

THE GLOBAL PUBLIC TRANSPORT  
**AWARDS**  
2015



ADVANCING  
PUBLIC  
TRANSPORT

With the participation of **Arthur D Little**

# Contents

Foreword	3
1. Introduction	4
2. The UITP Awards 2015	8
3. Public Transport Strategy Award	10
4. Customer Experience, Operational and Technical Excellence and Design Awards	16
5. Mobility Demand Management Award	30
6. Smart Financing and Business Model Award	34
7. Y4PT Youth Awards	39
8. Closing note by Arthur D. Little	40
9. Closing note by UITP	40
10. Thank you	41

# Foreword

The 2015 *UITP Awards Ceremony* closed organized on June 10 marked the end of the UITP World Congress and Exhibition in Milan.

During the Congress we have been updated on the latest trends, opportunities and challenges for the public transport sector. We know that there is a big need to supply sustainable mobility solutions to the ever increasing world urban areas and to those lower density areas that need new mobility models.

We know that the public transport market share in cities worldwide is on a positive trend in cities in developed countries and is facing challenges in cities in developing countries, where increasing mobility needs require sustainable mobility solutions.

On top of recognising the work of public transport companies that have participated in this edition of the *UITP Awards 2015*, the *UITP Awards* aim to inspire the public transport sector by highlighting innovative and successful ideas and projects implemented around the world.

With the support of Arthur D. Little, we recall in this report the three strategic directions for cities to better shape their future urban mobility and we present the *UITP Awards 2015* categories around the four dimensions that need to be addressed to put sustainable urban mobility systems in place: visionary strategy, mobility supply, mobility demand management and public transport financing.

You will also find in this report the result of the Youth for Public Transport (Y4PT) Award. What can be more strategic than addressing the young generation of public transport users and caring about the health benefits of investment in public transport?

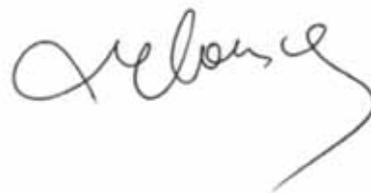
As in the two previous editions of the *UITP Awards*, this year we received an overwhelming answer with more than 200 excellent applications that could not be in all cases retained. The *UITP Awards* should remain exceptional and UITP will further work on this to be able to showcase every two years those ambitious and innovative projects implemented around the world that help the sector reach its ambitious objective of doubling its market share by 2025.

We wish you a nice reading,

Sir Peter Hendy CBE  
UITP President



Alain Flausch  
UITP Secretary General



# 1. Introduction

## 1.1. URBAN MOBILITY SYSTEMS ARE CHALLENGED AND NEED TO RE-INVENT THEMSELVES

The reform of urban mobility systems is one of the biggest challenges confronting policy makers today. This reform constitutes a key challenge for all stakeholders of urban mobility ecosystems, including public transport authorities, public transport operators, other mobility solutions providers and suppliers to the mobility industry.

The world's population is concentrating in ever-growing cities. 52% of the population currently lives in urban areas and by 2050 this number is expected to reach 67%. Today, 64% of all travel happens within urban environments and the total amount of urban person/kilometres travelled is expected to nearly triple by 2050 and a similar trend is expected in terms of urban goods distribution (see figure 1).

Meanwhile, mobility needs are evolving all over the world. People's travel habits are changing, as is the mix of transport modes and services offered to them. Indeed it is clear that, moving forward, transport providers will have to satisfy demand for services that are increasingly

convenient, fast and predictable. At the same time, consumers are becoming more concerned about the sustainability of their modes of travel, and its consequences on health. Some are even prepared to sacrifice individual forms of transport in furtherance of that cause, leading to the successful introduction and rapid penetration of new mobility services such as car sharing and bike sharing.

Thankfully, progress in improved public transport is already being made in many cities, but public financing constraints and system complexity remain a challenge. Addressing this requires coordinated efforts from many public and private transport stakeholders, and system innovation is the key<sup>1</sup>. At the same time, specialised players from other sectors – notably automotive OEMs, financial institutions/payment providers and internet businesses – are assessing opportunities to play a role in the extended mobility ecosystems of tomorrow. All this raises the question: what will the future business model(s) of urban mobility be?

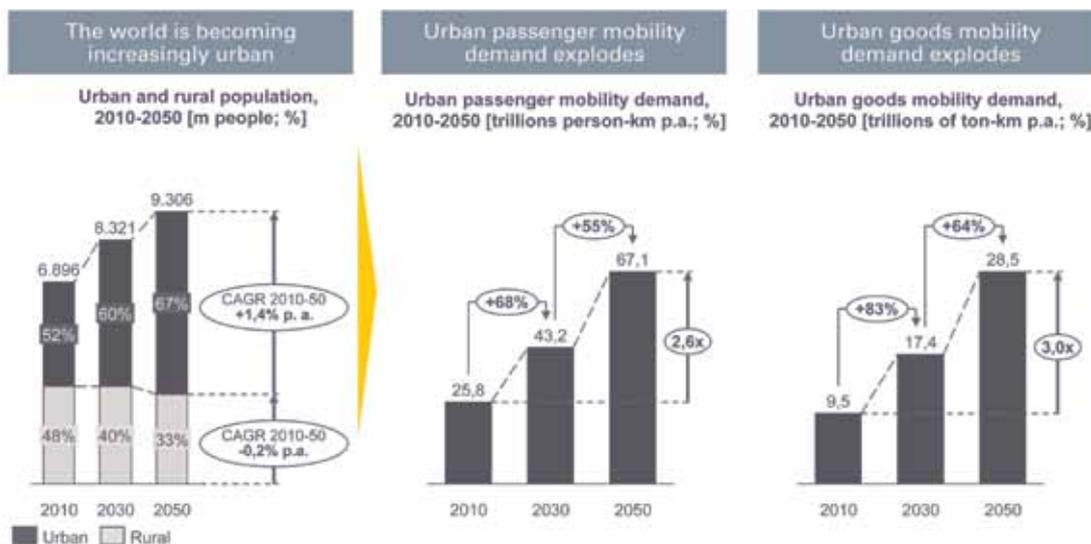


Figure 1. Source: UN, Worldbank, OECD, ITF, Schäfer/Victor 2000, Congrove/Cargett 2007, Schäfer 2007, Arthur D. Little

<sup>1</sup> UITP "Public Transport Trends – 2015", June 2015

## 1.2. PUBLIC TRANSPORT SECTOR STRATEGY PTx2<sup>1</sup> – WHERE DO WE STAND?

The “PTx2” public transport sector strategy of doubling the public transport market share worldwide by 2025 compared to 2005 was launched at the UITP Congress and Exhibition in Vienna in 2009. This ambitious strategy recognises the role public transport plays as the backbone of current and future urban and local mobility systems, boosting economic growth and sustainability in cities and regions, and provides guidance on how to successfully develop a sustainable mobility system based on public transport.

In 2011, public transport scenarios for 2025 were developed to measure the consequences of an evolution of the public transport in a business as usual scenario and in a PTx2 scenario, more favorable to public transport. The benefits of the PTx2 scenarios are numerous (ie for cities economies and customers health among others) and should not be forgotten<sup>2</sup>.

The doubling objective was an ambitious global target proposed by UITP to the sector and quickly accepted as the sector vision. This objective can only be reached in those cities in which a series of circumstances coincide (ie size and density of cities, lifestyles) and specific policies are developed (i.e. introduction of smart finance mechanisms or mobility demand management measures). Every city around the world is contributing to this global target and the *UITP Awards* are endorsing these efforts since 2011.

At this year’s Congress and Exhibition in Milan UITP made an assessment of where the public transport sector stands mid-way through the 2025 deadline<sup>3</sup>. This assessment has been made using 2012 data collected in 60 metropolitan areas located in both developed and developing countries.

After a period of erosion, public transport’s modal share is on a growing curve again particularly in developed economies (see figure 2), where urban sprawl tends to be slowing down. In developing and transition economies, urban mobility demand is pushed up by population and economic growth. Though public transport supply has nearly doubled compared to 1995 (see figure 3), the growth of mobility demand is such that puts transport

networks under pressure, requiring massive investments. The share of public transport tends to decline in those cities and car ownership explodes. Overall, public transport growth is the strongest where efforts to increase its supply are matched with private vehicle demand management and urban densification.

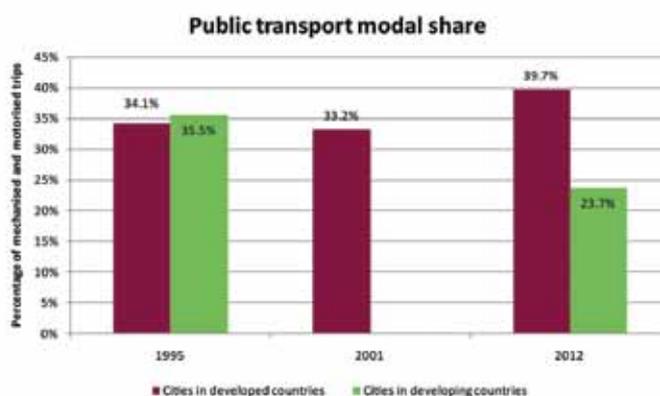


Figure 2. Average public transport modal share in 2012 – calculated as the share of daily trips by public transport out of the total number of motorised and mechanised trips – in 16 cities in developed countries and 4 cities in developing countries.

Source: UITP

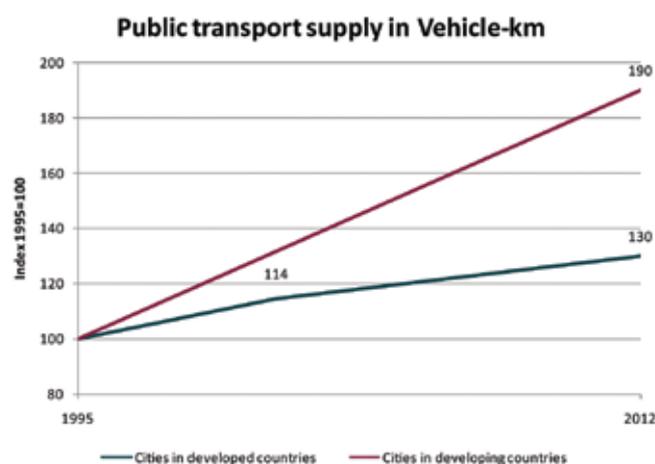


Figure 3. Average evolution of public transport supply between 1995 and 2012 in 21 cities in developed countries and 4 cities in developing countries.

Source: UITP

<sup>1</sup> “PTx2” is the name given to the public transport sector strategy as defined in 2009 by UITP. PTx2 specifically refers to the public transport sector objective of doubling the public transport market share worldwide by 2025, [www.uitp.org/strategy-public-transport](http://www.uitp.org/strategy-public-transport)

<sup>2</sup> UITP “Urban mobility scenarios 2025”, May 2011 <http://growpublictransport.org/the-campaign/urban-mobility-scenarios-by-2025/>

<sup>3</sup> UITP “Mobility in Cities Database”, June 2015

### 1.3. STRATEGIC DIRECTIONS FOR CITIES AND SYSTEM-LEVEL FRAMEWORK FOR SUSTAINABLE URBAN MOBILITY SYSTEMS

In the “Future of Urban Mobility 2.0”<sup>1</sup> (FUM 2.0) report published in 2014, the UITP, together with Arthur D. Little identified three strategic directions for cities to better shape the future of urban mobility, depending on their maturity and the share of sustainable transport in the modal split:

- **Establish Sustainable Core:** For cities in emerging countries with partly underdeveloped mobility systems, the aim must be to establish a sustainable mobility core that can satisfy short term demand at a reasonable cost without replicating mistakes from developed countries. With access to emerging transport infrastructure and technologies, these cities have the opportunity to become the test-bed and breeding ground for tomorrow’s urban mobility systems.
- **Rethink the System:** Cities in mature countries with a high proportion of motorised individual transport need to shape political agendas to fundamentally redesign their mobility systems so that they become more orientated towards public transport and sustainability.
- **Network the System:** For mature cities with a high share of sustainable transport modes, the next step must be to fully integrate the travel value chain to foster seamless, multimodal mobility while ensuring “one face to the customer” and to increase the overall attractiveness of public transport by extending services.

Tomorrow’s superior mobility systems will require a network of interconnected mobility solutions with “one face to the customer”. In order to achieve this, public transport authorities and operators will need to open their minds and take a much more holistic view of public transport than they have done up to now. They will need to work closely with each other and set up ecosystems with other players in order to deliver innovative mobility solutions.

Our research into good practices around the world’s cities showed that four key dimensions need to be addressed to put sustainable urban mobility systems in place (see figure 4) and these dimensions have inspired the *UITP Awards 2015* categories:

- **Visionary Strategy and Ecosystem:** Firstly, city authorities need to develop a political vision and clear urban mobility objectives in order to inform strategic priorities and investments. This needs to ensure the right balance between stretch and achievability, and needs to be integrated with other urban policies, such as land planning, economic development, environmental and social policies and housing. Transport authorities also need to consult, engage and win support from other mobility stakeholders to ensure broad backing from all parties involved.

