### smart city expo world congress

### **REPORT 2013**

# CHANGE THE WORLD



# SMART CITY EXPO WORLD CONGRESS REPORT 2013

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The third edition of Smart City Expo World Congress has brought together more than **9,000 participants** from **300 cities** on the five continents, over **3,000 congress delegates** and **160 companies**, with a common purpose: to make the world a better place to live.

The cities are where the imminent challenges facing humanity have to be tackled: climate change and other environmental threats, the high consumption of non-renewable resources, population growth, economic development, and the ageing of the infrastructures. For three days, Smart City Expo World Congress gathered together academic personalities, representatives of institutions and private companies, the most brilliant minds, who have contributed their knowledge for a more positive development of our society.

Noteworthy among the participants at this edition were Richard Florida, an economist and expert on urban development; Amory Lovins, head researcher at the Rocky Mountain Institute, Kent Larson, director of the urban research group Changing Places at the MIT, Anthony Townsend, director of research at the Institute for the Future, David Bragdon, director of the Transit Centre and Melanie Nutter, head of the Environmental department of the city of San Francisco, among others.

The challenges of the future, and the theoretical responses, need practical applications. Places like Smart City Plaza and the experience of companies in a multitude of sectors show that the transformation of the cities, besides being an environmental and economic necessity, represents new business opportunities within a market, the one for intelligent urban technologies, with a high level of growth now and in the future.



### **SMART SOCIETY AND COLLABORATIVE CITY**

ICTs are setting a new landscape for analyzing society, to enable interaction and collaboration, to empower citizens to develop their initiatives, and to foster creativity.

ENERGY

Cities are a major contributor to CO2 emissions in Europe and America. Forthcoming challenges include improving efficiencies in energy consumption and transport, increasing production from distributed and renewable sources, developing new methods for grid energy management or reducing energy needs and their environmental impact.

**TECHNOLOGY AND** INNOVATION

Smart City has become a broad concept integrating many of the interacting areas of a city: from mobility, energy and environment to governance. What key technological developments have helped us to understand the roots of the idea of smart?

GOVERNANCE & ECONOMY

City governments need to play a major role in the implementation of reform agendas, as they face higher demands from their citizens. This happens in a period of tightening economies for public and private sectors and a challenging share of responsibilities within the public sector itself and between public and private. In addition, technology is providing new ways of governance focused on: open government, transparency and open data.

### SUSTAINABLE BUILT **ENVIRONMENT**

The world is facing major environmental challenges caused by the production of energy and the consumption of natural resources needed by our cities. A sustainable built environment tackles these challenges by rethinking how we live and work in them.

**MOBILITY** With world population growing and concentrating in cities, the capacity of our road and street network has in many cases reached its physical and environmental limit. City planning is focusing on how to make cities more pedestrian, bicycle and public transport friendly, and on the expansion of new infrastructures to facilitate the use of alternative energy sources.

### **CITY RESILIENCE &** SECURITY

City resilience refers to the city's capacity to react to unexpected situations such as natural disasters or accidents that could cause disruption in urban services or transportation networks. ICTs are becoming a key partner to help manage, monitor and detect critical situations once they occur.

Smart City Expo World Congress was the host for the proposals of experts and opinion leaders who have offered their knowledge and skills, and their innovative solutions to develop accessible, manageable and communicative cities adapted to a human dimension.

The 2013 edition attracted 3,000 delegates and 320 speakers who responded to the theme of the conference, "Smart Cities change the world". A change which will transform the cities of the future, developed in the following areas.



# REY PLENARY NOTES & SESSIONS



**Kent Larson** Design and Technology for High-Density, Livable Cities



Amory Lovins Reinventing Fire: The Business-Led Transition Beyond Fossil Fuels



Energy Keys for the future of energy



**Smart Society and Collaborative City** The Co-City: collaboration, entrepreneurship & creativity



Sustainable Built Environment The future of urban sustainability

**Richard Florida** Why Creativity is the New Economy





**Technology and Innovation** IT City Integrated Visions



**Governance & Economy** Governance challenges for smart cities



Mobility Mobility for innovative cities

# SOME OF OUR HIGHLIGHTED SPEAKERS IN 2013



Jørgen Abildgaard Executive Climate Project Director City of Copenhagen, Denmark

Jan Annerstedt

Professor

Denmark

Copenhagen

**Business School** 

Frederiksberg,



Executive Director City Club of Portland, USA

Charbel Aoun

Schneider Electric

Senior Vice-

President for

Smart Cities

London, UK



Stig L. Andersson Director of Innovation, Founding Partner, Professor SLA and The University of Copenhagen, Denmark

