



CITIES MADE OF DREAMS

Report 2019



Fira Barcelona

Report 2019



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1/SMART CITY EXPO WORLD CONGRESS 2019

Pushing The 'Smart' Envelope: Cities Made of Dreams

Dreams are powerful. Powerful dreams inspire powerful action. And powerful actions can change the world. In 2011, when the Smart City Expo World Congress started, we dreamt about making the world a better place by helping cities become smarter and more sustainable. At that time, it was mostly conversations, but no reality. Now, after nine editions, those dreams are coming true. Cities are using technologies to improve and transform the lives of their citizens, and the environment. And there is no way back as the trend towards **urbanization is only accelerating**. Today, 55% of the world's population lives in urban areas, a proportion that is expected to increase to 68% by 2050. This global shift has profound implications for a wide range of issues, not the least of which is climate change. Thus, **limiting global warming to 1.5°C** has become a crucial necessity. The number may seem small, but it is right about the point that scientists project we'll see some of the climate impacts we already see today begin to go from bad to outright terrifying. The time to act is now.

In this light, **cities are leading change** on policies to spur sustainable patterns of development. They have become key socio-economic and political actors on national and world stages, as they have a major impact on the economic and social development of nations. Now that urgent and concrete policy action is needed to deliver the ambitious targets of the **2030 Agenda for Sustainable Development**, their power to **create innovative solutions** for the toughest problems is vital. Technologies such as the Internet of Things

(IoT), Blockchain, Artificial Intelligence, and 5G are becoming pivotal as they disruptively change the way cities operate. But **citizens need to be at the heart of this transformation**.

This year, the Smart City Expo World Congress (SCEWC) took a significant leap forward with **20% more exhibition space** to debate on how to create **Cities Made of Dreams**. With this baseline, the event shattered all previous records and proved it is a 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 **24.399 attendees, representatives from more than 700 cities and 146 countries, as well as 1,010 exhibitors**. The show also provoked the interest of 574 international and local journalists. These figures translate into **a 15% increase in comparison to 2018 and an impact of €90M in the region**, which confirms the show as the leading event in the smart city field. **Over 400 experts**, including keynote speakers such as Janette Sadik-Khan, Laura Tenenbaum, Benedetta Tagliabue, Shira Rubinoff and Roland Busch debated on the challenges faced by cities in the current global context, encouraged out-of-the-box thinking and inspired a call to action for building together smarter cities for a better future.

They all gathered and networked in **45,000 m² floor space occupying two pavilions**, and combining

three different areas -the Exhibition area, the Congress area, and The Districts- all designed to make a memorable experience for attendees. For the ninth year running, the Exhibition area displayed smart implemented solutions with a strong emphasis on sustainability, cutting-edge projects such as how to move to a decentralized energy model, and riveting presentations in the smart city arena. This area also 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 a value of US\$ 826.3 Billion by 2024***. At the same very place, attendees could search for talent and network in open stands built for the occasion.

All areas were designed in accordance with the precepts of the **Towards Zero Waste** initiative, launched in 2015 to reduce residual waste and save resources. In 2018, the event already took a qualitative leap by cutting single-use plastics. The effort was worthy and, this year, we dared to go even further. In partnership with CO₂ Revolution company and thanks to the crucial contribution of our attendees who bought merchandising for the value of 2,026 trees, we contributed to reforest the Parque Natural del Alto Tajo (Guadalajara, Spain) with drones and smart seeds.

Furthermore, the Congress area, including the Auditorium and five Theme Rooms on the five tracks 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 how to be intentional in our path to inclusivity, the political will to fight climate change, and accordingly the transition to a circular economy and a smart mobility. This critical issue was fully discussed at the co-located **Smart Mobility Congress**, which reflected on how cities are **Leading The Way** in sustainable urban transport.

In parallel, nearly **90 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** also recognized new initiatives on urban development, specially the **Stockholm Smart City strategy** for its focus on inclusivity and sustainability.

The 2019 edition of the Smart City Expo World Congress was a major success where attendees could keep on thinking about **Cities Made of Dreams** for a better tomorrow. The event is already working on its next edition, which will be held from **November 17th to 19th 2020, and will mark its 10th anniversary**.

"Smart Cities Market: Global Industry Trends, Share, Size, Growth, Opportunity and Forecast 2019-2024." October 2019.



Key figures



24,399

Attendees



1,010

Exhibitors



+400

Speakers



+700

Cities



146

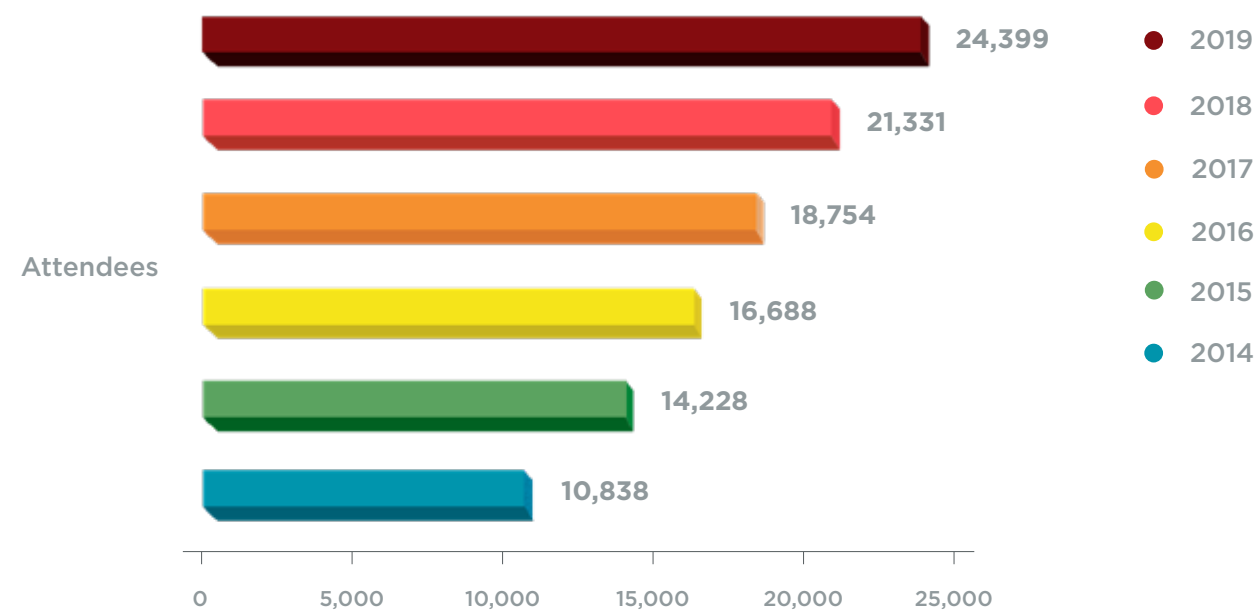
Countries



+90

Side Events

An ever-growing event



A smarter global community



146

Countries have come to visit us

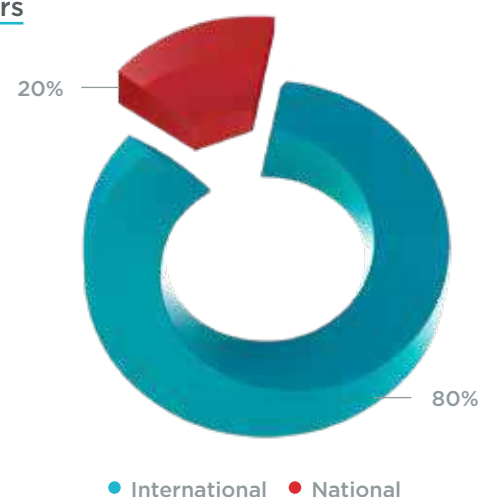
Top international visiting countries

- | | |
|----------------|-----------------|
| FRANCE | SOUTH KOREA |
| GERMANY | THE NETHERLANDS |
| ITALY | CHINA |
| UNITED STATES | ISRAEL |
| UNITED KINGDOM | BELGIUM |

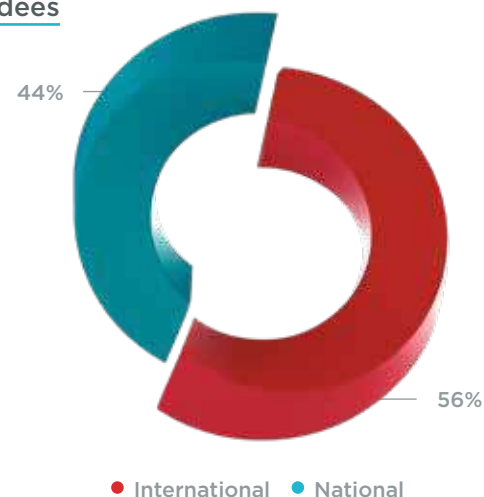
A global community of urban leaders

Attendees came from 146 different countries.