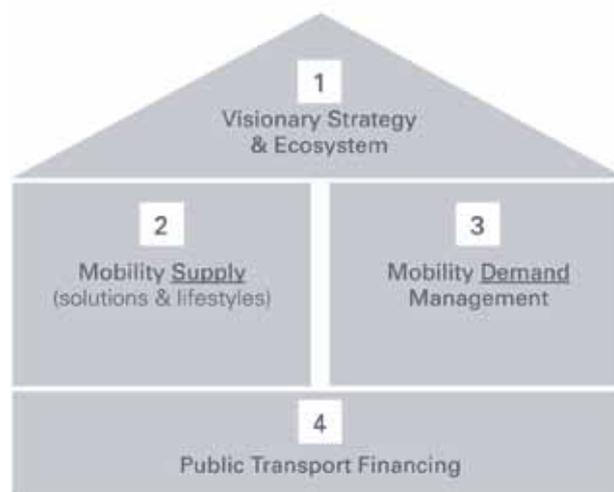


Figure 4.  
Source: Arthur D. Little & UITP FUM 2.0

<sup>1</sup> Arthur D. Little and UITP, « The Future of Urban Mobility 2.0 – Imperatives to shape extended mobility ecosystem of tomorrow », January 2014

- **Mobility Supply (solutions and lifestyles):** Secondly, cities need to further extend their mobility offerings, both in terms of capacity and quality of services, and adapt from “delivering transport” to “delivering solutions”. At the same time they must improve the quality of the customer experience and extend service offerings through partnerships and alliances with third parties.
- **Mobility Demand Management:** Thirdly, the demand for mobility needs to be actively managed. Mobility demand management is a delicate discipline, which can easily meet strong resistance if not properly planned and executed. However, a range of measures exists which have already derived clear benefits such as pricing, communications, spatial or schedule restrictions and incentives, land-use policies and many more.
- **Public Transport Financing:** Fourthly, devising the right funding mix is a critical priority, and securing adequate funding in a context of budgetary pressure means thinking outside the box. As well as direct subsidies and fares, transport authorities and operators need to assess opportunities to derive additional revenues from aggregation of third party services and from indirect beneficiaries of public transport.

Together with Arthur D. Little, the UITP identified 25 specific imperatives across these four areas. These must be carefully assessed by cities as a basis for setting up sustainable urban mobility strategies<sup>1</sup>. If an urban mobility policy based on implementing the above four dimensions is to succeed in achieving its aims, it is vital that all four dimensions are improved simultaneously, as the overall results will be influenced by the performance of the weakest link.

<sup>1</sup> Arthur D. Little and UITP, « The Future of Urban Mobility 2.0 – Imperatives to shape extended mobility ecosystem of tomorrow », January 2014

# 2. The UITP Awards 2015

## 2.1. THE UITP AWARDS

The *UITP Awards* acknowledge urban- and local-level sustainable mobility projects that are contributing to the “PTx2” public transport sector strategy of doubling the public transport market share worldwide by 2025<sup>2</sup>. This strategy recognises the role public transport plays as the backbone of current and future urban and local mobility systems, boosting economic growth and sustainability in cities and regions, and provides guidance on how to successfully develop a sustainable mobility system based on public transport. UITP members are committed to this strategy and are implementing ambitious and successful projects. In order to share best practices and motivate public transport actors and stakeholders all around the world, in 2011 and 2013 UITP rewarded projects contributing to this strategy.

The aim of the 2015 edition of the *UITP Awards* is to reward ambitious and innovative projects carried out in

the last two years in cities and regions around the world. The call for application to the *UITP Awards 2015* was opened to all companies and organisations with a stake in the mobility chain, including: national, regional and local governments and authorities, operators of all transport modes, industry and service suppliers, investors, academia and researchers, associations and NGOs.

The categories for the 2015 edition of the *UITP Awards* were set out to reward **ambitious and innovative practices** in the following awards categories, contributing to the 4 dimensions of the system-level framework for sustainable mobility:

- **Public Transport Strategy Award:** Rewarding visionary leadership and implemented projects, in a given city or region, that have contributed to the public transport sector strategy objective of doubling its market share worldwide by 2025.

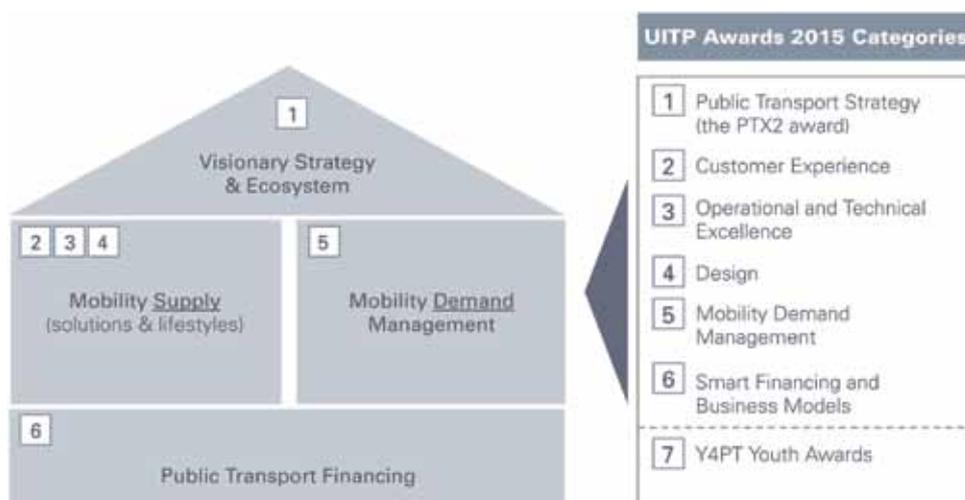


Figure 5.  
Source: Arthur D. Little & UITP FUM 2.0

<sup>1</sup> PTx2 is the name given to the public transport sector strategy as defined in 2009 [www.uitp.org/strategy-public-transport](http://www.uitp.org/strategy-public-transport)

- **Customer Experience Award:** Rewarding ambitious and innovative projects that place the **customer at the heart** of the public transport system, provide an integrated and first-class offer of mobility services and/or deliver **alternative sustainable mobility options**;
- **Operational and Technical Excellence Award:** Rewarding excellence in **public transport system operations** and/or in the **technologies deployed**. This could be demonstrated in a variety of ways (including through: the introduction of new technologies or modes, major refurbishment of existing systems and infrastructure, construction methods that minimise disturbance and disruption, the improvement of service delivery processes), ultimately leading to increased staff and customer satisfaction.
- **Design Award:** Rewarding companies leading ambitious and innovative design management processes resulting in projects or products (architecture, graphics, industrial design, technical infrastructure, rolling stock, etc.) that will make public transport more attractive, hence improving customer experience and enhancing customer loyalty.
- **Mobility Demand Management Award:** Rewarding projects encouraging **durable changes in mobility behaviour**, between others, traffic calming, access restriction, dynamic pricing, parking policy and land-use measures.
- **Smart Financing and Business Models Award:** Rewarding ambitious and innovative approach to capital projects and traditional business models. Relevant approaches could involve implementing new funding and financing instruments, adapting governance frameworks to implement new solutions, launching new services or opening up new opportunities to finance public transport in a city or region.

In addition, the UITP and the Y4PT Foundation<sup>1</sup> are rewarding this year **public transport projects that are contributing to a healthier society**. These projects are required to be carried out by and/or address and are of benefit to young citizens whilst striving to deliver a better public transport offer and contribute directly or indirectly to better health for society.

## 2.2. THE SELECTION PROCESS AND EVALUATION CRITERIA

UITP got an overwhelming response to the call for applications of the *UITP Awards 2015* with over 200 submissions distributed in six award categories and a special Y4PT<sup>1</sup> award. The applications coming from more than forty countries around the world were evaluated by a panel of twenty international transport experts that agreed on a list of twenty-five finalists and finally, on six winners.

To be eligible for the *UITP Awards*, projects had to be carried out in the two-year period since the last UITP World Congress (from May 2013 to June 2015).

The main criteria considered to select the finalists were:

- General criteria applicable to all award categories like the project's innovative features. Multi-partner projects, replicability and stakeholder engagement have been also positively evaluated.
- Specific criteria for each award category to evaluate the project contribution to the PTx2 objective.

Projects submitted under different award categories had to answer to several specific questions (i.e. is there a long-term strategy for public transport in your city/region? Or, to what extent is your project influential in creating higher customer satisfaction?). These specific questions and criteria were drafted considering the four dimensions of the system-level framework for sustainable mobility. This helped to choose an excellent project in its domain, embedded at the same time in a well-thought and complete public transport system.

UITP proposed to select four finalists per award category except in the "Public Transport Strategy" where six projects were retained, because of the relevance of the projects under this category for the future of public transport worldwide. The selection of the finalists and winners was especially challenging in the two categories where the highest number of applications were received: "Customer Experience" and "Operational and Technical Excellence".

<sup>1</sup> Youth for Public Transport Foundation, [www.y4pt.org](http://www.y4pt.org)



# 3. Public Transport Strategy Award

## 3.1 FIRST DIMENSION OF SUSTAINABLE URBAN MOBILITY SYSTEMS: VISIONARY STRATEGY AND ECOSYSTEM

Establishing sustainable urban mobility policies requires cities to develop a political vision and a set of urban mobility objectives based on a strategic alignment between all key public and private stakeholders of the mobility ecosystem. This should forge a visionary urban mobility strategy, in which priorities – and the investments required to achieve them – are identified; in a way that strikes the right balance between stretch and achievability and that is integrated with other urban policies, such as land planning, economic development, environmental and social policies, and housing.

Successful urban mobility visions and strategies typically encompassed the following key success factors (see figure 6)<sup>1</sup>:



Figure 6.

- **Shared vision through multi-stakeholders engagement:** Delivering successful urban mobility vision and strategies requires politicians to make effective decisions based on a shared and consistent vision of the city/region. This vision connects economic, environmental, health and social cohesion policies with transport. In addition to getting all the

relevant stakeholders involved, a good vision should capture the imagination of the public by addressing them in plain and simple language. It must also carry a sense of urgency if it is to create momentum in building and sustaining commitment to the city’s overall objectives.

- **Long-term political vision:** The delivery of an urban mobility strategy is a long-term commitment which will develop and change as the city/region evolves over time. The commitment to the vision must therefore be long-term and requires consistent, long-term political commitment that will guide decisions now and in the future.
- **Integrated urban management approach:** The provision of an efficient urban mobility system cannot take place in a vacuum. When planning improvements to the transport system, it is vital to ensure co-ordination among as wide a range of stakeholders as possible, including bodies responsible for land-use planning, energy and environmental planning, social policy, etc. Only by ensuring the buy-in and commitment of, not only the transport sector but other important stakeholders – such as land-use planning and economic development stakeholders – will the urban mobility strategy be able to deliver its full range of potential benefits.
- **Stable regulatory framework and effective governance structure:** A stable regulatory framework is a pre-requisite for strategic planning. In such a context it is essential to have an effective governance structure in place along with a successful institutional approach to coordinating transport. It is also crucial to ensure that transparent rules are developed to allocate roles among the system’s stakeholders, with risks and responsibilities clearly split between authorities, operators, as well as private actors and associations alike.

<sup>1</sup> See Arthur D. Little and UITP, “The Future of Urban Mobility 2.0 – Imperatives to shape extended mobility ecosystem of tomorrow”, January 2014; and UITP, “Action points for public transport, Connecting people and places: Integrated mobility plans for sustainable cities”, April 2014.



### 3.2. RESULTS OF UITP AWARDS 2015 CATEGORY “PUBLIC TRANSPORT STRATEGY AWARD”

As part of the 2015 edition of the *UITP Awards*, the **Public Transport Strategy Award** is rewarding visionary leadership and implemented projects, in a given city or region, that have contributed to the public transport sector strategy objective of doubling its market share worldwide by 2025.

Many types of initiatives can match these definitions and this is reflected in the diversity of the - over forty - applications received for this category. The applications illustrate the various strategic directions for cities and system-level frameworks for sustainable urban mobility systems identified in FUM 2.0. They include ambitious projects to establish a sustainable core public transport network in emerging countries, with several ambitious plans for new services and infrastructures such as BRT or metro lines. They also include comprehensive integrated mobility plans to support the development of this core network or, where it already exists, to allow the rethinking of the system. Finally, several of the applications received highlighted strategies relying upon the integration of new services or technologies enabling the integration of the urban mobility system. These strategies range from innovative solutions for feeder lines, to information and communication technologies (ICT) for integrated mobility services and electromobility.

The list of finalists is representative of this diversity.

The *City of Ahmedabad* project “**Janmarg – Accessible Ahmedabad**” in India offers an excellent example of the development of a vision for a sustainable urban transport system with an inclusive integrated mobility plan. This plan foresees the deployment of public transport as the backbone of the mobility system.

*BKK*, the transport authority of Budapest, Hungary – which was one of the first cities in the world to build a strong public transport network, with the first metro on continental Europe – has been selected as a finalist for its truly integrated mobility plan, “**The Balázs Mór Plan**”, which paves the way for a sustainable and integrated urban mobility system.

The jury also wished to distinguish *Transport for London* (TfL) in the UK for its “**World’s first transport health action plan**”. With this plan, TfL further integrates transport policy in the urban agenda, demonstrating how it contributes to better health and emphasising the importance of the health dimension of urban transport for an integrated urban management approach.