Luis Fernando

President FINDETER

Financial institution

for Development

Bogota, Colombia

Arboleda



**Helen Darbishire** Executive Director Access Info Europe Madrid, Spain









Anette Holm CIO City of Stockholm Stockholm, Sweden





Andrés Ibarra Modernization Minister of **Buenos** Aires Buenos Aires, Argentina



**Kevin Ashton** Co-founder and former executive director MIT Auto\_ ID Center Massachusetts, USA

Eddie Bet



Antonio Alfonso Avelló International Department Director FCC Environmental Services Madrid, Spain

Eduard Bonet

Vicepresident

Indra Sistemas

Madrid, Spain

Deputy Executive,

Brenna Berman CIO Chicago City of Chicago Chicago, USA

David L. Bragdon Executive Director, Former Long-term Planning Director NYC. Transit Center, Inc. New York, USA



Hazavdi Director of Energy Conservation and Smart Cities Department Ministry of Infrastructures Energy and Water Jerusalem, Israel



Nicholas Brooke Chairman Hong Kong Science & Technology Parks Corporation Hong Kong



**Pedro Paulo** Carvalho Secretário Chefe da Casa Civil Rio de Janeiro. Brazil



Roi Chiti Coordinator, Substantive Programme, World Urban Forum Unit UN-Habitat Nairobi, Kenya







Íñigo de la Serna Hernáiz Mayor Santander Santander, Spain



Jarmo Eskelinen CEO Forum Virium Helsinki, Finland

Ben Flanner Head Farmer, President Brooklyn grange farm New York, USA



Darío Hidalgo Director Research and Practice EMBARQ, Sustainable Transport and Urban Development Program at WRI Bogota, Colombia

### Jerry MacArthur Hultin

Senior Presidentia Fellow and President Emeritus, Polytechnic Institute of New York University New York, USA



Jong Sung Hwang Head of National IT Policy Group. National Information Society Agency Seoul, Korea

Laura Ipsen WW Public Sector VP. Microsoft San Francisco, USA



Ellis J. Juan Inter-American Development Bank Washington D.C. USA



Kari Kankaala Executive Director City of Tampere Tampere, Finland



### Amitabh Kant

CEO & Managing Director Delhi Mumbai Industrial Corridor Development Corporation New Delhi, India



Michael Kavanagh Energy and Utilities Reporter Financial Times London, UK



Alan Shark Executive Director Public Technology Institute Washington DC, USA





Diana Lind Executive Director & Editor in Chief Next City Philadelphia, USA



Wolfgang Loibl Thematic Coordinator for "Energy in Cities", Deputy Head of Business Unit Sustainable Buildings and Cities AIT Vienna, Austria

Peter Madden CEO Future Cities Catapult London, UK

Nobuya Suzuki Vice Mayor City of Yokohama Yokohama, Japan



**Colette Maloney** Smart Cities and Sustainability Head of Unit DG CONNECT European Commission Brussels, Belgium

Larry Ng Lye Hock Urban Design Director Urban Redevelopment Authority Singapore



Director San Francisco's Department of Environment San Francisco, USA

**Melanie Nutter** 





Yamamoto, Japan



Peter Park Former planning director Denver, Colorado and Milwaukee, Wisconsin University of Colorado-Denver Denver, USA



**Ron Pernick** Founder and managing director Clean Edge Inc Portland, USA



**Owen Poole** Marketing Director, Transport & Security Thales Group Velizy, France

Ilmar Reepalu

Vice President

of the Swedish

Association of

Local Authorities and Regions SALAR Malmo, Sweden



Oisín Quinn Lord Mayor Dublin City Council Dublin, Ireland



Albert Remke Director 52°North Muenster, Germany

**Chris Vein** Chief Innovation Officer for Global Information and Communications Technology



Development

Washington DC, USA

World Bank



Thomas Rau

Founder and CEO RAU and Turntoo Amsterdam, The Netherlands

### Cheryl Song

Deputy Director, Development and Partnerships Singapore-ETH Centre for Global Environmental Sustainability, Future Cities Laboratory Singapore



