

CitiesToday

Connecting the world's urban leaders

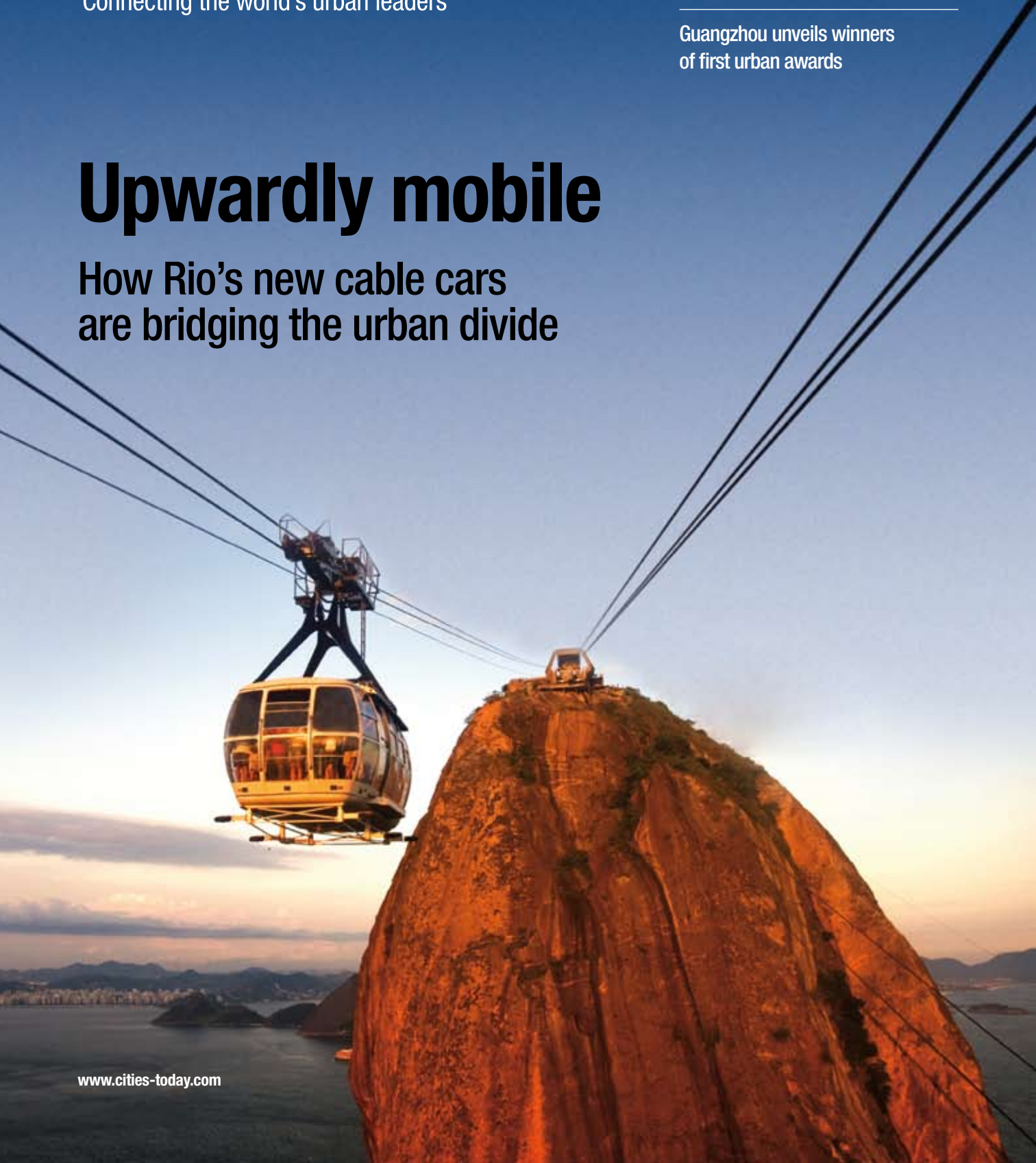
The heavy cost of hosting
the Olympics

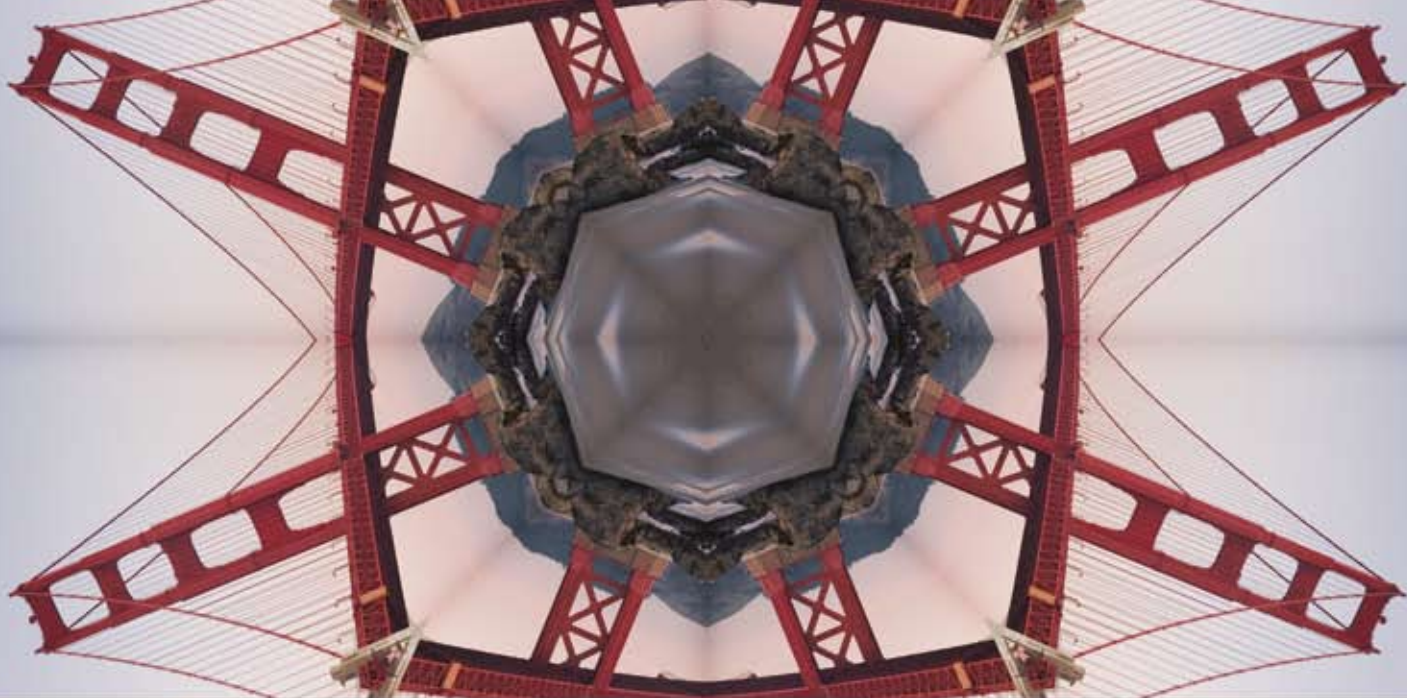
C40 launches
global transport network

Guangzhou unveils winners
of first urban awards

Upwardly mobile

How Rio's new cable cars
are bridging the urban divide





Call for entries

Following the success of last year's inaugural FT/Citi Ingenuity Awards, we now invite submissions for 2013.

As mass urbanisation continues, the most successful cities will be those that embrace groundbreaking solutions to meet the changing needs of their citizens. The Financial Times and Citi, in collaboration with INSEAD, have partnered to recognise the leaders, teams, organisations and community groups whose solutions are enabling progress in cities around the world.

The FT/Citi Ingenuity Awards: Urban Ideas in Action programme recognises original ideas that have made life better for people living and working in cities. The 2013 awards will cover a wide range of areas including city administration, transport systems, energy, education, resource management, housing, health, public safety, social services, mobile technologies, community engagement and collaboration platforms.

The awards are open to applicants worldwide and the entry deadline is 30 April 2013. To find out more, including detailed descriptions of last year's winners, and to enter the awards, visit ft.com/ingenuity



citi

**INGENUITY
AWARDS 2013**

URBAN IDEAS IN ACTION

CitiesToday

Managing editor
Richard Forster
rforster@cities-today.com

Editor, Americas
Jonathan Andrews

Editor, Europe and Middle East
Nick Michell

Editor, Asia-Pacific and Africa
Kirsty Tuxford

Staff writers
Andrew Bates
Sarah Marks
William Thorpe

Production editor
Richard Boal

Sales executive
Tina Note

Publisher
Peter Warren
pwarren@cities-today.com

Commercial director
Willem Fast
wfast@cities-today.com

Editorial advisors
Nicholas You
Roman Rollnick

Publishing For Development Ltd.
5 St. John's Lane
London EC1M 4BH
United Kingdom

Tel +44 203 286 5209
Fax +44 207 526 2173
www.cities-today.com

Cities Today is published four times a year by
PFD Publications Ltd.

The views expressed in this publication are those
of the authors and do not reflect the views and
policies of PFD Publications Ltd.

Requests for reprints or feedback should be sent to
editorial@cities-today.com

© PFD Publications Ltd. All rights reserved.

Cover image: iStockphoto.com/Nikada

Editorial Advisory Board

Milica Bajic-Brkovic
President
ISOCARP

Arab Hoballah
Chief, Sustainable Consumption and Production Branch
Board Member of the Sustainable Buildings
and Climate Initiative
UNEP

Abha Joshi-Ghani
Director, Thematic Knowledge and Learning Department
World Bank Institute

Mike Marinello
Director
C40 Cities Climate Leadership Group

Gino Van Begin
Secretary General
ICLEI

Raf Tuts
Coordinator, Urban Planning and Design Branch
UN-Habitat

Guillermo Tapia
Secretary General
FLACMA

Peter Woods
Emeritus Mayor and Ambassador
UCLG ASPAC

Derek Martin
Chief Executive Officer
IFHP

Jean-Pierre Elong Mbassi
Secretary General
UCLG Africa



VIEWPOINT

- 4 **Addressing food with city planning**
Gino Van Begin, Secretary-General, ICLEI

- 6 **Why we need to get back to walking in our cities**
José Viegas, Secretary-General, International Transport Forum

CITYBRIEF

- 8 • FT and Citi announce award winners
• New urban institute launched by ex-mayor of Stuttgart
• Medellín wins urban innovation award

COVER STORY

URBAN MOBILITY

- 14 **How improving accessible transport boosts a city's potential**
Jonathan Andrews

- 18 **Rio's new cable cars bring transport to the favelas**
Nick Michell

- 22 **Global network launched for urban bus systems**
Andrew Bates

GOVERNANCE

- 30 **Delgosea project promotes city-to-city exchanges in Asia**
Eva Maarten

BEST PRACTICES

- 32 **First urban awards in Guangzhou**
Richard Forster

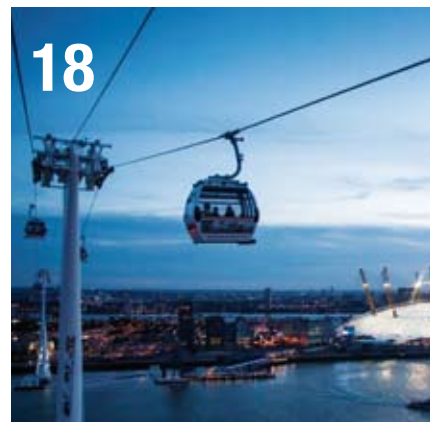
INTERVIEW

- 36 **Frank Jensen, Lord Mayor of Copenhagen**
William Thorpe

CUTTING EDGE

- 40 **Successful strategies for hosting sports events**
Kirsty Tuxford

18



40



- 46 **Why Barcelona is Europe's top conference destination**
Sarah Marks

ON THE RECORD

- 48 **Walter Hook, CEO, Institute for Transportation and Development Policy, New York**
Jonathan Andrews

REGULARS

- 52 **Calendar**

- 56 **News in Focus**

- 68 **Conference Report**
• Africities, Dakar, Senegal
• Smart City Expo World Congress, Barcelona, Spain
• TERI Workshop on Resilient Cities, New Delhi, India

- 74 **My Life, My City**
Eduardo Paes, Mayor of Rio de Janeiro



By Gino Van Begin,
Secretary-General, ICLEI

Addressing food with city planning

We are seeing that cities today need to be more than ever risk averse and to strengthen resilience through multiple pathways. When looking at this in the context of climate change adaptation planning and policy making, the scope of topics that cities need to consider can sometimes be overwhelming. The good news is that there are often synergies in place between existing and new frameworks, which is why ICLEI always promotes an integrated approach to planning and policy making for such work. One aspect of that, which is often overlooked, not just in this regard, but also in city

planning in general, is the city-region food system.

It is clear that cities must address this issue for a number of reasons: to reduce food crises, or conversely, to manage a rise in obesity and to promote a sustainable diet, whilst also working on adapting to the changing climate and increasing the resilience of the food supply within communities. This means a holistic approach to the challenges facing urban food systems is needed. And to be efficient and effective, this should focus on the synergies between food systems and work already being undertaken. For example: biodiversity and ecosystem



Vancouver will integrate urban food system issues within a single policy framework

services in cities, green building design and implementation, and transport and public procurement. But at the same time, a city needs to recognise its vulnerabilities and the gaps that exist in its food system. We must also recognise that the city cannot be seen as separate from global impacts on food, nor can it be separate from its hinterland or regional impacts. And of course, worldwide, different cities face different challenges with their food systems and the people dependent on them, which will influence what they need to focus on and how they proceed.

A recent example of leadership on food systems comes from Vancouver, Canada, a long-standing ICLEI member city, which introduced its Food Strategy in January of this year. This sets out an official road map for the city and its numerous partner organisations and communities to help the city government integrate the full spectrum of urban food system issues within a single policy framework. This framework includes food production, processing, distribution, access to food and food waste management and resulted from extensive public consultation and years of work from many community groups. The policy framework includes commitments such as increasing the urban food assets by 50 percent by 2020. Such a strategy is set amidst broader sustainability goals and provides coordinated guidance on the topic, which cities usually leave as ad hoc or are not addressing at all.

Food is one of the topics that covers multiple aspects of city planning and departments but which is not often addressed by cities

Food is one of the topics that covers multiple aspects of city planning and departments but which is not often addressed by cities. At the same time, there is now a real movement by cities to realising the benefits of taking an integrated planning approach that clearly puts food supply on the table. If we consider what cities should look like in 20 to 30 years' time, leading cities will have incorporated food systems into that approach and they will subsequently be on the pathway to a resilient urban food system. No doubt there will also be flow-on effects for all aspects of sustainability, which is why ICLEI is recommending cities step up, or at the very least consider, their approaches to food. ■

Food systems in cities will be addressed in depth at the upcoming Resilient Urban Food Systems Forum, on Saturday 1 June 2013, at the ICLEI Resilient Cities Congress - The 4th Global Forum on Urban Resilience and Adaptation, to be held in Bonn, Germany from 31st May to 2nd June 2013. (<http://resilient-cities.iclei.org/bonn2013/>)



FOOD SECURITY IN A GLOBAL NETWORK



Meet us at:



Bonn, May 31st - June 2nd

www.101cities.se



Photo: ITF

By José Viegas, Secretary-General of the International Transport Forum

One of the great transport trends of the past years has been the rediscovery of what experts call the 'active modes': getting about walking and cycling, expending your own energy instead of fossil fuels.

In many European cities, the number of journeys undertaken by bicycle or on foot is now at 30, 40, 50 percent or more. Copenhagen, the world's active transport leader, has a combined walking/cycling share of 56 percent. Other cities such as Münster or Freiburg in Germany (54 and 53 percent respectively) are not far behind.

But elsewhere, notably in North America, many communities are still marked by the monopoly of the car. In some communities, more than 90 percent of all journeys are motorised. And in the emerging economies, former pedestrians and cyclists turn into motorists at a dramatic rate as cars become more affordable to the emerging middle classes.

Yet active mobility offers huge advantages over other forms of transport, and these make it a serious topic for policy-makers. For one thing, active transport equals true zero-emission mobility: every citizen who decides to

Walk the talk

walk rather than use motorised transport helps fight climate change, air pollution and fossil fuel dependency. If we are serious about reducing greenhouse gas emissions, an easy-to-implement way of doing something about this is by encouraging active transport.

Walking and cycling are also cheap—not the least powerful argument in times of financial constraint. For users, it is actually free. And on the supply side, active transport infrastructure is eminently affordable by comparison: a whole network of dedicated bike lanes can be built for the cost of just one kilometre of subway.

Finally, there are walking or cycling's positive 'side effects' on public health. In an age where obesity has been declared as a new pandemic by the United Nations and when cardiovascular diseases are the leading cause of death, the beneficial impact of the exercise associated with actively 'transporting' oneself—rather than being passively ferried about—can be considerable.

Walking and cycling are quintessentially urban modes. They are ideally suited to cover the shorter distances of densely populated agglomerations. In fact, the vitality of an urban space is closely linked to people being on foot for all kinds of purposes: shopping, strolling in the park, walking the dog, dropping in on a friend, meeting a colleague for a coffee—all the small things that make city life special and which urban planners call 'sojourning'.

A testament to the growing acknowledgement of active transport is the spread of bicycle-sharing systems in cities around the globe. Sometimes this seems to be more driven by the rationale that if Paris, London and New York have it, our city should have it too. Many cities discover that a bicycle-sharing system alone does not make a city cycling-friendly. It's a great start but more is needed to become the next Copenhagen, starting with a network of separated cycle paths and speed limits for motorists.

The key to boosting active transport is to make pedestrians and cyclists feel safe. Both are among the most vulnerable road users. It has become extremely challenging, especially for older and younger people, to cope with the complex, sometimes hostile, traffic conditions that can characterise today's cities. But only if we create the conditions that make it safe and enjoyable to burn some calories walking or cycling across the city, will the share of active transport in the urban modal split grow.

The trends established today will determine the future of our cities for many decades, so we need to walk the talk now

A report on *Pedestrian Safety: Urban Space and Health* just published by the International Transport Forum concludes that promoting walkability is not a local issue for city governments only. National governments can do much to support and encourage the spread of active transport with a clear vision and political support for cities, backed by a systematic approach to understanding and defining infrastructure quality.

The trends established today will determine the future of our cities for many decades, so we need to walk the talk now. Wherever the different levels of government unite behind the goal of more walkable and cyclable urban environment, the more sustainable and more livable cities of tomorrow can start to become a reality. ■

The report *Pedestrian Safety, Urban Space and Health* can be downloaded at:
www.internationaltransportforum.org/Pub/new.html

Solutions for the smart city.

Better decisions deliver better outcomes.

Hosting large events?

Enhancing a city's cultural reputation with co-ordinated multiple agency and authority support

Attracting inward investment?

Strong, well-run, infrastructure is vital to maintaining city attractiveness and competitiveness

Driving increasing mobility?

Integrated passenger information systems enable passengers to plan, book and travel on public transport with a single ticket

Mastering sustainable growth?

Delivering greater transport capacity while increasing efficiency and reducing pollution

Securing cities?

Enhancing citizen quality of life with co-ordinated incident prevention, detection and response



The smart city concept is a vision shared by major cities as they make the decisions today that will shape their future. More services, greater efficiency and a focus on sustainable development are key and Thales is helping governments and public authorities to answer the challenge. By providing greater integration, interconnectivity, and leveraging existing infrastructure, Thales has an unrivalled capability of providing powerful city-wide management systems. Our solutions for the smart city are backed by a proven track record spanning more than 25 years in over 30 major cities and help administrators, operators and citizens arrive at timely decisions that deliver better outcomes.

To learn more about our solutions for the smart city, scan the QR code or visit thalesgroup.com/smartcity

THALES
Together • Smarter • Safer



Janice Muthui, Foundation Manager, Community Cooker Foundation, receives the award from Martin Dickson (l), US Managing Editor, *Financial Times*, and Francesco Vanni d'Archirafi (r), CEO, Citi Transaction Services

Waste burning stove takes top urban ingenuity prize

The Community Cooker Foundation was named the global winner of the inaugural *Financial Times* (FT) / Citi Ingenuity Awards at a gala dinner in New York held in December.

The Kenyan not-for-profit organisation was announced as the overall winner for its innovative and low-tech stove, which by using waste collected by young locals, reduces emissions from cooking, provides a cheaper fuel alternative, and helps tackle youth unemployment. The Foundation also won in the category of energy.

"Thank you very much for these two awards," said Janice Muthui, Foundation Manager at the Community Cooker Foundation. "This will go a long way in creating awareness of this fantastic and very simple technology."

Winners were chosen for another three categories in which submissions were received from 41 countries. The prize recipients included; JCDcaux – Vélip' (infrastructure), GlaxoSmithKline New Citizen (health) and College Possible (education).

"Now more than ever, cities around the globe face the tremendous challenge of providing basic services and infrastructure to booming populations, often with extremely limited resources," said Martin Dickson, US Managing Editor of the *Financial Times*. "The inaugural winners of this award represent an impressive pool of organisations working to achieve that goal."

Dame Zaha Hadid, DBE, Founder, Zaha Hadid Architects, and Dr Anne-Marie Slaughter, Professor of Politics and International Affairs, Princeton University gave keynote presentations earlier in the evening, both emphasising the growing importance of cities and the need for innovative solutions.

"Technology can be used for good or bad, very complex or very basic, but human contact is foremost in technology," said Dr Slaughter. "It is the technology that allows humans to connect that is important, particularly the bigger a city becomes. I don't see a world of 194 states, I see a world of cities."

Organisers are hoping to build on the success of the inaugural awards with the 2013 edition to feature new categories with winners chosen by region and one global winner.

"In 2013, we are expanding the areas of focus—beyond the categories of education, energy, healthcare and infrastructure—and we're taking a regional approach to selecting finalists and winners," said Liz Fogarty, Director, Strategic Communications, Citi.

Submissions will be accepted online until 30 April and will then be reviewed by the FT and INSEAD, based on a range of criteria, including originality, impact, efficiency and outcomes. A panel of expert judges will then decide the final winners to be announced at a gala dinner in New York in December.

In addition to entering via the website, apply.ftcitiawards.com, influencers and key leaders in urban innovation can endorse or nominate ideas for the awards via the nomination email: ftcitiawards@ft.com. And to read more about ingenuity see ft.com/ingenuity ■

Major breakthrough in clean transport across Europe

With urban mobility set to double by 2025, policy makers need to act swiftly and decisively so that Europe can successfully reduce its greenhouse gas emissions by 80 percent by 2050. To meet this target, Europe must drastically decarbonise its road transport system. Next to increasing the share of public transport, cleaning public transport by switching to hydrogen fuel cells buses is one way to achieve this, according to a recent study.

The European Fuel Cells and Hydrogen Joint Undertaking (FCH JU), together with a group of more than 40 companies, undertook a fact-based comparative study of eight different technologies. The results, published in December 2012, in *Urban buses: alternative powertrains for Europe*, show that fully electric powertrain buses (based on hydrogen fuel cell, batteries or trolley system) have the potential to achieve zero local emissions and drastically reduce well-to-wheel emissions for a limited additional cost.

Hydrogen fuel cell buses and battery-buses can become completely independent from fossil fuels and offer clean alternatives to current powertrains and even diesel hybrid buses. Hydrogen fuel cell buses have the possibility of reducing greenhouse gas emissions by 75 to 100 percent and battery buses can reduce emissions by 30 to 100 percent whereas diesel hybrid buses only allow a limited reduction of 20 percent of greenhouse gas and local emissions.

Alternative powertrains technologies require only limited investment in the infrastructure and do not impact the performance of the buses. Hydrogen buses can travel flexible and long distances and can be refilled at filling stations, much like current buses. Electric buses can either recharge at individual bus stops, requiring a network of charging points, or carry a battery that recharges



A hydrogen bus now operating in Oslo, Norway, as part of the FCH JU project

overnight only. The report concludes that zero local-emission buses can significantly reduce local and greenhouse emissions for a limited price premium until 2030, hydrogen fuel cells buses being one of the most promising options.

Synchronisation of efforts between policy makers, bus operators and manufacturers is recommended in order to initiate deployment within the next decade.

However, policymakers need to act now. Investments and collaborations in 'zero local-emission' pilot projects are necessary. These projects will eventually, according to the report, "drive down the costs of major components" and will save money in the future. Hydrogen fuel and electric buses are for example considered cheaper in the long-term compared to, for instance, diesel hybrid buses.

Current funding schemes are set to end by 2013. It is therefore important to prepare the next funding framework (2014-2020) and to quickly set up follow-up programmes. Subsidies, partnerships, and other forms of financing are needed to maintain these projects and help them become commercially viable. Current projects that are already near commercialisation need to be further sustained.

Another important reason to start a rollout immediately, as mentioned in the report, is the hope that it might

lead to an acceleration of developments in both hydrogen fuel cell and electric buses. Additional experience and expertise in maintenance, usage and adaptation to specific locations will develop as rollout increases.

Lastly, the report stresses that for everything to succeed, and to keep costs low, policymakers and legislators should change the legal framework on either a European or national level. According to the report: "greater clarity is required on future alternative fuel taxation, carbon taxes, air quality legislation and other issues in order to sustain stable, long-term investments".