The jury was impressed by the development of the “**Madinah Public Transportation Programme**” submitted by the *Madinah Development Authority* in Madinah, Saudi Arabia. This programme builds a core multimodal public transport network to improve the way people move in the city and establishes public transport as the reference mode of transport.

The “**Mile 12 – Ikorodu BRT Extension**” project submitted by the *Lagos Metropolitan Area Transport Authority* (LAMATA) in Nigeria, is another illustration of major efforts towards building a public transport network in a world region, which is well positioned to make a major contribution to achieving the PTx2 goal.

Finally, with its ability to complete a core public transport network in a city facing tremendous challenges and opportunities in the emerging world, the project “**Reshaping mobility demand in Rio with a BRT network**” by *FETRANSPOR*<sup>1</sup>, Rio de Janeiro, Brazil, receives the award. The completion of two BRT lines by 2014 and a 157 km BRT network by 2016 is a major achievement. It is relying upon a long-term strategy which will allow the city to answer the challenge of a growing demography and economy in the years to come; as well as the provision of transport services for large events such as the 2016 Olympic Games. This achievement results from strong and reliable partnerships between local actors. It is important to note the efforts for the continuous improvements of the quality of service and operations, the design and attractiveness of the components of the systems, and the integration of the services to the customers.

<sup>1</sup> Federação das Empresas de Transportes de Passageiros do Estado do Rio de Janeiro.



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## Reshaping mobility demand in Rio with a BRT Network

**LEAD PARTNER:** FEDERACAO DAS EMPRESAS DE TRANSPORTES DE PASSAGEIROS DO ESTADO DO RIO DE JANEIRO (joint application with RIO ONIBUS and CONSORCIO BRT-RIO)

**CITY/COUNTRY:** Rio de Janeiro, Brazil

### OBJECTIVE:

The project aims to improve the BRT system reliability and consolidate it as a high capacity public transportation system, providing safer conditions and thus enabling the demand to double in Rio's public transportation by 2025.

### DESCRIPTION:

The project consists of an integrated public transportation system in which the BRT network is the backbone in order to achieve the goal of doubling the public transportation demand by 2025. This project relies on service reliability, user information and operation safety.

There will be four BRT corridors by 2016, constituting an entirely integrated 157 km network connected with other public transport modes in Rio (metro, train, ferry, feeder lines and the conventional bus system). As part of the process, in 2014, the second corridor was inaugurated. Completion of the project can affect travel behaviour of 12 million inhabitants of the metropolitan area.

### HIGHLIGHTS:

There are several innovations in comparison to the previous conventional system. Vehicle related: Euro V Emission Pattern, board computer, automatic transmission, pneumatic suspension with air pockets, GPS monitoring and sound notice service for bus stops, infrastructure related: integrated network of corridors and bus lines, physical

integration between axial lines and feeder services, urbanisation and equity of public space near the BRT system, operation related: quick boarding and exit and at level, flexible services, Operational Control Centre, real time information and internal circuit of online cameras inside the vehicles, stations and terminals.

Rio de Janeiro has used the Football World Cup 2014 and Olympic 2016 as an exceptional opportunity to push forward the process of implementing these projects. Four BRT corridors will be operating by 2016, fully integrated with the other transportation modes such as metro, Super via (metropolitan trains) and the bus system itself - already on course through fare integration, and in the near future also with ferries (Barcas).

Facilitating use of walking, as a matching mode with BRT and also bicycle parking facilities in stations are features that can promote integration of the system.

There have also been some achievements in improving the safety of the system and the results of the surveys indicate 77% progress in million kilometres travelled and 92% in per million passengers regarding safety.

In addition to all mentioned so far, using natural lighting has resulted in declining energy consumption.

### IN SHORT:

Creating such a massive public transport system within a reasonable time is a competent response to people's increasing need for a reliable public transport system.

### FURTHER INFORMATION:

Please visit <http://www.fetranspor.com.br> or <http://www.brtrio.com> or contact [mobilidade@fetranspor.com.br](mailto:mobilidade@fetranspor.com.br) for further information.



## Janmarg – Accessible Ahmedabad

**LEAD PARTNERS:** AHMEDABAD MUNICIPAL CORPORATION (AMC) (joint application with Ahmedabad Janmarg Limited (AJL) Ahmedabad Urban Development Authority (AUDA), Centre of Excellence in Urban Transport, CEPT University Ahmedabad)

**PARTNERS:** Greater Urban Development Authority (GUDA)

**CITY/COUNTRY:** Ahmedabad, India

### OBJECTIVE:

“Integrate city structure and transport system towards greater accessibility, efficient mobility and lower carbon future”

The ‘Trans-vision’ of Ahmedabad captioned as ‘Accessible Ahmedabad’ is to redesign the city structure and transport system towards greater accessibility, efficient mobility and lower carbon future.

The vision for the city is:

- To reduce need for travel: Land use densification
- To reduce the length of travel: Promote Compact Cities
- To reduce automobile dependence: Enhance the quality of Public transit

Janmarg aims to transform Ahmedabad into a world class city. The main purpose of this project is to provide high capacity and bus based public transit service. Through this project, the city has been planning for sustainable transport future with a target of increasing PT share by 40 % and above.

### DESCRIPTION:

Janmarg, BRTS in Ahmedabad consists of several components designed to function together so as to generate superior services, which are comparable with other world class mass rapid transit systems. The proposal identifies various levels of integration as physical, fare, information, schedule and institutional. As a significant component of the project, the measures have been considered as providing increased coverage, high quality bus infrastructure and improved service levels. They also concentrate on increasing comfort and reducing waiting time for their PT system.

### HIGHLIGHTS:

Project focuses on a vision of “Accessible Ahmedabad”. The project identifies accessibility not only in terms of PT coverage but also in terms of creating possibility of access to lower income citizens by providing affordable integrated commuting alternatives. Stations have been provided for ticketing, display, audio systems and other support infrastructure.

### FURTHER INFORMATION:

Ms. D. Thara, IAS Municipal Commissioner, Ahmedabad Municipal Corporation, Sardar Patel Bhavan, Danapith, Ahmedabad-380001 Email: [janmarg.ajl@gmail.com](mailto:janmarg.ajl@gmail.com)  
Website: [www.ahmedabadbrts.org](http://www.ahmedabadbrts.org) [www.egovamc.com](http://www.egovamc.com)  
[www.asiabrt.org](http://www.asiabrt.org), [www.cept.ac.in](http://www.cept.ac.in)

## The Balazs Mor Plan (BMT) – The Budapest Transport Development Strategy 2014-2030

**LEAD PARTNER:** BKK ZRT. (BKK Budapest Center for Budapest Transport)

**CITY/COUNTRY:** Budapest, Hungary

### OBJECTIVE:

Balázs Mór Plan (BMT) is the long-term sustainable urban mobility plan of Budapest, which provides a sound background for transport related development until 2020. The main objective of the BMT is to make substantial changes in the modal split aiming at a rising share of public transport together with walking and cycling.

### DESCRIPTION:

BMT was prepared in the spirit of SUMP methodology with large-scale public involvement. Relying on international best practice, BMT seeks to create a sustainable transportation system in the Budapest region. BMT puts people living in urban areas and their environment into the centre of planning.

### HIGHLIGHTS:

BMT adopts the vision of Budapest 2020-30 Urban Development Concept, creating a clear link between urban and transportation planning, and is in fact an outcome of reconsidering the entire strategic planning process. The key concept of BMT is integration, fulfilled mainly in three areas: integration between urban and transport development, integration between the development and operational tools of the various transport modes and integration of local, regional and national mobility systems.

### FURTHER INFORMATION:

For further information, please visit [www.bkk.hu/bmt/docs/BMT\\_en.pdf](http://www.bkk.hu/bmt/docs/BMT_en.pdf) or contact Mr. László Sándor Kerényi at [laszlo.kerenyi@bkk.hu](mailto:laszlo.kerenyi@bkk.hu).



## Mile 12 \_ Ikorodu BRT Extension

**LEAD PARTNER:** LAGOS METROPOLITAN AREA TRANSPORT AUTHORITY (LAMATA)

**PARTNERS:** World Bank, Ministry of Physical Planning and Urban Development, Ministry of Environment, Ministry of Economic Planning and Budget, Lagos State Traffic Management Authority, Lagos State Task Force

**CITY/COUNTRY:** Lagos, Nigeria

### OBJECTIVE:

To provide a high-quality, low-cost public transportation system operating on specialised infrastructure with adequate incentives to offer affordable mobility, sustainable urban environment and better quality of life to urban population, especially the poor.

### DESCRIPTION:

The BRT extension from Mile 12 – Ikorodu Town is a 13.5 km median lane operation with restricted access to bus stations, using pedestrian bridges and walkways. It is designed to transport an estimated 500,000 passengers daily using 434 high occupancy buses with 2 minutes headway frequencies.

### HIGHLIGHTS:

The operator will be private sector led without government subsidy (which is a new achievement). It will run with the use of Intelligent Transport System (ITS), an electronic fare collection system, an Adaptive Traffic Signal system with inductive loop detectors to give priority to BRT Buses; Automatic Vehicle Location System; Real Time Pax Information System and use of eco-friendly air-conditioned buses.

### FURTHER INFORMATION:

For further information visit [www.lamata-ng.com](http://www.lamata-ng.com); or send mail to [info@lamata-ng.com](mailto:info@lamata-ng.com)

## Madinah Public Transportation Program, MPTP

**LEAD PARTNER:** MADINAH DEVELOPMENT AUTHORITY, MMDA

**PARTNERS:** UITP, CH2M, Loius Berger, Systra/EGIS, some well-known international consultants

**CITY/COUNTRY:** Madinah, Saudi Arabia

### OBJECTIVE:

The ultimate objective of the program is to prepare an integrated state-of-the-art comprehensive public transport system that provides world-class service to the inhabitants of the City of Madina and the millions of annual visitors and pilgrims.

### DESCRIPTION:

MPTP includes: 3 metro lines (100 km, 70 stations, a fleet of 520 cars) to carry 89,000 pphpd; the bus system including 2 BRT lines, 11 express and feeder bus lines and 500 buses. The highway element of the program includes major improvements and new construction of interchanges and hundreds of kilometres of roads.

### HIGHLIGHTS:

The project's main innovative features are: integration of the planning, design, construction, and operation of metro, bus and road systems and adoption of latest ITS/ ICT systems.

MPTP is part of a national strategy adopted by the Saudi government aimed at changing the current auto-based urban mobility and encouraging the use of public transport. The mandate required that MPTP be completed within eight years of the start of construction.

### FURTHER INFORMATION:

Website: [www.mda.gov.sa](http://www.mda.gov.sa)

e-mail: [s\\_metwali@yahoo.com](mailto:s_metwali@yahoo.com)



# World's first transport health action plan

**LEAD PARTNER:** TRANSPORT FOR LONDON

**PARTNERS:** Public health sector organisations

**CITY/COUNTRY:** London, UK

## OBJECTIVE:

This plan uses health evidence to change the company's internal processes to deliver better outcomes for the customers and leverage funding/support from the health sector.

## DESCRIPTION:

London, like many cities, is facing a public health crisis: an urgent need to increase physical activity levels and to meet the needs of a baby boom and an ageing population. This action plan embeds these health factors into TfL transport strategy through 10 new actions for using health mechanisms to influence policy and make the case for PT investment.

## HIGHLIGHTS:

TfL is unique in directly employing a Public Health Specialist to engage with health sector stakeholders in a new way to support TfL's investment in public transport provision. Medical evidence is used to demonstrate how TfL is improving health through its investments and planning of public transport.

The 'Healthy Street' framework is used successfully at a strategic level to engage stakeholders in delivering a shared vision and also at an operational level to enable TfL to assess its policies and projects and identify areas for investment.

## FURTHER INFORMATION:

For further information, please visit [www.tfl.gov.uk](http://www.tfl.gov.uk) or contact [lucysaunders@tfl.gov.uk](mailto:lucysaunders@tfl.gov.uk) or visit.



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# 4. Customer Experience, Operational and Technical Excellence and Design Awards

## 4.1. SECOND DIMENSION OF SUSTAINABLE URBAN MOBILITY SYSTEMS: MOBILITY SUPPLY (SOLUTIONS AND LIFESTYLE)

Responding to increasing demand for urban mobility and to consumer and business needs for seamless, multi-modal urban mobility requires cities to extend their public transport offering (the “supply side of mobility”) and to adapt it from “delivering transport” to “delivering solutions”.

At the same time they must improve the quality of the customer experience and extend their service offerings to respond to evolving mobility needs. In this service-conscious age, mobility solution providers need to evolve towards a more customer-focused culture and improve public transport attractiveness so that all market segments are willing to use it. This evolution should be achieved by putting the interests of the customer at the heart of decision-making, which will lead to quality enhancement of service offering characteristics<sup>1</sup>, such as:

- Improving quality and reliability of the core service offering characteristics – for example punctuality, safety and security (and the perception thereof) - and additional transport services.
- Improving the service provision that includes the quality of the information, the ease of accessibility and use of the service (commercial aspects). It includes improving quality of information, for instance, through the introduction of Digital Multi-modal Mobility Assistants with online booking and real-time travel information, to achieve seamless travel across the various public and private transport modes.