Sylvie Spalmacin-Roma Vice President, Smarter Cities, Europe IBM Paris, France

### Anthony Townsend

Research Director Institute for the Future Palo Alto, USA



Mauricio Valencia Infrastructure Secretary Gobernación de Antioquia Medellín, Colombia

### Pedro Vidal Matamala

Smart City unit coordinator, Ministry of Transport Goverment of Chile Santiago de Chile, Chile



**Antoni Vives** Deputy Mayor for Urban Habitat Barcelona City Council, Spain

Joanna Williams Senior Lecturer in Sustainable Urbanism

London, UK



### **Keping Zhang**

Division Chief Wuxi Informatization and Radio Administration Bureau Jiangsu, China









# BEM-VINDO MPIC CI

Smart City Expo World Congress

has established itself at this third edition as a benchmark event in the development of intelligent cities. Opinion leaders, experts and the main buying deciders at large companies in over 80 countries have met in Barcelona to present ideas and groundbreaking projects.

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### ThyssenKrupp











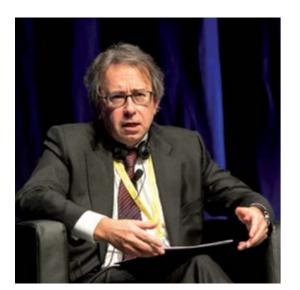
# aberti<sub>s telecom</sub>

### Abertis Telecom demonstrates its solutions aimed at improving city operation and efficiency

In conjunction with Barcelona Corporation and one of its partners, OpenTrends, the company has developed an irrigation management system for cities which combines satellite and terrestrial sensor data to achieve an economic saving of between 15 and 20% and a reduction in water consumption of up to 35%.

Abertis Telecom also presented "SmartBrain". a combination of cloud applications which enables users (Government, citizens, companies and developers) to manage and share data and infrastructures.

Alex Mestre, Business Development Manager, Raül González Prats, Product Manager and Miko Masi, head of Mobile Communications, made presentations at the Congress.





Aqualogy and its group of companies have been working for over 140 years for city management of the water cycle. An experience that has led Aqualogy to develop the new technologies in-house and above all, make the citizen the focus of our activity:

• By understanding his aspirations

• Defining his wishes through our knowledge of the city

• Solving them using our strong technical capability to improve his quality of life. By means of our people-orientated products and by fostering cooperation through new business models and cuttingedge solutions.

Aqualogy Citiness enables us to move towards a new city reality where life will be better for all.

www.aqualogy.net



### Institutional Stand:

- Displaying corporate initiatives with a video http://www.diba.cat/smart-city, and supporting exhibitor's materials. 12 activities by the territory in the booth
- Viladecans: 21st century network of educational innovation.
- Sant Cugat: Efficient lighting, biomass project, cleaning and waste collection.
- Sabadell: Remote irrigation, LED lighting, pneumatic waste collection.
- Sant Feliu de Llobregat: Open Government (open data) Co-working (entrepreneurs and digizens) iParguing (smartphone payment). Congress space:
- Reduction of energy requirements and environmental impact.
- Strategies for technological innovation in cities.



For more than 100 years, the FCC Group has been providing smart services to improve the citizen's quality of life in collaboration with city governments and public institutions.

Present throughout the five continents, it works on a daily basis to make the objectives of a smart city a reality. It does this through its three lines of business: infrastructure management, environmental services and comprehensive water management.

Sustainability, Innovation, Optimisation, Technology, Proximity and Commitment are the key concepts that define FCC's proposal for Smart Cities, with a clear emphasis on quality citizen services. www.fcc.es



### **CISCO**

Cisco Smart+Connected Communities initiative delivers what's possible when you connect the unconnected.