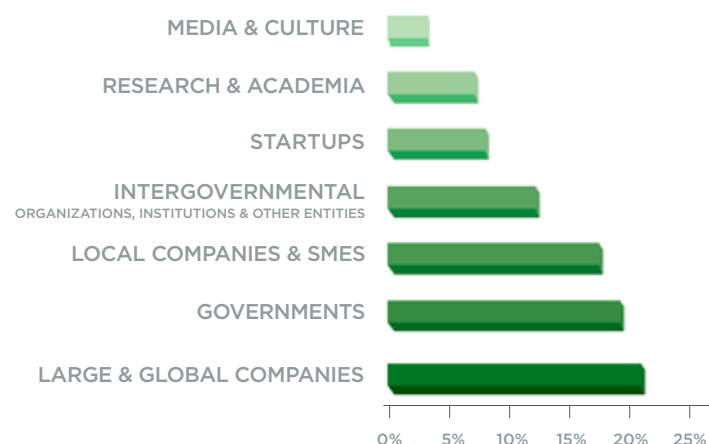
2019 Exhibitors



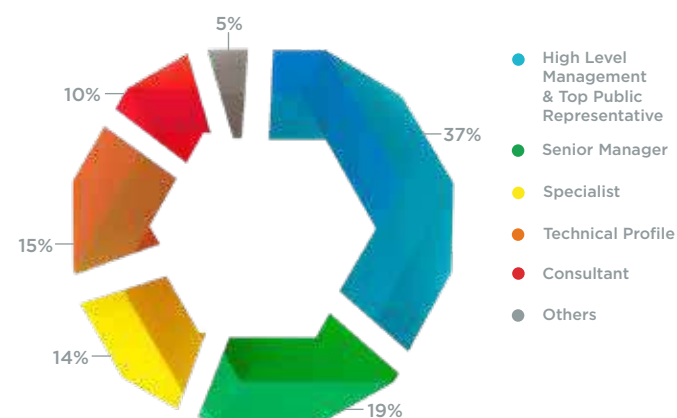
2019 Attendees



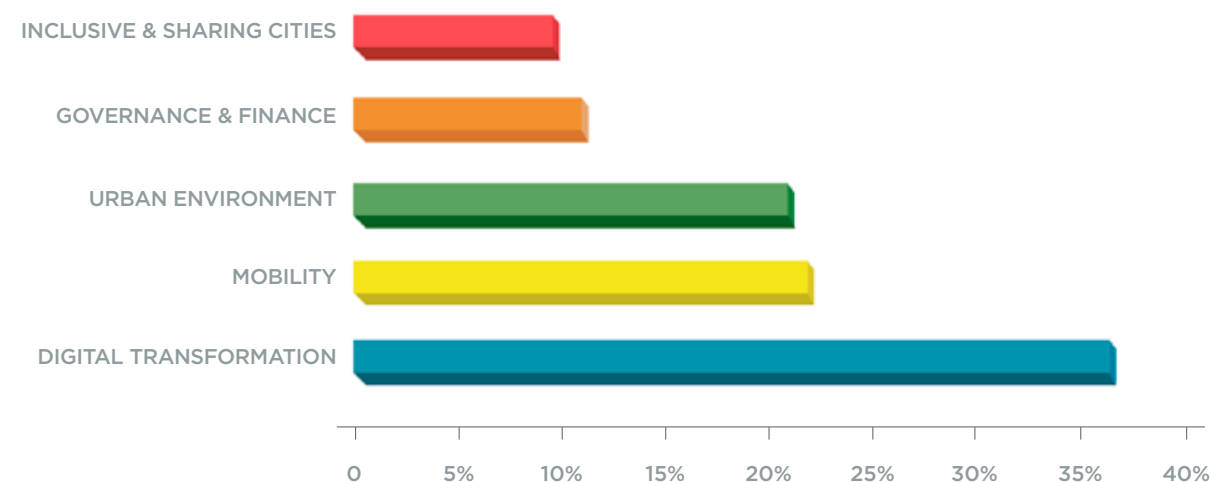
A diverse interest coming from the public and private sector



56% of attendees hold senior management positions



Attendees chose the sector in which they operate



Widespread media attention

574
Journalists registered at the event

8,084
Media Items
Audience: 4.728 M viewers

54
Media Partners

A Social Media Hit

+119,000

Followers in Social Media



+34M

Social Media Impressions

+610,000

Web Visits

SCEWC scored

942 out of **1,000**
on Kred influence measurement

17,000

Mentions of #SCEWC19

2/ HUMANIZING TECH FOR BARCELONA

Barcelona has turned into a benchmark for the smart city concept in the world. Not just for the use of innovative tools to improve city's management but also because technology is essentially put at the service of people to preserve their social rights, while continuing to boost the digital economy.

At Smart City Expo World Congress, Barcelona described its smart city model under the baseline **Humanizing technology for Barcelona**. This model pivots around three axes including an architecture of cross-cutting information systems, data as a fundamental element for city governance and a strong commitment to the United Nations Sustainable Development Goals (SDGs) which crystallize in public policies and projects revolving around participation, social and economic interaction and the urban sphere.

Accordingly, within the SCEWC, Barcelona announced the winners of the two challenges presented by the municipal laboratory i.lab, related to SDGs. 'Clean energy from the pavements' submitted by the company Sorigué and 'SOM Comunidad', developed by URock, claimed the prize. The announcement of the winners took place during a special ceremony held at the Central District, with the Commissioner for Digital Innovation, Electronic Administration and Good Governance, Michael Donaldson, and the five finalist proposals for each challenge.

The finalists for the World Data Viz Challenge 2019 Barcelona-Kobe, the contest for the analysis and visualization of data for citizens to help improve aspects of cities, were also shown.

In the Congress area, the Barcelona City Council officially inaugurated the **European EIT Urban Mobility project**, which aims at financing initiatives that provide mobility solutions to make European cities more liveable within the framework of the European Institute of Innovation and Technology (EIT).

In parallel, the city hosted the **Sharing Cities Action Encounter** with representatives from 22 cities from around the world who keep on working to define a common strategy to defend the sovereignty of cities.

Within the three days of the event, the City Council booth, which integrated 16 companies supported by Barcelona Activa, offered a variety of presentations and over thirty activities promoting a fairer, more innovative, and sustainable city model.

Presentations and workshops by local companies and associations enhanced the transformative power of **Innovative Public Procurement, friction-less citizen participation using Blockchain, smart mobility hub platforms and shared electric mobility, data sovereignty and 5G** to develop innovative services.

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



OPENING SESSION:

Cities Made of Dreams

Jaume Collboni - First Deputy Mayor

PLENARY SESSIONS:

Cities Leading the Paradigm Shift in Urban Mobility. Launch of EIT Urban Mobility

Ada Colau - Mayor

Agenda 2030: how are cities leading the implementation of the Sustainable Development Goals?

Miquel Rodríguez Planas - Commissioner for Agenda 2030

THEME SESSIONS:

Future-proof Cities: Building Resilience and Acting on Climate Change

Arès Gabàs - Head of the Resilience Department

Shared Mobility: Getting Ready for the MaaS Era. Mobility of Tomorrow: Connected, Autonomous, Disruptive

Maita Fernández-Armesto Sánchez - Project Coordinator

Sharing Cities: Platform Labor in Urban Spaces

Álvaro Porro - Commissioner for Social Economy, Local Development and Consumption
Right to the City: Housing, Gentrification and Urban Justice

Lucía Martín - Councilor for Housing and Renovation

Moreover, Laia Bonet, Deputy Mayor and Head of International Relations, handed out the **City Award** at the **World Smart City Awards Ceremony**.

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, 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. The second edition of this event, held under the slogan **City in Action**, attracted 2,500 people, 26% more than the previous year.

The **Smart City Expo World Congress** will keep striving to support these actions by generating synergies, sharing knowledge, provoking discussion, reflection, and inspiring new initiatives to build the city we need.

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.

These were some of the actions taken by Smart City Expo World Congress to work Towards Zero Waste.

NO SINGLE-USE PLASTICS

- ◆ The event stayed **free from single-use plastics**.
- ◆ All drinks for sale were in glass containers.
- ◆ Menus at the Food Courts and caterings avoided products packaged in plastic.
- ◆ Treated water stations and reusable glass bottles were available.
- ◆ Coffee machines and one-dose capsules were replaced by coffee thermos.
- ◆ Vending machines were disabled. 236,25 kg of plastic waste was prevented.

REUSE AND RECYCLING

- ◆ 25,400 m² of carpet from corridors and 2,425 kg of other materials were reused after the event. This is the equivalent of **7,620 kg of waste prevention**.
- ◆ Lanyards, passes and pass holders were made of **recycled materials** and could be discarded at the return point to be recycled again, with a **circular mindset**.
- ◆ Colored bins were distributed throughout the venue to correctly separate waste.
- ◆ If necessary, volunteers helped attendees recycle properly.

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

In 2018, we cut **single-use plastics** during the event, ahead of **new EU rules to reduce marine litter**, which will come into force by 2021. And this year, we wanted to go a step further.

ENVIRONMENTAL AWARENESS

- ◆ The event was **carbon neutral**. All CO₂ emissions generated by the organization of the event were offset by buying **Verified Emission Reduction Carbon Credits** for the Andra Pradesh Wind Power Project (India).
CO₂ compensation: 344,26 tons
- ◆ All participants were informed on how to offset their participation at the event via the **Clean CO₂ Platform**. Details were explained through the event's app.
- ◆ **Solar panels** installed on the roof of the venue provided a great amount of the energy used by the event.
- ◆ During assembly and dismantling, exhibitors were constantly informed on how to manage hazardous waste.