For the next phase of the study, the Fuel Cells and Hydrogen Joint Undertaking intends to launch a follow-up analysis that defines uptake scenarios for this technology and is calling on public authorities, transport operators, bus manufacturers, component providers and other interested organisations to join and participate. Interested parties are invited to contact the FCH JU at fch-ju@fch.europa.eu.

The Fuel Cells and Hydrogen Joint Undertaking is the European Public Private partnership dedicated to accelerate the market entry of fuel cells & hydrogen technologies from 2020 onwards. The report can be consulted at www.fch-ju.eu ■



Wolfgang Schuster will head up the new Institute for Sustainable City Development

New urban institute launched by ex-mayor of Stuttgart

Wolfgang Schuster, the former Lord Mayor of Stuttgart, Germany, will remain in his home city to be director of the new Institute for Sustainable City Development.

Not standing for re-election in October 2012, after 16 years in office, Schuster formerly handed over the reins of power to the new Lord Mayor, Fritz Kuhn, in January.

Speaking from his new office, Schuster told *Cities Today* that he aims to build on his 20-year's experience as an elected official to use this for the development of other cities, organisations and the private sector.

"As director I will also use my experiences as president of the Council of European Municipalities and Regions and vice-president of United Cities and Local Governments to support particular cities in their development."

The institute's work will be based particularly on national and European networks for which Schuster is actively looking for partners, particularly innovative cities, to develop new co-operations and implement new concepts.

"Sustainability implicates four dimensions: ecological, economical, social and cultural," he added. "I am planning to follow up four strategic goals."

The four goals include tackling youth unemployment, advising on demographic changes, finding new ways for sustainable urban mobility, and developing new concepts to bring education systems and economic development closer together.

The goals are close to the new director's heart as he took leading roles in both urban mobility, founding the worldwide city for mobility network, and as founder of the cities for children network during his time as Lord Mayor. ■

Medellin wins urban innovation award

Medellin, Colombia, has been announced as the inaugural winner of the 'Innovative City of the Year' competition, organised by *The Wall Street Journal* and Citi, which aims to recognise the most innovative urban centres.

Developed with The Urban Land Institute, cities were selected based on eight criteria: environment and land use, culture and livability, economic and investment climate, progress and potential, places of power, education and human capital, technology and research, and mobility and infrastructure.

"Medellin stands today as an example for many cities around the world, because despite having lived very dark and difficult times 20 years ago we have been undergoing a true metamorphosis," said Anibal Gaviria, Mayor of Medellin. "Going from pain and fear to hope, and now from hope to be a place filled with life, the city has known how to innovate in every step, both in social programmes, urban development or the combination of both and this has been key in the success of this process."

"Thanks to the innovative and forward thinking of its people, Medellin is a city in transformation and is improving the quality of life of its inhabitants," added Bernardo Noreña, President, Citi Colombia. "With this recognition, Medellin positions itself as a leading international city in terms of its potential, progress and innovation."

The programme was launched in June 2012 with a list of 200 cities compiled by the Urban Land Institute. After two further rounds of public voting online the field was narrowed to three—Medellin, Tel Aviv and New York City. Events were held in each of the finalist cities where civic leaders and business executives were encouraged to use social media to spread the word and vote. During the course of the competition over 980,000 votes were cast. ■



Medellin promotes itself as moving 'from fear to hope'

To read an in-depth interview with Mr Schuster, go to:
www.cities-today.com and register to read the September 2012 issue.



9th ITS EUROPEAN CONGRESS

Dublin, Ireland | 4-7 June 2013



A unique opportunity:

- to exchange information and network with 1800 stakeholders, decision and policy makers
- to share best practices and lessons learned
- to monitor progress and measure results in terms of implementation and deployment
- to exhibit state of the art technologies and innovative products and services
- to open business and partnership opportunities
- to showcase the latest ITS solutions

ITS: Real Solutions • for Real Needs

WWW.ITSINEUROPE.COM

IN ASSOCIATION WITH  eu2013.ie

Organised by:



Hosted by:



An Roinn Iompair
Turasóireachta agus Spóirt
Department of Transport,
Tourism and Sport

2012 World Mayor prize

The City Mayors Foundation chose Iñaki Azkuna, Mayor of Bilbao, Spain, as World Mayor 2012 for his economic leadership in reducing the city's debt levels and for boosting cultural activities over his 13-year helm.

Lisa Scaffidi, Mayor of Perth, Australia, took the runner's up award and the World Mayor Commendation for raising her city's international profile while also carefully managing urban planning during Western Australia's mining boom.

In third place came Joko Widodo, for his work as Mayor of Surakarta, Indonesia, becoming the city's first directly elected mayor in 2005. He has since been elected Governor of Jakarta (October, 2012).



Iñaki Azkuna, Mayor of Bilbao

Photo: Ayuntamiento de Bilbao



Lisa Scaffidi, Mayor of Perth

Photo: City of Perth



Joko Widodo, former Governor of Surakarta and now Governor of Jakarta

Photo: US Embassy, Jakarta, Indonesia



Photo: Donath / Senate of Berlin

Accessing a city's full potential

Cities can be obstacle courses that penalise the elderly and the disabled through poor urban planning but as **Jonathan Andrews** reports, those cities that improve such access can reap further benefits for all citizens

Berlin's tactile guidance system in metro stations reminds cities that disabilities are not just about wheelchairs

The rising percentage of the world's population living in urban areas is often quoted at conferences on cities—usually to a few groans from the audience who have heard it frequently before— but one statistic that isn't so readily cited is that while cities are growing, their residents are growing older too.

The World Health Organisation (WHO) reports that the global population aged 60 will double from 11 percent in 2006 to 22 percent by 2050. Similarly WHO says that more than 1 billion people in the world have a disability. Putting this together means cities need to provide much better mobility and access for older and disabled residents and visitors.

"Almost everyone of us will be permanently or temporarily disabled at some point in life," said Margaret Chan, WHO Director-General, speaking at WHO's launch of the first World Report on Disability, in 2011. "We must do more to break the barriers which segregate people with disabilities."

Within the European Union more than 80 million people have a mild to severe disability and in 2010, the European Commission launched the Access City Award to reward cities' progress in increasing accessibility.

Berlin has just been presented with the 2013 Access City Award for its strategic and inclusive disability policy which has invested heavily in

turning the former divided city into an accessible metropolis. Since 1992 Berlin has pursued a policy of making the city 'barrier-free', from the creation of a modern, accessible transport infrastructure, to the design of public buildings and spaces.

"The aim is to create equal mobility opportunities for all the city's people," says Ephraim Gothe, Permanent Secretary for Building and Housing of the Senate Department for Urban Development and the Environment, Berlin. "This applies particularly to elderly citizens and people with disabilities."

The city is on target to achieve its own ambitious goals to make the city completely barrier-free by 2020. Already

its bus fleet has achieved this with accessible ramps and low-floor design. Attention is now focused on installing lifts in all 173 underground stations and 132 above ground train stations. The city's tram network will also be gradually updated with new low-floor rolling stock, set to be running by 2017.

Costs

Making big infrastructure improvements and buying new rolling stock doesn't come cheap. Just the new trams alone will cost Berlin €461.9 million but Gothe believes improvements can begin with cost effective solutions.

Increasing the number of dropped kerbs, expanding pedestrianisation and accessible routes and paths, and installing tactile guidance systems for blind people at intersections and metro stations, are some low-cost improvements that cities can make.

"Starting with the pedestrian environment and sidewalks are really the best money you can invest in," says Julia Babinard, Environmental and Social Development Specialist in transport at the World Bank, and also a technical advisor on the joint WHO/World Bank World Report on Disability. "A journey does not start once you are on the transport system. It starts from when you are leaving your home. Often what we have seen is you have a very flexible and high-end system but a person often may not even get to the ramp because cars are parked on the sidewalk and there are barriers to cross the road."

Barbinard says that cities should start with low-cost modifications: pedestrian crossings, visible signs, flat smooth footpaths and ramps with low angles. "Then at the other end of the spectrum you would have elevators in the metros, as they would probably be the most expensive improvements."

Another inexpensive measure introduced by Berlin was to appoint a commissioner for people with disabilities and to host roundtable discussions on access to which disabled people were invited.

Multiple benefits

The availability of low-cost improvements is one argument lobbyists

are making to get cities to adopt better access for the disabled and the elderly. Another is the benefit to the greater population that accessibility improvements can make.

"We see that with a lot of the improvements we are trying to implement they can also benefit multiple users," adds Barbinard. "You can help kids move around, mothers with strollers and bags, and help combat climate change as people will be more mobile, walk more and use public transport."

In Ljubljana, Slovenia, the city has been quietly achieving its own goals in accessibility, winning the European prize



Tjaša Ficko, Deputy Mayor of Ljubljana, Slovenia

for urban space in 2012 and coming runner-up for the 2012 Access City Award. In 2007, when Ljubljana created its 2025 vision for the city, Tjaša Ficko, the Deputy Mayor, recalls how the city hall didn't even have a lift, but has since progressed rapidly.

Ficko believes a city that is friendly to vulnerable groups is friendly to all and that projects aimed at the disabled and elderly can also benefit other residents or visitors. "I have never heard of anyone complaining about things that are acquired in the city that are primarily intended for the elderly and people with disabilities," says Ficko, explaining how the implementation of audio announcements in plain language

on city buses, primarily designed for blind people, has also assisted tourists who are unfamiliar with the city.

At the same time, if the streets are more accessible, there is also a contribution to improving road safety. Before Ljubljana began pedestrianising its city centre, previously burdened with heavy traffic, the streets' granite cobblestones were in such bad shape that many visitors complained of difficulties of walking around.

"Due to lower kerbs, ramped entrances and the simple fact that there isn't vehicle traffic, it's absolutely true that the city centre is a friendlier place for the most vulnerable groups in society," adds Ficko. "Nowadays it is an oasis for socialising, where children can play peacefully and people can walk without feeling nervous."

With many cities enthusiastically pedestrianising city streets and banning cars, Ficko reminds city leaders that the elderly and disabled still need to be catered for.

"It's true that for some, especially the elderly, walking can sometimes be too demanding thus we have introduced two free electric vehicles into the pedestrian zone, known as Kavalirs," she explains. "People can use them without any prior notification whenever they come across one in the street, but they can also be called for to collect people." Two special taxis, adapted for people with disabilities, can also enter the pedestrian zone.

Guillaume Dufresne, Mobility and Transport Officer, European Disability Forum, says that by providing adequate transport access for all users, the socio-economic welfare of cities will increase. "Transport services must adapt to the needs of our rapidly ageing population in order to support longer working lives and independent living in old age, and thus reduce the impact of ageing on public budgets."

Financial incentives

Regulation is one way of ensuring accessible transport options, including for taxis and other forms of urban transport. Tom Shakespeare, Technical Officer, WHO, and one of the World

Report's authors, believes that there is a market, and a financial incentive, to provide accessible transport.

"In the United Kingdom, it's a two way thing, you need to have regulation that mandates it and taxis have to be accessible," he explains. "Some taxi drivers complained about the onerous requirement to buy an accessible vehicle but there is equally as many people who say 'Great, on a Saturday night I can fit eight people in this vehicle, so when a wheelchair user is not needing it, I'm making money'. In those scenarios it's a win-win situation."

Accessibility differs wildly between cities, with larger and wealthier cities

being converted to provide wheelchair access. He believes that a key to increasing accessibility is being where the people are.

"It's no use having an all seeing, all dancing, US\$200,000 this that and the other, we have to have something that can be used in the slums," he adds. "Because when we look at the evidence of the World Report, and when we talk and listen and read research from around the world, transport is the biggest barrier to people with disabilities."

One development that has improved access tremendously for the elderly and the disabled has been the popularisation and success of Bus

One misconception is the belief that people with a disability are just people in a wheelchair. Providing accessibility is also about information and communication, signage, and making sure that older people, people who are blind or deaf, or who have intellectual disabilities, can navigate easily through cities.

With the economic crisis pinching city budgets, Dufresne from the European Disability Forum believes this in no way should be used as an excuse to remain inactive, as investments will unlock all citizens' potential and bring future benefits. "With improved transportation people with disabilities will also gain greater access to education and to the employment market," he adds. "Equal access to transportation and services in general is the prerequisite of future prosperity and the sustainable growth that cities pursue." ■



Two free electric vehicles cater to the elderly within the pedestrianised streets of Ljubljana

more user friendly than cities in the developing world, where, according to Dufresne, it is more difficult to invest in public urban transport.

Not all is bad news for disabled and elderly in those cities, says Shakespeare. "I'm from Britain and I had underestimated how much other places were doing," he says. "There are initiatives in Curitiba, Bogota, Quito, Dar es Salaam, and now in Beijing and Delhi which both have accessible metros. You realise that people are getting it, so that's encouraging."

In India, a country not known to Shakespeare previously for its accessible cities, he recalls even seeing a rickshaw

Rapid Transit (BRT) systems. "BRTs aren't designed specifically for disabled people," says Shakespeare. "They are designed for mass transit but it doesn't have steps, or gaps, it has level access and ramps. It's all smooth and level, so it's that much easier for everyone."

Airports too are routinely cited as best practice examples as they provide smooth and easy access for all. "I travel a lot through Heathrow and Gatwick [London airports], and it's all step free," says Shakespeare. "There are thousands of people travelling with suitcases, they're tired and frustrated and you just want it to be easy. That ease makes my life as a wheelchair user simple too."

Better information and training are essential

According to Guillaume Dufresne, European Disability Forum, the following can also contribute to improving journeys for disabled passengers:

- **Staff training:** training of staff is an essential condition to guarantee access to services. As regards urban transport, staff are not usually prepared for the problems experienced by a person with disabilities, which can lead to many misunderstandings between the two.
- **Better reliability of the service:** The fact that an urban train or bus is late or changes its route at the last minute is particularly detrimental for persons with disabilities, who often miss the information because it was not accessible to them.
- **Innovation is also of major importance.** Technology around ticketing and way-finding is becoming an important element of the transport system, but with the increasing use of automatised equipment, there is a risk of excluding persons with disabilities. This risk can be avoided with innovative technologies for ticketing and way-finding to facilitate the transport journey of persons with disabilities.
- **Enforcement:** without an adequate enforcement mechanism and monitoring system involving the disability movement, as well as simplified and accessible complaint handling procedures, cities will never be capable of delivering full accessibility to their transport users.

Arab Future Cities Summit to drive 'smart' development in Middle East

Over 300 high-profile city leaders, urban planners, property developers and innovators are expected to gather in Doha, Qatar on 22-23 April at the Arab Future Cities Summit, one of the region's main infrastructure events

"Key city stakeholders are eager to share plans, policies and best practices for the implementation of smart solutions in new Middle Eastern cities as the investment focus shifts from LNG to urban infrastructure," said JoAnn Jain, Director of Expotrade Global which is organising the event under the patronage of Qatar's Ministry of Municipality and Urban Planning.

"Technology has become the driving force behind societal and commercial growth across the GCC [Gulf Cooperation Council] and more attention than ever is being placed on water and energy-efficiency, reducing carbon emissions and achieving sustainable economic growth," said Jain.

Smart cities like UAE's Masdar, Qatar's Lusail and Saudi Arabia's King Abdullah Economic City have raised the bar for innovative solutions, with governments investing heavily in state-of-the-art technology for greater connectivity and efficiency.

In Qatar alone over US\$140 billion worth of mega projects in infrastructure, transport, tourism, health, education and housing are planned by the government.

"Qatar has made a commitment to the country's sustainable development, as reflected in the Qatar National Vision 2030, which calls for a balance between Qatar's development needs and protecting the environment," said Dr Alex Amato, Head of Sustainability at Qatar Green Building Council. "In order to achieve this vision, both government and industry need to be involved, so that green and sustainable building and design are incorporated into urban development and redevelopment plans across the board."



Urban development accelerates as Qatar prepares to host the 2022 FIFA World Cup

With Qatar hosting the 2022 FIFA World Cup which is expected to draw half a million visitors, work is well underway on projects including a US\$25 billion metro and rail network and the new Hamad International Airport is set to open in April, one of the largest single real estate developments in the region.

Electronic systems giant Thales Group are among the tech-firms seizing the opportunities offered by smart city development. "Building on a strong presence within city mobility and urban security activities, we are delivering integration between individual city systems that deliver measurable benefits such as reduction in crime or increase in traffic flow," said Jacques Bourgeois, Director Strategy &

Marketing at Thales Communications & Security. "Not only do we see a real ambition in the region, but we can also see a real willingness to adopt leading edge and innovative technologies at an early stage, combined with a desire to deliver tangible benefits to citizens."

Philips, Barwa Bank, Thales, AGT International, Schneider Electric, Microsoft and SAP are among the firms showcasing their smart city solutions at the Arab Future Cities Summit where key local and international thought-leaders will present on urban planning, ICT infrastructure, smart grids, green building and smart transport systems. More information about the Arab Future Cities Summit can be found at www.arabfuturecities.com ■





The search for alternative transport solutions

With urban travel set to double by 2050, cities are searching for solutions beyond road-based transport. As Rio de Janeiro prepares to open a new cable car system this month, **Nick Michell** highlights the factors which can make cable cars more than just a tourist attraction

The Emirates Air Line bridges the Thames, running 90 metres above the ground, connecting north and south London

Despite historically being associated with mountains and skiing, cable cars and gondola lift systems are now appearing in urban areas, with big cities such as London, New York and Rio de Janeiro, using these systems as a mode of transport for their citizens.

It was Latin America which first looked at using cable cars for urban transit with the most significant experiments taking place in the 2000s in Medellin, Colombia, and Caracas, Venezuela. These cities rethought the use of cable cars as a means of mass transport that could be clean, with no direct carbon dioxide emissions, and which could end the isolation of the poorest neighbourhoods.

Operating since 2006, Medellin's Metrocable is a gondola-style cable car system that provides a crucial link to city life and work for residents of poor neighbourhoods high above the city centre in the Aburra Valley. The electric-powered gondola lines are efficient, affordable, and integrated with the city's metro rail and new bus rapid transit (BRT) system, and part of an ongoing transformation of mobility in Medellin. Currently the Metrocable system runs three lines, Line K, Line J and Line L, with more under construction, and has been received with enthusiasm by the locals.

"Medellin pioneered the use of cable cars as a transit alternative in low-income informal settlements in hilly areas, moving 3,000 passengers per hour in

each direction," says Holger Dalkmann, Director at EMBARQ, the Sustainable Transport and Urban Development Program of the World Resources Institute (WRI). "The system has been a real breakthrough. The city transformed violence and despair into hope and opportunity, using sustainable transport as one of the key levers to drive this change."

Many of Medellin's *barrios* (neighbourhoods) are in fact located on very steep ground, to the extent that not even a regular bus system could be either useful or commercially profitable. Before the implementation of the Metrocable Line K, residents of the Santo Domingo barrio, spent upwards of two and a half hours commuting to work each way.



Photo: TL

Following on from the success of the Teleférico at the Complexo do Alemão, Rio City Hall decided to construct another cable car system at Morro da Providência, the oldest favela in Brazil. Once fully operational and open to the public in April 2013, residents of Providência will be able to get to the Central do Brasil, Rio's main train and tube station, and Cidade do Samba (City of Samba), which is next to one of Rio's main bus stations in the neighbourhood of Gamboa, in just a couple of minutes.

"Until now, residents were forced to walk up and down the hill on foot or use vans and mototaxis," says Pierra Batista, Rio City Hall's Housing Secretary. "In this sense, the cable car system will reduce the need for those vehicles circling the Morro da Providência. However the main objective is not to reduce congestion, but to facilitate the movement of residents. Now they take about 10 to 15 minutes to get to a bus terminal, train

to benefit almost 60 communities and 75,000 families. Through the programme, Rio City Hall is providing the favelas with water and sewage networks, education, leisure and health infrastructure and street widening.

"The Teleférico da Providência is a clean and environmental friendly transport system, as it uses engines powered by electricity instead of fossil fuels," says Batista. "It will not only make the lives of local residents much easier from now on, but it has also created jobs in its construction. The cable car system, as well as all works of Morar Carioca, prioritises the hiring of local residents of the area. Due to the topographic conditions and the size of the streets, it is difficult for large vehicles to transport materials into the community. Therefore it was very important to involve the community in material transport, surveillance, traffic control and other functions critical to the realisation of the project."

"The Teleférico da Providência is a clean and environmental friendly transport system, as it uses engines powered by electricity instead of fossil fuels"

Pierra Batista, Rio City Hall's Housing Secretary

Inspiring others

Medellin's achievements with the Metrocable led to other cities replicating the urban cable car system, with Rio de Janeiro, in July 2011, opening the six station Teleferico do Alemão, which runs through the Complexo do Alemão, connecting residents to the city's rail network. Built by the State Government, in total the line measures 3.5 kilometres and local residents can apply for a RioCard, which grants them two free trips per day on the Teleferico. The cable car system can carry 3,000 passengers per hour from Bonsucesso to Palmeira, stopping at six different stations. The line has gone a long way to resolving the transport issues within the area and reconnects the Zona Norte favelas with the rest of the city.

or metro. Using the cable car it will take them about 2 minutes. Additionally, if today they pay R\$3-5 (US\$1.5-2.5) to use vans or mototaxis, all residents will now be allowed to use the cable car for free twice a day."

The Teleférico da Providência will be 721 metres long and its 16 cable cars will transport 1,000 people per hour between three different stations, Central do Brasil, Providência (top of the hill) and Cidade do Samba. Rio City Hall has invested R\$40 million (US\$20.4 million) in the project as part of the programme called Morar Carioca, which aims to provide basic services to all of Rio's favelas by 2020. During the past four years, Morar Carioca has invested R\$2.1 billion

Different context

While Rio and Medellin have used their cable car systems as a means of linking poorer neighbourhoods to the rest of the city, cities in other countries such as New York and London, have constructed systems that act as an efficient means to transport commuters across rivers.

The Roosevelt Island Tramway is an aerial tramway in New York City that spans the East River and connects Roosevelt Island to Manhattan. Prior to the completion of the Mississippi Aerial River Transit in May 1984 and the Portland Aerial Tram in December 2006, it was the only commuter aerial tramway in North America.

Over 26 million passengers have used the tram since it began operation

in 1976. Each cabin has a capacity of up to 110 people and makes approximately 115 trips per day. The tram moves at about 17.9 mph (28.8 km/h) and travels 3,100 feet in three minutes. At its peak it climbs to 250 feet above the East River as it follows its route on the north side of the Ed Koch Queensboro Bridge, providing views of the East Side of midtown Manhattan. Two cabins

video surveillance by our Public Safety Department and there is a cabin attendant present at all times.”

Just before last summer’s Olympics, London launched the Emirates Air Line at a cost of £60 million. The Emirates airline is providing £36 million of the costs through a ten-year sponsorship deal though the project still came in well above budget.

“The number of journeys made on the Emirates Air Line since opening in June 2012 is already over 1.8 million, well exceeding the passenger target for the first financial year (March 2013 – 1.3 million passengers) and current passenger numbers are in line with Transport for London’s (TfL) forecasts,” says Danny Price, TfL’s Head of the Emirates Air Line. “As with all new transport links,



The Teleférico da Providência will transport 1,000 people per hour between three different stations

make the run at fifteen minute intervals from 6:00 a.m. to 2:30 a.m. (3:30 a.m. on weekends) and continuously during rush hours.

“The Tram mainly serves the transport needs of 13,000 Roosevelt Island residents,” says Armando Cordova, Director of the Roosevelt Island Tramway. “It offers a different transport option for our island residents and visitors. It is cost effective for our users and we honour the MTA Metrocards as part of the New York City mass transport system. The system is safe because each tram cabin is under continual

The system’s 34 cars bridge the River Thames, running 90 metres above the ground, connecting north and south London, travelling between two new stations at the Greenwich Peninsula and Royal Docks.

The Emirates Air Line, as the newest addition to London’s transport network, is a key part of Mayor Boris Johnson’s ambitious plans to revitalise east London, driving economic growth and supporting jobs. It has opened up access to the Royal Docks Enterprise Zone and will play a role in attracting businesses and investors to the area, boosting regeneration.

the number of regular users builds over a period of time as people become familiar with new journey possibilities. The purpose of the Emirates Air Line is to support regeneration in east London. If the Emirates Air Line was at full capacity now there would be serious concerns about how it could carry the future population growth it was built to support.”

The Emirates Air Line is an alternative pedestrian river crossing, which was delivered quickly, with construction taking just 11 months. When a customer makes five journeys in a week on the Emirates Air Line

using Oyster pay as you go, each journey amounts to £1.60. Regular users are also encouraged to buy multi-journey passes enabling them to travel across the Thames for £1.60. The cash fare for a single journey on the Tube and DLR between North Greenwich and Royal Victoria is £4.50, while the Emirates Air Line cash fare for the same journey is £4.30. Despite these

existing walking and cycling routes, including the Thames Path,” says Price.

Whether cable cars like the Emirates Air Line in London become a regular transport alternative for residents or simply exist as a tourist attraction, city developers have begun to champion the cost-effective transport system for commuters. One kilometre of cable costs half as much as it does for

problems with clear topographical, or man-made physical challenges. They are particularly adept at addressing local circulation and last-mile problems.”