- Improving the customer service relation to satisfy the individual needs and personal recognition expectations.
- Building a superior customer experience by eliminating major drivers of customer dissatisfaction, ensuring a consistent approach towards passengers across the whole journey, and exceeding expectations at selected touch points to create the moments of truth that turn customers into fans.

Building this service excellence culture requires the operators to build a culture of staff commitment by engaging people with their hearts and minds. Service excellence to be sustained and permeate to all parts of the organisation, has to be ingrained as part of the culture and “DNA” of the organisation and its people. This also has implications for the organisation and development of a common approach and a new way of seeing things, empowering people in finding solutions and creating a virtuous cycle of continuous improvement.

<sup>1</sup> UITP “Vademecum on Total Quality Management”, 2003



## 4.2. UITP AWARDS 2015 CATEGORIES BELONGING TO THE “MOBILITY SUPPLY” DIMENSION

As part of the 2015 edition of the *UITP awards*, three awards categories belong to the “mobility supply” dimensions of the system-level framework for sustainable mobility:

- The **Customer Experience Award**
- The **Operational and Technical Excellence Award**
- Finally, the **Design Award**.

In all three cases, the final objective is to improve the customer experience.

Building superior customer experience is of critical importance for mobility solutions providers as it allows to progressively turn customers into fans, thereby leading to long lasting relationships. This explains the focus on this particular topic for this edition of the *UITP Awards*.

Public transport operators that have excelled in progressively building a superior customer experience have approached such programs in three steps:

- Eliminate major drivers of customer dissatisfaction by ensuring the provision of services that are meeting industry standards along the customer journey
- Ensure a consistent approach towards passengers along the whole journey, thereby reinforcing company brand value across all touch points

- Exceed passenger expectations at selected touch points to create moments of memory and a “wow effect”

Enhancing service-offering quality and improving customer experience, while getting costs under control, requires transport operators to prioritise their actions and make the required trade-offs according to their expected impact. Improvement can be achieved through implementation of a combination of levers of different natures. As illustrated on figure 7, levers to enhance customer experience in urban transport will typically involve improvement to the core PT offering to reduce dissatisfaction, introduction of value-added services and strengthening of customers’ relations; many of which made possible through rapid evolution of technology and particularly of the digital revolution.

Within each of those areas, the key to success is the ability to select the right combination of levers while keeping costs under control. The most effective levers for enhancing customer experience do not always need to be the most expensive. Alongside hard measures (mostly infrastructure-related involving high capital expenditure) and measures related to the introduction of new technologies, the role of management measures (e.g. adapting processes towards increased customer centricity) as well as soft measures (e.g. training to improve field communication) should not be underestimated.



Figure 7.  
Source: Arthur D. Little



### 4.3. RESULTS OF UITP AWARDS 2015 CATEGORY “CUSTOMER EXPERIENCE AWARD”

This category covers projects that place the customer at the heart of the public transport system and contribute to an integrated and first class offer of mobility services or alternative sustainable options. Out of more than 60 submissions in this category, we could classify the projects in 4 categories:

1. Management of company culture and customer focus
2. Marketing actions / special targeted services
3. Infrastructure and mobility offer
4. Information / integration

The submitted projects cover all domains of the customer-oriented strategy illustrated in figure 7.

In this regard the finalists are the spearheads of the public transport sector.

*ARRIVA* in the UK, developed the project “**Sapphire: Making your every day journey sparkle**” which has delivered impressive results in attracting new customers previously not using the bus; thus making a clear contribution towards the PTx2 objective. This high quality service was offered as a result of an in depth research on potential new customer needs and expectations towards bus service.

Public transport can only live up to expectations if it can cater for the needs of everyone. Special targeted services enabling public transport journeys by reducing the barriers towards accessibility are essential in this respect. *TAIPE METRO* project “**Alert System for Station Guide Services- Let me be your eyes**” in Taipei, Taiwan, makes the most out of customer knowledge and technology to provide individual services to passengers with special

needs, a growing market segment all around the world. The system recognises the passengers and delivers the required individual information. In doing so, it increases customer satisfaction and, at the same time, reduces the margin of error; improving the efficiency of operations.

The jury also selected *SMRT Corporation Ltd* in Singapore as finalist for the project “**Service Excellence Program to Enhance Customer Experience**”. This is one of the best examples of a strategy to develop company culture focused on the customer to successfully improve services and ultimately customer experience. The project was launched to support the vision: “*Moving People, Enhancing Lives*”. It is remarkable as it involves not only front line staff but also the whole of SMRT, which facilitates the implementation of a strong company culture, enabling customer focused processes and initiatives to emerge. This has resulted in concrete service improvement and development to the benefit of SMRT customers.

The project “**SMILE: Smart Mobility Info & Ticketing System Leading the Way for Effective E-Mobility Services**” from *WIENER STADTWERKE* in Vienna, Austria, wins the award in the category customer experience as it offers a unique mobility service to customers. SMILE allows the customer to access a single platform, offering a one only door-to-door mobility solution alternative to the private car. The integration of the broad range of mobility services with public transport, and the possibility to immediately book and pay for these services, for one trip, are the most striking features of the SMILE project. It creates a whole new customer experience, built on a strong partnership of the key actors of the sector, relying upon integrated real time information, booking and ticketing.



© Wiener Stadtwerke

## SMILE - "Smart Mobility Info & Ticketing System Leading the Way for Effective E-Mobility Services"

**LEAD PARTNER:** WIENER STADTWERKE

**PARTNERS:**

- ÖBB-Holding AG
- ÖBB-Infrastruktur AG
- ÖBB-Personenverkehr AG
- Quintessenz Organisationsberatung GmbH-
- NTT DATA Österreich GmbH
- Vienna University of Technology, Institute for Transportation- Scientific
- WienIT EDV Dienstleistungsgesellschaft mbH & Co KG
- Wiener Linien GmbH&CoKG
- ETA Umweltmanagement GmbH
- create-mediadesign GmbH
- Fluidtime Data Services GmbH
- tbw research GesmbH

**CITY/COUNTRY:** Austria with focus on Vienna region

**OBJECTIVE:**

Smile had several different goals, which, in the end formed a successful project. It is based on the desire to understand and satisfy customer needs in multi- and intermodal transportation. Based on this common fundamental goal smile aimed to connect the big players of the Austrian public transport (ÖBB, Wiener Stadtwerke) which then were formed with regional or niche services to a connected multimodal mobility chain. To further strengthen electric mobility and the interconnection with other modes was a focus for smile.

**DESCRIPTION:**

Smile, ending in May 2015, resulted in the successful development and testing of a prototype of an integrated mobility platform open for all types of mobility services, including electric mobility. Pilot-user tested the smile app for 6 months. The results of the scientific evaluation showed that services like smile are key to a multimodal and inter-modal traffic system that will encourage the spread of e-mobility and incentivize public transport.

**HIGHLIGHTS:**

The smile project provides a break-through in terms of usability and as an enabler for integrated multimodal mobility services. The integration of multiple mobility providers throughout Austria such as ÖBB (Austrian Railways), Wiener Linien (Public Transport Vienna), Taxi 31300 (Taxi Service), Car2Go (free-floating car-sharing), Emil and Emorail (e-carsharing), Citybike (bikesharing), Tanke (Charging network for eCars) and many other services is a unique achievement. The smile platform gathers all relevant and available data for real-time information, booking, ticketing and payment through standardised interfaces (connector) to the different mobility providers. The smile mobile application based on the smile mobility platform enables the customer to make the best choice for his/her everyday mobility.

**IN SHORT**

Smile connects several different modes from national railway providers to some less widespread modes like bike-sharing. It provides the possibility of comparing and choosing the best route through an app, which is a new experience for customers in this segment. The technology and methods used in the project lead to improvements in the communication with the customer; providing the best route for the customer and gives an incentive to public transport through the breakdown of barriers of entry.

**FURTHER INFORMATION:**

For further information, please visit smile website: [www.smile-einfachmobil.at](http://www.smile-einfachmobil.at) or contact: [Reinhard.Birke@wienerstadtwerke.at](mailto:Reinhard.Birke@wienerstadtwerke.at)



# Sapphire: Making Your Everyday Journey Sparkle

**LEAD PARTNER:** ARRIVA BUS

**CITY/COUNTRY:** UK

## **OBJECTIVE:**

The project aimed to improve the customer journey and challenge preconceptions of bus travel, while increasing patronage and revenue in a cost effective manner.

## **DESCRIPTION:**

In order to reverse the trend of declining market share of public transport in the UK, Arriva invested heavily in developing a strategy for tackling customer perception and galvanizing local bus travel – its key question being “how to get people who wouldn't normally consider bus travel to change their mind?”

A team made up of individuals from across Arriva's operations were tasked with delivering a concept which would really tap into the customer psyche, influence the behaviour of non-users and encourage existing users to make more journeys. Following extensive research Arriva devised ‘Sapphire’ – investing £3m into reinvigorating bus usage with this premium new service.

## **HIGHLIGHTS:**

Sapphire successfully delivered the increased levels of comfort, connectivity and service requirements highlighted by the research. Key features included free Wi-Fi, USB and power points, e-leather padded seating, audiovisual screens highlighting upcoming stops, and dedicated Sapphire drivers to strengthen familiarity with customers.

While it is difficult to attract car users to buses, independent market research shows 25% of Sapphire passengers formerly travelled by car. Furthermore, satisfaction surveys prove the number of passengers who rate the service as improving has doubled, while passenger growth averages at 10%, with revenues increasing by a similar proportion.

## **FURTHER INFORMATION:**

Eve Marie Ginever, PR & Communications Manager,  
Arriva UK Bus 0044 (0)7920 415 277, ginevere@  
arriva.co.uk  
[www.arrivasapphire.co.uk](http://www.arrivasapphire.co.uk)

# Service Excellence Program to Enhance Customer Experience

**LEAD PARTNER:** SMRT CORPORATION LTD

**PARTNERS:** Disney Institute, NTUC learning hub, Land Transport Authority, vendors for customer-centric initiatives, schools

**CITY/COUNTRY:** Singapore, Singapore

## **OBJECTIVE:**

The main objectives of the project strive towards a strong service culture, revolving SMRT processes with the customer at the heart of their operations and improving operational reliability.

## **DESCRIPTION:**

In 2013, SMRT embarked on ‘Service Culture Programme’; a customer experience transformation journey to achieve its vision of “Moving People, Enhancing Lives”. The conventional approach focuses mainly on front line staff but SMRT made a deliberate decision to involve over 8,500 frontline, maintenance and administrative staff.

SMRT staff united around a common Purpose (“We build trust and bring on smiles, every day and in everyone who travels with us”) and Service Standards (“Safety, Reliability, Care and Comfort”). Initiatives ranging from large-scale system-wide renewal projects to specific customer touch-points enhancements were realised.

## **HIGHLIGHTS:**

Innovation lies in the programme design which resulted in a highly successful service culture transformation. Numerous customer-centric initiatives emerged over the years; examples are Telematics for Bus Services (Singapore's first telematics system), the Third Rail Sag Detection System and several initiatives to enhance train commuter experience.

SMRT Buses had outperformed national index of 58.5 with a score of 60.5 in “Customer Satisfaction Index of Singapore (CS/SG) 2014”. SMRT Trains also had a score of 59.6, extremely close to the national index of 59.7.

## **FURTHER INFORMATION:**

<http://www.smrt.com.sg/>  
[LowZhengWei@smrt.com.sg](mailto:LowZhengWei@smrt.com.sg)



# Alert System for Station Guide Services — Let Me Be Your Eyes

**LEAD PARTNER:** TAIPEI METRO

**CITY/COUNTRY:** Taipei, Taiwan

## OBJECTIVE:

The objectives of applying this project are: increasing guiding service provided, decreasing guide service error rate and optimisation of operation management performance.

## DESCRIPTION:

Taipei Metro has developed an "Alert System for Station Guide Services" to provide "special needs passengers" with safe guiding services on Metro transportation. When a special needs passenger enters the station, station personnel notifies the control centre, and the control centre enters the data into the Alert System. The System then works out automatically the arrival time at the destination according to the train schedule, and before the train arrives at the destination station, an automatic alert is issued to remind the station personnel to go and wait for the special needs passenger on the platform to offer assistance.

## HIGHLIGHTS:

In order to indicate the innovative aspect of this project, it should be mentioned that it created an "immediate and seamless" passenger guiding service. Special needs passengers are given a new perspective on public transportation services. They have introduced an electronic control mechanism OCC that can send alerts to station personnel directly, and after the task has been completed, the personnel can confirm that the passenger has been assisted, enabling the function of double confirmation.

Taipei Metro commissions professional companies to conduct customer satisfaction surveys every year. The 2014 overall customer satisfaction rate was 95.8% whereas in 2012, it was 92.9%.

## FURTHER INFORMATION:

For further information please visit <http://english.metro.taipei/> or contact [chenche5@metro.taipei](mailto:chenche5@metro.taipei)



© Smet Corporation LTD



Alert System for Station Guide Services - Let Me Be Your Eyes!