LESS PAPER

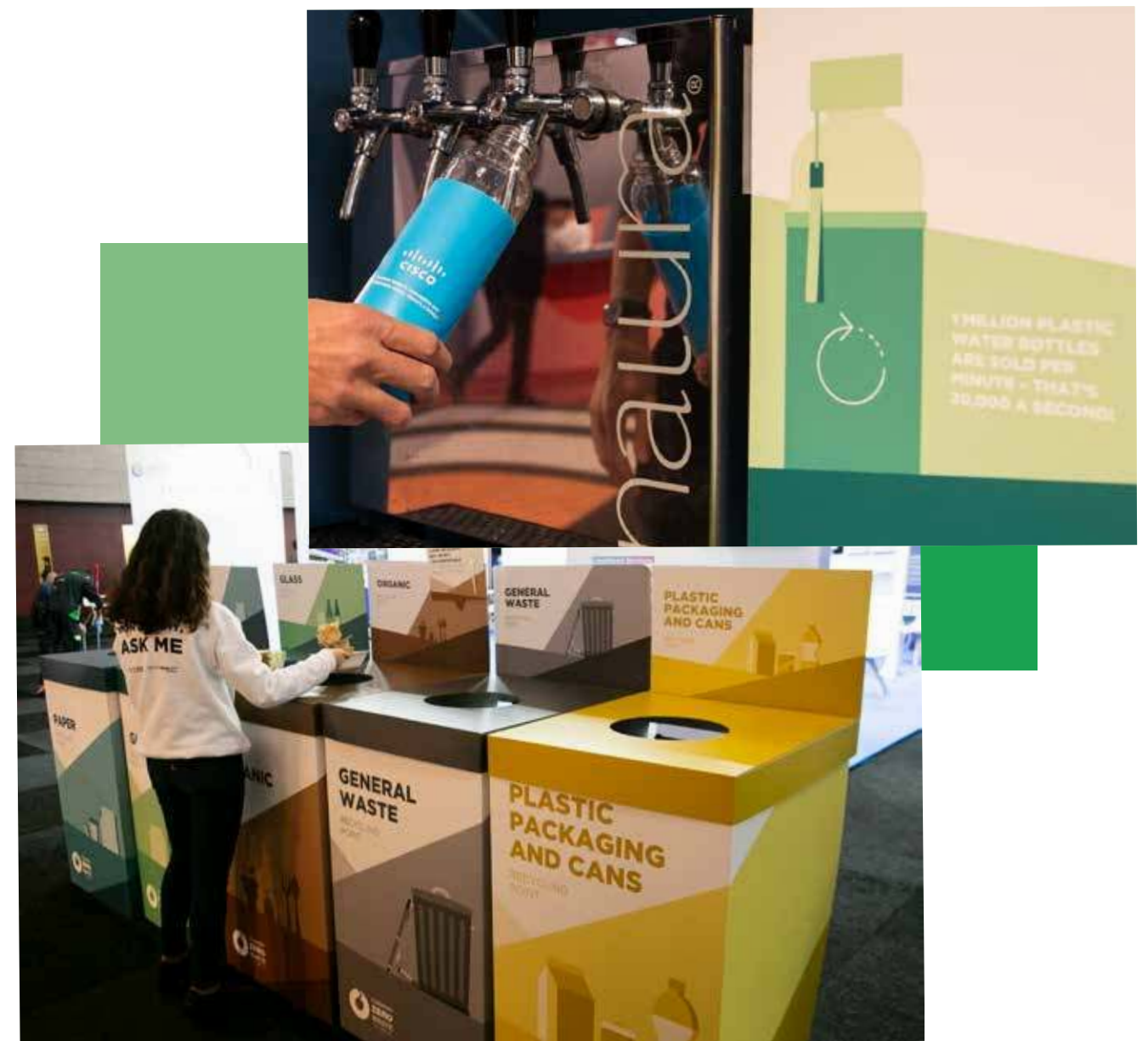
- ◆ All the paper used at the stands was collected at the end of the event.
- ◆ Paper magazines were eliminated in favor of **digital magazines** at our Press Corners.
- ◆ **55 QR codes** were displayed at strategic places throughout the venue for downloading the app.
- ◆ The **app was downloaded 10,994 times**, helping save **164 kg of paper**.

NO FOOD WASTE

- ◆ **267,66 kg of leftover food** were donated to the NGO Nutrition Without Borders, to be distributed and used by community kitchens.
- ◆ Special containers for separating the organic waste were available around the Food Court Area, with dedicated volunteers to inform and help visitors.

SUSTAINABLE TRANSPORT

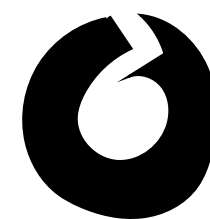
- ◆ Visitors were encouraged to travel around the city in a sustainable way. A secure **parking lot for bicycles** was available to all visitors without charge.





SPEEDING UP REFORESTATION WITH DRONES AND SMART SEEDS

This year, we took another step forward with a new initiative in collaboration with CO₂ Revolution. All money raised from SCEWC merchandising went towards reforestation using drones and smart seeds in areas devastated by fire. 2,026 new trees have been planted and will help reforest the Parque Natural del Alto Tajo (Guadalajara, Spain).



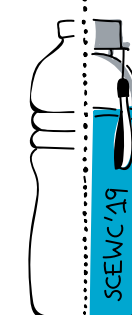
TOWARDS ZERO WASTE
TOWARDS ZERO IMPACT

TRANSFORMING SOLID WASTE AND MATERIAL MANAGEMENT SYSTEMS COULD REDUCE GLOBAL EMISSIONS BY 20%.

SMARTCITY
EXPO WORLD CONGRESS



NO SINGLE USE PLASTICS



ALL DRINKS FOR SALE WERE IN GLASS CONTAINERS.

MENUS, FOOD COURTS & CATERINGS AVOIDED PRODUCTS PACKAGED IN PLASTIC.

TREATED WATER STATIONS & REUSABLE GLASS BOTTLES WERE AVAILABLE.

AHEAD OF NEW RULES TO REDUCE MARINE LITTER THAT WILL COME INTO FORCE BY 2021

REUSE & RECYCLING

25,400 m² OF CARPET REUSED (7,620 KG. OF WASTE PREVENTION).

2,425 KG. OF OTHER MATERIALS WERE DONATED TO BE REUSED TO LOCAL ASSOCIATIONS.

LANYARDS, PASSES & PASSHOLDERS MADE OF RECYCLED MATERIALS & DISCARDED AT RETURN POINTS TO BE REUSED.

2,028 ACCREDITATIONS WERE RETURNED

ATTENDEES INVOLVEMENT



RECYCLING BINS WERE DISTRIBUTED & USED THROUGHOUT THE VENUE.

VISITORS WERE ENCOURAGED TO TRAVEL IN A SUSTAINABLE WAY.

Fira Barcelona

THE EVENT STAYED FREE FROM S.U.P.

REDUCING RESIDUAL WASTE, SAVING RESOURCES & ENSURING MAXIMUM SUSTAINABILITY AT THE VENUE!!

THIS EDITION WE ARE GOING FURTHER

ENVIRONMENTAL AWARENESS

ALL EMISSIONS GENERATED BY THE EVENT WERE OFFSET BY BUYING VERIFIED EMISSION REDUCTION CARBON CREDITS (ANDRA PRADESH WIND POWER PROJECT - INDIA).

PARTICIPANTS COULD OFFSET THEIR IMPACT VIA THE CLEAN CO₂ PLATFORM.

PART OF THE ENERGY USED CAME FROM THE VENUE'S SOLAR PANELS.

ASSISTANCE IN MANAGING HAZARDOUS WASTE DURING ASSEMBLY & DISMANTLING.

LESS PAPER

PAPER MAGAZINES ELIMINATED IN FAVOUR OF DIGITAL ONES AT PRESS CORNERS.

SPEEDING UP REFORESTATION WITH DRONES & SMART SEEDS

55 QR CODES DISPLAYED TO DOWNLOAD THE APP.

ALL MONEY RAISED BY SCEWC MERCHANDISING WENT TOWARDS THIS INITIATIVE



ALL PAPER USED AT STANDS WAS COLLECTED.

NO FOOD WASTE



SPECIAL CONTAINERS IN THE FOOD AREA

267,6 KG. OF LEFTOVER FOOD WERE DONATED TO BE USED BY COMMUNITY KITCHENS.

NGO nutrition without borders

We're all part of the solution.



A FREE & SECURE BICYCLE PARKING LOTS WERE AVAILABLE.

#SCEWC19



4/ TOWARDS INCLUSIVITY

A Smart City is not only forward-thinking and sustainable, but fully inclusive, **not to leave anybody behind**. At Smart City Expo World Congress, we want to lead by example by integrating inclusivity into everything we do, in addition to creating space for debate on how to build a fairer and more egalitarian society through **a dedicated congress track: Inclusive & Sharing Cities**.

This year, we put a name to an initiative that has actually been in place for several years. **Towards Inclusivity** highlighted the actions Smart City Expo World Congress took to make sure **the event was accessible to all, and that everyone felt represented and had a voice**.



DISABILITIES

- ◆ Electric scooters available for people with reduced mobility.
- ◆ Reserved spaces for wheelchairs/ electric scooters in the food courts and in the audience of all Congress rooms.
- ◆ Guided tour available for people with visual impairment.
- ◆ Full accessibility in all areas of the venue.



LANGUAGES

- ◆ Simultaneous interpretation to sign language in the Auditorium.
- ◆ Simultaneous translation to Spanish in the Congress Rooms.



BELIEFS

- ◆ Dedicated prayer rooms, adapted to all needs, and prayer kits for ablutions.
- ◆ Variety of lunch menus with halal, kosher and veggie/vegan options.



GENDER

- ◆ Increasing equal gender representation at the Congress.
- ◆ Specific Congress sessions about gender equality.

