

## INNOVATORS' CORNER SUMMARY

Thursday 27 May 2010

This special session provided an opportunity to discuss the potential of some striking transport innovations. Presentations were given from both inventors and researchers. Panellists included Juwan Yoo, a 17 year old Korean who developed the Seoul Bus iPhone application; Hossam Abdelgawad, Winner of the 2010 International Transport Forum's Young Researcher of the Year Award; and finalists of the International Transport Forum/International Association for Public Transport (UITP) Award for Outstanding Innovative Public Transport from Spain, India, and the United Kingdom. The Innovator's Corner was presented by Gerd-Axel Ahrens, Professor for Transport and Infrastructure Planning at Dresden University.

Young Egyptian **Hossam Abdelgawad** presented his award-winning research on "Managing Large-Scale Multimodal Emergency Evacuations", carried out at the University of Toronto in Canada and selected for the 2010 ITF Young Researcher Award from a total of 31 research papers entered. Abdelgawad set out his approach for developing a novel framework to optimise the evacuation of a large city in case of a dramatic event, be it a natural disaster or a terrorist attack. The evacuation model relies on multiple modes, including vehicular traffic, rapid transit and mass transit shuttle buses.

The model was applied to plan for a hypothetical evacuation of the City of Toronto. A first step involved designing a demand estimation model to accurately quantify the evacuation demand by mode (drivers vs. transit users). This reflected demand over time on Day One of the crisis, as well as over space, i.e. location. The output of this demand estimation model was then fed into two optimization platforms. The complete model shows that there is room for improvement in managing large-scale evacuations, as both waiting and transportation time can be reduced dramatically compared to a no-notice evacuation. The paper also illustrated the various political issues that such research can raise.

### Productive Partnerships

All three presentations of the winner and runners-up of the International Transport Forum/International Association for Public Transport (UITP) Award for Outstanding Innovative

Public Transport shared the common theme of illustrating the opportunities available to innovative partnerships to improve public transport services.

The network of interchanges for bus, metro and highways in **Madrid**, Spain; the Bus Rapid Transit programme in **Ahmedabad**, India, and Kent County Council's *Fastrack* project in the United Kingdom all involve the extensive participation of the private sector to increase the share of public transport and contribute to a more sustainable transport system. In this, all three projects excelled: In Ahmedabad, where low income areas were specifically targeted, a 95% increase in passengers transported was recorded within six months. Fare collection, cleaning of the facilities and parking zones all involve PPP partnerships.

At Ahmedabad's university, which has acted as the main consulting body, the success of the scheme has led to the creation of a Master degree in public transport planning which attracts a lot of interest - a show case for interaction between research and practical operations. In Madrid, concessions for a 35-year period were granted to operate interchanges. The focus of Madrid's Fastrack project is on the quality, convenience and reliability of the services offered in the framework of a partnership with multinational transportation provider Arriva. Forward-looking agreements have ensured funding from developers to finance some facilities.

### **iPhone App Battle**

The final presentation of the innovators' corner was given by **Juwan Yoo** from South Korea's capital, Seoul. Aged 17 Juwan has developed the "Seoul Bus" iPhone application, which trawls public transport web sites to provide updates of bus arrival times for all bus stops in Seoul and surrounding provinces. Juwan's vision was to facilitate the movement of public transport users by providing real time information which would allow them to opt for the quickest bus route. The success of the bus app was phenomenal. Within a few months, 88% of Seoul iPhone users were using the free and easy to use application.

Surprisingly, management of the public bus transport companies were not seduced; they attempted to block the application and demanded its removal from the Apple Store. Following an outcry from the user community, it is now available again. Thus, Juwan's invention illustrates the possibilities of innovation by outsiders as well as some of the institutional barriers and highlighted the sensitive issue of data sharing and ownership - topics extensively discussed in other sessions of the Forum.