Fund I' (government donation) about to deplete
- The MSF II, which could not be applied to make up the deficit, had remained intact, and was used to subsidise replacement buses

#### GOVERNMENT FAILURES:

- The managers are politicians and bureaucrats, while shares were held by the local governments → the executives and shareholders did not have incentive to have competing mind to promote the rail business
- The MP politically instrumental in retaining the rail service had been ruined due to a scandal in relation to an aid project for Russian-occupied Kunashir Island

#### *Towards abandoning the rail service*

- Deregulation policy made termination of rail service easier than ever
- The bureaucracy – Prefecture of Hokkaido and the City of Kitami took initiative in abandoning the rail service
- The initiatives of the grassroots made various proposals to make the rail service economically viable, e.g.:
  - Through express service to Sapporo, the capital of Hokkaido
  - Introduction of Dual Mode Vehicles which would make seamless rail – bus operation, etc.
- However, their plans were all rejected by the prefecture and the city of Kitami.
- The 'iron triangle' behind those who killed the railway:
- Secretary general of the LDP (conservative party) – the Governor of Hokkaido – the Mayor of Kitami
- They maintained close association with the local public works contractors

#### *The Hidden Agenda – Motorway along abandoned rail*

- 'Iron triangle' had been planning motorway along the abandoned railway line.
- The price tag for 10.4km section of motorway within the boundary of City of Kitami = JPY 40 billion
- This would have kept the rail in operation for *a century!*

#### *After the rail has gone ...*

- Last day of rail service: 20 April 2006
- Bus service replaced the rail thereafter
- The company was quick to dismantle the rail facilities
- Severe decline of ridership in the replacement bus – i.e., general deterioration of public transit system
- The bus service may eventually face another financial difficulty
- There is risk of total abandonment of public transit system in the **area**

#### ***Competition versus Integration: A Case Study of Urban Rail Transit***

Presenter: Paul Mees

- This project examines the disintegration of rail transport in Melbourne, Australia, with a view to testing the effects of privatization on financial, service, and environmental outcomes
- The project compliments that of Fujio et al (previous speaker) and describes the Melbourne component

- The key to the study will be in-depth interviews with key actors: politicians, bureaucrats, private operators (Including both successful and unsuccessful bidders) and whistleblowers, such as journalists, academics, and those who have conducted public enquiries
- The study will contrast the processes of competition with those of integration (such as occurs in Zurich)
- Evidence suggests that many of the claims made the benefits of neo-liberal reform have not been realized, as traffic congestion may have worsened and subsidies to private operators have exceed forecast levels

### ***Land Transport in Singapore: Policy, Development and Economic Impact***

Presenter: Sun Sheng Han

#### *Background*

- This project will document and analyze the policies, institutions, infrastructure of transportation development in Singapore and assess the impact of transportation development on land productivity
- Data are collected from the relevant statutory boards, professional organizations and key informant interviews
- Content analysis, parametric and nonparametric statistics, spatial visualization and spatial statistics will be used in data analysis'
- Findings of the research link to the analysis of institutional barriers in transportation development

#### *Conceptual Road and Rail Network*

- Expressway network, Radial rail network, Orbital rail network
- Regional centers
- Sub-regional centers
- Central area

#### *Public transport*

- MRT: 109 km, 66 stations
- Buses: 260 routes, 3600 buses
- Taxis: 22,380
- LRT: 29 km, 43 stations

#### *Public Transportation*

- Current: Private transport: 40%, public transport: 60%
- Target: Private transport: 25%, public transport: 75%

#### *Car Ownership – A Dream to Many Singaporeans*

- Population – car ownership ratio:
  - 1981 – 15:1
  - 2006 – 10:1
  - 2010 – 7:1
- Increase of households, 1981-2005  
65%

*Question #1*

What institutional and policy innovations have introduced in order to cope with the conflict between government plan for public transportation development and citizens' aspiration of private car ownership?

*Commercial and residential projects are developed around the train stations and train lines. Property values are said increasing with public transportation development*

*Question #2*

How does public transportation development influence urban productivity?

