SMART**CITY**
EXPO WORLD CONGRESS

Fira Barcelona

CITIES
TO **LIVE** IN

Report 2018

Report 2018

1.
SMART CITY EXPO WORLD CONGRESS 2018

CITIES TO **LIVE** IN

There's no need to pay lip service to the concept anymore. **The smart city label is spreading all around the world** as cities use technologies to improve and transform the lives of their citizens, and the environment. For good reason: **the trend towards urbanization is only accelerating**. Today, 55% of the world's population lives in urban areas, and this proportion is expected to increase to 70% by 2050. This global shift has profound implications for a wide range of issues, not the least of which is climate change. **Limiting global warming to 1.5 ºC** has become a crucial necessity. Hence, the time to act is now.

In this sense, **cities are leading change** on policies to spur sustainable patterns of development. They have become socio-economic and political actors on national and world stages, as they have a major impact on the economic and social development of nations. So, they have the **power to create innovative solutions to solve the toughest problems**. Now, technologies such as the Internet of Things, Blockchain, Artificial Intelligence and Machine Learning are becoming pivotal as they disruptively change the way cities operate. But **citizens are key in this transformation** and cities still need to plan for digitalization efforts that deliver value economically, socially, and environmentally.

This year, the Smart City Expo World Congress (SCEWC) took a leap forward with an **innovative congress format** and **30% more exhibition space** to debate on how to create **Cities to Live In**. With this baseline, the event shattered all previous records and proved it is the worldwide benchmark on smart urban development, a must-attend show for companies, cities and institutions fully invested in building a better tomorrow.

For three days, the event brought together **21,331 attendees, representatives from more than 700 cities and 146 countries, as well as 844 exhibitors.** The show also peaked the interest of **a number of international and local journalists**. These figures confirms the show as the leading event in the smart city field. **Over 400 experts**, including keynotes speakers such as Muhammad Yunus, Andrew Keen and Rufus Pollock debated on the challenges faced by cities in the current global context, encouraged out-of-the-box thinking and inspired a call for action to build a smarter society together.

They all gathered and networked in 18,000 m² floor space occupying two pavilions of Fira de Barcelona for the first time, and combining three different areas -the Exhibition area, the Congress area

and The Village- designed to make a memorable experience for attendees. For the eighth year running, the Exhibition area showcased smart implemented solutions, cutting-edge projects and riveting presentations in the smart city arena and accommodated multiple Agora spaces to listen to selected speakers, discuss congress-level issues and find business opportunities within a market which is expected to **reach $1.42 bn at an annual growth rate of over 22% until 2022***. At the same very place, attendees could search for talent and network in spaces built for the occasion.

The whole event was in accordance with the precepts of the **Towards Zero Waste** initiative, launched in 2015 to reduce residual waste and save resources. This year, the event placed particular emphasis on **cutting single-use plastics**, ahead of EU rules to reduce marine litter, which will come into force by 2021.

Furthermore, the Congress area, including the Auditorium and five Thematic Rooms on the five main topics of this edition -**Digital Transformation, Urban Environment, Mobility, Governance & Finance, and Inclusive & Sharing Cities**- drove debate and generated synergies on crucial issues such as the digital economy and the monopoly of freedom, the power of inclusive thinking, the need for public safety and security, livability and resilience, as well as the transition to a circular economy and smart mobility, an issue that was fully discussed at the co-located **Smart Mobility Congress**, which reflected on **The Next Move** in urban transport. In parallel, more than **60 side events and activities** complemented the Smart City Expo World Congress offer by focusing on the development of new city models. With constant innovative drive as its cornerstone, the **World Smart City Awards** recognized new urban development initiatives, specially the Smart Nation project to transform Singapore into a global benchmark for the deployment of smart urban solutions.

The Smart City Expo World Congress 2018 was a record-breaking edition that draw a clear conclusion: smart cities must be nothing but livable environments: Cities to Live In.

*"Global Smart City Market 2018-2022", September 2018.

Key figures

21,331
VISITORS
+17% INCREASE VS 2017
(58% INTERNATIONAL)

844
EXHIBITORS
+25% INCREASE VS 2017
(81% INTERNATIONAL)

+400
SPEAKERS

+700
CITIES

146
COUNTRIES

+60
SIDE EVENTS

An ever-growing event

Attendees

Year	Attendees
2018	21,331
2017	18,754
2016	16,688
2015	14,228
2014	10,838
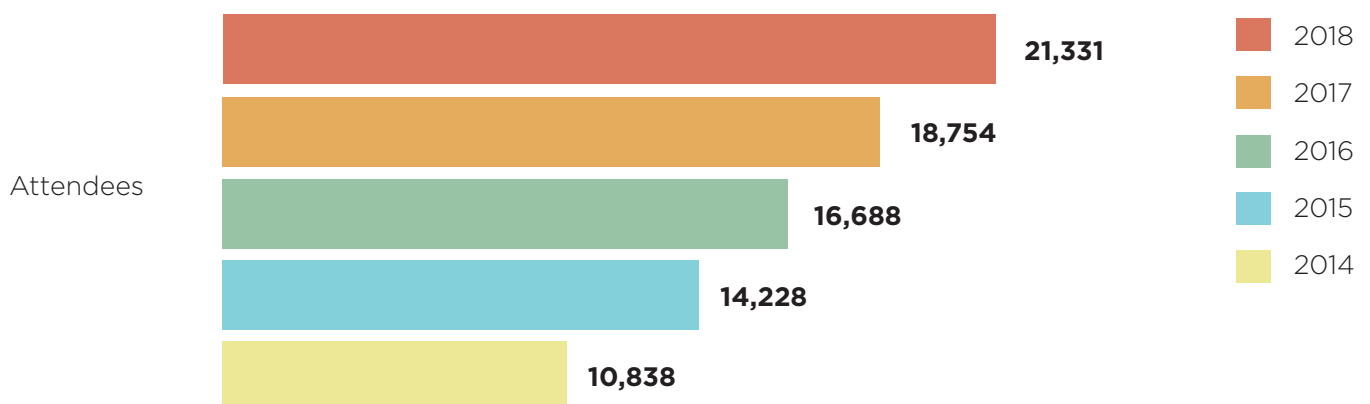
A smarter global community

1 WESTERN EUROPE		4 MIDDLE EAST		7 CENTRAL AMERICA	
2 ASIA		5 NORTH AMERICA		8 OCEANIA	
3 EASTERN EUROPE		6 SOUTH AMERICA		9 AFRICA	

146
COUNTRIES HAVE COME TO VISIT US

Top visiting countries

FRANCE

GERMANY

UNITED STATES

SOUTH KOREA

CHINA

UNITED KINGDOM

ISRAEL

BELGIUM

THE NETHERLANDS

ITALY

6 out of 10 visitors are decision makers

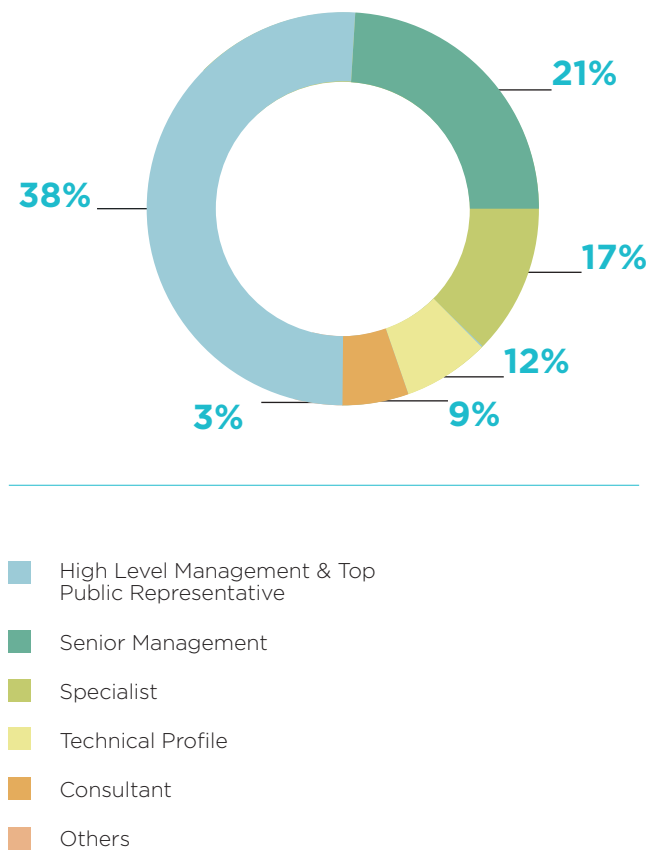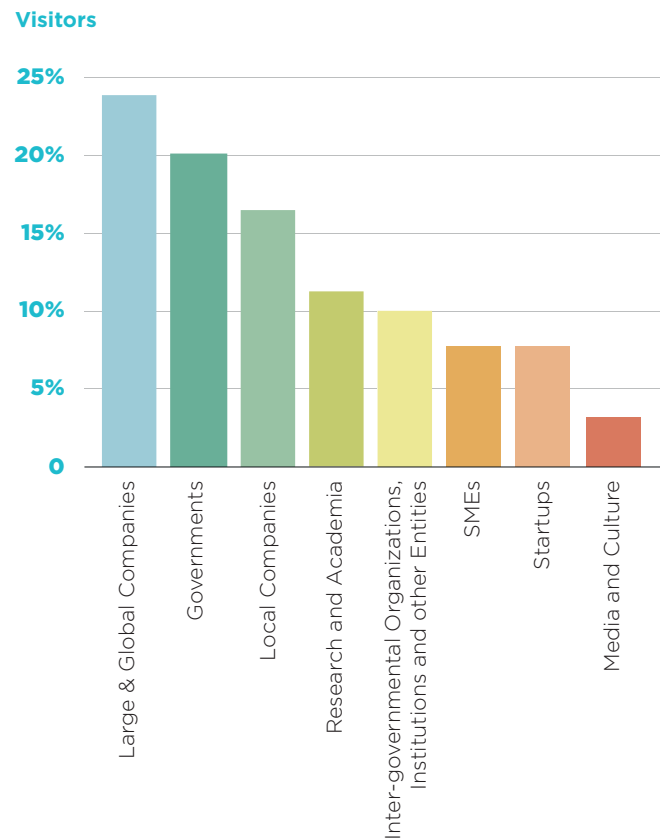# A huge gathering of public and private organizations

38%

21%

17%

12%

9%

3%

- High Level Management & Top Public Representative
- Senior Management
- Specialist
- Technical Profile
- Consultant
- Others

Visitors

25%
20%
15%
10%
5%
0

Large & Global Companies
Governments
Local Companies
Research and Academia
Inter-governmental Organizations, Institutions and other Entities
SMEs
Startups
Media and Culture

97%
OF VISITORS SAY THEY WILL RETURN NEXT YEAR

97%
OF PARTICIPANTS CONSIDER THAT SCEWC IS THE BENCHMARK EVENT FOR CITIES

92%
OF PARTICIPANTS ARE SATISFIED WITH THE QUALITY OF THE CONTACTS MADE

Widespread media interest

+400

JOURNALISTS
REGISTERED AT
THE EVENT

2,682

MEDIA ITEMS
AUDIENCE: 582.163.912

50

MEDIA
PARTNERS

Global digital reach

+110,000

FOLLOWERS IN
SOCIAL MEDIA

34M

SOCIAL MEDIA
IMPRESSIONS

627,111

WEB VISITS
(FROM 212 COUNTRIES)

17,000

MENTIONS OF
#SCEWC18

2.
BARCELONA DIGITAL CITY: THE RIGHT TO THE SMART CITY

The integration of technology and data into city management to provide better services to citizens and to make government more transparent, participative and effective, has turned Barcelona into a benchmark for the smart city concept in the world.

The **Barcelona Digital City Plan 2017-2020**, aimed at driving technological sovereignty and fostering an inclusive digital economy, has prompted a number of notable initiatives to address critical urban challenges such as affordable housing and sustainability. The digitization of diverse administrative procedures, the outline of directives for transparent procurement and digital infrastructures, as well as opening city data to local companies through a blockchain-based platform supports the objective of rethinking the smart city to better respond the citizens' needs and achieve a more **"open, equitable, circular and democratic city."**

At Smart City Expo World Congress 2018, the most pressing challenges were brought up to debate. Barcelona demanded **"climate justice"** to fight climate change and stressed the need to find new formulas by launching the **Affordable Housing Challenge** together with New York City.

The City Council booth integrated **19 companies supported by Barcelona Activa**, all together with a turnover of €50 million in 2017, and the presentations translated the need for social innovation.

The booth was designed in order to build up a space for networking and collaboration between different stakeholders to **foster public-private-partnership** (PPP) resulting in a **more plural and resilient local economy**, as well as better urban planning and infrastructures.

Presentations and workshops by local companies and associations enhanced the transformative power of **Innovative Public Procurement, Ethical Digital Standards, IoT and 5G** to develop innovative services, co-creation with citizens, smart mobility solutions and other digital tools for making the world a better place.

These themes along with other crucial topics such as **Digital Inclusion, Democracy** and **Digital Rights** were also highlighted at Congress sessions by representatives from Barcelona's government:

OPENING SESSION
Cities to Live In
Gerardo Pisarello - First Deputy Mayor

PLENARY SESSIONS
Deadline 2020: European Cities Getting the Job Done
Ada Colau - Mayor

Urban Innovation Processes in Smart City Expo Host Cities
Lluís Gómez - Commissioner for Economic Promotion, Enterprise and Innovation

Bringing Down Barriers: What Building an All-Inclusive Society Means
Francesca Bria - Chief Technology and Digital Innovation Officer

THEMATIC SESSIONS

Barcelona's Sustainable Mobility Strategy
Álvaro Nicolás - Mobility Advisor

The Circular Economy: Shaping Tomorrow's Business
Lluís Gómez - Commissioner for Economic Promotion, Enterprise and Innovation

Gómez also handed out the **City Award** at the **World Smart City Awards ceremony**.

Furthermore, the City Council jointly with Barcelona Activa promoted several **networking and matchmaking activities** with the support of Smart City Expo World Congress.

Eventually, the local government, which opened the Smart City Expo World Congress with a **Welcome Dinner** attended by **Mayor Ada Colau** and more than 100 representatives of cities, institutions and corporations, highlighted that the event made networking with CIOs from other cities much easier by facilitating knowledge sharing and great international exposure.

This exposure was all the more amplified by the **Smart City Week**, aimed at making the smart city concept more familiar to citizens throughout a myriad of activities all around the city, and the **Days for Climate**, a series of initiatives to highlight the commitments made by the city to take on the effects of climate change.

3.
TOWARDS ZERO WASTE

Worldwide waste generation is increasing faster than any other environmental pollutant. So, measurable and inclusive action in this sector is urgently required as transforming solid waste and material management systems could reduce global emissions by 20%.

Smart City Expo World Congress is committed to **helping create efficient, inclusive and sustainable cities**. Hence, the show should lead by example.

One more year, the event prompted the **Towards Zero Waste** initiative, aimed at reducing waste, saving resources and ensuring maximum sustainability.

This year's strategy took a leap forward in **cutting single-use plastics** during the event, ahead of **new EU rules to reduce marine litter,** which will come into force by 2021.

These were some of the actions implemented to work Towards Zero Waste:

NO SINGLE-USE PLASTICS

- The event stayed **free from single-use plastics,** helping save **266.2 kg of plastics.**

- All drinks were sold in glass containers.

- Catering menus avoided plastic packaged products.

- Treated water stations and reusable glass bottles were available.

ENVIRONMENTAL AWARENESS

- The event was **carbon neutral.** All CO_2 emissions generated by the organization of the event were offset by buying **Verified Emission Reduction Carbon Credits** for high quality projects in India, China, and Turkey.*
  - CO_2 compensation: **181.25 tons**

- All participants were informed on how to offset their participation at the event via the **Clean CO$_2$ Platform.** Details were explained through the event's app.

- **Solar panels** were installed on the roof of the venue, thus a great percentage of the energy used by the event came from renewable sources.

- During assembly and dismantling, exhibitors were constantly informed on how to manage hazardous waste.

* More details about the compensation:

clean CO₂
Certified
EV000120190008
www.clean-co2.com

PAPERLESS

- All the paper used at the stands was collected at the end of the event.

- Exhibitors were encouraged to use **electronic invoicing: 4,220 invoices** were sent using electronic methods, helping save **21 kg of paper.**

- Digital magazines were available in the Press Corners.

- **44 QR codes** were displayed at strategic places throughout the venue for downloading the app.

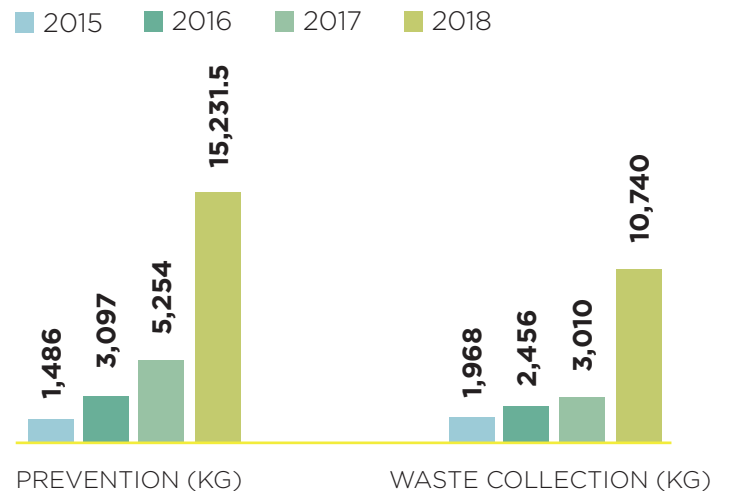- The **app was downloaded 5,214 times,** helping save **78 kg of paper,** 39% more than in 2017.

RECYCLING

- Lanyards, passes and pass holders were made of **recycled materials** and could be discarded at the return point to be recycled again, promoting the **circular mindset.** More than **3,500 accreditations were returned,** helping save **52.6 kg of material.**

- Special containers for separating waste were available around the venue, with dedicated volunteers to inform and help visitors recycle. **2,560 kg of paper, 3,060 kg of packaging and 120 kg of organic waste** were collected.

REUSE

- 23.000 m² of carpet from corridors and ServiFira were reused after the event. This is the equivalent of **6,900 kg of waste** prevention.

- **7,990 kg** of other material from communal areas, collaborative exhibitors and signage was reused or donated to several local associations.

■ 2015   ■ 2016   ■ 2017   ■ 2018

	PREVENTION (KG)	WASTE COLLECTION (KG)
2015	1,486	1,968
2016	3,097	2,456
2017	5,254	3,010
2018	15,231.5	10,740

Money for a cause

Up to €3,000 raised from Smart City Expo merchandising was donated to **UNHCR** emergencies in areas where conflict has displaced people from their homes.

4.
LAYOUT OF THE EVENT

EXHIBITION AREA
A huge showcase where 844 exhibitors displayed the latest products and services for cities.

CONGRESS AREA
The heart of the debate, where worldwide speakers shared their expert insights in a wide variety of sessions.

MOBILITY ROOM
The epicenter of the mobility conversation, featuring the 2nd edition of the **Smart Mobility Congress.**

CENTRAL DISTRICT
A key information point to buy SCEWC's reusable bottles and merchandising and meet our Sales Team at the City Hall. Attendees could also attend the sessions happening at this open Agora and discover our World Smart City Awards finalists. A water station was available to quench attendees' thirst.

EAST DISTRICT
A place to take a seat on attendees' way to or from the Congress. A café was located there, as well as an Agora with sessions going on all day. A Press Corner and a water station were available in this area.

WEST DISTRICT
Another open space for debating on city challenges while grabbing a bite. A Press Corner and a water station were also at the attendees' disposal.

THE VILLAGE
The place to unwind, network in a relaxed atmosphere or grab a bite, with various catering options and resting areas. The **Test Driving** activities and other mobility innovations were also showcased in this area.

5. PARTNERS

Smart City Expo World Congress is possible only with the support of this **powerful community of corporate and institutional partners.**

We are happy to join forces and keep on working together towards more sustainable, empowered and humane cities.

GLOBAL PARTNERS

CISCO   Deloitte.   FCC   ferrovial services   FIWARE   HUAWEI

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INDUSTRY PARTNERS

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minsait An Indra company   NEC   SIEMENS Ingenuity for life

KNOWLEDGE PARTNER

McKinsey&Company
MCKINSEY GLOBAL INSTITUTE

SUPPORTING INSTITUTIONS

European Commission

iCEX

Generalitat de Catalunya

Diputació Barcelona

100 RESILIENT CITIES

AMB — Àrea Metropolitana de Barcelona

Ametic

C4O CITIES

ETSI World Class Standards

GSMA

I·C·L·E·I Local Governments for Sustainability

IDB

metropolis

MOBILE WORLD CAPITAL BARCELONA

UCLG United Cities and Local Governments

UITP ADVANCING PUBLIC TRANSPORT

UN HABITAT FOR A BETTER URBAN FUTURE

WORLD BANK GROUP

HOSTED BY

Ajuntament de Barcelona

ORGANIZED BY

Fira Barcelona

EVENT PARTNERS

acciona Mobility

ALSTOM

AXIS COMMUNICATIONS

BOUYGUES CONSTRUCTION

COLAS

cellnex driving telecom connectivity

citelum GROUPE eDF

DASSAULT SYSTEMES

T···

el CONSORCI barcelona ZONA FRANCA

ENGIE

esri THE SCIENCE OF WHERE

INESA 雲賽 上海仪电

isbak Istanbul IT and Smart City Technologies Inc.

Itron

MOBILEYE An Intel Company

NTT

Rambus

Schréder Experts in lightability™

Signify

SUEZ

ubiwhere

urbaser

WORLD SENSING CONNECTED OPERATIONAL INTELLIGENCE

COLLABORATING ORGANIZATIONS

AEBALL · AER Assembly of European Regions · CNCA Carbon Neutral Cities Alliance · CDP Driving Sustainable Economies · CEEC Clúster de l'Energia Eficient de Catalunya · Construction21 The social media for sustainable building & cities · Covenant of Mayors for Climate & Energy EUROPE

EFI · EIP-SCC · enerTIC · Feceminte Federació Catalana d'Empreses Instal·ladores i Integradores de Telecomunicacions · Forética CLÚSTER CAMBIO CLIMÁTICO · FNP Frente Nacional de Prefeitos · ICMA INTERNATIONAL CITY/COUNTY MANAGEMENT ASSOCIATION

IPI INTERNATIONAL PARKING INSTITUTE · IPWCA Int'l Pneumatic Waste Collection Assoc · MAJOR CITIES OF EUROPE IT USERS GROUP · MedCités MedCities · MERCOCIUDADES · OSGP ALLIANCE · POLIS CITIES AND REGIONS FOR TRANSPORT INNOVATION

SMART CITIES ASSOCIATION · Smart Space · telecos.cat enginyers de telecomunicació, electrònica i multimèdia-audiovisual · Transprime · URBACT ESPAÑA · UTA Urban Technology Alliance

AREA SPONSORS

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FuturENERGY · Gestores de RESIDUOS · Guiri Business · INDUSTRIAmbiente · INTELIGENTNE MIASTA I REGIONY.pl · Interempresasmedia

IoTGN IoT GLOBAL NETWORK · IoTNOW HOW TO RUN AN IoT ENABLED BUSINESS · MR MATERIA RINNOVABILE RM RENEWABLE MATTER · Metropolitan BARCELONA BE PART OF IT · MY DEAR DRONE · NAVIGANT RESEARCH

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Global Partners

CISCO

Cisco designs and sells broad lines of products, provides services and delivers integrated solutions to develop and connect networks around the world, building the Internet. Over the last 30 plus years, we have been the world leaders in connecting people, things and technologies -to each other and to the Internet- realizing our vision of changing the way the world works, lives, plays and learns. We have expanded to new markets that are a natural extension of our core networking business, as the network has become the platform for automating, orchestrating, integrating, and delivering an ever -increasing array of IT- based products and services. We are focused on helping our customers achieve their desired business outcomes. Cisco customers include businesses of all sizes, public institutions, governments, and communications service providers. They look to us as a strategic partner to help them use IT to enable, differentiate, or fundamentally define their business strategy and drive growth, improve productivity, reduce costs, mitigate risk, and gain a competitive advantage in an increasingly digital world.

www.cisco.com

Deloitte.

"Deloitte" is the brand under which tens of thousands of dedicated professionals in independent firms throughout the world collaborate to provide audit & assurance, consulting, financial advisory, risk advisory, tax and related services to select clients.

www.deloitte.com

FCC

The FCC group, a world leader in Environmental Services, Water Management and Infrastructures, has been delivering Services to Cities for more than 115 years and is present in 40 countries, with 57,000 people and 6 billion euro turnover. FCC Environment provides environmental services to 60 million people in over 5,000 municipalities. From waste management and recycling to every municipal service, it processes annually 24 million tons of waste at nearly 200 sustainable facilities, recovering 3.5 million tons of recyclables and 300MW of non-fossil power. FCC Industrial is the company specialized in activities for the industrial sector, like industrial EPC projects, maintenance and energy efficiency of cities, operation and maintenance of electric power plants, electromechanical installations, execution of electrical lines and developing intelligence systems.

www.fcc.es

"At Smart City Expo World Congress, we increase the power of our brand, we amplify what we do on a global stage, we have one-to-one conversations with customers and prospects, and we learn. So, it's a great value for the investment that we make."

Max Claps
Global Lead Future Cities, SAP

ferrovial
services

Ferrovial Services is one of the four business divisions of Ferrovial, one of the world's leading infrastructure and service operators. With over 50 years of experience and nearly 80,000 employees, Ferrovial Services performs activities along the value chain (consulting, design, operation and whole life cycle maintenance) in 10 countries around the world, providing our services to more than 1,000 city councils.

We provide a broad range of specialized services for the following markets: environmental services, transport infrastructure management, facilities management, resources and industrial, utilities, social and health, and mobility.

Innovation is one of our key company pillars for addressing this challenging and changing context. The model of Ferrovial Services provides a more social, collaborative, efficient, safe and environmentally-driven approach for the local communities where it works on.

www.ferrovial.com

HUAWEI

Huawei is a leading global provider of information and communications technology (ICT) infrastructure and smart devices. With integrated solutions across four key domains –telecom networks, IT, smart devices, and cloud services– we are committed to bringing digital to every person, home and organization for a fully connected, intelligent world.

For government and public sectors, financial services, energy, transportation, and manufacturing industry customers, our goal is to build open, flexible, resilient, and help our customers achieve success through digital transformation.

At Huawei, innovation focuses on customer needs. We invest heavily in basic research, concentrating on technological breakthroughs that drive the world forward. We have more than 180,000 employees, and we operate in more than 170 countries and regions.

e.huawei.com

FIWARE

Management layer that provides a complete picture of what is going on in the city. The City becomes an enabler of an open data marketplace, where right-time and historic information from inside the City can be merged together with data from external data providers, which can then be monetized. This data space will enable not only better governance of the City and management of City Services (predictive and prescriptive models) but the creation of new innovative services by third parties. Partnering with front-runner cities that share the vision, FIWARE is leading the definition of implementation-driven standards in this area.

www.fiware.org

mastercard

Mastercard is a technology company in the global payments industry. Our global payments processing network connects consumers, financial institutions, merchants, governments and businesses in more than 210 countries and territories. Mastercard products and solutions make everyday commerce activities –such as shopping, traveling, running a business and managing finances– easier, more secure and more efficient for everyone. Mastercard is committed to helping cities become more inclusive, more sustainable and more efficient by applying technology, data insights and partnerships to the challenges of an increasingly urban world. Visit www.citypossible.com to learn more about our collaborative and people-centric approach to urban development.

www.citypossible.com

Microsoft

Founded in 1975, Microsoft (Nasdaq "MSFT") empowers every person and every organization on the planet to achieve more. With an estimated 70 percent of the population living in cities by 2050, cities and citizens will face challenges that require a new set of tools. Digital technologies –in the form of cloud computing, the Internet of Things, and ethical artificial intelligence– are starting to transform communities, making them safer, healthier, and more sustainable. With our diverse partner ecosystem, an extensive portfolio of solutions and a trusted, secure and open platform, we are uniquely positioned to help you address your city's most pressing issues. We recognize that cities are unique, have different needs and require practical approaches. Microsoft CityNext is the bridge to help your city meet these challenges-to start from where your city is today and progress toward achieving what's next for your city.

www.microsoft.com/citynext

MSHEIREB PROPERTIES
QATAR

"Msheireb Properties" mission is to change the way people think about urban living and to improve their overall quality of life, through innovations that encourage social interaction, respect for culture, and greater care for the environment.

An emerging leader in sustainable development, its signature project Msheireb Downtown Doha employs a new approach to urban planning by combining traditional methods and modern technology aimed at preserving the environment as well as the cultural identity of Qatar.

Msheireb Properties partnered with industry leaders and experts in order to align the architectural lessons of the past with the latest in eco-friendly technologies in a language that is relevant, enriching and truly Qatari. The new language will be used to create buildings of a shared DNA, reviving local heritage and culture through a unified architectural idiom.

www.msheireb.com

SAP

Cities of the future bring together livability and prosperity. Cities will be green and sustainable, easy to get around, accountable to their citizens and have happy and healthy communities. SAP empowers cities' ecosystems to achieve quality of life and economic growth with intelligent digital solutions and innovative business models.

SAP has a 45-year history of transforming industries, growing economies, lifting up societies and sustaining our environment. Because it's the best-run businesses that make the world run better and improve people's lives.

www.sap.com/industries/smart-cities.html

SIEMENS
Ingenuity for life

Cities support a crucial part of development as a whole, tackling growing urbanization and the challenges of climate change under often critical financial conditions. Unlocking the potential of digitalization for cities, Siemens combines urban hardware experience with software skills. Siemens offers its cloud-based, open IoT operating system MindSphere to make infrastructure components smart, while preventing equipment failures before they happen. Connected machines upload data to the cloud to be analyzed. That's where data turns into business insights that can increase efficiency and profitability.

Siemens is a global technology powerhouse that has stood for engineering excellence, innovation, quality, reliability and internationality for 170 years. One of the world's largest producers of energy-efficient, resource-saving technologies, Siemens is a pioneer in infrastructure solutions.

www.siemens.com/cities

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Industry Partners

aws

Amazon Web Services (AWS) Worldwide Public Sector helps government, education, and nonprofit customers deploy cloud services to reduce costs, drive efficiencies, and increase innovation across the globe. With AWS, you only pay for what you use, with no up-front physical infrastructure expenses or long-term commitments. Public Sector organizations of all sizes use AWS to build applications, host websites, harness big data, store information, conduct research, improve on-line access for citizens, and more. AWS has dedicated teams focused on helping our customers pave the way for innovation and, ultimately, make the world a better place through technology.

www.aws.amazon.com/smart-cities

FIWARE

FIWARE envisions the city as a platform that breaks vertical information silos by creating a Context Information Management layer that provides a complete picture of what is going on in the city. The City becomes an enabler of an open data marketplace, where right-time and historic information from inside the City can be merged together with data from external data providers, which can then be monetized. This data space will enable not only better governance of the City and management of City Services (predictive and prescriptive models) but the creation of new innovative services by third parties. Partnering with front-runner cities that share the vision, FIWARE is leading the definition of implementation-driven standards in this area.

www.fiware.org

BOSCH
Invented for life

Bosch is transforming the cities of the future into vibrant, attractive, and sustainable places for people to be. These connected cities are interactive places where everyday life is easy and efficient and where people are in tune with each other and their city. We provide connected solutions, devices, and information for people in the city. Working with city stakeholders and partners, we strive to simplify urban mobility, enhance safety and security, optimize the use of resources, and support citizen participation. The Bosch Group's strategic objective is to deliver innovations for a connected life. Bosch improves quality of life worldwide with products and services that are innovative and spark enthusiasm. In short, Bosch creates technology that is "Invented for life."

www.bosch.com/smartcities

HEXAGON

Hexagon is a global leader in digital solutions that create Autonomous Connected Ecosystems (ACE), a state where data is connected seamlessly through the convergence of the physical world with the digital, and intelligence is built-in to all processes. Hexagon's industry-specific solutions leverage domain expertise in sensor technologies, software, and data orchestration to create Smart Digital Realities™ that improve productivity and quality across manufacturing, infrastructure, safety and mobility applications.

www.hexagon.com

Mastercard is a technology company in the global payments industry. Our global payments processing network connects consumers, financial institutions, merchants, governments and businesses in more than 210 countries and territories. Mastercard products and solutions make everyday commerce activities –such as shopping, traveling, running a business and managing finances– easier, more secure and more efficient for everyone. Mastercard is committed to helping cities become more inclusive, more sustainable and more efficient by applying technology, data insights and partnerships to the challenges of an increasingly urban world. Visit www.citypossible. com to learn more about our collaborative and people-centric approach to urban development.

www.citypossible.com

Minsait, an Indra company (www.minsait.com), is the leading company in digital transformation and information technology consulting in Spain and Latin America. Minsait possesses a high degree of specialization and knowledge of the sector, which it backs up with its high capacity to integrate the core world with the digital world, its leadership in innovation and digital transformation and its flexibility. In this way, it focuses its range of products and services on high-impact value propositions, based on end-to-end solutions, with a remarkable degree of segmentation. This enables it to achieve tangible impacts for its customers in every industry, with a transformational focus. Its capabilities and leadership are demonstrated in its product range, under the brand name Onesait, and its across-the-board range of services.

www.minsait.com

Founded in 1975, Microsoft (Nasdaq "MSFT") empowers every person and every organization on the planet to achieve more. With an estimated 70 percent of the population living in cities by 2050, cities and citizens will face challenges that require a new set of tools. Digital technologies –in the form of cloud computing, the Internet of Things, and ethical artificial intelligence– are starting to transform communities, making them safer, healthier, and more sustainable. With our diverse partner ecosystem, an extensive portfolio of solutions and a trusted, secure and open platform, we are uniquely positioned to help you address your city's most pressing issues. We recognize that cities are unique, have different needs and require practical approaches. Microsoft CityNext is the bridge to help your city meet these challenges-to start from where your city is today and progress toward achieving what's next for your city.

www.microsoft.com/citynext

NEC can provide a Holistic approach for Smart Cities enabling an integrated solution to be deployed in an efficient way, together with Advanced Vertical Solutions for Smart Services.

Today what the city really needs is a solution engineered to manage a multitude of evolving smart services whilst enhancing its inhabitants quality of life. The NEC Platform acts as the "brain" of the city, monitoring and controlling various vertical services.

NEC also provides Solutions based on smart technologies helping to optimize resource consumption and improve services through better management of demand and supply. In that way the city can offer better services to the citizens.

www.necsmartit.com

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SIEMENS
Ingenuity for life

Cities support a crucial part of development as a whole, tackling growing urbanization and the challenges of climate change under often critical financial conditions. Unlocking the potential of digitalization for cities, Siemens combines urban hardware experience with software skills. Siemens offers its cloud-based, open IoT operating system MindSphere to make infrastructure components smart, while preventing equipment failures before they happen. Connected machines upload data to the cloud to be analyzed. That's where data turns into business insights that can increase efficiency and profitability.

Siemens is a global technology powerhouse that has stood for engineering excellence, innovation, quality, reliability and internationality for 170 years. One of the world's largest producers of energy-efficient, resource-saving technologies, Siemens is a pioneer in infrastructure solutions.

www.siemens.com/cities

"The Smart City Expo World Congress is such a gathering of cities, governments and corporate partners that, for us, having a large presence establishes Mastercard as an orchestrator in the smart city industry. It's a chance to engage with cities and expose our solutions."

Maddie Callis
Director, City Possible, Mastercard

Knowledge Partner

McKinsey&Company

MCKINSEY GLOBAL INSTITUTE

The McKinsey Global Institute (MGI) is the business and economics research arm of McKinsey & Company established in 1990 to develop a deeper understanding of the evolving global economy. Our mission is to provide leaders in the commercial, public, and social sectors with the facts and insights on which to base management and policy decisions. The partners of McKinsey fund MGI's research; it is not commissioned by any business, government, or other institution. All MGI publications are available for free on our website. McKinsey & Company is a global management consulting firm that serves a broad mix of private, public and social sector institutions. From more than 120 offices in 65 countries in the world, we help our clients make significant and lasting improvements to their performance and realize their most important goals.

www.mckinsey.com/mgi

Supporting Institutions

European Commission

The European Commission is the EU's executive body. It represents the interests of the whole European Union. The Commission's main roles are to propose legislation which is then adopted by the co-legislators, the European Parliament and the Council of Ministers; enforce European law (where necessary with the help of the Court of Justice of the EU); set objectives and priorities for action, outlined yearly in the Commission Work Program, and work towards delivering them, as well as managing and implementing EU policies, the budget, and representing the Union outside Europe. The European Commission has its headquarters in Brussels, Belgium, and some services are also in Luxembourg. The Commission has Representations in all EU Member States and 139 Delegations across the globe.

www.ec.europa.eu

Generalitat de Catalunya

The Government of Catalonia has a corporate booth hosting 20 innovate companies from different Smart City sectors. Information on Smart Catalonia and its strategy by several public enterprises is also shown. The Smart Catalonia Strategy is designed to make Catalonia an international smart region benchmark, taking advantage of digital technology and information to encourage innovation in public services, foster economic growth and promote a more intelligent, sustainable and integrative society. With this strategy the Government aims to improve the services provided for citizens, thanks to the more efficient use of resources and a more intelligent performance by handling the maximum amount of available information in real time.

www.gencat.cat

ICEX

ICEX Spain Trade and Investment is a public business organization which works worldwide with the objective of promoting the internationalization of Spanish companies in order to improve their competitiveness, as well as boosting foreign investment in Spain. ICEX offers its services through 98 Economic and Commercial Offices worldwide, the largest foreign network, 31 Provincial and Territorial Trade Offices in Spain and 17 Business Centers abroad, keeping close contact with Spanish companies. Every year, ICEX organizes around 1,200 promotional activities in foreign markets and answers over 90,000 queries on internationalization.

www.icex.es

Diputació Barcelona

Diputació de Barcelona, as the Provincial Council, provides financial, technical and technological resources to the 311 municipalities in its area to support them in the process of becoming smart cities. Since early 2016 Diputació de Barcelona offers a multi-tenant sensor platform to collect, process and analyze data from urban devices. Currently 12 cities and local organizations are using it. In the exhibition area, Diputació de Barcelona will show major Smart region projects in which the institution is involved (regional platform, new apps, open government program, library bus, sustainability and energy efficiency solutions, etc.). Projects from several municipalities and local authorities in the area will also be shown at the booth (Sentilo platform use cases, security app, eGovernment solutions, City Protocol Society initiatives, issue reporting apps, etc.).

www.diba.cat

100 RESILIENT CITIES

100 Resilient Cities-Pioneered by The Rockefeller Foundation (100RC) is dedicated to helping cities around the world become more resilient to the physical, social and economic challenges that are a growing part of the 21st century. 100RC supports the adoption and incorporation of a view of resilience that includes not just the shocks -earthquakes, fires, floods, etc.- but also the stresses that weaken the fabric of a city on a day to day or cyclical basis.

www.100resilientcities.org

Ametic

We are the association representing the digital technology industry sector in Spain. Our members include large, medium and small leading IT companies, Telecommunications, Electronics, Digital Services and Content, leading companies driven by the digital transformation as well as other industry associations. OUR VISION - A society that benefits from today's opportunities offered by digital technology in Spain and considers this sector as the main engine for the achievement of economic and social objectives. OUR MISSION - To promote, for the benefit of our members, the best economic, policy and legislative environment that facilitates the development and the use of digital technologies. We want to achieve this goal by working as constructive partners with national and European public and private institutions, as well as with other international organizations.

ametic.es

AMB : Àrea Metropolitana de Barcelona

The Barcelona Metropolitan Area - AMB is a public body which coordinates metropolitan services and promotes the main assets of thirty-six metropolitan municipalities. It is responsible for the planning of public space, housing, mobility and public transport, waste management, and the whole water cycle. It has also taken on new functions in the field of urban planning, including policies on the environment, open spaces, economic promotion and social and territorial cohesion. The AMB also works to implement new data solutions to facilitate citizens' day-to-day lives applying a wide range of smart responses to improving public transport service, urban parks and the 32km of beaches. Building an efficient city demands placing people at the forefront of every activity and public service, and developing creative and innovative solutions from this perspective. A liveable city is one that uses technological advances to improve the quality of life of its inhabitants, thus generating new high-skilled jobs. This is the goal of the AMB.

www.amb.cat

C40 CITIES

C40 Cities connects 96 of the world's greatest cities, representing 700 million people and more than one quarter of the global economy. Created and led by cities, C40 supports cities to collaborate effectively, share knowledge and drive meaningful, measurable and sustainable action on climate change. The current chair of C40 is Mayor of Paris Anne Hidalgo; three-term Mayor of New York City Michael R. Bloomberg serves as President of the Board. C40 is governed by a Steering Committee made up of C40 member city mayors, elected by their peers to represent the geographic diversity of the network.

www.c40.org

ETSI is the recognized regional standards body –European Standards Organization (ESO)– dealing with telecommunications, broadcasting and other electronic communications networks and services. Its role includes supporting European regulations and legislation through the creation of Harmonized European Standards. ETSI was initially founded to serve European needs but now its standards are used the world over. It collaborates and works in partnership with diverse types of organizations and programs including the international Third Generation Partnership Project (3GPP™), aimed at developing 4G and 5G mobile communications.

www.etsi.org

The GSMA Connected Living programme is working with mobile operators, governments and city councils to agree a common approach to smart city solutions that will deliver real, long-term benefits to businesses and citizens. Our smart cities initiative provides an array of resources which can assist governments, city planners and digital service providers in their quest to deploy connected solutions and create cities that are truly smart.

www.gsma.com

ICLEI is the leading global network of more than 1,500 cities, towns and regions committed to building a sustainable future. By helping the ICLEI Network to become sustainable, low-carbon, ecomobile, resilient, biodiverse, resource-efficient, healthy and happy, with a green economy and smart infrastructure, we impact over 25% of the global urban population.

www.iclei.org

The effects of rapid urban growth combined with the impact of climate change are creating new challenges for cities, which require better usage of information. To manage these challenges and deliver better urban services, cities need to better leverage technology, people and processes. IDB works to improve lives in Latin America and the Caribbean through financial and technical support for countries working to reduce poverty and inequality. It helps improve health and education, and advance infrastructure. As the leading source of development financing for Latin America and the Caribbean, it conducts extensive research; provide loans, grants, and technical assistance. We are committed to achieving measurable results and the highest standards of increased integrity, transparency, accountability and sustainability.

www.iadb.org

Metropolis is the global network of major cities and metropolitan areas. Metropolis brings together the governments of 137 urban agglomerations worldwide. With over 30 years of history, today the association is the focal point of expertise on metropolitan governance. Raising the voices of metropolises to the global agenda and building capacity to deliver public policies and services, Metropolis contributes to finding common answers to the challenges of metropolisation. Metropolis operates as the metropolitan section of the UCLG since its constitution, in 2004.

www.metropolis.org

Mobile World Capital Barcelona is an initiative driving the digital advancement of society while helping improve people's lives globally. With the support of the public and private sector, MWCapital focuses on four areas: the acceleration of innovation through digital entrepreneurship, the transformation of industries through digital technology, the rise of digital talent among new generations and professionals, and the reflection on the impact of technology in our society.

www.mobileworldcapital.com

UCLG
United Cities
and Local Governments

United Cities and Local Governments (UCLG) is the world organization of local and regional governments and their associations, representing and defending their interests on the world stage. UCLG's network of members represents 70% of the world's total population and is present in all world regions: Africa, Asia-Pacific, Europe, Eurasia, Latin America, the Middle East and West Asia, and North America; organized into 7 regional sections, 1 metropolitan section and 1 Forum of regions. This network includes over 240,000 towns, cities, regions and metropolises, and over 175 associations of local and regional governments in 140 countries. Among UCLG's key areas of political interest are: local democracy, climate change and environmental protection, the achievement of the Sustainable Development Goals, local finance, urban development and city diplomacy in peace building.

www.uclg.org

UN HABITAT
FOR A BETTER URBAN FUTURE

UN-Habitat is the United Nations programme working towards a better urban future. Its mission is to promote socially and environmentally sustainable human settlements development and the achievement of adequate shelter for all.

In October 2016, at the UN Conference on Housing and Sustainable Urban Development –Habitat III– member states signed the New Urban Agenda. This is an action-oriented document which sets global standards of achievement in sustainable urban development, rethinking the way we build, manage, and live in cities. Through drawing together cooperation with committed partners, relevant stakeholders, and urban actors, including at all levels of government as well as the private sector, UN-Habitat is applying its technical expertise, normative work and capacity development to implement the New Urban Agenda and Sustainable Development Goal 11 – to make cities inclusive, safe, resilient and sustainable.

unhabitat.org

UITP
ADVANCING
PUBLIC
TRANSPORT

UITP (International Association of Public Transport) is a passionate champion of sustainable urban mobility and is the only worldwide network to bring together all public transport stakeholders and all sustainable transport modes. We have 1,500 member companies giving access to over 18,000 contacts from 96 countries. Our members are public transport authorities and operators, policy decision-makers, research institutes and the public transport supply and service industry.

www.uitp.org

WORLD BANK GROUP

The World Bank Group has set two goals for the world to achieve by 2030: 1) End extreme poverty by decreasing the percentage of people living on less than $1.90 a day to no more than 3%, and 2) Promote shared prosperity by fostering the income growth of the bottom 40% for every country.

The World Bank Group comprises five institutions managed by their member countries. Established in 1944, the World Bank Group is headquartered in Washington, D.C. We have more than 10,000 employees in more than 120 offices worldwide. The World Bank is a vital source of financial and technical assistance to developing countries around the world. We are not a bank in the ordinary sense but a unique partnership to reduce poverty and support development.

www.worldbank.org

Event Partners

ACCIONA Mobility was born as a solution to the current mobility problem affecting large cities, which is a critical factor for the environment, economic development and the quality of life of its citizens.

We are a *motosharing* service, with a fleet of more than 1,000 electric motorcycles powered by certified 100% renewable energy. This brand is the result of ACCIONA's commitment to sustainability, innovation and the creation of intelligent solutions for cities. Because we believe that urban mobility's future is autonomous, electric and shared.

www.acciona-motosharing.com

As a promoter of sustainable mobility, Alstom develops and markets systems, equipment and services for the transport sector. We offer a complete range of solutions (from high-speed trains to metros, trolleys and e-buses), passenger solutions, customized services (maintenance, modernization), infrastructure, signaling and digital mobility solutions.

Alstom Digital Mobility division uses cutting-edge technology to offer digital solutions for high performance mobility systems. Our portfolio includes signaling, security and communication solutions for rail and new services for city mobility.

The Group, present in 60 countries, employs 34,500 people and recorded sales of €8 billion in the 2017/18 fiscal year.

www.alstom.com

Public safety and mobility are two urbanization challenges with great impact on a city's overall reputation and quality of life. Cities around the world have implemented intelligent video solutions from Axis and partners to make their cities safer, and to improve their overall traffic situation.

As the market leader in network video, Axis is driving the industry by continually launching innovative network products delivering high value to customers through a global partner network. At SCEWC 2018, Axis and partners –Genetec (Unified Security Platform), Citilog (Video-based traffic management), 2N (IP Intercoms), Dedrone (Drone detection), Herta (Facial recognition), ViNotion (Crowd management), Libelium (Wireless sensor networks), Sorama (Acoustic source localization and classification)– showcased real-life solutions that enable a smarter and safer world.

www.axis.com

Bouygues Construction and Colas are developing sustainable and innovative solutions to make cities and local areas more attractive. In the fields of mobility infrastructure and energy production, buildings and services, Bouygues Construction and Colas bring municipalities the benefits of their expertise in design, construction, maintenance and operation.

Local residents gain better quality of life and social connection, sustainable mobility and services that make everyday life easier. Local areas gain better public services along with support for energy and digital transitions. Bouygues Construction and Colas: 100,000 employees worldwide.

www.bouygues-construction.com
www.colas.com

cellnex
driving telecom connectivity

Cellnex Telecom is Europe's leading operator of wireless telecommunications and broadcasting infrastructures with a total portfolio of +28,000 sites throughout Europe, including forecast roll-outs up to 2022. The company operates in six countries: Spain, Italy, France, Netherlands, Switzerland and the United Kingdom.

Cellnex's business is structured in four major areas: telecommunications infrastructures services; audiovisual broadcasting networks, security and emergency service networks and solutions for smart urban infrastructure and services management (smart cities and the "Internet of Things" (IoT)).

The company is listed on the continuous market of the Spanish stock exchange and is part of the selective IBEX 35 and EuroStoxx 600 indexes. Cellnex is also part of the FTSE4GOOD and CDP (Carbon Disclosure Project) and "Standard Ethics" sustainability indexes.

www.cellnextelecom.com

DASSAULT SYSTEMES

Dassault Systèmes, the 3DEXPERIENCE® Company, provides businesses and people with virtual universes to imagine sustainable innovations. Its world-leading solutions transform the way products are designed, produced and supported. Dassault Systèmes' collaborative solutions foster social innovation, expanding possibilities for the virtual world to improve the real world.

The group brings value to over 220,000 customers of all sizes, in all industries, in more than 140 countries.

www.3ds.com

citelum
GROUPE eDF

Citelum, EDF subsidiary, creates a smart, attractive and sustainable world of light. Citelum is a reference in public and artistic lighting worldwide and has developed a wide range of smart services including: videoprotection, traffic management, smart parking, Wi-Fi, Li-Fi, air quality sensors and the services management digital platform MUSE®. Over 1,000 cities and industries in the world have already trusted Citelum: Barcelona, Madrid, Mexico City, São Luis, Santiago de Chile, Copenhagen, Dijon, Nice, Sète, Roma, Venice... With 2,500 employees, the Group generated a turnover of 318 millions euros in 2018.

www.citelum.com

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Deutsche Telekom is one of the world's leading integrated telecommunications companies, with some 156 million mobile customers, 29 million fixed-network lines, and more than 18 million broadband lines. Deutsche Telekom is present in more than 50 countries. With a staff of some 216,000 employees throughout the world, we generated revenue of 74.9 billion euros in the 2017 financial year, about 66 percent of it outside Germany. Our core business, is to provide our customers a seamless, technology-independent telecommunications experience but at the same time we are proactively committing to business areas that open new growth opportunities for us, like in Smart Cities. Making life easier for people and enriching it for the long term is the very essence of what we do. We connect everyone to today's the opportunities.

www.telekom.com

elCONSORCI barcelona ZONA FRANCA

El Consorci de la Zona Franca (CZFB), the first consortium established in Spain (1916), is a public economic revitalization organization which operates mainly in the metropolitan area of Barcelona.

Its main mission is to manage the Zona Franca Industrial Estate and its Zona Franca Customs Authority. It also manages its assets and promotes the international projection of Barcelona, Catalonia and Spain in the exhibition, logistics and real estate sectors. The Estate has more than 12,000,000 m^2 of industrial and urban land in various stages of development.

Its corporate mission is to promote social progress and job creation by fostering industrial and logistics growth, boosting business development and providing platforms for economic activity and technology transfer. Over the years it has contributed to economic and social growth in each successive cycle, thanks to pioneering initiatives.

www.elconsorci.es

esri
THE SCIENCE OF WHERE™

Esri, the global market leader in geographic information systems (GIS), offers the most powerful mapping and spatial analytics technology available. Since 1969, Esri has helped customers unlock the full potential of data to improve operational and business results. Today, Esri software is deployed in more than 350,000 organizations including the world's largest cities, most national governments, 75% of the Fortune 500, and more than 7,000 colleges and universities. Esri engineers the most advanced solutions for digital transformation, IoT, and location analytics to create the maps that run the world.

www.esri.com

ENGIE

We are a global energy and services group, focused on three core activities: low-carbon power generation, mainly based on natural gas and renewable energy, global networks, and customer solutions. Driven by our ambition to contribute to a harmonious progress, we take up major global challenges such as the fight against global warming, access to energy for all, or mobility, and offer our residential customers, businesses and communities energy production solutions and services that reconcile individual and collective interests.

Our integrated offers are based on digital technologies. Beyond energy, they facilitate the development of new uses and promote new ways of living and working. Our ambition is conveyed by each of our 150,000 employees in 70 countries. Together with our customers and partners, they form a community of imaginative builders who invent and build today solutions for tomorrow.

www.engie.com

INESA 雲賽
上 海 仪 电

In the mission of ushering the development of information industry and serving the smart city, INESA (Group) Co., Ltd. is dedicated to become the provider and operator of total solutions in smart cities. The company is offering urban services to the government, companies or residents in the fields of smart lighting, smart transportation, intelligent safety protection, smart traceability, intelligent manufacturing, smart education and health, smart energy. By devoting themselves to create the ecological system in smart cities, intertwined with an innovative pattern of operation, INESA can level up sustainable development and competitive capability, as well as the quality in our urban life.

www.inesa.com

ISBAK (Istanbul IT and Smart City Technologies Inc.) is the technology company of Istanbul Metropolitan Municipality functioning in the field of Smart City Technologies. In the first years since its foundation, ISBAK carried out the vehicle maintenance and repair services of Istanbul Metropolitan Municipality along with traffic signalization works of Istanbul and in time it extended its area of operations with establishment of its Research and Development department in 1995 and started professional works in the field of Intelligent Transportation Systems with traffic signalization being in the leading position. By its experience and achievements in ITS, it has been honored to become the first Licensed R&D Center in Turkey in 2015.

www.isbak.istanbul

Mobileye, an Intel Company, is a global leader in the development of computer vision and machine learning, localization and mapping, and driving policy for advanced driver assistance systems (ADAS) and autonomous driving.

At Mobileye, saving lives is what drives us. Our ADAS technology is deployed in more than 27 million vehicles today and integrated into hundreds of new car models from the world's major automakers. We began with the simple mission to reduce vehicle collisions and resulting injuries and fatalities. Today we have one of the most advanced collision avoidance systems in the market, with a view to autonomous driving and a further revolution in road safety. We look forward to a virtually collision-free future with our technology at the center of it. Mobileye's retrofit collision avoidance system can be retrofitted to almost any vehicle.

www.mobileye.com

Itron enables utilities and cities to safely, securely and reliably deliver critical infrastructure services to communities in more than 100 countries. Our portfolio of smart networks, software, services, meters and sensors helps our customers better manage electricity, gas and water resources for the people they serve. By working with our customers to ensure their success, we help improve the quality of life, ensure the safety and promote the well-being of millions of people around the globe. Itron is dedicated to creating a more resourceful world.

www.itron.com

NTT Group is one of the world's largest ICT companies with over 100 billion USD in sales, with business footprints in 88 countries and regions, building on our story of innovation of more than 120 years.

NTT Group accelerates customers' digital agenda with full IT stack, full life cycle capabilities and world-leading R&D, including 88 Fortune 100 clients.

In Smart City Expo World Congress, NTT group is pleased to introduce the first smart city proof of concept with the City of Las Vegas as part of the city's digital transformation, collaborating with Dell Technologies.

www.ntt.co.jp/activity/en/global

Rambus

Dedicated to making data faster and safer, Rambus creates innovative hardware, software and services that drive technology advancements from the data center to the mobile edge. Our architecture licenses, IP cores, chips, software, and services span memory and interfaces, security, and emerging technologies to positively impact the modern world. We collaborate with the industry, partnering with leading chip and system designers, foundries, and service providers. Integrated into tens of billions of devices and systems, our products and technologies power and secure diverse applications, including Big Data, Internet of Things (IoT) security, mobile payments, and smart ticketing.

www.rambus.com

Signify

Signify, formerly known as Philips lighting, is the world leader in lighting for professionals and consumers, and lighting for the Internet of Things.

Our Philips products, Interact connected lighting systems and data-enabled services, deliver business value and transform life in homes, buildings and public spaces. With 2017 sales of EUR 7.0 billion, we currently employ approximately 30,000 employees and have a presence in over 70 countries. We unlock the extraordinary potential of light for brighter lives and a better world.

www.signify.com

Schréder
Experts in lightability™

Schréder is a worldwide leader in smart outdoor lighting solutions. The company, founded in 1907, is present in over 35 countries spanning 5 continents. Our engineering heritage means we have been at the forefront of innovation throughout our history. The latest wave of urbanism means city centers are becoming more vital than ever: connectivity is crucial. Experts in lightability™, we propose lighting infrastructures that will play a pivotal role in building Smart Cities and future communication networks.

www.schreder.com

SUEZ

In a world where resources are becoming increasingly scarce, their sustainable management is the challenge of the 21st Century. By 2050 there will be 9.6 billion inhabitants living on our planet, most of them concentrated in cities.

A resourceful city is first and foremost circular, capable of generating the resources that are essentials to the future. SUEZ proposes an integrated vision of the City: environment, transport, energy, street lighting, security, etc. and brings its know-how and smart solutions to all stakeholders to help build a resourceful city where it is pleasant to live.

www.suez.com

ubiwhere

Founded in 2007, Ubiwhere is focused on Research and Innovation of software-based solutions in the areas of Smart Cities, Telecommunications and Internet of the Future. From our headquarters in Portugal and aligned with all our offices worldwide, every day we take on the mission of involving and improving people's lives through the development of cutting-edge technologies. Cities are one of our top priorities and through technological solutions applied to the smart cities sector, we seek to present an integrated and innovative vision that translates into a great contribution to the urban management of the future.

www.ubiwhere.com

WORLD W SENSING
CONNECTED OPERATIONAL
INTELLIGENCE

Worldsensing is a widely recognized global IoT pioneer. Founded in 2008, the Barcelona-based technology provider delivers Operational Intelligence to traditional industries and cities. With over 90 employees in Barcelona, London and Los Angeles, Worldsensing is globally active and has customers in over 50 countries across 6 continents.

www.worldsensing.com

urbaser

Urbaser is a global company leader in environmental management and focuses on sustainability, it provides service to more than 57 million individuals in 25 countries through an enormous organization of more than 31,000 employees and more than 201 subsidiary companies. With its mission of providing global, integrated proposals that are adapted to the needs of its clients, Urbaser organizes its entrepreneurial activities into two major lines of business: urban services and waste treatment. In turn, these two lines are subdivided into four branches of activity: citizen services (urban waste collection, landscaping, and street cleaning), integrated water management, urban waste treatment, and industrial waste treatment. Urbaser is committed to sustainable development as the best way to create social well-being and environmental balance, making its experience and technological means available to its clients.

www.urbaser.com

Hosted by

Organized by

Ajuntament de Barcelona

Fira Barcelona

Towards democratic, open, circular and equitable cities. Barcelona, an innovative and digital city, wants to take advantage of new technologies in order to improve citizens' lives, create new jobs and be more sustainable and collaborative. This new strategy considers public digital services as the key to a more equitable city, reducing social and economic inequalities and ensuring the sovereignty of technology and data. Digital Barcelona works on 4 areas: The city and its challenges; Technology and public innovation; Socioeconomic and innovation ecosystems and the empowerment of citizens. Barcelona goes further than being a Smart City, it is not only about technology, it is all about the people.

www.barcelona.cat

Fira de Barcelona is one of the leading European trade fair institutions and the Spanish market leader, particularly in trade and industrial shows. It has a portfolio of over 80 shows repeating at different times, with 30,000 exhibitors, both direct and represented. Fira also welcomes 2 million visitors from over 200 countries. The institution has some 400,000 sq.m of exhibition floor space, one of the largest in Europe, spread over 2 venues: Montjuïc and Gran Via. Fira de Barcelona has established itself as a global event organizer with an international position, twinned with the unmatchable Barcelona brand, a city with over a century of tradition in the organization of big events.

www.firabarcelona.com

6.
TOPICS

This year's edition concentrated on **five main topics** responding to the key issues cities are facing:

DIGITAL TRANSFORMATION

URBAN ENVIRONMENT

MOBILITY

GOVERNANCE & FINANCE

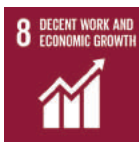**INCLUSIVE & SHARING CITIES**

#SCEWC18

DIGITAL TRANSFORMATION

When Bridging Digital and Physical Means Smarter Living

Disruptive technologies such as Artificial Intelligence, Blockchain, Augmented and Virtual Reality, drones, advanced robotics and all manner of connected objects leveraging IoT and cyber-physical systems, as well as 5G connectivity and cloud platforms, are progressively coating the urban skin and changing the way we live in cities. This shift goes beyond rethinking traffic signals and intersections when cars are fully autonomous and talk to the infrastructure, which they will, to pose just an example. And it brings both opportunities and cultural challenges.

This topic covers the following Sustainable Development Goals:

| 3 GOOD HEALTH AND WELL-BEING | 8 DECENT WORK AND ECONOMIC GROWTH | 9 INDUSTRY, INNOVATION AND INFRASTRUCTURE | 11 SUSTAINABLE CITIES AND COMMUNITIES | 13 CLIMATE ACTION | 16 PEACE, JUSTICE AND STRONG INSTITUTIONS |

THEMATIC PROGRAMS

5G TECHNOLOGY
The next level of connectivity for industries and society

ARTIFICIAL INTELLIGENCE
The day-to-day impact of AI

DATA-DRIVEN CITIES & CLOUD
Making the most of data in a multi-cloud world

BLOCKCHAIN & CRYPTOCURRENCIES
Blockchain transforming the digital economy

INTERNET OF THINGS
Powering the IoT revolution and making sense of data

SAFE CITIES
Challenges and vulnerabilities as our cities become more connected

PARTICIPANT PROFILE

- Chief Digital Officer
- Chief Technology Officer
- Chief Information Officer
- Chief Communications Officer
- Safe Cities Director
- Chief Innovation Officer
- Chief Data Officer
- Head of IT / IT Director
- Director of Digital Transformation
- R&D and Innovation Director
- Director of Blockchain Solutions

- Director of IoT Solutions
- Director of Cybersecurity
- Director of Big Data and Analytics
- Director of Cloud Data and Security
- Director of Public Safety
- Director of Research in Data Science
- Director of Software Development
- Chief Security Officer
- Engineer
- Project Manager
- Specialist

PUBLIC SECTOR REPRESENTATIVES

Some of the government representatives that participated in the event:

- Chief Information Officer - *Municipality of Tel Aviv Yafo, Israel*
- Councillor for Digital Policy and Public Administration - *Government of Catalonia, Spain*
- Chief Data Officer - *City of Los Angeles, USA*
- Chief Digital Officer - *Municipality of eThekwini, South Africa*
- Chief Digital Officer - *City of Helsinki, Finland*
- Director of the National Digital Israel Initiative - *Ministry of Social Equality, Israel*
- Chief Information Officer - *City of Helsinki, Finland*
- Deputy Secretary of Smart City - *Buenos Aires Government, Argentina*
- Director of the Office of Information & Technology - *Ministry of Territorial Planning & Housing, Angola*
- Chief Information Officer - *State of Yucatan, Mexico*

- Deputy General Director of the Digitalization of the Industry - *Ministry of Industry, Trade & Tourism, Spain*
- Chief Information Officer - *City of Paris, France*
- Director - *Ministry of Science and Technology, Taiwan*
- Director of Innovation - *City of Stockholm, Sweden*
- Chief Technology & Digital Innovation Officer - *Barcelona City Council, Spain*
- Chief Innovation Officer - *City of The Hague, Netherlands*
- Chief Director of Strategic ICT Services - *Western Cape Government, South Africa*
- Commissioner of the IT Department - *Taipei City Government, Taiwan*
- Head of Software Engineering and Development - *City of Paris, France*
- Deputy Director of Digital Innovation - *Municipality of Cali, Colombia*

SIDE EVENTS

Some side events related to this topic:

5G empowering Smart Cities strategies and society development

World Data Viz Challenge 2018, Barcelona Round

Launch Announcement of the Urban Technology Alliance

URBAN ENVIRONMENT

Green is Gold in Cities

We can appreciate the poetry of skylines and admire the subtle textures found in concrete buildings. But there is still a lot to be done to improve our urban environment. Beating pollution is certainly a priority, especially considering that 80% of cities around the world exceed the World Health Organization limits of safe air quality levels. But it's not the only one. Cleantech solutions, alternative energy sources and data-driven planning to leverage public space are vital to achieve a zero-carbon society. They are also crucial to conserve urban capital and turn it into a resource-efficient and competitive landscape while safeguarding citizens from environmental pressure and health risks.

This topic covers the following Sustainable Development Goals:

| 6 CLEAN WATER AND SANITATION | 7 AFFORDABLE AND CLEAN ENERGY | 11 SUSTAINABLE CITIES AND COMMUNITIES | 12 RESPONSIBLE CONSUMPTION AND PRODUCTION | 13 CLIMATE ACTION | 15 LIFE ON LAND |

THEMATIC PROGRAMS

ENERGY
Meeting energy demands of smart cities

RESILIENT CITIES
Anticipating the unexpected

CLIMATE CHANGE
Key roles in combating climate change

PUBLIC SPACE & GREEN DISTRICTS
Transforming cities through public space and green districts

URBAN PLANNING
Data revolutionizing the way we plan our cities

CLEANTECH
Innovations for a better planet

PARTICIPANT PROFILE

- Chief Sustainability Officer
- Chief Resilience Officer
- Engineer
- Architect
- Project Manager
- Specialist
- Director of Sustainable Development
- Head of Urban Services
- Director of Water and Wastewater Treatment
- Director of Cleantech Strategy
- Director of Climate Change and Disaster Risk Reduction
- Chief of Housing and Urban Development
- Director of Waste Management
- Director of Urban Planning and Development
- Director of Transport and Infrastructure
- Director of Energy and Utilities
- Director of Renewable Energy and Energy Efficiency

PUBLIC SECTOR REPRESENTATIVES

Some of the government representatives that participated in the event:

- Head of Lighting Department - *Barcelona City Council, Spain*
- Senior Director - *Dubai Land Department, United Arab Emirates*
- Strategic Policy Advisor for Sustainability & Circular Economy - *City of Amsterdam, Netherlands*
- Deputy Secretary for Public Space - *Buenos Aires Government, Argentina*
- Secretary for Urban Development - *State of Parana, Brazil*
- Chief Resilience Officer - *Manchester City Council, UK*
- Head of Center Urban Development - *Ministry of Public Works & Housing, Indonesia*
- Urban Design Manager - *Department of Urban Planning & Municipalities, United Arab Emirates*
- Director - *Ministry of Land, Infrastructure & Transport, South Korea*
- Chief Resilience Officer - *City of Paris, France*
- Director of Urban Development, Housing & Water - *Ministry of Finance, Sri Lanka*
- Deputy Director of City Planning - *Kuala Lumpur City Hall, Malaysia*
- National Director - *Ministry of Territorial Planning & Housing, Angola*
- Deputy Head - *Moscow Department of Natural Resources & Environmental Protection, Russia*
- Chief Resilience Officer - *City of Milan, Italy*
- Chief Resilience Officer - *City of Atlanta, USA*
- Head of the Energy & Environmental Technologies Department - *Ministry for Transport, Innovation & Technology, Austria*
- Head of Urban Development Unit - *City of Munich, Germany*
- Deputy Mayor for City Planning, Climate & Environmental Issues - *City of Gothenburg, Sweden*

SIDE EVENTS

Some side events related to this topic:

Selling Urban Resilience	Climate change information at local level	Smart City Workshop and CiBiX City-Business Dialogues

MOBILITY

Smart Transportation: Ending the Gridlock

The scourge of traffic is still a major concern which takes the biggest economic toll on the largest, most economically vibrant cities. In the US alone, traffic cost $305 billion last year, not to mention the toll in terms of air pollution and stress. However, these consequences don't appear to be enough to discourage people from using cars. In fact, as all manner of app-based transportation and delivery vehicles are packing the streets, transit ridership has begun to dip in some cities. Taking place alongside Smart City Expo World Congress 2018 is the second Smart Mobility Congress, a co-located event focused on the urban mobility challenges faced by modern cities and economies.

This topic covers the following Sustainable Development Goals:

THEMATIC PROGRAMS

FUTURE MOBILITY
Urban mobility 5 years from now

RAILWAY
Megatrains: Land bridge between cities

AUTOMATED VEHICLES
Connected vehicles and the road ahead

PUBLIC TRANSPORT NETWORKS
Customizing the way we move

SUSTAINABLE MOBILITY
Pedestrian-friendly and zero-emission cities

DISRUPTIVE MODELS & PAYMENT SYSTEMS
Disruptive business models to solve mobility challenges

PARTICIPANT PROFILE

- Chief Mobility Officer
- Director of E-Mobility Innovation
- Director of Electric Vehicle Business Development
- Director of Sustainable Urban Mobility
- Project Manager
- Specialist

- Engineer
- Head of Traffic Engineering
- Director of Urban Mobility Services
- Director of Transport Authorities
- Director of Intelligent Transportation Systems
- Director Geographical Information Systems
- Director of Transport and Infrastructure

PUBLIC SECTOR REPRESENTATIVES

Some of the government representatives that participated in the event:

- Secretary of Infrastructure, Mobility & Transport - *City of Puebla, Mexico*
- Deputy Director of Transport & Infrastructure - *Kyiv City State Administration, Ukraine*
- Head of the Smart City Unit - *Ministry of Transport & Telecommunications, Chile*
- Director of Mobility & Public Transport - *Gipuzkoa Provincial Council, Spain*
- Director - *Ministry of Land, Infrastructure & Transport, South Korea*
- Senior Manager of Urban Management - *Ministry of Housing & Urban Affairs, India*
- City Councillor for Transport - *Municipality of Maputo, Mozambique*
- Secretary for Transport - *City of Belgrade, Serbia*
- Head of Mobility - *Stuttgart City Council, Germany*
- Councillor of Security, Traffic & Transport - *Municipality of Alicante, Spain*

- Project Manager of Transport Planning - *City of Munich, Germany*
- Deputy Head - *Moscow Government Traffic Management Center, Russia*
- Councillor of Transport, Housing & Infrastructure - *Community of Madrid, Spain*
- Director General - *Ministry of Transport & Construction, Slovakia*
- Director of Transportation Strategic Planning - *Roads & Transport Authority of Dubai, United Arab Emirates*
- Minister of Infrastructure & Planning - *Government of Gibraltar*
- Secretary of Transport - *City of Natal, Brazil*
- Project Manager of Sustainable Mobility - *City of Stockholm, Sweden*
- Head of Strategy for Mobility - *Barcelona City Council, Spain*

SIDE EVENTS

Some side events related to this topic:

Urban Mobility Innovation Index Forum (UMii Forum)	EU Startup Prize Mobility Pitch Session	GrowSmarter Workshop

GOVERNANCE & FINANCE

Where Responsibility and Accountability Lie

They say good governance is not only effective and efficient but accountable, transparent, responsive, inclusive, and participatory. However, with Artificial Intelligence and Blockchain promising to revolutionize the way we live, new challenges add up to the promotion of action across sectors to responsively govern cities within the Sustainable Development Goals framework. Old recipes appear not to work anymore, yet open and social innovation, performance measurement and diverse forms of cooperation are more necessary than ever to foster democracy and increase equity, sustainability and resilience.

This topic covers the following Sustainable Development Goals:

8 DECENT WORK AND ECONOMIC GROWTH
9 INDUSTRY, INNOVATION AND INFRASTRUCTURE
10 REDUCED INEQUALITIES
11 SUSTAINABLE CITIES AND COMMUNITIES
16 PEACE, JUSTICE AND STRONG INSTITUTIONS
17 PARTNERSHIPS FOR THE GOALS

THEMATIC PROGRAMS

FUNDING
Finding ways to finance urban transformation

MULTILEVEL GOVERNANCE
Shared responsibilities and decision making

MULTI-STAKEHOLDER
Innovative forms of collaboration

E-GOV & OPEN-GOV
Government transformation in the digital age

DATA GOVERNANCE
Principles and strategies to govern data

STANDARDS & INDICATORS
Improving city measurement and performance

PARTICIPANT PROFILE

- Advisor
- Specialist
- Diplomat
- Chief Financial Officer
- Chief Operating Officer
- Governor
- City Manager
- Secretary General

- President
- Mayor
- Deputy Mayor
- Councilor
- Minister
- Head of Institutional Relations
- Official

PUBLIC SECTOR REPRESENTATIVES

Some of the government representatives that participated in the event:

- Head of Foreign Relations - *Municipality of Mashhad, Iran*
- Councillor & Chairperson of the Economic Development Committee - *City of Warsaw, Poland*
- Executive Director - *Kobe City Government, Japan*
- Director of International Affairs - *Bangkok Metropolitan Administration, Thailand*
- Director of Smart Cities - *Ministry of Housing & Urban Affairs, India*
- Deputy Mayor for Finance, Economic Affairs & Zuidas - *City of Amsterdam, Netherlands*
- President of the Commission of Treasury & Economic Development - *Cordoba City Council, Argentina*
- Deputy Director General of Cooperative Governance & Traditional Affairs - *Government of South Africa*
- Director of International Relations Office - *Barcelona City Council, Spain*

- President of the Municipal Council - *Municipality of Rosario, Argentina*
- Secretary General - *Dakar City Council, Senegal*
- Member of Surabaya House of Representatives - *Indonesia*
- Regional Councillor - *Metropolitan Government of Santiago, Chile*
- Director - *Ministry of Internal Affairs, Argentina*
- Director of International Relations - *City of Milan, Italy*
- State Minister of Trade, Investment & SME - *Selangor State Government, Malaysia*
- Director of Policy & Strategic Planning Department - *Municipality of Jerusalem, Israel*
- General Director - *City of Montreal, Canada*
- Municipal Councillor - *Brussels Municipality, Belgium*
- General Director of Sustainable & Smart Development - *Municipality of Montevideo, Uruguay*

SIDE EVENTS

Some side events related to this topic:

Belt and Road New Smart City Cooperation and Development Forum

Latin America and Caribbean: Evolving from a Region of Cities into a Smart Cities Region

Finance: the Backbone of Metropolitan Governance

INCLUSIVE & SHARING CITIES

Jointly Understanding our Shared Challenges

The rise of the sharing and collaborative economy has an increasing impact on cities as it generates more open, transparent and participatory solutions, while boosting public innovation. It is creating high sustainability expectations for its potential to contribute to a sustainable development of society, by contributing to a circular economy paradigmatic change beyond the 'take, make, dispose' extractive industrial model. Yet the disruptive impact of some models is still arousing huge controversy while alternative modalities are opening up a new frontier of innovation for inclusive economies. It has become a top priority for governments around the globe.

Coinciding with the Smart City Expo World Congress, the third edition of the Sharing Cities Summit -an encounter of mayors and deputy mayors of leading cities in the area- dug deeper into the challenges and opportunities of building inclusive and truly sharing cities. Moreover, measures and the collaboration between cities will spur on the positive effects of collaborative practices and fight gentrification, in order to start turning last century's degenerative economy into a new, regenerative and distributive one. In addition, the co-hosted Circular Economy European Summit enhanced the potential to contribute to a sustainable development of society.

This topic covers the following Sustainable Development Goals:

THEMATIC PROGRAMS

SHARING CITIES
Sharing and collaborative economy

SOCIAL INCLUSION
Building commons cities for all

COLLABORATIVE POLICY
When civic participation becomes co-creation

GENTRIFICATION & HOUSING
Fighting gentrification while creating vibrant communities

CIRCULAR ECONOMY
Accelerating the shift towards a circular economy

INNOVATION ECOSYSTEMS
Catalyzing open innovation and economic growth

PARTICIPANT PROFILE

- Director of Affordable Housing Development
- Head of Circular Economy
- Head of Development and Innovation
- Director of Social Services
- Project Manager
- Circular Innovation Officer
- Deputy Mayor for Social Rights
- Head of Society Affairs

- Head of Social Economy
- Director of Public Services & Healthcare
- Head of People Engagement & Social Collaboration
- Head of Youth & Education
- Director of Corporate Social Responsibility

PUBLIC SECTOR REPRESENTATIVES

Some of the government representatives that participated in the event:

- Minister for Social Equality - *Government of Israel*
- Chief of Public Health - *City of New York, USA*
- Head of Department of Public Relations & Protocol - *Ministry of Territorial Planning & Housing, Angola*
- Program Manager of Sharing Economy - *City of Amsterdam, Netherlands*
- Deputy Director of Social Innovation Division - *Seoul Metropolitian Government, South Korea*
- Program Manager of Sharing Cities - *Greater London Authority, UK*
- Deputy Mayor for Social Rights - *Barcelona City Council, Spain*
- CityLab Lead - *City of Melbourne, Australia*
- Secretary of Human Rights - *Municipality of Foz do Iguaçu, Brazil*
- Director of Urban Innovation Lab - *City of Montreal, Canada*
- Councillor for Labour Policies, Economic Development, Commerce & Human Resources - *City of Milan, Italy*

- Senior Advisor for Housing & Economic Development - *City of New York, USA*
- Director of the Reykjavik City Council - *City of Reykjavik, Iceland*
- Councillor for Social Politics, Diversity & Health - *Santiago de Compostela City Council, Spain*
- Secretary General - *Ministry of Housing & Local Goverments, Malaysia*
- Head of Department of Innovation & Education - *Prime Minister's Office, Hungary*
- Housing Manager - *Barcelona City Council*
- Secretary of Education - *Municipality of Niteroi, Brazil*
- Deputy Director of Security & Cohabitation - *Metropolitan Area of Aburra Valley, Colombia*
- Secretary of Innovation, Investigation & Higher Education - *State of Yucatan, Mexico*

SIDE EVENTS

Some side events related to this topic:

Resilience Week	SCEDX2 Smart City Educational Xperience 2	Localizing the SDGs

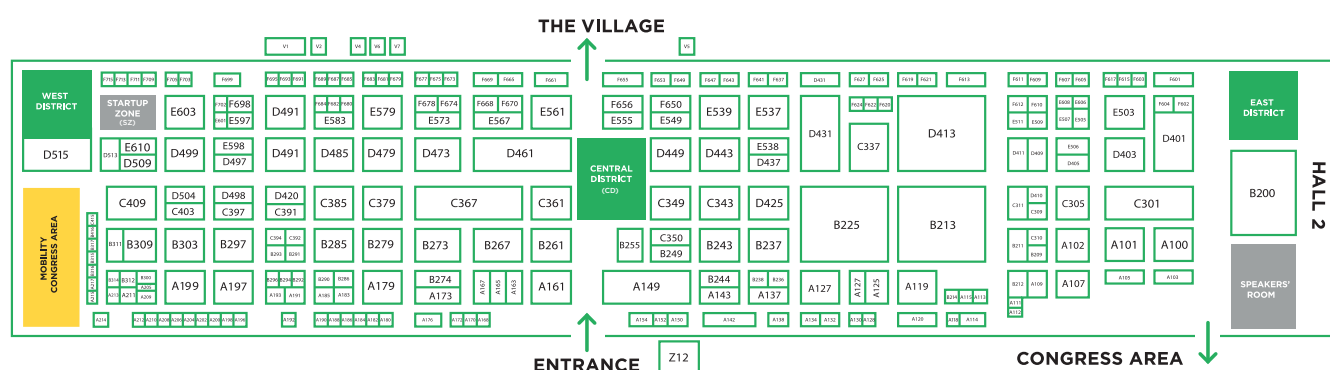# 7.
EXHIBITION AREA

Smart City Expo World Congress 2018 displayed a huge exhibition area of more than **18,000 net square meters**, which represents a **30% increase** in terms of exhibition space, **occupying two halls of Fira de Barcelona** for the first time.

844 companies, institutions, cities, countries and research centers took part in this dynamic marketplace and showed the world their latest projects and developments on sustainable urban development. It was the perfect platform to get up to date with the **most innovative solutions in the smart city field**, explore what's new in the sector and connect with senior attendees from all around the world.

Exhibitor list

2 GET THERE	AMAZON WEB SERVICES	AVEPOINT
360NS ●	AMC NETWORK	AXIS COMMUNICATIONS ●
4SYSTEM	AMEC	BABLE
99CLOUD	AMETIC	BADEN-WURTTEMBERG INTERNATIONAL
ABB ●	ANDORRA TELECOM	BANCO DE OBJETOS
ACCELA	ANIXTER	BAVARIAN PAVILION
ACCENTURE	ANPO TECHNOPORT ●	BEEODIVERSITY
ACLIMA	ANTEL	BEEZEELINX
ACOUSTICITY	APORTA	BEIJING BIT EDUCATIONAL TECHNOLOGY COMPANY
ADEC TECHNOLOGIES ●	AREA METROPOLITANA DE BARCELONA ●	BEIJING RESAFETY
ADVANCE, A MEMBER OF GROUPELEPHANT.COM	ARMARIOS ELECTRICOS (ARELSA)	BELL TELEPHONE
ADVANTAGE AUSTRIA	ARMIS ●	BEMOBILE ●
AGENT VIDEO INTELLIGENCE	AS REACH-U ●	BENTLEY SYSTEMS
AGORIA	ASHDOD MUNICIPALITY	BERCMAN TECHNOLOGIES
AIMSUN ●	ASPERN DIE SEESTADT WIENS	BERGER - LEVRAULT
AIRLY	ASPERN SMART CITY RESEARCH	BERLIN PARTNER
AIRVERACITY	ASSOCIACIÓ XARXA D'ECONOMIA SOLIDÀRIA (XES)	BERLINER AGENTUR FÜR ELEKTROMOB. EMO
AIT AUSTRIAN INSTITUTE OF TECHNOLOGY ●	ASTRO BALTICS	BETTAIR CITIES
ALCATEL – LUCENT ENTERPRISE	ATEKNEA SOLUTIONS EUROPE	BEWEGEN TECHNOLOGIES
ALIANZA SMART LATAM	ATENEUS DE FABRICACIÓ DIGITAL 2014	BEZEQ
ALMERE	ATICSER	BGEO OPEN
ALPHANET	ATOS SPAIN	BH TECHNOLOGIES
ALSTOM ●	ATOS WORLDGRID	BIG BELLY - FUTURE STREET
ALTIA CONSULTORES	ATTENDRE ●	BIKEEP
ALTIMA	AUSTRIAN MINISTRY FOR TRANSPORT, INNOVAT	BILLY

BIOTECHNOLOGICAL PROCESS ON CELLULOSE	CITIES TODAY	CLUSTER MANAGEMENT
BIOTOPE	CITILOG	CLUSTER SUSTAINABLE INFRASTRUCTURE
BISMART ●	CITIZENLAB	COCOMMUNS
BITNATION	CITY AS A PLATFORM	CODAH
BLIND TIGER COMMUNICATIONS	CITY OF AHMEDABAD	CODIBLY - EXCELLENCE IN SOFTWARE
BODO KOMMUNE	CITY OF AMSTERDAM	COGNITIFAI
BOSONIT	CITY OF ATLANTA	COLAS ●
BOUYGUES CONSTRUCTION	CITY OF BANGALORE	COLLABORATIVE RESEARCH CENTER 1265
BRADFORD METROPOLITAN DISTRICT COUNCIL	CITY OF BARCELONA	COMMANDLINE SOLUTIONS
BREEZOMETER	CITY OF BHOPAL	COMMONS CLOUD
BRIGHT CONSULTORIA	CITY OF BHUBANESWAR	COMMUNITHINGS ●
BRUSSELS INVEST & EXPORT - HUB.BRUSSELS	CITY OF BUENOS AIRES	COMNET
BUSAN CENTER FOR CREATIVE ECONOMY & INNOVATION	CITY OF CHANDIGARH	COMODULE ●
	CITY OF COIMBATORE	COMPTA
BUSAN IT	CITY OF DEN BOSCH	CONEXX
BUSINESS FRANCE	CITY OF DEN HAAG	CONNECTHINGS IBERICA ●
BUSTIMIZE	CITY OF EINDHOVEN	CONNECTING EUROPE FACILITY (CEF)
BUSUP TECHNOLOGIES ●	CITY OF FARIDABAD	CONNEXIN
C95 ARKITECTURA	CITY OF FLORENCE	CONSORCI ZONA FRANCA DE BARCELONA
CÁMARA DE COMERCIO DE CARTAGENA	CITY OF GOYANG	COPA-DATA ●
CAME PARKARE GROUP ●	CITY OF HILDESHEIM	COPERNICUS INSTITUTE
CAMPUS ENERGYVILLE	CITY OF JABALPUR	CREATIVECHAIN
CANADA	CITY OF JAIPUR	CREATOR'S NEXT
CAPITAL NATURE	CITY OF JOENSUU	CRESCENT
CAPMAR SISTEMAS DE INFORMACIÓN ●	CITY OF KOBE	CSTB
CARBYNE	CITY OF L'HOSPITALET	CTRL4 ENVIRO ●
CÀRITAS DIOCESANA DE BARCELONA	CITY OF MADRID	CUBIC ●
CARNET ●	CITY OF MILAN	CYBERVIEW
CASMOB	CITY OF MUNICH	CYCLOMEDIA
CCPIT SHANGAI	CITY OF NEW DELHI	D2D3.COM ECO JULES LESMART
CCTV CENTER	CITY OF PEACHTREE CORNERS	DASSAULT SYSTEMES ●
CEA	CITY OF PRAGUE	DATAMED
CEDALO	CITY OF PUNE	DECIDIM
CELENO	CITY OF RAJKOT	DEDRONE
CELLCOM	CITY OF RAMAT GAN	DEIMOS
CELLNEX TELECOM	CITY OF REGGIO CALABRIA	DELI-I ●
CENTRAL SPECTRUM (M) SDN BHD (CSSB)	CITY OF RIJSWIJK	DELOITTE ●
CENTRE TECNOLÒGIC DE TELECOMUNICACIONS	CITY OF ROME	DEUSTOTECH
CENTRO ESTERO PER L'INTERNAZIONALIZZAZIONE	CITY OF ROTTERDAM	DEUTSCHE MESSE
	CITY OF SANDNESS	DEUTSCHE TELEKOM ●
CETC INTERNATIONAL	CITY OF SANT CUGAT	DEVCENTRALISED MEETUP BY CAELUM LABS
CGI ●	CITY OF STAVANGER	DHC SOFTWARE
CHAMSULE TECH	CITY OF SURAT	DIDICAST
CHARVET DIGITAL MEDIA	CITY OF TAMPERE	DIEHL
CHECK POINT SOFTWARE TECHNOLOGIES	CITY OF TEL AVIV	DIGITAL ATTRAXION
CHENGDU JIUZHOU ELECTRONIC INFORMATION SYSTEM	CITY OF VARANASI	DIGITAL CATAPULT
	CITY OF VENICE	DIGITAL ISRAEL
CHINA ASSOCIATION OF TRADE IN SERVICES	CITY OF VIENNA	DIGITAL M
CHINA CUSLINK	CITY OF VISAKHAPATNAM	DIGITAL WALLONIA
CHINA DATA METROPOLIS	CITY OF WOLFSBURG	DIMONOFF
CHORDANT	CITY OF YORK COUNCIL	DIN DEUTSCHES INSTITUT FÜR NORMUNGE
CICLOGREEN	CITY ZOOM	DIPUTACIÓ DE BARCELONA
CIEMSA	CITYLONE	DIRECCIÓN GENERAL DE TRÁFICO (DGT) ●
CIGO!FLEET ●	CITYMESH	DISTROMEL
CIOT	CIVADIS ECO JULES LESMART	DITECH
CIRCUTOR ●	CIVIC DESIGN TOOLKIT	DIVERCITIES
CISCO INTERNATIONAL ●	CIVIC LAB	DLG ELECTRONICS TECHNOLOGY
CITELUM	CLEVERCITI SYSTEMS ●	DOCTOR'S FAB
CITELUM IBÉRICA ●	CLEVERON	DOPPELMAYR SEILBAHNEN
CITI LOGIK ●	CLUSTER ANDALUCIA SMART CITY	DORLET
CITIBRAIN ●	CLUSTER LUMIERE	DOUBLE K CONSTRUCTIONS

DOXA INNOVA & SMART	FCC ENVIRONMENT	HITACHI VANTARA
DRIVY ●	FCC GROUP	HOPLR
DSISCALE	FCC INDUSTRIAL	HOPON ●
DTU	FERROCARRILS GENERALITAT DE CATALUNYA ●	HOPU
DUBAI CIVIL AVIATION AUTHORITY ●	FERROVIAL SERVICIOS	HUAWEI ●
DUBAI DEP. TOURISM AND COMMERCE MARKETING	FICODES	HYDRONIC SYSTEM OPTIMISATION
DUBAI ELECTRICITY & WATER AUTHORITY	FIFTHPLAY	I2CAT FOUNDATION
DUBAI HEALTH AUTHORITY	FILMKLAR, HANNOVER	IACCOUNTANTS ●
DUBAI LAND DEPARTMENT	FIWARE	IAD
DUBAI MUNICIPALITY	FLANDERS INVESTMENT & TRADE	ICE - ITALIAN TRADE AGENCY
DUBAI POLICE	FLASHNET	ICEX
DUBAI PORT, CUSTOMS AND FREE ZONE CORP. ●	FLIR SYSTEMS	ICONICS ●
DUBAI SILICON OASIS AUTHORITY	FLIWARE	IDA
DXC TECHNOLOGY	FOOT ANALYTICS	IDC
DYSTEN ●	FORCES ELÈCTRIQUES D'ANDORRA	IDEAS FOR CHANGE
E-MOBIL BW ●	FÒRUM DE ECOS TRANSFORMADORAS	IDEOGRAMA
E-SENSIO	FRANCE URBAINE	IDOM ●
E.SIGMA TECHNOLOGY	FRANK TRISTRAM UNTERNEHMENSBERATUNG	IEM GROUP ●
E3TCITY	FRAUNHOFER IAO	IKS ●
EASYMILE ●	FREE KNOWLEDGE INSTITUTE	IKUSI ●
EASYPARK ●	FREECHARGESTATION	IMEC
EBN INNOVATION NETWORK	FREEMINDTRONIC	IMI MEDIA GROUP
ECC4IU	FTECH	INCINITY
ECO INTELLIGENT GROWTH	FUNDACIÓ CREAFUTUR	INCLUDE
ECO-WISE (BY EKODENGE)	FUNDACIÓ GUIFI.NET	INCREMENTAL SOLUTIONS ●
ECONX WASTE SOLUTIONS	FUNDACIÓN GOTEO	INDOOR.NINJA
ECOPRENEURS FOR THE CLIMATE	FUTURES PLATFORM OY	INERGY
EDF	G.E.A. ●	INESA
EDISON HARDWARE	GENERALITAT DE CATALUNYA	INFINITUS
EERA JOINT PROGRAM SMART CITIES ●	GENETEC ●	INFOART
EFENER ENGINYERIA	GEORGIA DEPARTMENT OF ECONOMIC DEVELOPMENT	INFOLINE INFORMATION TECHNOLOGIES TRADING
EIGEN VERMOGEN INFORMATIE VLAANDEREN	GEORGIA TECH RESEARCH INSTITUTE	INFORM ●
EIT DIGITAL	GESCHÄFTSSTELLE ZENTRUM DIGITALISIERUNG BAYERN	INGENIERÍA Y ECONOMIA DEL TRANSPORTE SME MP ●
EKIONA ILUMINACION SOLAR		
EKO3R	GFI INFORMATIQUE	INNODEP ●
ELECNOR ●	GIV	INSTITUT POUR LA VILLE DURABLE
ELECTRICCHAIN	GLOBAL CONTROL 5	INSYS ICOM
ELECTRICIDAD Y CONTRATAS EDISON GALICIA	GLOBALTMS	INTENDENCIA DE MONTEVIDEO
ELT	GOBERNACIÓN DE RISARALDA	INTUATE
ENBW ENERGIE BADEN-WÜRTTEMBERG	GOGOWEGO	INVEST ATLANTA
ENERGIS	GOLAND CENTURY	INVEST IN ANDORRA (ACTUA) ●
ENERGY PLANNING VIENNA	GOLDEN LAKE INDUSTRIAL LAKE	INVEST SELANGOR
ENERSIS SUISSE	GÓR STAL	INVEST STOCKHOLM BUSINESS REGION
ENGIE ●	GOSENSE	IOT SOLUTIONS WORLD CONGRESS
ENGIE INEO	GRAFFITI FOR SMART CITY	IOT SWEDEN - INDENTIVE
ENGINEERING INGEGNERIA INFORMATICA	GREENAPES	IOT.ATL
ENGINYERIA EMSER	GRENOBLE-ALPES METROPOLE	IOTA
ENTERPRISE ESTONIA	GRENTON SMART HOME	IOTSENS ●
ENVISION	GROWSMARTER	IOTSOLUTION
EREUSE.ORG	GUOCHUANG SOFTWARE	IP GALLERY
ERTEX SOLAR	HAL24K	IPUNKS
ESRI ●	HANGZHOU GUBEI ELECTRONICS TECHNOLOGY	IQUADRAT INFORMATICA
ETECNIC ●	HANGZHOU HIKVISION SYSTEM TECHNOLOGY	IREC
ETNEO ITALIA	HANGZHOU YANXU SCIENCE AND TECHNOLOGY	IRIS
ETRA ●	HANGZHOU YINSHI SCIENCE AND TECHNOLOGY	IRNAS
EURECAT	HANSAB GROUP	IRT SYSTEM X
EUROPEAN COMISSION	HATCH	IS CLEAN AIR ITALIA
EV BOX ●	HECTRONIC ●	IS-PRACTICE
EVWAY BY ROUTE220	HEILONGJIANG PAVILION	ISBAK ISTANBUL IT & SMART CITY TECHNOLOGIES ●
EXPOPOLIS	HERE.COM	ISBEL ●
EXTRUPLAS	HERZ ENERGIETECHNIK	ISRAEL EXPORT INSTITUTE
FAIRBNB	HEXAGON ●	ITALIAN AGENCY FOR TERRITORIAL COHESION
FAMA SYSTEMS	HINTE MESSE- UND AUSSTELLUNGS	ITC
FAROMEDIA CREATIVE NETWORK-INTERAKTIVE		ITINERIS

ITRON
IUC-ASIA
IVL SVENSKA MILJÖINSTITUTET
IYD
IZODOM 2000 POLSKA
JAMGO SCCL
JAPAN LIGHTING MANUFACTURERS ASSOCIATION
JAXON FILTRATION
JCOMMERCE
JETRO
JIANGSU GUOTAI EPOINT SOFTWARE
JIG
JOM PARKIR SDN BHD ●
JOYN
KANSAI RESEARCH INSTITUTE
KAPSCH TRAFFICCOM
KATUMA
KDEB WASTE MANAGEMENT
KEOLIS ●
KEYO
KIDO DYNAMICS
KLINELEX
KOALECT
KOBENHAVNS KOMMUNE
KOHLBACH GRUPPE
KOMMUNEN IN DER METROPOLREGION
KONICA MINOLTA
KONNEKTIS
KOREA ASSOCIATION OF SMART HOME
KOREA LAND & HOUSING CORPORATION
KPMG ADOXIO
KUNGLIGA TEKNISKA HÖGSKOLAN
KYSSMYBIKE
L'OBSERVATOIRE DU PARTAGE
¡LA COLMENA QUE DICE SÍ!
LA COMUNIFICADORA
LABEX IMU
LACROIX GROUP
LAFON ESPAÑA ●
LEADING CITIES
LED IBOND
LED ROADWAY LIGHTING
LEEDS CITY COUNCIL
LEEDS CITY REGION ENTERPRISE PARTNERSHIP
LEITAT
LENDI
LETSGO CITY ECO JULES LESMART
LINK
LLIURETIC
LOOP CITY
LOOP NEW BUSINESS MODELS
LOVELYMAPS ●
MACQ ●
MAKERS X LA INCLUSIÓ (COOPERATIVA COLECTIC SCCL)
MAŁOPOLSKIE CENTRUM DORADZTWA GOSPODARCZEGO
MAPITA
MARCELO FUNES
MARIMATIC
MARKETPLACE.CITY
MARTEL INNOVATE
MASERMIC
MASS FACTORY URBAN ACCESSIBLE MOBILITY ●

MASTERCARD ●
MATCHUP PROJECT
MATRIX MTX
MAVOCO
MCR
MENTER BESAR INCOPORATED (MBI)
MESSE MÜNCHEN
METABIRDS
METROPOLE DE LYON
METROPOLIS LAB ●
MHP - MANAGEMENT- UND IT-BERATUNG ●
MICROSOFT ●

MINALOGIC
MINISTRY OF HOUSING AND URBAN AFFAIRS (INDIA)
MINSAIT ●
MINUTS.CAT
MIPLAZA
MMSC VENTURES SDN
MOBI LAB
MOBI SOLUTIONS
MOBICAGE
MOBILEYE GERMANY ●
MOBIWORX TELEMATIK
MONDAY INNOVATION LAB FOR CITIES
MONITAR SENSE
MONTPELLIER MEDITERRANEE METROPOLE
MOODLE SPAIN TECHNOLOGIES
MOOVEL GROUP ●
MOOVIT ●
MOREAPP FORMULARIOS
MOSCOW GOVERNMENT
MOVUS ●
MS.GIS INFORMATIONSSYSTEME GESELLS
MSHEIREB PROPERTIES
MULTITEL
MUNDILEC
MUNICIPALITY OF CASCAIS
MUNROE K
MUSMA
MUT
MUV-APP
MUVING ECOSYSTEM
MYCICERO
MYSMARTLIFE
NANOTECNOLOGÍA SPAIN
NAOS
NATIONAL INNOVATION AGENCY (THAILAND)
NAVVIS
NAVYA ●
NBSO
NEARBY SENSORS
NEC ●

NEDAP ●
NEODELIS
NEREI EMOTIONAL INTELLIGENT
NET COM SYSTEM
NEUROSOFT ●
NEXT INDUSTRIES
NEXUS GEOGRAPHICS ●
NEXUS24
NINGBO ALPHAEYE SECURITY TECHNOLOGY
NOGRAVITY
NOKIA
NORDIC EDGE

> **"We consider the Smart City Expo one of our Tier1 events across the world. For us, it's a must-attend congress. In 2017, more than 15,000 out of the 18,754 attendees of the event visited our booth and stayed there more than 30 minutes."**
>
> ***José Antonio Ondiviela***
> *Western Europe Smart Cities Director, Microsoft*

NORWAY
NORWEGIAN UNIVERSITY OF SCIENCE AND TECHNOLOGY
NOUS PARQUINGS URBANS ●
NOVACCESS
NOVALUME
NOWLOG
NP TECHNOLOGY
NTT - ACCELERATING YOUR DIGITAL AGENDA
OCEASOFT
OCTOPUS SYSTEMS
OFEK AERIAL PHOTOGRAPHY ●
OIZOM
OKEENEA
OPEN & AGILE SMART CITIES
OPEN DATA
OPENDATASOFT
OPENMOVE
OPERATOR ICT
OPINUM ECO JULE LESMART
OPTEX
OPTICITS INGENIERÍA URBANA
ORANGE MOBILE ENTERPRISE ●
ORBIT
ORIGIN PROTOCOL
OUISHARE
P.W. DIGITAL TOMASZ KACZMAREK
PACIFIC WAVE ●
PARK SMART
PARKALLY
PARKAM ●
PARKEON ●
PARKICI (GAGNANT HACKATHON)
PARKUNLOAD ●
PARTITALIA
PASCH ●
PATTERNS OF CHANGE - COMMONS IN BARCELONA
PAYIQ ●
PBSC URBAN SOLUTIONS ●
PCVUE SOLUTIONS

PKNS REAL ESTATE SDN BHD (PREC)	SELECT FOR CITIES - H2020 PROJECT	SMART CITIES NORTH CAROLINE
PLANET IDEA	SENS DIGITAL	SMART CITIES SAN DIEGO
PLANTRONICS	SENSEFIELDS ●	SMART CITY | DB ●
PLATAFORMA CIVICITI	SENSING & CONTROL SYSTEMS	SMART CITY EXPO BUENOS AIRES
PLURAL VISIONS FOR SHARING CITIES (HOLON)	SENSONEO SMART WASTE MANAGEMENT	SMART CITY EXPO CASABLANCA
PLURALL.NETWORK - BETTER WAYS TO CONNECT	SEOJUN ELECTRIC	SMART CITY EXPO CURITIBA
PORTUS PARK	SEOUL METROPOLITAN GOVERNMENT	SMART CITY EXPO INDIA
POWER WORLD MACHINERY EQUIPMENT	SETIA HARUMAN TECHNOLOGY	SMART CITY EXPO KYOTO
PREDICT SERVICES	SETTLEMINT	CDSMART CITY EXPO LATAM CONGRESS
PRIME INVEST	SEVENCOMP	SMART CITY INSTITUTE
PROCONSI	SHANGAI PAVILION	SMART CITY WIEN
PRODWARE	SHANGHAI DEVELOPMENT RESEARCH CENTER	SMART COOPERATIVE
PROYECTO ECHORD++	SHANGHAI JINSHAN INDUSTRIAL PARK	SMART DUBAI ●
PS-1925	SHANGHAI QZS NETWORK TECHNOLOGY	SMART ISLAND WORLD CONGRESS
PTV GROUP ●	SHAOXING HUAWEI ZHONGBANG MDT INFO TECH	SMART SOCIETY ACADEMY
PWC	SHAOXING TAIWEI INFORMATION TECHNOLOGY	SMART SPACE ●
PYXIS	SHAREABLE	SMART TRANSPORTATION ALLIANCE
QRAMA	SHARECOLLAB (CONNECTING THE DOTS)	SMARTCITI
QUARTIER HEIDESTRASSE	SHARERING LTD	SMARTDATASYSTEM
QUCIT	SHARING CITIES	SMARTE BYER NORGE
QUEST40	SHARING CITIES ALLIANCE	SMARTENCITY
RADARQ	SHARING CITIES SUMMIT ●	SMARTER TOGETHER
RAMBOLL FINLAND	SHARING CITIES SWEDEN	SMARTMICRO ●
RAMBUS ●		
RECIRCUP		
REGION SKÅNE HOLDING AB		
REGOLA		
REMIX THE COMMONS		
REMOTE EYE		
REMOURBAN		
RETAIL & BRAND EXPERIENCE WORLD CONGRESS		
REVERBERI ENETEC		
REVES		
REVISTA VIA LIBRE- FFE ●		
RIDE UNLIMITED ●		
RIDECELL ●		
ROAD & TRANSPORT AUTHORITY ●		
ROADIX ●		
ROADWAY		
ROBERT BOSCH ●		
ROMBIT		
ROS ROCA		
ROSMIMAN SOFTWARE CORPORATION ●		
ROSY		
RYERSON UNIVERSITY		
SAFELAYER SECURE COMMUNICATIONS		
SAFER PLACE	SHAYP	SMARTNODES ECO JULES LESMART
SALUSCOOP.ORG	SHENZHEN ANBOSON INDUSTRIES	SNAP4CITY - KM4CITY
SALVI ●	SHENZHEN APEXKOLOR	SOBOLT
SAMMY	SHENZHEN DIRECT NEW ENERGY	SÓC CREATIU
SANSI ●	SHENZHEN HEREWIN TECHNOLOGY	SOCIAL COIN
SANTER REPLAY	SHENZHEN HIGHPOWER TECHNOLOGY	SOFLOW ●
SAP ●	SHENZHEN SAFECLOUD ENERGY	SOGETEL
SAS LUMIPLAN VILLE ●	SHENZHEN SKT ELECTRICAL TECHNOLOGY	SOLU
SAVE-A-SPACE	SHENZHEN SUNGOLD SOLAR	SOLVIEW
SC ELITE LTD	SHENZHEN WENBO BEAUTY COLLECTION	SOM MOBILITAT
SCHOOL OS	PRINTING & PACKAGING	SOMINTEC
SCHRÉDER INTERNATIONAL SERVICES	SHENZHEN WINDSOR IP COMMERCIALIZATION	SOPRA STERIA
SCHRÉDER LIGHTING INDUSTRY	SHENZHEN YIBO ELECTRONICS	SOUTHERN & GEORGIA POWER
SCORE	SHIELDIOT	SPALLIAN
SCS SDN BHD	SHOOSMITHS	SPECIALISTERNE
SEAT ●	SHOTL	SPL LYON PART DIEU
SECCOTECH	SICE	SPRINX TECHNOLOGIES
SELANGOR INFO. TECH. & E-COMMERCE COUNCIL	SICHUAN JKC GEOGRAPHICAL INFORMATION TECH.	SSDU INNOVATIONS
	SICHUAN LEWEI TECHNOLOGY	STAD ANTWERPEN
	SICHUANWISESOFT SYSTEM INTEGRATION	STAD GENT
	SIEMENS ●	STADTWERKE WOLFSBURG
	SIGNIFY	STARDUST
	SILENCE URBAN ECOMOBILITY ●	STARLAB
	SINAPSE ENERGIA	STRAVANGER KOMMUNE
	SINTEF	STROLY
	SIRADEL ●	SUBMER COMPUTING IMMERSION COOLING
	SIS.TER	SUEZ
	SKIGNZ	SUNWODA ENERGY SOLUTION
	SKYLINE	SURFACE MOBILITY CONSULTANTS ●
	SMART CITIES INFORMATION SYSTEM (SCIS)	SUWON CITY HALL

> *"For us, this is the première smart city event in the world, because it's so busy that we can meet customers, suppliers, technology partners and all sorts of people from the whole innovation ecosystem."*
>
> *Mark Saunders*
> *Director, Center of Excellence for Cities, Ferrovial*

SWECO	URBAN DATA SCIENCE LABORATORY AT SEOUL	ZHEJIANG PROVINCE
SYNOX	URBAN DIGITAL	ZHEJIANG WGO PHOTOELECTRIC TECHNOLOGY
SYSTAM TECHNOLOGY	URBAN FUTURE	ZICLA
T2COMPANY	URBAN INNOVATION VIENNA	ZOLERTIA
TAIPEI SMART CITY	URBAN INSTITUTE	ZOOX SMART DATA
TALLER DE MAPEO CIVICS	URBAN MOBILITY INNOVATIONS	
TALQ CONSORTIUM	URBAN REFUSE DEVELOPMENT	● Exhibitors that also were part of the Smart Mobility Congress.
TANTALUM CORPORATION ●	URBAN SOFTWARE INSTITUTE	
TDC CORPORATION	URBASER ●	
TECHNISCHE HOCHSCHULE NÜRNBERG	URBIOTICA	
TÈCNIQUES D'AVANTGUARDA	USA PAVILLION	
TECNOLOGÍAS APLICADAS A LA INFORMACIÓN	UTRECHT	
TECNOTEL	UVAX CONCEPTS	
TEGEL PROJEKT	VADECITY ●	
TEIXIDORA	VAISALA	
TELCHINA SMART INDUSTRY GROUP	VAMONDE	
TELELINK	VECTALIA ●	
TELOCATE	VELIS	
TENERRDIS	VELODYNE EUROPE	
TERABEE	VENVIROTECH BIOTECHNOLOGY	
THE NETHERLANDS	VEOLIA	
THE SOCIAL COIN	VEOSAT ●	
THE THINGS NETWORK CATALUNYA (TTNCAT)	VEXCEL IMAGING	
THE WORLD OF THOR ●	VIALYTICS	
THINGSPLAY	VIENNA BUSINESS AGENCY	
THINGTECH	VIEW GLASS	
THINGTIA SOLUTIONS	VITALEN NIGERIA LIMITEDDE-MIROPASSTECHN	
TIMEOVERFLOW - BANCS DE TEMPS	VITROFORM	
TINKERERS LAB	VIVAPOLIS	
TMB ●	VTT TECHNICAL RESEARCH CENTRE OF FINLAND	
TNO	WALLONIA EXPORT & INVESTMENT AGENCY-AWEX	
TOMORROWLAB	WATER ENVIRONMENT AND BUSINESS FORDEVEL	
TOMTOM ●	WATERVIEW	
TONDO	WAVECOM	
TOPCON	WAVENET ECO JULES LESMART	
TORROT ELECTRIC ●	WEBREATHE ●	
TOULOUSE METROPOLE	WEGOTO ●	
TRACTEBEL ENGINEERING	WEITERBILDUNGSMASTER SMART CITY SOLUTION	
TRACTO-TECHNIK	WELLNESS TELECOM	
TRADELEC INTERNATIONAL ●	WIKILOC OUTDOOR	
TRADESEGUR ●	WINCUBATOR / WILO SE	
TRANSWARP TECHNOLOGY	WIRTSCHAFTFÖRDERUNG KARLSRUHE	
TREEBUILDERS	WISETOWN	
TRIANGULUM	WOMASTER	
TRIDONIC	WONDERS INFORMATION	
TRIGENIA	WONDERWARE	
TRONDHEIM KOMMUNNE	WORLDSENSING ●	
TRUCKNET ●	WORLDWIDE	
TUBA	WWOOF	
TUNNEL RADIO	X'S CORPORATION	
TÜV SÜD IMMOWERT	XAIN	
UAP URBAN AIR PURIFER (BY GINSA)	XARXA OBERTA BEACONS BARCELONA	
UBICQUIA	XIMANTIS ●	
UBIQUAT	XNET	
UCLOUD TECHNOLOGY	YARLUNGSOFT	
UMPI	YORK ST JOHN UNIVERSITY	
UN-HABITAT	YUMI GROUP	
UNILUMIN GROUP	ZENCITY	
UNITED SMART CITIES	ZENTRUM DIGITALISIERUNG BAYERN BICCNET	
UNIVERSITAT POLITÈCNICA DE CATALUNYA	ZEROKEY	
UNIVERSITI MALAYA (UM)	ZHEJIANG DAHUA TECHNOLOGY	
UNIVERSITY OF LEEDS	ZHEJIANG FONDA TECHNOLOGY	
UNIVERSITY OF STAVANGER	ZHEJIANG GOLDEN MAPLE DATA SERVICE	
UNIVERSITY OF YORK		

Startups

Smart City Expo had a **specific space and program dedicated to startups**. The area was branded as **Smartcity.font**, as part of Fira Barcelona's startup initiatives that will be found across the different events organized by Fira Barcelona in the following months.

Startups could contract a participation pack that included a desk and four chairs, a pitch at one of the Agoras and congress passes among other.

Startups, regardless of their participation in the exhibition area, had the chance to participate in activities like **Startup4cities**, a place for scale-ups working on municipal challenges to get feedback from decision-makers in city halls; the **Brokerage Event**, a matchmaking activity composed of 30-minute pre-scheduled B2B meetings, and the **EIP-SCC Matchmaking Event**, with a total of 53 one-on-one meetings connecting urban project promoters with financiers, that brought together 7 financiers, 29 project promoters from different cities.

Startup List

1OT (MOBI SOLUTIONS)	IPUNKS
ADDSEAT	JOYN
AIRALAB	KOALECT
AIRVERACITY	LETSGO CITY
APPYPARKING	LOOP NEW BUSINESS MODELS
ATICSER	MARKETPLACE.CITY
ATSUKÈ	MIPLAZA
BAANIA	MOODLE SPAIN TECHNOLOGIES S.L
BABLE	NAVVIS
BEEODIVERSITY	NOGRAVITY
BERCMAN TECHNOLOGIES	NRGKICK
BIKEEP	OPINUM
BIOTHECNOLOGICAL PROCESS ON CELLULOSE	ORIGIN PROTOCOL
BITNATION	PARKICI
CAPMAR SISTEMAS DE INFORMACION	PLURAL VISIONS FOR SHARING CITIES (HOLON)
CEDALO	RIDECELL
CHORDANT	SHAYP
CIVADIS/NRB	SMART SOCIETY ACADEMY
CLEVERCITI SYSTEMS	SMARTNODES
COGNITIFAI	SOFLOW
COMMUNIA	SPECIALISTERNE
COMODULE	TECNOLOGÍAS APLICADAS A LA INFORMACIÓN
CPARK	THINGSPLAY
CUBE INTELLIGENCE	UMOTIONAL
D2D3.COM	TRACEFY
DEVCENTRALISED MEETUP BY CAELUM LABS	VENVIROTECH BIOTECHNOLOGY
DIGITAL ATTRAXION	VEOSAT
DIGITAL-M	VMC
DRIVY	VOLTIA
ECO INTELLIGENT GROWTH	VRM TECH
EFENER ENGINYERIA	WATER ENVIRONMENT AND BUSINESS FOR DEVELOPMENT
EKODENGE	WAVENET
ENERGIS	WESMART
FUNDACIÓ CREAFUTUR	WHIM BY MAAS GLOBAL
IDEAS FOR CHANGE	WIKILOC OUTDOOR
IDEOGRAMA	XIMANTIS
INMOTION LABS	ZICLACITIES
INSEETU	

"For us it's very important to be here to be connected to the institutions and private companies that make possible that our company can grow and be connected with other cities and countries."

Eda Samara Porto Padua
VadeBikeBCN

8.
GOVERNMENTS

High Representatives

Smart City Expo World Congress was the meeting point for technical and political representatives from more than **700 cities and 146 countries** in the biggest-ever gathering of public authorities in the event's history. They all shared the latest trends in the use of technologies to implement sustainable urban planning and discussed how to make Cities to Live In.

Here is a selection of some of the **600 top-level representatives** –mayors, deputy mayors and ministers– that participated in the event:

ANA PAULA CHANTRE LUNA DE CARVALHO Minister of Spatial Planning & Housing *Angola*	**GILA GAMLIEL** Minister for Social Equality *Israel*	**GILBERT SABOYA** Minister of Economy, Competitiveness & Innovation *Andorra*
JANIL PUTHUCHEARY Senior Minister of Transport, Communications & Information *Singapore*	**KRISTINA HÁFOSS** Minister of Finance *Faroe Islands*	**PAUL BALBAN** Minister for Infrastructure & Planning *Gibraltar*
RADVÁNYI BÁLINT State Secretariat Responsible for Infrastructure Development, Innovation & Localization *Hungary*	**TERESA RIBERA** Minister for Ecological Transition *Spain*	**YAM KENG BAEY** Senior Parliamentary Secretary *Singapore*
THILO RENTSCHLER Mayor *Aalen, Germany*	**JAN HOEK** Alderman *Almere, Netherlands*	**SUSANA SANTOS** Deputy Mayor *Amadora, Portugal*
UDO KOCK Deputy Mayor *Amsterdam, Netherlands*	**EDVALDO NOGUEIRA FILHO** Mayor *Aracaju, Brazil*	**JOSÉ BILBRAUT MONTAÑEZ** Mayor *Arroyo, Puerto Rico*
AMANSHAYEV YERMEK AMIRKHANOVICH Deputy Mayor *Astana, Kazakhstan*	**GEORGIOS KAMINIS** Mayor *Athens, Greece*	**SAKOLTEE PHATTIYAKUL** Deputy Mayor *Bangkok, Thailand*
ADA COLAU I BALLANO Mayor *Barcelona, Spain*	**GERARDO PISARELLO** First Deputy Mayor *Barcelona, Spain*	**ZORAN RADOJIČIĆ** Mayor *Belgrade, Serbia*

PATRICIO MUSSI
Mayor
Berazategui, Argentina

MICHAEL MULLER
Governing Mayor
Berlin, Germany

WILD NDIPO
Mayor
Blantyre, Malawi

ARTHUR MACHADO
Vice Mayor
Boa Vista, Brazil

ALAIN JUPPE
Mayor
Bordeaux, France

FLUTUR CATALIN MUGUREL
Mayor
Botosani, Romania

HERNÂNI DIAS
Mayor
Bragança, Portugal

MICHELE ESQUENET
Schepen
Bruges, Belgium

BORJA GUTIÉRREZ IGLESIAS
Mayor
Brunete, Spain

FERNANDO BENEGAS
Deputy Mayor
Buenos Aires, Argentina

ROBERTO RAMÍREZ
Mayor
Cabo Rojo, Puerto Rico

DYOTTE NORMAND
Mayor
Candiac, Canada

MIGUEL PINTO
Deputy Mayor
Cascais, Portugal

JORDI PUIGNERO
Minister for Digital Policies and Public Administration
Catalonia, Spain

ANGELO CRUZ
Mayor
Ceiba, Puerto Rico

EMIL BOC
Mayor
Cluj-Napoca, Romania

JUAN CARLOS GARCIA
Mayor
Coamo, Puerto Rico

MARCELO COSSAR
Secretary of Modernization & Communication
Cordoba, Argentina

RAFAEL GRECA
Mayor
Curitiba, Brazil

MOURADE DIEYE GUEYE
Secretary General
Dakar, Senegal

JACK MIKKERS
Mayor
Den Bosch, Netherlands

DENIS HAMEAU
Deputy Mayor
Dijon, France

PATRICE VERGRIETE
Mayor
Dunkirk, France

JOHN JORRITSMA
Mayor
Eindhoven, Netherlands

STIJN STEENBAKKERS
Deputy Mayor
Eindhoven, Netherlands

COMAN GHEORGHE-CATALIN
Mayor
Falticeni, Romania

PAULO SANTOS
Vice Mayor
Faro, Portugal

DARIO NARDELLA
Mayor
Florence, Italy

FRANCISCO LACERDA BRASILEIRO
Mayor
Foz do Iguaçu, Brazil

JOANNA TOBOLEWICZ
Plenipotentiary of the Mayor
Gdansk, Poland

LLUIS VALLS
Mayor
Gelida, Spain

ULF KAMNE
Deputy Mayor
Goteborg, Sweden

PASCAL BONIN
Mayor
Granby, Canada

CLAUS HABFAST
Vice Chair of the Metropolitan Council
Grenoble, France

SILVIO BARROS
State Secretary for Urban Development
Guarana, Brazil

YONA YAHAV
Mayor
Haifa, Israel

LÜTFÜ SAVAŞ
Mayor
Hatay, Turkey

CHIRICA MIHAI
Mayor
Iasi, Romania

HAYRI BARACLI
Secretary General
Istanbul, Turkey

KARI KARJALAINEN
Mayor
Joensuu, Finland

SUNKARA PAVANI
Mayor
Kakinada, India

MURSHID BUWEMBO
Lord Councillor
Kampala, Uganda

HIDETOSHI TERASAKI
Vice Mayor
Kobe, Japan

VANDENDRIESSCHE ARNE
Deputy Mayor
Kortrijk, Belgium

MUSTAFA MOHD NOR
Executive Director of Management
Kuala Lumpur, Malaysia

VOLODYMYR LEVIN
Deputy Mayor
Kyiv, Ukraine

AKIMASA YAMASHITA
Vice Governor
Kyoto, Japan

JESÚS HUSILLOS
Deputy Mayor
L'Hospitalet de Llobregat, Spain

MICHAEL COLLINS
Deputy Mayor
Limerick, Ireland

PEDRO PIMPÃO
Vice President
Loulé, Portugal

ANDERS ALMGREN
Deputy Mayor
Lund, Sweden

PHILIP SANDBERG
Mayor
Lund, Sweden

INÉS SABANÉS
Deputy Mayor
Madrid, Spain

JOAO MATLOMBE
Deputy Mayor
Maputo, Mozambique

SUSAN RILEY
Deputy Mayor
Melbourne, Australia

CRISTINA TAJANI
Deputy Mayor
Milan, Italy

GIUSEPPE SALA
Mayor
Milan, Italy

OSCAR CURUTCHET
Deputy Mayor
Montevideo, Uruguay

TRICHET FRANCKIE
Deputy Mayor
Nantes, France

EZEQUIEL GALLI
Mayor
Olavarria, Argentina

MUHAMMAD ASIM KHAN
Mayor
Peshawar, Pakistan

ALBERT SANDY DANIEL
Lord Mayor
Port Vila, Vanuatu

ZDENĚK HŘIB
Mayor
Prague, Czech Republic

LUIS BANCK SERRATO
Former Mayor
Puebla, Mexico

XABIER ALBIZURI MORETT
Secretary of Infrastructure, Mobility & Transport
Puebla, Mexico

ROBERT CVEK
Vice Mayor
Pula Pola, Croatia

HERBERT BAUTISTA
Mayor
Quezon City, Philippines

THORDIS LOA THORHALLS
Deputy Mayor
Reykjavík, Iceland

VOJKO OBERSNEL
Mayor
Rijeka, Croatia

ALEJANDRO ROSSELLO
President of the Municipal Council
Rosario, Argentina

LAURI INNA
Mayor
Salo, Finland

LUIS GERARDO RIVERA MARÍN
Secretary of State
San Juan, Puerto Rico

NOEL FORMOSA
Mayor
San Lawrenz, Malta

PÅL MORTEN BORGLI
Deputy Mayor
Sandnes, Norway

ISIDRE SIERRA
Mayor
Sant Climent de Llobregat, Spain

GEMA IGUAL ORTIZ
Mayor
Santander, Spain

KARLA RUBILAR BARAHONA
Governor
Santiago, Chile

ALFREDO MARTINEZ
Mayor
Santo Domingo Este, Dominican Republic

FELICIO RAMUTH
Mayor
Sao Jose dos Campos, Brazil

MARIANA SAMPAIO
Deputy Secretary of Innovation and Technology
Sao Paulo, Brazil

HERNAN JOSE MOURELLE
Secretary of Economy
Sea Plate, Argentina

DATO' TENG CHANG KHIM
State Minister of Trade, Investment & SME
Selangor, Malaysia

JUAN ESPADAS
Mayor
Seville, Spain

MUSAT GABRIEL
Deputy Mayor
Slobozia, Romania

JOSÉ CRESPO
Mayor
Sorocaba, Brazil

JUAN PABLO ALVAREZ
Mayor
Soyapango, El Salvador

ADENILSO BIASUS
Secretary
State of Santa Catarina, Brazil

PAUL MEYER
Deputy Mayor
Strasbourg, France

AIVAR RIISALU
Deputy Mayor
Tallinn, Estonia

JOSEP FÈLIX BALLESTEROS
Mayor
Tarragona, Spain

URMAS KLAAS
Mayor
Tartu, Estonia

ERION VELIAJ
Mayor
Tirana, Albania

PATRIK ZAK
Deputy Mayor
Trenčín, Slovakia

MASSIMILIANO DE MARTIN
Deputy Mayor
Venice, Italy

MARIUSZ F FRANKOWSKI
Chairperson of the Economic Development Committee
Warsaw, Poland

MIKHAIL VOROBEV VOROBEV
Deputy Mayor
Yakutsk, Russia

KAZUMI KOBAYASHI
Vice Mayor
Yokohama, Japan

BERNARDO CISNEROS BUENFIL
Secretary of Innovation, Research & Higher Education
Yucatan State, Mexico

MICHIEL VAN WILLIGEN
Alderman
Zwolle, Netherlands

City & Country Pavilions

Nearly **80 cities**, **regions and countries** built their own pavilion to spread their success in the implementation of smart solutions, promote their local companies and find funding. Their delegates also organized a myriad of activities (**receptions, workshops, cocktails, performances**, etc.) at meeting points throughout the venue and presentations for companies, so that they could establish significant partnerships and different forms of collaboration with worldwide firms and institutions.

This was a unique opportunity to discover first-hand projects such as the **Smart Nation project to transform Singapore** into a global benchmark of smart urban solutions deployment or the **Dubai Blockchain Strategy** to make "citizens happier".

Attendees could also delve into the successful **e-health living lab developed by The Hague** in The Netherlands, or the always worth-seeing **New York City projects focusing on user experience**, to cite only a few.

In addition, a vast number of key government authorities from around the world and major global institutions, like the **C40**, which are leading the world towards a healthier and more sustainable future, and the **United Nations Human Settlements Program** (UN-Habitat) identified areas of common ground.

Cities and Governments exhibiting from all over the world

Amsterdam	Gent	San Diego
Andorra	Goyang	Sandnes
Antwerp	Grenoble	Sant Cugat del Vallés
Ashdod	Hangzhou	Selangor
Atlanta	Hannover	Seoul
Austria	Hovedstaden	Shanghai
Baden-Württemberg	India	Shenzhen
Barcelona	Israel	Skane
Bayern	Italy	South Korea
Berlin	Japan	Spain
Bodo	Joensuu	Stavanger
Brussels	Karlsruhe	Stavanger City
Buenos Aires	Kobe	Stockholm
Busan	L'Hospitalet de Llobregat	Sweden
Canada	Leeds	Taipei
Cartagena de Indias	Lyon	Tampere
Catalonia	Madrid	Tel Aviv
Cologne	Montevideo	Thailand
Denmark	Montpellier	Toulouse
Dortmund	Moscow	Trondheim
Dubai	Msheireb	United States
Estonia	München	Viena
European Union	Netherlands	Wallonia
Finland	Norway	Wolfsburg
Firenze	Pereira	Zhejiang
Flanders	Prague	
France	Ramat Gan	

"The first year we came at the Smart City Expo, we selected the best practices we saw and imported them to Montevideo. As a result, we had good improvements. So, this year we came back to get ideas and collaborate to improve the region."

Cristina Zubillaga
Director of Sustainable Development, City of Montevideo

9.
THE CONGRESS

Cities are shaping our future. Their importance is undeniably growing, and citizens need to be involved in their development to build a better future.

The 2018 edition of the Congress focused on five main topics -Digital Transformation, Urban Environment, Mobility, Governance & Finance, and Inclusive & Sharing Cities- allowing for in-depth discussion in a wide variety of formats that ranged from the classic roundtable format to one-to-one dialogue or active networking.

With a full program of **117 sessions**, the conference attracted a greater number of delegates. The presentations and debates were held at the main Auditorium and five Thematic Rooms, and organized around **Thematic Programs**, sets of dedicated sessions that allowed participants to dive deep into the hottest topics of the debate.

More than **400 though-provoking leaders** and global innovators such as **Muhammad Yunus, Andrew Keen, Rufus Pollock or Victor Pineda** shared the latest thinking on what a city to live in really means and how to transform urban environments for the better.

The general sentiment was that **the smart city label is now fully accepted, and the concept is mature**. As a result, the smart city model is getting much more **citizen-centric**, and that makes probably much more sense for city inhabitants.

Both the Auditorium and the Thematic Rooms were at their full capacity during the three days. How blockchain can help cities build better governance and transportation, how can the IoT tackle air pollution, how to make more inclusive cities and not leave anybody behind and how to foster social business were some of the main topics that pervaded the different sessions.

Key figures

+400
SPEAKERS

117
SESSIONS

9
CONFERENCE ROOMS

30
THEMATIC PROGRAMS

550
CALL FOR SPEAKERS APPLICATIONS

Opening Session
Cities to Live In

📅 13/11/2018   🕐 09:30 - 10:15h

Speakers
Gerardo Pisarello / First Deputy Mayor - *Barcelona City Council*
David Cierco / General Director - *Red.es*
Jordi Puigneró / Minister for Digital Policies and Public Administration - *Government of Catalonia*
Gila Gamliel / Minister for Social Equality - *Government of Israel*
Janil Puthucheary / Minister of Transport and Communications - *Government of Singapore*
Ede Ijjasz-Vasquez / Senior Director of Social, Urban, Rural and Resilience Global Practice - *World Bank*

Cities have a critical role to play in building a better future as they have become the world's growth engine. Technology is key in that process, but it's only a means and not an end, as Gerardo Pisarello pointed out. The First Deputy Mayor of Barcelona made it clear that "what makes a city smarter is the ability to choose technological advances to have more inclusive, sustainable and democratic cities." He also took the opportunity to commend the work of the Barcelona City Council in promoting the reflection on the platform economy through the Smart City Week and the Sharing Cities Summit. David Cierco followed up by emphasizing that technological development only makes sense if it improves people's lives and underlined that digital advances must go hand in hand with social progress. Jordi Puigneró pointed out that Catalonia wants to become a worldwide paradigm of a digital nation of cities and communities in which citizens are engaged, empowered and skilled, and have their digital rights guaranteed. Janil Puthucheary came down to the concrete example of Singapore. The minister elaborated on smart initiatives, such as a national identity system based on a smart phone platform, a national grid of IoT sensors and

the promotion of MaaS, developed to improve the lives of generations to come.

> *"Technology should not be seen as a threat or a part of a dystopia. We need to develop solutions that make people's lives better."*
> *Gerardo Pisarello*

All of this bearing sustainability in mind as cities have now to act fast and decisively to avoid catastrophic climate change. Ede Ijjasz-Vasquez warned that by 2030 climate change may cost cities worldwide 314 million dollars a year and may push 77 million residents back into poverty. So, what happens next is up to us. Eventually, Gila Gamliel stated that "the digital revolution gives us an unprecedented historic opportunity to improve people's lives with limited natural resources" and announced that the Israeli government has approved a digital health plan, which will become a global innovation hub.

Keynote Session

Muhammad Yunus: A World of 3 Zeros: The New Economics of Zero Poverty, Zero Unemployment and Zero Net Carbon Emissions

📅 13/11/2018   🕐 15:00 - 15:30h

Speaker:
Prof. Muhammad Yunus / Nobel Peace Prize laureate - *Yunus Center*

The microcredit concept is not a new one, but Muhammad Yunus captivated the audience by sharing his experience in starting a whole new business based on this idea. It all began back in 1976, to help the village next to the university he was working at. Then, when he realized he couldn't handle the whole thing by himself, he created a banking institution to help the poor, called Grameen Bank. Yunus explained that he never took a course in banking, so he could do anything he wanted. And it worked. Today Grameen Bank has more than 9M borrowers, 97% of whom are women. Yunus highlighted that poverty is not created by the poor. It's created by the system as society doesn't give them the space to grow. But the moment you give impoverished people the oxygen they need, they get creative and active like anybody else. "Old roads will never take you to a new destination", he stated to make it clear that problems may be solved by creating new businesses. As an example, he mentioned a business based on solar energy he launched in Bangladesh to solve the energy demand. Then, he also underlined that employment is an obsolete concept created by the capitalist system because human beings are not born to work for anybody.

> *"Employment is not the destiny of human beings. Human beings are born as entrepreneurs."*
> *Muhammad Yunus*

If anyone can become an entrepreneur, why are worldwide unemployment rates so high? The answer is not an easy one. Yet some hints are to be found in his book where he advocates for A world of 3 Zeros: Zero Poverty, Zero Unemployment and Zero Carbon Emissions. In his opinion, we just have 30 years to save the planet. So, we have to take action now, he concluded.

Keynote Session

Andrew Keen: How to Fix the Smart City Future

📅 14/11/2018   🕐 14:00 - 14:30h

Speaker
Andrew Keen / Entrepreneur and Author of *How to Fix the Future*

Nothing is what it seems to be. Andrew Keen started out his presentation by acknowledging that "we thought the sexy stuff about the internet was real, and we failed" as today there is radical inequality, the looming crisis of AI, issues with social networks and a failed economic business model in Silicon Valley where the user is the product.

> **"The great smart cities of the future will be places which will be algorithm free."**
>
> *Andrew Keen*

A gloomy introduction to reflect on what it really means to be a smart city and what are the implications for the human beings. Keen wondered how we are going to fix the future of smart cities considering what is happening today. He mentioned the city of San Francisco as an example of the troubling inequalities of the digital age, where public space is disappearing and there is no civic pride. And he cited Marshall McLuhan to support his assertion: "We build our technology and technology builds us." So that's the warning: we need to design worlds that won't end in San Francisco. Hereof, he underlined that the smart city needs to be a place that encourages human agency, meaning the human ability to be creative, to think, to be empathetic, not a place that fetishizes technology. He then enumerated five tools to achieve that: regulation, a new wave of entrepreneurs creating products encouraging urban values, a city of openness, citizens who are fully engaged and consumers who are more demanding of their products, as well as education. Education needs to be reinvented, as it is central to the future of the smart city. He then pointed against the Chinese model, which he labeled as *surveillance authoritarianism* and claimed to "maintain a space for stupidity" in the future. In the cult of smartness, you have the seeds of a terrifying totalitarianism, he said. So be careful with what you wish for.

Keynote Session

Rufus Pollock: A Robot Revolution for the 1%?

📅 15/11/2018   🕐 11:45 - 12:15h

Speaker
Rufus Pollock / Founder and President - *Open Knowledge*

The biggest single change -potentially in all the human economic history- is that more and more of the value produced during the digital age lies in information. So, the single profound shift in the nature of the digital age is costless copying. Rufus Pollock repeated this throughout his presentation. Simply put, that means movies are different from shoes in a fundamental way. If you're wearing your shoes, nobody else can wear them at the same time, but if you get an idea, you can share it with millions of people.

> **"We can make a world where everyone has a chance, and everyone has a choice."**
> **Rufus Pollock**

This changes everything. He also connected it with politics and the global rise of populism. In fact, there's a connection between the growing inequality and the political instability we are seeing today, he said. It's not just because of technology, but the combination of digital technologies, costless copying and the inappropriate use of old rules of exclusive ownership in the form of patents and copyright. The result of running the digital economy with these old rules of exclusive ownership and control is "incredible at spiraling inequality and stagnating innovation". Pollock recalled that the eight richest people on the planet have as much money as the bottom 50% of humanity. Of those eight, six are tech billionaires. So, once you get costless copying and you understand what it does when you combine it with exclusive rights, you can understand much of what's going on today, Pollock stated. The thing is we need new rules for this new digital economy. In this new world, intellectual property is indeed intellectual monopoly. We're stuck thinking that bits are like bread, but they're not. "A better world is possible. We can make a world where everyone has a chance, and everyone has a choice", he concluded.

Inspirational Talk

Natalia Olson-Urtecho: The Power to Change the Future of Cities Depends on Smart Region Strategies
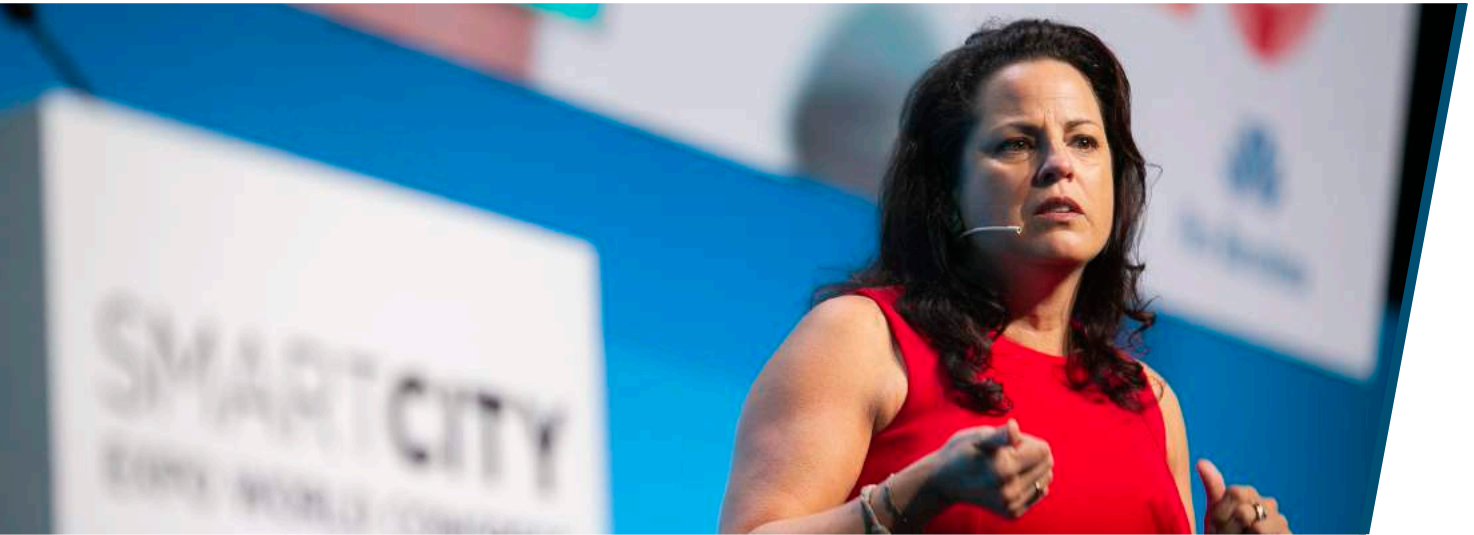
📅 14/11/2018   🕐 10:00 - 10:20h

Speaker
Natalia Olson-Urtecho / Chief Innovation Officer & Board Member - *Smart City Works & The Disruptive Factory*

It's an undeniable fact. We are facing a technological revolution. Yet technology sometimes goes faster than policies. How do cities encounter this challenge? Natalia Olson-Urtecho underlined the need to reimagine how to "deconstruct and reconstruct our cities", while empowering citizens. "We cannot think in the past anymore", she claimed. As entrepreneurs, cities need to start thinking in how to work with the business community to create the jobs of tomorrow. Hereof, she revealed that within the Obama administration and during the economic recession, city managers made sure to integrate concepts such as collaboration, co-generation and cooperation in their initiatives, for example by setting a small business contracting goal of $100 billion. This goal is still being met. Furthermore, 5% of this amount goes to women-owned companies as "women empowerment is extremely important", said Olson-Urtecho, who insisted that governments and institutions have to bring powerful women from every background into the picture and ensure that they're not leaving people behind.

> **"We cannot think in the past anymore. We have to start thinking how we are going to work in the future."**
> *Natalia Olson-Urtecho*

The Chief Innovation Officer of Smart City Works also pointed out that cities and regions -since different administrations need to figure out how to work together-, will not flourish if they don't empower small businesses. On this note, she highlighted the role of ICT in helping people gain a global perspective while becoming an accelerator system enabling small businesses to take off.

Inspirational Talk

Daria Tataj: Innovation through Network Thinking: A Growth Model for Middle-Sized Cities in the Digital Economy

📅 14/11/2018   🕐 10:20 - 10:40h

Speaker

Daria Tataj / Chair of High-Level Advisors to Carlos Moedas, EU Commissioner for Research, Science & Innovation

How do you reinvent a mid-size city? What would be a growth model for middle-sized cities in the digital economy through networked thinking? These were the starting questions posed by Daria Tataj, who made it clear that if you want to create a new growth model, you need to be an entrepreneur.

> *"There are three steps to unleash growth through the power of networks: understand, create, orchestrate."*
>
> *Daria Tataj*

In fact, as Chair of High-Level Advisors to Carlos Moedas, Tataj considered that it's critical to rethink the €100 billion budget that Europe is allocating for its research and innovation program for 2021-27. She said: let's invest in education and in entrepreneurship, as a traditional way of thinking doesn't take us where we want to be. Furthermore, she underlined that network thinking is a way of looking at the world from a different perspective. And there are three steps to follow this path: first, you need to understand innovation networks. Secondly, you need to understand how to create networks and thirdly, you have to orchestrate the networks locally and globally. In short: "understand, create, orchestrate". This is the Tataj formula to achieve innovation through network thinking. Cities cannot copy Silicon Valley. In Europe, they need a European perspective, which integrates a very diversified ecosystem. And the European Institute of Innovation & Technology (EIT), which Tataj believes will be in short time one of the most powerful innovation networks in Europe, may be of help. EIT is based on four pillars, which are essential for growth: research, innovation, education, and entrepreneurship. The problem, according to Tataj, is that they often function in silos. So, it's necessary to connect them to each other. Then, she concluded that in the digital age, any middle-sized city can build this ecosystem of innovation locally and connect to the global value chain.

Inspirational Talk

Yochai Benkler: Democratic Accountability and Innovation: Open, Collaborative and Social

📅 14/11/2018   🕐 17:15 - 17:45h

Speaker
Yochai Benkler / Professor and Faculty Co-Director - *Harvard Law School*

We all have in mind this image of galloping technology, continuously increasing in speed. But why is it that some people have a plush first class position in this journey while others are barely clinging on to the outside? That is the question Yochai Benkler asked at the beginning of his session. Benkler developed two main ideas: The first one is that a proprietary solution from a single firm is almost never the solution. Open standards, open data and a diverse ecosystem will outperform over time, so they are better. In this sense, he recalled that there has been a transformation in the study of innovation in the last 25-30 years along four discreet transitions: the shift from single genius innovation to networks of learning; the connection of market and non-market players; the shift from a focus on a competition model that assumes self-interested actors to a model of cooperation and competition; and lastly, the transition from purely property to a mix of property and Commons. The second one is that there is no such thing as a choice on technology that is purely technical, and efficiency based.

> *"The only way to deal with the inherent uncertainty of contemporary life is to develop open, collaborative learning systems and to embed market dynamics in social relations."*
> *Yochai Benkler*

All technological choices are social and political choices about who we are together and what kind of social and political community we form. "You cannot have democratic accountability without knowing who is doing what, where and to whom with what effect", he stated. Only transparency and auditability can assure democratic accountability. So, cities cannot export responsibility to the ghost in the machine. In this regard, he cited the Decidim Barcelona platform as an example of a mediated political community and not just a client service relationship. To conclude, Benkler emphasized that open knowledge, data and information are as critical to the Smart City as streets, squares and parks are to the urban environment itself.

Inspirational Talk

Victor Pineda: My Journey Through Struggle, Innovation and Radical Inclusion

📅 15/11/2018   🕐 13:30 - 14:00h

Speaker

Victor Pineda / President - *World Enabled*

Victor Pineda spoke about his personal experience to illustrate that we are all in the inclusiveness journey together. As a child he was already confronted by the fact that he had no value to share, as he was considered an 'inválido' (a derogatory Spanish term meaning handicapped) in his home country, Venezuela. Later on, in the United States, he found ways to be included in the education system and obtained a degree in Political Economy, a Master's in Regional Economic Development and a PhD in Urban Planning.

> **"Smart cities are key allies in creating a regenerative, responsive and radical transformation of the way our cities function."**
> **Victor Pineda**

Now he teaches in some of the most prestigious universities. Pineda emphasized the power of imagination as a way to get to know what he could contribute to the world. He also elaborated on the concept of human rights, which is "a whole set of changes we make to ensure that people have dignity" and pondered on the true meaning of being human. He found a partial answer in the fundamental value of connections. He then traveled to India and shot a documentary to find out that "we all have a unique talent, a contribution to make". As for smart cities, he defined them as key allies in creating a regenerative, responsive and radical transformation of the way our cities function. As an urban planner, he described cities as systems of systems that too often are not linked together effectively. But this can be changed through the power of radical inclusion. Accessibility is not just a human right, it's a human imperative, he said. How can we make sure that assistance to people with disabilities is built into the products and services we use? There are great advances in this area, and together we can do much more. Inclusion is not just a destination, it's a journey, he concluded.

Plenary Session

High Level Panel Discussion: How City Leaders Can Better Foster Innovation for More Liveable Cities
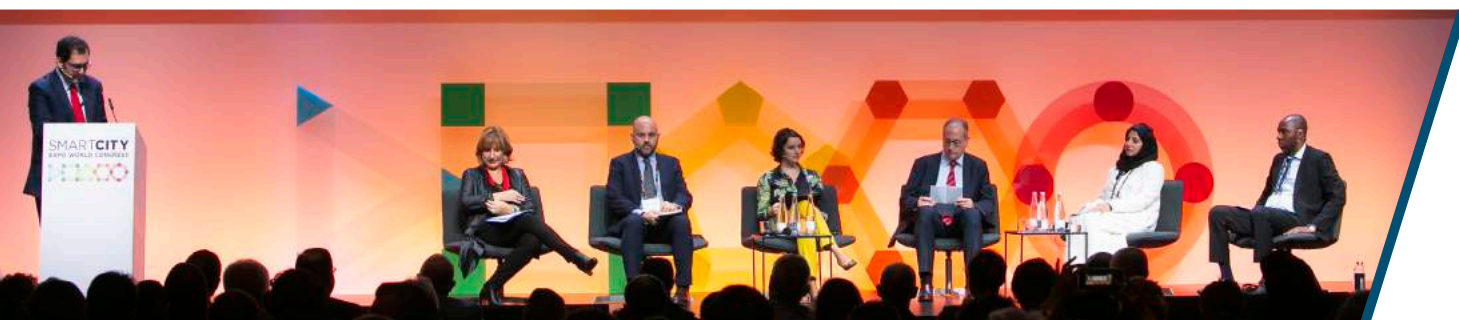
📅 13/11/2018   🕐 10:15 - 11:05h

Chair
Dionisio González García / Advocacy & Outreach Director - *UITP*
Speakers
Pere Calvet / President - *UITP*
Emilia Saiz / Secretary General - *UCLG*
Mercedes Vidal / Councilor for Mobility - *Barcelona City Council*
Octavi de la Varga Mas / Secretary General - *Metropolis*
Muna Al Osaimi / Director of Transportation & Strategic Planning - *Roads & Transport Authority Dubai*
Joao Matlombe / Councilor for Transport and Traffic - *City of Maputo*

Mobility is a key challenge for cities. Urban leaders should be able to address the important goals of healthier, fairer, and more integrated and sustainable transport in line with UN Sustainable Development Goals. Pere Calvet acknowledged that there are no magical recipes because mobility doesn't have a one-size-fits-all solution.

> *"The quality of public transport defines the quality of life in our cities. It defines our level of inclusiveness."*
>
> *Emilia Saiz*

Yet for the president of UITP it all comes down to four basic principles: the collaboration between different administrative levels, a regulation which is effective, a framework of stable financing and political leadership. In fact, the future of cities depends on all the stakeholders, he said. Emilia Saiz agreed that the mobility discussion has changed over the past decades and advocated for rethinking

the whole public space, in addition to discussing the combination of mass transportation and the new individual modes of transport. At her turn, Mercedes Vidal brought up new problems such as how citizens move around the city by scooter and said that pollution and mobile security are key. She also made a good point by asking why the major transport infrastructures are devoted to cars when the majority of people walk around the city. On the other hand, Octavi de la Varga requested a gender perspective on mobility, as the citizens who make the most of public space are women. Muna Al Osaimi explained how Dubai is promoting public transportation through various means including flying taxis, smart pods, connected vehicles and on-demand responsive buses. The city has also launched the Dubai Autonomous Vehicle Strategy, which aims at transforming the experience of mobility by 2030 and beyond. Eventually, Joao Matlombe highlighted that the first challenge of Maputo was bringing all the stakeholders together to consider a sustainable solution for all. In this regard, he emphasized that "mobility management has to improve, but mobility behavior too."

Plenary Session

Innovative Governance Models: a Quest for the Common Good

📅 13/11/2018   🕐 11:30 - 12:30h

Chair
Nicole Flatow / Head Editor - *CityLab*
Speakers
Ana Paula Chantre Luna de Carvalho / Minister for Spatial Planning and Housing – *Government of Angola*
Joan Clos / Former Executive Director - *UN-Habitat*
Mala Anand / President - Leonardo, Analytics & Industries - *SAP*
Zhiguang Shan / Director-General of Information Research Department and Secretary General of China Smarter City Development - *State Information Center of China*
Alfonso Díaz del Río Díaz de Bustamante / Diversification & Strategic Projects Director - *Ferrovial*

Nicole Flatow introduced the session by recalling that innovation should be bottom-up and serve the interests of all the people in any place. How can you make innovation serve the common good? Ana Paula Chantre Luna de Carvalho explained how Angola focused on social housing after the civil war and added that the country's priorities are to create a plan to improve habitability and also focus on mobility and waste management while working on the social and economic aspects of the development of smart cities. Alfonso Díaz del Río Díaz de Bustamante broached the need to be innovative and disruptive in the way city providers approach urban solutions.

> **"A smart city is a systematic project of information integration and social innovation."**
> *Zhiguang Shan*

In fact, he said that Ferrovial is tackling this challenge by applying open innovation, PPP and understanding what the citizens' needs are. Mala Anand followed up by acknowledging that new forms of smart systems are emerging and embedding machine learning, analytics, big data, and IoT into the depth and breadth of business processes across cities' value chain. This enables cities to create new business models and to reimagine experiences to improve citizens' life. Zhiguang Shan agreed that the big challenge is to set up a good model to integrate data, technology and the demands of all the different cities around the nation. And this is no small thing. For Joan Clos, former Executive Director of UN-Habitat, the problem is that cities are changing faster than governance models, as changing governance means fighting with the boundaries of the electoral system. Yet he stressed that we need new forms of metropolization, especially to manage environmental issues, as reducing climate change impact.

Plenary Session

Bringing Down Barriers: What Building an All-Inclusive Society Means

📅 13/11/2018   🕐 16:00 - 17:00h

Chair
Sameh Naguib Wahba / Global Director for Urban and Territorial Development, Disaster Risk Management and Resilience - *World Bank Group*
Speakers
Francesca Bria / Chief Technology and Digital Innovation Officer - *Barcelona City Council*
Miguel Gamiño / EVP Global Cities - *Mastercard*
Emilia Saiz / Secretary General - *UCLG*
Joseph Bradley / VP of Customer Experience, IoT and Incubation - *Cisco*

According to the World Bank, inclusive cities are cities that excel at tackling three different domains of exclusion: spatial exclusion, economic exclusion and social exclusion. Sameh Naguib Wahba started out the session by elaborating this concept and asking the panelists how cities can address these issues. Francesca Bria considered that to build a more inclusive, sustainable and democratic city "we have to create a city of rights and not just a city of privileges". So, when it comes to technology, cities have to make sure it's not accelerating the inequalities. And that is the reason why it is wise to start with what citizens really need and the pressing urban challenges. Miguel Gamiño echoed Francesca Bria in stating that cities have to make sure that they include people in the process. He also said that a sense of empathy between the public sector and the private sector would help them collaborate to achieve a lot more progress. "Collaboration is the superpower", he said. During her turn, Emilia Saiz acknowledged that people-centered solutions are really taking over. At least, in theory. The narrative is good, but reality

is stubborn. Saiz said that cities which are less known than Barcelona or New York are still treated as buyers, while citizens are considered as clients and users. So, this transformation is a journey and cities are still dealing with many unknowns.

> **"If we want to create a more inclusive, sustainable and democratic city we have to build a city of rights and not just a city of privileges."**
> *Francesca Bria*

Eventually, Joseph Bradley underlined the importance of basic diversity as well as the need for context and security, saying "without trust you can't gain full participation." Ultimately, now is a time in which "we, as citizens, as people, need to stop worrying about what we don't know to think about what we believe to be fundamentally true."

Plenary Session

The City We Want: Resource-Efficient, Resilient and Sustainable

📅 14/11/2018   🕐 10:45 - 11:45h

Chair
Manel Sanmartí / Research Energy Engineer - *Catalonia Institute for Energy Research*
Speakers
Karla Rubilar / Governor - *Metropolitan Region of Santiago*
Luis Gerardo Rivera Marín / Secretary of State - *Government of Puerto Rico*
Ulrich Ahle / CEO - *Fiware Foundation*
Joanna Drake / Deputy Director-General, DG Environment, *European Commission*
Vahé Torossian / Corporate Vice President, Western Europe - *Microsoft*

The city we want is not an easy one to define as cities come in different shapes and sizes and are characterized by their geographical and cultural features. But we know that sustainability must be at the core of urban development. Manel Sanmartí asked the panelists how to factor these parameters to better cope with environmental challenges. Luis Gerardo Rivera answered that cities need to be flexible in their planning and build towards an economic sustainable development. He also pointed out the need to address inequality and poverty as a means to tackle catastrophes, sustainability, and resiliency. On this note, Karla Rubilar considered that more equitable cities are achieved by taking action and injecting resources where they are really needed. Putting people at the core of this strategy is also crucial, she said. Ulrich Ahle recalled that information is often organized in data silos and that it is important to break them down as creating smart cities means not only being effective but also efficient. To this end, Fiware is promoting an open-source based approach which is one of the

eight building blocks of the EU Digital Single Market program.

> *"Sustainable, circular, green and blue bioeconomy is the European way forward."*
> *Joanna Drake*

Joanna Drake followed up by stating that resilience means getting the right balance between having a city that works and living within the limits of our planet. For that, cities need to have the right policies and, most important, implement them. Another key point she made is that cities are not only looking for IT solutions but for an enabler that can adapt to their real circumstances. Vahé Torossian closed the panel by bringing up the importance of the convergence of Artificial Intelligence and IoT, which is helping governments to deliver more citizen-centric services that create more attractive, sustainable and inclusive communities.

Plenary Session

Urban Innovation Processes in Smart City Expo Host Cities

📅 14/11/2018   🕐 14:30 - 15:00h

Moderator
Lluís Gómez / Commissioner for Economic Promotion, Enterprise & Innovation - *Barcelona City Council*
Speakers
Francisco Xabier Albizuri / Secretary of Infrastructure, Mobility & Transportation - *City of Puebla*
Rafael Greca / Mayor - *Curitiba City Council*
Hiroyuki Suzuki / Executive Vice President - *Advanced Telecommunications Research Institute International of Kyoto*
Matias Williams / Undersecretary of Smart City - *Buenos Aires City Government*

Hosting a Smart City Expo event is certainly a great challenge for a city but also a rewarding experience as it works as a key catalyst for urban change. Lluís Gómez introduced the experiences of four cities that are developing forward-looking and internationally renowned Smart City strategies, which have improved their economic development, social inclusion and sustainability. Rafael Greca pointed out that Curitiba is a green city and that their Bus Rapid Transit (BRT) system implemented in 1974 has been copied in 250 cities worldwide. Now, it plans to become the most innovative city in Brazil. "We all have to make a great effort to democratize innovation", he said. During his turn, Hiroyuki Suzuki revealed that Kyoto has started a national governmental project aimed at boosting global open innovation. The ultimate goal is making a smart sustainable society in Kyoto. Francisco Xabier Albizuri explained that Puebla is organizing

a LATAM edition of the Smart City Expo because it dared to change. The event set the ground for the Smart City LATAM alliance, which is a network gathering all the urban innovation stakeholders in Latin America with the goal to stop inequity.

> *"The most important thing is to focus on people and to create human-centric products and services."*
> *Hiroyuki Suzuki*

Moreover, Puebla has grown by 6.9% whereas the country is growing by 1.8%. Last but not least, Matias Williams acknowledged that, since the Smart City Expo Buenos Aires has been organized, the city is smarter and better for its citizens.

Plenary Session

Mobility of Tomorrow: Faster, Cheaper, Cleaner and Safer than Today?
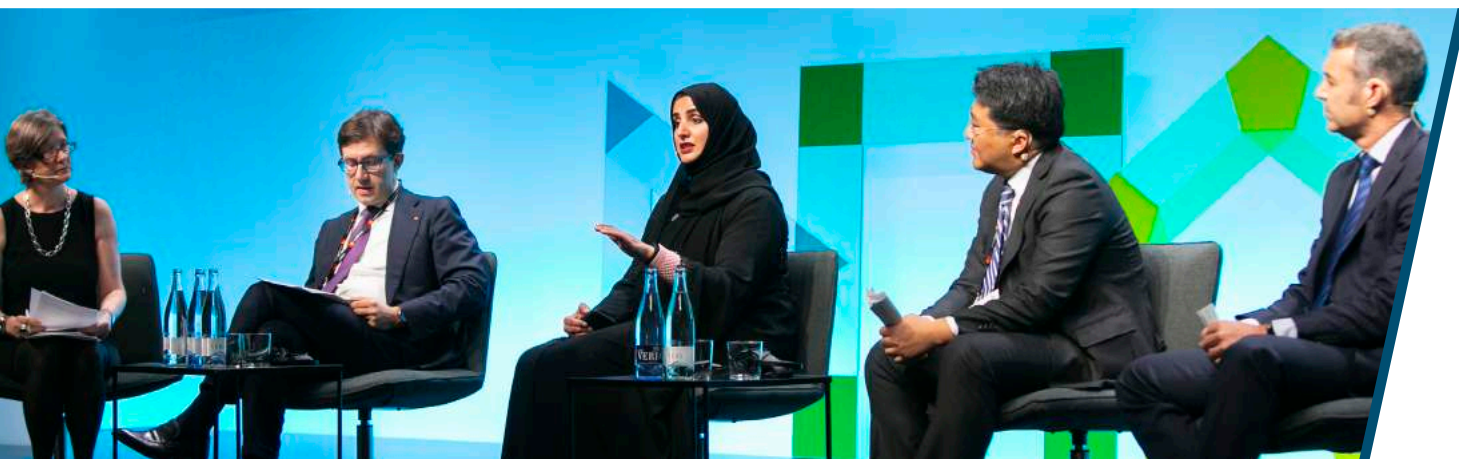
📅 14/11/2018   🕐 17:45 - 18:45h

Chair
Sarah Murray / Writer & Journalist
Speakers
Dario Nardella / Mayor - *Florence City Council*
Aisha Bin Bishr / Director General - *Smart Dubai*
Seong-Ik Oh / Director of the Innovation City Support Policy Division - *Ministry of Land, Infrastructure and Transport of South Korea*
Xavier Grau / Director of Operations - *FCC Environment*

Sarah Murray introduced the panel by stating that autonomous and electric vehicles are really turning the mobile ecosystem around, so cities have now the opportunity to reimagine themselves rather than just tinker at the edges of the transportation system. But as we get there, some challenges arise. Aisha Bin Bishr recalled that the Dubai autonomous strategy was launched in 2016 with the goal of transferring 25% of Dubai´s mobility to autonomous services by 2030. Now technologies like AI, Blockchain and Big Data are changing the city's landscape, so managers need to think in layers not just to put vehicles on the street but to manage the data that comes out of this shift and link it to the IoT ecosystem across different sectors, she said. Dario Nardella talked about the need to protect cultural heritage when deploying a mobility strategy in centuries-old cities like Florence. Florence's vision for green sustainable mobility is based on three strategic pillars: a pedestrian area, sharing mobility, and public transport and electric mobility, which he considered a good investment, especially for

historical cities. Seong-Ik Oh explained that one of the main projects of Sejong City is to reduce the number of automobiles by 2/3 compared to similar-sized cities. In this regard, he said that once the autonomous vehicle is introduced, car hailing service will be the main mobility service tool in Sejong City.

> ### "The future city is a city without private vehicles."
> *Dario Nardella*

Eventually, Xavier Grau explained how garbage trucks run and what are the advantages of having electric trucks. With FCC vehicles, municipalities save up to 35% as they are equipped with an on-board ecological battery charger, allowing them to finish their route with guarantees and to last longer than conventional trucks. In the end, all panelists agreed that whatever the decision, citizens should be at the center.

Plenary Session

Accelerating Digital Transformation: Leaving No One Behind

📅 15/11/2018   🕐 12:15 - 13:15h

Chair
Elkin Velasquez / Director of the Regional Office for the Caribbean and Latin America - *UN-Habitat*
Speakers
Alejandro Rosselló / President - *Rosario Municipal Council*
Didier Nkurikiyimfura / Director of Technology and Innovation - *Smart Africa Secretariat*
Judit Aguas / Head of Strategic Projects - *Consorci Administració Oberta de Catalunya*
Joe So / CTO Industry Solutions - *Huawei Technologies*
Bram Reinders / Co-Founder & Co-Chair - *Institute for Future of Living*

Elkin Velasquez started out the session by reminding that "leaving no one behind" is one of the key objectives of the UN New Urban Agenda. But, how can we make sure that this is possible in the current digital era? Panelists agreed that cities have to ensure that the benefits of technological innovation are shared by all. Bram Reinders clarified that The Netherlands is running smart city initiatives based on the UN Sustainable Development Goals and cited a project for sharing energy as an example. In Argentina, there's a national education law focusing on developing digital education and skills. And, in Rosario, there is a digital tool so that citizens can participate in the governmental decision-making, said Alejandro Rosselló. In fact, we live in a digital society and connectivity will become the primary infrastructure for many countries, pointed out Joe So. Thus, we need to improve the quality of life of citizens, business competitiveness and government efficiency. In this regard, Judit Aguas gave some hints on what the Administració Oberta de Catalunya (AOC) does to help governments to be more agile, logic,

collaborative and citizen-centric while avoiding the digital gap. Didier Nkurikiyimfura pointed out that Africa has embraced ICT quite aggressively the last 15 years. He elaborated on the initiatives the Rwandan government has developed to put ICT at the center with their vision on 2020.

> **"What is really driving the digital transformation and leaving no one behind is connectivity."**
> *Joe So*

Now over 100 on-line services can be accessed via USSD (Unstructured Supplementary Service Data) phones, he said. Yet the rate of urbanization, which is expected to reach 60% by 2030, poses significant challenges, he added. In this sense, education is key. Panelists ended by underlining that it is important to have a business plan for digital transformation.

Plenary Session

How Emerging Technologies Are Transforming the Cities We Live In

📅 15/11/2018   🕐 14:00 - 15:00h

Chair
Pipo Serrano / Head of Digital, Strategy & Content - *Broadcaster*
Speakers
Jenny Bofinger-Schuster / Senior VP, Sustainability and Cities - *Siemens*
Carlos Moreno / Mayor of Paris' Special Envoy for Smart Cities - *Paris City Council*
Daria Tataj / Chair of High-Level Advisors to Carlos Moedas, EU Commissioner for Research, Science & Innovation
Jamal Al-Kuwari / Chief Commercial Officer - *Msheireb Properties*
Miguel Eiras Antunes / Global Smart City Leader, Government & Public Services - *Deloitte*

The goal of any city is to provide a better life for its citizens, stated Pipo Serrano to commence the session. Jenny Bofinger-Schuster echoed his words by underlining that cities are the place where technologies are happening, and these technologies are life-changing. In 2020 data volume is expected to reach nearly 44 zettabytes. This is challenging but also a big opportunity to make cities more livable. And for Siemens, that means "all electric, all connected and with an open stable ecosystem", said Bofinger-Schuster.

> **"The most important thing isn't technology but having happy cities with happy citizens."**
> *Carlos Moreno*

Carlos Moreno took a different approach and affirmed that the most important challenge in cities is climate change and also how to identify the common goods; meaning air, water, shaded areas, space, time, and silence. He also elaborated on the need to develop sustainable, open, and connected cities. On this note, Daria Tataj said that cities are perfect places to house a laboratory on how businesses and governments can innovate together. We have access to massive data, but unless we ask the right questions these are just numbers, she stated. We live in a networked world and innovation follows different patterns, so managers need to understand how to lead this process. During his turn, Jamal Al-Kuwari shared Msheireb Properties projects to provide a better quality of life for Qatar residents and visitors. To do so, they have developed four different smart city layers: digital infrastructure which is ready for the introduction of 5G, systems integration, applications interface, and innovation ecosystems. Eventually, Miguel Eiras Antunes shared with the audience his personal vision of the smart city, which is a place where "people are very happy, companies are successful, and things are sustainable." Technology is crucial for that. But it's also critical to have an innovative approach to financing, he concluded.

Dialogue Session - C40 Talks

Deadline 2020: European Cities Getting the Job Done

📅 14/11/2018   🕘 09:15 - 10:00h

Moderators
Màrius Carol / Director - *La Vanguardia*
Susana Quadrado / Chief Editor - *La Vanguardia*
Speakers
Ada Colau / Mayor - *Barcelona City Council*
Georgios Kaminis / Mayor - *City of Athens*
Giuseppe Sala / Mayor - *City of Milano*
Michael Müller / Governing Mayor - *Berlin City Council*
Teresa Ribera / Minister for Ecological Transition - *Government of Spain*

Cities are the real triggers of economic growth in the world, beyond states and boundaries, as Marius Carol mentioned to start out the session. Ada Colau added that they are the landing track for global problems, but also the place where the most creative solutions are crafted.

> *"Cities are the new global actors concentrating not only population but also innovation capacities and concerted actions to respond to the challenges posed by climate change."*
>
> *Ada Colau*

And she mentioned C40 as a paradigmatic network of cities leasing the fight against climate change. The time to act is now, Colau insisted. In this regard, she explained the Barcelona Climate Plan, which aims at reducing CO_2 emissions by 45% in 2020 and becoming a carbon neutral city by 2050. She also broached the notion of climate justice,

in the sense that environmental policies need to pick up on possible inequalities and to be able to mitigate the effects of climate change evenly. During his turn, Giuseppe Sala exposed the City of Milan and its inhabitants (1.4 M) commitment to fight climate change. On this subject, he underlined the role of education as a key factor to foster awareness regarding the problem. He also made it clear that big actions are strongly needed, however, little creative examples can change many things. Therefore, it's fundamental to cooperate, and PPP is the best model to achieve results, he said. Then, Giorgios Kaminis disclosed how Athens deals with heat waves creating cool spots for elderly people, and Michael Müller described the initiatives undertaken by Berlin to become climate neutral by 2050. Last of all, Teresa Ribera also pointed out the Spanish commitment to become carbon neutral by the same date. To this end, Ribera announced also her government's intention to reduce emissions by one third over the next 11 years. It's our way of understanding progress and prosperity, she concluded.

Dialogue Session
The Right to the (Smart) City

📅 15/11/2018   ✓ 17:15 - 18:00h

Chair
Vera Vidal / Researcher - *Open University of Catalonia*
Speakers
David Bravo / Advisor - *CCCB*
Murray Cox / Founder - *Inside Airbnb*
Samer Hassan / Associate Professor - *Complutense University of Madrid / Berkman Center at Harvard*
Mayo Fuster Morell / Director Research on Collaborative Economy - *Dimmons IN3 Open University of Catalonia*

Can ICT contribute to the democratization of the city? This was the question that Vera Vidal asked the panelists to begin the session. David Bravo pinpointed three main factors affecting the way we live in cities: data collection, which is concentrating a lot of information in the hands of a few, the multiplication of connected devices; and the development of algorithms which are deciding on things that truly affect our life.

> **"Stupid cities are those which are not tackling issues like inequality and lack of sustainability."**
> *David Bravo*

Yet technology also allows cities to collect data from mobile operators to know more about the uses of urban space and to defend the right to the city, he acknowledged. Murray Cox, who defined himself as a data activist who provides tools to visualize how Airbnb is used in cities, recognized that short-term rental platforms are impacting social resources in the city, namely housing, and that data is key to create good policies to tackle this issue. Mayo Fuster asked for a more open and more decentralized vision of technology that can favor new organizational logics. This, of course, brings new opportunities and challenges. Fuster also talked about the Sharing Cities Summit, which took place in Barcelona from 12 to 15 November 2018 to address the challenges and opportunities of the platform economy. Samer Hassan later elaborated on the way platform-run services like Uber or Airbnb function. These are costly, so they need to monetize as much as they can, he said. In the platform economy, "surveillance is the business model", he added. But there are alternatives such as cooperative platforms were users can decide how they evolve and experiment with economic models where the value is distributed. No need to say that Blockchain helps with this model as it ensures there is no single owner of the infrastructure. Food for thought.

Digital Transformation

5G Technology: The Next Level of Connectivity for Industries and Society

📅 13/11/2018   ⏱ 12:45 - 14:45h

Participants

Sergi Figuerola / Chief Technology and Innovation Officer - *i2CAT*
Bernard Barani / Deputy Head of Unit, Future Connectivity Systems - *European Commission*
Sri Elapolu / Senior Manager Public Sector IoT - *Amazon Web Services*
Óscar Pallarols / Global Commercial Director - *Cellnex Telecom*
Daniel Marco / Director, Smart Catalonia - *Government of Catalonia*
Colin Willcock / Chairman of the Board - *5G Infrastructure Association*
Francisco Javier García / Public Services Director - *Red.es*

It's the next big thing. 5G promises to be faster, cheaper and better than its predecessors, as it explicitly unites wireless, wireline and satellite services under a common structure. Big mobile companies and wireless carriers are already talking about cell networks with lighting fast downloads, low latency, and enough bandwidth to power pretty much anything you do on a phone or PC.

> *"5G is not 4G+1 but it is something that has the power to really support the digitization of the economy."*
> *Bernard Barani*

But what will cities of the near future look like when buildings, cars, people and a whole slew of other things can communicate with each other, and when augmented and virtual reality applications are possible? And how can cities make this transition

feasible from a financial and infrastructural perspective? Panelists of the sessions dedicated to 5G discussed the hottest topics related to the deployment of this technology in cities.

TAKEAWAYS:

• Expectations of 5G are high. It's not 4G+1 but something that has the power to really support the digitalization of the economy.

• The fusion of 5G, AI and IoT will radically transform many sectors. It is set to deliver better services to citizens.

• Self-driving cars won't be available until 5G data networks are ubiquitous.

• The global economic impact of 5G in new goods and services will reach $12 trillion by 2035.

• With 5G we're setting the foundations of the future, but for now we don't know what the killer applications will be, because the technology is still being defined.

Digital Transformation

Internet of Things: Powering the IoT Revolution and Making Sense of Data

📅 13/11/2018   ✓ 17:15 - 19:15h

Participants

Brenna Berman / Executive Director - *City Tech Collaborative*
Félix Herrera / Telecommunications Engineer and Lead of Smart Cities/Regions Group - *COIT*
Mara Balestrini / CEO - *Ideas for Change*
Paulo Ferreira / Vice President, Smart Vertical Solutions & Smart Cities - *Bosch*
Juanjo Hierro / CTO - *Fiware*
Will Judge / Vice President - *Mastercard*
Jacques Letzelter / Senior Vice President, Public Customer Segment - *Signify*
Gemma Batlle / IT Market Manager - *Eurecat*

Enabling things to connect and exchange data is revolutionizing the way organizations and institutions use technology to collect, store, analyze and distribute the data that is required to operate optimally. But, how can we extract knowledge and wisdom from IoT data to improve life, business and public services?

> *"Data doesn't give solutions, political responses do."*
> *Mara Balestrini*

How are cities getting ready for the socio-economic changes brought about by the connection of people, data and machines? Panelists of the sessions on IoT reflected on the steps to develop a sustainable market of solutions making sense of data and creating value.

TAKEAWAYS:
- Interconnected devices are changing life in cities. They make a real difference to citizens in day-to-day issues such as managing lighting or traffic efficiently.
- Sensors give citizens a tool to turn their perception into evidence to efficiently tackle issues like pollution.
- For administrations, anticipating what is going to happen opens a new scenario for "a new area of governance".
- But most city administrations aren't digital yet: there is still some way to go as this matter is concerned.
- The danger of breaches in the systems and the unauthorized acquisition of information flowing through them requires concrete strategies involving strong authentication, best-in-class cryptography and other tools to secure the information.

Digital Transformation

Data-Driven Cities and Cloud: Making the Most of Data in a Multi-Cloud World

📅 14/11/2018   ⏱ 11:45 - 13:45h

Participants

Charbel Aoun / Member of the Board - *Future Cities Catapult*
Rosa María Martín / IT Technical Director - *Polytechnic University of Catalonia*
Gema Igual / Mayor - *Santander City Council*
Jaime Serrano / CEO - *NEC Iberica*
Juanjo Hierro / CTO - *Fiware Foundation*
Claus Habfast / Vice Chair - *Grenoble Metropolitan Council*
Carmen Muñoz / CEO - *Citelum*
Rui Costa / CEO - *Ubiwhere*
Esteve Almirall / Director, Center for Innovation in Cities - *ESADE Business & Law School*

The convergence of the digital and physical worlds provides cities with a unique opportunity to better understand the dynamics of the urban environment in a real-time basis and, therefore, improve its management, operations and planning. The emergence of Chief Data Officers in the administrative hierarchy is a good indicator of the recent importance given to data and its potential benefits, which include better decision-making processes, a better operation optimization and a better service model.

> *"The new era is about AI and how it's going to help us unravel what we have never done before."*
>
> *Charbel Aoun*

This two-hour session highlighted that making the most of data and a multimodal cloud world is not only possible but necessary to respond to current urban challenges. Welcome to the data economy era.

TAKEAWAYS:

- Digitalization has made 'datafication' a reality. The value is not in digitization but in data enabled by digitization.
- Cities need to become a platform that allows innovation, making their data available to everyone.
- Political leadership and private companies need to collaborate to create a new ecosystem.
- Machine learning is solving concrete problems, like accidents in intersections.
- IoT, Big Data and AI should be used to create value to the citizens.

Digital Transformation

Blockchain and Cryptocurrencies: Blockchain Transforming the Digital Economy

📅 14/11/2018   ⏱ 15:15 - 17:15h

Participants

John Biggs / Editor-At-Large - *TechCrunch*
Àlex Puig / Founder & CTO - *Caelum Labs*
Natalia Olson-Urtecho / CIO & Board Member - *Smart City Works & The Disruptive Factory*
Boyd Cohen / CEO - *Iomob*
Chen-Yu Lee / Director - *Taipei Smart City Project Management Office*
Khalifa Alsuwaidi / CEO - *Emirates Real Estate Solutions*
Lewis Freiberg / Director of Ecosystem - *IOTA Foundation*
Dardan Isufi / Chief Optimization Officer - *Eva*

Blockchain is best known as the foundation for cryptocurrencies, but the distributed ledger technology can be used in an array of applications and is changing the way we transfer value. A number of administrations around the world are already trialling blockchain in a range of public services, including health records, voting and taxation. This 2-hour-long set of panels shed light on how the world's top ten cities are using blockchain technology to develop smart projects and how it can make the economy smarter.

TAKEAWAYS:

• Blockchain is disrupting the way in which citizens will have a voice in every transaction.
• Blockchain gives governments the ability to protect the citizens' data by verifying every single transaction ever done.

• Some examples: In Taiwan, blockchain is used to solve air/water quality data issues. In Dubai, it's powering smart contracts in the Real Estate field, thus bridging the private and government sector with the real estate community.
• Blockchain contributes to the liquid democracy where you can vote on city projects on demand.
• Blockchain is evolving: a new open-source distributed ledger, named IOTA, is being built to power the future of the Internet of Things with feeless microtransactions and data integrity for machines.

> *"We don't really care about what kind of blockchain is brought but what problems you can solve."*
> *Chen-Yu Lee*

Digital Transformation

Artificial Intelligence:
The Day-to-day Impact of AI

15/11/2018   **09:30 - 11:30h**

Participants

Renato De Castro / CEO and Founder - *SmartUP Consulting Firm*
Carl Piva / Senior Advisor - *carlpiva.com*
Antonio De Gregorio / Partner - *McKinsey & Company*
Andrey Belozerov / Strategy and Innovation Advisor to CIO of Moscow - *Smart City Lab Moscow*
Roope Ritvos / Director New Initiatives - *Forum Virium Helsinki*
Richard Budel / CIO, Smart, Safe & Healthy Cities - *Huawei Technologies*

Artificial Intelligence is already transforming every walk of life and raising important questions for society, the economy and governance. How is AI affecting the way cities are functioning now? How can we ensure an appropriate ethical and legal framework for AI? This dedicated set of sessions provided some examples on real-life application of AI projects, while identifying some barriers for its deployment and the way forward.

> *"AI is one part of the solution, but it is not the entire solution."*
> *Richard Budel*

In the end, the general sentiment was that AI can provide better services but still "the most disruptive technology is Homo Sapiens."

TAKEAWAYS:

- Artificial Intelligence shapes the way that we experience the world. It's an enormous enabler and a pre-requisite for being smart. City services would be much better if we use AI and it's economically effective for the municipalities.
- AI is dependent on massive amounts of data. So, cities need to make sure of the validity and truthfulness of that data.
- Yet there are scary future scenarios we can hopefully avoid. We need to take our responsibility seriously and set limits as to what we accept and what we don't accept.
- It might not be the time to regulate AI yet, we cannot limit its capacity, but it's time to monitor what's happening.
- There is no magical recipe: Every city needs to think about the AI techniques to be applied to maximize the value for its citizens.

Digital Transformation
Safe Cities: Challenges and Vulnerabilities as our Cities Become More Connected

📅 15/11/2018   ✓ 15:00 - 17:00h

Participants

Sokwoo Rhee / Associate Director of Cyber-Physical Systems Innovation, US Commerce Department - *National Institute of Standard and Technology*
Tomàs Roy / Security Strategy Director - *CESICAT*
Mohammad Mentek / Secretary General - *Ministry of Urban Wellbeing, Housing and Local Government of Malaysia*
Maximilian Weber / Senior Vice President - *Hexagon*
Stefan Alfredsson / Global Solution Marketing Manager - *Axis Communications*
Arthur Keleti / IT Security Strategist, Cyber-Secret Futurist - *Deutsche Telekom*
Bill Baver / Vice President - *NTT Data Services*

We all talk about efficiency and productivity in cities and the promise of new smart communities around the world. But security and safety issues, as well as privacy are often disregarded.

> *"We can educate people, but we cannot rely on a smart citizenship if we want to design a cybersecure smart city."*
> *Maximilian Weber*

Are cities adequately addressing challenges and vulnerabilities as they become more connected? How can all the stakeholders effectively collaborate to avoid cyberattacks and other emerging threats? This set of sessions analyzed the risks facing smart cities and provided some solutions for a smooth transition as cities will only become smarter by being safer and more secure.

TAKEAWAYS:
- Cities that deploy a range of smart applications to their maximum effect could reduce fatalities from homicide, road traffic and fire by 8-10%.
- Monitoring and prevention systems using environmental design provide some solutions. But it's important to have the citizens' point of view in the implementation of these solutions.
- There's a whole new set of considerations smart cities should address: companies can put tons of money on securing cars, but does it mean that the city's transportation system is secure?
- When you try to defend your city from cyberattacks you need to understand the motivations behind it.
- Budget and resources are key elements to security. The public and private sector should collaborate.

Urban Environment

Energy: Meeting Energy Demands of Smart Cities

📅 13/11/2018   🕐 12:45 - 14:45h

Participants

Emanuele Bompan / Editor-in-chief - *Renewable Matter*
Eric Woods / Research Director - *Navigant*
Hidetoshi Terasaki / Deputy Mayor - *Kobe City Government*
Piero Pelizzaro / Chief Resilience Officer - *Municipality of Milan*
Augusto Venerando / Innovation Analyst - *CPFL*
Pierre-Alain Kreutschy / Head of Commercial and Business Development Department - *Yverdon Energies*
Nuria Gallego / Technical and Business Development Director - *FCC Industrial*

Our society will not escape the climate change challenges without transitioning to clean energy. By 2020, green energies will be cheaper than fossil fuels, but there still are some constraints that hinder their implementation. In this session, different visions and strategies of successful cases moving towards energetic transition were exposed by city representatives, companies and other urban stakeholders.

TAKEAWAYS:

- The old centralized fossil fuel based energy system is being replaced by highly dynamic distributed mobile and clean energy systems. This new "energy cloud" is opening immense opportunities but also great challenges and cities play a central role in this transformation.

- Smart grids will increase availability information in innovative ways to optimize operations and services.
- Artificial Intelligence can be applied to optimize energy efficiency by the means of tools such as an urban energy management platform.
- Diverse examples of clean energy use were given: Kobe (hydrogen), Milan (electric and water) and Campinas (photovoltaic).
- It's the start of the journey for governments, cities and utilities. Leadership is needed at the top to set the agenda for collaboration.

> *"Blockchain is a big opportunity for energy."*
> *Piero Pelizzaro*

Urban Environment
Resilient Cities: Anticipating the Unexpected

📅 13/11/2018   🕐 17:15 - 19:15h

Participants

Megan Rowling / Editor Zilient.org & Climate Correspondent - *Thomson Reuters Foundation*
Elaine Trimble / Director, Urban Development & Resilience - *Siemens Center of Competence Cities*
Jason Whittet / Urban Resilience - Solutions, Development & Innovation Smart Cities - *100 Resilient Cities*
Emma Hannula / Climate Adaption Specialist, Asia and the Pacific - *CTCN at UN Environment*
Gerard de Leede / Professor of Practice Smart Cities JADS - *Tilburg University*
Amol Naik / Chief Resilience Officer - *City of Atlanta*
Piero Pelizzaro / Chief Resilience Officer - *Municipality of Milan*
Guillaume Lenoel / Territories & Cities Solution Experience Manager - *Dassault Systèmes*
Esteban León / Head of the City Resilience Profiling Program - *UN-Habitat*

The urgency of deploying tools to protect citizens from risks such as natural disasters, bad air quality, unemployment or energy and water shortages is growing as cities expand fast, and the interconnectedness and complexity of modern society brings systemic and cascading threats on a planet that is heating up at the same time. Resilience is the ability to survive, to adapt and thrive in the face of challenges. It requires a holistic view of the city and a proactive rather than reactive approach from local governments. This session looked into ways in which cities can become more resilient and how international institutions can also help them build their resilience strategies.

TAKEAWAYS:
- Local governments need all the help they can get in moving urban areas onto a low-carbon resilience path and a smart use of information data and technology to both understand and manage modern-day shocks and stresses.
- Technology is a useful tool to enable the development of systems with a greater ability to withstand and respond to sudden impacts, running existing structures more efficiently and allowing for wider participation but it requires research, cooperation, planning and financing.
- You cannot change the city infrastructure overnight, but you can certainly change the margins. Energy is one of the fields where this can be done. The Brooklyn's microgrid initiative in New York is an example of that. People sell power to each other using the existing grid.
- KPIs and Indicators give cities a hint on how to use existing tools to make resilience happen today.
- Community engagement is critical to create multifaceted programs that have both sustainability and equity components.
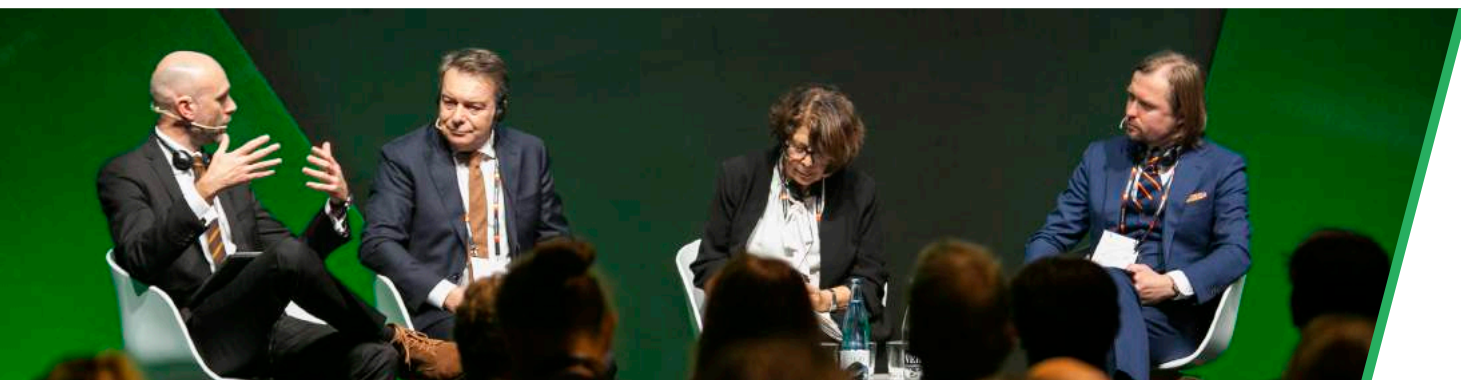
> *"One of the most critical components of a resilience strategy is community engagement."*
>
> *Amol Naik*

Urban Environment

Climate Change: Key Roles in Combating Climate Change

📅 14/11/2018   ✓ 11:45 - 13:45h

Participants

Frederic Ximeno / Commissioner for Environment - *Barcelona City Council*
Mark Watts / Executive Director - *C40*
Luigi Carafa / Executive Director - *Climate Infrastructure Partnership*
Elena Visnar-Malinovska / Head of Adaptation Unit, DG Clima - *European Commission*
Daniel Rees / Political Advisor to Deputy Mayor - *Oslo City Council*
Evelyne Jonkhoff / Strategic Policy Advisor Sustainability & Circular Economy - *City of Amsterdam*
Evgeniya Semutnikova / Deputy Head, Department for Natural Resources and Environmental Protection – *Moscow City Council*
Karla Rubilar / Governor - *Metropolitan Region of Santiago*
Massimiliano De Martin / Commissioner - *City of Venice*
Mariusz Frankowski / Councilor & Chairperson of the Economic Development Committee - *City of Warsaw*
Costly Chanza / Director of Town Planning & Estate Services - *Blantyre City Council*
Mourade Dieye Guèye / Secretary General - *Dakar City Council*

Today cities are as vulnerable as they are powerful. 70% of them are already dealing with the effects of climate change and nearly all are at risk. The time to act is now. Countries and cities have to start designing policies that minimize the economic and social impacts that stem from climate change. This session reflected on decisive actions to be taken to address global warming.

TAKEAWAYS:

• The European Commission is committed to reduce emissions at least by 40% by 2030. All members have to present their long-term energy and climate plans and are bound to consult their citizens for that.
• Solutions are to be designed to reduce emissions drastically but also increase resilience, protecting socially vulnerable groups.

• The shift to a circular economy is the way to reach the Paris Agreement goals, as it provides affordability and accessibility.
• There are good initiatives out there: In Amsterdam, citizens can choose their own way to realize circular and healthy homes. In Venice, they have a project to use recycled domestic oil as fuel for barges. In Moscow, there's and Active Citizen IT Platform to choose which project to allocate budgets.
• Actions against pollution are the best protection for the most vulnerable.

> *"Adaptability is about the powerful difference between adapting to cope and adapting to win."*
>
> *Elena Visnar-Malinovska*

Urban Environment

Public Space: Transforming Cities through Public Space and Green Districts

📅 14/11/2018   ⏱ 15:15 - 17:15h

Participants

Martha Thorne / Dean - *IE School of Architecture and Design*
Tim Smedley / Freelance Journalist and Author - *The BBC, The Guardian, Bloomsbury*
Ulf Kamme / Second Deputy Chair, Deputy Mayor for City Planning, Climate and Environment - *Gothenburg City Council*
Rafael Greca / Mayor - *Curitiba*
WoongSung Oh / Director of Town Planning & Estate Services - *HongIK University*
Christina Slamhofer / Sustainability Manager - *Stockholm Royal Seport*
Nicolas Keutgen / Chief Innovation Officer - *Schréder*
David Martínez / Project Director - *Fundació BIT Habitat*

Public spaces are an essential part of the city. They contribute to livability and well-being. Yet these open spaces, at least in the past, seem to have been in conflict with economic development. This set of sessions gave an overview on the importance of public spaces, how they can help the city become greener and improve the citizens' quality of life.

> *"When you think about repurposing public space, think about partnering up."*
> *Nicolas Keutgen*

TAKEAWAYS:

• The greening and repurposing of public space comes through as a crucial theme when moving away from car-centric cities. Cleaner air and greener cities improve the citizens' health and well-being.

• The old definitions of public space or open space or green areas have to be disposed of. Public space has a very broad definition, which goes from the macro level to the micro level.
• Creating spaces for people to meet, interact and collaborate (not just commercial areas) is one of the key drivers for effective transformation.
• Rather than a limitation, a former industrial urban area can be seen as a blank canvas, with opportunities and possibilities for the future, provided new projects respect the places heritage.
• Citizens must be involved in continuous dialogue with local governments, especially for large-scale, long-term projects where final outcomes are difficult to envisage at the onset.

Urban Environment

Urban Planning: Data Revolutionizing the Way We Plan Our Cities

📅 15/11/2018   ✓ 09:30 - 11:30h

Participants

Areti Markopoulou / Academic Director, Advanced Architecture Group - *IAAC*
Gayatri Singh / Senior Urban Development Specialist - *The World Bank*
Rufus Pollock / Founder & President - *Open Knowledge*
Josep Maria Carreras / Head of the Territorial Information Service & Technical Coordination - *AMB*
Alvaro Anguix / General Manager - *gvSIG Association*
Laurent Bouillot / Chairman & CEO - *Siradel*
Christian Carlson / Director of State, Local & Provincial Government Sales - *ESRI*

Cities are evolving faster than ever. The Internet of Things (IoT) technology is providing them with data to help design and plan more accurate and relevant policies based on different characteristics of the urban area.

> *"Good quality data systems are like the plumbing, but we only think about the running water."*
> *Rufus Pollock*

This is possible due to existing tools such as Geographic Information Systems (GIS) and other analytic tools, which facilitate the identification of the issues that need to be addressed. This session gave an in-depth analysis of how an effective use of data can be an essential asset for the governments of cities and urban planning.

TAKEAWAYS:
- Humans are not great decision-makers, so there's huge potential in combining data with even the most basic models to improve the cities' design and government policies.
- GIS systems and urban analytic tools via cloud computing help city planners work in a radically different way.
- Yet the big challenge is getting the data and accelerating time to insight, thus reducing friction in the ecosystem.
- Virtual Modeling & GIS promote urban transformation with the involvement of citizens.
- Fancy technology has to be connected with the specific aspirations every city has.

Urban Environment
CleanTech: Innovations for a Better Planet
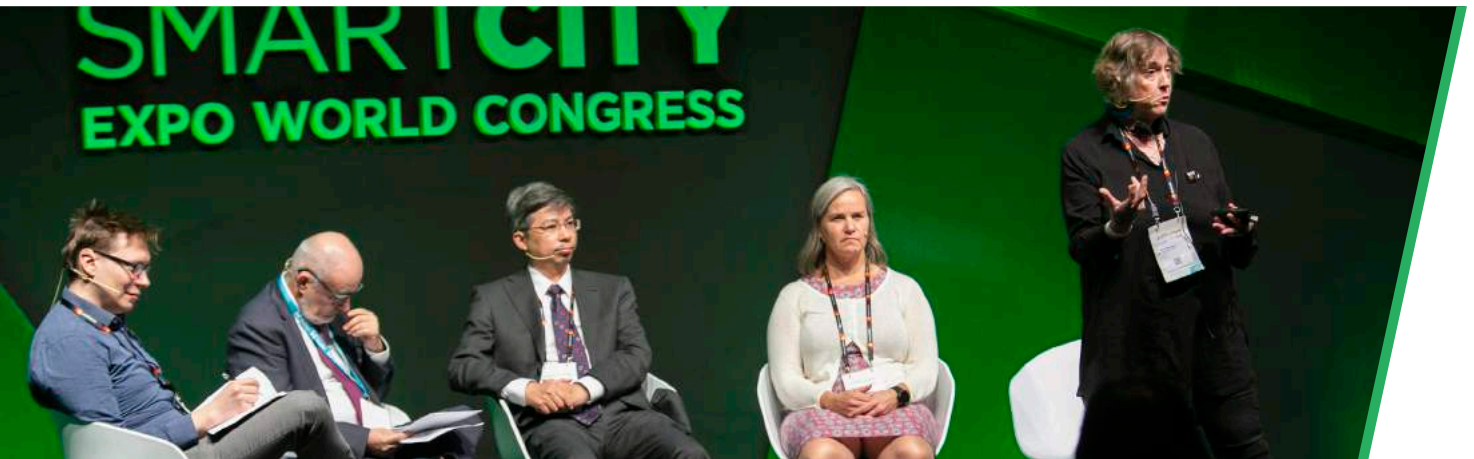
📅 15/11/2018   ✓ 15:00 - 17:00h

Participants
Tim Taylor / Senior Cities Advisor - *Climate-KIC*
Christoph Mazur / Research Fellow Smart Sustainable Districts - *Climate KIC*
Angel Hsu / Assistant Professor of Environmental Studies - *Yale-NUS College*
Anne Berlancourt / Director - *A Lab In the Air*
Lisa Enarsson / Project Manager, GrowSmarter - *City of Stockholm*
Eduardo Fernández / Innovation Manager - *Urbaser*
Zhengwei Chen / Deputy Dean - *INESA Smart City Design Institute*
Kaushik Kumar Tyagi / Chief Engineer - *New Delhi Municipal Council*

Climate Change presents major and growing concerns. Making accelerated investments in clean approaches developed by business, financial institutions, countries and cities even more crucial. Evidence shows that the use of innovative technologies could help mitigate climate change impacts. In this set of sessions, experts and local leaders presented the latest successful cleantech innovations implemented around the world and discussed what they can offer smart cities. The general sentiment was that it's not just about cleantech anymore but very much about social tech as well.

"Citizens are not just users but also stakeholders in the complex sustainability puzzle of a smart city."
Eduardo Fernández

TAKEAWAYS:
- Europe is not on track when it comes to mitigating climate change while building resilience and sustainable development. Yet there are knowledge and innovation communities with more than 300 partners supporting cleantech and helping cities integrate innovation in a more holistic way.
- You can't manage what you don't measure. Yet processes of measurement are not necessarily inclusive. So, it is crucial that people are at the center of large-scale data projects.
- There are great examples of innovation in cleantech around the world, such as the Smart City project in New Delhi, the Grow Smarter Project in Stockholm, and the Urban Clean Water Solutions in Shanghai.
- Sustainability innovation is not only about technology. It's about cities, communities, citizens and the commitment to the UN Sustainable Development Goals.
- Standards help quite a lot in the long term.

Mobility

Future Mobility: Urban Mobility Five Years From Now

📅 13/11/2018   ✓ 12:45 - 14:45h

Participants

Alain Flausch / Former Secretary General - *UITP*
Ger Baron / CTO - *Amsterdam City Council*
Norman Frisch / Global Director of Business Development, Railway Solutions - *Huawei Technologies*
Trudy Norris-Grey / CityNext Leader Worldwide - *Microsoft*
Marijke De Roek / Director of Communication & Participation - *Antwerp City Council*
Mark Saunders / Director, Center of Excellence for Cities - *Ferrovial Services*
Sylvain Nachef / International Business Development Director - *Bouygues Construction / Bouygues Energies and Services*
Richard Moore / Product Manager - *Rambus*
Andrea Kollmorgen / Head of Connected (e)Mobility - *Siemens*

Worldwide cities are facing an urgent set of challenges when it comes to ensuring that citizens can get from A to B. In parallel, automation is stepping up and defining a new mobility concept. What can new technologies bring to the mobility equation? How are cities going to achieve a greener, more accessible and more collaborative urban mobility system in cities? In this set of panels, speakers made it clear that the mobility issue is not a fight against cars and that at the end of the day the user has to be at the core of any initiative.

TAKEAWAYS:

• The emergence of micro-mobility, the use of renewable energies, integration and intermodality as well as trends like car sharing, carpooling, free bikes and walking might picture a chaotic scenario for citizens unless they are fully integrated in MaaS in favor of everybody.
• Still, the mobility sector is today quite far away from the seamless door-to-door experience which requires intermodal transportation because each player sits on their own data and refuse to share it.
• There's a lot of work to do in digitalizing the railway sector as it's a very conservative industry, always reluctant to change.
• Interoperability or the sharing of data and services is as crucial as the availability of intermodal travel. It all starts with good intermodal advice.
• There are good examples of urban mobi lity models that work: Antwerp, Vienna, Helsinki... In the end, mobility has a good return of investments.

"The collaboration between public and private initiatives, together with the citizens' participation is the future of smart mobility."
Alain Flaush

Mobility

Railway: Megatrains, Land Bridge Between Cities

📅 13/11/2018   ✓ 17:15 - 19:15h

Participants

Howard Permut / Managing Director - *Permut Consulting, LLC*
Joaquín Jiménez / Deputy Director of International Relations - *ADIF*
Dean Wise / Retired Vice President of Network Strategy - *BNSF Railway*
Jose Antonio Sebastian / Director General - *Gotransport*
Marc Antoni / Rail System Director - *UIC*
Ignacio Barón / Financial General Director - *Renfe*
Enrique Torres / Head of Strategy, Sales & Business Development - *Siemens Mobility*

The growth of urban population and, consequently, the demand of goods is constantly rising. The need to replace cargo trucks that pollute and generate traffic has become a pressing concern. To what extent can the already proved "megatrains" system replace polluting and inefficient cargo trucks in European cities? Professionals and experts from different backgrounds looked into the US and European market share and need to take a step forward.

TAKEAWAYS:

• There are some significant differences between the US railway sector and the European one. Today, the US rail freight market share (34%) is twice the European market share (17%). So, US trains are freight-dominant and cover longer distances while European trains are passenger-dominant and cover shorter distances.

• Modifying railway practices is a very complex and long-term process and it has very high cost associated with it. The Asia-Europe rail development looks impressive, but for now it's not going to take over this market.

• Australia started the first driverless trains in July 2018. Netherlands, China and Russia are already experimenting with this new technology too.

> *"Today freight transportation is too expensive. The sector has to really foster innovation and use the possibilities of the digital age."*
> *Marc Antoni*

• Now, the point is not making longer freight trains but to make the service more attractive to customers and to users. Moreover, an increase in weight or length in Europe is limited by different technical, operational and legal barriers.

• The railway sector has to move forward, reduce the hard investment and be more flexible in using new technologies. Megatrains have the opportunity to be cost-efficient and environmentally friendly.

Mobility

Automated Vehicles: Connected Vehicles And The Road Ahead

📅 14/11/2018   ✓ 11:45 - 13:45h

Participants

Sarah Murray / Writer & Journalist
Wojtek Dziegielewski / Senior Business Development Manager - *Volocopter*
Lluís Jofre / Academic Director - *CARNET*
Joan Prat / General Director - *AMTU*
Hussein Dia / Deputy Director and Program Leader - *Smart Cities Research Institute - Swin*
Yves Mathieu / Co-Director - *Missions Publiques*
Gil Ayalon / Regional Director EMEA - *Mobileye*

Apparently, automated vehicles are right around the corner. Yet automation still arises some concerns. Are we still going to be able to drive in the future if automated vehicles reduce accidents by 90%? How are governments going to regulate their use? Are we edging closer to a vision of zero-accidents, zero-emission and zero-car-ownership? Experts in the sector reflected on what we need to do today to prepare for a future in a highly automated world.

> *"Autonomous vehicles won't solve the traffic problem associated to an increasing urbanization on their own."*
>
> *Wojtek Dziegielewski*

TAKEAWAYS:

• As urbanization increases, air taxis appear to be a solution to solve the traffic problem as they are safe, environmentally responsible, simple and cost-effective. Volocopter will operate test flights in Singapore in 2019. In the future, the service will also be on-demand and shared.

• Autonomous buses are being tested all around Catalonia with three main objectives: give municipalities the possibility to adapt to a new way of transport, inform citizens about driverless vehicles, and empower the public and private partnerships to develop innovative mobility solutions.

• Self-driving cars should be safe, open and transparent, useful, and affordable. Moreover, autonomous driving should include camera-centric sensing, crowdsourced mapping, and semantic driving policy.

• There is now a strong moral and ethical dilemma regarding how autonomous vehicles should react when facing a real situation of danger. Citizens must be involved in this discussion.

• Governments need to promote the shared use of vehicles.

• The real value to citizens is going to come when all technologies can merge together as companies are capitalizing on user's needs for travel.

Mobility
Public Transport Networks: Customizing The Way We Move
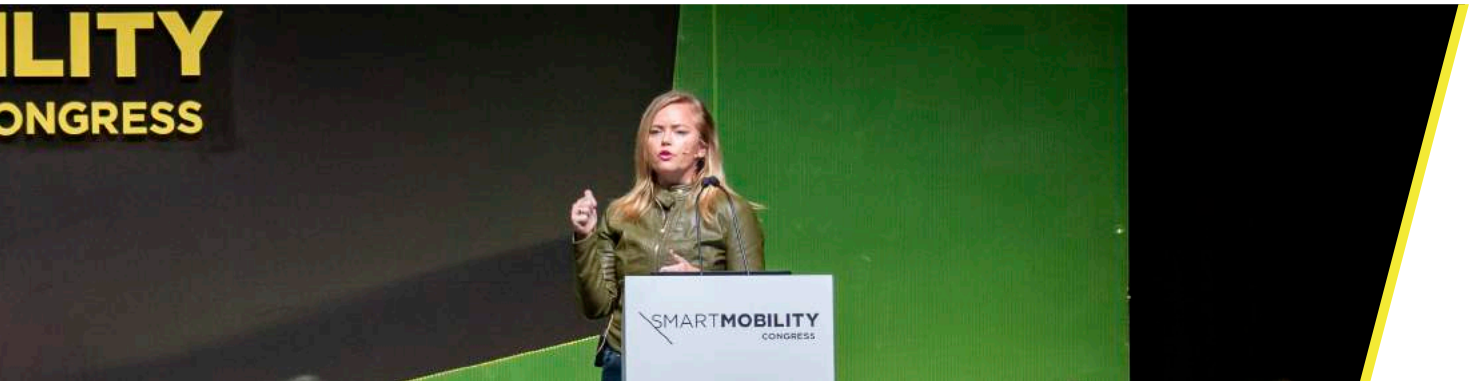
📅 14/11/2018   🕐 15:15 - 17:15h

Participants
Carles Casas / Head of Strategic & Prospective Planning - *FGC Catalan Railways*
Julio Gómez / Chairman, Center for Transport Economics & Infrastructure Management - *IE Business School*
Ricard Font / President - *FGC Catalan Railways*
Brandi Braun / Deputy Innovation Officer - *Columbus City Council*
Muhammad Asim Khan / Mayor - *Peshawar City District Government*
Amit Kumar Jain / Senior Divisional Operations Manager - *Indian Railways*
Ignasi Vilajosana / CEO - *Worldsensing*
Álvaro Urech / Innovation Manager - *Alstom*

Transport networks are critical infrastructures for urban life. Yet improving public transportation is still a challenging endeavor in most cities. Intermodality combining the advantages of individual and collective transport or non-motorized transportation, such as walking and cycling, are providing some alternatives. How can city governments take steps toward quicker and more cost-effective systems for getting people where they need to go, when they need to go there? In this two-hour session, the speakers shared successful examples of innovative public transport initiatives while making clear that the business models behind them have to evolve as well.

> *"Citizens need administrations to be ready to control the deployment of innovative mobility solutions."*
> *Ignasi Vilajosana*

TAKEAWAYS:
• Public transportation should be the strategic framework around which the smart city transformation is developed as mobility is the great equalizer of the 21st century.
• Smart Mobility systems can reduce congestion and pollution problems by incentivizing a combination of public buses, with connected pedestrian and cycling tracks across the city.
• Data-driven smart solutions promoting attractive prices and the integration of alternative modes of transport may also be of help to tackle congestion.
• Data collection is a key tool to regain control of the cities, as it helps to predict behaviors and act upon them. Leading cities use operational intelligence to act in real time, control the situation and communicate with third parties.
• Regulation plays a center role in giving cities a strong position to negotiate third party operations in exchange for free access to their databases.
• Citizens have different perceptions depending on their country and city. Behaviors should be analyzed as changing patterns of the use of public space.

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Mobility

Sustainable Mobility: Pedestrian Friendly and Zero-Emissions Cities
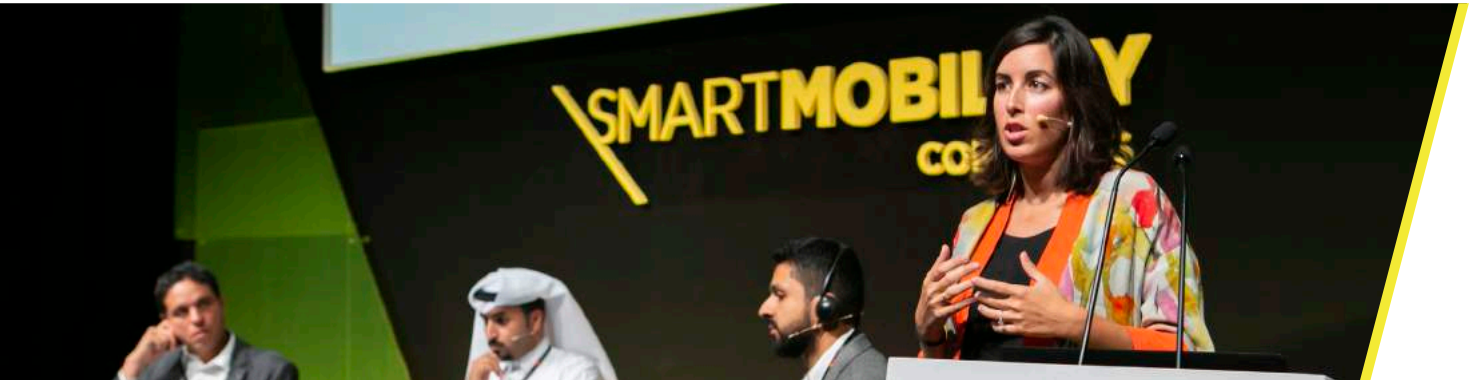
📅 15/11/2018   ✓ 09:30 - 11:30h

Participants

Robert Cervero / Professor Emeritus - *University of California Berkeley*
Erion Veliaj / Mayor - *Tirana City Council*
Oscar Chamat / Senior Consultant in Urban Innovation - *Barcelona City Council / Alfa Technologies*
Álvaro Nicolás-Loscos / Advisor to the Mobility Councilor - *Barcelona City Council*
Nicolás Grandón / Head of the Smart City Unit - *Ministry of Transport and Communications of Chile*
Ali Al-Yafei / Project Manager - *Msheireb* Properties
Mariola Malgosa / Transport Network Manager – *C40 Cities*
Wolfgang Forderer / Head of Mobility - *Stuttgart City Council*

How can we travel more while emitting less? This has been a key question of the last decades, but CO_2 emissions coming from the transport sector are still rising. So, how can we push governments to do more? How can we make people aware of the transportation alternatives available to them? How can we incentivize their use? What role can the private sector play here? This is an issue that concerns us all today, but also the future generations. This thematic program looked into solutions like pedestrian areas, low-emission vehicles or bike-sharing schemes, while discussing the most effective ways to promote them.

TAKEAWAYS:
• Walking is nature's transportation mode. It's the cleanest form of mobility and is good for citizens' health. Yet there are a set of megatrends, such as self-driving vehicles, e-scooters, etc., that threaten the walkability and pedestrian friendliness of cities, particularly as we have aging societies.
• 24-25% of greenhouse gas emissions comes from the transport sector. In some developing countries this percentage is up to 40-50%. Thus, the electrification of vehicle fleets is critically important to decarbonize cites, but the question is still: where does this electricity come from?
• The first step for a sustainable mobility is to develop a sustainable infrastructure and create business models around it.
• Smart mobility is connected to "smart distances." Distances are important and the way we design our cities is crucial. 50% of traffic can be cut by simply delivering services 500 meters close to citizens' home.
• Obstacles to a more sustainable mobility can be overcome by showing the real alternatives citizens have.

> *"Sometimes it's just about reconceptualizing what you have instead of complaining about what you don't have."*
> *Erion Veliaj*

Mobility

Disruptive Models & Payment Systems: Disruptive Business Models to Solve Mobility Challenges

15/11/2018   **15:00 - 17:00h**

Participants

Mar Alarcón / Founder & CEO - *SocialCar*
Francis Pisani / Independent Journalist & Writer - *Le Monde*
Arnd Bätzner / Member of the Board of Directors - *Mobility CarSharing*
Benoît Chapuis / Network Management - *Group RATP*
Mike Vogt / Managing Director IoT - *SmartSuisse, MCH Messe Schweiz AG*
Miguel Pinto / Deputy Mayor - *Cascais City Council*
Marcelo Cossar / Secretary of Modernization, Communication & Strategic Development - *Córdoba City Council*
Álvaro Salvat / General Manager - *Lime Spain*

Disruptive trends such as autonomous driving, shared mobility, connectivity and electrification are gaining traction within the mobility sector. As part of this technological transformation, public and private transportation payment systems are also being developed and becoming more flexible and digital. With contactless technology and unified payment systems, some cities have noticed an increase in ridership and revenues. This session discussed the new technologies that are disrupting the mobility sector and its payment systems, while looking at its opportunities and challenges. Speakers agreed on the need to integrate all transport means to build a more responsible transportation system and put the customer at the center of the process.

TAKEAWAYS:

• New autonomous systems, connectivity, shared models or electrification are the four modern pillars of future mobility. They have shifted the rules of transportation, also shaking the payment ecosystem. Today, in many cities, taxis, Uber, Cabify, Lift and other alternatives accept credit cards and other payment methods, but there is a long way to go.

• Integrated transports tickets, cards including a digital wallet for different leisure activities, and cards offering door-to-door mobility by merging various services are making citizens' experience more pleasant and incentivizing the use of sustainable transport.

• A system using a contactless credit card as a universal transport ticket could disrupt the payment ecosystem and solve mobility challenges.

• Teaming up with private companies, thinking about the competition when trying to build a platform and looking for outside-the-box answers in other industries are key factors to develop successful payment models.

• Sharing data with third parties can provide powerful insights on mobility services to adapt them to the needs and challenges of each city.

> *"We need to reposition public transport's quality and make it affordable, inclusive and reliable."*
> *Arnd Bätzner*

Governance & Finance

Funding: Finding Ways to Finance Urban Transformation

📅 13/11/2018   ⏱ 12:45 - 14:45h

Participants
Mike Lake / President & CEO - *Leading Cities*
Josep Miquel Piqué / President - *LaSalle Technova*
Tatiana Gallego / Chief Housing & Urban Development - *Inter-American Development Bank*
Jerome Engel / Adjunt Professor Emeritus - *Haas School of Business, University of California Berkeley*
Patrick Alexander Avato / Lead, Cities Initiative, Europe & Central Asia - *International Finance Corporation*
Mikko Annala / Head of Governance Innovation - *Demos Helsinki*
Rahul Gupta / Managing Director, Infrastructure & Capital Projects - *Deloitte*
Bruno Hervet / Executive Vice President, Smart & Resourceful Cities - *Suez*

Cities are aware that they need to rally their infrastructures and systems to improve their citizens' lives. In fact, it is estimated that we will need to invest around +70 trillion dollars in city infrastructure over the next decade. Yet we cannot rely on city budgets, bonds or other traditional mechanisms alone to fund all the necessary advancements cities need. In this scenario, exploring new finance and funding models has become a necessity.

> *"New smart systems need new funding tools."*
> *Tatiana Gallego*

There are several options as green bonds, PPPs and civic crowdfunding that are already in place to ensure no city is left behind. In this 2-hour session, the panelists talked about the complex process of identifying, pursuing and securing funds for a Smart City program.

TAKEAWAYS:
- The lack of financing is no longer an acceptable excuse not to improve cities. Yet funding smart cities requires interconnectivity, multisectoriality, and systems in constant change and adaptation over time. These new needs are far from traditional funding structures.
- Supporting the local system of universities is a key strategic investment to advance Smart City innovation. This support includes building an infrastructure around universities and supporting the financing and commercialization of university-based ideas.
- Private investment can also bring knowledge, efficiency and transparency to the smart city financing.
- The right financing mix for smart city initiatives comes down to bankable projects, clusters of innovation, convening leadership and the shift to greater private funding.
- As long as projects and strategies are clear, cities will be able to find the right partnerships to undertake their transformation into smarter cities.

Governance & Finance

Multilevel Governance: Shared Responsibilities and Decision-making

📅 13/11/2018   ⏱ 17:15 - 19:15h

Participants
Mitchell Kosny / Director & Professor, School of Urban & Regional Planning - *Ryerson University*
Octavi de la Varga / Secretary General - *Metropolis*
Alberto Bernal / Smart Cities Global Director - *Indra*
John Jorritsma / Mayor - *Eindhoven City Council*
Agustí Serra / Secretary of Urban Habitat & Territory - *Government of Catalonia*
Fernando Benegas / Deputy Mayor of Planning & Coordination - *Buenos Aires City Council*
Sigifredo Salazar / Governor - *Province of Risalda*

The recent trend towards decentralization in urban governance has led to greater coordination inside the administration itself and between national and sub-national governments. The adoption of this new form of governance has fostered inclusiveness and the implementation of more coherent and integrated policies. Nevertheless, for multilevel governance to be successful, a clear division of responsibilities and competences between all actors is required, as well as a strategic leadership to guarantee some level of accountability.

> *"Leadership is about taking risks."*
> *Mitchell Kosny*

This session's experts discussed the advantages of adopting multilevel governance and the different ways it can be applied. Speakers agreed that there is no one-size-fits-all formula.

TAKEAWAYS:
- Smart cities should respond to the citizens' needs and not only to technological advances.
- The public-private collaboration and competition has benefited the smart cities ecosystem.
- Barcelona, Buenos Aires and Colombia are good examples of shared challenges and responsibilities as citizen participation has been key in the development of various smart city projects.
- Leadership is key. It means taking chances and looking for opportunities, building the capacity and fostering collaboration.
- Getting to the starting line is the hardest thing. Then, take small wins and celebrate what you do.

Governance & Finance

Multistakeholder: Innovative Forms of Collaboration

📅 14/11/2018   ✓ 11:45 - 13:45h

Participants
Alice Charles / Lead, Cities - *World Economic Forum*
Kazumi Kobayashi / Deputy Mayor - *Yokohama City Council*
Cristina Garrido / Congress Manager - *Anteverti*
Hani Fam / EVP, Enterprise Partnerships - *Mastercard*
Ger Baron / CTO - *Amsterdam City Council*
Jamie Cudden / Smart City Program Manager - *Dublin City Council*
Lean Balcaen / Director, Industry Solutions - *HERE Technologies*
Jennifer Sanders / Executive Director - *Dallas Innovation Alliance*
TJ Costello / Director of Industry Solutions Group, Smart+Connected Communities & Transportation - *Cisco*
Fatih Gündogan / Deputy General Manager - *ISBAK Istanbul IT & Smart City Technologies*
Wei-Bin Lee / Commissioner of the IT Department - *Taipei City Council*

Exemplified by the evolution of PPPs to PPPPs, the current trend in decision making and process implementation is to promote collaboration among different stakeholders. So, what collaboration models are available today? How does collaboration help a city be more democratic, sustainable and resilient? Experts and city officials explored the emerging and innovative forms of collaboration in cities around the world.

TAKEAWAYS:
• Cities are agents of change. They are finding their voice through engagement in mayor networks such as C40, UCLG, Eurocities, etc. In fact, there is nearly 300 city networks like that.
• However, political and regulatory barriers at the national level can cap the work cities can do themselves. So, national governments need to empower cities instead of encumbering them.

• We need the multi-stakeholder level of governance to work together to transform cities. The private sector can work with government at any level of the urban value chain from planning to monitoring.

> *"Nobody can do it alone."*
> *Jennifer Sanders*

• Whatever innovations are introduced in cities they have to be people-centric and sustainability driven. It's no longer the 3 Ps that are needed, but the 4 Ps.
• We can do more with less: before we invest in additional infrastructure, let's be more efficient with what we have.

Governance & Finance

E-Gov & Open Gov: Government Transformation In The Digital Age

📅 14/11/2018   ⏱ 15:15 - 17:15h

Participants
Samia Melhem / Global Lead, Digital Development - *World Bank Group*
Adolfo Borrero / President of the Smart City Commission - *Ametic*
Silvio Barros / Secretary of Urban Development - *State Secretariat for Urban Development of Curitiba*
Didier Nkurikiyimfura / Director of Technology & Innovation - *Smart Africa Secretariat*
Boris Van Hoytema / Open Source Advisor - *Amsterdam City Council*
Liora Shechter / CIO - *Tel Aviv Yafo Municipality*
Stefano De Panfilis / COO - *Fiware Foundation*
Mohammed Jouahri / General Director - *Casablanca Events and Animation*

Smart cities need a holistic approach to effectively deliver public services. This session looked into the new technologies that are revolutionizing the traditional operations of city governments. Participatory administration, open APIs, open innovation and open data were discussed through the experience of representatives from various cities.

> *"If you don't know where you are going, you won't get there."*
> *Silvio Barros*

TAKEAWAYS:
- Curitiba, Istanbul, Amsterdam and Berlin presented digital government and collaborative governance models as well as open systems that foster democracy.
- Casablanca showcased different platforms built upon data shared by the administrations and citizens.
- Architecture is one of the main challenges in government transformation.
- Data has to be reliable and reusable across different technological cycles.
- You cannot have smart cities without smart people.

Governance & Finance
Data Governance: Principles and Strategies To Govern Data

📅 15/11/2018   🕐 09:30 - 11:30h

Participants
Stephen Goldsmith / Director of the Innovations Program - *Harvard Kennedy School*
Igor Calzada / Lecturer & Research Fellow - *Oxford University*
Susan Riley / Councilor, Chair of the Small Business, Retail & Hospitality Portfolio, Deputy Chair Prosperous City - *Melbourne City Council*
Sartayev Olzhas / Chairman of the Board - *Astana City Council*
Sari Ladin-Sienne / Chief Data Officer - *Los Angeles City Council*
Mariana Sampaio / Deputy Secretary of Innovation & Technology - *Sao Paulo City Council*

Data governance is emerging as a new opportunity and concern for city managers. Effectively managing data assets while considering privacy, usability, integration and availability are key aspects to achieving good governance. What standards should governments apply to the data they use? What are the ethical aspects of data governance? This set of panels discussed the need to assure the availability and openness of data to the general public while guaranteeing privacy for users.

> *"Knowledge is the new capital."*
> *Susan Riley*

TAKEAWAYS:
- We're in the middle of a revolution in public services: we're moving from compliance to discretion.
- Governments should work towards knowledge sharing by fostering participation and open innovation. Partnerships with educational institutions are crucial.
- Creating more equitable and responsible services while promoting civic engagement is one of the main concerns of data governance.
- Bringing data to the community requires data literacy trainings so that citizens can really benefit from open data tools.
- The role of local governments is to act as a catalyst for the interests and needs of the community.

Governance & Finance

Standards & Indicators: Improving City Measurement and Performance

📅 15/11/2018   🕐 15:00 - 17:00h

Participants
Martin Brynskov / Chair - *Open & Agile Smart Cities*
Helen Ng / Executive Advisor - *World Council on City Data*
Tania Marcos / Chief of Quality and Smart Cities - *Spanish Association for Standardization*
Nejia Lanouar / CIO - *Paris City Council*
Todd Asher / Deputy Principal - *Bloomberg Associates*
Dapeng Zhang / Executive Secretary General - *China National Smart Cities Standardization General Working Group*
Rahul Kapoor / Director, Smart Cities - *Ministry of Housing and Urban Affairs, Government of India*
Jung Hoon Lee / Associate Dean, Director of Design Factory Korea & Technology Management Research Center - *Yonsei University / Information Systems Intelligence LAB*

Measuring and monitoring the performance of a city's components has become much easier through technological developments. Key Performance Indicators (KPIs) give cities a standardized method to collect data and effectively analyze their general performance. These indicators provide insights regarding governance, economy, mobility, among others, and allow city officials to implement more appropriate strategic guidelines.

> *"Standards and indicators can actually be the basis for people's lives."*
> *Martin Brynskov*

The speakers of this two-hour session discussed how to build a generally accepted methodology to measure the performance of cities.

TAKEAWAYS:
- Standards and indicators can give cities the path to build the future that they want. Yet bringing the value of global dynamics in alignment with local priorities is not easy.
- Today cities look for a robust model for standards-based innovation and the procurement of IoT enabled services across domains.
- Standards and indicators are important to turn good ideas into a reality and to create a dialogue with citizens.
- The basic principles for setting up indicators have to do with covering all the aspects of the problem reasonably, looking for an easy assessment method, which is also scientific and reasonable, and periodically reviewing what has been done.
- AI is bringing a new dimension to standards and indicators, so cities have to be proactive in defining this complexity.

Inclusive & Sharing Cities

Sharing Cities: Sharing and Collaborative Economy

📅 13/11/2018   🕐 14:00 - 16:00h

Participants
Mayo Fuster / Research Director on Collaborative Economy - *Dimmons IN3 Open University of Catalonia*
Tom Llewellyn / Strategic Partnerships Director - *Shareable*
Udo Kock / Deputy Mayor for Finance, Economic Affairs & Zuidas - *Amsterdam City Council*
Cristina Tajani / Councilor for Labor Policies, Economic Development, Commerce & Human Resources - *Milan City Council*
Carlos Moreno / The Mayor of Paris' Special Envoy for Smart Cities - *Paris City Council*
Juliet Schor / Professor of Sociology - *Boston College*
Mark Graham / Professor of Internet Geography - *University of Oxford*

The sharing economy has undergone significant growth, especially since the 2008 crisis. Now the initiatives under this umbrella concept have expanded and are covering different areas like mobility, housing and many others.

> *"The solution is us."*
> *Tom Llewellyn*

How are cities addressing collaborative economy and the potential of sharing platforms for public innovation and sustainability? This two-hour session discussed how to turn the community into the heroic protagonist of urban transformation.

TAKEAWAYS:
- All cities are fundamentally shared enterprises, so shared actions are being developed to give the power back to the community.
- Local governments shouldn't overregulate. Yet they have to ensure that nobody is left behind.
- The platform economy has its downsides, such as the lack of accountability, the opacity of production networks, and the lack of structural power amongst workers.
- Cities should recognize the impact of replication and not just scale. The proliferation of local serving initiatives is actually more resilient than if there were to be one single corporation.
- Sharing cities should prioritize transformation over transaction and emphasize solutions that build the residents' ability to work together. We need each other to become fully human.

Inclusive & Sharing Cities
Social Inclusion: Building Commons Cities for All

📅 13/11/2018   🕐 17:15 - 19:15h

Participants

Sunil Dubey / Faculty & Institutional Advisor, Smart Cities - *FADP, University of Sydney*
Giorgio Prister / President - *Major Cities of Europe*
Eric Jover / Minister of Education - *Principality of Andorra*
Teng Chang Khim / Executive Councilor, State Government of Selangor, Chairman of Standing Committees for Investment, Industry & Commerce and Small & Medium Enterprise (SME)
María José Millán / Global Chief Strategy Officer - *Visualfy*
Luis Banck / Former Mayor - *Puebla City Council*
Murshid Buwembo / Lord Councilor - *Kampala Capital City Authority*

The notion of cities for all is becoming a crucial issue for the future of cities. Technology can stimulate inclusiveness by empowering citizens and enabling them to participate in decision-making processes. Encouraging collaboration among citizens to co-design and co-create their own city can also help expand the access to basic services to remote places and marginalized groups. This session reflected on how to break barriers for making people's lives better.

> *"People with disabilities can provide inspiring approaches to the city of the future."*
> *María José Millán*

TAKEAWAYS:

- Digitization can be a tool for breaking barriers and finding simple solutions to improve people's lives.
- The only way to create services for all is including diversity in teams.
- Digital inclusion is key as it grants universal access to social services, communication, and job opportunities. Challenges such as lack of accessibility to apps or on-line contents for disabled people, and slow internet access in South Saharan Africa hinder a totally inclusive digital world.
- Digital education has a key role in eliminating the digital gap and promotes digital literacy, which is a basic skill for 21st century citizens.
- Inclusiveness is not just the right thing to do. People with disabilities are also clients.

Inclusive & Sharing Cities

Collaborative Policy: When Civic Participation Becomes Co-Creation

📅 14/11/2018   🕐 11:45 - 13:45h

Participants
Daniela Selloni / Service Designer - *Department of Design, Politecnico di Milano*
Manu Fernández / Program Coordinator - *Smart City Expo Editions Abroad*
Joan Clos / Former Executive Director - *UN-Habitat*
Karine Dognin-Sauze / Vice President of Innovation, Smart City, Digital & New Mobility - *Lyon Métropole*
Marta Delatte / Head of Research and Projects - *Liquen Data Lab*
Jack Mikkers / Mayor - *Den Bosch City Council*
Pun-Arj Chairatana / Executive Director - *Thailand National Innovation Agency*

In a world where information is easily available at the touch of one's fingertips, citizens are becoming savvier and they are demanding that governments involve them in the curation of government public services.

> *"We should adapt or die, but avoiding tech domination."*
> *Jack Mikkers*

This has led to a higher experimentation with co-creating techniques, which can increase equity and create a higher consensus when building urban policies but can also diffuse responsibility and accountability. This set of panels discussed what the co-city could be, while looking into the pros and cons of this new methodology.

TAKEAWAYS:
• The landscape for civic engagement is changing. Interaction is not an option anymore. It's just happening.
• In the digital area, city leaders cannot act alone. They must promote interconnectivity and dialogue to formulate a roadmap for a balanced and long-term relationship with citizens.
• Capturing the users expectations and needs, while creating user-centric areas to test and experiment, and co-producing the right tools and methodologies are key factors for civic engagement.
• Cities can increase their citizens' involvement in co-creation and face the challenge of mass communication by forming places of innovation and creating platforms to target specific districts or profiles with more complex questions.
• Smart cities are about people, not about technology. It's all about humans sharing experiences and getting involved with problem solving in their local community.

Inclusive & Sharing Cities
Gentrification & Housing: Fighting Gentrification While Creating Vibrant Communities

📅 14/11/2018   🕐 15:15 - 17:15h

Participants
Tonet Font / Adviser of Social Innovation & Responsible for the A-Atri program - *Barcelona City Council*
Murray Cox / Founder - *Inside Airbnb*
Kenneth Haar / Research & Campaigner - *Corporate Europe Observatory*
Beatriz Guijarro / Head of Data Analytics - *Liquen Data Labs*
Sonam Velani / Senior Advisor for Housing & Economic Development - *New York City Mayor's Office*
Javier Buron / Housing Manager - *Barcelona City Council*

Formally, gentrification is a process of renovating deteriorated urban neighborhoods by means of the influx of more affluent residents, which is obviously controversial both in politics and urban planning as it potentially forces the relocation of established residents and businesses. This two-hour session debated on the challenges posed by platforms like Airbnb and how cities can provide affordable housing.

> **"We need to ensure that we're not the victims of our own success."**
> **Sonam Velani**

TAKEAWAYS:
- In 2018, in NYC, 13,500 units were taken off the market in a city that is struggling to provide affordable housing. Rents went up by 380 dollars and, in some neighborhoods, even by 700 dollars. Short-term rentals are also increasing in London, Berlin and other cities.

- Yet enforceable and accountable regulations are making their effect. For example, in San Francisco and Tokyo.
- The attempts to regulate short-term rental platforms have been spreading across Europe for the last couple of years. But, for now, this issue is a very little concern for European Institutions.
- Barcelona's Right to Housing Plan 2016-2025 will provide 18,439 new social and affordable units.
- Housing policies need to address changing demographics and consider the entire neighborhood. Economic diversity is fundamental and local government needs to leverage municipal tools and public assets, as well as protect past investments.
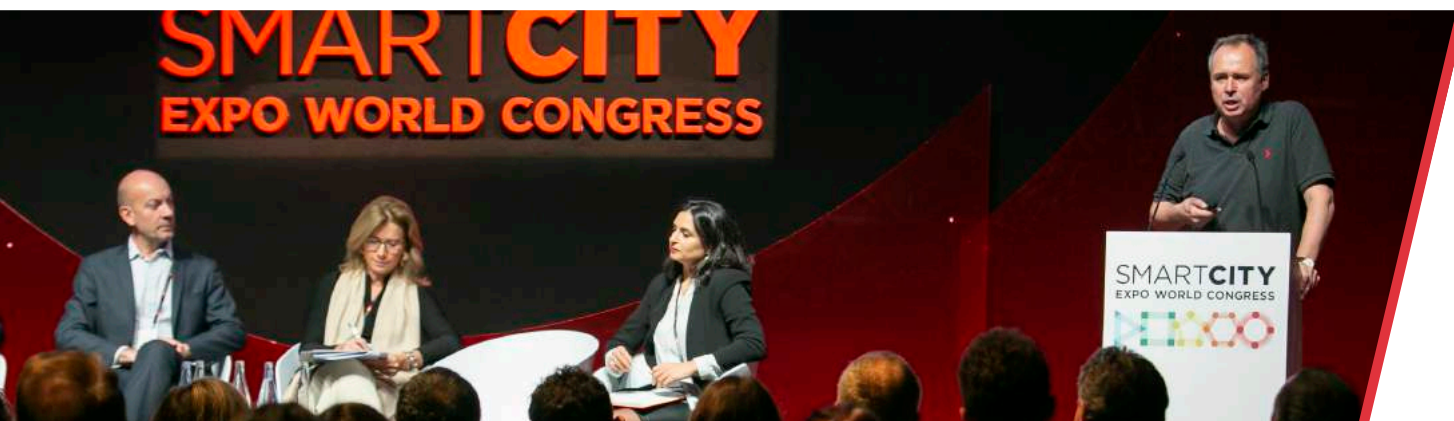
Inclusive & Sharing Cities
Circular Economy: Accelerating the Shift Towards a Circular Economy

📅 15/11/12018   🕐 09:30 - 11:30h

Participants
Verónica Kuchinow / Curator - *Circular Economy European Summit - Símbiosy*
James Pennington / Circular Economy Lead - *World Economic Forum*
Alba Cabañas / Technical Area Director - *Catalan Employers' Federation*
Ashima Sukhdev / Government & Cities Lead - *Ellen MacArthur Foundation*
Lluís Gómez / Commissioner for Economic Promotion, Enterprise & Innovation - *Barcelona City Council*
Xavier Casas / Head of the Economic Development Agency - *AMB*
Davide Stronati / Global Sustainability Leader - *Mott MacDonald*
Matthijs Bouw / Founder & Principal - *One Architecture and Urbanism*
Oriana Romano / Policy Analyst, Unit for Climate, Water and SDGs - *OECD*

Extreme weather events, disasters and other environmental risks are a growing concern not only among ecologists but also in the financial community. In addition, natural resources are set to double in 2050 reaching 167 trillion tons. This is where Circular Economy comes up as an important model when going forward, since linear consumption is reaching its limits. So, looking beyond the current 'take, make, dispose' economic model has turned into an imperative necessity. This session recalled the main advantages of this economic model and debated on how to accelerate its adoption.

TAKEAWAYS:
• The transition to a more restorative and regenerative model is not an option. Authorities have to stimulate transformation to improve people's life.
• The opportunities for industries are there as Circular Economy could generate $1 trillion annually by 2025.

• Circular Economy is a tool for cities to thrive and become more resilient. Good examples are to be found in Toronto, Auckland, Curitiba or Brussels.
• Planning with a global perspective in mind, and nurturing alliances between government and business, can help the journey towards a circular economy progress.
• Replicable data collection is key to supporting decisions, assessments and policy improvements. Incorporating storytelling and presenting clear business cases can also help change attitudes and accelerate the shift towards a Circular Economy.

> *"Mayors are looking for resilient, thriving, livable cities, and the circular economy is a tool and a mechanism they can use to get there."*
> *Ashima Sukhdev*

Inclusive & Sharing Cities

Innovation Ecosystems: Catalyzing Open Innovation and Economic Growth

📅 15/11/2018   🕐 15:00 - 17:00h

Participants

Christopher Swope / Deputy Editor - *Bloomberg Cities*
Michelle Greenwald / Adjunt Associate Professor; CEO & Founder - *New York University Stern School of Business; Inventours*
Hila Oren / CEO - *Tel Aviv Foundation*
Sergio Giorgi / Smart International Development
Wolfgang Glock / IT-Strategist, Teamlead E-/Open-Government & Smart City - *Munich City Council*
Patrick Vincent / Innovation Manager - *Lyon Métropole*
Itai Dadon / Director, Smart Cities - *ITRON*

Open innovation has changed the centralized research and development model, allowing universities and external R&D groups to become important collaborators for cities and companies. However, there are still political and cultural barriers to open innovation, as well as intellectual property issues and other legal hurdles. These sessions addressed the economic advantages of promoting open innovation within a city's ecosystem and the obstacles cities are encountering in doing it so.

> **"Cities are a playground. We should just enjoy them."**
> *Hila Oren*

TAKEAWAYS:
- Open Innovation is all about sharing, exchanging and partnering amongst the different players who might be able to help solve a problem.
- Open data, experimentation, and iteration provides the opportunity to address cities real needs through social links, and prototyping.
- Solutions aren't always inside the city. You must sometimes find them out in the world.
- Identifying the unique selling point of a city is key to build the smart city atmosphere.
- The simplest ideas can be the most powerful and transformative.

10.
SIDE EVENTS

An extensive program of theme-specific Side Events drove attendees to the heart of the key urban issues addressed by cities and institutions from all around the globe. Just a few of the +60 events featured in 2018 included:

Smart.City_Lab

A new, unusual space that became a true Laboratory where City.Builders co-designed "The City of the Future". Inside this busy hub, problems were observed from different perspectives and solutions were co-created and tested through a multifaceted approach.

Digital Future Society

WORLD BANK GROUP

Shaping a better digital future society

Promoted by the Mobile World Capital Barcelona, the Digital Future Society aims to build a conversation between entrepreneurs, policy makers, public authorities, and corporations on how we use, and understand technology to build a more equitable and inclusive society. Over 75 world-class experts joined this workshop and focused on equitable growth, digital trust & security, public innovation, and citizen empowerment.

Cities dealing with complex adaptative challenges

A 4-hour session dedicated to the city of Belgrade and how to create synergies with other solutions to tackle specific urban problems. Barcelona city officials and 30 other top-level experts worked together to help the teams with their deep expertise and real-life experience under the leadership of the Mayor of Belgrade, Zoran Radojičić.

"We came here to talk about transport and traffic congestion, but the conclusions we bring home are richer than I was expecting. This proves that by working together and sharing experiences we always reveal something new."

Zoran Radojičić
Mayor, City of Belgrade

Other highlighted Side Events

C40 Talks: Cities Getting the Job Done

A unique session dedicated to highlighting the innovative actions European cities are taking to deliver on the Paris Agreement and clean the air we breathe. Mayors of Barcelona, Athens, Berlin, and Milan took part in this session together with Teresa Ribero, the Spanish Minister for Ecological Transition.

CiBiX City Business Dialogues

A deep-dive networking service that connected companies and local government leaders on individual urban challenges. Several challenge-focused round table dialogues created the opportunity for private sector technology providers and cities to engage in collaborative discussions and build on more effective city-business partnerships.

Urban Mobility Innovation Index Forum

The UMii Forum was dedicated to representatives of cities and urban mobility stakeholders who presented their plans and initiatives to foster innovation in urban mobility. Participants were able to share their experience and debate with their peers, developing a common understanding on what needs to be done to unlock innovation for smarter and more sustainable mobility.

The Birthplace of Democracy is going Digital

Athens Mayor Georgios Kaminis and Chief Digital Officer Konstantinos Habidis had a candid discussion about how they are using technology, public-private partnerships, and the city's innovation network to transform Athens into the city of the future. The discussion was moderated by Bloomberg Associates, a global philanthropic consulting organization for cities.

Shaping Smart Cities in Latin America and the Caribbean

A dedicated session focused on LAC cities and governments: how are they managing to migrate from a traditional model of management to a smarter one? Which are the necessary ingredients to become a region of Smart Cities? What are the challenges and opportunities of adopting Smart City solutions in LAC?

Resilience Week

Barcelona was at the core of the Resilience global discussion, convening a series of activities and initiatives to build more resilient cities and strengthen both development and humanitarian agendas. The Barcelona Resilience Week gathered the main international actors, together with city representatives, to bring answers to implementing urban challenges.

Future-Proof Digital Platform Empowers Cities

At this summit held at the Auditorium, Huawei released a Smart City Digital Platform with ecosystem partners to interpret the company's "platform + ecosystem" strategy. Industry leaders and city administrators were invited to share cutting-edge ideas and best practices in the Smart City field, and explore the road to digital transformation of cities together.

Microsoft CityNext Intelligent Cities Forum

A fast-paced forum with city leaders and solution experts to learn about an array of industry-leading, modern technology to enable intelligent cities.

Digitalization is sexy. How data platforms could change the landscape of EU cities

Panel discussion on various approaches to the collection and utilisation of urban datasets in cities, data platform solutions and progress of digitalization in municipalities.

Smart City Educational Xperience 2

An educational experience where high school students co-worked to analyze their own lifestyle and played the Smart Global Village Puzzle Game, a board game inspired by Ildefons Cerdà and his famous Eixample, which had to be reshaped according to the innovative solutions reached by the groups.

"The future of cities resolves around three things: making people happier, making companies more profitable and making our ecosystem more sustainable. The Smart City Expo World Congress is the right place to be to go further in this journey and meet potential targets."

Miguel Eiras Antunes
Global Leader for Smart Cities, Deloitte

11.
NETWORKING ACTIVITIES

With more than 20,000 international visitors, SCEWC is an invaluable platform for forging connections with key industry figures. To this end, diverse networking activities took place throughout the venue.

Brokerage Event

ACCIÓ
Generalitat de Catalunya
Government of Catalonia

enterprise
europe
network
Business Support on Your Doorstep

Smart City Expo World Congress together with ACCIÓ, the Catalonian Government's business support agency, and Enterprise Europe Network, which helps SMEs make the most of business opportunities in the EU and beyond, organized the fifth edition of their **Brokerage Event**.

This international matchmaking initiative is aimed at assisting SMEs, startups, entrepreneurs, universities, research groups, corporations, institutions and cities to find international partners for product development, manufacturing and licensing agreements, joint ventures or other types of partnerships.

This fifth edition brought together **353 participants from 35 countries**, who sat for 30-minute pre-scheduled meetings in an area specially designed for networking to meet potential cooperation partners, establish connections and create bridges to carry on future projects. During the **two-day event**, 1,238 meetings were arranged.

Participants also had the opportunity to meet EUREKA experts. EUREKA is a bottom-up (no predefined topics), close-to-market network of more than 40 countries that finance smart city international and innovative projects.

The EIP-SCC Marketplace Matchmaking

The EIP-SCC Marketplace Matchmaking aimed at nurturing and accelerating smart city solutions to support innovation for implementation, and solution replication, as well as scale-up on energy, mobility and integrated infrastructures (ICT) solutions in our cities.

The focus was set specifically on engaging urban project promoters with financiers to organize one-to-one meetings. Early-stage discussions between these parties helped co-design solutions, improving the opportunities to reach financial agreements and, ultimately, complete development of smart city projects.

Job Marketplace

This recruitment space was organized by Smart City Expo World Congress and Barcelona Activa, Barcelona City Council area focused on the generation of employment. It created the ideal platform for smart city professionals looking for job opportunities in the sector as it put companies

from the Smart City sector in touch with potential employees who had been pre-selected by Barcelona Activa. During the interviews, different companies in the smart city field had the opportunity to select 21 profiles that best fit the requirements of their vacant positions.

Networking Breaks

Networking breaks at the Congress rooms were also an opportunity to connect with other like-minded professionals.
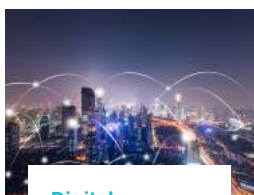
Digital Transformation

Urban Enviroment

Mobility

Governance & Finance

Inclusive & Sharing Cities

"The Smart City Expo World Congress is an excellent conference. In three days, you can access a lot of companies and countries that it would normally take ages to contact. They're all in Barcelona as a meeting place. It's fantastic."

Karen Burns
Business Development Director, CGI

12.
WORLD SMART CITY AWARDS

As the global population continues to grow, smarter, inclusive and more livable cities have become an urgent need. The **8th edition** of the World Smart City Awards celebrated the most innovative ideas and projects that are nurturing sustainable development in urban areas around the world, thus enhancing quality of life.

This year, seven different categories covering key issues were considered for the competition:

• The **City Award**, recognizing a global strategy developed by a city that combines projects, initiatives, and policy implementations in different urban fields or with a new approach that adds value to the smart city vision.

• The **Innovative Idea Award**, considering concepts contributing to the successful transformation of our cities.

• The **Digital Transformation Award**, prizing ground-breaking digital solutions transforming the urban environment and delivering real value.

• The **Urban Environment Award**, rewarding the most successful projects developed in the sustainability field.

• The **Mobility Award** recognizing initiatives to better move around the city.

• The **Governance & Finance Award**, giving recognition to great initiatives aimed at improving urban governance.

• The **Inclusive & Sharing Cities Award**, rewarding initiatives spurring the positive effects of collaborative practices and inclusive initiatives.

After an unprecedented number of entries, including **57 countries and 473 proposals**, the winners were selected based on a careful review of their proposals and considering the innovation, impact and feasibility of the projects, and thus their benefits for cities and citizens.

The winners were announced on 14 November, in a ceremony that attracted an audience of more than **1,000 key public and private decision makers**, providing an excellent opportunity to gain prestige and visibility.

Key figures

8th
EDITION

7
CATEGORIES

473
APPLICATIONS
(FROM 57 COUNTRIES)

Winners 2018

City Award

Transforming Singapore through Technology

Smart Nation and Digital Government Group (SNDGG) – Singapore

From dynamic public bus routing algorithms to real-time parent-teacher portals, or even predictive analytics for water pipe leaks, Singapore systematically pursues the application of innovative digital technologies to improve people's lives.

Innovative Idea Award

{delft}LINK: Affordable Housing Scheme

Cape Town – South Africa

Cape Town suffers from a severe shortage of housing for low-income earners. That is the reason why {delft}LINK was created. It is South Africa's first community-funded affordable housing scheme, a non-profit company that links prospective local developers, investors and tenants via a smart phone application.

Digital Transformation Award

Smart City, Making Gaoqing a Better Place

Government of Gaoqing Zibo – China

By introducing innovative ICT to address challenges arising from urban-rural development, Gaoqing is building a comprehensive county-level Smart City in China which leads to the digital transformation and sustainable development, making Gaoqing a better place. This particular model is designed for a medium-sized city, that other similar cities could take as a reference for development.

Urban Environment Award

Ecological & Green Industrial Town for Citizens

Jinshan District Government, Shanghai – China

While developing industry rapidly, Jinshan also promotes the construction of a living and working environment through smart buildings for the local people to improve their life quality in a more sustainable development.

Mobility Award

North Ave Smart Corridor – 360 Network Solutions

Atlanta – USA

The North Avenue Smart Corridor is becoming the most connected corridor in the state of Georgia, serving as a living lab for active, multi-modal traffic management through technology deployment and data analytics. Smart technology solutions applied here are improving roadway and public safety, mobility, and the environment.

Governance & Finance Award

Msheireb Downtown

Doha – Qatar

The objective of this project is that Msheireb Downtown Doha becomes a place where it is enjoyable to live, work, shop, visit, and spend time with family and friends. Through an integrated suite of data platforms, IoT systems & digital applications, Msheireb Downtown will empower resident experience, social interaction and quality of life with greater care for the urban environment.

Inclusive & Sharing Cities Award

Realizing the Promise of E-Health

Municipality of The Hague – Netherlands

The project aims at realizing the promise of e-Health and related digital solutions by selecting and improving solutions based on concrete feedback from an intensive Living Lab of about 150 aging citizens. The goal is to obtain scalable and actionable information for national policy, business models and tenders.

13.
DISTRICTS

The exhibition area of the 8th edition of the Smart City Expo World Congress was divided into **Districts** including **Agoras** for nonstop debate on city challenges. Attendees found in these open areas the opportunity to learn about essential topics, opening the door to a more interesting, inspiring and memorable experience.

Central District

The Central District hosted diverse talks on how to power the **IoT revolution** and make sense of data, how to define a **blockchain** strategy or how to move into the mobility of the future. In this sense, experts pointed out that "big data and artificial intelligence can determine how passengers move through the city."

Sustainability and urban resilience were also a crucial subject brought up during the debates. Speakers agreed on the need to involve citizens to face the climate change challenge.

East District

The East District hosted some of the sessions of the **Barcelona Resilience Week**, organized by UN-Habitat and the Barcelona City Council and aimed at gathering the key international actors together with city representatives to scale up the resilience action at a global level. The sessions addressed major topics that are both challenges and opportunities for cities to build resilience, such as climate action, social resilience, informality, governance, partnerships and humanitarian crises.

In addition, international best practices on urban innovation, how to apply the **circular lens** to urban development and **housing for Millennials** were also hot topics that sparked considerable interest among attendees.

West District

The West District was dedicated to startups, the digitalization of transport and the emergence of **Mobility as a Service** (MaaS), as well as the advance of **zero emission mobility** and cycling-friendly cities. There were also a number of sessions specifically devoted to the **Sustainable Development Goals**, the blueprint to achieve a better future for all, which somehow infused all the debates held in the venue.

14.
SMART CITY EXPO EDITIONS ABROAD

Spreading the word on the urban revolution

After eight editions, the Smart City Expo World Congress has established itself as the international benchmark for discussing and learning how to turn our cities into effective, inclusive, and sustainable urban environments. Since 2013, spin-off events have been spread through four continents, with local editions adapted to the specific needs of their host cities.

In 2018, Smart City Expo was held in **Brazil, Morocco, Spain, Mexico, Kyoto** and **India**:

SMART**CITY** EXPO CURITIBA

SMART**CITY** EXPO CASABLANCA

BRAZIL - 1st EDITION
Innovation as a Motor for Innovation Development

The first edition of the Smart City Expo Curitiba took place in the Expo Renault Barigui from 28 February to 1 March 2018. Under the motto "**Innovation as a Motor for Economic Development"**, the Smart City Expo Curitiba aimed to identify specific solutions to address the challenges cities are facing nowadays. Over two days, internationally recognized speakers inspired and shared their knowledge and innovative ideas on how to bring smart development to cities.

MOROCCO - 3rd EDITION
Livable Cities and Urban Social Innovation

The third edition of Smart City Expo Casablanca, honored by Her Majesty's High Patronage, was held from 18 to 22 April 2018, in several places in the city under the claim "**Livable Cities and Urban Social Innovation**". The two-day Congress brought together 85 speakers who took part in 15 roundtables and conferences on sustainable development, citizen participation and collaborative societies, common public spaces, civic technology, urban innovation and new technologies. The conference program included Anies Basewedan, current Governor of Jakarta, Jordi Hereu, former Mayor of Barcelona, and Ethan Kent, specialist in Placemaking.

SMART **ISLAND**
WORLD CONGRESS

SMART**CITY**
EXPO **LATAM CONGRESS**

MALLORCA (SPAIN) - 2nd EDITION
Connecting Islands to Face Global Challenges

Held in Mallorca from 23 to 24 April, the Smart Island World Congress brought together experts from all around the world to explore the opportunities that can arise from the unique challenges facing islands in areas such as efficiency, urban planning and economic and social development in the global era. Gathering 1,200 professionals and 175 international delegations from over 100 different islands, this second edition confirmed Smart Island World Congress as a benchmark.

PUEBLA (MEXICO) - 3rd EDITION
Collaborative Communities, Smart Territories

Smart City Expo LATAM Congress celebrated its 3rd edition from 11 to 13 September 2018 in the city of Puebla, Mexico, under the claim "**Collaborative Communities, Smart Territories**". It received 12,447 professional visitors from 44 countries, and held congress sessions featuring speakers such as Robert Muggah, co-founder of Igarapé Institute, and Charles Landry, expert in creativity for urban transformation.

SMART**CITY**
EXPO **KYOTO**

SMART**CITY**
EXPO **INDIA**
JAIPUR 2018

JAPAN - 5th EDITION
Regions and Industries to Create a Sustainable and Livable Future

With 10,518 worldwide participants gathering in Smart City Expo Kyoto 2018, the event provided support in building a mechanism to encourage commercialization and industrialization based on sustainable open innovation, while endeavoring to create a "meta-comfort" smart society in order to overcome the pressing issues that Japan is facing, such as the regional decline of societal and economic vitality due to decreasing birthrate and aging population.

INDIA - 1st EDITION
Smart India, Making It Happen

Over 80 experts, including world-class leaders such as Joan Clos, Peter Hishburg, Bibek Debroy and Anil Menon debated on the challenges faced by cities in the current global context, during the event held in Jaipur from 26 to 28 September. The topics varied from Innovation Technology & Digital Governance to Social Development and Smart Destination. The Exhibition area showcased breakthrough solutions, cutting-edge technologies and projects, and enthralling presentations in the smart city arena.

15.
CO-LOCATED EVENTS

SMART**MOBILITY**
CONGRESS

The way people move around the urban environment is primed for dramatic change. Increasing urbanization, technological innovations -including electrification, connectivity and autonomy- and the emergence of new business models are changing the ground rules.

Sustainable urban mobility has turned into an urgent necessity. The numbers are staggering: Transportation today accounts for close to 19% of the world's energy consumption. Congestion inflicts high economic costs, which totaled $461 bn last year, or $975 per person, between Britain, Germany and the United States. Besides, only in Europe, transport costs €1 trillion in pollution.

Now, what has to be **The Next Move** or the next phase of advanced mobility matching the public's aspirations for safe, clean, reliable, and affordable ways to get from A to B is a common challenge to major cities worldwide. Some of them are already demonstrating the profound effects of mobility innovation when combining car-sharing and ride-hailing services, electrification and even (some) autonomy. Yet energy decentralization and the Internet of Things (IoT) are likely to create more drastic changes in the coming years.

The second edition of the Smart Mobility Congress, jointly organized with the Smart City Expo, reflected on these coming changes while showcasing initiatives for improved traffic flow, convenient commuting and better road safety.

Renowned speakers, such as Janil Puthucheary, Minister for Transport of Singapore; Wojtek Dziegielewski, Senior Business Development Manager of the Volocopter; Seong-Hai Lee, Director General of the Urban Policy Bureau at the Ministry of Transport of South Korea or Mar Alarcón, Founder and CEO of SocialCar analyzed the role and evolution of intelligent transport systems and how electromobility and non-motorized mobility can improve air quality in cities.

In parallel, more than 60 side events and activities complemented the Smart Mobility Congress offer by focusing on the development of new mobility models. Some of them were showcased in the Expo area; others, like the SEAT's KickScooter eXS powered by Segway, in The Village. Moreover, at these **outdoor activities** attendees could experience new mobility proposals first-hand.

The whole congress area was in accordance with the precepts of the **Towards Zero Waste** initiative, launched in 2015 by the Smart City Expo World Congress to reduce residual waste and save resources.

In the end, attendees coincided that the event was an unmissable opportunity to reflect on how to better move our world while participating meaningfully in the Smart City Expo World Congress, the benchmark event in the smart city field.

Highlighted Activities

SEAT

Test Drive: SEAT eXS KickScooter powered by Segway

Responding to a growing demand for last-mile electrical mobility solutions, SEAT presented the eXS KickScooter, developed in partnership with Segway, which can travel up to 25 km/h. The scooter is equipped with front and rear LED lights, customizable ambient light, an LCD screen, cruise control and an anti-theft deterrent, as well as an additional battery that can be connected to increase its range, which reaches a maximum of 45 km, depending on conditions. The eXS made its first public appearance at The Village, where visitors had the chance to take it for an exclusive test run.

KEOLIS

First autonomous cab on the market

Keolis showcased its electric robo-taxi, which uses a range of navigation and communication technologies to deliver unrivaled mobility experience to passengers. By presenting the autonomous cab at the event, Keolis reinforced its role as a pioneer in all forms of everyday shared transport and promoted its vision of more connected, autonomous, shared and electric mobility solutions.

navya be fluid

NAVYA Autonomous Shuttle demonstration - Operated by KEOLIS

NAVYA, created in 2014, is a French company and leading name in the development of innovative, smart and sustainable mobility solutions. NAVYA develops driverless, automated electric vehicles that are dedicated to first and last mile. The company brought its autonomous shuttle to the event. The vehicle can carry up to 15 people, is equipped with a multitude of sensor technology to provide 3D vision which enables it to map out the environment, detect obstacles in its path and identify traffic and road signs.

iwater
SALÓN INTERNACIONAL DEL CICLO INTEGRAL DEL AGUA

It is a fundamental resource. The world runs on water, which is vital for daily survival. Yet global water systems face considerable threats. Climate change, global warming and the increased demand for water, amongst other factors, will reduce our hydric resources by almost half. Globally, the picture is bleak: on current trends, **demand for water will exceed supply by 40% by 2030**. Thus, a global framework for action is needed.

The second edition of the **International Integrated Water Cycle Show** (Iwater) put this crucial issue on the table and debated on how to preserve and provide access to water in areas affected by hydric stress. It also shared solutions aimed at guaranteeing the future of water. In this sense, the show broached the need for a change of model: the prevailing linear model is economically and environmentally unsustainable. Thus, the better approach is to **circulate water in closed loops**. In this approach, water is re-used time and again, retaining full value. It also makes it possible to recover a wide variety of substances from water, reducing both waste and costs. This is the definition of circularity in the water sector, a topic that pervaded a number of Iwater sessions.

With this global vision, Iwater became an **international meeting point for all the stakeholders**. Over three days, the trade fair brought together companies, professionals, institutional representatives and experts in water cycle management. It promoted business and professional networking and created an atmosphere conducive to publicizing the latest technologies, solutions and advances in the water industry, while analyzing and discussing its most pressing future challenges.

Living up to initial expectations, Iwater received **more than 4,000 visitors**. In addition, Smart City Expo World Congress and Smart Mobility Congress (with 21,331 visitors from 146 countries) created very positive synergies. Many attendees from urban management and public services, city representatives, experts and other professionals also visited Iwater to learn about technologies for improving water management in cities.

The exhibitors were very pleased with the quality of the contacts made at the fair. The companies that took part at the fair also highlighted the wide variety of professional profiles, as well as the increase in visitors from abroad, compared to the first edition. On the internationalization side, it is worth mentioning that 500 business meetings were held between the exhibitors and the delegations from 10 countries, who had been directly invited by the organization. These were aimed at boosting exports of Spanish water cycle products, services and technology.

Main Themes

Digitalization and **sustainability** were the main themes of Iwater's second edition. Experts pointed out the need to modernize hydraulic infrastructures to guarantee smart, sustainable water management for cities, industry and agriculture. The exhibition area also showcased greater technification of water management and treatment through the use of **industry 4.0 technologies**, such as the Internet of Things (IoT), Big Data and Blockchain solutions, which provide real-time information about consumption both for users and managers.

Highlighted Activities

Iwater Stories

Iwater Stories were a series of conferences where issues such as opportunities for the industry on foreign markets, the transition to digital water, the importance of sustainability in the industry and the Prima program for sustainable agriculture were discussed. It is estimated that 850 people attended both the hub sessions and Iwater Stories.

InnoHub and TechHub

Around 60 proposals including innovative solutions, R+D+I projects and technology applied to all the processes of the integral water cycle within the framework of the new paradigm of the circular economy were presented in the InnoHub and TechHub arenas.

CIRCULAR ECONOMY
european summit

Linear consumption is reaching its limits. So, looking beyond the current 'take, make, dispose' economic model has turned into an imperative necessity. The Circular Economy, which is restorative and regenerative by intention and design, is part of the answer. This transformation has numerous benefits and is a trillion-dollar opportunity, with huge potential for innovation, job creation and sustainable economic growth, according to the World Economic Forum.

The Circular Economy European Summit (CEES), aimed at stimulating the debate on circular projects, which foster a system change, has been transformed to become a cross-cutting cornerstone of various Fira de Barcelona events that recognize sustainable development as a key issue for the future of industry.

With this innovative format, CEES 2018 was present at **Hispack, Smart City Expo World Congress** and **Iwater,** showing that taking transformative actions to a circular future involves all the stakeholders and that it is possible to design solutions that fit the local context with a global perspective, building supportive coalitions and engaging the global value chain to enable scalability.

Hispack 2018 – Packaging, Process & Logistics

Sustainability is a fast-growing and vitally important area of concern for packaging that addresses economic, environmental and social objectives. For four days, Hispack attendees delved into the EU sustainability requirements for the industry within the **Sustainability track by Hispack Challenges** which is dedicated to this topic.

Experts from different fields talked about new EU rules to reduce marine litter, to come into force by 2021, which will introduce a plastic ban on certain products, consumption reduction targets, obligations for producers, collection targets, labeling requirements and awareness-raising measures. They also brought up the emergence of new biodegradable and compostable materials, as well as new hybrid compounds leading the way to a Circular Economy.

> *"By 2025, 10 million tons of recycled plastics should find their way into new products in the EU market."*
>
> *Gwendoline Riou*
> *EU Public Affairs and Communication Manager, EUROPEN*

> *"Entrepreneurs should think in a circular way and develop recyclable and reusable products as it has an added value for companies."*
>
> *Ferran Tarradellas*
> *European Commission representative in Barcelona*

Smart City Expo World Congress

At Smart City Expo World Congress 2018, **Circular Economy was a hot topic of discussion** particularly high on the agenda of the **Inclusive and Sharing Cities Thematic Program** and also present throughout the exhibition area.

Renowned speakers such as James Pennington, Circular Economy Lead at World Economic Forum, and Ashima Sukhdev, Government & Cities Lead at the Ellen Macarthur Foundation, outlined the risks and rewards of shifting towards a Circular Economy. Other experts enhanced that the way forward involves viewing challenges as opportunities, designing solutions that fit the local context with a global perspective. Eventually, they concluded that over the next years, one of the economic challenges for circular economies will be effectively synchronizing market regulations with new technological solutions.

> *"Planning with a global perspective in mind, and nurturing alliances between government and business, can help advance towards a Circular Economy."*
>
> *James Pennington*
> *Circular Economy Lead, World Economic Forum*

Iwater

The show broached the need for a change of model and made clear that the better approach is to circulate water in closed loops. In this approach, water is re-used time and again, retaining full value. It also makes possible to recover a wide variety of substances from water, reducing both waste and costs. This is the definition of circularity in the water sector, a topic that pervaded a number of iWater sessions.

> *"Circular Economy together with data harmonization can allow us not only to change cities, but also to facilitate new jobs and reduce inequalities."*
>
> *Oriana Romano*
> *Policy Analyst at Unit for Climate, Water, and SDGs, OECD*

Digital Future Society

Digital Future Society (DFS) is the think tank implemented by the **Mobile World Capital Barcelona** to contribute to an inclusive, equitable and sustainable future in the digital era. It started out within the Smart City Expo World Congress framework to establish the conceptual foundations upon which the project is built and commence to address the **ethical, legal and social challenges arising from digital transformation** and technological development from a global perspective. To this end, its Board of Trustees met for the first time.

In parallel, the event also featured a co-creation workshop inside the **Smart.City_Lab** involving the participation of more than **70 experts in innovation and technology**, researchers, thinkers and representatives of the civil society to develop new solutions for the scenarios prompted by digitalization.

Attendees included Luca de Meo, Chairman of SEAT; Mats Granryd, Director General of the GSMA; John Hoffman, CEO of GSMA Ltd.; Daria Tataj, European Union Strategy and Policy Advisor; and Rahilla Zafar, Managing Director of ConsenSys, all of whom are members of the **Global Advisory Board**; and Arantza Ezpeleta, Chief Technology and Innovation Officer at Acciona; Sarah Harmon, Country Manager for Spain and Portugal of LinkedIn; and Andreu Veà, Chairman of Internet Society in Spain.

How global economic policies will evolve in a digital and interconnected environment, what role cities will play in assisting the public digital transformation, and how **women's talent** will be incorporated into real corporate leadership were some of the questions raised at the session. These are subjects that will be tackled with the contents developed by the think tank. The result of this workshop was summarized in the **DFS manifesto**.

DFS has the firm commitment and support of the Barcelona City Council, the Government of Catalonia and the Spanish Ministry for the Economy and Business.

Following on from this first summit, **more specialized summits will take place during 2019**.

The Sharing Cities Summit Barcelona 2018 was a collaborative effort co-organized by the **City Council of Barcelona** and the Open University of Catalonia (UOC Dimmons group), **with the support of the Cities of Amsterdam and New York**. It included a dedicated space in both the Congress and Exhibition Area, with a 140m² pavilion holding presentations, meetings and offering the opportunity for many selected companies and organizations to showcase their solutions.

The Summit focused on boosting concrete **Commons** outcomes and collaboration between cities, while analyzing new economic models of the collaborative economy that represent a great opportunity to create a more inclusive, participatory and diverse urban economy, aligned with the interests of the city. In this sense, Barcelona cited Som Mobilitat, Katuma, Som Energia, Smart IB, Wikiloc, Wikipedia and Mensakas as significant examples of these new socially responsible platform-economy models, aligned with the general interest of cities.

Furthermore, global cities, which debated about public policies regarding platform economy and about promoting platforms based on socially responsible models, claimed respect for the existing legal framework, transparency in the use of data and guarantees of labor rights. Amsterdam, Barcelona, Lisbon, Madrid, Montreal, New York, Paris, São Paulo, Seoul, Singapore, Stockholm and Vienna agreed on a **Declaration of Principles and Commitments of Sharing Cities.** Eventually, an action plan was drawn to establish a Barcelona-based office where cities can share common information, strategies and a negotiation framework.

Smart City Week was an initiative promoted by the Barcelona City Council to reflect and experiment on the relations between people, technology and cities. From 5 to 11 November, **the event brought the citizens closer to the concept of smart city** and allowed them to understand how technology modifies both the spaces in which we live and the activities that we develop, ultimately showing its potential to transform cities into spaces that can respond to global challenges.

Structured around four fundamental axes defined by the different levels of relationship between people and their physical environment -**the house, the neighborhood, the city and the world**-, this initiative became a space for reflection, complemented by a series of open and free activities for all.

It gathered around **2,000 attendees of all ages** and gained the support of more than **40 collaborating entities** which helped develop over **50 activities** corresponding to up to **160 hours of educational and cultural programing**.

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IN OTHER WORDS

Daria Tataj

Chairwoman of High-Level Advisors to Commissioner Carlos Moedas, European Commission

"I was thrilled to be at the Smart City Expo World Congress. There are so many ideas from all around the world, so many great thought leaders bravely touching upon the issues that are so hard to solve for anyone living in cities... I encourage every city and every business who wants to do good for the world to come to next year's edition."

Felipe Urbano

Head of Business Development, Communications and External Affairs, FCC Environment

"Smart services make cities smarter. And the Smart City Expo World Congress is the place to be to our stakeholders with all our innovations and our contribution to the future. This is the most powerful global fair on smart city topics."

Pete Daw

Director of Environment and Urban Development, Siemens

"The Smart City Expo World Congress is important for us as we can meet cities from around the world to discuss the challenges they face. It's a great event, with good ideas and opportunities to work together to improve things in a responsive way."

Juan Felipe Yepes

Ombudsman Office, City of Bogotá

"If you're a public servant, public official or work for the government, the Smart City Expo World Congress is the best place to be as you can understand and learn all the best practices from all around the world."

Momazwi Mhloma

Deputy CIO, City of Durban

"The Smart City Expo World Congress is useful for me as I can see the existing technologies to implement sustainability in our municipality."

Natalia Olson

Co-founder of the Disruptive Factory and Board Member of Smart City Works

"I think it's important to see the cooperation of the businesses that are at Smart City Expo World Congress. It's great to see there are forums and conversations where we talk about inclusion, getting more women out there, making sure we're empowering communities and not leaving people behind."

Robert Cervero

Professor Emeritus, University of California Berkeley

"This is my fourth time at Smart City Expo World Congress and I have to say it's matured. The first years I came there was a lot of excitement about cutting-edge technology, but now we're beginning to see a maturation of systems. There is a much more robust and richer perspective of what smart technology could bring to sustainable mobility of the cities of the future."

Davor Meersman

General Manager of Open & Agile Smart Cities

"For us, the Smart City Expo World Congress is the event of the year. The broad community, including all the providers and stakeholders, is in Barcelona. In 2019, we will blow up the stand for additional interaction space for our collaborators."
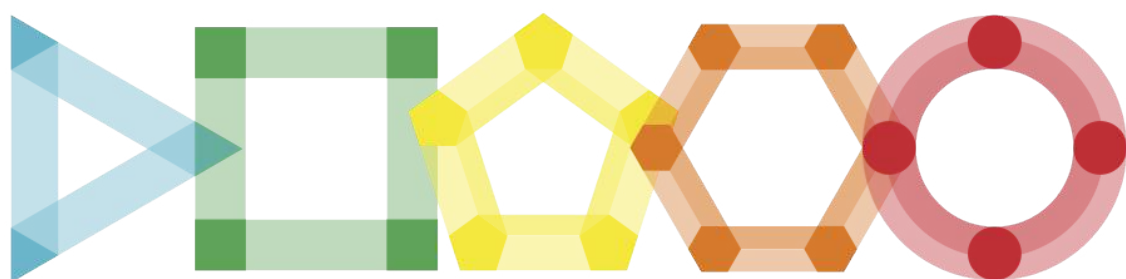
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19-21 November 2019

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