Dale, however, warns that city developers and planners still have a lot to learn about cable car systems and if they are to become a transport alternative, then knowledge and understanding has to be improved.

“Cable cars are viable in both developed and developing cities and are most effective in solving transport problems with clear topographical, or man-made physical challenges”

Steven Dale,

Founder of The Gondola Project

incentives, regular users have been less than 10 percent of total trips though London’s City Hall is keen to emphasise that both passenger numbers and the benefits of a green transport solution will grow.

“The Emirates Air Line system is powered electrically,” says Price. “Over time, as the amount of renewable energy available on the National Grid increases, it is possible that the electricity used to power the scheme could be completely green making it an even more environmentally friendly form of transport”

The system incorporates brown roofs, solar panels, rainwater harvesting and timber fenders on the north side in the Royal Victoria Dock. On the south side, the 400 square metres of new public space provided includes 49 new trees. “The scheme has been designed to emit very little noise and it is encouraging people in the area to walk and cycle where possible, as it links



Photo: Raphael Lima

All residents will be allowed to use the Teleférico da Providência for free twice a day

a street tram, and although it doesn’t have the same flow rate as metro or tube systems, some models can take up to 8,000 travellers a day. It is also an eco-friendly means of transport, producing no carbon dioxide emissions.

“Like any technology, they’re viable in the right situation,” says Steven Dale, a Cable-Propelled Transit (CPT) specialist and founder of The Gondola Project, a website dedicated to promoting and informing on cable car technology. “They’re viable in both developed and developing cities and are most effective in solving transport

“It is not a stretch to suggest that we (The Gondola Project) are some of the only planners with any knowledge or experience with the technology,” says Dale. “The vast majority of expertise on this subject matter rests in the ski-resort industry. That industry, logically, has little cross-pollination with the urban planning and public transport realm. We still, to this day, sometimes encounter hostile resistance to the idea that a ski lift can function as public transport. Some people simply can’t accept that idea and can’t even begin to think of it as ‘real’ public transit.” ■

New network launched for urban bus systems

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



As well as reducing travel time and cutting road fatalities, Bus Rapid Transit systems can lower CO₂ emissions by 40 percent



The first Bus Rapid Transit system opened in Curitiba, Brazil, in 1974, and remains one of the best in the world today but the innovations from that system were not readily copied or correctly utilised and BRT was slow to take off. In 2000, Bogota, Colombia, began a second wave of successful BRT systems, the TransMilenio BRT, which significantly surpassed Curitiba in terms of speed, capacity, quality of service, and the richness of services offered. Its success spurred a number of cities across the world to build BRT systems and today over 160 systems are operating or under construction, highlighting how BRT is a flexible concept that can be configured specifically for the market it serves and for the physical environment in which it operates.

“A Bus Rapid Transit system is an innovative, efficient, high capacity and cost effective transport solution but BRT systems are complex and depend on a number of features to make them a success, meaning there are good and bad examples across the world,” says Andrés Fingeret, C40 BRT Network Manager. “This is why we have created the C40 BRT Network: to facilitate and promote the interchange of knowledge and information between C40 cities on BRT systems. Mayors are increasingly studying and relying on BRT systems for their city as they can provide state of the art public transport at a fraction of the cost of other systems (usually 15 to 25 percent of the cost of a metro).”

BRT is one of the key opportunities to shift travel from individual vehicles to public transport, while fostering compact, mixed-use urban development in a cost effective way. More than 20 cities from C40 have expressed their interest in promoting BRTs through the network.

activities and discussions are open to everyone and others have more specific questions and topics of discussion.”

C40 has signed Memoranda of Understanding with the Institute for Transportation and Development Policy (ITDP) and EMBARQ, two of the leading non-governmental organisations



Bus Rapid Transit systems have become one of the best options to improve urban mobility

What makes a successful Bus Rapid Transit system?

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

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

“We have been working on the planning stages since last June, trying to understand what we would like to achieve, who would make the best partners, how a BRT network would make sense, and what we would ask cities to provide,” says Fingeret. “The network is like a living creature, where at the beginning we are allowing everyone that has expressed interest to step in and out. As the network matures, you need to start to have more formal agreements between participants and have different categories of participant, where some

on sustainable mobility. It has also conducted webinars on Clean Bus Technology and a BRT Standard, with both gaining significant attendance and follow-up interchange between cities.

The webinar on the BRT Standard, which was managed by the ITDP, brought 10 cities together to discuss the merits of having a rating system for BRT systems. The Standard would allow experts with knowledge of a specific corridor to put a figure on the quality of BRTs, with each able to achieve a gold, silver or bronze level (see graphic on page 51). It will

be a way of promoting good quality BRTs, while also identifying below par systems, and help mayors and city officials understand what they need to do to achieve a top rated system.

The partnership with EMBARQ is part of a broader collaboration with C40 Cities to which EMBARQ



is bringing expertise, connections and know-how, for example, in urban planning for sustainable cities, and health and road safety.

For BRT, EMBARQ has on-the-ground expertise, through the organisation's experience in supporting the planning and implementation of BRT projects in Ahmedabad, India; Guadalajara, Mexico; Istanbul, Turkey; Mexico City; and Rio de Janeiro, Brazil.

"Our experience helps mayors maximise the benefits of BRT with assistance, both in the planning and in the operations phases," says Dario

Hidalgo, Director for Research and Practice at EMBARQ. "EMBARQ helps speed up the planning process by tapping into expertise from our own network—7 countries and tens of cities—and this is valuable to C40 Cities' mayors that want to lead with high-impact sustainable transport projects. In the operations phase, we will bring a set of best practices to improve and visualise the quality of service, safety, and social and environmental performance of BRT systems."

Knowledge exchange

Bus Rapid Transit has multiple economic, social, and environmental benefits and the new BRT Network will attempt to help cities maximise the impact of these benefits. In Bogota, Colombia, the BRT has reduced traffic fatalities by close to 90 percent and has saved 56 lives per year on average on the main corridor, not to mention cutting travel time in half and reducing the emission of air pollutants by 40 percent. The cost of the bus system in Bogota was a tenth of what the rail alternative would have cost, and it was planned and built in less than three years. C40 Cities adopting BRT can improve transport efficiency, cutting cost of travel and time by 30 to 50 percent and generating economic growth around bus stops and terminals. Greenhouse gas emissions can be cut by 40 percent and fatalities reduced by 25 to 40 percent, providing a healthier living environment for a city's citizens.

"Learning from experiences in other cities can cut planning time in half and contribute to reducing costs in the same way," says Holger Dalkmann, EMBARQ's Director. "Cities involved in BRT networking can learn problem-solving approaches from other metropolises, such as: how to involve incumbent public transport operators; how to set-up managing agencies; or how to make the BRT safer through design."

In its initial stages, the network will facilitate the exchange of knowledge and experience between cities through email, online discussions and phone calls but the aim is to eventually organise physical meetings and conferences. Cities will be

able to give and receive presentations from other cities across the world on their experiences with BRT systems. As the network develops, mayors and city officials will begin to interact on specific topics and discuss shared problems like station design, bus efficiency or how to build corridors in narrow streets.



Holger Dalkmann, EMBARQ's Director

"Learning from experiences in other cities can cut planning time in half and contribute to reducing costs in the same way"

*Holger Dalkmann,
EMBARQ's Director*

"We have the goal of having physical meetings that will bring everyone involved in the network together, to connect faces with names and have more in depth discussions that build on previous online dialogue," says Fingeret. "C40 will provide the link between cities, ►

maybe taking part of the discussions, depending on the wishes of the participants and that is where the mayors start to gain from having their staff participating in the network discussions, where they can have a real peer-to-peer exchange and build relationships.”

Flexibility

The time taken to build a BRT system is significantly less than what is needed for a metro system and it can match its capacity. Investment is minimal and would not require complex work, which is the case with a subway system. BRT can be easily customised to community needs and incorporate low-cost technologies that would attract more passengers and ultimately help reduce overall traffic congestion. Its flexibility allows cities to access extensions of greater length, and to adapt to economic changes and demand. Its implementation is faster and its operation and maintenance are also more economically viable.



Photo: EMBARQ

Dario Hidalgo, Director for Research and Practice at EMBARQ

provide an ideal short-term transport solution, in comparison to the time it takes to implement a metro or underground system. And of course politicians need short-term options, one that could help them be re-elected. You cannot build a metro system in four years but you can have a pretty good BRT in that time.”

“Since BRT is still relatively new, highlighting the benefits to decision-makers remains critical to broadening the base of interest”

*Dario Hidalgo,
Director for Research and
Practice at EMBARQ*

BRT enables even low-income cities to develop a mass transit system of high quality that meets the daily travel needs of the population.

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

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

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



Photo: EMBARQ Brasil

TransOeste Bus Rapid Transit (BRT) in Rio de Janeiro, Brazil

“I was reading a UN document saying that by 2050, the amount of travel in urban areas will double from what it is now and BRT is the most reasonable way of meeting that demand because it is faster and cheaper,” says Fingeret. “From a political standpoint mayors are starting to realise that BRTs

BRT systems are growing in recognition as one of the most effective solutions offered by mass transit, offering high quality service with a favourable cost-benefit ratio for urban areas, both in the developed and developing world. By allowing cities to provide a functional network of public transport corridors,

LEADING THE WAY

IN ROAD USER CHARGING AND ADVANCED TRANSPORTATION MANAGEMENT

Q-Free is the leading global supplier of products and solutions within ITS, (Intelligent Transport Systems) for Road User Charging and Advanced Transportation Management.

Q-Free offers a complete range of products, solutions and professional services based on the most advanced and cost effective technologies.



www.q-free.com [Twitter@QFreeASA](https://twitter.com/QFreeASA)

standard electrical components even when the engine is shut-down. This allows the system to save fuel by eliminating idle fuel usage while the bus is stationary.

The next step is to shut the engine down shortly before it arrives at a stop. The engine remains off at the stop and is re-started only after the bus has pulled away from the stop. We call this 'arrive and go'.

This feature can be used to arrive and depart from bus stops. To passengers waiting at a stop, boarding and alighting, the bus appears quiet and smooth with no exhaust emissions.

The next step toward a zero-emissions bus is achieved through greater levels of electrification. All ancillary systems are now powered by electric motors, not by the diesel engine.

Using grid power to charge the hybrid batteries offers a source of power with much lower carbon emissions than the on-board diesel generator.

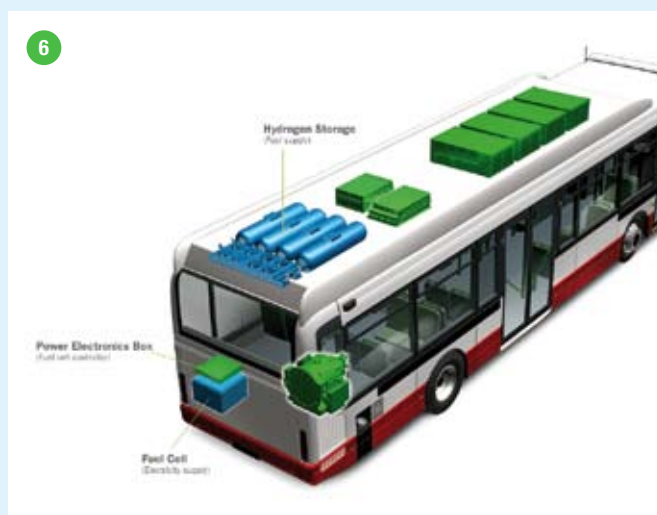
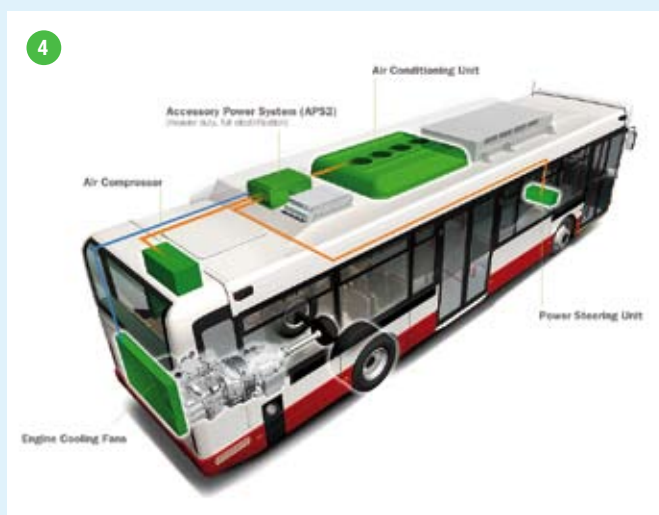
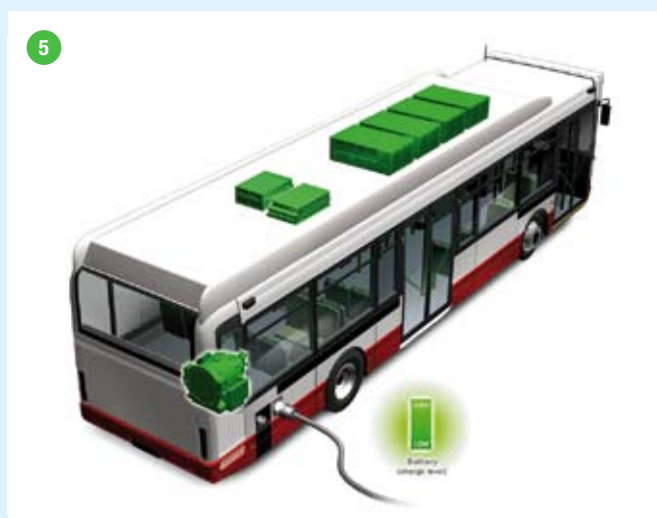
The hybrid drive-train and electrical ancillaries remain unchanged. Either conductive or wireless inductive charging stations are required within the city. But compared to a full tram or

trolley bus network, the infrastructure cost of these is extremely low.

The final stage is a bus that requires no on-board diesel generator at all. This could be achieved by adding more energy storage or through cleaner on-board generation such as a fuel cell. The hybrid drive-train and electrical ancillaries remain unchanged.

We are today in the transition from buses enabled with engine stop/start and 'arrive and go' technology to those with extended engine-off mode capability. Buses capable of receiving fast charge from the grid are starting to see deployment in the UK and Europe in controlled demonstrations. HybriDrive® Series has been designed from the outset to enable this progression to zero-emissions urban mobility, watch this space! ■

Using grid power to charge the hybrid batteries offers a source of power with much lower carbon emissions than the on-board diesel generator



UCLG ASPAC supports programme for city-to-city exchanges

By Eva Maaten, Communications Manager, DELGOSEA



DELGOSEA partners gather from six countries

The Partnership for Democratic Local Governance in Southeast Asia (DELGOSEA) has come a long way since starting out in March 2010 as a project co-financed by the European Commission and the German think-tank and consultancy, Konrad-Adenauer-Stiftung. A network of local government associations, local authorities, non-governmental organisations and academic institutions in the Philippines, Indonesia, Vietnam, Thailand and Cambodia, DELGOSEA has been focusing on the transnational exchange of sustainable good governance practices in four main areas:

- People's participation in planning and decision-making;
- Institutional governance;

- Urban environment; and
- Fiscal management and investment promotion strategies.

The DELGOSEA project has now reached the end of its incarnation as a EU co-funded project, but the DELGOSEA network will continue, supported by the Konrad-Adenauer-Stiftung and United Cities and Local Governments Asia Pacific (UCLG ASPAC). Funding will be available to concentrate on two main aspects of the original project.

First and foremost, DELGOSEA will continue to be a forum for the exchange of knowledge across cities in southeast Asia. As such, it will be open for new best practices on good local governance and for contacts with pilot cities that are interested in replication. The website will

become a major communication tool for sharing best practices within DELGOSEA partner countries and beyond. For the sustainability and continuation of the partnerships and friendships that have developed between best practice and pilot cities, local government associations and civil society, it is vital to maintain the existing communication tools so that members can stay in touch and continue to develop their relationship.

The second pillar of the DELGOSEA network will continue to be on advocacy and lobbying for better framework conditions at the regional level. The experiences of the pilot cities and the restrictions faced in implementing good local governance projects will directly feed into this part. With the establishment of

the DELGOSEA Standing Committee and the ASEAN Liaison Office, under the auspices of UCLG ASPAC in Jakarta, the ground has been prepared for concerted efforts to reach a much stronger cooperation on democratic local governance within ASEAN.

Originally, only 16 best practice cities were selected from the four thematic areas listed above. These best practices were workable, results-oriented good governance approaches, frameworks and methodologies applied by local governments to improve the effectiveness and efficiency of public services. They were demonstrating the power that local governments can have in a decentralised context to initiate what is best for people in their municipalities.

In the next phase, the DELGOSEA network is planning to extend the exchange of best practices, not just between the cities that were participating in the original project, but by encouraging other cities to join the network and start their own replication—whether from the original best practices or from other projects. The DELGOSEA library, incorporating the various publications that DELGOSEA has produced, both to help the pilot cities implement their chosen best practices and to document the replication process, is available for any city that is interested in replicating these best practices.

New additions to the library include the documentation of the transfer process by the pilot cities, describing the approach to implementation that each city took, which challenges were encountered, and how the problems were solved. Each municipality analyses the success factors for their respective project, divulging tips on how to make best practice exchanges work. This volume provides invaluable insider information for any city considering taking up best practice replications themselves.

The documentation of the transfer process complements earlier publications. This includes the *Handbook on Replication Methodology*, which offers a detailed step-by-step account of how to approach such replication and all the issues that need to be considered along the way.

Also available is DELGOSEA's first publication *Best Practices on Local*

Government. This series of books, giving detailed information on all the best practice cities, formed the basis for the so called 'transfer concepts' of the pilot cities, i.e. the detailed plans of how to implement the selected projects. In addition a wide selection of training and resource materials, leaflets and brochures ensures that every aspect of the replication process is documented with the aim of encouraging further best practice

exchanges and making cities realise that they are not alone when embarking on such a journey. The DELGOSEA library hopes to inspire cities across southeast Asia to continue learning from and cooperating with each other. All these publications are available via the DELGOSEA website and form part of DELGOSEA's sustainability strategy by making as much information as possible available on the replication process. ■



Cham Chao Market



Recycling in Kupang

Pilot cities in Indonesia and Cambodia unveil plans for 2013

Indonesia

Two of the Indonesian cities, Kupang and Tarakan, were inspired by the Philippine's Eco-savers from Marikina—both have gone from strength to strength since the end of the EU-cofinanced project in October 2012. In Kupang, an evaluation of the original programme that had included three schools in a recycling effort is nearly finished and the project is expected to be extended to more schools and other institutions in the local community. Tarakan went even further and has already expanded the scheme (called TALING = environment saving scheme) to 11 schools from the original two. All schools are assisted by a team from the Tarakan local government and also receive in-house support from specially trained teachers. The programme has been integrated into the local development plan, so that continuity of funding is guaranteed.

In addition, Indonesia's local government associations are continuing their lobbying efforts to press for more independence for local governments to make their own decisions.

Cambodia

Choam Chao had chosen a project from Indonesia as a best practice example. The successful relocation of street vendors into a disused market area in Solo, which led to the revitalisation of the old market, inspired Choam Chao to make their own old market more attractive to locals and tourists alike while at the same time solving the problem of unregulated street vendors. The former DELGOSEA coach, Kong Chanthan, who is still following the progress of the city reported that the project continued to make good progress. By January 2013 the construction of the covered sewage system as well as a new road on the side of the market had been completed. This meant that 150 former street vendors could be relocated into the refurbished market hall—the market is now functioning and open for business!

Construction work has begun on a new market hall right next to the existing market, which will offer space for vendors on four stories—a move that would transform the life of street vendors and shoppers alike. The new market is due to be finished and ready for relocation by the end of 2013. The Sangkat Choam Chao, however, is planning even further ahead and is starting on the groundwork for an open market space nearby.

For more information on all aspects of DELGOSEA's work, please visit the website: www.delgosea.eu

Guangzhou launches awards to highlight innovation

Guangzhou in Guangdong Province of China has been a notable winner of international awards in recent years for its bus transport system and its water management but in November it turned award host, with the launch of the first Urban Awards for Innovation, which recognise the achievements of other cities globally. **By Richard Forster**



Wan Qingliang (left) presents the award to Gökmen Mengüç of Kocaeli, Turkey

With a tagline of ‘So Dreams Come True’ and a line up of glossy entertainment, city leaders could have been forgiven for thinking they had gatecrashed their own Oscars but there was a serious message behind the razzamatazz of the first Guangzhou urban awards—global city cooperation is vital and Guangzhou had showed that it was prepared to take the lead in recognising the importance of city-to-city exchanges.

“Establishing this Guangzhou Award is a perfect example of the wisdom and courage of the government of Guangzhou,” said Nicholas You, Co-Chair of the Technical Committee which studied and shortlisted the 15 nominations which went before the jury. “Nowadays, every city is planning their future and seeking their transformation. Guangzhou is such a city, which not only has the courage to learn but also the wisdom to learn.”

Guangzhou’s first international urban awards ceremony took place before 1,700 guests marking a significant moment for city leaders, said Kadir Topbas, Mayor of Istanbul and President of UCLG, which together with Metropolis was co-organiser of the awards.

“The Guangzhou Award directly serves cities and local governments around the world,” said the Mayor. “Through this award, we can share with each other the experience and capacity of global cities in constant development and innovation”

According to Topbas, the initiatives submitted represented positive and beneficial attempts by global cities at advancing sustainability, creating job opportunities, and promoting the development of culture, equality and urban management. Mayor Topbas said that the establishment of the Guangzhou Award would inspire further innovation and attract new partnerships.

In total, the Guangzhou team received 255 entries submitted by 153 cities from 56 countries and regions. Any city was entitled to enter a submission and 15 projects were shortlisted according to the criteria of innovativeness, effectiveness, replicability and significance, at a meeting of the Technical Committee in October

2012. Presentations by the shortlisted candidates were then made at a special forum which preceded the awards ceremony and which was attended by Chen Jianhua, Mayor of Guangzhou.

“How to face the common challenges, such as urban population growth, environment pollution and unemployment is a universal question,” said Mayor Chen. “The winning initiatives covering emergency management, citizen

“We are geared towards the objective of turning this into an authoritative and fair awards.”

The Review Committee comprised: Joan Clos, Executive Director, UN-Habitat; Yu Keping, Deputy Director of the Central Compilation and Translation Bureau; Margarita Wahlström, special representative of UNISDR; Cecil Steward, Emeritus Professor of Architecture at the



Chen Jianhua, Mayor of Guangzhou

“The winning initiatives covering emergency management, citizen involvement in urban governance and other areas demonstrated the major focus of our award—innovation”

Chen Jianhua, Mayor of Guangzhou

involvement in urban governance and other areas demonstrated the major focus of our award —innovation.”

The five winners (see box on page 35) were selected by a review committee of independent experts because as Mayor Chen emphasized:

University of Nebraska; and Yves Cabannes, Chair of Development Planning at University College London.

“The five award winning cities come from five different continents and represent very different social, cultural and institutional contexts but what they



Photo: Guangzhou Foreign Affairs Office

Kadir Topbas (left), Mayor of Istanbul and President of UCLG, presents the award to Gift Kasimira of Lilongwe, Malawi

“Through this award, we can share with each other the experience and capacity of global cities in constant development and innovation”

Kadir Topbas, Mayor of Istanbul and President of UCLG

all share is a willingness to tackle not just problems that they are facing today but also some important challenges that will shape their tomorrow,” said Nicholas You.

At the winners’ ceremony held at the Guangzhou Opera House on November 16, Wan Qingliang, party secretary of the CPC Committee of

Guangzhou Municipality and co-president of UCLG, who had been instrumental in launching the awards welcomed guests including policy makers, government officials, business professionals and academic experts.

“We wholeheartedly hope that cities of the world can work closely

together for strengthening practice in innovation, deepening exchange and cooperation and propelling sustainable urban development, with an overarching objective of turning cities into a beautiful homeland of humanity and enabling our people to live a much better life,” said Mr Wan.

The winning cities received a US\$20,000 cheque and a special trophy whose design mimics the two Chinese characters which represent Guangzhou. The next awards will take place in November 2014 and will run alongside China’s Sister Cities Friendship Forum, which brings together 700 cities globally. ►

The 2012 winners of the Guangzhou awards

City: Kocaeli, Turkey

Programme: Prepare before its too late

Focus: Disaster risk reduction

Kocaeli has in the recent past suffered from a severe earthquake, which destroyed great parts of the city and region, killing some 18,000 people. As a result, the city decided it must plan, research and educate far better for the future. To this end, it established a new programme entitled "Prepare before it's too late" which started in early 2012. It combines two distinct but complementary strands in a single centre. The first is a comprehensive seismological monitoring facility through which data is collected and risks are analysed. The second is a broad-based citizen education component.