***Determinants of Transport Policy in Federations: An Australian Case Study***

Presenter: Bill Russell

*Aims*

- To investigate trends in urban transport funding
- To establish whether resource constraints are influencing mix of funding and if so, how this is differentiated by jurisdiction
- To develop an alternative group of data sets to study this
- To propose if appropriate revised governance arrangements for approving, monitoring, reporting and/or evaluating major urban transport investments

*Major Working Hypotheses*

- Current budgetary reporting of varying quality around jurisdictions
- Pre-project evaluation is deficient
- Federal structure presents obstacles to clear picture (Different government structures, reporting frameworks, uses of private sector, etc)
- A lack of transparency be preferred by beneficiaries of current resource allocation patterns – more transparent governance needed

*Alternative Data Sets*

- *Budget papers and economic reports (e.g. Productivity Commission) = Traditional*
- *Very limited number of academic papers = Traditional*
- *Propose to build up a new set from projects/ Contracts for specific projects*

*Possible Areas for revised Public Governance/ Management*

- Reform of opaque accrual based budget papers
- Possible template for public investment or infrastructure reporting in budget papers
- An independent monitor of urban transport investments
- Reintroduction of rigorous Parliamentary Committee scrutiny prior to major road projects proceeding
- Greater transparency of ATC and agency forward capital planning
- Transparent mechanisms for monitoring / evaluation of major freeway/ PT projects

*Project Scope/ Progress*

- Data collection commenced
- At the moment about 1 day/ week on this research
- Expected to take 2—3 years
- Opportunities to collaborate welcomed

## ***Investigation of the Assessment of Urban Mega-transport Projects***

Presenter: Nick Low

### *The Bartlett Smaller VREF Project*

- 'Improving the treatment of complexity, uncertainty, and risk in the planning of urban mega transport projects'
- Grant of about £120,000 over 18 months
- Commenced January 2006
- Review of strategic decision making in the context of *complexity, uncertainty, and risk*
- Literature review
- Commissioned papers focused on urban transport, city and regional planning

### *Aim of the Smaller VREF Project*

To define a consistent and coherent vocabulary, a common language, and a set of definitions for the OMEGA Centre of Excellence research programme

### *OMEGA Centre*

- Research Program
- Awarded research grant valued at about UK£2 million over 5 years
- Core research programme at University College London, with 10 worldwide university partners
- Total 30 mega project case studies
- Launch and First Meeting of Partners on 22–27 January 2007, London

### *Background*

- Increasing concerns about the evaluation of and decision-making for mega urban transport projects (MUTPs)
- MUTPs restructuring whole metropolitan regions in a way that makes sustainability objectives (eg climate change adaptation) far more difficult to achieve
- MUTPs have in some cases become ends in themselves, justifying and creating places of global investment rather than being built to serve the needs of people and localities

### *Participating nations*

- UK (Bartlett School of Planning, University College London)
- France (Ecole Nationale des Ponts et Chaussees, Paris)
- Germany (Free University of Berlin)
- Netherlands (Institute for Metropolitan Studies, University of Amsterdam)
- Greece (University of Thessaly, Volos)
- Sweden (Royal Institute of Technology, Stockholm)
- China (Hong Kong) (University of Hong Kong)
- Japan (Toyo University)
- USA (New York University)
- Australia (University of Melbourne, GAMUT)

### *Key Objectives*

- Building an international data base of MUTP profiles for comparative analysis.
- The application to MUTPs of principles for the treatment of complexity, uncertainty and risk

- The development of new decision-making tools and guidelines to assist public and private agencies in planning, appraising, implementing and evaluating proposed MUTPs
- The building of institutional and professional capacities for decision-making for future MUTPs

#### *Key questions*

- What criteria have been used to measure success?
- What was the institutional and political context of the projects?
- What were the social, environmental and financial risks of the project, and how were these handled in decision-making?

#### *Approach and Methods*

- Conceptual papers on risk evaluation
- Country Overview background papers
- Case studies
- Project profiles using secondary data sources
- Primary data from questionnaires administered to key informants (using 'narrative pattern analysis' to elicit reasoning)

#### *Hypotheses*

1. That the planning, legitimation and evaluation procedures for MUTPs have resulted in substantial ineffectiveness,
2. That MUTP planning processes demonstrate certain shortcomings of method.
3. That too restrictive a set of criteria have been applied to measure success.