© Taipei Metro



#### 4.4. RESULTS OF UITP AWARDS 2015 CATEGORY “OPERATIONAL AND TECHNICAL EXCELLENCE AWARD”

A vast majority of the applications received in this category feature innovation relying on the use of Information and Communication Technologies (ICT). Many - though not all - of those are revealing the efforts of many actors of the sector - PTAs and PTOs alike - to make the most of big data.

Interesting initiatives are taking place to use technological innovation to improve the efficiency of operations, using the potential of ICT for increased productivity but also for better planning. Others are contributing to improve the quality of the services and/or to explore new avenues for managing public transport.

The scope of the applications covers areas as diverse as driver assistance technology, safety, reliability, maintenance, operational efficiency, operations monitoring, environmental impact reduction, etc.

The finalists selected by the jury are representative of these diverse applications.

The project “**Fair fares for all: Artificial Intelligence and mobile technologies on the aid of ticket inspectors**” from *Ferrocarrils de la Generalitat de Catalunya* (FGC) in Spain, has been selected for its ability to detect tailgating behaviour at access gates. With this system, ticket inspectors are able to target such troublesome fare evasion in a clever way, without disturbing paying users, and increasing their efficiency. This result in significant improvement of customer and staff satisfaction and more efficient interventions against fare evasion.

*Korea Railroad Research Institute* (KRRRI) project “**TRIPS (Travel Record based Integrated Public transport operation System) and Dr. METRO (Demand Responsive METro TRain Operation)**” stands out with its use of smart card data for planning and managing public

transport operations in Seoul, South Korea. Relying upon the broad use of smart cards in Korea in general and in Seoul in particular, the system allows refining the planning of operations. It is particularly innovative in its ability to predict demand and provide solutions for creative trains schedule. It also allows for the measuring of customer satisfaction in response to changes in schedule.

*MTR Corporation Ltd* project “**Application of RFID Technology for Improving MTR Light Rail Operation Safety and Effectiveness**” in Hong Kong, China, stands out for its use of RFID tags to improve light rail operation and monitoring. RFID technology is used to provide speed supervision, signal passed at danger detection (SPAD) and over-carry prevention to light rail vehicles under a unified platform. A unified solution for multiple applications addressing different operational needs is a unique feature of the system.

The jury has decided to give the Award for Operational and Technical Excellence to *BARCLAYS, CUBIC and Transport for London* (TfL) for the project “**Acceptance of contactless payment cards for Pay as you go travel on London’s public transport network**” in London, UK. This award is recognition for the development and deployment of contactless payment cards in London. This development has significantly contributed to support more efficient operations (elimination of ticket purchase and denial of travel for instance), increased customer satisfaction and a decreased cost related to the revenue collection. The negotiation of the transit transaction model, and the ability of the system to support the local transport smartcard (Oyster), the national transport smartcard (ITSO) and contactless payment cards, are among the most remarkable achievements.



© Transport for London-Cubic Transportation Systems Barclaycard



## Acceptance of contactless payment cards for Pay as you go travel on London's public transport network

**LEAD PARTNERS:** TRANSPORT FOR LONDON-CUBIC  
TRANSPORTATION SYSTEMS BARCLAYCARD

**CITY/COUNTRY:** London, UK

### OBJECTIVE:

The first project objective was a simpler approach to fare collection — removing the need to buy a ticketing product before travel. A second objective was to decrease TfL's cost of revenue collection.

### DESCRIPTION:

The advent of Contactless Payment Cards (CPCs) finally means we can allow customers to pay as they travel by touching a card they already hold on the entry / exit readers, and the need to buy a ticket is eliminated. Since September 2014, CPCs have been accepted for pay as you go travel on all services in London where the Oyster and ISTO cards are valid. The operation has been smooth and the uptake stunning — about 16% of pay as you go journeys are already made using CPCs, and the strong upward trend continues. Over 100 million journeys have now been made using CPCs on over 4 million different cards.

### HIGHLIGHTS:

The new transit transaction model negotiated by TfL with the payments industry is available for use by any transport operator. The system allows TfL to undertake more complex fares processing, for instance intelligent adjustment of fares before they are even charged to the

card account — limiting the occurrence of customers needing to seek refunds. Moreover, customer support is entirely off-system with full charging information online, along with access to all the other functions a customer may require.

Notable aspects of the project are: full “open loop” acceptance of contactless payment cards (and other compatible devices such as NFC mobile phones) across the entire London network, full-feature fare calculation including multi-modal and multi-zone capping, and weekly capping.

### IN SHORT:

The project can be an example of a « paradigm shift » in the area of « ticketing » and provides a platform for interoperability between public transport operators. It is a genuine showcase of open payment that has been on the discussion table for the past decade: Excellent use of state-of-the-art technology, easier access for customer on PT and part of integration, expandable for the future (e.g. other modes). Making it possible to pay for different public transport operators with one card and also « pay as you go », can dramatically increase passengers' convenience.

### FURTHER INFORMATION:

For further information, please visit  
[www.tfl.gov.uk](http://www.tfl.gov.uk)

or contact:

[matthewhudson@tfl.gov.uk](mailto:matthewhudson@tfl.gov.uk) and [miketuckett@tfl.gov.uk](mailto:miketuckett@tfl.gov.uk)



# Fair fares for all: Artificial Intelligence and mobile technologies on the aid of ticket inspectors

**LEAD PARTNER:** FERROCARRILS DE LA GENERALITAT DE CATALUNYA (FGC)

**PARTNER:** Awaait Artificial Intelligence

**CITY/COUNTRY:** Barcelona, Catalonia, Spain

## OBJECTIVE:

The main objective of this project is to increase customer satisfaction by eradicating one of the most visible and troublesome ways of fare dodging: tailgating.

## DESCRIPTION:

It refers to a 'detector' system by means of cameras that spot passengers going through gates without validating their tickets. It works by sending real-time alerts to mobile terminals. The alert consists of a sequence of a few images, seconds after the passenger has gone through the gate. A ticket inspector receives the alert on a mobile device and can decide on which action to take.

## HIGHLIGHTS:

This project sets up a system combining artificial intelligence with mobile technologies and uses it to detect tailgating; effectively and efficiently intercepting suspected offenders within seconds and without needing to disturb other passengers, (this makes the system much appreciated by clients).

Among its more noticeable features are simplicity, precision and technology.

- **Simplicity:** the user interface and methodology are simple and intuitive to use. They can be learnt in less than 5 minutes.
- **Precision:** false positives are under 0.2% of the count of passing users at control time.
- **Technology:** the system uses artificial intelligence techniques to guarantee the speed and precision.

## FURTHER INFORMATION:

For further information, please visit [www.fgc.cat](http://www.fgc.cat) or contact [atortajada@fgc.cat](mailto:atortajada@fgc.cat)

# Trips and Dr. Metro

**LEAD PARTNER:** KOREA RAILROAD RESEARCH INSTITUTE (KRRI)

**PARTNERS:** Seoul Metropolitan Government(SMG), Korea Smart Card Co., Seoul National University, Hanyang University

**CITY/COUNTRY:** Seoul, South Korea

## OBJECTIVE:

The objectives of the project are to enhance efficiency of PT system and provide better service for public transport users by precise travel record analysis and operation plan.

## DESCRIPTION:

TRIPS (Travel Record based Integrated Public transport operation System) is designed to diagnose PT operation status precisely using smart card data. It also estimates ridership changes and influences public transport operation plans through many indices such as total travel time, congestion in vehicle, number of transfers, revenue etc.

Dr. METRO (Demand Responsive METro TRain Operation system) finds optimum schedules for metro and estimates occupation rate of each train considering passenger demand with diverse train types such as express and local.

## HIGHLIGHTS:

TRIPS has smart card data which has 12 million individual cases per day and includes huge PT system network of Seoul that has about 5,000 stops, 650 bus lines and 9 metro lines. Moreover, TRIPS is being implemented in Seoul metropolitan area to enhance its functions and to find out efficient bus operation plans scientifically.

Dr.METRO implemented to analyse metro line 9 (2nd phase) in terms of occupation rate and operational plan and also to create express train operational plans of other metro lines in Seoul.

## FURTHER INFORMATION:

For further information, please contact [mook79@krri.re.kr](mailto:mook79@krri.re.kr) (<http://www.krri.re.kr>)



# Application of RFID Technology for Improving MTR Light Rail Operation Safety and Effectiveness

**LEAD PARTNER:** MTR CORPORATION LTD)

**CITY/COUNTRY:** Hong Kong, China

## OBJECTIVE:

This project aims at proactively enhancing the safety performance and services of MTR's Light Rail with the introduction of RFID system. The integrated RFID system is capable of enabling speed supervision and SPAD detection which improves safety and driving habit, and over-carry avoidance which ensures better service and customer experience on the Light Rail network.

## DESCRIPTION:

MTR Light Rail vehicles are manually operated and have extensive interfacing with road traffic. MTR proactively enhances safety and service performance by coming up with an innovative, unified solution using RFID. RFID tags are used as location markers and function triggers throughout the Light Rail network; by transmitting the location & relevant trackside status to the RFID readers on train, the on-board system can interpret the risks associated and generate alarms or apply automatic intervention (such as braking).

## HIGHLIGHTS:

The integrated application that addresses such operational needs of Light Rail using RFID is first of its kind in the world. In addition, the unified system approach enables future expansion of additional features under the same framework.

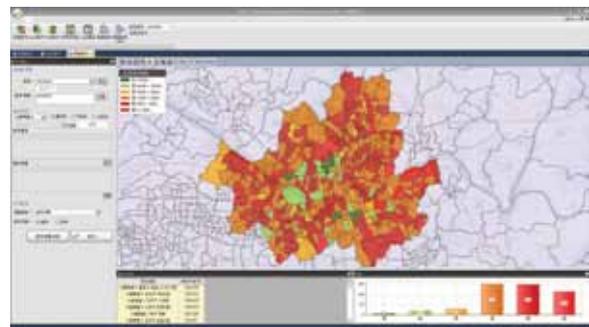
The project is cost-effective and requires minimal installation work compared to separate solutions for individual applications. The system is designed to attain high operation reliability by applying redundancy configuration.

## FURTHER INFORMATION:

For further information, please visit [www.mtr.com.hk](http://www.mtr.com.hk)



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© Korea Railroad Research Institute (KRRRI)



## 4.5. RESULTS OF UITP AWARDS 2015 CATEGORY "DESIGN"

The design awards aims at rewarding processes or products of various types contributing to make public transport more attractive.

As expected, this had led to the broad diversity of applications. Projects submitted cover areas such as vehicle design, technical solutions, and urban space and architecture in relation to transport infrastructures.

Some applications highlighted achievements related to information design or to branding such as staff uniforms for example. All in all they translate the increasing importance and awareness of the need for the sector to devote more attention to its attractiveness and to branding and marketing. The jury decided to highlight projects related to interchanges and to vehicle design.

The Fulton Centre in New York, USA, is recognised for its architectural features, including its "**Sky Reflector - Net**" and its cultural and symbolic integration in the New York transport system to offer an astonishing customer experience. *MTA Arts & Design, MTA New York City Transit and MTA Capital Construction*, through this project, emphasize that the station building brings daylight to the subway system; therefore participating in a place-making strategy.

*TRANSDEV GROUP* project "**Mobility Cluster-Carrefour de Mobilité**" in Echirrolles, France, features a solution for a multimodal hub without hard infrastructure. It projects a solution available for networks of all size, in particular small and medium networks, with an attractive experience easily transferable to other cities.

With the "**Dubai Tram**", the *Roads and Transport Authority (RTA)* from Dubai, U.A.E showcases the impressive design of a new tramline with stations and vehicles remarkably answering the specific local conditions, including the requirements related to the climate of the region. It has been designed as a high-class public transport system to generate ridership among customers using cars as priority.

*SOLARIS (Poland)* receives the Design Award for its "**New Solaris Urbino**" bus. This bus is the result of an outstanding design management process in which "the design" was integrated at the earliest stage of the vehicle development. Among all the industrial productions in standard buses, this vehicle is remarkable because of its original exterior style and its carefully designed interior details, creating value for the bus by enhancing the urban customer daily experience. The jury has rewarded this approach which remains rare in the sector.



## The new Solaris Urbino

**LEAD PARTNER:** SOLARIS

**PARTNERS:** studioFT Designstudio from Berlin

**CITY/COUNTRY:** Poland

### OBJECTIVE:

To create a more attractive, comfortable as well as efficient, lighter city bus.

### DESCRIPTION:

The new Solaris Urbino officially unveiled in September 2014 represents the next generation of Solaris city bus family, which documents a high level of design engagement as a key integrating factor in the entire product development process. The style is not an end in itself; rather, it is rooted in a causal context.

### HIGHLIGHTS:

The body frame design provides robust rigidity – made from noncorrosive materials – while being significantly lighter in weight. The flooring uses a combination of stainless steel sheets and plywood. The shape is an integral part of the chassis and reinforces the body frame while also providing strong protection against inclement weather.

The reduced weight of the new bus is expected to lower fuel consumption. Improved insulation will drive down operating costs and raise comfort levels. Thanks to the fact that the fuel tank is located on the front wheel arch, there is more pedestal-free seats on the bus and the passenger compartment is more spacious.