Smart+Connected Communities uses intelligent networking capabilities to weave together people, services, community assets, and information into a single pervasive solution. It also encapsulates a new way of thinking about how communities are designed, built, managed, and renewed to achieve social, economic and environmental sustainability.

http://www.cisco.com/go/smartconnectedcommunities



IBM is uniquely positioned to help city and government leaders create opportunities from today's challenges. As demands grow, solutions have to be smarter, and address the city as a whole. Leading cities are using analytics to integrate disparate data and coordinate across agencies to glean insights and address challenges posed by aging infrastructures, growing populations, legacy bureaucracies, and fiscal constraints.

With insight from thousands of smarter cities projects, IBM has the vision, expertise and capabilities to help cities of all sizes become smarter. Smarter cities leverage information to make better decisions, anticipate problems, and coordinate resources to operate effectively.











Indra is one of the few companies in the world able to provide a solution for smart cities covering all business areas of the city. Indra's urban government platform facilitates exchange of information, definition of patterns of behavior and provides a comprehensive view of the activity to adjust services to the real needs of citizens.

The smartcity solutions presented in the Congress included the eSafety platform, the Hermes mobility platform, Energy solutions for smartgrid and smartmetering, the customized virtual assistant and the integration of city services into one citizen smartcard. These services and the urban platform make up a successful integrated foundation for Smartcities.

# Schneider Belectric

As a global specialist in energy management with operations in more than 100 countries, Schneider Electric offers integrated solutions across multiple market segments, including leadership positions in Utilities & Infrastructure, Industries & Machines Manufacturers, Non-residential Building, Data Centres & Networks and in Residential.

Focused on making energy safe, reliable, efficient, productive and green, the Group's 140,000 plus employees achieved sales of 24 billion euros in 2012, through an active commitment to help individuals and organizations make the most of their energy. www.schneider-electric.com





Founded in 1975, Microsoft (Nasdag "MSFT") is the worldwide leader in software, services, and solutions that help people and businesses realize their full potential. Microsoft CityNext empowers people - whether governments, citizens, or businesses - to transform their cities and their future. People-first means harnessing the potential of all city residents to create healthier, greener, and more prosperous communities.

Through CityNext, people can take advantage of a broad portfolio of products and technologies, a global network of partners, and a long track-record of successful education and social programs. www.microsoft.com/citynext

### THALES

By working together with city authorities and operators, Thales implements tailored solutions for the smart city that put the citizen first, drive engagement, enable choice, and promote a better quality of life. Leader in Transport and Security systems, Thales has built an established presence within cities, including road, rail, tram, ticketing, passenger-information, supervision and control systems. With the emergence of next generation technology, Thales offers fully open and interoperable city systems that provide an urban environment where citizens travel easily using private or public transport, in cities where they feel safer, within a more eco-friendly environment.





Red.es develops actions to promote Smart Cities according to the objectives of the Digital Agenda for Spain:

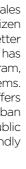
- Cooperation agreements with the municipalities of Seville and Malaga for 1.5M€ addressed to the development of public services.
- Also planned for Malaga is the siting of the ICT Demonstration Centre for Innovation in Smart Cities and Ubiquitous Technologies.
- Collaboration agreement with the Municipality of Las Palmas and SEGITTUR for ICT development and promotion of Intelligent Tourist Destinations.
- Working groups participation in the Spanish Network of Smart Cities (RECI) and AENOR's.



At ThyssenKrupp Elevadores we develop our products as smart solutions to satisfy all our customers' requirements in terms of mobility, technology and aesthetics. We manufacture, install and maintain elevators, escalators, moving walkways, platform lifts, garage and pedestrian doors and stage equipment. Every day our equipment transports people and cargo quickly and easily in public areas as well as in private homes and residential buildings. Our experienced, highly gualified team, the most advanced technical means, our comprehensive infrastructure and competent logistics organization enable us to offer quick, accessible service anywhere in the country. We are committed to contributing to a more accessible world through efficient transport and mobility solutions.











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The Smart City Plaza is the practical response to the theoretical solutions for technological development. A place where the visitor can observe, analyze and validate, through a perfect reproduction of reality, the operation of an excellent selection of the most innovative technologies.

On this occasion, the companies have shown how **technology can improve people's quality of life**. Innovations linked to environmental improvement, transport, communications, the interaction between the citizen and the city managers or making the best use of energy.

A stroll through Smart City Plaza is the most direct way of discovering how **the** world is changing around us.

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# SOLUTIONS >



S

Interactivity, big data and mobility are some of the factors that companies and public bodies have to manage in order to offer **the most efficient solutions to the citizens**. Real-time response and direct communication with the citizen are a further step towards the transformation of the cities into intelligent spaces, where technology enables a permanent exchange of information.

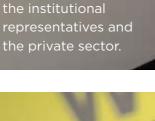
**BUSINESS HUB** The area used for B2E meetings between the private sector.

### **CONGRESS COFFEE BREAK**

COFFEE BREA

Delegates gathered here during the congress breaks. A bar was installed during the Congress to provide a service outside the Coffee Break.







experience new smart city solutions in real-time.

### **CITY HALL**

**Protocol Room:** More than 20 international delegations attended the event. Some of the official receptions took place in the Plaza's City Hall.



### WORKING AREA

Congress delegates and visitors were provided with a real working place with free internet connection and power supply.



# business & networking









Smart City Expo World Congress has created meeting places for large corporations, investors, company leaders, entrepreneurs, SMEs and technological research centres and institutions. Professionals seeking projects or innovative solutions for the development of intelligent cities who have been able to exchange knowledge and business opportunities thanks to an event which backs a holistic view of the future of society.







Leading companies and institutions have organized exclusive meetings and innovative workshops to offer their knowledge in the development of a new city model. New and pioneering solutions founded on a sharing of experience and dissemination of knowledge.

# **OPEN INNOVATION** MARKETPLACE

The 2013 edition of the Open Innovation Marketplace, powered by the Mobile World Capital, gave the opportunity for innovative startups coming from 22 countries to meet up with representatives of the R&D purchasing divisions of major multinationals, as well as investments funds, to explain their ideas, projects and solutions.



# Open Innovation Marketplace

powered by MOBILE WORLD CAPITAL... BARCELONA









The Board of RECI

Ambiental)

**UK Smart City Expertise Reception and Networking** Networking session hosted by the British Ambassador, Mr. Simon Manley, to celebrate the UK Smart City expertise at SCEWC.

ICEX hosts a high level get together with Spanish and Latin American business leaders, academics and institutions. A unique networking experience; with innovative presentations and informative speakers and engaging, perceptive and earnest conversations.



Representatives of 41 cities across Spain, mayors, deputy mayors and councillors, including the President of RECI, Iñigo de la Serna, held the annual board meeting.

### Sustainable City Awards (by Fundación Fórum

These Awards publicly recognize the actions that local authorities are taking in the field of sustainability.

### Working lunch ICEX

### **CITISENSE BY THE WORLD BANK**

Cities will have a major role dealing with the critical challenges of the 21st century: climate change and other environmental threats; high consumption of non-renewable resources; economic development; growing populations; and aging infrastructures. Technology is setting a new landscape of possibilities for fostering these improvements and making cities more accessible, manageable, communicative, and citizen minded.

To help convene a global community to face these challenges, the World Bank and partners hosted more than 240 participants, including public officials from about 90 developing and developed cities - including city and municipal leaders, over 50 speakers, urban and energy specialists, and technologists - at CitiSense 2013 in Barcelona on 17-18 November 2013. CitiSense 2013 preceded the 2013 Smart City Expo World Congress, which convened thousands of visitors, speakers, and experts sharing the latest innovations for cities.









The conference had two goals. First, to launch the City Energy Efficiency Transformation Initiative and second, to provide an alternative approach to smart city aligned with World Bank goals of shared prosperity and eradicate extreme poverty, that empowers citizens and leverages existing technologies. During the conference the World Bank announced upcoming analytical work on Open Innovation for Cities in collaboration with the European Network of Living Labs.

For more information, including videos and photos of the event, visit http://bit.ly/CitiSense









Brated program based on s od award system, anticipa and aiming to make Rio ( isit, in the Southern He

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These awards acclaim the cities, projects and initiatives that have contributed most to the development of smart cities. In this third edition, the Awards have received more than two hundred submissions from 35 countries.

# WINNERS:

### **CITY AWARD** RIO DE JANEIRO

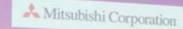
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This city was crowed as the best Smart City in 2013. Rio de Janeiro municipal government's commitment to a paradigm shift and a radical transformation of the city has earned the recognition of the jury, who praised the launch of a long-term project to turn the city into a smart reference in the southern hemisphere.

### BRAZIL

For the High Performance Management of the Mayor's Office. An innovative, efficient and integrated program based on strategic planning and on a results-based award system, anticipating every administrative measure needs and aiming to make Rio the best city to live and to work in or to visit, in the Southern Hemisphere.

metropolitana de Tokio, que incorpora esquemas de tecnología medioambiental innovadora y de desarrollo comunitario para promover la conservación de energía entre los residentes.





### **PROJECT AWARD** MORI-NO-FUNABASHI CITY FUTURISTIC MITSUBISHI HOMETOWN

promoting energy conservation among residents.

### **INITIATIVE AWARD** SMART CITIZEN-CROWDSENSING OPEN COMMUNITY (FAB LAB BARCELONA / IAAC)

Fab Lab Barcelona won the award for the Smart Citizen-Crowdsensing Open Community, a platform for participation in which citizens share real-time data captured by any device or sensor.



### An innovative urban development project focused on new environmental technologies and





Jerry M. Hultin Senior Presidential Fellow New York University & President Emeritus Polytechnic Institute of New York University



**Cristiana Fragola** EU Regional Director C40 Cities



Director IT Strategy and Smart City,



**Carlos Gadsden** Executive Secretary International Foundation for the Development of Reliable Governments Mexico D.F. Mexico



Jong Sung Hwang Head of National IT Policy Group, National Information Society Agency (NIA)



**Chris Vein** Chief Innovation Officer for Global Information and Communications Technology Development World Bank

Pilar Conesa Congress Director Smart City Expo World Congress











# CEREMONY AWARDS





# elivering a more sustainable urban footprint through integration

# 

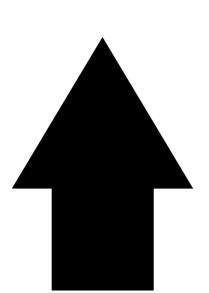
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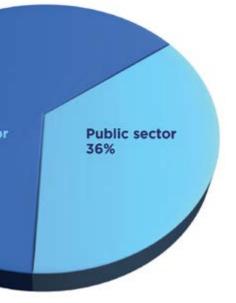


### **PUBLIC/PRIVATE SECTOR**

### VISITORS 9,424 DELEGATES 3,043 CITIES 293 EXHIBITORS 162 COUNTRIES 80



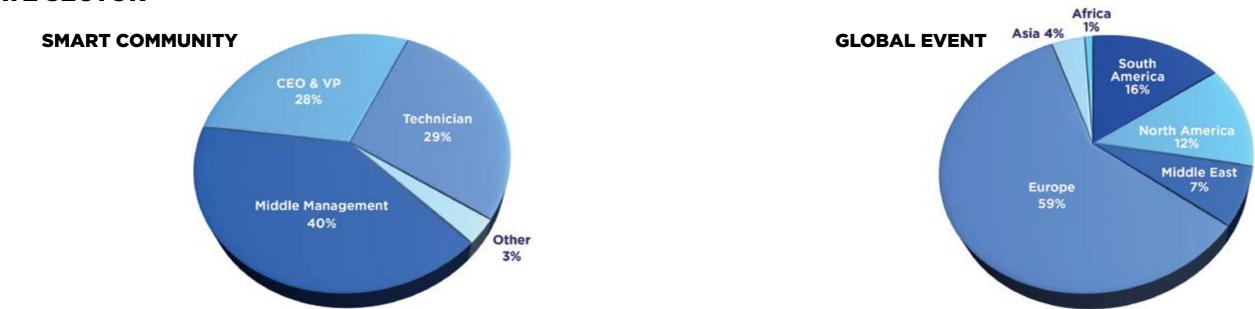
Private sector 64%







### **PRIVATE SECTOR**





# CHANGE THE WORLD



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## smart city expo world congress

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www.smartcityexpo.com