One specific innovation is the way the programme coordinates the emergency management agencies, including NGOs, universities, research centres, and local government agencies. The education component focuses particularly on children, with the use of theatre in primary schools as an imaginative way of raising the awareness of youngsters. Since January 2012, the initiative has reached more than 20,000 students, including 500 disabled children, and over 3500 people have visited the centre. The innovative approach aims also to be a source of learning and replication by other municipalities and their partners, and has already led to interest from other cities.

City: Lilongwe, Malawi

Programme: The Lilongwe-Johannesburg cities mentorship programme

Focus: Urban governance

This initiative exemplifies the purpose of the Guangzhou Award, namely how cities can help each other to improve their governance and their sustainability. The initiative represents an innovative three-way partnership between the City of Johannesburg, the Lilongwe City Council (LCC) and Cities Alliance as well as other donors and national and international organisations.

The City of Johannesburg is providing assistance to the LCC in developing a City Development Strategy focusing on the attainment of the Millennium Development Goals. Begun in 2008, the initiative has improved the capacity of LCC to formulate strategies in economic management, shelter, land and infrastructure. This has resulted in the mobilisation of follow-up assistance for implementation in a short period of time. On the management front, the LCC computerised much of its accounting and billing system resulting in improved transparency, accountability and efficiency and it set up a performance management system.

The new accounting and billing system led to increased revenues by 2010 which in turn has allowed LCC to improve staff salaries based on the performance management system. Regarding the

shelter and land component, external public and private funding has been mobilised to help: (i) create close to 2000 residential and commercial plots allocated to the urban poor; (ii) improve water and sanitation in low income settlements; (iii) strengthen the Community Savings and Loans Association enabling women to start income generating activities; and (iv) improve dilapidated roads and put in place street lighting.

City: Seoul, Korea

Programme: Tackling internet addiction and prostitution

Focus: Youth empowerment

Seoul has developed a great capacity for innovation in urban planning and management and has recently implemented a very transparent procurement system. But it is in the social field, aimed particularly at helping young people experiencing severe problems, that two highly original initiatives merit being highlighted and widely disseminated. The first is a Youth Prostitution Prevention Project, and the second tackles the growing problem—of great significance in Korea and many other countries—of internet addiction.

The issue of teenage prostitution has grown steadily over the last 15 years, and around 200,000 young people run away from home each year. Many young girl runaways are at grave risk of falling into prostitution, even if they do not define themselves as such. When they are found, sending them back to homes that are often dysfunctional and prone to domestic violence or to temporary shelters has proven to be ineffective. Therefore, a new philosophy of social intervention has led to the establishment of the 'Self-Empowerment School for teen prostitutes', run by a multi-disciplinary team. The first school opened in 2009 followed swiftly by a second. Their success has led to co-funding by central government.

A restaurant/café was opened to provide job training and experience for the girls. A crucial element in the success of the schools is its focus on self-empowerment—the engagement of the girls themselves in building a brighter future. The initiative also uses the web in a proactive way, and finding practical vocational/job training and placement is central. The school initially met with opposition from local residents and the city has worked hard to change these perceptions and win support.

The second issue—internet addiction—is important given that over 12 percent of Korean citizens between the ages of 9 and 39 are estimated to have some symptoms of internet addiction. It affects young people in particular. The city government has set up since 2009 'I Will Centres'—and five such centres will be established by the end of 2012. The aim is to help young people commit to changing their lives, using a wide range of counselling and therapy techniques and also through preventative work in schools and with parents. The centres have already led to significant international interest.

City: Vienna, Austria

Programme: The Start Wien programme.

Focus: Integration of migrant workers

Given the large scale of migration from other countries to Vienna—an experience shared by so many other cities—the Start Wien programme for new migrants stands out in terms of its innovativeness, relevance and potential for replication. The programme offers all new migrants a one-stop-shop service, involving different departments and social services, individually tailored orientation meetings, language services, and more advanced information and coaching services. It reaches the target group immediately after arrival, looks at the needs of each individual, provides clear information, and provides a single entry point to access an array of social services.

Many cities could do well to learn from Vienna's approach which helps migrants at the critical stage of establishing a new life and a new home while also overcoming the inefficiencies and ineffectiveness associated with the lack of coordinated and coherent response by different departments and services that make life miserable for those seeking help from public services.

"It is a great honor for the City of Vienna and an acknowledgment of our integrative and environmental measures and a possibility to share our experiences with other cities with a high number of migrants from all over the world," said Goran Novakovic, the head of the Vienna Delegation.

City: Vancouver, Canada

Programme: Visionary Vancouver

Focus: Commitment to green urban development

The 'Greenest City 2020' initiative provides an inspirational vision and ambition with a practical focus, and strong commitment to citizen and business engagement. It builds on the city's long track record in sustainability, but orienting its policies and practical solutions to serve future generations. It has three framework themes—Zero Carbon, Zero Waste, and Healthy Eco-systems.

The new Village built for the 2010 Winter Olympics integrated a range of state of art green technologies including solar heat, passive energy design and electric vehicle infrastructure. From this experience, the city is developing higher standards in new areas.

Kerry Jang, Deputy Mayor of Vancouver, who picked up the award said: "We have been striving to make Vancouver home for everyone and we believe our actions to become the greenest city in the world by 2020, can provide an inspirational framework for other cities to adapt according to their local needs."

For further information or to make submissions for the 2014 awards, please contact: info@guangzhouaward.org

Frank Jensen, Lord Mayor of Copenhagen

Copenhagen has become the model city for mobility through cycling and the Danish capital has now set its sights on becoming the first carbon neutral city by 2025. **William Thorpe** talked to the Lord Mayor about his ambitious plans to reduce emissions

Most politicians start out their career in local politics and then move to the national stage. You, however, began at the national level, became a minister, and then moved to the private sector. What brought you back to politics, and in particular, made you to want to become mayor?

Becoming Lord Mayor of Copenhagen has been a great and extraordinary challenge for me. Politics in a big and diverse city as Copenhagen means creating solutions that affect the everyday lives of many people. As a mayor, I can strive to improve the quality of life for Copenhageners and generate growth and new jobs in Copenhagen and Denmark.

I had a very interesting and fulfilling job in the private sector, and it was a great experience to see society from a different point of view from what I did as a politician. But when I was asked to run for Lord Mayor of Copenhagen, I also realised that I love politics. I missed the opportunity of having a positive impact on peoples' lives and working for my party, The Social Democrats. To me being in politics is a tremendous gift that I cherish. The private sector taught me a lot—but my heart is in politics.

Copenhagen has often led the national debate on issues in which the rest of the country then follows. Do you think as Mayor, you have a greater long-term influence than the Prime Minister?

I see my influence as a Mayor as different from the influence of the Prime Minister. Local politics are close to peoples' everyday lives. I work hard to secure that all citizens have equal opportunities and can enjoy life, no matter where they were born, what education their parents have, or what their income is.



Photo: City of Copenhagen/Lektor

“I see my influence as a Mayor as different from the influence of the Prime Minister”

The city has come under the spotlight as it sets out an ambitious plan to become the world's first CO₂ neutral capital by 2025. What policies and programmes are in place to work towards this and is neutrality really achievable?

We have launched a plan that will realise the ambition of becoming the world's first CO₂ neutral capital by

BIO: Frank Jensen

BORN: 28 May 1961 in Nordjylland

STUDIES: Master of Science (MSc) in Economics and Management, University of Aalborg (1986)

CAREER:

2010: Lord Mayor, City of Copenhagen

2008 – 2009: Managing Director, Danske Advokater

2007 – 2008: Managing Director, Telecom Scandinavia A/S

1996 – 2001: Minister of Justice

1994 – 1996: Minister of Research

1987 – 2007: Member of Parliament, elected for the Social Democratic Party in Northern Jutland

2025. It is a realistic and economically viable plan. But if we are to reach our goal we also need support and investments from the citizens of Copenhagen and the private sector. So we are working very hard to make these important partnerships work.

Extensive retrofitting of buildings, reorganisation of the energy supply, more wind turbines and a change in transport habits are some of the many initiatives that we plan to implement to reach our 2025 goal.

Part of the goal is to reduce CO₂ emissions by 1.1 million tonnes. Is it possible to improve economic growth, cut emissions and still keep both business and citizens happy? How are you including business and citizens in that process?

True, a key challenge is to create a city that can maintain economic growth and at the same time reduce CO₂ emissions. In Copenhagen we can and we do both. We will continue to design a city where people enjoy living because it is clean and healthy,



Photo: City of Copenhagen/Carlisen

After working in the private sector, Jensen returned to politics

“A key challenge is to create a city that can maintain economic growth and at the same time reduce CO₂ emissions”

and where the city offers attractive surroundings for families and for both the young and old. At the same time we are stimulating economic growth for example, in the clean tech sector.

From 2005 to 2011 we have been fortunate enough to have achieved both economic growth and a reduction of our CO₂ emissions by 20 percent. So I do believe that it is possible to cut down emissions dramatically.

Our climate plan has been developed in close cooperation with the citizens of Copenhagen, NGOs and knowledge institutions.

The plan will require municipal investments of around DKK 2.7 billion (US\$473 million) before 2025. In the same period there will be new private investments of DKK 20 to 25 billion (US\$3.5 billion), creating employment of approximately 35,000 man-years.

The environment, climate and economy will all profit from these investments, and Copenhageners can look forward to savings on their electricity and heating bills when the climate plan has been implemented. So it is a winning formula for everybody.

Is having cycling as a top mobility choice feasible in your city's harsh winters?

I am happy to say that more than half of the Copenhageners use their bikes on a daily basis getting to work or to school. Eighty percent of them even do so during winter. The business case is very good: we save €0.16 for every kilometre which is cycled.

During your tenure as President of EUROCITIES a main priority was trying to get greater involvement of cities and regions in shaping and delivering strategic priorities, such as Europe 2020, cohesion policy and the future EU budget. What successes did you have here?

Copenhagen is a member of the C40 Climate Network and EUROCITIES. As president of EUROCITIES I was deeply involved in creating an international network as cities are crucial to solving global problems such as reducing CO₂-emissions. And I firmly believe that networks between cities can provide platforms for developing new solutions. That is why Copenhagen joins in projects with other cities.

You teamed up with C40 last year to lead a green growth network of cities, particularly in attracting business support and investment. What type of support have you gained from businesses?

I consider these networks crucial for two reasons. Firstly, cities can learn a lot from each other. We share many of the same challenges and there is every good reason to exchange good and viable solutions between us. Secondly, we can learn a lot from each other when it comes to attracting investments and creating a strong, green sector.

I believe that partnerships between municipalities and the private sector are the future of green investments and the best way to gain new knowledge and develop more sophisticated technologies. In Copenhagen we maintain close cooperation with businesses, and we are in a constant dialogue with them. We believe that both parties will profit from being partners and allies.

Fortunately Copenhagen has a lot to offer in green growth. Our long-term investments in sustainable solutions have generated a strong, green sector in Copenhagen. From 2000 to 2012 the sector has had a 330 per cent growth rate. The OECD has used Copenhagen as a model city in a study of green growth, and we have been named the world's best place for clean tech start-ups by the WWF. ■

“I believe that partnerships between municipalities and the private sector are the future of green investments”



Photo: City of Copenhagen/Heien

Over 50 percent of Copenhagen's residents use their bikes on a daily basis

ParkHelp, pioneers in mobility and sustainability

ParkHelp is a company that specialises in improving mobility and sustainability through the management of parking spaces in cities; a task that it carries out in both indoor parking facilities and in blue zones (metered street parking).

Population growth on a world scale and the resulting increase in vehicle numbers makes their concentration in public and urban areas more of a problem for our society every day. Between 18 and 25 percent of all moving cars in a city are looking for a parking space, a figure which aggravates the situation.



Between 18 and 25 percent of all moving cars in a city are looking for a parking space

In addition, ParkHelp solutions encompass guidance systems, LED lighting, signage inside parking facilities and before and after parking systems such as Find Your Car. All of this is integrated into a single management software system which controls lighting and dynamic signage and produces all kinds of statistics and important savings for the running of a parking facility.

The system operates via a sensor in every parking space which detects the vehicle, and panels which inform and guide users in real-time towards available spaces in a specific street or area.

ParkHelp provides an effective solution to guarantee the success of mobility policies supporting sustainability in cities.

This involves an improvement in urban traffic management and sustainability with energy savings (fuel) and less pollution (CO and NO₂ emissions).

ParkHelp's range of solutions can be adapted to the clients' needs, projecting its technological options in a simple way thanks to a scalable system. Based on each client's needs, this system ranges from a very basic solution to an integrated mobility project.

ParkHelp's objective is to provide society with solutions to the worldwide mobility problem through a range of new products and services with a high-tech component.

All of these have been designed to improve time management, mobility and the sustainability of cities using different intelligent guidance systems for parking.

ParkHelp has three projects in the On-street sector, in the cities of Sant Cugat del Vallés, Marbella and Malaga.

Some of the benefits the solution will provide for citizens

Improved mobility within the city:

- Less time spent looking for parking spaces
- Less traffic
- Greater occupancy of available spaces

Improved environment:

- Less pollution, reduced CO and NO₂ emissions
- Decrease in fuel consumption

Social and driving improvements:

- Reduction in costs per journey and inhabitant
- Less stress



The system operates via sensor in every parking space

Information and service for the mobility department and the operator:

- Greater efficiency in management
- Real-time information about rotation rates, occupancy times and the availability of spaces.

About ParkHelp

ParkHelp is a global pioneer company in mobility and sustainability solutions for cities. The company, founded in 2004 and based in Barcelona, is 100 percent Spanish and present in 45 countries. It currently has subsidiary companies in Brazil and the USA.

ParkHelp symbolises innovation, quality and service, proof of which are over 200,000 parking spaces installed all over the world.

ParkHelp was recently recognised by La Caixa Bank and ENISA as one of the six fastest growing innovative companies in Spain, as well as being a finalist for the Emprendedor XXI 2012 prize in the Creces XXI category.

ParkHelp is attending Smart City Expo & World Congress as an exhibitor and as an Event Sponsor. You can visit its booth, E521, or attend the conference's Parallel Session. ■

ParkHelp

Going for gold

Holding a prestigious event such as the Olympics or the FIFA World Cup is a great marketing opportunity for a city but does it really provide long-term benefits? **By Kirsty Tuxford** ▶





It took Montreal's government 30 years to pay off the C\$1.47 billion (US\$1.42 billion) debt accrued from the building of the 1976 Olympic stadium complex. Today, local wags have nicknamed the stadium the 'Big Owe' and while its derelict feel made it ideal for the filming of the new zombie movie *Warm Bodies*, the lengthy debt repayment demonstrates that the short-term prestige from hosting a major sporting event can quickly turn into a real horror show if there is no planned legacy.

"Experience has shown that disappointing outcomes and high levels of frustration come when an event and the subsequent projects needed to deliver the event distract governmental authorities from their existing plans," says Lars Haue-Pedersen, Managing Director of TSE Consulting, an international consultancy firm specialising in sports events for cities.

Cities can end up saddled with debt simply because the costs of the necessary infrastructure go over budget—South Africa originally budgeted R818 million (US\$89 million) for stadia investment in 2004, and later ended up revising this figure to R15 billion for World Cup related investments in 2006. Viable uses for stadia after the event are often anti-climactic. The SuperDome, a 21,000-seat venue built for the basketball and gymnastics at the Sydney Olympics went into receivership in 2004 (leaving the taxpayer with the bill) before re-opening in 2009 as a conference and events centre.

But with a proper strategy, the opportunities afforded by the hosting of major sporting events can be long term and catalytic in a city's development. Although the Superdome went through receivership, Sydney has learned many lessons about how to successfully manage venues post-Olympics. The Sydney Olympic Park Authority is the body now responsible for the 640 hectares that make up Sydney Olympic Park. This includes the archery, aquatic, athletic and hockey centres and the sports centre and sports halls. The site also encompasses the venues of the Olympic Stadium (now ANZ Stadium), the Sydney Superdome (now Allphones

Arena) and the Sydney Showground site, all of which were key Olympic venues.

The Authority is working towards a Master Plan 2030, which foresees the Olympic park evolving into a vibrant district, mixing residential, commercial, entertainment, business and sporting facilities. The Olympic Park Authority says that the venues under their management are now 'generally profitable' and heavily used by the public and national sporting teams.

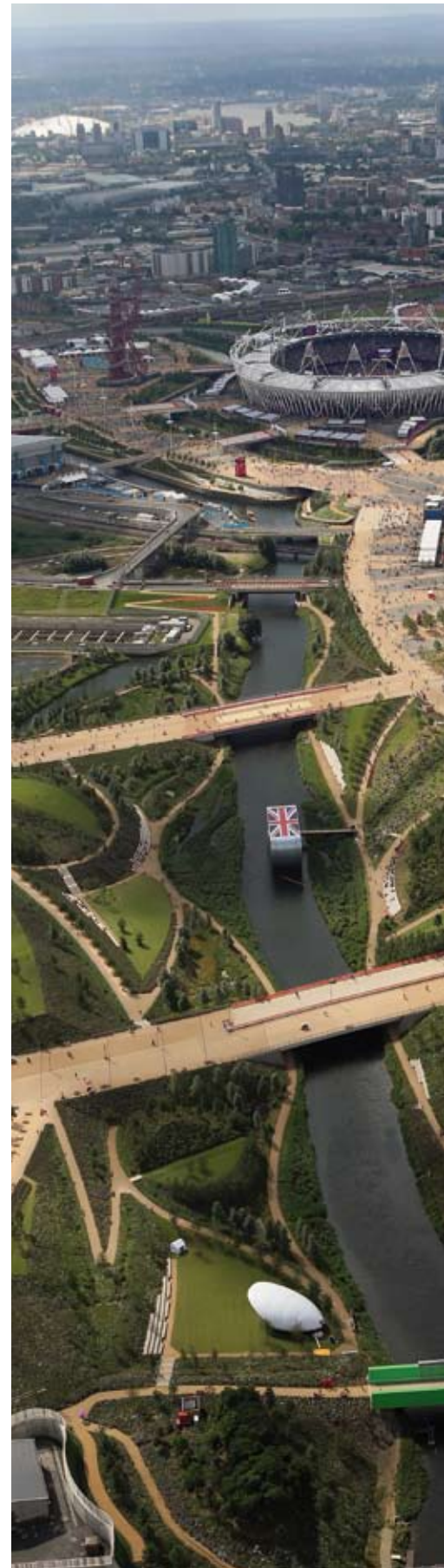
"The operations of the Sydney Olympic Park Authority are partly self-funded through a variety of revenue measures and the percentage of this revenue continues to rise," explains Michael James, Executive Manager, Media & Government Relations, Sydney Olympic Park Authority. "In 2011-12, approximately 60 percent of the Authority's annual operating cash expenses (excluding depreciation) were funded through revenue from operations."

Sydney has turned its Olympic venues into valuable assets—the park is already attracting major events, and even looks set to beat its 2030 target to attract a daily population of 50,000 workers, students and residents, with an additional 25,000 daily visitors.

Venues managed privately have also been successful. The Allphones Arena is the second most successful indoor arena in the world by ticket sales, after London's O2 Arena. The Sydney Showground precinct plays host to the largest annual event in the southern hemisphere, the Sydney Royal Easter Show and is the site for conferences, exhibitions and music festivals year round. The key to this success was the implementation of the 2030 Master Plan which saw the Olympic venues as a part of a greater urban development project.

The costs and benefits of sporting events

While it is important to have a strategy to incorporate the venues from sporting events into the existing development plans of the city, there is no hiding from the fact that hosting a global sporting event comes with a painful price tag. The UK Minister for Sport Hugh





Robertson said in October 2012 that the cost of the London 2012 Olympics came in at £8.9 billion.

But can two weeks of international sport justify the expense? The London Olympics were funded by a number of sources—the London Organising Committee of the Olympic Games and Paralympic Games Limited, is a private company with a budget of more than £2 billion, and was in charge of the organisation, funding, preparation and staging of the London 2012 Games. The public sector Olympic Delivery Authority is funded by the Department for Culture, Media and Sport, the Greater London Authority, and the Olympic Lottery Distributor, and was responsible for the development and building of new infrastructure and venues. National Lottery funds (£2.2 billion) were also used to construct facilities. The Department for Culture, Media and Sport manages central government funding of the Games and wider regeneration costs, and the Greater London Authority contributed £925 million to the Olympic Delivery Authority for the revitalisation, infrastructure and facilities for London residents' use during the Games and in the future.

The aim of London's bid was to use the event as part of a regeneration strategy for the eastern districts of the city and to build and leave an infrastructure for future use. London created a company prior to the start of the Olympics to manage what happens after the Olympics—the Olympic Park Legacy Company was responsible for the legacy of the Games and the regeneration project (it later became the London Legacy Development Corporation (LLDC)). In addition, the East London Business Alliance established the London Legacy 2020 to ensure that East London benefits from the legacy of the Olympics, and local residents are seeing new parks, sporting venues and new homes for sale and rent, plus an educational campus and community health centre. In this way the hosting of a global sporting event was part of Mayor Boris Johnson's vision for regeneration of East London.

Regeneration of the port area was also part of the strategy for Barcelona in hosting the 1992 Olympics, but the Catalan capital also used the platform of a global sporting event to develop the potential of the city to host major annual conferences and to make the city one of the world's leading conference and exhibition venues (see next article).

The development of tourism is another obvious benefit of hosting international sports events. Three-quarters of people surveyed in Germany at the time of the 2006 World Cup had come especially for the Cup and for almost half of respondents was their first visit (43 percent). The long-term effect and lasting impact of this major sporting event is borne out by the fact that 16 percent combined their visit with a holiday in Germany and 10 percent used the World Cup as an opportunity to visit friends and family. Just over 300,000 tourists arrived in South Africa for the primary purpose of attending the World Cup and revenue in South Africa from foreign Visa card spending reached USD\$426.2 million during the lead-up to, during, and after, the 2010 FIFA World Cup.

According to consultants Grant Thornton, 96 percent of visitors to the South African World Cup confirmed that they would visit the country again, while 92 percent said they would recommend it to friends and relatives. TNS Research Surveys estimate that brand South Africa received the equivalent of R2 billion (US\$294 million) of advertising by being host to the tournament.

But despite these benefits, cities should not expect the event itself to bring short-term profit. "In terms of the financial impact, in most cases it is unrealistic for a host city to generate a substantial net financial impact from hosting a major event; just like a sponsor of the same event would not expect to cover their entire sponsorship through direct sales during the event," explains TSE's Haue-Pedersen. "McDonalds doesn't sponsor the Olympics because they think they can sell more hamburgers during the two weeks of the Olympic Games. They do it because of the long-

term impact that the sponsorship can have on their marketing and sales efforts. In the same way, cities should host events as part of their efforts to promote, brand and market their city—and if they do it well, they can generate substantial additional ‘sales’ afterwards.”

South Africa achieved this. The country’s post-FIFA World Cup attracted considerable interest from international investors and multinationals—perceptions about the continent as a business destination have been positively affected by hosting the World Cup. For example, the German printing company Rako Labels made a R77 million (US\$11.3 million) investment in a new facility in Cape Town with the firm’s MD Uwe Bögl confirming that the interest of German companies in investing in South Africa was assisted by the successful hosting of the World Cup.

One of the biggest benefits for host cities, which is also exemplified by South Africa, is the upgrading of infrastructure. Besides the building of new stadiums, the government improved national roads and airports and invested in public transport including Africa’s first high speed rail service, the Gautrain, and the development of Bus Rapid Transit systems in Johannesburg, Cape Town and Port Elizabeth. ICT upgrades included over 128,000 kilometres of new fibre installed across the country.

Maximising the benefits of a global event

While the benefits are clear from past cities’s experiences, maximising those benefits depends on the strategy employed by the city.

“The best outcomes arise when events provide a platform through

which to focus and energise already existing city initiatives, what we call an ‘event-themed approach,’” says TSE’s Haue-Pedersen. ‘Winning cities are taking this approach where city plans are already partly developed and then events are used to provide meaning and focus to the various projects within these plans. This approach safeguards against investment and development efforts being wasted on the creation of projects only developed for the event. It also ensures that existing projects are highlighted through the theme of a major event.’

Qatar’s strategy has been to make hosting the FIFA World Cup in 2022 part of its overall developmental vision. “Sustainability is playing a major role nowadays in the staging of major sporting events and this had already been an integral component during the

Generating employment from the FIFA World Cup

A large number of the host cities for major sporting events, especially in developing countries, face significant problems related to labour, such as unemployment, under-employment and inappropriate working conditions. Urban poverty is intrinsically related to such problems.

Given the magnitude of investments necessary for a city to host an international event, and also the economic opportunities arising from it, like tourism and commerce, many needed jobs could be generated. However, it is important to have policies and programmes to make the most of such a situation: to offer opportunities to the largest possible number of local enterprises and to promote decent jobs, which are fairly remunerated, carried out under safe working conditions, and underpinned by adequate social protection and respect for rights at work. It is also important that they respect gender, generational and racial equity.

For the forthcoming World Soccer Cup to be held in Brazil in 2014, the Brazilian government is committed to addressing the social problems facing the country, with initiatives to improve the livelihoods of those in the lower income range through the strategic development and expansion of social programmes, as well as financial aid and professional training to facilitate access to the labour market, especially by young people.