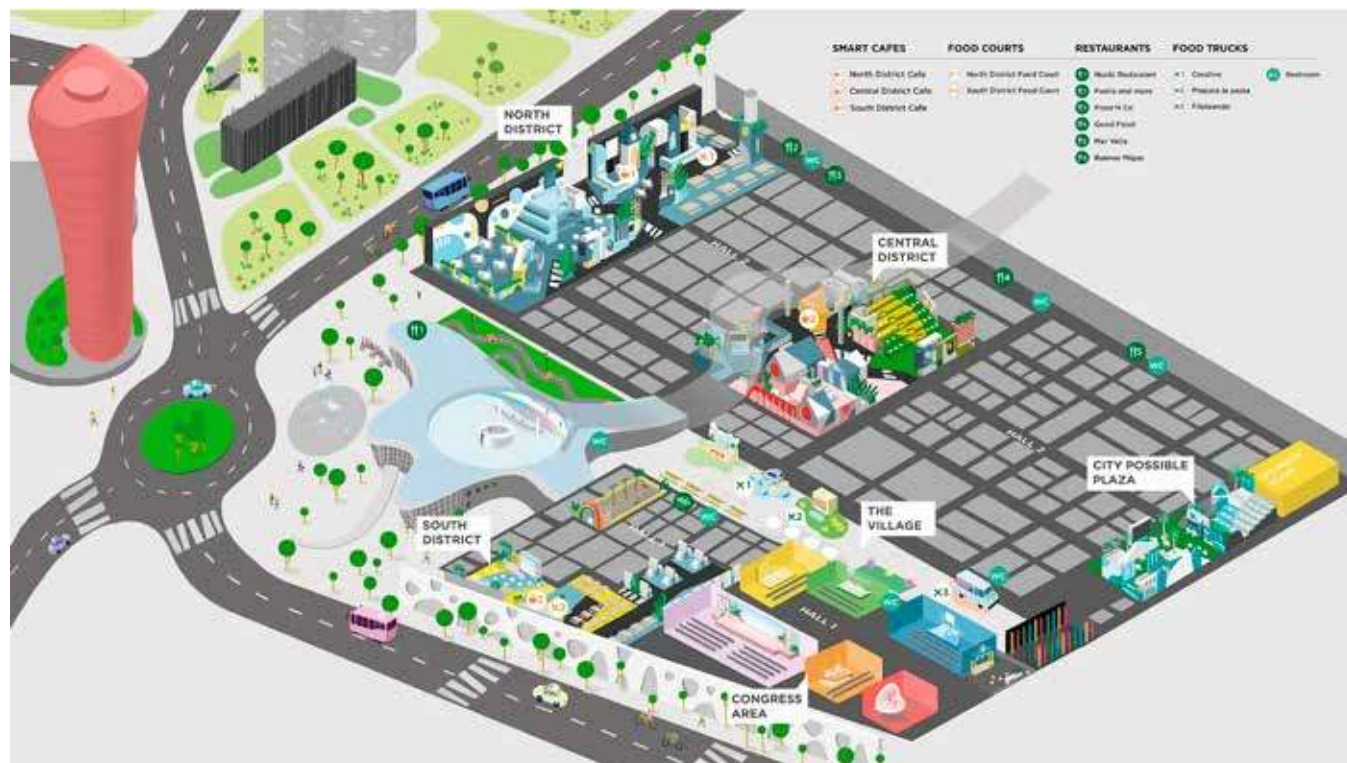


BABY CARE

- ◆ Nursing room with diaper changing units.

5/ LAYOUT OF THE EVENT

The design of the exhibition and Congress area responded to the need to make a memorable experience for attendees, offering new possibilities that foster engagement and favor strong communication channels throughout all levels in the venue.



EXHIBITION AREA

A huge showcase where 1,010 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 and also the epicenter of the mobility conversation, which crystallized in the 3rd edition of the Smart Mobility Congress.

NORTH DISTRICT

A place to take a seat and participate in the open discussions about latest trends before discovering them at the exhibition. A digital Press Corner, displaying QR codes, and a water station were available in this area. In addition, visitors could enjoy a break at the cafe or food court located there.

CENTRAL DISTRICT

A stop on attendees' way to or from the Congress, where they could grab a bite at the cafe, meet our Sales Team at the City Hall, attend the sessions happening at the open Agora and discover our World Smart City Awards finalists. Visitors could buy merchandising with profits going towards reforestation in areas devastated by fire. A water station was available to quench attendees' thirst.



SOUTH DISTRICT

Another open space for debating on city challenges was located there, as well as a cafe and a food court. A digital Press Corner and a water station were also at 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.

CITY POSSIBLE PLAZA

A unique partnership with Mastercard to bring to life City Possible - Mastercard's people-centric, collaborative approach to urban development, through debates held in space especially designed for that purpose.

6/ 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



INDUSTRY PARTNERS



EVENT PARTNERS



HOSTED BY



ORGANIZED BY



SUPPORTING INSTITUTIONS



STRATEGIC ORGANIZATIONS



COLLABORATING ORGANIZATIONS



MEDIA PARTNERS



SPONSORS



Global Partners



Cisco Systems, Inc. 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, the company has been the world's leader in connecting people, things, and technologies—to each other and to the Internet—realizing the vision of changing the way the world works, lives, plays and learns. It has expanded to new markets that are a natural extension of its core networking business, as the network has become the platform for automating, orchestrating, integrating, and delivering an ever- increasing array of information technology (IT)-based products and services. It's focused on helping customers achieve their desired business outcomes. Cisco customers include businesses of all sizes, public institutions, governments, and communications service providers. They look to the company 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



CityDO Group, a technology company utilizing emerging technologies such as big data, artificial intelligence and blockchain, is characterized with the mode of “data operationDecological cooperation”. Since its establishment, CityDO Group has independently developed black technologies such as CityDO OS, Virtual Robot, Super Credit Chain, Intelligent Security Verification and CityDO-NAZA, dedicated to becoming the promoter of cities' digital transformation, the enabler of data intelligent operation and the practitioner of new smart city construction

en.citydo.com.cn



Mastercard focuses on advancing inclusive urbanization, using its technology, insights, and partnerships to transform how businesses, governments and people interact. City Possible, a new model for urban collaboration pioneered by Mastercard, enables a global network of cities, companies, and communities to share best practices and collaborate to promote inclusive and sustainable urban co-development. City Possible reinforces Mastercard's commitment to be a civic minded company, focused on 'doing well by doing good'.

www.citypossible.com

“ This event is a great focus for us at Cisco because of what it enables everyone to do. The focus is really on the people, really on the citizens, and the individuals and their communities. It allows us to create a dynamic work. ”

Cassie Roach
VP Global Public Sector, Cisco

Deloitte.

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

www2.deloitte.com/global



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 over 30 countries, with 58,000 people and 6-billion-euro turnover. FCC Environment provides environmental services to 60 million people in nearly 5,000 municipalities. From waste management and recycling to every municipal service, it processes annually 24.5 million tonnes of waste as a resource at nearly 200 sustainable facilities, recovering 3.5 million tonnes of recyclables and 360MW of non-fossil power. Innovation is in the DNA of FCC Environment, committed to reaching the UN's Agenda 2030 SDG by means of developing e-mobility and boosting the society to transform towards a Circular Economy model.

www.fccenvironment.com



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 - the company is committed to bringing digital to every person, home, and organization for a fully connected, intelligent world. Huawei's end-to-end portfolio of products, solutions and services are both competitive and secure. Through open collaboration with ecosystem partners, it creates lasting value for its customers. At Huawei, innovation focuses on customer needs. It invests heavily in basic research, concentrating on technological breakthroughs that drive the world forward. The firm has more than 188,000 employees and operate in more than 170 countries and regions.

<https://e.huawei.com/en/go/smart-city>



Founded in 1975, Microsoft (Nasdaq "MSFT") empowers every person and every organization on the planet to achieve more. With an estimated 68 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 (AI) - are starting to enhance citizen experiences, increase sustainability and resilience, and promote innovation of city services. With its diverse partner ecosystem, an extensive portfolio of solutions and a trusted, secure and open platform, Microsoft is uniquely positioned to help you innovate now for the Smart City of tomorrow. The company recognizes that cities are unique, requiring practical approaches to key issues such as reskilling of a city, accessibility and AI. Microsoft is the bridge to help meet your smart city vision by engaging and connecting with citizens, modernizing the government workplace, and enhancing your government services.

www.microsoft.com/smartcity2019

“The Smart City Expo World Congress is a key platform for us to announce and showcase not only our capabilities but the successes and the achievements on intelligent connectivity, digital platforms and things like the brain and the nervous system for smart cities as we go forward. So, without this event, we wouldn't be able to advertise it as widely as we do.”

Edwin Diender

Chief Digital Transformation Officer and Vice President, Huawei



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 and prevent 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



By 2050, there will be 9.6 billion inhabitants on the planet, most of them in urban areas. With this unlimited urbanization, cities are facing extraordinary challenges such as scarce resources, inequality in services and new expectations from citizens in terms of governance. To meet these challenges, cities are transforming themselves and focusing on bundling uses and functionalities, on implementing new services rather than focusing on infrastructures. SUEZ thinks that cities can operate their transformation with transversal solutions that go beyond technological innovations. At Smart City Expo World Congress Barcelona 2019, SUEZ shared the latest solutions to help cities of all sizes succeed in their transformation.

www.suez.com



Industry Partners



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. AWS offers customers to only pay for what they 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 online access for citizens, and more. AWS and its partner ecosystem help cities implement smart city solutions to support their goals around energy efficiency, air quality, intelligent transportation, public safety, public health, and other programs focused on improving quality of life and make the world a better place through technology.

aws.amazon.com/es/smart-cities/smart-cities

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



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



Hexagon is a global leader in sensor, software, and autonomous solutions. It puts data to work to boost efficiency, productivity, and quality across industrial, manufacturing, infrastructure, safety, and mobility applications. The company's technologies are shaping urban and production ecosystems to become increasingly connected and autonomous — ensuring a scalable, sustainable future.

www.hexagon.com



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 - the company is committed to bringing digital to every person, home, and organization for a fully connected, intelligent world. Huawei's end-to-end portfolio of products, solutions and services are both competitive and secure. Through open collaboration with ecosystem partners, it creates lasting value for its customers. At Huawei, innovation focuses on customer needs. It invests heavily in basic research, concentrating on technological breakthroughs that drive the world forward. The firm has more than 188,000 employees and operate in more than 170 countries and regions.

e.huawei.com/uk

indra

Indra is one of the leading global technology and consulting companies and the technological partner for core business operations of its customers worldwide. It is a world-leader in providing proprietary solutions in specific segments in Transport and Defense markets, and a leading firm in Digital Transformation Consultancy and Information Technologies in Spain and Latin America through its affiliate Minsait. Its business model is based on a comprehensive range of proprietary products, with a high-value focus and with a high innovation component. In the 2018 financial year, Indra achieved revenue of €3.104 billion, with 43,000 employees, a local presence in 46 countries and business operations in over 140 countries. Its innovative Transportation end-to-end portfolio, Indra Mova Solutions, is focused on leading smart mobility and covers the entire cycle of its transportation clients' projects.

www.indracompany.com



Milestone Systems is an award winning, global industry leader. For twenty-one years it has been a trusted source of reliable, futureproof software for the world's top companies delivering in the security industry. With more than 150,000 installation worldwide, it is an essential part of high-performing businesses of all sizes. It connects ideas, companies, inspire innovation, and have proven an ability to replicate success. Cities undergo transformation inundated by information and increasingly multifaceted challenges -socially, structurally, and environmentally. Rapid advances in IoT and AI create greater and faster insights, moving video surveillance beyond the realm of traditional security by making cities more efficient, cleaner with lower emissions and by offering support in attracting investment.

www.milestonesys.com

minsait

An Indra company

Minsait, an Indra company, is a leading firm in Digital Transformation Consultancy and Information Technologies in Spain and Latin America. Minsait possesses a high degree of specialization and knowledge of the sector, supported by its high capability to integrate the core world with the digital world, its leadership in innovation and digital transformation, and its flexibility. Thus, it focuses on offering high-impact value propositions, based on end-to-end solutions, with a remarkable degree of segmentation, which enables it to achieve tangible impacts for its customers in each industry with a transformational focus. Its Onesait Government Cities solution offers a comprehensive response, designed to meet the demands of cities and regions, aiming for a more dynamic and transparent relationship with the town and city dwellers while boosting economic development and respecting the environment.

www.minsait.com



NTT Group is one of the world's largest ICT companies with over 106 billion in revenue and a business footprint that spans 89 countries and regions. NTT's commitment to innovation began over 120 years ago and continues today by accelerating client's digital agenda through the delivery of full stack, full lifecycle capabilities. As a world leading R&D company, NTT Group is proud to count 88 of the Fortune 100 companies as its clients. This year at Smart City Expo World Congress, NTT Group has been pleased to introduce an advanced smart city solution designed to accelerate the journey to "smart" in the digital era.

www.global.ntt

ORACLE

Oracle's smart city approach is built on decades of experience in public sector. For 40 years, Oracle has helped global governments store, integrate, and better leverage valuable insights from their data. At Smart City Expo World Congress 2019, Oracle showed the latest smart cities' solutions, covering mobility, smart finance, workforce transformation, and citizen services - built with the transformational technologies like AI and Machine Learning. Teaming with ESI Thought Labs, Oracle shared the results of an in-depth study that examined 100 cities worldwide, identifying the adoption of new technologies that drive economic growth and improve citizen well-being

www.oracle.com



Paradox Engineering is a technology company that designs and markets Internet of Things solutions for device and data management, with a major focus on Smart Cities thanks to the technological leadership of its revolutionary multi-application PE Smart Urban Network. Established in 2005 and headquartered in Switzerland, the Company is part of MinebeaMitsumi Group, global provider of Electro Mechanics Solutions™ accelerating the development of solutions for a fully connected IoT society, from the Industry 4.0 to Smart Cities, up to healthcare, automated driving, and robotics.

www.pdxeng.ch



The Port of Barcelona is the fastest growing port in Western Europe, Spain leading port in international trade and the top cruise port in Europe and the Mediterranean. It is part of a unique and seamless logistics, and business hub, including airport, logistics areas, motorways, railway network and a large urban area. As a gateway to a market of 400 million consumers, the Port of Barcelona integrates a highly diversified activity and provides 41,200 jobs. Barcelona is also a pioneering port in digitization, sustainability, and energy transition.

www.portdebarcelona.cat



the mind of movement

Recognized as global market leader, PTV Group develops intelligent software solutions for transport logistics, traffic planning and traffic management. Thus cities, companies and people save time and money, enhance road safety and minimize the impact on the environment. PTV plans and optimizes everything that moves people and goods in more than 2,500 cities worldwide. The European transport model, which encompasses all passenger transport and freight movements in Europe, is developed using PTV software.

www.ptvgroup.com



SEAT is the only company that designs, develops, manufactures, and markets cars in Spain. Member of the Volkswagen Group, the multinational has its headquarters in Martorell (Barcelona), exports the 80% of its vehicles, and is present in 80 countries on all five continents. In 2019, SEAT sold 574,100 cars, the highest figure in the history of the company. The SEAT Group employs over 15,000 professionals and has three production centers - Barcelona, El Prat de Llobregat and Martorell. SEAT already features the latest connectivity technology in its vehicle range and it is currently engaged in the company's global digitalization process to promote the mobility of the future.

www.seat.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 its headquarters in Portugal and aligned with all its offices worldwide, every day it takes on the mission of involving and improving people's lives through the development of cutting-edge technologies. Cities are one of its top priorities and through technological solutions applied to the smart cities sector, it seeks to present an integrated and innovative vision that translates into a great contribution to the urban management of the future.

smartcityexpo.ubiwhere.com



Voilàp is a group of companies positioned on the leading edge among those who contribute to achieve the results sought after by smart cities. Our goal is to create solutions and services for the well-being of the citizens and the evolution of the new urban surroundings. The Group was founded in 1970 and today has a total workforce of over 1,400 employees, reaching a total turnover of over 300 million euros in 2018. Its ecosystem is composed of 57 companies that operate in different sectors, from machinery for building, to software production and technologies for digital signage. Voilàp operates worldwide with eight production facilities and has a widespread network of 40 commercial branches, with a global presence in over 60 countries.

www.voilap.com

Supporting Institutions



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's 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



ICEX Spain Trade and Investment is a public business organization which works worldwide with the objective of promoting the internationalization of Spanish companies 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



At Smart City Expo World Congress, the Government of Catalonia held a corporate booth hosting 20 innovative companies from different Smart City sectors. Information on Smart Catalonia and its strategy by several public enterprises was 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



Diputació de Barcelona, as the Provincial Council, provides financial and technical 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 showed 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 were also presented at its booth (Sentilo platform use cases, security app, eGovernment solutions, City Protocol Society initiatives, issue reporting apps, etc.).

www.diba.cat



The Barcelona Metropolitan Area (AMB) is a public body which coordinates metropolitan services and promotes the main assets of 36 metropolitan municipalities. It is responsible for the planning of public space, housing, mobility and public transport, waste management, and the whole water cycle. It also works on the field of urban planning, including policies on the environment, open spaces, economic promotion, and social and territorial cohesion. The AMB strives 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 32km of beaches. 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



EUROCITIES is the network of major European cities, with over 140 members across 39 countries, representing more than 130 million people. We work in all areas of interest for cities, from culture to mobility, environment to social affairs, economic development to smart cities. We facilitate learning experiences between cities and represent cities' interests towards the European Union. EUROCITIES is committed to working towards a common vision of a democratic, sustainable future in which all citizens can enjoy a good quality of life.

www.eurocities.eu



The GSMA represents the interests of mobile operators worldwide, uniting more than 750 operators with over 350 companies in the broader mobile ecosystem, including handset and device makers, software companies, equipment providers and internet companies, as well as organizations in adjacent industry sectors. The GSMA Connected Living program 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. Its 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/smartcities



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, eco-mobile, 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. IDB is committed to achieving measurable results and the highest standards of increased integrity, transparency, accountability and sustainability.

www.iadb.org



Integrated Systems Events organizes, manages and develops leading business-to-business events for the professional audiovisual, electronic systems integration and IT industries.

Integrated Systems Events was established in 2003 as a joint venture of two trade associations - AVIXA and CEDIA - and has continued to grow year-on-year. With employees engaged in sales, operations, marketing and content development across Europe, Integrated Systems Events is a truly international company with a global reach.

Its flagship event, Integrated Systems Europe, is the best-attended AV and systems integration trade show in the world, attracting over 80,000 attendees and almost 1,300 exhibitors to its Amsterdam location every February.

www.isevents.org



Metropolis is the global network of major cities and metropolitan areas. It operates as the metropolitan section of the UCLG since its constitution. The global network 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 metropolization.

www.metropolis.org

“Agenda 2030 and SDGs are a very good basis to develop a new social contract and a new kind of citizenship.”

Emilia Saiz

Secretary General, UCLG



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, MWCcapital 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.

mobileworldcapital.com



Red.es is a public corporate entity belonging to the Ministry of Economy and Business attached to the Secretary of State for Digital Advancement (SEAD) which executes the plans and public policies of the Digital Agenda for Spain. Its main areas include the empowerment of innovation and entrepreneurship; the stimulation of the digital economy (with particular emphasis on SMEs digitalization); the digital public services (specially in healthcare and education) and the development of smart cities. Many of the projects we implement from Red.es are possible thanks to funding from the European Union, through the European Regional Development Fund (ERDF) and the European Social Fund (ESF).

www.red.es/redes



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 is the United Nations program 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. 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, work and capacity to implement the New Urban Agenda and Sustainable Development Goal 11 to make cities inclusive, safe, resilient and sustainable.

unhabitat.org



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. It has 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. It's not a bank in the ordinary sense but a unique partnership to reduce poverty and support development.

www.worldbank.org

Event Partners



AID-Autonomous Intelligent Driving is bringing together the world's top software, robotics, AI and automotive talents to build a future where autonomous driving is embraced by humans. By understanding the human challenges as well as the engineering ones, the technology we are testing today on the streets of Munich will become the backbone of a universal self-driving system - capable of improving life in urban environments for millions of people. With the agility of a start-up and the support of Audi (VW Group), AID is free to craft an autonomous world that works for everyone - from manufacturers to passengers to city planners to pedestrians. For us, the future isn't about merely making vehicles more autonomous, it's about making people more autonomous.

aid-driving.eu



Axis enables you to make your city smarter by improving safety and mobility. Are you looking for efficient ways to reduce crime and make your citizens feel safer? Or is your city stuck in traffic, with commuters begging for improvements? 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 industry leader in network video, Axis offers products and services for video surveillance and analytics, access control, and audio systems. Visit Axis and partners to see how intelligent video solutions can improve your city's image by enhancing every-day safety, security and traffic flows.

www.axis.com



Leading the way to greener and smarter mobility worldwide, Alstom develops and markets integrated systems that provide the sustainable foundations for the future of transportation. Alstom offers a complete range of equipment and services, from high-speed trains, metros, trams and e-buses to integrated systems, customized services, infrastructure, signaling and digital mobility solutions. Alstom recorded sales of €8.1 billion and booked orders of €12.1 billion in the 2018/19 fiscal year. Headquartered in France, Alstom is present in over 60 countries and employs 36,300 people.

www.alstom.com



Berger-Levrault is a world-class industrial software publisher. As a key player in serving citizens and territories, it supports the local public sector, health & senior services, education, and private sector by providing expert and innovative solutions for resilient cities. Berger-Levrault's challenge is to help users to benefit from the tremendous potential of digital technology through platforms. With nearly 51,000 customers worldwide and more than 1,700 employees, Berger-Levrault strategically supports its customers' digital progress at a time when public data is becoming massively accessible.

www.berger-levrault.com



Cellnex Telecom is Europe's leading operator of wireless telecommunications and broadcasting infrastructures with a portfolio of more of 50,000 sites including forecast roll-outs up to 2027. Cellnex operates in Netherlands, United Kingdom, France, Switzerland, Ireland, Portugal and Spain. Cellnex's business is structured in four major areas: telecommunication 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 indices and of the MSCI Europe index. It is also part of the FTSE4GOOD and CDP (Carbon Disclosure Project) and "Standard Ethics" sustainability indexes.

www.cellnextelecom.com



Deutsche Telekom is one of the world's leading integrated telecommunications companies, with some 178 million mobile customers, 28 million fixed-network lines, and more than 20 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 75.1 billion Euros in the 2018 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 the opportunities of now.

www.b2b-europe.telekom.com/services/smart-city



Citelum, subsidiary of EDF, 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 million Euros in 2018.

www.citelum.com



With over 60 years of continuous growth and a presence in more than 50 countries, Elecnor has become one of the most outstanding Spanish business groups and a benchmark in the infrastructure, renewable energy, and technology sectors. Business diversification has been one of its strategic aims throughout its history, enabling its involvement in a number of industries which range from electricity, gas, industrial plants, railways, telecommunications, water, control systems, construction, the environment, and installation maintenance to aerospace engineering. A Group, in short, whose technical and financial solvency enable it to promote, develop and construct all manner of infrastructure on all five continents.

www.elecnor.com



Engie is a global reference in low-carbon energy and services. In response to the urgency of climate change, its ambition is to become the world leader in the zero carbon transition “as a service” for its customers, in particular global companies and local authorities. It relies on its key activities (renewable energy, gas, services) to offer competitive turnkey solutions.

With 160,000 employees, customers, partners and stakeholders, it gathers a community of Imaginative Builders, committed every day to more harmonious progress.

www.engie.com



The European Space Agency (ESA) provides Europe's gateway to space. ESA is an intergovernmental organization, created in 1975, with the mission to shape the development of Europe's space capability and ensure that investment in space delivers benefits to the citizens of Europe and the world. ESA has 22 Member States. It develops the launchers, spacecraft and ground facilities needed to keep Europe at the forefront of global space activities. Today, it develops and launches satellites for Earth observation, navigation, telecommunications and astronomy, sends probes to the far reaches of the Solar System and cooperates in the human exploration of space. ESA also has a strong applications program developing services in Earth observation, navigation and telecommunications.

www.esa.int



Esri is the global market leader in geographic information systems (GIS), the technology that helps governments of all sizes build smart communities. Since 1969, Esri has helped governments 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. Governments at all levels have trusted ArcGIS to make their communities smarter, safer, healthier, sustainable, livable and more prosperous. By using this powerful platform to reveal deeper insight into data, Esri customers are creating maps that run their organizations and the world.

go.esri.com/SCEWC19



End-to-end services for infrastructure and cities. 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 1000 city councils. We provide a broad range of specialist 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



ISBAK (Istanbul IT and Smart City Technologies Inc.) is the technology company of Istanbul Metropolitan Municipality functioning in the field of Smart City Technologies. ISBAK with its experience of 30 years, Smart City Technology, Intelligent Transportation Systems, Transportation Planning and Geographical Information Systems, Communication-Vision and City Safety Management System, Intelligent Lighting System, Tunnel Management System, Vehicle Tracking and Fleet Management System. It produces new and domestic technologies in the above-mentioned areas and aims to solve the traffic problem not only Istanbul but also in other large domestic and foreign metropolises. ISBAK, having renewed its mission, vision, and value in order to transfer its experience in Intelligent Transportation Systems into Smart City solutions, continues its works as the Architect of Smart Cities in Turkey and in the World.

isbak.istanbul



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



LIC's Meshworks is an IoT-protocol that realizes a wireless self-organizing network throughout the city, for the application of almost all current and future sensors and actuators. Aimed at a healthy, safe, and comfortable living and working environment, as well as an integrated environmental and energy policy.

lic-eu.com



The LoRa Alliance® is an open, nonprofit association that has grown to more than 500 members since its inception in March 2015, becoming the largest and fastest-growing alliance in the technology sector. Its members closely collaborate and share experiences to promote and drive the success of the LoRaWAN® protocol as the leading open global standard for secure, carrier-grade IoT LPWAN connectivity. With the technical flexibility to address a broad range of IoT applications, both static and mobile, and a certification program to guarantee interoperability, LoRaWAN® has already been deployed by major mobile network operators globally, with continuing wide expansion into 2019 and beyond.

lora-alliance.org



Mobileye, an Intel Company, is a global leader in the development of computer vision and machine learning, data analysis, localization, and mapping technologies for Advanced Driver Assistance Systems and autonomous driving solutions.

With Mobileye's next generation systems, we supply city managers and leaders with actionable real-time city data. Information such as updated infrastructure maps, traffic hotspots and more - the data needed for a safer and smarter city. As vehicles equipped with the system travel the streets, they take on the role of 'intelligent agents' providing an efficient and effective way to manage city assets and increase road safety.

www.mobileye.com



The moovel Group GmbH (becomes REACH NOW) offers multimodal experiences for millions of people around the world. moovel is the Mobility-as-a-Service pioneer, providing access to various mobility options and mobile ticketing for millions of passengers. The services are offered in 20 cities and are currently used by 7.7 million people. In the first half of 2019, 16.4 million transactions were processed via moovel's apps. The goal of the new company REACH NOW is to become the leading MaaS platform. Mobility-as-a-Service stands for the bundling of different types of passenger transport, such as bus and train, car sharing, ride-hailing and bike sharing and e-scooters in one app. Booking and payment are made conveniently via an integrated user account.

www.moovel.com



The National Innovation Agency (NIA), is an autonomous public agency under the umbrella of the Ministry of Higher Education, Science, Research, and Innovation of Thailand. It functions as the key engine driving national innovation by co-creation, networking, fostering, and partnering different organizations from various fields. Its main focus is on utilizing knowledge management to achieve innovation. For Area-Based Innovation, NIA has determined to maximize people's innovation potential at an area-based level, leading to the Innovation Corridor, Innovation City, and Innovation District. In other words, the increase of innovation potential will focus mainly on three developmental aspects, consisting of promoting infrastructure development conforming to the advancement of an innovative ecosystem, managing vital resources to stimulate area-based innovation, and fostering community involvement.

www.nia.or.th



Nokia creates the technology to connect the world. Powered by the research and innovation of Nokia Bell Labs, it serves communications service providers, governments, large enterprises, and consumers, with the industry's most complete, end-to-end portfolio of products, services and licensing. The company adheres to the highest ethical business standards as it creates technology with social purpose, quality, and integrity. Nokia is enabling the infrastructure for 5G and the Internet of Things to transform the human experience. Our city as a platform approach helps cities scale the way they innovate and mitigate risks, to unlock the full potential of their digital transformation.

networks.nokia.com/industries/smart-city



The U4SSC Implementation Program (U4SSC IP), which is coordinated by the Organization for International Economic Relations (OiER), supports prospective cities in implementing sustainable projects. The U4SSC Implementation Program works to support cities in identifying and implementing projects, partnerships, solutions and mobilize resources to facilitate their development to become smart and sustainable. The U4SSC IP is open to all cities, businesses, projects, stakeholders and activities related to Smart and Sustainable Cities that can contribute to the achievement of the SDGs and especially Sustainable Development Goal 11: "Make cities and human settlements inclusive, safe, resilient and sustainable"

www.itu.int/en/ITU-T/ssc/united/Pages/default.aspx



The RACC provides coverage and top-quality services to meet the needs of more than 10 million people anywhere in the world. It specializes in personal, family, mechanical, urgent medical and household assistance services, and operates the biggest driving school network in Spain. To meet the needs of its members, it makes 1,185,000 callouts a year and manages over 600,000 insurance policies of various types. The RACC promotes a new culture of mobility that is safer and more environmentally friendly. It has a significant capacity for disseminating information and influencing aspects relating to improving road safety and infrastructures and reducing accidents.

www.racc.es



Renfe Operadora is a state-owned company, attached to the Ministry of Public Works and its mission is to provide passenger and freight transport services, guided by the principles of safety, quality, efficiency, profitability and innovation, with a public service vocation and pursuing an increase in the market share for railways as a benchmark railway operator.

The Renfe group and its companies are based around four business areas: passenger transport and marketing associated products in metropolitan, regional, national and international settings (Renfe Viajeros), freight transport and logistics services (Renfe Mercancías), maintenance and industrial work (Renfe Fabricación y Mantenimiento), and managing rolling stock for hire (Renfe Alquiler de Material Ferroviario).

www.renfe.com



Schröder, as Experts in Lightability™ - is the leading independent outdoor lighting solution provider worldwide. It brings meaningful moments to people by enhancing safety, well-being and sustainability in public spaces. For the past 112 years, it has pushed the limits of its business towards smart lighting. This has required to broaden its expertise from lighting the urban environment to bringing additional city services that interact with the public space and its citizens. That is why at SCEWC 2019 in Barcelona, the company launched Schröder-Hyperion! Schröder-Hyperion is a scale-up that has been created to accompany its customers to plan urban spaces, repurpose existing infrastructure and develop luminaire-based digital systems that offer new services based on open and interoperable technology.

www.schreder.com



Silence is a Spanish firm that designs, develops and manufactures highly efficient, 100% electric scooters and battery packs, with its own R+D, in Barcelona.

In 2014, the company launched the S02 model, a robust electric scooter designed for transporting goods. Four years later, Silence closed out 2018 with more electric vehicles registered (in any category) than any other company in Spain, with clients like Correos, Ara Vinc, Grupo Zena, Just Eat and the City Councils of Madrid, Lisbon, Rotterdam and Barcelona B:SM. Another segment in which Silence is gaining ground is motosharing, with clients like the American company Scoot, which has chosen Silence for its expansion into Europe, and Acciona, which has a sharing fleet of more than 3,000 vehicles.

Following the success achieved with its B2B Models, now SILENCE make a step forward to the B2C with the S01, an urban electric scooter with which intends to strengthen its leadership at a national level.

www.silence.eco



SWARCO's leading idea is to improve quality of life by making the travel experience safer, quicker, more convenient and environmentally sound. For this purpose, the Austrian traffic technology corporation produces and provides a large range of products, systems, services, and turnkey solutions in road marking, urban and interurban traffic control, parking, and public transport. Cooperative systems, infrastructure-to-vehicle communication, electromobility, and integrated software solutions for the Liveable City are latest fields in the group's portfolio. Its 3800 traffic experts are keen to shape together with the customer the transition from conventional traffic management to value-added services fit for the traveler in the digital age.

www.swarco.com



URBASER is a leader in providing services related to the environment. It specializes in street cleansing, waste removal and transporting, urban waste treatment and recycling and comprehensive management of the water cycle, as well as urban landscape and gardening. It also leads the removal and treatment of used mineral oils and industrial waste. URBASER covers the entire value chain when providing these services, from design and conception to the implementation of the project operating a highly-qualified professional team. The company also operates in the field of renewable energies with a view to limiting the negative impact of greenhouse gases and is developing treatment processes for alternative sources of energy, biomass from biomass crops, waste woodland mass, biodegradable agricultural and industrial waste.

www.urbaser.es



Worldsensing is a widely recognized global IoT pioneer. The Barcelona-based technology provider delivers Operational Intelligence to traditional industries and cities. With over 100 employees and offices in Barcelona, London, Los Angeles, and Singapore, Worldsensing is globally active and has already conducted projects in over 60 countries across 6 continents.

www.worldsensing.com

Hosted by



Barcelona, an innovative and digital city, wants to take advantage of modern technologies 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 four areas: The city and its challenges; Technology and public innovation; Socioeconomic and innovation ecosystems and the empowerment of citizens. Barcelona goes further than being just a Smart City, it is not only about technology, it is all about the people.

www.barcelona.cat

Organized by



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 of different frequencies with 30,000 exhibitors, both direct and represented, and receives two million visitors from over 200 countries. The institution has some 400,000 square meters of exhibition floor space, one of the largest in Europe, spread over two venues: Montjuïc and Gran Via. Fira de Barcelona has established itself as a global event organizer with international positioning, twinned with the unmatched Barcelona brand, a city with over a century of tradition in the organization of big events.

www.firabarcelona.com



7/ TRACKS

This year's edition concentrated on five main tracks responding to the key issues facing worldwide cities: **Digital Transformation**, **Urban Environment**, **Mobility**, **Governance & Finance**, and **Inclusive & Sharing Cities**. These backbone topics were the bedrock of the debate and shaped an extended exhibition area.



DIGITAL TRANSFORMATION



URBAN ENVIRONMENT



MOBILITY



GOVERNANCE & FINANCE



INCLUSIVE & SHARING CITIES



DIGITAL TRANSFORMATION

Connected devices are coating the urban landscape. For 2020, these developments are forecast to grow to 31 billion worldwide. But these are not just aesthetic techy changes. The Fourth Industrial Revolution (4IR) is redefining cities by combining the power of data and the power of people. Technologies to leverage the usage of new devices, such as Artificial Intelligence, quantum computing or Blockchain are unleashing numerous opportunities, but also posing new challenges as

citizens are increasingly concerned by security and privacy issues.

How can cities take full advantage of this technology deployment? What are the elements to be considered in order to build more secure, sustainable, accessible, and responsive cities? These were some of the questions answered in the following themes:

THEMES

4TH INDUSTRIAL REVOLUTION

A New Era for Cities and Societies

ARTIFICIAL INTELLIGENCE

Challenges and Opportunities

DIGITAL TRUST & CYBERSECURITY

Privacy & Security in the Digital Economy

5G CITIES

The Enabler of the Future

INTERNET OF THINGS

Connectivity for Data-Driven Cities

DATA VIRTUALIZATION

Big Data, Cloud and City Platforms

DIGITAL SIGNAGE

Digital Out of Home: from Mindset to Technology

This track covered the following Sustainable Development Goals:



PUBLIC SECTOR REPRESENTATIVES

- **Undersecretary País Digital**
Ministry of Modernization, Government of Argentina
- **Chief Information Officer**
City of Atlanta, USA
- **Commissioner for Digital Innovation**
City of Barcelona, Spain
- **Deputy Director for Digital Government**
Ministry of Information and Technology of Colombia
- **Program Director for Smart City**
City of Copenhagen, Denmark
- **Deputy Director of Innovation, Entrepreneurship and Smart Cities**
City of Chihuahua, Mexico
- **Chief Executive of Smart City Division**
City of Daegu, South Korea
- **Chief Digital Officer**
City of Essen, Germany
- **Vice-Mayor in charge of Innovation**
City of Florence, Italy
- **Director General**
Municipal Big Data Development Administration, City of Huzhou, China
- **Group Chief Technology Officer**
City of Johannesburg, South Africa
- **Chief Digital Officer**
City of London, UK
- **Deputy CIO & Senior Technology Advisor to the Mayor**
City of Los Angeles, USA
- **Responsible for the Smart and Digital City**
City of Montreal, Canada
- **Chief Technology Officer**
City of New York, USA
- **Secretary of State of Information Society & Digital Agenda**
Government of Spain
- **Director of Innovation**
City of Stockholm, Sweden
- **Chief of Innovation**
City of Tallin, Estonia
- **Director of Innovation**
City of Toulouse, France
- **Chief Information Officer**
City of Tel-Aviv-Yafo, Israel

SOME SIDE EVENTS RELATED TO THIS TRACK

metropolis ●

Digitalization of metropolitan spaces



Citizen data: from principles to implementation



Korean Smart City Business Opportunities Event

URBAN ENVIRONMENT

As cities become home to an increasing percentage of the world's population, we must hold ourselves accountable for the preservation of our urban environment. Sensors and emerging technologies gather and analyze data to improve air quality and the whole urban ecosystem. Still, a staggering seven million people are killed each year by air pollution, according to the UN Environment Program. Cities are already taking action to

reduce the environmental impact produced by industry and vehicles emitting exhaust fumes and increasing urban resilience. But are these actions enough?

What are the most pressing challenges ahead? How can buildings and infrastructures maximize their energy efficiency and lower emissions?

THEMES

SMART BUILDINGS

A New Era for Cities and Societies

ENERGY TRANSITION

Redefining the Energy Mix and Distribution Systems

GREEN CITIES

Safe, Sustainable and Inclusive Public Spaces

DIGITAL TWINS & URBAN PLANNING

Bridging the Digital and Physical

FUTURE-PROOF CITIES

Building Resilience and Acting on Climate Change

URBAN FOOD & AGRICULTURE

Bringing Nature Back to the City

SMART INFRASTRUCTURES

The Disruptive Impact of Smart Materials & Infrastructures

This track covered the following Sustainable Development Goals:



PUBLIC SECTOR REPRESENTATIVES

- **Vice Minister, Urban Development & Housing**
City of Asunción, Paraguay
- **Head of Energy & Environmental Technologies**
Ministry for Transport, Innovation & Technology, Government of Austria
- **Deputy Director-General of City Planning & Urban Development**
City of Bangkok, Thailand
- **Head of the Resilience**
City of Barcelona, Spain
- **Subsecretary, Directorate-General Urban innovation**
City of Buenos Aires, Argentina
- **Energy Manager**
City of Cincinnati, USA
- **Secretary of Social Integration and the Environment, Climate and Smart City**
City of Cologne, Germany
- **Interim Deputy Resilience Officer**
City of Dallas, USA
- **Project Manager, Energy Innovation**
City of Grenoble, France
- **Deputy Director, Urban Planning Department**
City of Jerusalem, Israel
- **Deputy Chief Resilience Officer**
City of London, UK
- **Head of Construction and Infrastructure**
City of London, UK
- **Chief Resilience Officer**
City of Milan, Italy
- **Joint Secretary & Mission Director**
Ministry of Housing and Urban Affairs, Government of India
- **Architect and Development Manager**
Nouakchott Region, Mauritania
- **Chief Technology Officer**
National Environment Agency of Singapore
- **Deputy Mayor for the Environment**
City of Thessaloniki, Greece
- **Head of Strategic Planning, Urban Development and Statistics**
City of Wolfsburg, Germany
- **Deputy Director-General, Climate Change Policy**
City of Yokohama, Japan
- **Director of Urban Development**
City of Zurich, Switzerland

SOME SIDE EVENTS RELATED TO THIS TRACK

FOR A BETTER URBAN FUTURE

Innovative tools to enhance SDG11 performance monitoring in cities

Fostering Arts and Design

No City Without Water

Local Governments for Sustainability

Unlocking the Potential of Nature-based Solutions with Smart City Tools



MOBILITY

Urban mobility is continuously changing. Electric vehicles, connected cars, autonomous driving and micro-mobility options are gaining traction in cities as they become connected to public transit. In the midst of the debates on the regulation of the newest forms of transportation, including universal safety standards, cities are struggling to redefine their urban transportation vision to adapt to this new scenario and plan ahead to achieve a seamless, multimodal, and integrated mobility.

What kind of policies and planning decisions should the public sector establish to guide this transformation? How can we fulfill the promise of reducing travel time and saving money with environmentally friendly options? How can governments introduce equity and accessibility into the transportation equation?

THEMES

INTELLIGENT TRANSPORT INFRASTRUCTURE

Towards Less Congested and Safer Cities

MOBILITY OF TOMORROW

Connected, Autonomous, Disruptive

SHARED MOBILITY

Getting Ready for the MaaS Era

SUSTAINABLE MOBILITY

Active and Micro-mobility to Achieve Low-carbon Cities

SEAMLESS TRANSPORTATION

Commuting Easily while Paying Smarter

PUBLIC TRANSPORT

Planning Cities around Mass Transit Networks

This track covered the following Sustainable Development Goals:



PUBLIC SECTOR REPRESENTATIVES

- **Program Manager Smart Mobility**
City of Amsterdam, Netherlands
- **President, Bahia Transport SAPEM**
City of Bahia Blanca, Argentina
- **Mobility Manager**
City of Barcelona, Spain
- **Minister for Mobility & Transport**
Government of Belgium
- **Director, Ministry of Transport**
Government of Chile
- **Executive Manager, Department of Transportation**
City of Dallas, USA
- **Project Manager Smart & Green Mobility**
City of Helmond, Netherlands
- **Director of Traffic Road**
City of Jakarta, Indonesia
- **Senior Technologist, Infrastructure Development**
City of Kigali, Rwanda
- **Director of Road & Infrastructure**
City of Lamentin, Martinique
- **Minister for Mobility & Public Works**
Government of Luxembourg
- **General Director of Planning & Mobility Infrastructures**
City of Madrid, Spain
- **General Director of Road Safety & Sustainable Mobility**
City of Mexico, Mexico
- **Secretary of State of Infrastructure & Logistics**
Parana State, Brazil
- **Fleet Services Manager**
City of Pittsburgh, USA
- **Head of Mobility & Transport**
City of Rome, Italy
- **Chairman of Local Government & Public Transportation**
City of Selangor, Malaysia
- **Head of Public Road & Lighting**
City of Surabaya, Indonesia
- **Smart Mobility Manager**
City of Tampa, USA
- **Manager of Transportation Planning**
City of Vancouver, Canada

SOME SIDE EVENTS RELATED TO THIS TRACK



Inauguration Event of EIT Urban Mobility: Mobility for Liveable Urban Spaces



Adapting procurement in the changing mobility landscape

Deloitte.

Making the Promise of Seamless Intermodal Mobility a Reality



GOVERNANCE & FINANCE

Cities evolve, and public administrations need to keep up. At a time in which local governments from all over the world are facing a growing demand to improve efficiency and transparency, to increase participation and fight corruption, innovations such as Blockchain technologies offer a nonmanipulable and accessible platform to provide more agile governance. However, some doubt that certain developments can be utilized in an environmentally friendly manner, as they use

massive amounts of energy. Yet more and more cities are ready to make the move, some prefer to concentrate on other priorities, such as developing co-creation and the Co-City, or adopting global standards to advance smart governance.

How can we involve all stakeholders to go forward? What are the best funding mechanisms to finance these advancements?

THEMES

GOVERNMENT INNOVATION

Agile, Decentralized, Blockchain-powered

CO-CITIES

The Strength of Collective Intelligence

METROPOLITAN GOVERNANCE

Connecting Urban Cores with their Peripheries

DATA STRATEGIES

Principles, Standards, Digital Rights and Data Ethics

FINANCING STRATEGIES

Investing in Inclusive Economic Development

SMART TERRITORIES

Smart City Strategies and Smart Nations

This track covered the following Sustainable Development Goals:



PUBLIC SECTOR REPRESENTATIVES

- **Subsecretary**
Ministry of the Interior, Argentina
- **General Secretary**
City of Athens, Greece
- **Municipal Manager**
City of Barcelona, Spain
- **City Manager**
City of Bologna, Italy
- **City Manager**
Ministry of Commerce, Government of the Cayman Islands
- **City Manager**
City of Dallas, USA
- **Minister of Finance**
Government of the Faroe Islands
- **Councilor**
City of Glasgow, UK
- **Managing Director, Metropolregion**
City of Hannover, Germany
- **State Secretary, Prime Minister's Office**
Government of Hungary
- **Director, Regional Development Agency**
Ljubljana Urban Region, Slovenia
- **Deputy Mayor of Budget and Innovation**
City of Los Angeles, USA
- **Vice-President of the Executive Committee**
City of Minsk, Belarus
- **Director of Sustainable Development**
City of Montevideo, Uruguay
- **Minister, Federal Capital Territory**
Government of Nigeria
- **Chair of Smart City Committee & Advisor to the Mayor**
City of Seoul, South Korea
- **City Manager**
City of Sibiu, Romania
- **Deputy Director for Promotion of the Information Society**
Ministry of Economy, Government of Spain
- **Head of Tallinn City Office**
City of Tallin, Estonia
- **Director of Economic Affairs, Labor and Statistics**
City of Vienna, Austria

SOME SIDE EVENTS RELATED TO THIS TRACK



Who pays the Smart bill?
How to finance Smart solutions?



Mutual learning for integrated care systems: the regions' experience

ACCIÓ

Generalitat de Catalunya
Government of Catalonia



Catalogue of Early Demand: Future Projects of Public Procurement of Innovation



INCLUSIVE & SHARING CITIES

Technological innovations are advancing productivity, enhancing economies, and generally improving people's lives in cities. However, mixed with those benefits, a widespread fear that automation will take jobs and throw millions of people into poverty is emerging. In environments where gentrification and rising housing costs are kicking out pre-existing communities, and where citizens struggle not to be displaced, we need to ensure that social inclusion and rights are put at

the heart of the discussions on the progress of our cities.

How can cities cope with the future of the work revolution while ensuring that no one is left behind? How can we build more inclusive and sharing cities that make the most of the platform economy, culture, and creativity to enhance the humane side of the urban fabric?

THEMES

FUTURE OF WORK & EDUCATION

Skills for a Digital and Automated World

BRIDGING THE GAP

Ensuring Digital, Social and Gender Inclusion

CIRCULAR ECONOMY

Moving from Linear to Circular Cities

SHARING CITIES

Platform Labor in Urban Spaces

RIGHT TO THE CITY

Housing, Gentrification and Urban Justice

SMART CITIES IN SPAIN

Local Initiatives and National Plans

This track covered the following Sustainable Development Goals:



PUBLIC SECTOR REPRESENTATIVES

- **Councilor of Innovation & Retail**
City of A Coruña, Spain
- **Senior Policy Advisor on Housing**
City of Amsterdam, Netherlands
- **Subsecretary of Smart City & Educational Technology**
Ministry of Education & Innovation, Government of Argentina
- **Director of Health & Social Policy**
Spanish Government Delegation in Catalonia
- **Secretary of Transparency & Open Government**
Government of Catalonia, Spain
- **Manager for Migrant Assistance**
City of Bogotá, Colombia
- **Deputy Mayor for Culture, City Promotion & Civic Imagination**
City of Bologna, Italy
- **Smart City Engagement Lead**
City of Dublin, Ireland
- **Director of Family & Child Services**
City of Hafnarfjörður, Iceland
- **Tourism Secretary**
City of Itajaí, Brazil
- **Advisor, Innovation & Citizen Conversation**
City of Montreal, Canada
- **Project Manager of Smarter Together**
City of Munich, Germany
- **Assistant Commissioner for Housing Policy**
City of New York, USA
- **Head of Civil Protection and Emergency Response**
City of Nur Sultan, Kazakhstan
- **Head of Development**
District of Søndre Nordstrand, City of Oslo
- **Secretary of Public Security**
City of Quito, Ecuador
- **Secretary of Sustainable Economy & Tourism**
City of Tijuana, Mexico
- **Coordinator of eHealth**
Government of Ukraine
- **Senior Policy Advisor for Migration & