New network launched for urban bus systems

With over 160 versions in 23 countries operating or under construction, Bus Rapid Transit (BRT) systems have become one of the best options to improve urban transport. Nick Michell reveals how a new BRT network launched by C40 is helping cities exchange their mobility knowledge.

As well as reducing travel time and cutting road fatalities, BRT systems can lower CO₂ emissions by 40 percent.
BRT is one of the key opportunities to shift travel from individual vehicles to public transport, while fostering compact, mixed-use urban development in a cost effective way. More than 20 cities from C40 have expressed their interest in promoting BRTs through the network. Activities and discussions are open to everyone and others have more specific questions and topics of discussion. C40 has signed Memoranda of Understanding with the Institute for Transportation and Development Policy (ITDP) and EMBARQ, two of the leading non-governmental organisations that can be a way of promoting good quality BRTs, while also identifying below par systems, and help mayors and city officials understand what they need to do to achieve a top rated system. The partnership with EMBARQ is part of a broader collaboration with C40 Cities to which EMBARQ Hidalgo, Director for Research and Practice at EMBARQ. "EMBARQ helps speed up the planning process by tapping into expertise from our own network–70 countries and tens of cities–and this is valuable to C40 Cities' mayors that want to lead with high impact sustainable transport projects. In the operations phase, we will bring a set of best practices to improve and visualise the quality of service, safety, and social and environmental performance of BRT systems."

Knowledge exchange
Bus Rapid Transit has multiple economic, social, and environmental benefits and the new BRT Network will attempt to help cities maximise the impact of these benefits. In Bogota, Colombia, the BRT has reduced traffic fatalities by close to 90 percent and has saved 56 lives per year on average on the main corridor, not to mention cutting travel time in half and reducing the emission of air pollutants by 40 percent. The cost of the bus system in Bogota, a tenth of what the rail alternative would have cost, and it was planned and built in less than three years. C40 Cities adopting BRT can improve transport efficiency, cutting cost of travel and time by 30 to 50 percent and generating economic growth around bus stops and terminals. Greenhouse gas emissions can be cut by 40 percent and fatalities reduced by 25 to 40 percent, providing a healthier living environment for a city’s citizens. "Learning from experiences in other cities can cut planning time in half and contribute to reducing costs in the same way," says Holger Dalkmann, EMBARQ’s Director. "Cities involved in BRT networking can learn problem-solving approaches from other metropolises, such as: how to involve incumbent public transport operators; how to set-up managing agencies; or how to make the BRT safer through design."

In its initial stages, the network will facilitate the exchange of knowledge and experience between cities through email, online discussions and phone calls but the aim is to eventually organise physical meetings and conferences. Cities will be able to give and receive presentations from other cities across the world on their experiences with BRT systems. As the network develops, mayors and city officials will begin to interact on specific topics and discuss shared problems like station design, bus efficiency or how to build corridors in narrow streets.

"We have the goal of having physical meetings that will bring everyone involved in the network together, to connect faces with names and have more in-depth discussions that build on previous online dialogue," says Fingeret. "C40 will provide the link between cities, able to give and receive presentations from other cities across the world on their experiences with BRT systems. As the network develops, mayors and city officials will begin to interact on specific topics and discuss shared problems like station design, bus efficiency or how to build corridors in narrow streets."

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What makes a successful Bus Rapid Transit system?

The success of BRT systems depends on key features that guarantee its efficiency including:

• exclusive bus lanes or lane preference for public buses;
• faster loading and unloading through platforms at pavement level;
• a prepaid system for fares;
• modal integration at stations and terminals;
• ICT-driven control of operation and signalling;
• availability of user information.

"We have been working on the planning stages since last June, trying to understand what we would like to achieve, who would make the best partners, how a BRT network would make sense, and what we would ask cities to provide," says Fingeret. "The network is like a living creature, where at the beginning we are allowing everyone that has expressed interest to step in and out. As the network matures, you need to start to have more formal agreements between participants and have different categories of participant, where some on sustainable mobility. It has also conducted webinars on Clean Bus Technology and a BRT Standard, with both gaining significant attendance and follow up interchange between cities. The webinar on the BRT Standard, which was managed by the ITDP, brought 10 cities together to discuss the merits of having a rating system for BRT systems. The Standard would allow experts with knowledge of a specific corridor to put a figure on the quality of BRTs, with each able to achieve a gold, silver or bronze level (see graphic on page 51). It will be bringing expertise, connections and know-how, for example, in urban planning for sustainable cities, and health and road safety. For BRT, EMBARQ has on the ground expertise, through the organisation’s experience in supporting the planning and implementation of BRT projects in Ahmedabad, India; Guadalajara, Mexico; Istanbul, Turkey; Mexico City, and Rio de Janeiro, Brazil. "Our experience helps mayors maximise the benefits of BRT with assistance, both in the planning and in the operations phases," says Dario
BRT enables even low-income cities to develop a mass transit system of high quality that meets the daily travel needs of the population.

BRT requires political commitment, good planning, implementation teams, and adequate levels of funding, especially in the planning stages. As every city is different, and every corridor is unique within a given city, BRT designs need to be localised within the framework of experience from others.

“Since BRT is still relatively new, highlighting the benefits to decision-makers remains critical to broadening the base of interest,” says Dario Hidalgo, Director for Research and Practice at EMBARQ. “Through this new Network, successful experiences from EMBARQ Mexico and EMBARQ Türkiye, in Istanbul, can be shared with places where BRT is being considered and introduced, such as Bangalore, India and Santiago, Chile, so that these municipalities maximise the benefits through sound planning and operations.”

BRT systems are not only for transporting people but also represent one important element of measures to transform cities into more liveable spaces. Integrating BRT with progressive policies for land use, and measures to restrict car use are part of a strategy that underpins the creation of a sustainable urban environment. In this sense, BRT represents the cornerstone of efforts to improve the quality of life for all segments of society through improved mobility and to provide greater social equality.