The ILO (International Labour Organisation) has designed a strategy of support for government. In consultation with national constituents (workers’ and employers’ organisations and the government), four sectors of the economy have been chosen as targets for action: construction, tourism, commerce and textiles.

It is estimated that the economic impact of the 2014 World Cup will reach US\$92 billion, causing Brazil’s GDP to grow an additional 3.8 per cent per year between 2010 and 2019 (Source: Ernst & Young and Fundação Getulio Vargas (2009), *Brasil sustentável - Impactos Socioeconomicos da Copa do Mundo 2014*). During the World Cup, Brazil is expected to receive more than 3.7 million tourists, who will bring an additional US\$5 billion into the nation’s economy. The country is investing some USD\$33 billion in infrastructure, including stadiums, transport, airports, ports, hotels and other facilities. There is a great opportunity to address labour issues on a significant scale given this context of vast resources.

The ILO project is based on three pillars: (i) the strengthening of social dialogue, (a participatory process involving workers, employers and the government), (ii) capacity development activities for the promotion of decent work, and (iii) support to labour inspection. Work with local authorities is included in this agenda. Local authorities deal daily and face-to-face with the problems of unemployment and lack of decent working conditions of the municipal population, including also the inadequate representation or participation of key stakeholders. The capacity of such authorities in regard to labour-related issues needs to be strengthened.

Each activity included in the ILO project has an output of its own; therefore the project is being implemented in an incremental manner according to the availability of resources. A number of activities have already started, such as in the city of Cuiaba (one of the host cities), and liaisons with the World Cup Management Committee (a Federal Government body which defines, approves and supervises the actions foreseen in the strategic action plan designed by the Brazilian Government for hosting the Cup). Other activities are in the pipeline.

The ILO is targeting selected host cities and also providing support to national-level activities related to the organisation of the Cup, such as the aforementioned Managing Committee. The ILO will keep the other host cities informed about the activities in the selected cities, provide relevant material and promote replication. In addition, synergies are being explored with other actors also working on the World Cup, such as the Ministry of Labour and Employment, other government authorities and Building and Wood Workers International.

Given the magnitude and visibility of the World Cup, good practices will leave a legacy for the country. In addition, the long-term objective of the ILO project is to create a model of intervention that could be applied in other major sporting events worldwide and which could also be used in other types of large-scale urban projects.

Edmundo Werna, ILO (International Labour Organisation). Contact: werna@ilo.org.

bidding process,” says a spokesperson from FIFA. “For Qatar the 2022 FIFA World Cup is part of their overall 2030 vision and they have developed an integrated concept to make sure that the infrastructure they build will be benefitting Qatar and the region beyond 2022.” In fact, Qatar’s press reports that five of the new stadiums will be partly recycled with the seating being sent for use in developing countries. Stadia design is also flexible, allowing for conversion into hotels, spas and other leisure facilities post-Cup. The World Cup in Qatar is also boosting the solar industry in the region, as organisers look into utilising as much solar energy as possible.

Similarly, Brazil is using the opportunities provided by its upcoming Olympics in 2016 to push through existing development plans. “It is important that the Olympic project aligns with the interests and the needs of the country in this moment,” explains Marcio Fortes, President of the Olympic Public Authority. “In Brazil, the fact that we have the PAC [the federal government’s major infrastructure programme] in progress, with a lot of projects for urban roads and planned investments in airports, energy, sanitation and other areas of basic infrastructure, then this creates favourable conditions for hosting the Games. We have taken advantage of the event to rush deadlines in order to meet existing needs.”

The country’s strategy to attract international interest is comprehensive in that it doesn’t only focus on increasing tourism and related sectors, but is also using the Olympics and World Cup to highlight its level of organisational ability and expanding industry sectors such as oil and gas. And thousands of jobs have been created in several sectors.

“According to the Department of Work and Income of Rio, about 5,500 people are working to modernise the Maracanã stadium which is under renovation for the World Cup in 2014 and which will also serve the Olympics,” says Fortes. “The Metro Line 4 extension has created 3,500 jobs, and there are about 500

employees working on the Olympic Park.” In fact the UN, in the guise of the International Labour Organisation has launched a project in Brazil to maximise the benefits for employment from the Olympics (see box).



Lars Haue-Pedersen, Managing Director, TSE Consulting

“Winning cities are taking this approach where city plans are already partly developed and then events are used to provide meaning and focus to the various projects within these plans”

*Lars Haue-Pedersen,
Managing Director, TSE
Consulting*

As the above examples show, the key to making events work is to tie them in with the current social and environmental development plans of the city. “The cities that are seeing long-term benefits of hosting events are those that focus on leveraging programmes and systems that already

exist in their cities and that can be supported, strengthened and energised through the event rather than trying to create impact solely through the mechanisms of the event itself,” says Haue-Pedersen.

Who benefits?

The extent to which hosting an event is beneficial for a city depends on from whose point of view the effects of the event are assessed. The public sector rubs its hands in glee because it can accelerate existing development programmes and global events offer fresh new identities for places that have a poor image. The private sector gains from investing in areas where large events will be staged because the time restraints on projects alleviate risks, and most infrastructure is built on low-value land, so value creation once investment begins, is rapid. It’s also a great opportunity for marketing and profile raising if private companies get their brand associated with the developments.

But a truly successful event has to benefit the city’s people, so the focus is not on the future use of the venues but on how major sports events can affect citizens’ quality of life and the social and economic development of communities.

“Successful sports event cities are now taking an approach that is more focused on people than on places,” says Haue-Pedersen. “Events, therefore, are more effective when linked to people-oriented initiatives that have the over-arching goal of improving social conditions (the quality of life) as well as driving economic development.”

South Africa is an excellent example of this. Despite the many documented successes of South Africa’s hosting of the World Cup and the fact that it was named the ‘World’s Leading Sports Tourism Destination’ at the 2012 World Travel Awards, South Africa’s cabinet revealed in May 2011 that it would not be bidding for the 2020 Olympics. As government spokesman Jimmy Manyi said: “It is better to consolidate the gains of the 2010 FIFA World Cup for now and focus the country’s attention on the delivery of basic services to all South Africans.” ■



Photo: Fira de Barcelona

The GSMA Mobile World Congress is one of many key events which have made Barcelona a world leader for conventions and exhibitions

Barcelona reaps benefits of being a top conference destination

As well as sporting events, cities are fighting to host major conferences and exhibitions. Barcelona has used its profile since the Olympics to become a world leader in such events. **By Sarah Marks**

With an annual attendance that has now reached more than 72,000 delegates from 200 countries, the mobile phone industry's GSMA Mobile World Congress (MWC) represents big business for its host city.

Since 2006 it has been held at the Fira Gran Via venue in Barcelona – after moving from the Palais, in Cannes, France, when, due to the growth of the MWC, the organisers needed a city with more exhibition space and sufficient hotel beds in the vicinity.

From 2006 through to 2012, the MWC generated approximately €1.8

billion in revenue, and created 39,000 part-time jobs for Barcelona. In 2012 alone, the 1,500 exhibiting companies, 3,300 media and 12,500 attendees from the developer community contributed to the event's significant economic benefit to the city—€301 million in revenue and nearly 6,500 part-time jobs.

The GSMA Mobile World Congress is one of many key events, which have made Barcelona a world leader for conventions and exhibitions. For the third year in a row, the city has been voted in the top three of the International Congress and Convention Association (ICCA) league table,

which ranks destinations based on the number of international association conventions hosted.

In 2010, Barcelona beat off bids from Milan, Paris, Munich, Amsterdam and Cologne that were itching to snatch the GSMA event from Barcelona's jaws and to be hosts from 2013-2017. So what does a city need to win the GSMA's favour?

"The selection of the Mobile World Capital is based on many criteria and takes into consideration all aspects of what a city can offer," says Beth Morrissey, Senior Director, Marketing at GSMA. "The city's development

strategy for all of the elements of the Mobile World Capital is critical, and of course, logistics, weather, crime rates, prices of services or hotels are all part of the decision-making process.”

The organisers of the MWC are tight-lipped about the possible future hosts of the conference. “Barcelona was selected as the Mobile World Capital from 2012 to 2018, and given this, it will be the home for Mobile World Congress during that period,” says Morrissey. “Barcelona has worked hard to develop an outstanding vision for the Mobile World Capital, and we are confident in the city’s ability to execute on this vision.”

Despite the fact that the Barcelona Fira will face stiff competition to host the event after 2018, the city has used the platform for its own development. During a presentation in January this year at the Mobile World Capital offices in Madrid, the Mayor of Barcelona, Xavier Trias, said that the status of being a mobile capital would turn the Catalan capital into a permanent technology centre, which will offer a boost to the industrial fabric and will create new businesses and quality jobs. According to Trias, mobile world capital status could have an economic impact on the city of €3.5 billion through to 2018.

“It is a very important asset for Barcelona, Catalonia and Spain as a whole because it consolidates our position as an international benchmark for a growing sector—the new mobile technology sector,” said Trias.

Barcelona also hosts the EIBTM, the leading global event for the meetings and events industry. Organised in collaboration with Reed Travel Exhibitions, the event attracts more than 15,000 attendees with the next exhibition due in November 2013.

EIBTM generates more than €50 million per year in economic benefits for Barcelona and the wider Spanish economy. The event puts the city in the spotlight, in what is considered by the global industry to be one very large ‘fam’ (familiarisation) trip that will give all of the exhibitors and buyers a chance to experience Barcelona for themselves, as well as wider areas of Spain through post-event trips and personal leisure time.



Xavier Trias, Mayor of Barcelona

“It is a very important asset for Barcelona, Catalonia and Spain as a whole because it consolidates our position as an international benchmark for a growing sector—the new mobile technology sector”

Xavier Trias, Mayor of Barcelona

“It was important for us to find a host city which could not only cope in terms of the infrastructure, but which can also be easily accessed,” explains Graeme Barnett, Reed Travel Exhibitions, EIBTM Exhibition Director. “The destination must have a strong transportation network, served by a number of international and low cost airlines as well as rail links.”

Given the competition to host events from cities trying to boost their profile, one of the biggest beneficiaries are conference and exhibition companies, which are offered inducements to bring their event to a new city. But it is not easy for new

cities to poach events as investment by Barcelona has shown.

“In EIBTM’s case, we will be staging our 10th edition in Barcelona in 2013 so it is fair to say that Barcelona has invested in the long term in hosting EIBTM,” says Barnett. “The city certainly doesn’t pay us—but we work with the Barcelona Tourism Convention Bureau and key city stakeholders to secure the best possible rates. One of the reasons we decided to extend the agreement with Barcelona Convention Bureau, to host EIBTM in the city until 2016 was because of the incredibly strong relationships we have built up with key stakeholders there.” ■

Jonathan Andrews talked to Walter Hook, CEO, Institute for Transportation and Development Policy, at their headquarters in New York



Photo: Marie-Hélène Carleton/Four Corners Media

Walter Hook, CEO, ITDP

Does the Institute's charitable status benefit or impinge on your funding?

It doesn't impinge on us at all. As a non-profit entity we are not allowed to make a profit, but we can raise money from any source. The advantage is that a foundation or charitable institution can give us a grant; an individual can give us a grant too and take a tax deduction from it. It gives us the liberty to only work on projects that we think are actually going to lead to some kind of significant change—either from the environmental perspective or the poverty alleviation perspective. I think if we worked like a consultancy company we would have to work on the things that would pay us the most, whereas now we work on the project that we think has the most promise. We are very selective.

Where do most donations come from?

About 65 percent of our money comes from the Climate Works Foundation which is an organisation created by the

Hewlett and Packard Foundations along with several others, to pool resources and skills to tackle the problem of climate change. The next largest donor is the Rockefeller Foundation but we also have support directly from the Hewlett Foundation. We have a lot of grants and contracts from other international institutions and development banks and we also get some money from individuals and smaller foundations.

How does an ITDP relationship with a city begin? Who approaches whom?

We took our president, Enrique Peñalosa, who was the former mayor of Bogotá, Colombia, all around the world to meet a lot of mayors and governors and we also had him speak at a lot of events, showing what he had done in the city of Bogotá. Out of that came some relationships with mayors and governors across the world which we then followed up with and we said: 'Hey, if you are interested in actually building something like a Bus Rapid

Transit (BRT) or pedestrianised zone we could bring you the technical support that you'd need'. We would then follow it up. Or a local non-profit would invite us to come, and that local entity would invite the local politicians and bring us in. A lot of friends of other environmental organisations around the world brought us in. Sometimes we are brought in by the Asian Development Bank, who we have a memorandum of understanding with, sometimes C40 brings us in, sometimes the World Bank, or USAID, or sometimes other donors will say 'could you look at this particular place?' It really depends.

Your offices are mostly in cities in developing countries. Is the ITDP's remit mainly focused on developing cities?

We were founded by Michael Replogal, who was president of the ITDP for a very long time. He himself was a transportation advocate that worked primarily in the United States, and was employed by the Environmental Defence Fund for a long

number of years, so the portfolio to work in the US was with the Environmental Defence Fund, and we were then the international group that worked on sustainable transportation issues. After a number of years Michael joined us on the staff and other groups closed down their transportation programmes and we just recently in the last five years have moved into the US, just on BRT. We don't do a lot in Europe. Mostly what we do is just collect best practices from Europe and we bring them to developing countries.

The Institute, and yourself personally, have been credited with redirecting millions from multilateral banks towards sustainable transport projects. How was this achieved?

We had been working on reforming the multilateral banks since the early 1990s, and it started with concerns by the US Treasury Department and the US Environmental Protection Agency (EPA), going back to the first Bush Administration. At that time we had Bill Reilly, the chairman at Climate Works, who was also the Environmental Secretary under Bush 1 [George HW Bush]. He was very concerned about the environmental impact of the development banks. So the EPA, under Reilly, called the US Treasury Department into account and said that these development banks need to be accountable for their environmental performance.

We then started a process of evaluating the loan portfolios of the development banks and looking at whether they were consistent with their mission of poverty alleviation and environmental sustainability and we found a huge discrepancy. For example, they were building roads primarily used by high-income motorists, when they were supposed to be alleviating poverty and they weren't putting any money into public transit or things that were more directly beneficial to the poor. So we began a kind of critique which led to a new policy document at the World Bank that really changed the direction. This was already in 1996. Out of that came a new crop of leadership in the World Bank and similarly that then influenced the Asian Development Bank (ADB).

The ADB then went through an internal change of leadership and brought in an extremely progressive transportation team who have been really now at the forefront of the multilateral development reform movement—making

sense, what doesn't. We've talked a lot to several of the other big companies, IBM, people that do intelligent transportation and then we work with a lot of engineering companies and firms that do transportation planning and engineering—



As a keen cyclist and transport advocate, Hook rides in to work everyday from Brooklyn

their own portfolio accountable. We have a formal partnership with the ADB and that was really the key. If we had tried to do it ourselves it wouldn't have happened. But the ADB leadership brought the other development banks to the table.

You work a lot with development banks, what about the private sector?

We work with anybody we need to work with to get a project implemented. Full stop. There is nothing stopping us from working with anybody. We have a very good relationship with HSBC as they did a lot of technical advising in putting together the financing of the Johannesburg Rea Vaya BRT system. That technical knowledge that they had about financing was very helpful to us, and we've used them as advisors in other places. We work sometimes with Volvo, a big bus manufacturer, we don't do much with them but we share information on what kind of buses are available, what makes

AECOM and Parsons Brinkerhoff—and we subcontract a lot to private firms. Probably a third of our budget is subcontracted to private companies.

Does the Institute support the idea that petrol tax and motor tax should be used to promote public transport? What do you say to those people who liken this to cigarette taxes paying for health? Does government then become addicted to this funding?

We don't really work on that issue as a general rule, we believe in the language in a lot of the UN documents that says 'make the polluter pay' and we certainly believe that road users should pay full road user charges, both in terms of the wear and tear on the roads, the construction of the roads and the congestion that they cause. So we are full supporters of congesting charging, fully commercial parking rates, and eco-taxation. What that money is then used for, whether it is used for public

transport, great, but it should certainly at least cover the actual costs that it generates. The UN Agenda 21, all the UN agreements essentially, endorse the notion that the polluter should pay, there is no reason to be subsidising motorists, as they tend to be wealthy or companies. There is no reason why trucks shouldn't pay their full costs of the damage they cause on the roads, so we fully support, fully internalised costs, including congestion costs and including market-based parking charging.

in land use policies and parking policies and other things, why not? It's better than investing in a new automobile motorway from an environmental point of view. All we would say to a city is: 'Do you really need to make this investment?' Because we could probably solve the same mass transit need using some kind of surface-based BRT for a fraction of the cost. If you can solve the problem for a fraction of the cost, maybe you should, because you could build more, faster. It takes a very, very, long time to build a subway or a metro

systems are too slow and too expensive to do it on their own. As part of a core network of very high demand corridors they could be part of a larger network.

Bike sharing schemes and BRT systems have become popular in cities around the world. What is your take on the new trend of cities building cable cars, particularly in slum or shanty town areas, which traditional transport options can't reach? (see page 18 for feature article).

I think they have a very selected use. I've seen them pop up in low-income communities on tops of hills, like Alemão in Rio, they're planning another one in another favela in Rio. There's one that I've heard is quite good in Medellin. I think they are interesting. They are specific to the context of these hill-bound communities. They don't have very high capacity or very high speed but for that specific topography, it is probably something to consider. I think it really matters with how you design them, like it does with anything. You could mis-design it, but I wouldn't rule it out altogether as a possibility for these hilltop communities. If you've got a mountainous topography there might be a selective use for them.

Motorised transport still can't be completely ignored although the new Shard building in London is trying to do just that as it will only house 47 car parking spaces, mainly for disabled people. Is this the way forward for cities or is a balance with motorised transport still required?

In terms of parking that is definitely the way forward. There is no reason any central city urban area with any kind of public transit system ought to be mandating parking. If a developer doesn't want to have any parking, they absolutely shouldn't have to do it. There should be parking, maximum limits, set at the level the roads can absorb the traffic generated, without becoming congested. Unfortunately, it hasn't really worked except for some European cities, like Zurich and Hamburg and a few others but most cities have not really figured out that their off-street and on-street parking policies should be first and foremost a congestion management tool. That's a



“Our big focus right now is changing parking and zoning regulations around these new BRT systems that we’ve been developing around the world”

*Walter Hook,
CEO, Institute for Transportation and Development Policy*

Do BRT systems mean that more expensive subway/metro options are now obsolete?

Cities that have very high density and very high demand still probably justify the construction of metro systems. Metro systems that are essentially breaking even in Asia, for instance, where cities want to make those investments in heavy rail metro, if they are married with changes

and by the time you have finished it, the city has continued to sprawl out. The only cities that have managed to stabilise or increase the share of trips made by public transportation are the cities that built and continually expand bus-based mass transit systems, like Curitiba, Bogota and to a certain extent Sao Paulo. No other cities have really been able to turn around the trend to increasing motorisation. Metro

really new concept outside of Europe, it's kind of completely foreign, but it's our highest priority right now, to get the parking systems reformed across the world. So we really have a big programme now on parking reform.

What has been the biggest achievement of the ITDP to date?

The biggest achievements have been getting the silver and gold standard for the BRT systems built on several major continents that had never seen this kind of technology before. Guangzhou's BRT system is a gold standard that was fully our project. The trans-Jakarta BRT was not entirely successful but it was the first real BRT in Asia. The Ahmedabad BRT, where we fully designed and managed the contracting, was the first one in India, and a silver standard. The Johannesburg Rea Vaya was the first real BRT on continental Africa, that project we did all of the feasibility work, all the planning and helped the city with technical assistance throughout all the implementation. Similarly in Cape Town, it was just a few years behind. We'd like to see a BRT in the US and in sub-Saharan Africa. We have several bronze standard BRTs in the US, but we are looking to develop a silver or a gold standard.

What about the one here in New York?

It's not BRT, it's a Select Bus Service. It has the off-board fare collection which is one element of BRT but it has virtually none of the other elements that we would consider to identify it as a BRT system.

Which US city do you believe will have the first BRT?

In the US it could be in San Francisco, it may get there first with a silver standard and also there is something going on across the [San Francisco] Bay in Oakland, and maybe Chicago. Chicago has an east-west central corridor of BRT that we are working on and that may hit silver standard. Chicago will be the first city, I think, to maybe hit gold if Rahm Emmanuel is still mayor. We've got some potential gold standard BRT on Western and Ashley avenues in Chicago. You never know, somebody else might appear and do it faster. We are talking to seven or eight cities across the country.

What is the ITDP working on in the next couple of years?

Our big focus right now is changing parking and zoning regulations around these new BRT systems that we've been developing around the world. So we're working with the cities to say now that you've rolled out this new infrastructure you really to change the way your private developers build around these systems. So we've developed something new called the transit-oriented development standard, which lays down some basic

principles of good urban design that is pedestrian and bicycle and transit-oriented. We're working in a few cities on pilot projects to change the zoning in the station area as well as the urban design requirements and also to change the parking regulations to essentially remove parking minimums and establish parking caps in those transit zones. While we are doing that we are still trying to get our first fully functional BRT systems built in the US and Africa [outside South Africa]. ■

BRT Standard Scorecard

This scorecard shows the criteria and point values that make up the BRT Standard, followed by a detailed description for each

Category	Max Score	Category	Max Score
Service Planning		Station Design and Station-Bus Interface	
Off-board fare collection	7	Platform-level boarding	6
Multiple routes	4	Safe and comfortable stations	3
Peak frequency	4	Number of doors on bus	3
Off-peak frequency	3	Docking bays and sub-stops	2
Express, limited, and local services	3	Express, limited, and local services	3
Control center	3	Sliding doors in BRT stations	1
Located in top ten corridors	2	Quality of Service and Passenger Information Systems	
Hours of operations	2	Branding	3
Multi-corridor network	2	Passenger information	2
Infrastructure		Integration and Access	
Busway alignment	7	Universal access	3
Segregated right-of-way	7	Integration with other public transport	3
Intersection treatments	6	Pedestrian access	3
Passing lanes at stations	4	Secure bicycle parking	2
Minimizing bus emissions	4	Bicycle lanes	2
Stations set back from intersections	3	Bicycle-sharing integration	1
Center stations	3		
Pavement quality	2		
		TOTAL	100



Gold: 85 points or above



Silver: 70–84 points



Bronze: 50–69 points

ITDP

Upcoming Events

International Transport Forum

DATE: 22-24 May 2013

DESTINATION: Leipzig, Germany

WEBSITE: www.internationaltransportforum.org

DESCRIPTION: The International Transport Forum's Annual Summit is the unique platform for a global conversation on strategies for transport in the 21st century. At the Summit, ministers from 54 member countries and beyond engage in focused debates with decision-makers from business, civil society leaders and top academics. The International Transport Forum's 2013 Summit will focus on the theme "Funding Transport".

Urban development

- Metropolitan Solutions Conference, 10 April 2013, Hannover, Germany
- 24th Sessions of the UN-Habitat Governing Council, 15-19 April 2013, Nairobi, Kenya
- 7th European Sustainable Cities & Towns Conference, 17 April 2013, Geneva, Switzerland



OnTheBus
URBAN MOBILITY & ACCESSIBILITY

**AUTONOMOUS
MOBILITY
FOR
EVERYONE**

The only universal app
for smart turn-by-turn
guidance, integrated with
public transport information

Inclusive design for all
Multi-modal
Easy integration
Currently available in...
Barcelona, Madrid, Roma,
and soon in New Zealand, UK, Canada.

www.massfactory.com
info@massfactory.com

URB
Ciudad de Barcelona

MASS
FACTORY

Google play

- South Asian Cities Summit 2013, 17-18 April 2013, Delhi, India
- Arab Future Cities Summit, 22-23 April, Doha, Qatar
- Africa Urban Infrastructure Summit, 22-23 April 2013, Cape Town, South Africa
- 2nd International BMBF-Conference on "Future Megacities in Action - Innovative Solutions for Energy- and Climate-Efficient Urbanisation", 14-16 May 2013, Hamburg, Germany
- Resilient Cities 2013: 4th World Congress on Cities and Adaptation to Climate Change, 31 May-2 June 2013, Bonn, Germany
- IFHP Centenary Congress, 8-11 June 2013, London, UK
- City Events Sports, 13-15 November 2013, Lausanne, Switzerland
- Smart Cities Expo, 19-21 November 2013, Barcelona, Spain
- Pollutec: Sustainable Cities Solutions, 3-6 December 2013, Paris, France

Environment

- Carbon Expo, 29-31 May 2013, Barcelona, Spain
- World Water Week, 1-6 September 2013, Stockholm, Sweden
- ECOCITY World Summit, 25-27 September, Nantes, France
- ISWA World Congress, 7-11 October 2013, Vienna, Austria
- ICLEI Africa: Local Climate Solutions for Africa 2013, 30 October-1 November 2013, Dar es Salaam, Tanzania
- World Climate Summit, 16-17 November 2013, Warsaw, Poland

Energy Efficiency

- Energy Cities' Annual Rendezvous, 24-26 April 2013, Växjö, Sweden

Transport

- 60th UITP World Congress and Exhibition, 26-30 May 2013, Geneva, Switzerland
- 9th European ITS Congress, 4-7 June 2013, Dublin, Ireland
- Singapore International Transport Congress and Exhibition, 7-9 October 2013, Singapore

Governance

- UCLG ASPAC Executive Bureau Meeting, 15-17 May 2013, Gwanju, South Korea
- OECD annual Forum and Council ministerial meetings, 28-29 May 2013, Paris, France
- World Cities Summit Mayors Forum 13-15 June 2013, Bilbao, Spain
- 123rd Meeting of the Committee of Permanent Representatives to UNEP, 18 June 2013, Nairobi, Kenya
- UCLG World Congress, 1-4 October 2013 Rabat, Morocco

To feature your events in the Upcoming Events section, please send details to: editorial@cities-today.com

METROPOLITAN SOLUTIONS

**Unique:
Experience the city
in the trade fair!**

Which technologies will have a sustainable impact on urban planning world-wide?