#### *Case Studies*

- Land based transport infrastructure investments within and connecting urban areas in the form of bridge, tunnel, road and rail links (or combinations of these)
- Construction cost of over US\$500 million at present day prices
- Projects completed since 1990 in partner countries and territories
- Projects perceived as critical to the performance of major urban and metropolitan development initiatives

#### *Australian Participation of GAMUT*

- Principles paper on environmental risks
- 'Country Overview' background paper
- Case studies:
  - Sydney Harbour Tunnel (road and tunnel)
  - City Link motorway expansion, Melbourne (roads, tunnels and bridge)
  - Rail network expansion, Perth (railways)
- Background paper on Australian case studies by Imran Muhammad
- History of decision-making and dates of key decisions, Key personnel involved and Institutional context
- To be completed before January 22<sup>nd</sup> Workshop

#### **Discussion: Issues and Ideas**

- How are we to ensure the utilization of research findings?
- How to have a forward-looking agenda and not just provide a historical review?

- One aspect of this issue is that after 2009 many Australian federal transport decisions are currently open; the Council of Australian Government's decisions on transport spending, especially on infrastructure, are highly influential
- There is a need to identify these areas and themes so that GAMUT can play a role in these important transport policy debates

## COMMUNITY WORKSHOP: Urban Transport Research Needs

Representatives of key local government, non-government and professional organizations with an interest in urban transport were invited to offer their views on urban transport research needs. This workshop had a number of specific objectives, namely to promote a wider awareness of GAMUT and its activities and goals; to inform and engage the Local Government/ NGO sector; and to seek feedback and suggestions on current GAMUT program and potential collaboration.

### ***What is GAMUT? Research, Education and Knowledge Transfer***

Nick Low

#### *What is GAMUT?*

GAMUT is a 'collaborative research centre' dedicated to promoting and supporting sustainable urban transport in Australia and the Asia Pacific region.

Based at the University of Melbourne, GAMUT works with a network of researchers to focus attention on innovative institutional design for integrated transport systems.

GAMUT is one of a global network of Centres of Excellence in Future Urban Transport created by the Volvo Research and Educational Foundations (VREF), an independent research and educational institution. (website)

The GAMUT logo. The thing we want you to notice about the logo, like it or not, is that GAMUT places persons and not vehicles or roads or tracks at the centre of the transport problem.

The Volvo Research and Educational Foundations have provided 20 million Swedish Kronor over five years from 2006 to 2010. That's about \$4.5 million.

We have eight cities in our case studies: Brisbane, Melbourne, Perth, Tokyo, Shanghai, Singapore, Hong Kong and Seoul.

#### *GAMUT's Vision*

GAMUT seeks solutions to the institutional and political problems besetting urban transport:

- How can government and the community respond to the urgent need to make urban transport ecologically sustainable and socially equitable?
- How can research inform policy for sustainable and equitable transport in our cities?
- How can these goals be met while enhancing the quality of life and economic prosperity of citizens?

#### *A change in world view*

We envisage a change in the way the community and governments view the future of urban transport from 'Model 1' to 'Model 2'.

#### Model 1: Motorized Mobility

At the beginning of the 20<sup>th</sup> Century, the mass produced private car offered what the general public had never had before: a personal means of fast, comfortable transport offering apparently limitless mobility.

The vision of personal mobility happily corresponded with the economist's utopia of personal locational choice limited only by spending power. What no-one knew then was the impact of 'externalities': transport costs which were not paid by the individual but were loaded on to the whole community or out into the environment.

As car ownership grew, city roads became congested with traffic. Congestion is a transport externality. Another externality is road trauma: the deaths and injuries resulting from collisions on roads.

These became the dominant transport problems of the 20<sup>th</sup> century. But because it had already been accepted that the utopia was limitless individual personal mobility, and state institutions had been structured to deliver that utopia, the solution was seen mainly as building bigger, wider roads with grade-separated interchanges.

Public transport was viewed as an outmoded and second rate solution to mobility needs. The main goal of running trains, trams and buses was to reduce their operational costs to the government.

The GAMUT vision is different because the world of the 21<sup>st</sup> century is different.

