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Workshop 2 Report: Bus Rapid Transit

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SUMMARY

Workshop 2 examined critical success factors, operational enhancements, appropriate contractual and institutional settings and complementary policies of BRT systems, building off the discussion started two years before in Durban. Even though implementing a BRT corridor is almost always very challenging, the evidence shows that the BRT industry is quite lively and growing steadily in kilometres and daily ridership in all continents. The Workshop identified six cyclical stages for BRT implementation: policy, frameworks, strategy and planning for implementation of BRT, stakeholder outreach and process management, deployment and operationalization of BRT, and post-deployment assessment. The papers and discussion provided key examples and results in all of the six stages leading to eight key messages. These main points ranged from an optimism that BRT is spreading, but that BRT is not itself the objective; the need for innovation in not just operations, but regulatory, institutional, and participatory frameworks, which requires increased public and private capacities; and recognition of the differences between cities, particularly in the developing and developed world. The workshop identified policy recommendations and suggested some specific research topics for Thredbo 14.

1. Thematic overview

1.1. Introduction and scene setting

This paper reports on Workshop 2 of the 13th Thredbo Conference, held in Oxford during 16–20th September 2013. The workshop was dedicated to issues related to Bus Rapid Transit. The workshop consisted of presentations based on a set of pre-submitted papers (see reference section below), followed by discussions both about the individual papers and of broader issues arising. In total, 14 papers were submitted and presented to the workshop, along with one unscheduled presentation. A further two papers from the Plenary sessions have been included in the discussion and analysis. There were 25 participants in the workshop.

The pre-workshop description was as follows:

> "This workshop will provide an update on BRT systems around the world and considerations of related concepts such as Corridor Dedicated Transit. It will examine critical success factors, operational enhancements, appropriate contractual and institutional settings and complementary policies. It will also consider BRT as an agent of transformation of urban transportation, both of the services and of the transport operators, and the way BRT may evolve from existing operations. It will consider the adaptation of institutional and regulatory frameworks for BRT; or in many cases in developing countries where no adequate framework exists, establishment of a permanent or interim framework sufficient for BRT. Business models for BRT, including system financing, contractual arrangements, use of PPP, and allocation of risk, will be discussed. The impacts on and interaction with pre-existing transit operators, including paratransit, will be examined. Consideration will also be made of the users of BRT systems and how they may be better involved in system design."

1.2. Key findings from the Thredbo 12 Workshop on BRT

The Thredbo 12 Conference (Durban, 2011) was the first to have a workshop dedicated to BRT. Consequently, a significant part of the workshop dealt with 'what is BRT and what can it achieve?' as with 'what are the institutional, regulation, ownership and competition aspects of BRT?", how is it organised? Many of the papers and the discussion at that workshop dealt at least as much with transportation policy and with the design and operational dimensions of BRT as they did with the core Thredbo themes. Nevertheless, this

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was important for the Thredbo community to appreciate that BRT is significantly more than in improved bus services, both in its transportation characteristics and its organisational aspects.

This dual approach was reflected in the workshop findings, which were extensive. Some key findings are presented here for context and continuity:

- Cities urgently need mobility improvements, which must meet the need for door-to-door connectivity. BRT must be conceived as part of a multimodal mobility system.
- To effectively address mobility challenges using BRT, it is essential to understand the transportation needs and the policy objectives for BRT implementation.
- All dimensions should be considered – institutional, financial, operational, etc.
- Successful examples are vital as inspiration, but they need to be customized to the host environment rather than simply imitated.
- Context matters, implying constraints and opportunities to the process.
  •Desirable ingredients for success include the existence of national transit policy and guidelines, political leadership and support, a sufficient institutional framework and stakeholder buy-in.
- BRT transition and implementation may be difficult as many actors are involved.
- BRT has often been expected to solve many problems beyond the transportation task.
- The BRT concept is flexible and can be adapted to a wide variety of contexts.
  - Capacity can reach over 45,000 passengers per hour per direction (pphpd) by using passing lanes and large stations, although this is exceptional.
- Stations and intersections need to be properly engineered to increase capacity.
- Express services are crucial to improve capacity where high throughput is required. They also improve quality of the travel experience and reduce costs.
- Headway control is crucial in the performance in terms of waiting time, travel time, reliability and comfort. Weak control can require additional buses and resulting higher operating costs.
- Capital investment requirements for BRT are significantly lower than rail-based modes. They can also be phased and could be less vulnerable to funding issues than 'all or nothing' systems such as LRT.
- BRT is leaving its pioneering phase and needs some more formalization within both institutions and policies.

1.3. Core themes of the current Workshop

The findings and research recommendations of Thredbo 12 in 2011 were reviewed and deemed to still be relevant to the Workshop. It was noted that all of the core themes of Thredbo – competition, ownership, regulation, contracting, institutions and relationships – intersect around BRT. Indeed, especially in developing and emerging countries, BRT is often a stimulus of change in these domains. Thus, BRT needs to be viewed as more than a transportation mode, and as a powerful agent of transformation for urban transportation.

On that basis, a two-way overarching theme was proposed:

- What can BRT take from the Thredbo experience?
- What can BRT give to the Thredbo community?

1.4. Key reference materials on BRT

This paper does not deal with the design or operational aspects of BRT, except where they are relevant to the workshop strands. The interested reader is directed to the following resources, as examples of the growing sources of available information:

- BRT Centre of Excellence at www.brt.cl
- EMBARQ at www.embarq.org
- ITDP at www.itdp.org
- National BRT Institute at www.nbrti.org
- Buses with a high level of service (BHLS) at www.uitp-bhls.eu

2. Integration of the key themes of the presented papers

The workshop papers describe different phases of the lifecycle of BRT deployment:

- Policy development
- Frameworks
- Strategy and planning for implementation of BRT
- Stakeholders, outreach and process management
- Deployment and operationalization of BRT
- Post-deployment assessment

These phases are sequential, but they are also cyclical. In particular, post-deployment assessment provides essential feedback to policy-making, investment decisions, systems design, operational methods and stakeholder management strategies (Fig. 1).

The relevant issues emerging from the papers and presentations are presented in this section for each of the six strands. The broader issues and findings are then presented in the subsequent sections.

2.1. Policy

- Browning argues that individual modes (such as paratransit) should be upgraded while work is being done to implement integrated systems. This allows for service improvements while long-term projects are being carried out.
- Dantas demonstrates with the case of Brazil that policy and decision-making between modes can be influenced by investors, in particular new entrants from outside the transport sector are pushing PPP for rail projects and existing bus

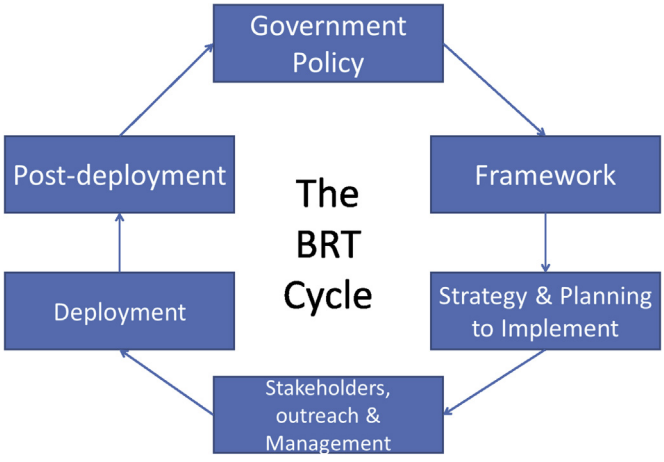

Fig. 1. The lifecycle of BRT deployment.