© Solaris



© Solaris

The visual design of the new Solaris Urbino is expressive of the improvement in technology. The rounded lines of the previous models are superseded by a sharper, more dynamic styling. Panels along the roof line screen roof-mounted components to deliver continuous and harmonious appearance. The futuristic lines of the body are an expression of Solaris' forward-looking approach and will be sure to draw the attention of passengers and passers-by.

### IN SHORT

Exceptional design elements of a standard bus which embed a comprehensive package for both carefully designed internal details and original external features introduces a superior special product for daily passengers. This product creates value for the bus model. The new Urbino can attract more passengers to the system and charm current users at the same time.

### FURTHER INFORMATION:

For further information, please contact [mateusz.figaszewski@solarisbus.com](mailto:mateusz.figaszewski@solarisbus.com).  
[www.solarisbus.com](http://www.solarisbus.com)



## Sky Reflector-Net at Fulton Center

**LEAD PARTNERS:** MTA CAPITAL CONSTRUCTION, MTA ARTS & DESIGN, MTA NEW YORK CITY TRANSIT

**CITY/COUNTRY:** New York, U.S

### OBJECTIVE:

Build a state-of-the-art transit and retail hub in downtown Manhattan integrating art, architecture, technology and a seamless customer commuting experience. Create a downtown landmark and focal point that uses light as a medium to create an unparalleled experience.

### DESCRIPTION:

The Fulton Center is a modern, light-filled, large digital public space, built to handle over 300,000 passengers per day, which unites five century-old subway stations and nine subway lines into a single hub. "Sky Reflector-Net," a collaborative artwork by James Carpenter Design Associates with Grimshaw Architects and Arup, is a soaring cable-net structure composed of 952 aluminium panels optimised to distribute daylight, reflect natural sunlight down into the lowest levels of the transit hub, reduce energy consumption and connect users with a tangible sense of daylight.

### HIGHLIGHTS:

The Fulton Centre is the only all-digital signage transit hub in New York, with an extensive network of over 50 screens, some as large as 9 meters. The artwork design, technology and materials are unique. Nearly 10,000 stainless steel components, 112 tensioned cables and 224 high-strength rods make up the artwork. The soaring cable-net is attached to 952 aluminium panels that distribute and reflect sunlight down to Fulton Centre's lowest levels, which house nine subway lines. The artwork combines beauty and function, reduces energy consumption and gives visitors an expansive sense of the change in light over the course of the day and seasons. Over 20 per cent of construction materials were sourced locally and are made of recycled content.

### FURTHER INFORMATION:

For further information, please contact [sbloodwo@mtahq.org](mailto:sbloodwo@mtahq.org)  
[www.mta.info](http://www.mta.info)

## Dubai Tram

**LEAD PARTNER:** ROADS AND TRANSPORT AUTHORITY (RTA)

**PARTNERS:** Systra, Alstom, Besix, Parsons De Leuw Cather, Atkins

**CITY/COUNTRY:** Dubai, U.A.E

### OBJECTIVE:

The Dubai Tram was developed in line with RTA's strategic goals, named: Integrated Dubai, smooth transport for all and Safety and Environmental Sustainability.

### DESCRIPTION:

Dubai Tram is the first of its kind in the Gulf Cooperation Council countries (GCC). It has been planned and designed to serve high-density tourism and residential areas in Dubai. Dubai Tram Phase one spans 10.6 km of route length. The Tram track is mainly constructed at ground level except for some parts within the Dubai Marina Area, where it is elevated on a viaduct. The Tram system features physical barriers and other design elements to ensure that it is safely integrated with surrounding traffic and pedestrian areas. Phase One of Dubai Tram which was opened on 11 November 2014, includes 11 fully air-conditioned stations. Each tram measures 44 metres in length and has one cabin designated for gold class customers, two cabins for women & children and the remaining 4 cabins are for standard Silver Class passengers.

### HIGHLIGHTS:

The main innovative features of the project include: First Turnkey Tramway System in the Middle-East, first ground level powered full line worldwide, first Tram way designed with air conditioned stations, first Tramway Stations equipped with Automatic Platform Screen Doors (PSD) worldwide, first Tramway with dedicated Women and Children cabins and Gold and silver classes. Dubai Tram design provides high quality facilities incorporated with latest technologies. The Station design reflects the heritage of the region, where it has been modelled on the shape of a floating, gently sloping roofline with 4 sides, with fully glazed walls to provide transparency between the internal and external environment. In addition, there are footbridges built to link the tram stations to key access points and other transport modes including the world-class Dubai Metro. It is also equipped with the latest information technologies of real time information and Smart Card ticketing. The system is designed around easy and barrier-free access.

### FURTHER INFORMATION:

For further information, please visit [www.arta.ae](http://www.arta.ae)



# Mobility Cluster

**LEAD PARTNER:** TRANSDEV GROUP

**PARTNERS:** SMTC (Grenoble Urban District Public Transport Authority), Commune of Echirolles, SEMITAG (local operator), Atelier Villes & Paysages, Caisse des Dépôts subsidiary, Local IT group, Grenoble School of Management

**CITY/COUNTRY:** Echirolles, France

## OBJECTIVE:

Objectives of the project are: reveal a multimodal hub, change behaviour (observations), intensify use of the furniture not by a minority but by all segments (seniors-students-families-workers), test cheaper and more rapidly deployable hubs, allowing the public transport authorities to validate investment choices on a 'Just what's needed' basis.

## DESCRIPTION:

The "Mobility cluster" is an innovative way of revealing a multimodal hub in a site with no pre-existing "hard" infrastructure.

It is a temporary facility installed in the public space that aims to bring about changes in mobility behavior. All the solutions available on the site (600 m long) were highlighted (whether or not operated by Transdev): light rail, bus, P&R, car-sharing stations and — as a central component of the system — active mobility (walking and facilities for cyclists).

## HIGHLIGHTS:

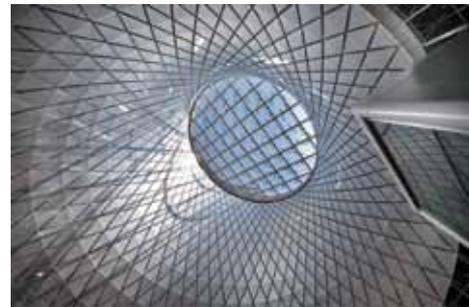
The project exemplifies a new generation of hubs that integrate pedestrian pathways designed on the scale of a whole neighborhood. Other innovative features are: "street living room" as a waiting area, signs that make the travel experience more like an urban hiking trail, new maps (pictograms and logos chosen by local residents), self-powered lighting fixtures to illuminate pedestrian pathways for use at night.

The material used for the project — non-treated, locally sourced wood (mountain Chartreuse) — is recyclable. The design of the street furniture and its multi-purpose features — information, Comfort, play and an opportunity to socialise — make visitors want to repeat the experience. The infrastructure can be moved from one place to another for reuse or testing.

## FURTHER INFORMATION:

Video : [www.youtube.com/watch?v=YM2ChT6sbv8](https://www.youtube.com/watch?v=YM2ChT6sbv8)

Contact (Transdev) : [julien.reau@transdev.com](mailto:julien.reau@transdev.com)



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# 5. Mobility Demand Management Award

## 5.1. THIRD DIMENSION OF SUSTAINABLE URBAN MOBILITY SYSTEMS: MOBILITY DEMAND MANAGEMENT

Thirdly, cities must determine which means will encourage changes in mobility behaviours. Although the supply of infrastructure, vehicles/rolling stock and services will always have a key role in the provision of any urban mobility system, the management of the demand side is equally important and should be an integral part of any mobility master plan.

Mobility Demand Management (MDM) strategy typically includes a cocktail of incentives and penalties aimed at encouraging durable changes in mobility behaviour. This makes it a delicate discipline, which can easily meet strong resistance if not properly managed, as it can be perceived as working against the principles of freedom of movement.

Six key areas should be considered when developing a comprehensive mobility demand management policy mix, as illustrated in figure hereafter.

While some MDM measures have already demonstrated clear benefits, the relevance and acceptability of each individual measure must be assessed against local contexts and based on the existence of viable alternatives to motorized individual transport. This prerequisite of viable and sufficient alternative travel options is a reason for the relative predominance of MDM approaches in cities in the “Rethink the System” or “Network the System” clusters. Communication is key and authorities should open up a dialogue with key stakeholders such as citizens, businesses and the real-estate community.

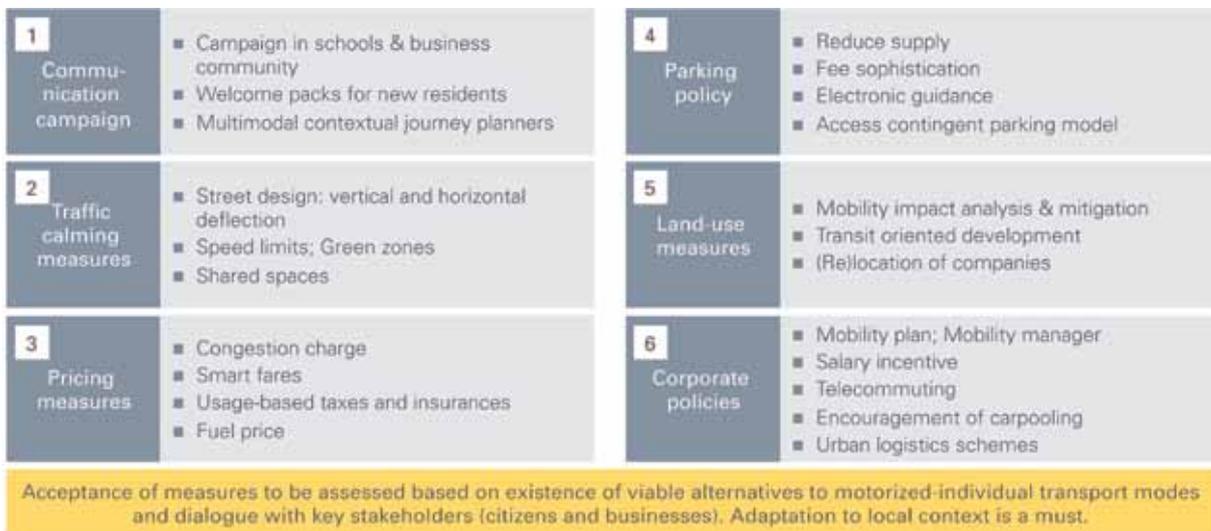


Figure 8.

Source: Arthur D. Little & UITP FUM 2.0



## 5.2. RESULTS OF UITP AWARDS 2015 CATEGORY “MOBILITY DEMAND MANAGEMENT”

As part of the 2015 edition of the UITP award, the **mobility demand management award** is rewarding projects encouraging **durable changes in mobility behaviour** i.e. traffic calming, access restriction, dynamic pricing, parking policy and land-use measures.

Mobility demand management covers a broad range of policies and measures as described above. The fact that we have received a relatively low number of applications under this award category can be interpreted in various ways. It is probably the consequence of the political sensitivity of many of the demand management policies debated in cities across the world. It is also possibly a sign that this policy tool remains underused, and that no matter how important it is, responsibilities for demand management measures are distributed among a range of actors at the local level.

In spite of the number of applications, it is interesting to notice that those received address several types of such measures. Those include in particular: pricing, parking, communication campaigns, the provision of alternative mobility services and mobility management at large events.

The *City of Milan* in Italy with its **“Innovative Car Sharing Scheme”** deserves to be recognised. The city has achieved the rapid increase of car sharing services, in particular floating car sharing services, to complement the supply of other alternative mobility solutions such as, for instance, bike sharing. The ability of the city to encourage competition between three car sharing operators and to avoid dependence on a single provider is both an original and significant achievement.

*Metropolitano de Lisboa* **“Public transport campaign in University Campuses”** in Portugal is also selected as a finalist for its ambition at promoting sustainable urban mobility behaviour at university campuses to contribute to create a new mobility culture. The initiative is comprehensive and includes a communication campaign with promotion material, workshops, study visits and a competition for innovative projects. This project will receive the Y4PT Award (see chapter 7 in this report).

The *Land Transport Authority of Singapore* receives the award in the mobility demand management category for its project **“Travel Smart Programme.”** The **“Travel Smart”** is a comprehensive demand management programme using different demand management tools to distribute the travel demand during the day. It includes three sub-programmes, using gaming, financial incentives and rewards, but also funding personalised travel planning for employees in selected companies to switch their travel habits.

The integration of these different tools in one programme resulting in a shift in the peak demand, and the combination of incentives for managing peak demand and encouraging modal shift, make this programme a leading example of what can be done with demand management measures.



© Land Transport Authority (LTA)



## Travel Smart Programme

**LEAD PARTNER:** LAND TRANSPORT AUTHORITY (LTA)

**CITY/COUNTRY:** Singapore, Singapore

### OBJECTIVE:

The Travel Smart Programme's objectives are to encourage commuters to: re-time their trips to off-peak periods, re-mode, and to reduce travel demand altogether. These complement supply-side measures to increase transport capacity.

### DESCRIPTION:

The Travel Smart Programme, launched in July 2014, seeks to reduce the morning peak hour demand by influencing travel behaviour change. It is useful in persuading commuters to travel off-peak, encouraging a switch to sustainable transport modes (public transport, walking or cycling) or reducing travel demand altogether (via say telecommuting).

The Travel Smart Programme has 3 segments; Travel Smart Network (TSN) – where LTA partners companies to create supportive environments for flexi-travel for their employees; Travel Smart Rewards (TSR) – which rewards commuters who travel on public transport during the off-peak periods with chances to win monetary prizes; and Free Pre-Peak Travel (FPPT) – to motivate commuters to travel earlier to the city.

TSR and FPPT target individual commuters with incentives to travel outside the peak period. TSN targets participating companies to help shift the travel patterns of their employees. Close to 12% of employees of the pilot companies made the shift.

### HIGHLIGHTS:

The innovative aspects of the Travel Smart Programme are the multiple possibilities of re-moding, re-timing of trips and reducing travel demand. TSR uses gamification with cash prizes to incentivize commuters to travel outside of the morning peak period. FPPT offers an incentive for commuters going to the city, to travel earlier on the rail network. Commuters who exit at designated city stations before 7:45am will enjoy free train rides or a 50-cent discount if they exit between 7:45 to 8:00am.

Under TSN, participating companies benefit from the Travel Smart Consultancy Voucher (worth up to about US\$22,000) to work out a customised Travel Demand Action Plan for their own use. These companies can also claim up to about US\$118, 000 per year under the Travel Smart Grant for implementing measures such as organising pre-peak Travel Smart activities, installing infrastructure to encourage active travel, etc. The advantage for such companies is better staff retention and productivity.

### IN SHORT:

The most remarkable feature of this project is the innovation in embracing demand side measures, on top of typical supply-side solutions to influence travel behaviour change towards more sustainable transport modes. It comprehensively targets both individuals and companies. The outcome yields both individual and larger economic benefits.

### FURTHER INFORMATION:

For further information, please contact [fang\\_jiarong@lta.gov.sg](mailto:fang_jiarong@lta.gov.sg).

[www.lta.gov.sg/travelsmart](http://www.lta.gov.sg/travelsmart)



## Milan and its innovative car sharing scheme

**LEAD PARTNER:** COMUNE DI MILANO

**CITY/COUNTRY:** Milan, Italy

### OBJECTIVE:

In order to contribute to a 10-year strategy for public transport as described in Milan's Sustainable Urban Mobility Plan, car sharing has been identified as a strategic measure aimed at supplying more environmentally friendly public services, ensuring high accessibility and integration between different public and/or private transport systems.

### DESCRIPTION:

Car sharing in Milan — in particular those based on a “free floating” system — is considered complementary to public transport especially when it allows people to reach areas with a weak or non-existent public transport system and in a more comfortable way. During a short period of time, Milan has increased its car sharing fleet tenfold, rising from 190 to nearly 2000 cars (in June 2015, a further 100 electric cars will be added to the sharing system), and the number of members has grown from 7000 to almost 200.000.

### HIGHLIGHTS:

Integration with other sustainable modes such as bike and scooter sharing is important. In addition, massive growth in the number of cars available (each car is used 6 times for 9.000 daily trips lasting 20 minutes with a daily average of 62.150 km) and also the number of subscribers is an excellent new record in start-up phase among European cities.

### FURTHER INFORMATION:

For further information, please contact [assessore.maran@comune.milano.it](mailto:assessore.maran@comune.milano.it) ([www.comune.milano.it](http://www.comune.milano.it) – [www.muoversi.milano.it](http://www.muoversi.milano.it))

## Public transport campaign in university campuses

**LEAD PARTNER:** TRANSPORTES DE LISBOA - METROPOLITANO DE LISBOA

**PARTNERS:** European Union, CIVITAS initiative program

**CITY/COUNTRY:** Lisbon, Portugal

### OBJECTIVE:

The project's objectives are: changing travel behaviour of university students and encouraging use of public transport, increasing share of public transportation and promoting sustainability in the long term.

### DESCRIPTION:

‘Transportes de Lisboa’, through this project which targets university students, tries to address the current perceptions of public transportation by activities, tools, promotional materials and making students feel that students' suggestions are heard. The project includes workshops, an online questionnaire and an innovation in transports competition.

### HIGHLIGHTS:

This Project is innovative in the transportation sector because it has a proactive approach and is focused on young people.

By undertaking tasks such as promotional images on Facebook, newspapers, magazines and newsletters and also printing images on pens and on ribbons to hang pen drives, they get closer to their objectives.

### FURTHER INFORMATION:

For further information, please contact [mariza.motta@metrolisboa.pt](mailto:mariza.motta@metrolisboa.pt)



# 6. Smart Financing and Business Model Award

## 6.1. THIRD DIMENSION OF SUSTAINABLE URBAN MOBILITY SYSTEMS: PUBLIC TRANSPORT FINANCING

Just at the time when urban mobility is approaching crisis point in many cities around the world; local authority budgets are under great pressure. Securing adequate funding for public transport in such a context means thinking outside the box. Capital and operational expenditures are increasing significantly due to growing supply, rising quality expectations and the increasing cost of production factors. As fare revenues do not always evolve in line with costs, transport authorities and operators need to devise alternative funding streams.

There is, however, no silver bullet for the funding of public transport. Apart from improving the efficiency and effectiveness of operations to keep operational expenditures under control, the public transport funding equation involves:

- Maximising fare revenues by driving demand for public transport and smart fare revenue management through product differentiation.
- Exploring opportunities to derive additional revenues from value-added services.
- Exploring opportunities to perceiving charges from indirect beneficiaries of public transport.
- Ensuring the right prioritisation of public funding for capital investments while exploring opportunities of partnership development with private investors.

Six key areas need to be considered and combined to achieve a resilient funding mix for public transport (see figure 9):

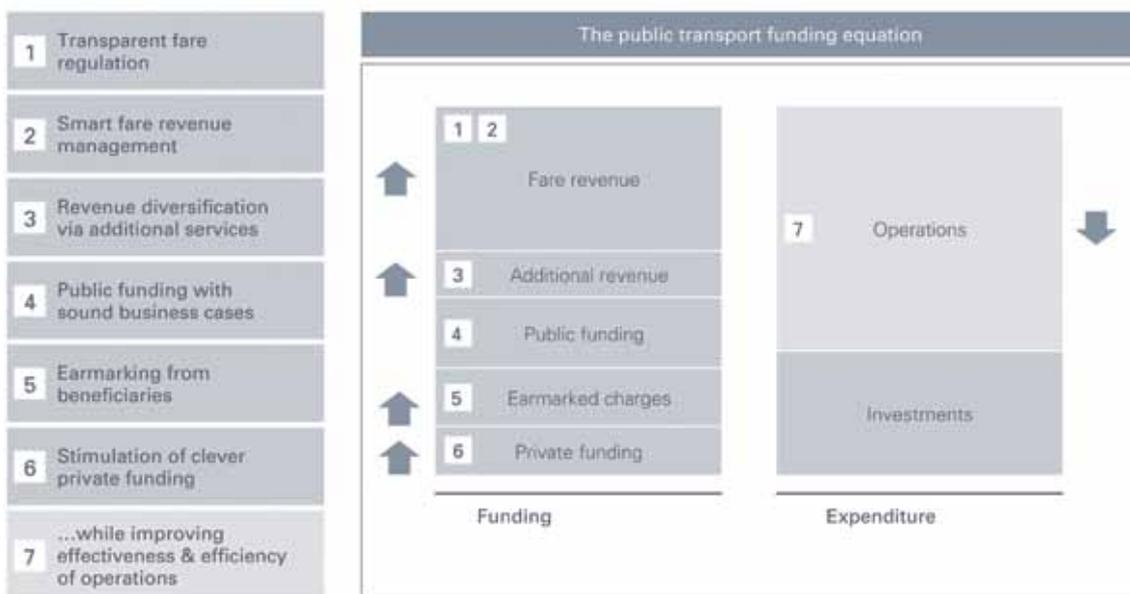


Figure 9.

Source: Arthur D. Little & UITP FUM 2.0



## 6.2. RESULTS OF UITP AWARDS 2015 CATEGORY “SMART FINANCING AND BUSINESS MODELS”

As part of the 2015 edition of the UITP award, the **Smart Financing and Business Models Award** is rewarding ambitious and innovative approach to capital projects and traditional business model. Relevant approaches could involve implementing new funding and financing instruments, adapting governance frameworks to implement new solutions, launching new services or opening up new opportunities to finance public transport in a city or region.

If the need to explore alternative sources of revenues and financing schemes for public transport is increasingly acknowledged, the challenge remains very important and difficult to address. This helps explain the relatively low number of applications under this award category.

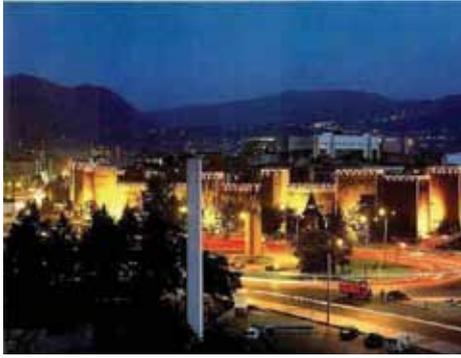
The applications received covered innovative business model, fare management, revenue diversification and public-private partnerships.

*Delhi Integrated Multi-modal Transit System Ltd (DIMTS)* project “**Reform of Bus Transport System in Delhi - India**” has been selected as a finalist for this category in recognition of its endeavour to deploy up to 5% of privately owned buses in each route, integrating the service with government operators, reducing competition on roads and thus better controlling road accidents. This has been achieved thanks to a shared risk between private and public partners: the investment in the buses is met by the privately owned company; the revenue risk is absorbed by the government.

*KDR Gold Coast* project “**New tram brings new life to Australia’s Gold Coast**” is an 18-year Public Private Partnership (PPP) contract with the Queensland State Government to design, build, finance, operate and maintain the Gold Coast light rail. It is a finalist of this award, recognised for its ability to bring three levels of governments together with a private partner into this PPP.

*The Public Transport Council* in Singapore is also finalist with the project “**Fare Review Mechanism**” which looks into the relationships between fares and other indicators such as the cost of living, production cost and productivity. By recommending a fare formula that integrates these elements, it guarantees management of fare coverage in a more sustainable way than most networks today.

*The KAYSERY ULASIM* project “**Innovative Financing of Public Transport**” implemented in Kayseri, Turkey, receives the award for public transport financing for its ability to funnel revenues from fines and to create additional revenues from the rental of fibre optics deployed on its network; covering up to 13% of the total company costs. Kayseri Ulasim illustrates possible avenues for other networks to diversify their revenues and open up to alternative sources of financing.



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## Innovative Financing of Public Transport

**LEAD PARTNER:** KAYSERY ULASIM TURIZM INSAAT TAAHHUT PROJE MUSAVIRLIK SAN. TIC. AS

**PARTNERS:** Kayseri Metropolitan Municipality-Investor

**CITY/COUNTRY:** Kayseri, Turkey

### OBJECTIVE:

Basically, fare levels are insufficient to meet investment needs and expenditures. The objective of this project is to create alternative sources of revenue for the public transport operator to provide a sustainable transportation service.

### DESCRIPTION:

Through implementing this project, Kayseri tries to generate income and make profit in an innovative way. The first method undertaken is lending LRT infrastructure to telecommunications companies and the second one is Electronic Traffic Monitoring System, which in Turkey is called TEDES.

### HIGHLIGHTS:

After the privatisations of telecommunications, private companies started to install their own telecom networks and intended to use the public transport operator's spare cables and pipes. Starting from 2013, public transport operators allowed rail corridors to be the backbone of telecom infrastructure. Together with branches, they installed almost 550 km in the city and rented them to telecom companies. The profit Kayseri has made from lending their infrastructure to telecommunications companies is almost 3 million Euros. Kayseri plans to have 150 km more in this year.

In addition, within two years, Kayseri has developed its own software and TEDES system with modules of red light enforcements, speed corridor, rule violations etc. Local government TEDES committee defined 100 locations to install TEDES modules — either speed corridors or light enforcements.

In 2014, they installed three TEDES modules and tested them in three locations. It has been planned that in 2015, 30 TEDES modules will be installed. In total, there will be almost 100 TEDES modules in 100 locations across the city. Kayseri Ulaşım calculates revenue from this source will be of around 1.080.000 Euros per year.

Kayseri 2014 figures showed that they had covered 13% of their expenditure with alternative funding methods. Kayseri estimates for 2015 are to recover at least 20 percent of their expenses with alternative funding model developed with Kayseri Metropolitan Municipality.

### IN SHORT:

Renting rail infrastructure to telecommunication companies appears a smart way of reducing public transport system expenses. Besides, contribution in TEDES can be seen as another substantial resource.

### FURTHER INFORMATION:

For further information, please contact:  
[sbasaran@kayseriulasim.com](mailto:sbasaran@kayseriulasim.com)



## Reform of Bus Transport System in India (Delhi)-PT x 2 Strategy

**LEAD PARTNER:** DIMTS LTD

**CITY/COUNTRY:** New Delhi, India

### OBJECTIVE:

The main objectives of the project are: to deploy 50% of buses owned by private entity on each route, to integrate service with government operator on each route under unified time table and to reduce competition on roads and control road accidents.

### DESCRIPTION:

The Government of National Capital Territory of Delhi initiated the new business model presented by Delhi Integrated Multimodal Transit System. This new business model under gross cost model was presented to substitute the existing bus transport system where (a) the bus owners had to assume both the revenue risk and operational risks and (b) bus ownership was disaggregated among a large number of owners.

### HIGHLIGHTS:

The Cluster Bus System is a gross cost business model where fleet owners have to focus on service efficiencies to meet quantity and quality benchmarks. In this system, the government absorbs the revenue risk, whereas operating risk is transferred to the concessionaire. Service is monitored with real time data from on-board GPS and Automatic Fare Collection System based on online Electronic Ticketing Machines.

The payment to the concessionaire is based on gross cost account designed through competitive bidding whereby the government absorbs the revenue risk enabling the operator to innovate by focusing only in operational risks.

### FURTHER INFORMATION:

For further information, please visit [www.dimts.in](http://www.dimts.in) or contact [info@dimts.in](mailto:info@dimts.in)

## New Tram brings new life to Australia's Gold Coast

**LEAD PARTNER:** KDR GOLD COAST part of the GoldLinQ consortium.

**CITY/COUNTRY:** Gold Coast, Australia

### OBJECTIVE:

To successfully bring a new transport system to life through an innovative financing model, involving several private entities and three levels of government.

### DESCRIPTION:

The Gold Coast light rail is Queensland's first tram and only the fourth in Australia. The AUS \$1.2 billion (US \$1 billion) first stage of the project moves on a 13-km dedicated route that stops at 16 stations. The GoldlinQ consortium signed an 18-year Public Private Partnership (PPP) contract with the Queensland State Government to design, build, finance, operate and maintain the Gold Coast light rail. Stage One of the light rail project is jointly funded by Gold Coast City Council, the Queensland Government and the Australian Government.

### HIGHLIGHTS:

This is the first time any public transport project in Australia has been jointly funded by all three levels of government: city, state, and national. It is worth mentioning that the system was launched in July 2014 and the first day saw 80,000 passengers use the tram, indicating a strong popular acceptance of the system. A year after the launch, operating performance is very high and ridership is exceeding expectations.

### FURTHER INFORMATION:

For further information, please contact [susie.homan@kdrgoldcoast.com](mailto:susie.homan@kdrgoldcoast.com) or visit <http://ridetheg.com.au/>



# Fare Review Mechanism

**LEAD PARTNER:** PUBLIC TRANSPORT COUNCIL

**PARTNERS:** Land Transport Authority, Ministry of Transport

**CITY/COUNTRY:** Singapore, Singapore

## OBJECTIVE:

The key objective of this project is to develop a practical fare review mechanism and formula to help the Public Transport Council to discharge its fare review exercises and responsibilities in a fair and transparent manner.

## DESCRIPTION:

The Fare Review Mechanism was developed to provide the overall guidance for the PTC to review the public transport fares in Singapore. The mechanism seeks to maintain affordable fares for commuters while ensuring the financial viability of the public transport operators. Specific proposals of the Fare Review Mechanism include practical application and enhancement of fare concessions to help target groups of commuters, structure of monitoring fare affordability and resources for needy commuters to cope with fare adjustments. Proposals also include establishing a responsive fare adjustment formula and a creative roll-over mechanism that provides flexibility to vary the fare adjustment quantum for each fare review exercise.

## HIGHLIGHTS:

Within the fare review mechanism, a fare formula is established to cap the quantum of fare adjustment. This ensures that the commercial operators cannot simply pass on their cost increases to the commuters. Besides, a productivity extraction factor is also included as part of the fare formula as an incentive for the operators to be productive. At the same time, commuters will also gain as the productivity gains are shared with commuters.

## FURTHER INFORMATION:

Website: <http://www.mot.gov.sg/news/FRMC%20Report%201%20Nov.pdf>

Email: [ptc\\_office@ptc.gov.sg](mailto:ptc_office@ptc.gov.sg)



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# 7. Y4PT Youth Awards

In the framework of the **10th Anniversary of Y4PT (2005-2015)**, the **Y4PT Foundation**<sup>1</sup> resumed the **Y4PT Youth Awards**<sup>2</sup> series (started with Helsinki 2007 and followed by Vienna 2009), for praising best youth-related projects/initiatives in the transport-related mobility sector worldwide, initiated and supported by public transport and/or youth actors.

Every two years, **Y4PT** settles a core topic based on current critical challenges facing the transport-related mobility sector and the youth.

This time the **3rd Y4PT International Youth Awards Milan 2015** was organised in conjunction with **UITP**. It honoured youth-related public transport projects contributing to a healthier society, in line with the **Y4PT World Healthy Mobility Campaign**<sup>3</sup>.

Projects submitted for this edition had to deal with the health dimension in public transport; they had to be developed, carried out, inspired by or addressed to young people, and should have been implemented during the last two years. They should also have been convergent with the ambition of doubling public transport market share worldwide by 2025 (PTx2).

In total, **five projects** were selected as finalists:

- **“Play with Public Transport: COMOleonty”**, by *ASF Autolinee* and Polytechnic University of Milan in Come (Italy)
- **“Youth Dialogue for Mobility”**, by *FETRANSPOR* in Rio de Janeiro (Brazil)
- **“Public Transport Campaign in University Campuses”**, by *Transportes de Lisboa/ Metropolitano de Lisboa* (Portugal)
- **“Move Porto”**, by *Porto Metro* (Portugal) and
- **“Programme of Supplementary specialization in Transport Sustainable Development for Students”**, by the *State University of Management* in Moscow (Russian Federation)

After diligent screening, *Transportes de Lisboa/ Metropolitano de Lisboa* with the project **“Public Transport campaign in University Campuses”** was selected as the winner of the **3rd Y4PT International Youth Awards Milan 2015**.



The aim of this project is to instil a new sustainable mobility culture among younger generations (especially university-level students) by promoting the use of public transport in Lisbon through a communication and participation process. By sensitising young people to the long-term socio-economic advantages of public transport over other less sustainable transport options, *Transportes de Lisboa* is shaping a new category of transport user; more aware of current critical environmental and health issues such as air pollution, noise, traffic accidents, congestion, scarcity of urban space, sedentary lifestyles, just to mention a few. *Transportes de Lisboa* reached young people by organising workshops and field activities, by awarding best innovative student projects for advancing urban mobility and by conducting opinion polls to get feedback on how they perceive and envision public transport. Among the five finalists, *Transportes de Lisboa* has the biggest replicability potential. It is embedded in a highly dynamic network CIVITAS and thus can be implemented in any of the 89 CIVITAS cities in Europe. Despite struggling with business performance issues and operation challenges after the 2010-2014 financial crisis, *Transportes de Lisboa* kept an eye on young people by putting forward this project to boost demand for public transport.

As a consideration from **Y4PT Foundation**, the project by *Transport for London* “**World’s first transport health action plan**” submitted under the UITP Award category “Public Transport Strategy” received a special mention for its perfect fit with the aim of the *Y4PT World Healthy Mobility Campaign*.

<sup>1</sup> [www.y4pt.org](http://www.y4pt.org)

<sup>2</sup> <http://www.y4pt.org/projects/awards/>

<sup>3</sup> <http://www.y4pt.org/projects/campaigns/healthy-mobility>

## 8. Closing note by Arthur D. Little

The world is changing at a faster pace than ever. With increasing mobility demand and evolving mobility needs as well as increasing ecosystem complexity, the reform of urban mobility systems is one of the key challenges facing the world today. Strategic directions for cities are to “rethink” and “network” the system towards integrated mobility. In that context, each mobility solutions providers need to simultaneously manage three key aspects: **anticipate**, **innovate** and **transform**:

- It is important for companies to **anticipate** future trends, challenge the robustness of current business models and question whether future evolutions are being rightly foreseen.
- Immediately afterward, companies need to take action and **innovate** by defining clear visions and

identifying new models and solutions to either reinvent themselves or find new growth while also improving classical business processes.

- Finally, companies each need to **transform** themselves, comprising required changes in terms of culture, organization, way of working and competences in order to realize the defined vision.

Arthur D. Little sees a great opportunity in collaborating on the 2015 edition of the *UITP Awards*, as they will recognize some of the most innovative practices introduced by Public Transport stakeholders over the past two years and build on the “system-level framework for sustainable mobility” we developed jointly with the UITP. We would also like to acknowledge the excellent work of the UITP in leading this initiative.

## 9. Closing note by UITP

We are progressing towards a world in which public transport is becoming the backbone of most of the sustainable mobility systems in big and dense cities in emerging countries around the world. But we also need to steer the evolution of the mobility of mature systems that need to head towards the integration of the whole travel value chain and of low density areas needing new mobility models.

In this *Award* edition UITP has proportionally received fewer applications in the mobility demand management and in the smart finance dimension. UITP takes the

challenge and will specifically address these two topics in its work-programme and in the next *UITP Awards* edition. In parallel, we invite UITP members and stakeholders to keep on working on these two essential areas. A successful and ambitious sustainable urban mobility system needs simultaneous action on the four dimensions discussed in this report.

# 10. Thank you

UITP would like to thank all the companies that are contributing to the public transport sector strategy of doubling its market share by 2025 and have participated in the *UITP Awards 2015*.

9292 - REISINFORMATIEGROEP B.V.	DELHI METRO RAIL CORPORATION LTD	MALATYA BELEDIYESI ULASIM HIZMETLERI MOTAS AS	SMRT CORPORATION LTD
AGENCE METROPOLITAINE DE TRANSPORT DE MONTREAL	DOPRAVNI PODNIK HLM PRAHA AS	MAZARO NV	SNAPPER SERVICES LTD
AHMEDABAD MUNICIPAL CORPORATION	DRESDNER VERKEHRSBETRIEBE AG	MERU CAB COMPANY PRIVATE LIMITED	SOCIETÀ ITALIANA AUTOSERVIZI S.P.A.
ARRIVA	EAST JAPAN RAILWAY COMPANY	TRANSPORTES DE LISBOA - METROPOLITANO DE LISBOA	SOCIETE DE TRANSPORT DE MONTREAL
ARUP PTY LIMITED	EGO GENEL MÜDÜRLÜĞÜ	METRO PORTO	STIB
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ATHENS URBAN TRANSPORT ORGANISATION SA	FEDERACAO DAS EMPRESAS DE TRANSPORTES DE PASSAGEIROS DO ESTADO DO RIO DE JANEIRO	MIEJSKIE PRZEDSIĘBIORSTWO KOMUNIKACYJNE SA W KRAKOWIE	TAIPEI RAPID TRANSIT CORPORATION
BANGALORE METROPOLITAN TRANSPORT CORPORATION	FERROCARRILS DE LA GENERALITAT DE CATALUNYA	MOOVEL GMBH	TAKSI YEDI YIRMIDORT
BARCLAYS	FLUIDTIME DATA SERVICES GMBH	MOOVIT	TAPTOPAY LIMITED
BOCHUM-GELSENKIRCHENER STRASSENBAHNEN AG	GO TRANSIT/METROLINX	MOSGORTANS	TEMONO
BOMBARDIER TRANSPORTATION	GRUPO SYGMA	MOWASALAT	TEMSA GLOBAL SANAYI VE TICARET A.S.
BUDAPESTI KÖZLEKEDÉSI KÖZPONT ZRT	GRUPPO TORINESE TRASPORTI S.P.A.	MTA NEW YORK CITY TRANSIT	THE STATE UNIVERSITY OF MANAGEMENT OF MOSCOW
BYD COMPANY LIMITED	HELSINKI REGIONAL TRANSPORT AUTHORITY	MTR CORPORATION LIMITED	TRANSDEV
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CITY PUBLIC TRANSPORT COMPANY - GSP	KAYSERİ ULASIM	PUBLIC TRANSPORT COUNCIL OF SINGAPORE	TRANSPORT FOR NSW
CITYWAY	KEOLIS	PUBLIC TRANSPORT SOCIETY OF CHINA	TRANSPORTES SUL DO TEJO
CLOSED JOINT-STOCK COMPANY TROLZA	KOREA RAILROAD RESEARCH INSTITUTE	QATAR RAIL	UNITED BUS COMPANY OF TEHRAN
COMPANHIA DO METROPOLITANO DE SAO PAULO - METRO	KOREA SMART CARD CO. Ltd	RAIL ESTATE LTD.	ÜSTRA HANNOVERSCHE VERKEHRSBETRIEBE AG
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COMUNE DI MILANO	LAGOS METROPOLITAN AREA TRANSPORT AUTHORITY	RATP DEV	VIAQUATRO
CONSORCIO METROPOLITANO DE TRANSPORTES - AUTOPASS	LAND PUBLIC TRANSPORT COMMISSION MALAYSIA	ROADS AND TRANSPORT AUTHORITY DUBAI	VOLARE
CONSORCIO REGIONAL DE TRANSPORTES DE MADRID	LAND TRANSPORT AUTHORITY OF SINGAPORE	RUTER AS	WIENER LINIEN GmbH & Co KG
CUBIC	LUCIAN S.R.L.	SAO PAULO TRANSPORTES SA	WIENER STADTWERKER
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