At Metropolitan Solutions you can experience the entire spectrum of leading-edge technology and systems for urban environments and big cities.

This is an ideal opportunity to talk with experts about the latest solutions and find out about developments in the key areas of energy and water supply, urban mobility, waste management, automation, security, building installations, street furniture and administration.

Visit Metropolitan Solutions – the world's most important platform for public services. From 8 – 12 April 2013. Make sure you get your tickets now: metropolitansolutions.de

URBAN TECHNOLOGY FIRST
8 – 12 April 2013 · Hannover · Germany



Deutsche Messe
Hannover · Germany

metropolitan-solutions.com

Managing the beehive

Reinventing logistics for the world's emerging cities

Education, healthcare, entertainment – today's cities offer unprecedented lifestyle opportunities: if you can manage to access them. But in more and more cities around the globe, you can't easily and that is a problem. In most of the world's large cities, the timely transportation of people and goods is evolving as one of the most significant challenges of our time. "Large cities have incredible complexity. If you have ever been in a hurry in São Paulo or in Shanghai, you know what I am talking about," says Martin Brown, Program Director for City Logistics at Solutions & Innovation, Deutsche Post DHL.

Mr Brown and his team of innovators at DHL have set out on a daunting task: streamlining flows of data, of goods and services in order to enhance the cities' liveability, as well as their economic performance and their attractiveness to businesses. In fact, the negative repercussions of congestion impact on almost every aspect of a city's welfare, from economic to environmental, from living standards to health issues.

Old problem, new approach

"Large cities have always been busy beehives," says Martin Brown. "In the past, the traditional answer to this challenge has been investments in fixed assets such as additional highway lanes and implementing policy tools e.g. congestion charges in London or number plate quotas in Mexico City." But these approaches have their limitations: large capital spend projects will not by themselves ease traffic in the so called last-mile. Besides, finding space for new infrastructure in a dense urban environment is a challenge in itself. On the other hand, access limitations tend to keep private vehicles out of city centres, not commercial vehicles.

DHL follows a different path: the overall aim is to control and coordinate freight flows within a city as much as possible, eliminating unnecessary vehicle

movements. For example, much of the deliveries we see within cities today, particularly for last-mile deliveries, are avoidable. On average, trucks are less than half full, and many businesses receive numerous deliveries over the day, whereas one or two full truck loads of consolidated goods would be sufficient. Tackling this requires thorough analysis, innovative ideas and a partnership between a network of experts.

Preparing the terrain—the analysis

By 2050, the world's population is estimated to reach 9 billion, with 70 percent of people living in urban agglomerations. With the introduction of modern information and technology services, emerging cities are leapfrogging over the developmental patterns that Western cities historically experienced during their maturation, at an astonishing rate. Such growth triggers an increased need for consumer goods and services, with municipalities competing for both Foreign Direct Investment and a talent workforce.

Over the last few years, DHL has analysed a number of cities on different continents. One example is Chengdu, China's fourth-largest city and home to more than 11 million people; other examples include Ningbo, the city with the second-largest sea port in China and Istanbul—a gateway city.

Key findings are that these cities face comparable base challenges, regardless of geography and cultural differences. For example, many large cities have mature strategies for public and private transportation, but freight transportation is usually only considered as an afterthought. Its integration into the city's infrastructure follows no prescribed master plan, but is implemented wherever and however possible.

Treading new paths—the ideas

Perhaps the most obvious step to bringing down the number of shipments in a city is bundling individual deliveries. The goal is to double the average truck load from the current 40 to 45 percent, effectively halving



Photo: Deutsche Post DHL – The Mail & Logistics Group

the number of freight-related vehicle movements in a city, especially during peak times. DHL already runs a number of Urban Consolidation Centers today; facilities on the edge or outside of a city, where common goods can be aggregated and stored until there is an optimal time for their delivery.

“We can maximise efficiency and reduce emissions by creating a full truckload and using hybrid vehicles,” says Martin Brown. “We also coordinate last-metre deliveries in eco-mobility ways such as with pedestrians or by bicycle—part of our GoGreen initiative, which seeks to improve the environmental impact of all of our processes. We also leverage multi-modal networks, combining air, rail, and water transport.”

But also after distributing freight on trucks and sending them out for delivery there is room for improvement. With the Smart Truck concept, DHL has developed a solution that avoids traffic congestion and improves delivery accuracy. Each truck is directed on a route that will constantly be recalculated based on traffic flows and incoming pick-up requests.

Another theme is the integration and collaboration of different providers. Local carriers could integrate themselves into the overall system via market auction platforms and deliver local services in and around their own city and region. More ambitious concepts involve unmanned rail freight which takes traffic off the streets and helps streamline high volume freight flows. Finally, logistics service providers have to also respond to the challenges in the last metre, as Martin Brown explains: “Modern large cities are vertical, and delivering goods is not merely a question of how to use streets. Urban logistics solutions have to anticipate deliveries to shops, apartments and offices, whether they are in an underground metro station or the 29th floor of a modern skyscraper.”

Bringing bright minds together—the network

Once you stop to think about it, there are a large number of trends that will influence future urban logistics: the Internet of Things, the rise of



Photo: Deutsche Post DHL - The Mail & Logistics Group

e-commerce, Big Data, RFID supply chain solutions and also customers' evolving habits and expectations, to name but a few.

Even for an industry leader such as DHL, redefining urban logistics would be too big a task to take on in isolation. Solutions & Innovation, the innovation department of DHL, therefore leverages a Partner Network that covers a broad number of disciplines, all the way from smart technology to behavioural analysis. Technology Partners include IBM, who has expertise in traffic prediction and management; Siemens contributes with know-how in automation and sequencing in next-generation warehouses; T-Systems and SAP, jointly tackle delivery and

slot management in ports. From a research perspective, the Technical University Eindhoven has supported DHL recently in research into game theory and collaboration between carriers in the last mile. MIT's Center for Transportation & Logistics are experts in nano-logistics at a street level, in particular in Central and South America. MIT also runs an AgeLab, analysing the needs of an ageing demographic across the world, with a special focus on India and China. Last but not least, DHL engages with NGO partners, namely the World Economic Forum and, with specific interest in the responsible growth of future cities, the World Business Council for Sustainable Development and ICLEI. ■

DHL's Solutions & Innovation department develops and markets cross-divisional solutions designed to simplify the life of DHL customers. As part of DHL Customer Solutions & Innovation, the team performs research on tomorrow's logistics solutions and works with the various DHL units to develop solutions from start to finish—from the initial concept to market readiness. Solutions & Innovations provides expert teams for these projects.

UNITED STATES

Google invests US\$200 million in Texas wind farm

Google is investing US\$200 million in the 161 MW Spinning Spur Wind Project, located in Oldham County in the Texas Panhandle, and built by EDF Renewable Energy. Spinning Spur's 70, 2.3 MW Siemens turbines started creating power just before the end of 2012, and the energy they create has been contracted to SPS, a utility that primarily serves Texas and New Mexico. The Spinning Spur joins 10 other renewable energy investments the company has made since 2010, several of which hit significant milestones over the past year, including the Shepherds Flat, one of the world's largest wind farms with a capacity of 845 MW, which became fully operational in October 2012.

GERMANY

Fraunhofer Institute seeks automation solution for rotor blade manufacture

Scientists at the Fraunhofer Institute's Institute for Wind Energy and Energy System Technology (IWES) have embarked on a €8 million research programme that aims to automate the manufacture of wind turbine rotor blades. The Fraunhofer researchers, based in Germany, believe that an automated solution in the BladeMaker project will cut the cost of wind turbine production by at least 10 percent. Rotor blade manufacture accounts for around a quarter of the cost of a wind turbine, a result of the man hours required to make them by hand. Automating the process will make the blades more cost effective, quicker to manufacture, and of a higher quality.

JAPAN

Kyocera to supply Japan's first community solar project

Kyocera, a vertically-integrated producer and supplier of solar energy panels, is to supply solar panels and services to Japan's first community solar power project in the Wakayama Prefecture and Kyoto city, after signing a supply agreement with the project developers. Non-profit company PS and Trans Value will construct and operate the plant, using 7,500 of Kyocera's multi-crystalline silicon solar modules, and capital donated by Ryukoku University. The new project will be situated at various locations throughout the region, with 50kW at the Ryukoku University Fukakusa campus in Kyoto City, and the rest in two locations in Inami Town, Wakayama Prefecture. Around 1.2MW will be leased to municipal property Inami Town, and an addition 600kW to land owned by PS in the town.

INTERNATIONAL

Germany and Canada collaborate on sustainable energy research

Fraunhofer-Gesellschaft, a German organisation for applied research, and the University of British Columbia (UBC), have signed a framework agreement to contribute to the development of the green energy industries in Germany and Canada.

"Just like Fraunhofer, UBC recognises the importance of environmental technologies for the future," said Project Leader Christopher Hebling, head of Energy Technology at the Fraunhofer Institute for Solar Energy Systems ISE. "Not only do both partners undertake excellent research in this field, but they also stand out due to their common strategy for cooperation with industry."

The collaboration will investigate the efficient conversion of underutilised biomass materials and in particular, will focus on innovative cleaning methods to control and reduce the tar content in the emerging product gas during gasification of wood and wood waste. The purified gas can then easily be supplied to combustion systems for a combined heat and energy generation.



Fifty channel system for the characterisation of fuel cells

Wind is a significant component of the energy mix of the future and the partners will also study the production techniques for wind turbines.

"Sources of energy in the 21st century will change, and this brings up many questions we have to solve," said Professor Reimund Neugebauer, President of Fraunhofer-Gesellschaft.

In the field of fuel cell research UBC and Fraunhofer ISE have already developed a method for spatially resolved characterisation of fuel cells. Processes in the cells can be monitored in detail, thus revealing the potential for optimisation. Building on this development the partners will continue their efforts to significantly improve the efficiency and reliability of fuel cells.



The feeding system will handle both square and round bales of straw

POLAND

DP CleanTech to construct US\$34.1 million straw-fired plant in Winsko

Danish biomass company DP CleanTech has agreed a deal with Polish Energy Partners (PEP) to build a 30MW straw-fired power plant in Winsko in south-west Poland. DP Cleantech will build the US\$34.1 million plant over the next 24 months, with operational start up scheduled for the end of 2014. The company, which specialises in straw-fired biomass technology, will engineer, manufacture and commission the combustion boiler, fuel feeding and air system.

The company, which specialises in straw-fired biomass technology, will engineer, manufacture and commission the combustion boiler, fuel feeding and air system

“We are great admirers of what PEP are trying to achieve with biomass power in Poland,” said Krzysztof Dragon COO at DP CleanTech. “We have built a solid relationship with PEP, and hope to work together to develop further projects which build on a shared vision of the increasingly important role that biomass can play in Poland’s energy mix.”

The straw-fired power plant will be delivered on a turnkey basis to PEP. During 2011 and 2012, DP CleanTech produced the specifications for all supply packages for the project. As well as being enhanced to handle up to 80 percent wood chips, the special boiler design will also minimise NOx (mono-nitrogen oxides) emissions, and an innovative feeding system will handle both square and round bales.

“For this project, longstanding practical experience and technical expertise in developing enhanced solutions, backed up by proven technology were key factors behind our decision to work with DP CleanTech,” said Mr Zbigniew Prokopowicz, CEO of PEP.

DP Clean Tech believes that Poland is poised to become one of the major growth markets in the European biomass industry, with its attractive incentive scheme and a growing interest in biomass, as the country tries to move away from its dependence on coal and to meet EU renewable energy targets.

FRANCE

Floating solar power system launched

French solar company, Ciel et Terre, has launched a large-scale floating solar power generation system. The modular Hydrélio system comes in a variety of versions and can be used to construct power plants generating up to 50MW. The basic module consists of two blow-moulded floats made of High Density Polyethylene plastic material. One supports the solar panel and the other is used as a link and to provide maintenance access. The floats are then joined together to form solar islands, using a system of connection pins. The Hydrélio system will be utilised in unused stretches of water, such as quarry lakes, irrigation ponds, water treatment plant lagoons and dams. Ciel et Terre developed the Hydrélio floating solar power system in partnership with energy research group IFP Energies Nouvelles (IFPEN).

INTERNATIONAL

ICLEI and UNEP highlight resource efficient cities

ICLEI, Local Governments for Sustainability, and UNEP are collaborating on a Global Initiative on Resource Efficiency in Cities. ICLEI will be involved in designing and disseminating the survey to local governments to explore their perspectives and their needs for a more efficient use of resources. The survey is part of a broader project that includes a mapping exercise, conducted by Sustainable Cities International and Infrangilis, of the activities of other international stakeholders on resource efficiency in cities. Covering areas such as waste management, efficient buildings and water use, the programme aims to help cities worldwide to reduce pollution levels, improve resource efficiency and reduce infrastructure costs. Several cities have already joined the initiative, including São Paulo, Malmö, Heidelberg, Quezon City and Gwangju.

SWEDEN

Ikea to double renewable energy investment

Ikea Group, the world’s largest furniture retailer, will double its investment in renewable energy to US\$4 billion by 2020 as part of a drive to reduce costs as consumers become more price sensitive. The additional spending on projects such as wind farms and solar parks will be needed to keep expenses down as the company maintains its pace of expansion. Ikea plans to get 100 percent of the energy consumed at its stores and by subcontractors from renewable sources by 2020. The company owns 250,000 solar panels, mainly in the United States, and invested in 126 wind turbines in northern Europe to cover 34 percent of its energy consumption.

UNITED STATES

US cities report decline in childhood obesity rates

Some cities, including Philadelphia, Los Angeles and New York City have reported modest declines, between 6 and 3 percent, in their childhood obesity rates, following peaks in the early 2000s. The Robert Wood Johnson Foundation report found that strong, far-reaching changes—those that make healthy foods available in schools and communities and integrate physical activity into people's daily lives—are working to reduce childhood obesity rates. The Foundation reiterated that more efforts are needed to implement these types of sweeping changes nationwide and to address the health disparities gap that exists among underserved communities and populations.

COLOMBIA

Quality of life focus for Colombian urban areas

The quality of life of the more than 30 million Colombians living in the largest urban areas will benefit from a new US\$150 million World Bank loan. The programme seeks to increase productivity and sustainability in Colombian cities. The new initiative falls under the framework of the urban policy priorities set by the National Development Plan within the Misión Ciudades (Cities Mission) initiative. Financing will support development activities in increasing opportunities for underprivileged residents and improving access to housing and improvements to water and sanitation services. Urban transport and environmental services in urban areas will also be key areas of focus.

UNITED STATES

Kansas City to vote on health levy renewal

The campaign to renew a portion of Kansas City's Health Levy has begun with patients and representatives of Truman Medical Center-Hospital Hill urging Kansas Citians to vote 'Yes' in the April ballot. The portion of the Health Levy set to be renewed generates approximately \$15 million dollars per year to help cover a portion of the more than \$130 million dollars in uncompensated health care services that safety net providers in Kansas City provide every year. Services made possible in part by Health Levy funds include mental health services treating serious and persistent mental illness as well as critical prevention programmes, such as mammograms, childhood immunisations, nutrition programmes and early childhood interventions.

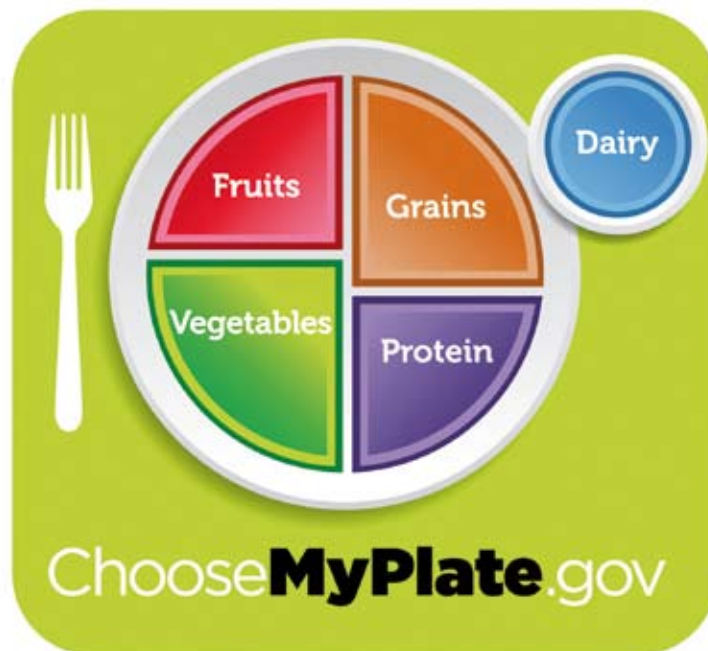


Photo: choosemyplate.gov

MyPlate, developed by the US Department of Agriculture, is used as a visual reminder to children to 'build' healthier plates at meal times

UNITED STATES

City leaders recognised for obesity campaigns

City leaders were rewarded with medal certificates in recognition of their support and efforts in combating childhood obesity through the national *Let's Move!* Cities, Towns and Counties initiative.

Five hundred and forty one medals were given to 118 communities across the US for completing goals set out by the programme. From now on, the National League of Cities (NLC) will present medals each month to those leaders who achieve the five benchmarks. These include nutritional guidance, increasing physical activity opportunities, and greater participation in school breakfast and lunch programmes.

"Mayors, city council members, county commissioners and other local officials around the country are to be commended for stepping up to the challenge of *Let's Move!* Cities, Towns and Counties and making measurable progress in their efforts to improve children's health," said NLC President Ted Ellis, Mayor of Bluffton, Indiana.

One city that stood out with its achievements was Mountain View, California. The city's child care and afterschool providers are teaching children about smart food and beverage choices and providing opportunities for increased physical activity. They are displaying MyPlate (see photo) and teaching children to choose sugar free beverages through the campaign 'Rethink your drink'.

Junior schools have adopted healthy food service standards and serve a healthy breakfast, lunch, snack and supper in their jointly operated afterschool programme for over 200 children. Additionally, play spaces, parks and gyms are planned and provided throughout the community.

"Because of our participation in the HEAL Campaign and *Let's Move!*, the city now actively promotes a community culture of health and wellness through programmes, services and collaborations," said Mike Kasperzak, Mayor of Mountain View. "I encourage local elected officials to work together to ensure a healthy future for our children."

UNITED KINGDOM

New community endeavour offers healthier lifestyle

A north London community centre has launched a campaign to crowdfund an organic food garden in a community centre that will grow diverse global foods, train local people and generate income for the charity that runs it.

Tottenham's Selby Centre, is transforming its grounds into a new community garden where locals will produce and prepare organic foods in an open and friendly environment.

The Selby Centre is using Spacehive.com to raise the £11,500 needed to transform the grounds. Crowdfunding allows projects to generate funds online, pooling small amounts of money from locals, strangers, businesses and even councils.

"More than about growing food, it's about creating a legacy for Tottenham and a source of pride for our children in years to come," said Dexter Kelly, Volunteer Project Manager. "Using Spacehive has given us a platform to bring people together and generate interest though the Internet that we would have previously not been able to create. Crowdfunding has shown us how the real power of community can be embraced by the digital age."

The Global Garden, Global Kitchen project will grow an array of rare produce, from blue carrots to red lettuce, which will act as the basis of the Global Kitchen. The centre will host cooking classes and offer hands-on skills for healthy living to the community. They will also sell produce in their on-site café and a new outdoor market to raise funds to keep the centre, which is 70 percent self-funded, alive.



Photo: Selby Trust

Work has begun on the garden and centre, which will offer skills for healthy living to the community

The centre will encourage local people to use their newfound cooking skills at home and intends to have local children deliver fresh food parcels to vulnerable people in local council estates, ensuring some of Tottenham's most deprived people have access to quality fresh food.

Tottenham, as well as being one of the UK's most diverse communities with 40 percent of the population an ethnic minority, is also one of the z's most deprived boroughs with eight out of ten children living below the poverty line, according to a recent New Economics Foundation report. Haringey Council has also capped the number of local fast food outlets in response to high number of obesity-related deaths.

UNITED KINGDOM

New report says good housing improves health

Integrating housing with health and social care can improve the lives of vulnerable and older people and save thousands of pounds in health and care costs, a new report by the National Housing Association says. *Providing an Alternative Pathway* found that people in specially adapted homes avoided stays in expensive residential care homes, and the report called for housing associations to develop the right type of homes for older and vulnerable people, close to hospitals and social care providers.

MONGOLIA

Health sector to get major upgrade

Ulaanbaatar will receive a new national blood transfusion centre and an improved central medical waste management facility as part of a US\$55 million Asian Development Bank loan. The project will see a new hospital being built in one of Ulaanbaatar's poorest districts to directly benefit more than 260,000 people and equipment will be provided for hospital sterilisation and microbiology laboratories to prevent and control hospital-acquired infections. The hospital will be used as a model general hospital to be replicated in nine other districts in Ulaanbaatar under an amended health law requiring all general hospitals to provide at least seven specialised medical services.

CANADA

Toronto Public Health launches new mobile dental clinic

A new customised coach will travel throughout Toronto as part of a programme to provide free dental services to children and youth including regular check-ups, x-rays and fillings to promote and maintain good oral health. The Mobile Dental Clinic is fully accessible and is equipped with two dental stations and a sterilisation centre. The clinic is staffed by a dentist, registered dental hygienist and a certified dental assistant. The bus will travel throughout Toronto visiting neighbourhoods and community agencies to provide free dental care to children 17-years-old and under.

RUSSIA

Russian cities to help stub out smoking

Representatives from Sochi, Moscow, St Petersburg, Kazan, Krasnoyarsk, Arkhangelsk and Novosibirsk have supported the creation of a Union of Tobacco-Free Cities in the Russian Federation. The Union is tasked with protecting people from the harmful effects of tobacco consumption and second-hand smoke. It will also serve as a forum where representatives of regions within the Russian Federation can discuss tobacco control initiatives.

KENYA

New e-participation tool for slum upgrading

Community members of the Mtwaya informal settlements, an emerging urban centre situated on the Kenyan Coast, north of Mombasa, have launched a pioneering e-participation tool for participatory slum upgrading. The new initiative hopes to benefit 11 informal settlements in Mtwaya township, which have major challenges of water, sanitation, durable housing, and security of tenure. The e-participation tool offers the opportunity for slum dwellers to voice their opinions on upgrading plans, to prioritise interventions, and to monitor and evaluate projects. UN-Habitat's Participatory Slum Upgrading Programme (PSUP) and the Local Government and Decentralized Unit initiated the project, in collaboration with the Ministry of Local Government of Kenya and the County Council of Kilifi, as well as Future Policy Modelling Consortium coordinator Cellent AG.

UNITED KINGDOM

Energy efficiency improvements could save £683 million

Households in England and Wales could together save on average £162 per year, reducing average energy bills to £792, by making basic improvements to their home's energy efficiency, according to research from property services company LMS. Their figures suggest that if homeowners undertook the changes recommended in the 2012 assessments they could save a total of £683 million. The launch of the Government's Green Deal scheme could see many households opting to make such improvements since the initiative allows homeowners and businesses to install cavity wall insulation, double glazing and innovative hot water for no upfront cost, with it instead being paid through future energy bill savings.

UNITED STATES

Chicago unveils 'greenest street in America'

The Chicago Department of Transportation (CDOT) has unveiled the 'greenest street in America' as the first phase of a two-mile stretch in the Pilsen neighbourhood, and a demonstration of how sustainable design can be implemented in the public right of way. The Cermak/Blue Island Sustainable Streetscape has received quantifiable results by setting aggressive sustainability goals in eight performance areas such as stormwater management, material reuse, and energy reduction. The US\$14 million streetscape project is the first in the country to balance and incorporate such a wide spectrum of sustainable performance into a single urban roadway. The project was funded largely through Tax Increment Financing, as well as US\$800,000 worth of grants from the Federal Highway Administration, Illinois Environmental Protection Agency and Midwest Generation.

UNITED STATES

San Francisco introduces safety retrofit for residential buildings

Mayor of San Francisco, Edwin Lee, has introduced legislation mandating the seismic retrofit of the city's large wood-frame soft-story residential buildings, a significant step forward towards ensuring San Francisco's resilience and safety.

"We are taking the necessary steps to protect our residents and make sure that San Francisco is America's most resilient city," said Mayor Lee. "This legislation is the result of more than a decade of work and collaboration with tenants, property owners and seismic experts, and we have all come together to make sure we strengthen our most vulnerable residential buildings. Before the first retrofit is required, we will develop financial incentives and assistance programmes to help defray costs for property owners."