Unforeseen circumstances:

1. A city given over entirely to the utopia of unlimited personal mobility sacrifices other utopias: the utopia of civic quality for instance.

2. The road building solution was expensive, and building bigger and better roads encouraged more people to use cars on the road system. Better roads induced more traffic on to them which eventually led to more congestion.

3. Individual mobility depends primarily on cheap oil. When oil becomes scarce and expensive, unlimited individual personal mobility for all will become impossible. As in the more distant past, only the rich will be mobile.

4. While the public has grown accustomed to the externalities of congestion and road trauma, there is another externality which is going to have a profound and unavoidable effect on every aspect of the economy: global warming.

#### Model 2: Sustainable Transport

The GAMUT vision is:

1. Accessibility to take precedence over mobility, and mobility to be fairly distributed amongst all.

2. A restored civic quality where walking, sitting and enjoyment of public space is fully provided for. Where there is a conflict, mobility takes second place to civic quality.

3. High quality public transport as a service for all and managed not in functional silos: buses, trams, trains, but as a complete system.

4. High quality public transport service even to dispersed suburbs.

5. A reduced role for the private car for routine city trips, greatly improved facilities for walking and cycling, and integration of land use and transport planning. The car viewed primarily as a vehicle enabling travel to places inaccessible to public transport.

In this vision, the main problem is viewed as the impact of transport on climate change, increased oil prices and eventual reduction in oil supply. The growing public demand is for better public transport and its connection with foot and bicycle paths.

So in summary GAMUT wants to help make real:

- Cities adapted to the reality of climate change
- Cities in which the primary concern is civic quality
- Cities that deliver a fair transport deal to everyone regardless of wealth, gender or ethnicity
- Cities that are pleasant and safe for all citizens to travel around
- Cities that do not drain the health of their citizens or their natural environments, and
- Cities that prosper economically.

#### *The GAMUT Program*

I am not going to describe our research program in detail. The GAMUT statement about our program been sent to you by email and the hard copy is in your folders. I'll assume you've read it.

Research is simply about asking and then trying to answer questions.

I am guessing that we all here share something, even if not all, of GAMUT's Sustainable Transport vision. Many of you have been working away to achieve this vision for much longer than GAMUT has even been contemplated. Many of you know things we don't know. Many of you have experience that would be very helpful to us.

On that assumption I want to frame some questions for you:

1. Do you know what climate change and oil scarcity is going do to urban transport systems in the next 50 years?

What role can improved vehicle technology play in adapting to these factors?

Can a fully networked public transport system linked to walking and cycling paths provide a viable alternative to car use?

Can such a system shift car users to public transport in such a way as to reduce greenhouse emissions? Running half-empty trains and buses is costly both economically and in greenhouse emissions.

2. Where are the best examples around the world of integrated and sustainable transport systems?

What is 'sustainable'? What is 'integrated'? What do these terms really mean?

Can the organizing principles of these systems be transferred to Australian cities?

3. Why are non-car modes of passenger transport so little used for the short journeys that comprise most of the travel in cities?

What is happening to the mobility of people under driving age?

What's stopping school kids from walking or cycling to school?

Why do women (who use public transport more than men) feel unsafe on public transport when the risk of injury or death from all causes on public transport is so much lower than the risk of injury or death on private transport?

4. If we want to change the system, what exactly is it we are trying to change?

What has to be changed in various ways is not just the technology, but also the institutions supporting the technology.

The 'motorised mobility' model did not become dominant by accident. It was the result of a historic confluence of interest between industry and the working public, and a long running and concerted public campaign by dedicated people among whom were the founders of the RACV. The result of this has been to create powerful institutions, largely speaking with one voice, within government delivering infrastructure for private vehicles.

The conventional wisdom uses the term 'roads lobby'. That term suggests that a lobby exists outside a neutral decision-making system (government, parliament). There is also a 'public transport lobby'.

However, to view the decision-making system in terms of lobbies is as inaccurate as to view it in terms of conspiracies. Our research tells us that a 'pressure group' view of transport politics is wholly wrong.

There is indeed a public transport lobby which is completely outside decision-making, and a private transport nexus which is deeply embedded in government, to the extent that we can say that it is the decision-making system.

Part of the bias of the system is in the way transport is paid for. When we talk about the public transport budget we are talking mostly about **operational** expenditure: the daily cost of running trams, trains and buses. When we talk about private transport expenditure, we are talking mostly about **capital** expenditure: on roads for the private vehicles to run on.

Where is the operational expenditure on private transport? There is no public account because the cost is hidden in the personal budgets of the road users, in the daily toll of crashes, in cost to the environment of greenhouse pollution and to public health from local air pollution. But these costs are just as real for the people of Melbourne, Sydney, Perth, Shanghai, Singapore or Tokyo as the subsidies to public transport that appear in budget documents.

When we talk about 'lobbies' let's just compare the RACV, with the PTUA. Here is the relative size of the budgets of the two lobbies.

Here is the relative size of the memberships of the two lobbies. The RACV has the enormous advantage that it also provides an essential service to road users, for which those road users are prepared to pay. There is no comparable service provided by the PTUA.

5. What is being spent on different parts of our urban transport systems in which geographical area?

The hidden private costs of private transport have different impacts in different parts of our cities. We know that inner urban areas are reasonably well served by public transport. There is an alternative to private transport. There is little or no alternative in the outer suburbs of Australian cities. Rich people in outer suburbs can, grumbling, pay the rising cost of fuel, or re-equip with hybrid fuel-saving cars. But what of poor people in outer suburbs? When the oil price rises they have are faced with a choice between insolvency and immobility.

6. How should a Model 2 system of urban transport to be paid for to ensure fairness and efficiency?

Melbourne and Tokyo are two examples of cities in which public transport has been privatized. What have been the results of these privatization experiments? Have they succeeded in their aims?

If Melbourne's privatization of railways and trams is considered economically successful, why are the government payments to these modes double what they were before privatization?

Is there a way of paying for the needed public transport investment in the outer suburbs in such a way as to mobilize the increased land value created by public transport in the inner and middle suburbs?

7. How have the huge urban transport projects carried out in Australia been evaluated? According to what, if any, rationality? By what criteria should they be evaluated in a Sustainable Transport world?

GAMUT is addressing all these questions in research.

Finally, here is a question which is not really a research question. You represent a variety of Melbourne's community voices, the best of those voices perhaps. You are also active in public policy making. If you want what we want, do you think you have been effective at getting it? If not, what has stopped you? What ammunition do you need to be effective in changing circumstances?

I know that you must want answers to specific questions you face in trying to influence policy. I am sure that you must be impatient to get answers as quickly as possible.

But GAMUT is unique in being able to take a long term perspective. We are looking back 50 years and forward 50 years. This is the nature of our research program which convinced Volvo to fund us. That is the time scale of the sort of major social change we are interested in being part of.

A great amount of energy is spent by highly committed actors trying to change policy within a time scale of two or three years. But the environment outside public policy circles is itself changing. What is the external environment of transport policy going to be like in ten years time? Are we ready for it? Can we make use of that changed environment to lever a change in policy?

My question therefore for GAMUT, is how do the kinds of questions that concern us connect up with the kinds of questions that concern you?

## Community Workshop Invitees

Australian Conservation Foundation

- Rowena Joske

City of Melbourne

- Andrew Korr

Municipal Association of Victoria

- Eleanor Williams
- Paula Giles

Metropolitan Transport Forum

- Susie Strain

Planning Institute of Australia

- Gavin Alford

Victorian Council of Social Services

- Kate Colvin
- Jess Fritze

Department of Infrastructure, Government of Victoria

- Jim Stevenson

### **Discussion: Issues and Ideas**

A wide range of issues and ideas were raised and a number of possibilities for GAMUT's interaction with the community were canvassed.

### *Research Themes and Priorities*

*[Some groups provided written statements; here we provide an overview of discussions]*

- Integration of transport planning and land use planning: the need for analytical work and a greater emphasis on addressing the fundamentals of integration, especially its implementation and the need to avoid 'pitfalls'
- Impact of the statutory planning system on assisting or hindering the delivery of desired accessibility and transport improvement
- Conflicting patterns of metropolitan growth – sprawl and congestion; the conflict between these two imperatives in metropolitan planning; analysis is needed of the different conflicting directions
- Changing transport needs and the ability of the transport and urban land form to respond
- Transport sustainability, especially the environmental impacts of transport systems, and the need to emphasize access over mobility, selecting the right mode for particular tasks, and balanced transport management
- Implementing and delivering improved transport networks
- Research outcomes need to be made accessible to practitioners (also in General discussion below)
- Urban transport planning and the disadvantaged
- Specific disadvantaged populations and the need for sustainable transport solutions for: new parents, indigenous communities, and older people
- The role of walking in sustainable transport

- Effects of carbon taxes or 'greenhouse pricing' on urban transport options and choices
- Influence of federal funding of transport and implications for sustainability
- Effects of different priorities of state and local governments
- Australia's car manufacturers and the persistence with 'large' cars in the face of rising fuel costs and environmental concerns
- The need for best practice examples
- Inner-city parking demands and the influence of retailers
- Potential for the extension of inner-city and CBD pedestrian areas and precincts
- Use of government purchasing of 'green' vehicles to bolster demand
- Need for great long-term planning
- Integrated transport planning requires greater investigation
- Need to create models of governance for sustainable transport
- Advice for local governments for using planning tools to promote sustainable transport
- Need for long term infrastructure planning
- Commonwealth/ state funding relationships important
- Large infrastructure funding arrangements are developed several years in advance and once established are difficult to change
- There are a set of national transport corridors
- Greater attention be given to the role and influence of the Australian Transport Council in shaping national transport policy and investment
- Council of Australian Governments' interest in transport reform

#### *General*

- Community groups could play a collaborative role in GAMUT projects. This could take a variety of forms, including the participation of community groups, consultation with property developers and retailers, 'shared' research projects between a number of groups, and the use of existing community groups as 'reference' groups
- Involving a wider array of community groups than are usually involved in transport and land use policy issues is a major challenge
- Local government has a particularly important role to play in land development but the connections with the state-based system of urban transport planning are very poorly developed; this needs to be addressed to promote improved local government and state government practices
- Concern over the failures of Melbourne's 20/20 and 2030 plans and concern over single-issue approaches to state transport policy
- Outcomes from the forthcoming Victorian state election could create a number of new opportunities for transport sector reform
- Privatisation will continue to be a major theme in transport policy and further research is needed into its implications
- Greater attention should be given to planning processes, such as those on-going activities to implement *Melbourne 2030*
- Application of tolls and their use needs to be more creatively considered
- GAMUT's website could be used as a means to promote communication with the community and provide materials that could be used by the community and policy makers
- GAMUT's concept of moving from model one to model two transport systems could be used as a theme for organizing activity amongst policy actors to promote change, to identify best practice, locate where best practices are occurring, consider how best practices might be applied more widely, make

progress where it is possible, and to collate and diffuse information to make this possible

- GAMUT should consider concentrating its activities in a few areas, specifically to influence transport policy development, to identify which set of policy tools are likely to be most effective in producing reform. This requires GAMUT to consider how best to assess its performance and its longer-term future, including the need for future funding
- Focused sessions with target groups could provide a valuable two-way exchange
- GAMUT should play a role in skill development in community groups, such as by providing specific courses as part of its training mission. For example, MAV have a relationship with RMIT; an alternative suggestion was the use of existing programs built between collaborating education institutions, such as used in WA
- Short-term projects (e.g., less than one year) involving local government officers are a means to involve local government
- 'Research translation officers' have proved a valuable resource for some research groups for making research findings accessible to wider audiences; GAMUT should consider such a position, perhaps on a part-time basis
- For reaching communities at the broader level there needs to be an emphasis on the direct and tangible benefits accruing to these communities
- Evidence should be provided of the available short-term benefits, but also of future benefits to the wider community, such as reducing fiscal burdens
- Community groups seeking to influence policy processes are constantly hampered by poor access to data; can GAMUT provide some solutions?

## **GAMUT PARTNERS MEETING and RESEARCH THEME MEETING DISCUSSIONS**

Discussions considered a range of immediate and longer-term issues, including strategic opportunities for 2007 with the ongoing goal of crystallizing the GAMUT strategy by producing research to produce changes in policy formulation and service delivery, education, and knowledge transfer, including the provision of information and knowledge to the broader community using publications, the media, and other approaches.

- GAMUT's objectives express a tension between the local where community life occurs and the global forces that drive the macro systems that influence nations and states and between the short and long terms; there are several dimensions to this issue
- Because GAMUT is located in Melbourne special efforts must be made to ensure that an international focus is maintained where this is appropriate
- Local community interests are parochial by definition but there is a need to add an international dimension to the policies to address these issues (such as climate change)
- Its important not to overlap and duplicate the efforts of established groups
- We need to discuss what the main focus and priorities of the center will be What is GAMUT? Carey identified a tension between being responsive to local issues and maintaining a local perspective
- There will always be a pull from community to deal with short term issues, but we have to remember that we have obligations to Volvo to achieve particular outcomes
- Why do we need a center? There are already other local organizations that deal with local issues. GAMUT's original scope was to be a bit more global. We need to scope our efforts
- We need to learn the lessons from the world. We should tackle global concerns
- What is a community forum in the NGO/Community context? We need to let community people in. We should maintain our global perspective, but use people to actualize the movement
- We need local examples to document where change has taken place. We are a research body, but we need to remain connected to local issues
- We need a global focus. We need to remain grounded. We need to do case studies that are informative and applicable in a broader context
- We need a regional focus (Asia-Pacific). We have to deal with the local issues in Melbourne. We do not want to claim ourselves as experts for cities located in less developed countries such as Africa and South America
- Our dialogue should take place in a regional context
- We have to assume that when looking for best practices we have to think globally and not pigeon hold ourselves to the Asia-Pacific region
- We have to stimulate a response from government
- GAMUT should be a local effort that deals with local transit issues. We need to think of comparisons at a conceptual level
- We need to keep a global focus in our work. We need to think about abrupt changes in policy to reflect what is happening in the physical world. We need to prepare scenarios for different rates of change. We should look at how communities deal with abrupt change

- It is important to look at trends in cities
- We need to consider different cultural and economical aspects between cities
- “Transport Regime” is an interesting phrase. This encapsulates the governance and management. GAMUT is about moving past technology and into regimes
- We can discuss best practice at our annual meeting. Best practice should be backed up / supported by our research
- We need to focus on processes that allow best practices to appear
- Best practices are fitted to circumstances
- It is important to define what the best practices are. In some instances, a technological issue may be all that is needed
- I don't think GAMUT's contribution is in providing a vision. We need to determine our niche. What we do locally might vaguely transfer to cities globally.
- Let's move into the sphere of implementation
- All of us will encounter examples we can share. We should use our website to share these encounters. We need to quantify the index of indicators and cities of best practice
- Our website should become a clearing house

#### *Model 2*

- We are in a path dependent world. Paths can get dissipated. We are facing a number of external shocks. What is the alternative path available? Model 2 is our alternative path!! How do we get there?
- If we can image Model 2, then figure out how one works back from that point
- Can we find a model for model 2. And what the different interpretations of Model 2 can be. How do we know if we achieve Model 2? Perhaps we should have a forum to discuss the features of a Model 2
- What constitutes success in Model 2?
- It is important to draw distinctions between Model 2 (the ideal form) and best practice of Model 2. We need to identify features of Model 2
- We need a ranking of world cities that are best practice. And best features for Model 2 in a ranking. We need a look at the multiple variables
- Model 2 really needs building up
- We can't spend the next 3 years discussing what Model 2 is. We need to agree now where we want to be and work backwards. We need to be innovative
- We need to establish a working definition of Model 2
- Leigh, Nick, Fujio and Pan volunteer to work on conceptualizing Model 2; they will discuss via email then send to the partners their outline

#### *2007 GAMUT Annual Meeting*

- Interest in meeting in Perth or Brisbane, but it could prove too expensive to be practicable, unless additional funding support could be obtained
- The next meeting should be a research assessment meeting
- There is value in having funding bodies, policy people and ourselves all present at the meeting
- VREF model could be used by GAMUT; i.e., a closed meeting on GAMUT research on the first day and an open conference on the second day
- Conference would require extra organizing and more lead time, so it would have to be scheduled closer to 2008