Smart

thinking

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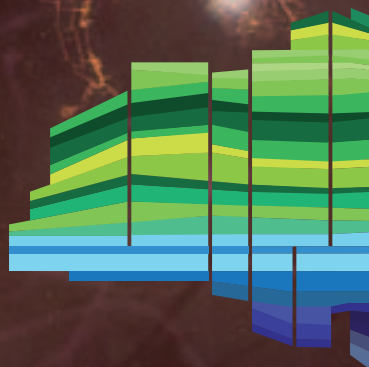
smart
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**WORLD
CONGRESS**

www.smartcityexpo.com

REPORT 2012

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Smart City Expo World Congress

The second edition of Smart City Expo World Congress has meant the establishment of the event organized by Fira de Barcelona as the world's leader on Smart Cities. Over seven thousand visitors from 82 countries (including 3.055 delegates), 319 speakers and 140 exhibiting companies have come together to tackle the challenges that major cities will face in the near future, showcasing the available solutions and exploring business opportunities in this new industry.

Cities will be at the centre of world development in the next few decades and will be home to the majority of the planet's inhabitants. How new towns and cities are built and existing ones are transformed will be a key aspect in the future of humanity as the different keynotes and panel showed during the three days of the show, which brought together 7,065 visitors, a 14.6% more than in the first edition.

Among the speakers taking part in the 60 presentations were Peter Hirshberg, Chairman of the Reimagine Group of San Francisco; Allan Jones, Chief Development Officer of Energy and Climate Change, City of Sydney; Charles Landry, economist specialised in urban development and founder of Comedia; Robert Puentes, specialist in infrastructures and urban mobility at the Brookings Institution, New York; and Ricky Burdett, architect specialised in Urban Planning and Professor at the London School of Economics.

The transformation of the current metropolises into smart cities is not only an objective necessity from an environmental and economic standpoint but it is also a new market for large companies and small start-ups from a variety of industries. Smart City Expo World Congress has been the perfect setting for many of them.

World Congress

World Congress

Growing urban populations demand cities capable of developing economic and environmentally sustainable growth in order to improve its citizen's quality of life. Smart City Expo World Congress is the meeting point where everyone involved in the design and constructions and transformation of cities are able to share, network and become inspired by the ideas and projects currently in development.

The 2012 edition of this event brought together the most relevant speakers and 3,055 delegates to discuss the future of cities. The Congress is built around the concept of a "Smart Society for innovative and sustainable cities", blending the following underlying themes:

Energy
Cities are a major contributor to CO2 emissions around the world, they represent 2% of the planet's surface but are accountable for an 80% of the eimissions. Therefore imminent challenges are required to improve efficiencies in energy consumption and transport.

Technology and innovation
Thanks to modern technology, cities can now be converted into sensory beings that communicate their needs and responses to certain scenarios in real time.

Smart society and collaborative city
ICTs are setting a new landscape to empower citizens to develop their initiatives, fostering creativity and innovation, in both more developed and developing countries.

Environment
Cities are major consumers of energy and natural resources. New decentralized infrastructures for energy production, inverse logistic procedures and waste/water consumption reduction, are key to a better future.

Urban Planning and building
Urban planning deals with the design and management of the space where we live and work. After half a century of car-centered planning, city planning is refocusing on the human scale.

Mobility
Today, the current transportation paradigm is being challenged by climate change. New solutions incorporating ITS, electricity, multimodal mobility and shared services and spaces are pushing towards a necessary paradigm shift.

Governance and economy
City governments are confronted with high demands from their citizens whose capacity to influence in the city government has increased. City government leadership needs to play a major role in the implementation of reform agendas.

Program Committee

Pilar Conesa- Smart City World Congress Director

Leandro Barquín - Fundación Forum Ambiental

Mike Biddulph- Urban Design, City and Regional Planning - Cardiff University – UK

Federico Casalegno- Mobile Experience Lab and Design Laboratory - Massachusetts Institute of Technology – USA

Sunil Dubey- Metropolis World Association - University of Sydney – Australia

Lucienne Krosse - TNO - Netherlands Organisation of Applied Scientific Research - Delft – Netherlands

Peter Mullan- Friends of the High Line - New York – USA

Robert Stüssi - AVPE Portuguese Electric Vehicle association - Lisbon – Portugal

Alvaro Nicolás- Program Committee Secretary

Keynotes & Plenary Sessions

Energy

Plenary session:
• **New energy scenario challenges**

Parallel sessions:
• New energy sources
• Smart grid & energy storage
• Improving energy efficiency
• Changes in energy business models and regulations
• Impact on building & the economy
• E-Mobility infrastructure

Technology and innovation

Plenary session:
• **The technology boosting smart cities**

Parallel sessions:
• Big Data
• Trends in the IoT & M2M
• City platform
• City in the cloud
• Visualizing life in the city
• Sensors and mapping
• Mobile payment & NFC
• City case: Barcelona Tap&Go
• Smart cities: Technology applied to a new society model

Smart Society & collaborative City

Plenary session:
• **The Collaborative City: the key to a smart society**

Parallel sessions:
• Participation & citizen involvement challenges
• City information
• Interactive environments
• Social innovation
• Reinventing citizenship through innovation
• Needs, ideas, markets: cities and the economics of accountability
• Smart Cities: The road to growth
• Smart Tourism: new challenges, new opportunities

Environment

Plenary session:
• **Challenges for more sustainable cities**

Parallel sessions:
• Water management
• Waste management & product cycle
• New earth observation
• Collaborative green spaces
• Climate change

Urban Planning and building

Plenary session:
• **Smart strategies for transforming cities**

Parallel sessions:
• Urban redevelopment
• Strategies for smart urban regeneration
• Smart growth
• Smart urban green
• Minimizing impact of buildings

Mobility

Plenary session:
• **New mobility paradigms: ITC, e, multimodal & shared**

Parallel sessions:
• Multimodal mobility on demand
• ITS & mobility management
• Sharing urban mobility space
• Mobility & location management

Governance & Economy

Plenary session:
• **Changing Governance Models**

Parallel sessions:
• Public-private collaboration
• Funding transformation
• Smart & open government
• Connected cities for economic development
• City protocol task force
• Open data

Emergencies & Security

Parallel sessions:
• Emergencies & Urban resilience
• City situation room

Smart Geo

Plenary session:
• **From Geo Cities to Smart Cities**

Parallel sessions:
• Sensors and mapping (see Technology)
• New earth observation (see Environment)
• Mobility and location management (see Mobility)
• City situation room (see Emergency & Security)

City and country case studies

• Japan symposium
• Country panels: Colombia, United Kingdom, China
• City cases: Catalonia, Spain, Europe, Asia, South America
• Engagement strategies, empowering cities
• EU Commission Smart Cities workshop

Bo Diczfalusy

Director of the Sustainable Energy Policy and Technology at the International Energy Agency in France since 2009

Bo spent much of his career in the Swedish government working on energy and climate change policy issues. He graduated from the Stockholm School of Economics with a degree in International Economics.

Peter Hirshberg

Chairman – Reimagine group San Francisco – USA.

A Silicon Valley executive with several high-profile marketing and branding related ventures, Peter is a Co-Founder of branding and marketing agency The Re:imagine Group. He is also a board member of ActiveVideo Networks and serves on the advisory boards of Ideeli and GlamMedia.

Kenneth Berlin

Senior Vice President.General Counsel, Policy and Planning - Coalition for Green Capital Washington DC – USA.

Lawyer specialized in the Environment and Climate Change; Ken is the General Counsellor of the Coalition for Green Capital and the Chairman of the Board of the Centre for International Environmental Law.

Charles Landry

Founder – Comedia Gloucestershire – UK.

Political Economist and urban development specialist, an international authority on city futures and the use of culture and creativity in city revitalization; cultural planning and heritage issues, and strategic policy development. He helps cities transform their thinking, combining a global perspective with an acute sense of what matters locally.

Marie Donnelly

Director New and renewable sources of energy, efficiency and innovation. European Commission – Brussels.

She is responsible for the development of policy and actions on energy efficiency at the European Commission where she formerly worked at the Employment and Social Affairs Directorate General and the Directorate General for Enterprise.

Dan Hill

Strategic Design Leader - Sitra, the Finnish Innovation Fund Helsinki – Finland

Dan is a designer and strategist having worked in several industries and continents, has a background in interaction and service design, foresight and strategy, urban planning and urbanism, media and creative industries.

Carlo Ratti

Director - SENSEable City Laboratory – MIT.

Carlo Ratti is an architect and engineer who works in Italy and teaches at the MIT. He manages the SENSEable City Laboratory to study built urban environments using new tools that transform the way we describe and understand cities. Ratti has co-authored over 200 publications and holds several patents.

Michael Braungart

Professor at the Erasmus University of Rotterdam, University Lüneburg and Twente - EPEA Environmental Protection and Encouragement Agency – Germany

Director at the Environmental Protection and Encouragement Agency GmbH, EPEA (Hamburg, Germany) and the father of the Cradle-to-Cradle concept, which promotes production systems redesign by imitating nature.

Dimitri Zenghelis

Senior Economic Advisor, Senior Fellow - London School of Economics London – UK.

An economist with a decade of experience at HM Treasury, Dimitri is a Senior Economic Advisor to Cisco's long term innovation group and a Senior Visiting Fellow at the Grantham Research Institute at the London School of Economics.

Andrew Carter

Director of Policy and Research - Centre for Cities London – UK.

Andrew leads the Centre for Cities' research and policy programme. He studied urban economic development policy and works in New York, Boston and Chicago and has worked for public and private development agencies, consultants and research institutes in the economic development field.

Ricky Burdett

Director,LSE Cities and Professor of Urban Studies - London School of Economics London – UK

Architect specialized in urban Planning, Ricky is also Director of LSE Cities. His particular area of expertise revolves around the relationship between architecture, urban design and urban society.

Theresa A. Pardo

Director - Centre for Technology in Government - SUNY Albany New York – USA

Widely recognized as an expert on Information and Communication Technology (ICT), innovation and transformational government, Theresa is the director of the Centre for Technology in Government at the State University of New York at Albany.
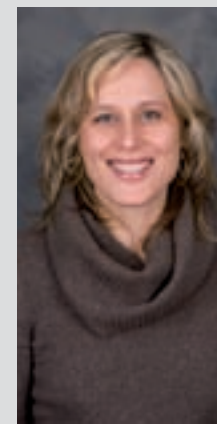
Cristiana Fragola

European Regional Director - C40 - Milan – Italy

She supports and coordinates the C40 Cities in the region and she serves as a conduit with the broader organization. Cristiana was Deputy Director of Strategic Initiatives at the New York City Housing Authority (NYCHA). Before joining the public sector Cristiana worked in corporate, transactional and intellectual property at News Corporation.

John F Moore

Founder and CEO - Government in The Lab Boston – USA

An Electrical Engineer turned open government strategist, consultant, and analyst, John is the Founder of Government in The Lab (GTL), an online magazine focused on delivering the best information possible on government, politics, human rights, and everything in between.

Robert Puentes

Senior Fellow and Director, Metropolitan Infrastructure Initiative –Brookings Institution, Metropolitan Policy Program - Washington DC – USA.

He also manages the Program's Metropolitan Infrastructure Initiative and was the director of infrastructure programs at the Intelligent Transportation Society of America. His work focuses on issues related to metropolitan growth and development.

Kulveer Ranger

Former Adviser to Mayor of London for Transport, Environment and Digital London and former Director for Transport Policy.

Kulveer created the Mayor's Digital London office and established the mayor's digital strategy focusing on improving city wide connectivity, specifically working on the 'super-connected cities' programme with the Department for Culture, Media & Sport.
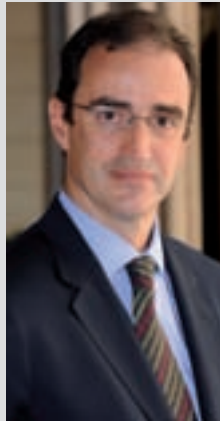
Antoni Vives

Deputy Mayor for Urban Habitat and Councillor for the City District of Les Corts (Barcelona).

Formerly the General Secretary for the Government of the Generalitat de Catalunya (1999-2003), and Director of the Ramon Trias Fargas Foundation (2003-2007). He is Senior Advisor for the Prince of Asturias Professorship of Spanish Studies at the London School of Economics.
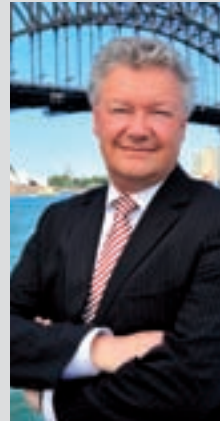
Allan Jones

Chief Development Officer, Energy and Climate Change City of Sydney.

An engineer, in charge of the Green Infrastructure Plan and other major energy and climate change projects, prior to this appointment Allan was Chief Executive Officer of the London Climate Change Agency.

KC Becker

Council Member - City of Boulder, Colorado Boulder – USA.

Trained in Law, KC was elected in 2009 and serves as Boulder's representative to the Denver Region Council of Governments and on the city's Board of Urban Renewal. KC has a particular interest in affordable housing issues and promoting green communities through planning and transportation.

Nigel Jacob

Co-Chair - Mayor's Office of New Urban Mechanics, Boston – USA

With an extensive background in collaborative, citizen-facing technology projects, Nigel develops new models of innovation for cities in the 21st century. He co-founded the Office of New Urban Mechanics and advises Mayor Menino on emerging technologies.

Xuening Xie

General Manager - Guangzhou Municipal Science and Information Technology Bureau Guangdong – China

Graduated from the Graduate University of Chinese Academy of Sciences with a PhD in sustainable development, has been engaged in the development, application, planning, management, organization and implementation of computer and network technologies for 30 years.

Markku Raitio

IT Director - City of Helsinki – Finland.

Director of IT in the City of Helsinki (Finland), Markku is responsible for the Information and communications technology strategy, coordination and supervision of the development of ICT policies in the Finnish Capital.
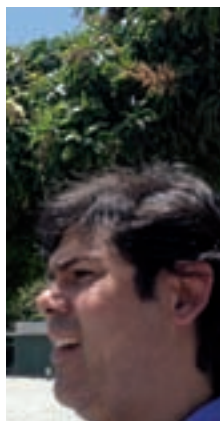
Jorge Perez Jaramillo

Director of the School of Architecture and the Institute of Regional and Metropolitan Studies IEMR-UPB and Associate Professor of the Master's in Architecture at the Universidad Pontificia Bolivariana of Medellín.

He works in various academic and professional fields and on Urbanism and Architecture projects in Medellin Colombia.

JongSung Hwang

Assistant Mayor for Information Technology and Chief Information Officer of Seoul Metropolitan City.

Mr. Hwang worked for the National Information Society Agency of Korea, holding key positions including IT Policy Planning and Evaluation Manager and Information Planning Director. He leads the Information System Planning Bureau of Seoul City.

Joane Boulle

Environmental Planning and Climate Protection Department eThekwini (Durban), South Africa.

She studied Zoology and Environmental and Geographical Sciences at the University of Cape Town (UCT) in South Africa. Her experience in scientific and social fields has helped her as Manager of the Policy Implementation branch of the department.

Projjal K.Dutta

Director, Sustainability Initiatives - New York Transportation Authority, New York – USA.

He has lectured and written on the subject of 'carbon avoidance' and he worked as a sustainable architecture consultant for a large range of projects and clients, in both the private and public sector.

Jorgen Abildgaard

Executive Climate Project Director for the 2025 Carbon Neutral and Green Growth strategy and plan in the City of Copenhagen – Denmark.

He was the director in the Nordic consultancy companies ECON and Poyry Management Consulting and adviser for the former Danish Minister for Environment and Energy.

Gloria Hutt

Secretary for Transport, Ministry of Transport and Telecommunications of Chile.

She studied engineering at the Catholic University of Chile and has a major in Transportation Systems, she also studied International Finances and Business Administration at Georgetown University. An outstanding career in the field of transportation engineering.

Brent Toderian

President, former Vancouver Chief City Planner - Toderian Urban WORKS Vancouver – Canada

Brent is a practitioner and leader with over 20 years of experience in advanced urbanism, city planning and design. He was the Vancouver BC's Chief Planner (2006-2012) and he also played a peer advisor role with many global cities, from Copenhagen, Oslo and Rotterdam, to Singapore and Shanghai.

Andrés Ibarra

Minister of Modernization, Buenos Aires City Government

Ibarra is a Doctor in Economy, and holds a Postgraduate Degree in the Executive Program in Strategy and Organization from Stanford University. He has held several positions in the Government of the Independent City of Buenos Aires and in the private sector.

Joe Reardon

Mayor/CEO of the Unified Government of Wyandotte County and Kansas City, Kansas (UG).

Serving his second term as the Mayor of Kansas, where he has brought government closer to the residents by promoting face-to-face and one-on-one meetings to discuss issues and concerns that are of importance to citizens.

Koji Miyazawa

Director of Environmental Policy Planning Section, Bureau of Environment, Tokyo Metropolitan Government.

Member of the Tokyo Metropolitan Government since 1992, he is responsible for energy saving measure and energy management in order to turn Tokyo into a smart energy city. He implemented the Tokyo Cap and Trade Program at the Bureau of Industrial and Labor Affairs and the Headquarters of the Governor of Tokyo.
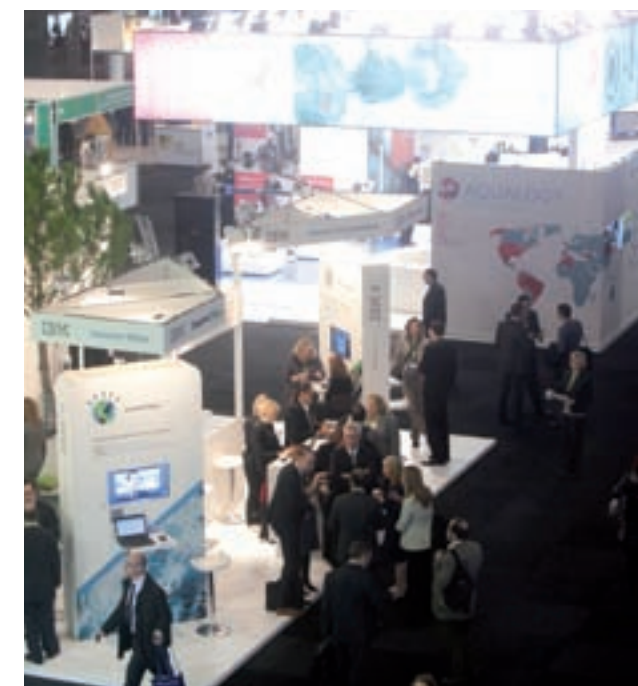
Exhibition Area

Exhibition Area

Smart City Expo World Congress is the global meeting point where the key urban decision-makers and the leading suppliers of real solutions and services for smart cities network. The exhibition area is the best framework for leading companies, cutting-edge cities and institutions involved in the field of smart cities to showcase their products, projects, innovations and solutions.

Participants were able to see what the most innovative projects are accomplishing, so they can anticipate and spearhead the future. Each sector was featured: cities, urban planning, ICT and Research, Environment and Recycling, Mobility and Transport and Energy and Sustainability.

Smart City Expo World Congress brought together local governments, cities and companies. Local governments, which are most actively committed to balanced development; cities, which experiment and take risks, and companies firmly committed to this field of endeavour.

The exhibition concluded its second edition as the new international benchmark for smart cities. The three-day event in Barcelona brought together over **7,000 professionals, 140 exhibiting companies and 319 speakers** to discuss the future of cities, along with representatives from 82 cities on all five continents.

Global Event Partners

abertis telecom · accenture High performance. Delivered. · AQUALOGY Where water lives. · CISCO · Enel / endesa · FCC Servicios Ciudadanos · ferrovial servicios · IBM

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Abertis Telecom

Abertis telecom is the telecommunication infrastructures operator of Group Abertis. It has the main telecommunication network in radio and television broadcasting and transmission. It also offers communication services for security and emergency companies, and develops Smart Cities services. Abertis telecom offers solutions for Smart Cities integral management trough infrastructures, communication networks, innovation and technology, looking for an energetic and operative efficiency.

Abertis telecom is pioneer in the creation of the first Smart Zone in Spain, an smart micro-city, that reproduces all kinds of city needs. There, municipalities can find technologic solutions to build a city for the citizens.

www.abertistelecom.com/es/index.php

Accenture

Accenture is a global management consulting, technology services and outsourcing company, with 257,000 people serving clients in more than 120 countries.

Combining unparalleled experience, comprehensive capabilities across all industries and business functions, and extensive research on the world's most successful companies, Accenture collaborates with clients to help them become high-performance businesses and governments.

The company generated net revenues of US$27.9 billion for the fiscal year ended Aug. 31, 2012. Its home page is www.accenture.com.

www.accenture.com/Microsites/public-transportation/Pages/smart-city.aspx
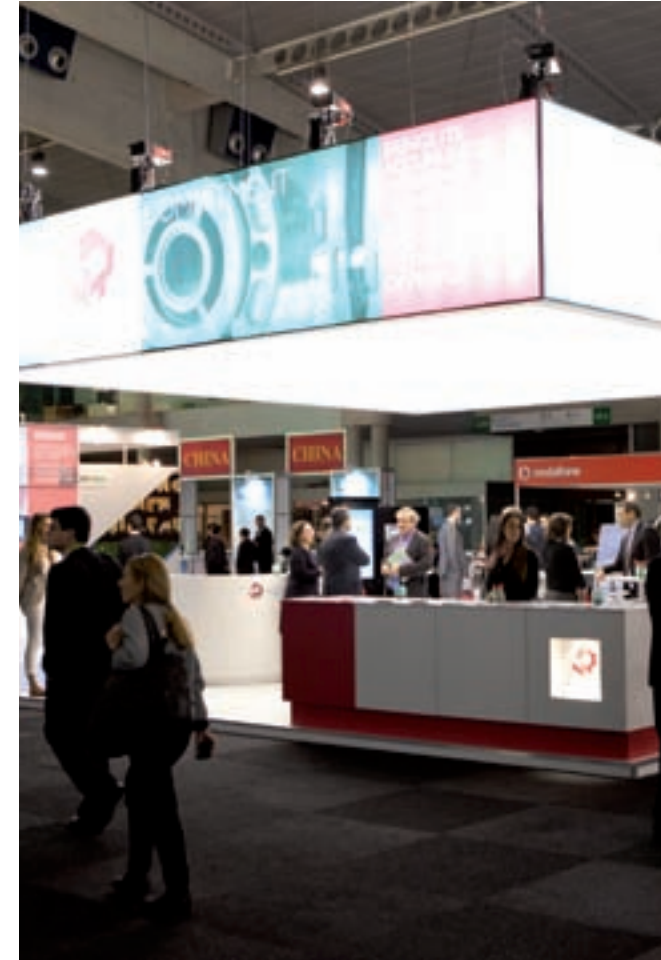
Aqualogy

Aqualogy business strategy is based on the customer and the new markets thanks to the accumulated experience and knowledge. Thus, Aqualogy works on how to improve on efficiency fostering a stronger commitment to innovation by using cutting-edge technology, thanks to R&D projects which are related to the management of the cycle of water.

Aqualogy develops its activities under four main areas: -Environment and Operations Technologies, dedicated to hydraulic and environmental engineering -Infrastructures, focused on the development of engineering hydraulics -Management Solutions, specialized in services and solutions focused on improving the management of the water companies -Knowledge Technologies, focused on managing and packaging information and on knowledge transfer.

www.aqualogy.net/

Cisco

Cisco Smart+Connected Communities (S+CC) is the Cisco strategy to transform physical communities to connected communities and achieve economic, social and environmental sustainability. S+CC 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.

www.smartconnectedcommunities.org/index.jspa

Enel – Endesa

Enel is a multinational group based in Italy, a leading integrated player in the power and gas markets of Europe and Latin America operating in 40 countries across 4 continents overseeing power generation from 98 GW of net installed capacity and distributing electricity and gas through a network spanning around 1.9 million km to serve 61 million customers.

The Enel Group has more than a decade of experience in developing the new grid, a process which started with the introduction of smart meters and automated metering infrastructure in Italy. Today, the Group has consolidated a unique capability to develop Smart Grids as the primary element of the Smart Cities of the future and is currently managing seven pilot projects in Europe and Latin America across cities such as Genoa, Bari, Turin, Málaga, Barcelona, Búzios and Santiago del Chile.

**www.enel.com/en-GB/innovation/smart_grids/**

FCC Servicios Ciudadanos

FCC is the matrix of one of the first European Citizen Services groups. It was born in March 1992 from the merger of two prestigious companies: 'Construcciones y Contratas', founded in Madrid on 1944 and 'Fomento de Obras y Construcciones', established in Barcelona in 1900. Its growth strategy has been focused traditionally into diversification as shown by the fact that, being originally a construction company, in 1911 began its activity in the public services sector with the a contract for the cleaning and maintenance of Barcelona's sewerage network.

The company has a balanced business pattern: Its main areas of activity are: - Infrastructures: We work in all spheres of construction andrelated sectors. - Environmental Services: We have provided quality citizen services for more than 100 years. - Energy: We are developing our activities in therenewable energy sector.

www.fcc.es/fccweb/index.html
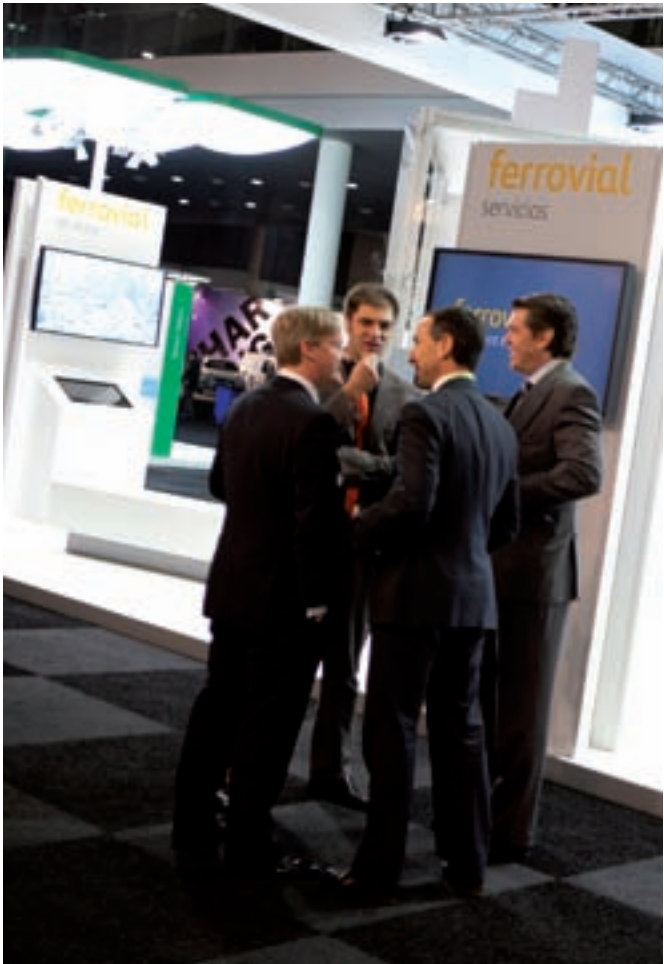
Ferrovial Servicios

Ferrovial Services is an international leader in providing integrated solutions to support public and private sector clients in improving the efficiency and effectiveness of their services.

We work with over 130 large European cities and 800 municipalities in Spain and the United Kingdom providing:

• Infrastructure maintenance
• Environmental services
• Facility management and energy efficiency
• Asset management

Our integrated asset management approach encompasses the entire service life cycle; from planning and management to operation and maintenance. We therefore have the necessary expertise to maximise productivity and efficiency over the lifetime of the asset.
The companies that make up Ferrovial Services — Amey, Cespa and Ferroser—are key players in highly sophisticated and competitive markets.

www.ferrovial.com

IBM

A smarter planet, while global by definition, happens on the industry level. It is driven by forward-thinking organisations that share a common outlook: They see change as an opportunity, and they act on possibilities, not just react to problems.

Since introducing the smarter planet concept, IBM has collaborated with more than 600 organisations worldwide that each do their part in making this vision a reality.

Find out more about IBM Smarter Planet concept here:

www.ibm.com/smarterplanet/uk/en/overview/ideas/index.html

Indra

Indra is the premier Information Technology Company in Spain and a leading IT multinational in Europe and Latin America. It is ranked as the second European company in its sector according to investment in R&D with more €550 M during the last three years. In 2011 revenues reached €2.688 M of which a 55% came from the international market.

The company employs more than 42.000 professionals and has clients in more than 118 countries.

www.indracompany.com

Philips Lighting

Royal Philips Electronics of the Netherlands (NYSE: PHG, AEX: PHI) is a diversified health and well-being company, focused on improving people's lives through timely innovations. As a world leader in healthcare, lifestyle and lighting, Philips integrates technologies and design into people-centric solutions, based on fundamental customer insights and the brand promise of "sense and simplicity".

Headquartered in the Netherlands, Philips employs 119,000 employees in more than 60 countries worldwide. With sales of EUR 25.4 billion in 2010, the company is a market leader in cardiac care, acute care and home healthcare, energy efficient lighting solutions and new lighting applications, as well as lifestyle products for personal well-being and pleasure.

www.philips.es

Ros Roca

The company Ros Roca Environment is made up of leading companies from the environmental sector.

These companies, some of which have almost 60 years experience, concentrate their activity on three major areas which cover the complete waste cycle: 'the manufacture, sale and rental of equipment for street cleaning and waste collection. 'the design, development and construction of engineering process systems for transfer, sorting, composting, biomass, biogas, upgrading, anaerobic digestion and energy recovery plants and development and construction of automated waste collection systems.

www.rosroca.com

Schneider Electric

Schneider Electric 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 energy and infrastructure, industrial processes, building automation, and data centres/networks, as well as a broad presence in residential applications. Focused on making energy safe, reliable, and efficient, the company's 130,000 plus employees achieved sales of 22.4 billion euros in 2011, through an active commitment to help individuals and organizations 'Make the most of their energy.'

www.schneider-electric.es

Telefonica

The Companies unit at Telefónica España is the Telefónica group business line that provides the most advanced integrated landline and mobile communications solutions and Information Technologies to Private Companies and Public Administrations, with the support of the best partners on the market.

The base of its strategy is customer orientation, with a high added-value offer and adapted to the specific needs of each business.

Follow us in the blog: **www.aunclicdelastic.es**

And on our website: **www.telefonica.com/es/home/jsp/home.jsp**


Thales Global Services

Thales solutions for mobility, security, safety and sustainability, help cities act smarter, improve their efficiency, and enhance their citizens' quality of life, by providing greater integration, interconnectivity, and leveraging existing infrastructure.

Thales has a unique capability to design, develop, and deploy, systems and services that meet the most advanced requirements. Technical innovation is backed by a proven track record spanning more than 25 years in over 30 major cities worldwide.
With an exceptional international footprint, Thales has 67,000 employees and operations located in 56 countries around the world. This enables Thales to work with customers as local partners. Revenues of €13 billion were generated in 2011.

www.thalesgroup.com
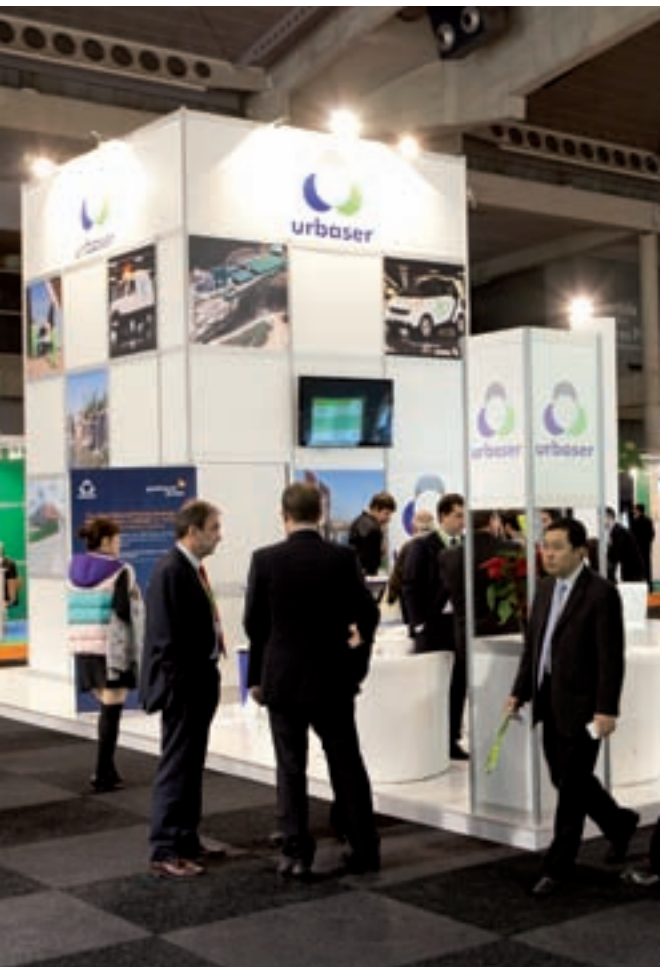
Urbaser

The group ACS, Actividades de Construcción y Servicios, is a worldwide reference in infrastructures, industrial services, energy and environment. The ACS Group, through its environmental company Urbaser, is leader in waste management and treatment. It specialises in Street Cleaning, waste removal and transporting, urban waste treatment and recycling and comprehensive management of the water cycle and urban landscape and gardening.

Urbaser covers the entire value chain when providing these services, from designing and conception, carrying out the project, construction, financing and operating a highly-qualified professional team. Urbaser also operates in the field of renewable energies with a view to limiting the negative impact of greenhouse gases, for the purpose of which it is developing treatment processes for alternative sources of energy, biomass from biomass crops, waste woodland mass, biodegradable agricultural and industrial waste.

www.urbaser.es

Wonderware

Invensys Operations Management's offerings are delivered under several prominent industry brands, including Avantis, Eurotherm, Foxboro, IMServ, InFusion, SimSci-Esscor, Skelta, Triconex and Wonderware.

The company's approximately 9,000 employees and its global partner ecosystem integrate these products and services to help clients collaborate across systems and enterprises in real time.

To learn more about Invensys Operations Management and its Wonderware solutions for Smart City visit

www.wonderware.com
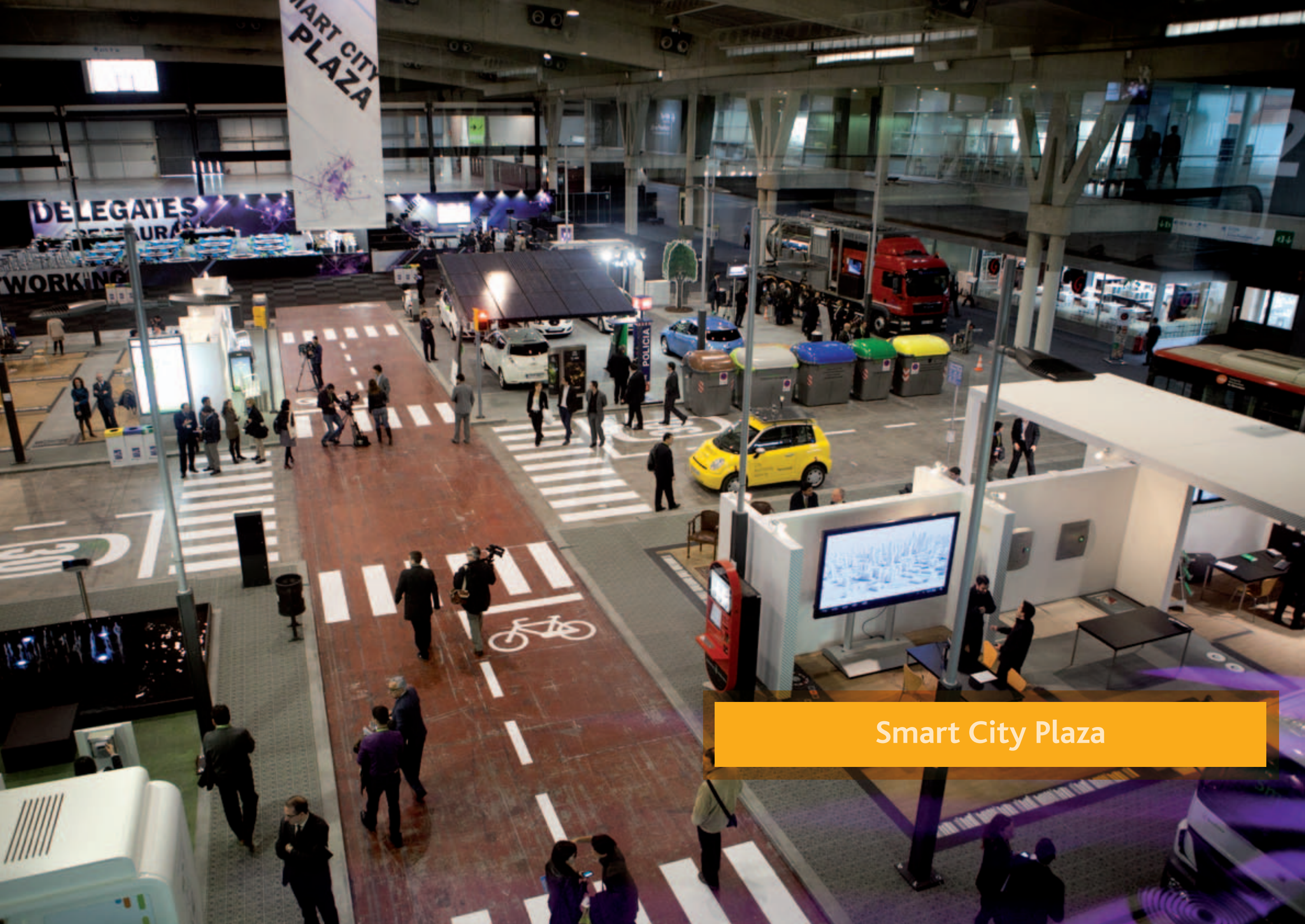
Smart City Plaza

Welcome to the Smart City Plaza

This brand new space replicated a small section of a city where a selection of the new technologies available to us today has been installed. Some called it the 'city of the future' but we think of it as the 'city of the present',where all the devices and solutions showcased exist and can be deployed in our neighbourhoods.

A unique way for companies to show their latest solutions in a real environment where visitors discover how technology will help us to build a more connected and sustainable city. You can get an up-close insight into how these innovations lead to improvements in citizens' quality of life, have a lower environmental impact and help to reduce costs.

Sensors to be installed at street level in order to let drivers book and pay for their parking spot miles away from downtown, charging stations to 'refill' electric vehicles, smart water fountains that can be remotely controlled by citizens through their smartphones, street lamps able to match intensity of light with the needs of pedestrians or even modern telepresence cabins enabled to interact with the city council and carry out any official paperwork digitally...

A stroll through the Smart City Plaza is enough to discover how technology can make better cities!

1 • New cleaning systems

The Ice Pigging cleaning system is an innovative formula for cleaning tubes and pipes using liquid ice. When it enters the tube it collects all the sediments and deposits with much greater effectivity than using traditional systems.

2 • Integrated energy solutions

Photovoltaic canopies will power the recharging stations for different electric vehicles, helping to minimize the carbon footprint of urban mobility.

3 • Interactive bus stops

Provides real-time information using QR and NFC technology and geo-localization systems. Passengers simply need to capture the QR code or pass their smartphone over the NFC label to receive information on the arrival time of the next bus on their mobile phone.

4 • Shared bicycles

Bicycles, whether conventional or electric, have a key role to play in the diversification of sustainable urban public transport and have a great impact on improving mobility in cities.

5 • Smart lighting

Current technology enables us to transform urban lighting and reduce the energy consumption using dimmable LED technology. Intelligent lighting system allows reducing light pollution and electricity consumption regulating light intensity according to needs.

6 • Smart telecommunications cabins

The whole spectrum of communications (video-calls, voice and data) is an essential element of the smart, connected city. New models of telecommunications cabins will allow people to communicate via different platforms, and send any kind of information, document, or request for municipal and healthcare services, such as a doctor's appointment.

7 • Smart parking

Sensors in urban parking spaces along with geo-localization and navigation systems integrated in vehicles or mobile devices help reducing the time spent searching for a parking space in cities by indicating the availability of spaces and suggesting routes to them.

8 • Recharging stations

The need of recharging stations in the streets will be a must as the use of electric vehicles becomes more and more widespread.

9 • Control of emergency systems

Integrated systems using sensors and cameras enable the real time identification and management of incidents that affect public safety, traffic and civil protection.

10 • Geo-localized information

Mobile devices (telephones and tablets) with GPS systems offer citizens and tourists updated real time information on the services and facilities available around them.

11 • Urban monitoring

The real time measurement of different variables (traffic intensity, energy consumption, amongst others variables) is the key for making our cities more efficient, and reduce their environmental impact.
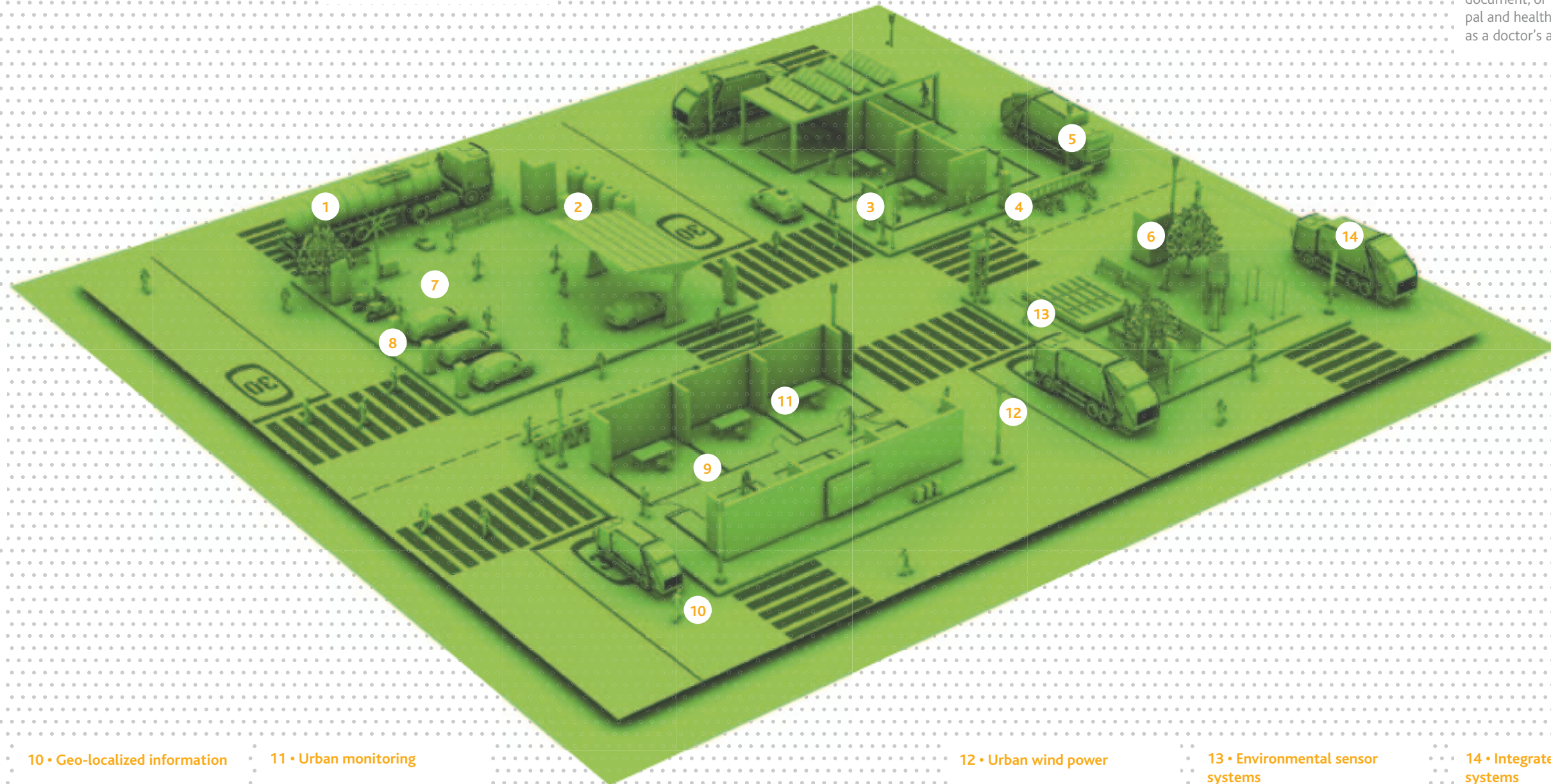
12 • Urban wind power

The development of new and smaller wind turbines enables the use of wind power systems in the cities. Supplying the energy directly to homes and buildings or vehicle recharging stations, for example.

13 • Environmental sensor systems

The use of sensors measuring temperature, humidity, solar radiation, wind speed or energy consumption among others allows to improve the city services (such as irrigation of green zones and street lighting control).

14 • Integrated waste collection systems

The installation of sensors on containers, together with the use of hybrid vehicles and geo-localization systems, allows the improvement of collection routes for waste and recycling.

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World Smart Cities Awards

Gala Dinner & Awards Ceremony

The World Smart Cities Awards were organized by the Smart City Expo World Congress and were aimed at cities, businesses and entrepreneurs, research centers, public or non-governmental organizations or consortiums (public-private) with innovative Smart City visions and solutions.

The Smart City Global Awards were established in order to identify the best cities, projects and innovative initiatives in line with the Smart City concept.

The aim of the award is to nurture the development of future cities thus enhancing quality of life, sustainability, innovation, creativity, competitiveness, and efficient management and administration.

Three different categories of proposals were considered for the competition: City, Project, Innovative initiative.

Jury of Honor

A panel of international judges evaluated the projects selecting the winner and two finalists per prize category.

The judging panel consisted of international participants from any edition of the Smart City World Congress, including:

· **Josep Ramon Ferrer**, Director of IT Strategies and Smart City, IMI - Ajuntament de Barcelona.
· **Cristiana Fragola**, European Regional Director, C40 Europa.
· **Svetlana Grant**, Director, Smart Cities, Connected Living Programme, GSMA
· **Kazuo Iwano**, Kita Kyushu City, Japan - Tokyo Institute of Technology, Department of Management of Technology, Graduate School of Innovation Management
· **Claudio Orrego**, Mayor, Municipality of Peñalolén
· **Robert Stüssi**, Urban and Mobility Planner, Robert.Stüssi.Mobil
· **Pilar Conesa**, Director Smart City World Congress.

Winners

These awards aimed to identify the cities, projects and solutions that have made the greatest contribution to developing the smart city concept, and received more than a hundred entries from 66 cities worldwide. **The winners of the second edition of the World Smart City Awards were:**

City awards: Amsterdam, Open Data project in urban mobility.

Innovative initiative award: Guatemala, public-private funding project to use solar panels for public lighting in the city and housing of low-income families.

Project award: Big Belly Solar (USA), integral waste compacting and recycling system.

International Business

Welcome Lunch

The Smart City Expo World Congress was enlivened with side events programmed for participants to strengthen their networking experience. Representatives of each city delegation took part in the welcome lunch hosted by the Barcelona City Council and the Congress.

Business Bridge & Business Meetings

Business Bridge Smart City Expo World Congress aims to become the meeting point where public institutions and companies working in the Smart city field connect. Country delegations attending the event met companies during the Business bridges organized during the event and had the opportunity to network with top executives from exhibiting companies.

International Delegations from:

- Argentina
- Chile
- China
- Colombia
- Israel
- Japan
- Kazakhstan
- Malaysia
- United Kingdom and Ireland

Open Innovation Market Place

Open Innovation Market Place

Entrepreneurs, SME, large companies, technology or research centres that have a new idea for smart cities were given a 15-minute slot to explain their projects and ideas face-to-face with major corporations and investors who specialize in Smart Cities.

A total of 155 proposals had been presented from Algeria, Argentina, Denmark, Spain, Finland, France, Italy, Poland and the United States. Of these, 36% focused on Technology and Innovation; 14% on Energy; 13% on the field of Collaborative Cities and Smart Society; 12% on Mobility; 10% on the Environment; 4% each on Emergency Management, Smart Geo and Urban Planning, and finally 3% on Governance.

The companies in attendance included CISCO, IBM, Agbar, Enel-Endesa, Ferrovial, Telefonica, Accenture, Abertis Telecom, Urbaser, Ros Roca, FCC and INDRA.

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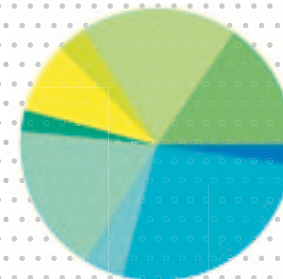
Sectors
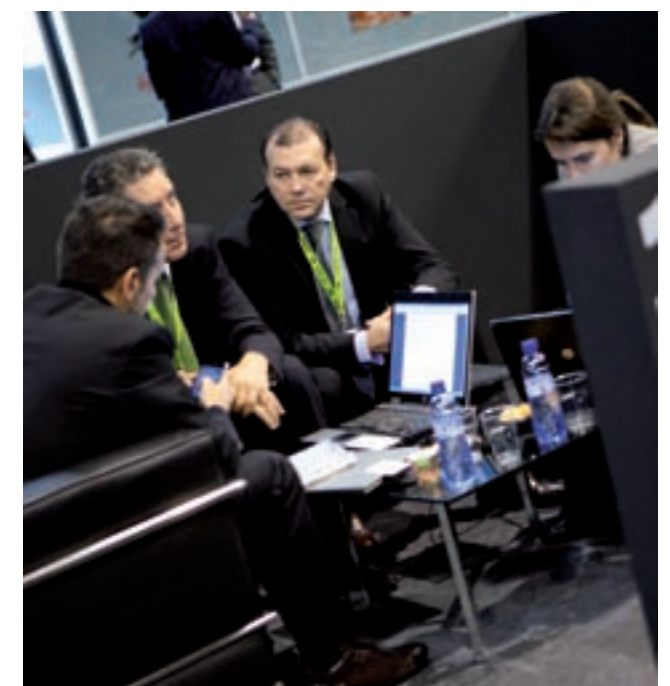
The percentages by sector of the selected solutions participating in Smart City OIMP are:

- **15%.** Energy
- **16%.** Collaborative City and Smart Society
- **3%.** Emergency Management
- **7%.** Environment
- **2%.** Governance and Economy
- **15%.** Mobility
- **4%.** SmartGeo
- **36%.** Technology and Innovation
- **2%.** Urban Planning

WeGo

Agra   Abu Dhabi   Seoul   Barcelona

WeGo

WeGO: World e-Governments Organization of Cities and Local Governments

Mayors and CIOs of cities and local governments around the world that pursue sustainable city development based on e-government.

The 2nd General Assembly brought together 166 delegates from 52 cities and local governments around the world as well as scholars and professionals, corporate representatives, and international organizations including the United Nations, the World Bank, and the OECD

The Assembly was chaired by Mr Park Won-Soon, Mayor of Seoul, and Mr Xavier Trias, Mayor of Barcelona.
Under the theme of "Smart Government with All," participants shared and learned smart city initiatives around the world at keynote sessions, WeGO awards ceremony, workshops, exhibitions, matchmaking meetings, and social events.

Smart Geo

GeoPortal: portal de serveis cartogràfics web

Geoportal és un lloc web que ofereix als l'accés a una sèrie de recursos i asats en informació geogràfica. el descobriment, l'accés i la zació de les dades geoespacials t un navegador estàndard. possibilita la integració, erabilitat i l'intercanvi ió entre les diverso ns, col·lectius professiona s de serveis, etc., constitu peça bàsica de la filosofia

GeoPortal: Web map services site

Geoportal is a website grant access to a set of reso services which are based o information. It allows accessing and visualiza data using a standa makes it possible to i and make a com information from professional companies, etc of the Smart

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rto BCN: Site arcelona

This is

Smart Geo & Other activities

Smart Geo

The place for business opportunities related to geo information and showcase new applications to improve people's everyday lives. Also featured were TIG/ SIG Forum and workshops.

Seminars and workshops:

• International Course Cartotechnology
• ETRS89, practical implementation factors
• GEOSERVICES: Online mapping services
• Traffic information services based on TomTom products
• BusEditor: publishing the public transport system
• Technologies applied to Smart Cities
• GEO-Solutions for the City of Tomorrow
• Smart products aimed at local governments
• Geographic Information Systems
• XI Forum TIG/SIG 2012
• Geoinquiets

Other activities

Synergyes

Where leading companies and attendees discuss the trends, challenges and solutions around ICT, urbanism, the environment - energy, and mobility – transport

NFC Bootcamp

A world renowned seminar focused on NFC technology and its potential applications in an industry that experienced an important growth in 2011: Investment in advertising and mobile payments grew from 404 million dollars 15 billion.

Other events

• Smart Innovation Zone
• Electric Vehicle Test
• Open Cities App Challenge
• Club Cambra
• Elevator Picth

• Poster Exhibition
• ICT in building energy management
• Smart City Tour
• Smart Logistics

Impact around the world

Stockholm
Copenhagen
London
Brussels
Madrid
San Francisco
Los Angeles
New York
Beijing
Yokohama
Tokyo
Hangzhou
New Delhi
Hyderabad
Medellin
Bogota
Rio de Janeiro
Sao Paolo
Santiago de Chile

Roadshow

The Smart City Expo World Congress 2012 was promoted with a worldwide roadshow in cities with the most relevant projects related to Smart Cities, including Brussels, Copenhagen, Madrid, London, New York, San Francisco, Stockholm, Sao Paolo, Rio de Janeiro, Santiago de Chile, Shanghai, Tokyo and Yokohama.

The goal of the roadshow was to present the event at meetings, presentations and promotion campaigns in the press as well as to invite the countries visited to participate.

Cities visited

North America:
• Los Angeles
• New York
• San Francisco

Europe:
• Brussels
• Copenhagen
• London
• Madrid
• Stockholm

Latin America:
• Bogota
• Medellin
• Rio de Janeiro
• Santiago de Chile
• Sao Paolo

Asia:
• Beijing
• Hangzhou
• Hyderabad
• New Delhi
• Tokyo
• Yokohama

Communication

One of Smart City Expo World Congress' missions is to achieve the biggest possible exposure for the revolutionary ideas and solutions shared and showcased in Barcelona. Global outreach and awareness about the need to transform the current metropolises is essential and that is why some of the most prestigious media outlets from around the world attended the smart cities' summit and joined our common goal: a more sustainable future.

Web

Newsletters

Social media

App

Media

Press

176 registered journalists from a total of **119** general and sector publications.

Media impact:
- Newspapers (212)
- Radio (23)
- TV (26)
- Online (1181)

Total (1442)

Media Online & Offline

Advertising insertions

Premium Media Partners: Expansión FT FINANCIAL TIMES

Media Partners: CitiesToday Interempresas NEXT AMERICAN CITY manutención&almacenaje N&RE greenfrastructures PikeResearch

Figures

Figures

Key Figures 2012

The Smart City Expo World Congress 2012 brought together:

2011

6,160 visitors

51 countries

118 exhibitors

2.082 delegates

2012

7.126 visitors

82 countries

140 exhibitors

3,055 delegates

Profile

- 15% Board Member / Political Position
- 43% Senior Management
- 14% Department Manager
- 14% Middle Management
- 14% Technician

Countries by areas

- 26% Asia
- 5% Africa
- 3% Middle East
- 12% North America
- 9% Latin America
- 44% Europe
- 1% Asia - Pacific

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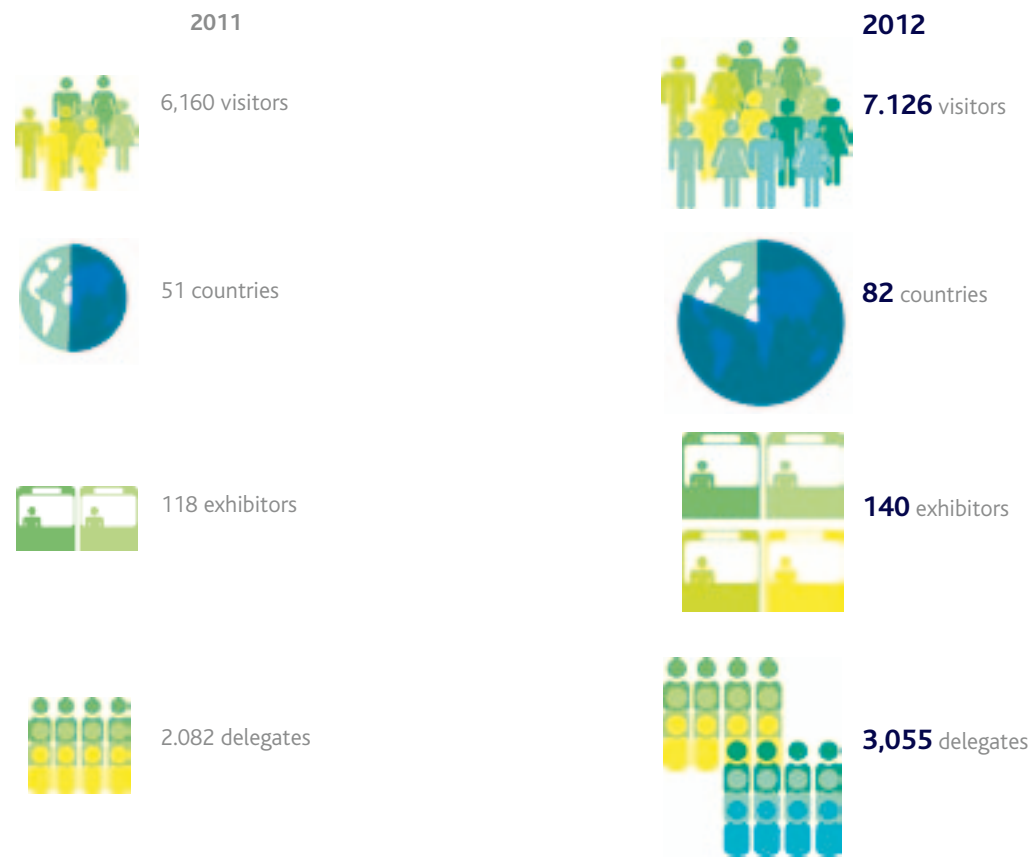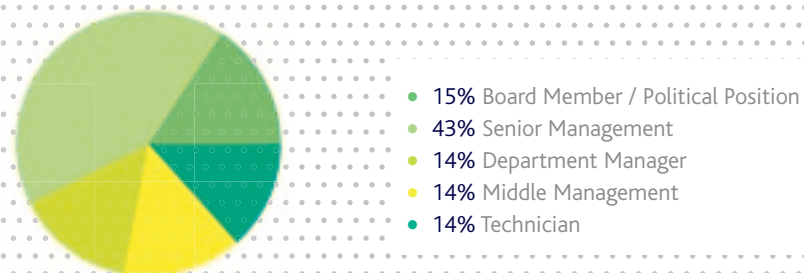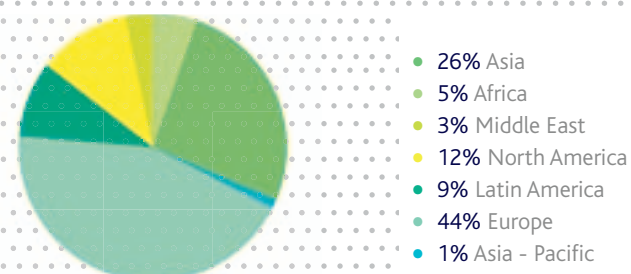
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