The new legislation will require the retrofit of all soft story buildings of wood frame construction built before 1978 that contain five or more residential units and have three or more stories. Initially, all owners of this class of buildings, soft story or not, will be required to complete an evaluation form to determine if their building is seismically vulnerable. Once determined, those buildings containing a soft story condition will be required to retrofit within seven or fewer years.



The new legislation will enforce a retrofit of San Francisco's most vulnerable buildings

"By seismically retrofitting the most vulnerable buildings in our city, this legislation will go a long way to ensure the safety and well-being of our residents in the event of another major earthquake," said President of the Board of Supervisors, David Chiu.

Seismologists predict that a significant Bay Area earthquake, two to three times as strong as the 1989 Loma Prieta quake, is likely to occur within the next 30 years. During Loma Prieta these buildings performed especially poorly, leading to collapse, fire, and the loss of life.

"In a major earthquake, an enormous amount of our housing stock, including many rent-controlled buildings, will be at severe risk," said Scott Wiener, who serves on the San Francisco Board of Supervisors. "We've been talking for a long time about taking meaningful steps to fix these buildings. Now is the time to move from talk to action."



Photo: David Shankbone

Michael Bloomberg, C40 Chair and New York Mayor

INTERNATIONAL

C40, World Green Building Council and the U.S. Green Building Council form new partnership

The World Green Building Council (WorldGBC), U.S. Green Building Council (USGBC) and the C40 Cities Climate Leadership Group (C40), have announced an expanded partnership, focused on creating a set of innovative green building solutions that can be readily implemented in C40 Cities around the world. The announcement broadens the scope of the organisations' longstanding collaboration and brings it to a global scale.

"Cities around the world are leading the way in combating climate change, and one area where we've seen significant progress, and where there remains enormous potential, is in making buildings more energy efficient," said Michael Bloomberg, C40 Chair and New York Mayor. "This new global partnership marks an important next phase of C40's longstanding commitment to the global green building community."

Buildings consume approximately 40 percent of the world's energy and account for more than one-third of the world's greenhouse gas emissions. In cities, buildings represent the majority of global greenhouse gas emissions and can account for as much as 80 percent of these harmful gases. For many of the world's cities, greater efficiency in the building sector is not only the largest opportunity to save energy and reduce greenhouse gas emissions, but also the most cost effective.

"Greening the buildings of our world's megacities presents the most significant opportunity to reduce human impacts on the environment and the atmosphere," said Rick Fedrizzi, president, CEO and founding chair of USGBC and current chair of the WorldGBC. "We are going to do everything we can to support innovative work by providing access to extensive green building educational and training materials, technical tools and resources, and a database of policy best practices."

The partnership will make the full range of USGBC and WorldGBC's green building expertise in project best practices, policy development and implementation, education and training, and powerful data-driven tools and resources, accessible to C40 Cities. By linking city experts with the largest network of green building professionals in the world, cities will be able to quickly develop comprehensive and customised plans to encourage green building.

"Through this partnership, our 90 Green Building Councils and associated groups around the globe will be able to pool tools and resources to assist and drive local emissions reductions efforts within the building sector in these mega cities," said Jane Henley, CEO of the WorldGBC.

SRI LANKA

UN-Habitat and partners continue housing Sri Lankan conflict victims

UN-Habitat is extending its partnership with the European Union (EU), Government of Australia (AusAID) and the Swiss Agency for Development and Cooperation (SDC) to implement the second phase of the housing recovery project for conflict affected families in Sri Lanka. The project 'Improving Living Conditions in Returnee Areas of Sri Lanka through Housing' will be implemented over the next two and a half years in the north and east of the country. The initiative will assist 4,000 conflict-affected families in the districts of Killinochchi, Mullaitivu, Mannar and Batticaloa to reconstruct and repair their damaged houses. Housing construction will continue using a 'Home Owner Driven' process, in which owners are granted the funds and with the technical help of UN-Habitat and SDC, contribute their labour, time and resources to ensure the success and completion of the process.

UNITED KINGDOM

London launches programme to cut public sector emissions

The Greater London Authority's new RE:FIT Framework has been launched by Deputy Mayor for Housing Land and Property, Richard Blakeway. RE:FIT is the Mayor of London's programme which encourages public sector organisations to cut carbon emissions and reduce their energy costs by installing energy efficiency measures in their buildings. Under RE:FIT, 111 buildings have already been retrofitted, or are close to completion, representing a capital investment of £13 million, with an estimated carbon dioxide reduction of 12,000 tonnes per year and energy savings of around £2.1 million per year.

INTERNATIONAL

Deutsche Telekom and IBM team-up to build smarter cities

Deutsche Telekom and IBM announced a collaboration to help cities to make smarter use of their services through intelligent data capture and analysis. The Smarter Cities solutions will build on IBM's expertise from its smarter city engagements combined with Deutsche Telekom's global Machine-to-Machine (M2M) capabilities, which include M2M solutions integration and advanced network connectivity. Solutions will be worked on in a number of areas including transport, energy, water and public safety.

KENYA

Silicon Savannah begins first phase

Mwai Kibaki, the outgoing Kenyan President, has officially opened Konza Techno City, 60 kilometres from Nairobi. Konza Techno City aims to foster the growth of the technology industry in Kenya and is part of the Vision 2030 project, the national blueprint to create a competitive and prosperous nation with a high quality of life by 2030. Incentives will be provided to companies that align with job creation and technology sector growth goals. It will begin with a 162-hectare first phase that will include the development of US\$750 million of on-site infrastructure and US\$310 million of off-site infrastructure with 1.5 million square metres of real estate development.

INTERNATIONAL

New ranking confirms ICT boosts cities' business potential

London, New York and Stockholm emerged as the top three cities in Ericsson's third edition of its Networked Society City Index. The accompanying report analysed ICT-driven benefit creation in 25 of the world's largest cities whereas previous editions focused on the benefits that ICT generated for cities and citizens respectively. A correlation was also drawn between ICT maturity and the ability to use ICT to benefit business. Cairo was deemed the best city in Africa, Singapore in Asia, and São Paulo in Latin America.

IRELAND

Free WiFi for Dublin's citizens

Dublin has launched the first of 12 free wifi spots across the city as it aims to boost its digital credentials. The free wifi is an initiative of Dublin City Council provided by technology company Gowex. A free 24-hour, seven-day a week service is on offer with a 512kb download speed. People will also have the option to purchase a higher download speed of up to six megabytes. Locations include busy Dublin squares and streets with a high footfall of citizens and tourists. Once registered, users will have access to Dublin city hotspots and all other Gowex city networks worldwide.



Cologne's city leaders are looking at ICT to increase capacity and efficiencies from their transport network

GERMANY

Successful pilot in Cologne helps city to predict traffic

Cologne, Germany, has successfully completed a pilot programme using predictive analytics that the city believes could help motorists anticipate, better manage, and in many cases, avoid traffic jams and trouble spots across the city.

Technology company IBM worked with Cologne's traffic engineers to analyse data from its traffic monitoring stations along the left bank of the Rhine river for a period of six weeks with the aid of the company's Traffic Prediction Tool. The results, which compare the accuracy of the traffic prediction tool to the real-time data, revealed the accuracy of short-term forecasting for 30 minutes ahead to be 94 percent for vehicle speed and 87 percent for the volume of traffic.

"The traffic prediction pilot results are very encouraging," said Thomas Weil, Director of the Cologne Traffic Control Centre. "Having the ability to create actionable insight from the traffic monitoring data gives us an ability to better manage congestion as well as provide citizens with more precise traffic information. Our Traffic Command Centre would be able to optimise current traffic flow while anticipating and planning for potential traffic incidents."

As Germany's fourth largest city with growing traffic congestion and density, Cologne's city leaders are looking at new ways to increase capacity and efficiencies from their transport networks within the constraints of their infrastructure.

"As one of the first congestion-prone large cities to do so, Cologne has taken an important step in the right direction with this project," said Eric-Mark Huitema, IBM Smarter Transportation leader, Europe. "Intelligent traffic management based on precise forecasting techniques can help cities anticipate and avoid traffic congestion and possibly reduce the volume of traffic, resulting in a more sustainable transportation network."

Cologne's traffic command centre currently collects real-time data from more than 150 monitoring stations and 20 traffic cameras on the roads, highways and busy intersections. City officials believe that the pilot will assist in procuring an advanced traffic management tool to forecast traffic flows across the city.

INTERNATIONAL

Dublin hosts key forum on urban poverty

Best practices and case studies on reducing urban poverty were shared with more than 500 city leaders from across the world during the two-day World Alliance of Cities Against Poverty Forum held in Dublin, Ireland.

The eighth edition of the Forum, organised by the United Nations Development Programme (UNDP), featured successful projects to combat poverty through both technology and a people centred-approach. This included the Safe Cities Free of Violence against Women and Girls initiative, led by UN Women, UN-Habitat and software company Microsoft.

The initiative promises to be the first global comparative effort that aims to develop and evaluate model approaches across different settings to prevent sexual harassment and violence against women and girls in public places. Beginning in 2010 with five pilot cities—Cairo, Kigali, New Delhi, Quito and Port Moresby—the initiative now works in 20 cities and aims to increase this to 35 by 2017, in which host city, Dublin, signed-up to the programme during the event.

“Progress is being made in Rio de Janeiro, where communities are using mapping technologies to identify safety risks in ten of the cities’ high-risk slums, or favelas,” said Michelle Bachelet, Executive Director, UN Women and former President of Chile. “Trained women and adolescent girls used their smartphones to map safety risks such as faulty infrastructure or services, obscured walking routes, and lack of lighting. These initial findings were presented to local authorities, and are currently being used to develop solutions.”



Michelle Bachelet, Executive Director, UN Women

Edmonton, Canada, shared how it eliminated the need for a garbage dump through aggressive composting and recycling programmes to become a zero-waste city. Manila, The Philippines, is looking closely at possibly replicating the scheme.

The Forum’s organisers themselves took advantage of technology and crowdsourcing, by utilising social media which saw a further 3 million people following and participating online through Twitter and Facebook feeds.

“Technology can be a driver of change, but technology has to be a part of an integrated people centred-approach,” Adam Rogers, Forum Coordinator, UNDP, told *Cities Today*. “The objective was to raise awareness and provide the opportunity for city leaders and others to participate and interact. The input delivered through social media will be included in the next Forum proceedings which will be even more interactive by redirecting questions to speakers directly.”

INTERNATIONAL

Third Green App Challenge to target urban sustainability

The International Telecommunications Union together with Telefónica has launched the 3rd Green ICT Application Challenge. The application that best helps to promote smart sustainable cities and environmental sustainability in urban areas will be awarded with a US\$5,000 prize. The winner will be selected according to criteria including impact, scalability, the degree of innovation, feasibility, the quality of the implementation plan and the business model. In addition, priority will be given to applications that can help developing countries to solve environmental problems in an urban context. Applications are open until 30 April, with the name of the winning project revealed on 23 May.

EGYPT

Cairo app aims to solve congestion

The first ever Cairo Transport App Challenge (TApp) concluded with the first prize being awarded to a mobile app that helps drivers with road assistance and car maintenance. The winning app, Beliaa, is the first mobile application for road assistance and car maintenance in Egypt, using GPS location to help drivers locate road assistance centres. Twenty-three teams were whittled down to 10 finalists in the World Bank-sponsored competition to develop the best technological solution to navigating Cairo’s notorious congestion. The Cairo TApp engaged technologists on transport challenges ranging from harassment and other personal safety issues to encouraging shared rides, increasing effective traffic enforcement, and improving driver behaviour.

THE NETHERLANDS

New initiative to improve traffic flow in Eindhoven

NXP Semiconductors has equipped 200 cars in Eindhoven with a chip that gathers relevant data from the central communication system of the car (CAN-bus). Relevant sensor data—with indicators of potholes or icy roads—were collected in-vehicle and transmitted to the cloud-enabled IBM Smarter Traffic Center. This information enables road officials to act in near real-time on dangerous road conditions, accidents or growing traffic density. It also informs drivers in the vicinity of an incident through smartphone or built-in navigation device. The pilot is one of several initiatives Eindhoven has begun to improve mobility in the region including road pricing.

EUROPE

EU launches clean fuel strategy

The European Commission has announced an ambitious package of measures to ensure the build-up of alternative fuel stations across Europe with common standards for their design and use. Policy initiatives so far have mostly addressed the actual fuels and vehicles, without considering fuel distribution. Efforts to provide incentives have been uncoordinated and insufficient. The Commission is proposing a package of binding targets on Member States for a minimum level of infrastructure for clean fuels such as electricity, hydrogen and natural gas, as well as common EU wide standards for equipment needed. Member States will be able to implement these changes without necessarily involving public spending by changing local regulations to encourage private sector investment and behaviour.

CZECH REPUBLIC

Lack of cycling infrastructure responsible for growth in fatalities

Cycling fatalities increased in the Czech Republic in 2012 and bicycle advocates say that cycling infrastructure is failing to keep up with demand. According to new figures, 64 cyclists were killed on Czech roads in 2012, 14 more fatalities than the previous year. The figures come at a time when overall road fatalities are at their lowest in 50 years, with a total of 681 fatalities. Over 7 percent of the Czech public say that cycling is their main mode of transport. The capital, Prague, has seen a yearly increase in cycling numbers by 47 percent in 2011, and by 15 percent in 2012 but the growth in cycling has not been matched by infrastructure.

INDIA

New BRT corridors planned for Pimpri Chinchwad

Pimpri Chinchwad, a city of 1.7 million in the state of Maharashtra, India, is preparing detailed designs for new Bus Rapid Transit (BRT) corridors. Pimpri Chinchwad's BRT network includes four corridors and spans a total length of 40 kilometres. A full-day workshop on the BRT Standard conducted by the Institute for Transportation and Development Policy was used to inform the BRT planning process by identifying gaps and opportunities for improvement in the current plans for new corridors. Workshop participants identified several areas of improvement for the Pimpri Chinchwad BRT corridors, including intersection design, branding and communications, and the provision of adequate pedestrian facilities to enable passengers to reach the future BRT stations.

GERMANY

Stuttgart links cycling to transport network

Urban transport specialist, Tern, has announced its cooperation with Stuttgart's transit authority to encourage greater use of bicycles within the city's public transport network. Tern is offering a special-edition Link D7i at a discounted price for use in an initiative by the Stuttgart Transit and Tariff Association (VVS) and the Baden-Wuerttemberg branch of the ADFC Cycling Association. The goal of the programme is to encourage use of portable bicycles on the VVS transport network, including trains, subway, and buses, to help alleviate bicycle parking congestion in front of train stations and the crowding of train cars with bicycles.

"The folding bike is perfect for urban commuters who would like to bridge the last mile between apartment, office, and station," said Thomas Hachenberger, CEO of the Stuttgart Transit and Tariff Association. "It's our goal to develop from a transport authority to a mobility authority."



(L to R): Gudrun Zühlke (ADFC Baden-Württemberg), Thomas Hachenberger (CEO VVS), Werner Wölflé (Administrative Mayor of Stuttgart), Horst Stammier (Geschäftsführer VVS)

Participating Tern dealers throughout Stuttgart will offer the special-edition bike through various purchase plans tailored for the project. The bikes will be allowed on VVS public transport without charge, even during peak travel times when bicycles are typically not allowed. In addition to a special-edition bike, the first 200 participants that sign up for the full-package deal will get a special-edition ADFC-VVS CarryOn Cover (a bicycle slip/carry cover), a one-year ADFC membership, a free first bicycle inspection, a VVS shoulder bag, and a cycling map of the Stuttgart area.

"Just making and encouraging the use of bicycles alone isn't enough," stated Joshua Hon, Vice President of Tern. "To make a beneficial impact, we need to encourage people to use bikes together with existing transport options like trains, subways, and buses. This is why we're partnering with transit authorities in major cities like Stuttgart. We're working on even more partnerships and expect to add a number of similar programmes this year."

The Tern Link D7i folds in only 10 seconds into a compact size for easy carrying and storage on a bus, train, or subway car. In 2012, Tern partnered with Munich's transit authority and Italy's national railway operator in offering similar programmes.



Mexico City has expanded its BRT system with a corridor that extends from the historic centre of the city to the airport

MEXICO

Mexico City wins 2013 Sustainable Transport Award

The Institute for Transportation and Development Policy (ITDP), together with an international committee of transport and development experts, has awarded Mexico City the 2013 Sustainable Transport Award for its Bus Rapid Transit (BRT) system, cycling and walking infrastructure, parking programme, and revitalisation of public space.

“Mexico City was like a patient sick with heart disease, its streets were some of the most congested in the world,” said Walter Hook, CEO of ITDP. “In the last year, Mexico City extended its great Metrobus BRT system straight through the narrow congested streets, rebuilt public parks and plazas, expanded bike sharing and bike lanes, and pedestrianised streets. Mexico City’s urban core has been transformed from a forgotten, crime ridden neighbourhood into a vital part of Mexico City’s future.”

The Sustainable Transport Award was presented to Mexico City at an awards ceremony during the annual meeting of the Transportation Research Board. ITDP board president and former Mayor of Bogota, Enrique Peñalosa, presented Mexico’s Minister of Transport, Rufino Leon, and Minister of Environment, Tanya Muller, with the award. The former Mayor of Mexico City, Marcelo Ebrard, who oversaw much of Mexico City’s sustainable transport projects, made closing remarks at the ceremony.

“Sustainable transport systems go hand in hand with low emissions development and liveable cities,” said Sophie Punte, Executive Director of Clear Air Asia. “Mexico City’s success has proven that developing cities can achieve this, and we expect many Asian cities to follow suit.”

Mexico City implemented other projects in 2012 that have improved liveability, mobility, and quality of life for its citizens, making the Mexican capital a model city for Latin America. The city expanded its BRT system, Metrobus, with Line 4, a corridor that extends from the historic centre of the city to the airport. It also piloted a comprehensive on-street parking reform programme (ecoParq), expanded its successful public bike system (Ecobici) and revitalised public spaces such as Alameda Central and Plaza Tlaxcoaque.

AFRICA

Poor maintenance threatens roads in sub-Saharan Africa, say EU Auditors

EU Auditors have stated that improper road maintenance and vehicle overloading is putting the sustainability of the sub-Saharan road network into danger. The EU is one of the leading donors to the road sector in sub-Saharan Africa, with road transport a focal sector for the EDF (European Development Fund) with about €7.4 billion in EDF commitments having been made in the region from 1995 to 2011. In sub-Saharan Africa, roads are the dominant mode of passenger and freight transport, accounting for more than 80 percent of total movement of goods and services.

FRANCE

Nantes to host Velo-city 2015

Nantes will host Velo-city 2015, the world’s most important cycling planning conference. The city was chosen in part due to recent commitments to improve cycling. The region of Nantes will spend an estimated €40 million on cycling between 2009-2014, with the share of journeys by bike increasing from 2 to 4 percent between 2008 and 2012. Over four days, the conference will gather more than a 1,000 global cycling experts, traffic planners, cycling advocates, architects, educators, politicians and others who will be giving advice on everything cycling related. Countries that host the prestigious conference generally see substantial growth in cycling numbers. The 2013 edition of the conference will be held in Vienna, Austria.

RUSSIA

First road safety advocacy project launched

The Global Road Safety Partnership (GRSP) has been working in close cooperation with the Russian Red Cross (RRC) to develop the first ever road safety advocacy project. GRSP undertook the technical guidance role in assisting the RRC as part of the Bloomberg Philanthropies funded Road Safety in Ten Countries programme. The first GRSP workshop conducted in Moscow clarified road safety risk factors, outlined the principles of approach and put together the foundations for the RRC’s next steps for engaging with decision makers in relation to improving Russian legislation regarding child safety. The workshop also led to the setting up of a RRC road safety working group that will develop a road safety strategy in a wider context involving other RRC branches mainly those in Moscow and the Moscow region.

UZBEKISTAN

World Bank loans for urban water supplies

Almost 220,000 people in Uzbekistan will benefit from a US\$82 million credit from the World Bank Group. The Alat and Karakul Water Supply Project will improve the coverage, quality and efficiency of public water supply service in the districts of Alat and Karakul in the Bukhara region of Uzbekistan. By the time the project is completed, the network of water supply service delivery in the region will have been improved, institutional capacity of the water suppliers strengthened, and financial sustainability improved.

CHINA

Cities' water efficiency boosted by new public-private partnerships

Eighteen banks will assist the China Water Affairs Group (CWA) to increase access and improve water efficiency in small- and medium-sized cities in China. Assisted by the Asian Development Bank, with a US\$100 million loan, the project will help the CWA turn around multiple water utilities formerly owned by municipal governments. It aims to rehabilitate distribution pipelines, install meters for all customers, instill commercial management practices, and improve access to safe water. The loan is expected to benefit five million customers, including poor households, who currently have limited access to safe drinking water.

UNITED STATES

Local governments to be consulted on clean water requirements

Local government associations have welcomed the US Environmental Protection Agency's announcement that the Agency will work with local governments to clarify how the financial capability of a community will be considered when developing schedules for municipal projects necessary to meet Clean Water Act obligations. Since 2009, local governments have raised serious concerns about the high cost of compliance with several CWA requirements and enforcement action, most notably wet weather overflows and storm water management.

VANUATU

Australia provides aid for better sanitation

The Australian Government and the Asian Development Bank will provide financial support to Port Vila, the capital, to achieve sustainable urban development through improved access to sanitation and drainage facilities. The current poor state of the capital's drainage, road and sanitation infrastructure are having a negative impact on Vanuatu's ability to attract and retain commercial and tourist related investment. The deteriorating condition of this critical infrastructure is also leading to increasing public health concerns, environmental degradation and a poorer quality of life for Port Vila residents and visitors.



Photo: World Bank

Hackers from Dar es Salaam joined up to 40 other cities in the hackathon

INTERNATIONAL

Hackers launch apps to improve sanitation

The world's first ever Global Sanitation Hackathon took place in December, with over 1,000 participants from 40 cities creating 181 new apps. Organised by the World Bank, with other partners including Random Hacks of Kindness (RHOK), UNICEF and hosted in Washington DC by OpenGovHub, the hackathon built on from the success of the Water Hackathon in 2011, by creating 181 new apps.

"When you have thousands of children dying every day and billions of dollars in economic losses every year just from a lack of sanitation, it's obvious there is a crisis," said Jae So, Manager of the World Bank's Water and Sanitation Program. "We need a game changer, and since technology has dramatically changed all our lives, we know that mobile and other technology can offer new solutions we hadn't considered."

The world is currently lagging on the Millennium Development Goal for sanitation, with nearly 2.5 billion people still lacking access to improved sanitation. The World Bank and its partners aimed to tap into the 5 billion plus mobile phone users who utilise mobile technology, and leverage this to offer solutions for better sanitation.

The intense brainstorming and programming marathon brought together talent from across the world to come up with simple applications to be easily applied to real-life situations.

Kicking off in Dhaka, Bangladesh, the cities spanned North America, India, South East Asia, Europe, South America and Africa. Some cities also contributed sanitation solutions through RHOK.

One of the leading solutions came from a team in Bangalore, India. Team TernUp was recognised for their innovative applications on tracking toilet usage and detecting clogged pipes.

"We did two hacks," said Samuel Rajkumar, from the winning team TernUp. "One, to track toilet usage based on sensors that detect door operation and the other one to detect clogged pipes. These were simple hacks and we hope that they inspire people to find simple solutions to the problems that we have around us."

The next phase, the online 'Hack at Home' sanitation app challenge will increase the sense of competition from the local level to the global level. It enables hackers who created apps in December to continue working on their prototypes with the support of global online mentors, towards apps that are stable and ready for deployment. The challenge will culminate in a spring 2013 awards ceremony.

UNITED STATES

New financing model helps US city improve water services

The city of Rialto in California and Rialto Water Services (RWS) are using a public-private concession model—one rarely seen in the United States—to strengthen the city's financial position and improve its water infrastructure services. As part of that concession, RWS has contracted Veolia Water to manage the city's water and wastewater systems.

The city of Rialto has received US\$35 million in an upfront cash payment and secured US\$41 million in funding for future water and wastewater system improvements through a concession contract signed with RWS, a special purpose company.

"The RWS partnership ensures that the city's water and wastewater infrastructure is upgraded and run in the most cost-efficient manner, while also laying the groundwork for new economic development," said Mike Story, Rialto City Administrator. "We've worked with Veolia for years in the community and this arrangement allows for both continuity and improvement in the water resource and wastewater service, and it assures us that the total commitment to the residents of the city of Rialto is met."



The concession will enable Rialto's ageing facilities to be refinanced without being privatised

The RWS concession will enable the ageing facilities to be refinanced without being privatised. Public ownership, control and transparent public authority over rate setting are maintained by the city. The concession provides the capital needed to rehabilitate and replace the water mains and sewers, design new infrastructure and carry out seismic retrofits. The planned programme will strengthen the city's finances with annual lease payments that can support economic development and local jobs.

RWS has responsibility for managing the 30-year contract with Veolia Water and will oversee the infrastructure upgrade programme that aims to improve the efficiency, level of compliance, water quality and reliability of Rialto's water and wastewater systems.

Veolia says that the partnership's 'blue growth' strategy of sustainable water management and support for economic and social development can be emulated in cities faced with the problems of ageing infrastructure, a slow-moving economy and reduced revenues.

INTERNATIONAL

Matt Damon goes on toilet strike

Actor Matt Damon, co-founder of Water.org, held a press conference in February where he announced, tongue-in-cheek, that to protest the fact that 2.5 billion people lack access to a toilet or basic sanitation, he will be going on a 'toilet strike'. At the news conference, Damon pointed out that, "Seven hundred and eighty million people, that's twice the population of the United States, lack access to clean water." He then announced his 'toilet strike' declaring: "In protest of this global tragedy, until this issue is resolved, until everyone has access to clean water and sanitation... I will not go to the bathroom." Supporters can go to www.strikewithme.org where they can subscribe to upcoming videos, and donate to the cause.

LIBERIA

Urban poor to get better sanitation and hygiene services

The African Water Facility will provide a €1.2 million grant to the Monrovia City Corporation to support a project aimed at increasing access to sustainable and affordable sanitation and hygiene services to over 800,000 urban slum-dwellers in Monrovia, Liberia. This is the first initiative by the Government to provide fecal sludge management services to unsewered poor areas of Liberia since the end of the civil war in 2003. The long-standing conflict put infrastructure maintenance and development to a halt, particularly in the area of water and sanitation, which led to a drop in access rates; a situation that continues to deteriorate in the unsewered informal settlements of Monrovia city, where 70 per cent of the city's population live.

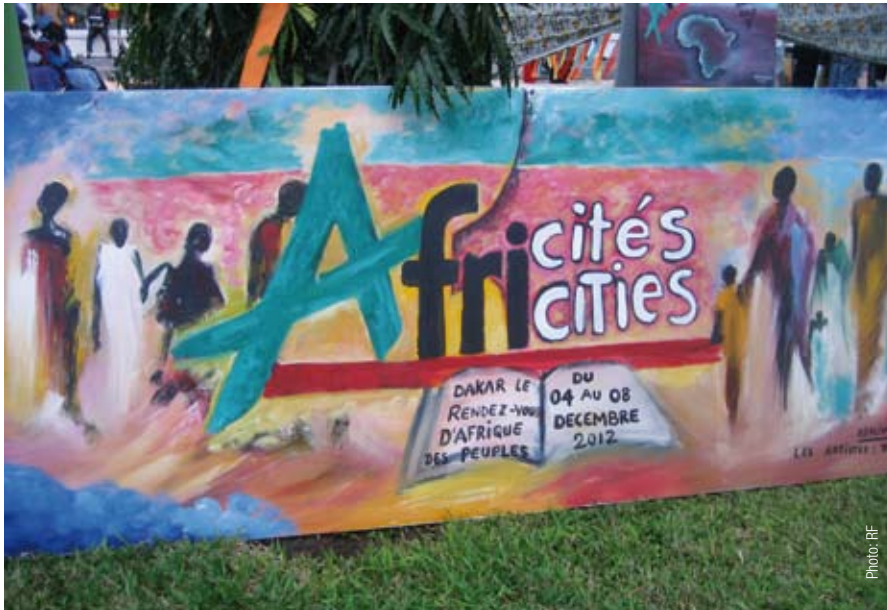
INTERNATIONAL

UNESCO launches International Year of Water Cooperation

The International Year of Water Cooperation 2013 was officially launched by Irina Bokova, Director-General of UNESCO in February in Paris. The year was proclaimed by the United Nations at the initiative of Tajikistan and UNESCO has been designated by UN-Water to coordinate activities during the year. Participants stressed the central role of water in ensuring sustainable development, public health, poverty alleviation and combating the effects of climate change. During the launch ceremony, Mega Kumar of India presented her slogan for the campaign, 'Water, water everywhere, only if we share'. Kumar's slogan was chosen from over 12,000 slogans submitted as part of a worldwide competition.

Local governments can play key role in Africa's development

Richard Forster reports from Africities, 4-8 December, 2012, Dakar, Senegal



The 6th edition of Africities drew over 5,000 attendees

Three former African heads of state joined mayors from across the continent for the opening of Africities, the sixth conference of African local government officials.

Under the theme: 'Building Africa from its territories: what challenges for the local governments?' ex-presidents Thabo Mbeki of South Africa, Pedro Pires of Cape Verde, and Nicéphore Soglo of Benin joined 5,000 participants who had come to discuss the role of local governments in the governance and development of the African continent.

Held every three years, the summit reflected on the effects of urbanisation and globalisation on the development of African countries and the meeting marked the new relationships of African countries with emerging economies with three countries invited as special guests: China, Brazil and Turkey.

At the opening ceremony the Mayor of Dakar, Khalifa Sall, thanked Senegalese President Macky Sall and King Mohamed VI of Morocco for making the event a

reality. He said that local governments now offer a credible alternative to put Africa at the heart of development

"To remain efficient, African governments have to think local but act global," said Mayor Sall.

At the General Assembly on December 7, the Mayor was elected President of UCLG Africa and will head the next Executive Bureau Committee meeting which will take place in Brazzaville, Congo.

"We need to work together as a group so that local government authorities can be more effective contributors to improving the lives of our people anywhere they may be on the continent," said the Mayor of Dakar. "The organisation should stand not by its divisions but by its cohesiveness and work to represent the interests of grassroots people across Africa."

The former President of the world organisation of UCLG, the Mayor of Paris, Mr Bertrand Delanoë, said at the opening ceremony that the hundreds of

mayors and elected local government officials at the Africities conference signalled solidarity with Africa.

He added that Paris owes much to Africa in culture owing to the contributions of thousands of Africans who have stayed or passed through the French capital.

Alongside the thematic sessions of Africities, UCLG held its World Council and adopted a Policy Paper on Local Government and Development Cooperation, drawn up by the Committee on Development and Cooperation and its Capacity and Institution Building Working Group (CIB Working Group).

The Policy Paper emphasises the role of local governments in development cooperation. Its key recommendations addressed to the international community are: to recognise local government cooperation as a positive public policy, to promote more and better decentralisation, to give recognition of local governments as actors for development, to increase substantially the volume of financial support for local government development cooperation programmes, and to increase the number and range of governments and funders in the sector.

It was agreed that the CIB Working Group would develop an action plan for the implementation and dissemination of the Paper to ensure a sound lobby strategy, which could lead to investments by donors in strengthening the capacity of local governments and decentralisation.

As regards the choice of the city to host the 7th Africities Summit in 2015, the Executive Committee requested that the Congress approve the mandate to take this decision. Two cities are currently candidates to host: Lusaka in Zambia and Johannesburg in South Africa. ■

The highlight of the year Nantes European green capital 2013



ECOCITY
WORLD SUMMIT



NANTES • FRANCE
25-27 SEPT. 2013

THE WORLD SUMMIT ON SUSTAINABLE CITIES

25-27 SEPT.
2013

Accelerate
changes



Registration opening
on 30th march 2013
www.ecocity-2013.com

Ecocity 2013, the collective place and time to build a common culture among all sustainable city players.

www.ecocity-2013.com • facebook.com/ecocity2013 • [@ecocity2013](https://twitter.com/ecocity2013)

Production

Editorial management

In partnership with



ECOCITY
BUILDERS



Companies tap into smart city development

Jonathan Andrews reports from the Smart City Expo World Congress, Barcelona, Spain, 13-15 November, 2012



The Smart City Plaza replicated city streets and showcased companies' technologies

The second Smart City Expo World Congress in Barcelona, Spain, drew 7,000 visitors from over 73 cities, with mayors, city leaders and technology companies showcasing solutions to urban problems and exploring business opportunities.

The congress heard how the transformation of turning cities into smart cities is not only an objective necessity, from an environmental and economic standpoint but is also a new market for large companies and small start-ups from a variety of industries.

Pike Research forecasts that the smart city technology market will grow from US\$6.1 billion annually in 2012 to US\$20.2 billion in 2020. Technology company IBM estimates that within the next three years, ICT business linked to smart cities will come close to US\$10 billion.

Included in the 140 exhibiting companies keen on expanding in this market was Invensys, a US-based technology and software company,

which is focusing on integration of city technologies and scale.

"The key for a successful smart city is integration and to integrate quickly," said Donald Clark, Vice President, Invensys. "The whole context of a smart city is not 'pie in the sky', it is infinitely doable."

Clark emphasised the need for cities not to overreach themselves and to start small. "Don't be daunted by the scale of a city like New York, you can start with just one city agency and move up from there. We are all about integration, scalability and real time. A city could start with us just in their sewage treatment plant or just in their water network."

One highlight of the three-day event was the official launch of the City Protocol Society, a membership-based organisation open to city councils, industry, academia and other agencies involved in city transformation.

"We have to get down to work for the future of our cities," said Antoni Vives, Deputy Mayor of Barcelona

City Council and Co-President of the Congress. "The City Protocol Society will help share global knowledge on how to proceed so that cities are more habitable, the quality of their inhabitants life improves, they become more efficient and administrations manage them better in the immediate future."

A new feature for this edition of congress was the inclusion of the Smart City Plaza, showcasing companies' technologies from companies such as Accenture, Schneider Electric, Enel-Endesa and Thales. The 1,200 square-metre setting replicated a small section of a city highlighting technologies from car parking sensors, to smart phone controlled water management technologies.

On the second day Kansas City, which straddles the state borders of Missouri and Kansas in the US, together with Google, announced the live connection of the first phase of its Google Fiber network. The network is Google's first as it moves into working closer with cities to install its new fibre optic network.

"One thing it has already achieved is that it has brought attention to the city and our efforts to become 'the' city of entrepreneurs," said Sly James, Mayor of Kansas City, Missouri. "Cities need to take the long view and recognise that the city being built is one for the next 100 years and not simply the next administration. A smart city is one that realises the value of partnerships with its citizens and with private entities."

The Congress and Expo will return in November 2013 as part of the Sustainable Mobility Week, which will also hold EVS27, the world's largest event focused on the promotion of electric vehicles and the fourth edition of the BcnRail, the International Railway Industry Tradeshow. ■

World Smart City Awards

Amsterdam was chosen as this year's winner of the Second Annual World Smart Cities Award announced at a gala dinner during the Smart City Expo World Congress

The Dutch capital won the award for its open data project on urban mobility. During 2012, the city's Department of Infrastructure and Transport provided any interested party with the data generated by their transport fleet so as to stimulate new mobile products and applications. With the motto: 'We the data, you the apps', Amsterdam has already seen several apps take shape in the areas of parking and cycling.

Cor Vos, from Amsterdam City Hall, told *Cities Today* that the city wants to stimulate further innovation of mobile services with open data. "Our aim with this initiative is maximum service for citizens, with a clear field for creativity from the market. We aim to contribute to a more accessible Amsterdam with better-informed travellers, fewer traffic jams and fewer cars searching for a parking spot. This would also help improve air quality and potentially provide greater safety on the road."

Guatemala City won the innovative initiative award for a solar panel project that provides public lighting in the city and in the housing of low-income families. Over 1,400 panels will be progressively installed before 2016 as part of a subsidised housing programme through public-private financing. The first 1,000 will be installed in affluent neighbourhoods that will pay for the total installation costs, in exchange for a 20 percent reduction in their electricity bills. Up to 400 low-income families and 1,000 street lamps in the city will then obtain very low-cost clean energy from the remaining panels.

"We can start to make great things in environmental and economical aspects," said David Rosales, Technical Coordinator from Guatemala City Hall. "That's the motto of our energy efficiency project: 'society rises with the sun.' This initiative is a first step towards solidarity."

In the category for best solution, US company Big Belly Solar took the

honours for its integral waste compacting and recycling system. The system reduces costs by using a solar-powered compactor, which is five times larger than standard containers, to compress waste while sensors detect wirelessly when the container is full. Philadelphia saved US\$1 million in the first year it used the compactor mainly through fuel reductions in transport and consequently a reduction in CO₂ emissions.

"Big Belly Solar was immediately praised by other municipalities from around the globe," said Scott Sauerbier, Senior Vice President, Big Belly Solar. "Gaining recognition that is well beyond concept to reality is a big boost in a prospects' confidence. My expectation is that this should accelerate interest in the cities we have been having discussions with and create interest in those we've been seeking." ■



Fred Harms, Infrastructure and Traffic Department of Amsterdam, receives the award and cheque from Antoni Vives, Deputy Mayor, Barcelona

In the category for best solution, US company Big Belly Solar took the honours for its integral waste compacting and recycling system. The system reduces costs by using a solar-powered compactor, which is five times larger than standard containers, to compress waste while sensors detect wirelessly when the container is full

Building urban resilience in Asia

International workshop on 'Resilient Cities—Experiences from ACCCRN in Asia', 29 January 2012, New Delhi, India. **By Divya Sharma and Rozita Singh**, The Energy and Resources Institute (TERI)



Speakers identified the challenges as a lack of sector wise data, a lack of awareness, and a lack of capacity, funding and political will

Various initiatives across the world are not only generating research results that can help build a knowledge base on building climate resilient cities, but are also helping cities in making their resilience plans and even implementing them. The Asian Cities Climate Change Resilience Network (ACCCRN) is one such initiative which has helped 10 cities in Asia assess their climate risks and vulnerability and has helped them to build their resilience strategies to climate change impacts. The initiative in India has covered three cities namely: Surat, Gorakhpur and Indore.

It is against this backdrop that the *International Workshop on Resilient Cities—Experiences from ACCCRN in Asia* was organised under the aegis of the Delhi Sustainable Development Summit (DSDS), TERI's flagship

The objective of the workshop was to bring together the experiences from ACCCRN cities across Asia and carve out a future path for taking forward the agenda for sustainable and climate resilient cities

international annual event. The objective of the workshop was to bring together the experiences from ACCCRN cities across Asia and carve out a future path for taking forward the agenda for sustainable and climate resilient cities.

Dr R.K Pachauri, Director General, TERI in his welcome address recognised the global importance of the theme of urban resilience and said

that much of the action will have to take place in a decentralised manner. To equip cities with the knowledge, institutional capability and resilience that will enable them to deal with climate change effectively is a wise strategy, for which he congratulated the Rockefeller Foundation. Dr Ligia Noronha, Executive Director (Research Coordination), TERI remarked on the growing inequality in Asian cities and

spoke about the much neglected issue of building social cohesion and trust in order to make cities more equitable.

Dr Cristina Rumbaitis del Rio, Associate Director, The Rockefeller Foundation delivered the special address focusing on the learning from the ACCCRN initiative so far. Explaining the ACCCRN process, she said that an iterative approach is being followed, which involves: stakeholder engagement; collaboration; understanding what is climate change and what it means for cities; what it means to specific sectors and people; and who is vulnerable and why. The key feature of the process is the 'shared learning dialogue' that culminates in a city resilience strategy. According to her, one of the key outcomes from the ACCCRN initiative was that ownership values have been implanted among city stakeholders by co-production of knowledge.

The workshop hosted two sessions and a panel discussion, which brought together a diverse set of speakers including: international and local organisations, government stakeholders, practitioners and research scholars. Besides TERI, there were speakers from the Institute for Social and Environmental Transition (ISET), ARUP, ICLEI, Metropolis, Cities Development Initiative for Asia (CDIA), Asian Development Bank, TARU and Gorakhpur Environment Action Group (GEAG).

The first session on Urban resilience: concepts and approaches discussed a diverse range of emerging approaches in building urban resilience. The second session on ACCCRN experience in India and beyond gave an overview of work in the ACCCRN Indian cities of Gorakhpur, Surat and Indore which highlighted the key factors for making such projects successful. The need to adopt an integrated cross-sectoral approach was emphasised together with the linking of on-the-ground scientific expertise to the needs and requirements of local city decision makers.

The speakers decoded the methodology and process followed

for resilience planning as well as identifying the challenges such as lack of sector wise data, lack of awareness and a lack of capacity, funding and political will at the city level. Water

Resilient Future. The film brings out the current vulnerability of Gorakhpur and questions whether the city is prepared for a future that is predicted to have even more rainfall and floods. The film



Dr. R.K. Pachauri, Director General, TERI

While a global protocol for cities is required, at the same time it is important that it integrates with national plans

logging and urban flooding were noted as primary risks for cities, closely followed by issues like drinking water, solid waste, sewer and sanitation that cities have to grapple with due to growing urbanisation pressures.

Some of the partners also reflected on matters of sustaining the initiative beyond ACCCRN. It was felt that the formation of multi-stakeholder groups for pressurising city leaders to develop a long-term vision would be beneficial. Some of the other issues discussed during the workshop were the financial architecture and multi-level governance required to support urban resilience.

The workshop also witnessed the very first screening of TERI's film *Tales of Gorakhpur – Path Towards a Climate-*

builds hope by showcasing the efforts of TERI and other partners working under the aegis of ACCCRN, to make Gorakhpur a climate-resilient city.

The workshop ended with a panel discussion on the challenge of taking the resilience agenda forward. It was highlighted that while a global protocol for cities is required, at the same time it is important that it integrates with national plans and that the responses are customized to the economy of the city. ■

Dr Divya Sharma, is a Fellow and **Ms Rozita Singh** is a Research Associate at the Centre for Research on Sustainable Urban Development and Transport Systems, Sustainable Habitat Division, TERI, New Delhi.

Eduardo Paes, Mayor of Rio de Janeiro

Why did you become mayor?

I wanted to transform the life of the Cariocas [people from Rio], to make the city more integrated, just, modern and sustainable.

What is your favourite part of the job?

I always say that I have the best job in the world. It is special when we deliver a completed project that improves people's lives, such as the opening of MAR, Rio's new art museum.

What is the biggest challenge you have faced since becoming mayor?

Rio is a city full of challenges, but the biggest one is definitely battling against social inequality. We lived through the reality of a divided city for decades—divided between those who enjoyed the 'Marvellous City' and the residents of the favelas, forgotten by the public authorities.

What do you think have been your biggest achievements?

We have had important victories over the last four years, such as the infrastructure works in the favelas, which have benefited more than 75,000 families, the extension of basic health coverage to 40 percent of the population, the construction of the TransOeste Bus Rapid Transit, the start of the works in the port area and winning the bid for the Summer Olympic Games in 2016. Yet I am in no doubt that we still have a lot to do.

What was your last overseas trip as mayor?

I was in New York at the end of 2012 to meet Mayor Bloomberg. We are working together on the mission of making our metropolises more sustainable.

Who is the most interesting person you have met or worked with since becoming mayor?

I had the great satisfaction of visiting the Sambadrome last year with the renowned architect Oscar Niemeyer before he passed away.



Photo: Prefeitura da Cidade do Rio de Janeiro

Eduardo Paes

CITY AND COUNTRY OF BIRTH: Rio de Janeiro, Brazil

EDUCATION: Degree in Law

DATE ELECTED MAYOR: October 2008 (term beginning 1 January, 2009)

PREVIOUS EMPLOYMENT: Secretary for Sport and Tourism of Rio State Government, Congressman for two terms, Councillor for the City of Rio, and Vice-Mayor of Rio's West Zone

What do you think of social networking for mayors?

To be a good mayor, it is fundamental to be connected to the residents. That is the only way we can be aware of their needs and why social networks are precious tools.

Which other cities do you collaborate with? Is contact formal or informal?

We have 71 sister cities, and collaborative agreements, mainly for historical reasons, but also for specific reasons, such as the Olympic Games.

Where do you expect to be in five years' time?

I know where I will be three and a half years from now: receiving millions of tourists and athletes for the Olympic Games. At the end of 2016 I will end my political mandate as the Mayor of Rio, and God only knows what is going to happen after that.

Favourite place in your city and why?

Parque Madureira (Madureira Park). It is an area that was completely in decline. Last June we opened the third largest leisure area there, with an arena, skate lane and sports infrastructure.

What are you reading right now?

I am reading a memoir of the ex-President of Catalonia, Jordi Pujol.

Are you an early bird or a night owl?

Both actually. I wake up very early, before six in the morning, and retire quite late, after midnight.

Hobbies and interests outside of work?

I am passionate about samba and the carioca Carnival, so whenever I can, I love to enjoy this celebratory side of Rio.

Do you have a favourite sport team?

Vasco da Gama, the football team of great players such as Romário and Roberto Dinamite.

Favourite travel destination?

Barcelona, New York and London are some of the cities I admire most and like to visit, not to mention the beautiful cities in the hills in the state of Rio. But nothing can beat my 'Marvellous City'.

Who is your hero or inspiration?

One of my current inspirations is the former Mayor of Barcelona, Pasqual Maragall, who was mayor of the city during the 1992 Olympic Games.

What advice would you give to the first time visitor to your city?

Go and see the main tourist points of the city, such as Christ the Redeemer and the Sugarloaf Mountain, but don't ignore the new attractions, like Madureira Park and MAR, Rio's brand new Art Museum.

What is your life philosophy?

Work. The only way to make projects really happen and to improve people's lives is by rolling up your sleeves and getting stuck in. ■



City of  Vienna
Vienna is special.



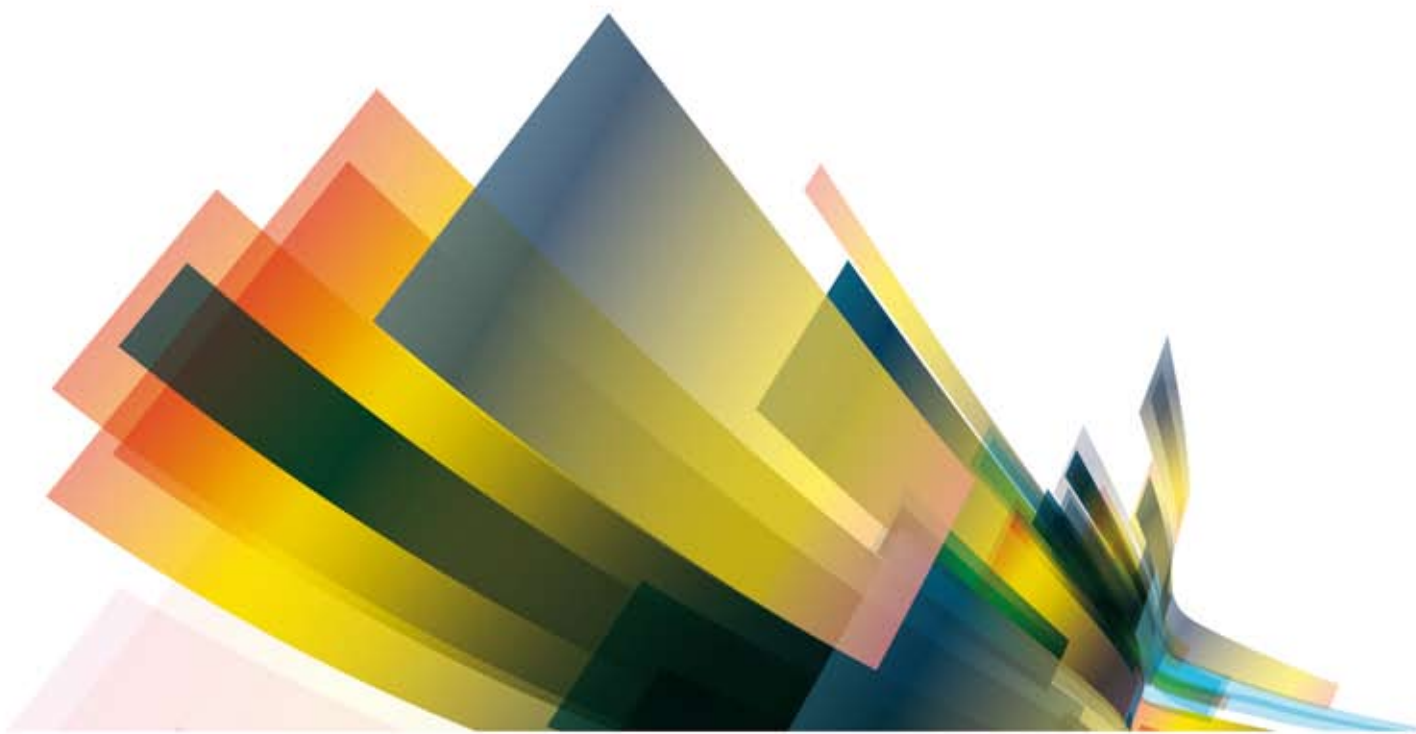
Be part of it!

INTERNATIONAL SOLID WASTE
CONGRESS VIENNA 2013

7 – 11 October 2013, Vienna, Austria

www.iswa2013.org

- **Five Congress Days:** three days of scientific presentations and two optional days of technical tours.
- **Early Bird Fee:** register before 31 May 2013 and get 15% off the regular congress fee!
- **Sponsors:** become a sponsor and present your company and services.



Funding Transport Creating Access Empowering People

Transport ministers, industry leaders, mayors of major cities and top researchers will meet at the International Transport Forum's 2013 Summit to help shape transport policy for the 21st Century.

More information on registration, the programme, exhibition and sponsorship:
itf.contact@oecd.org www.internationaltransportforum.org/2013

2013 | **Funding Transport**
annual summit | 22-24 May 2013, Leipzig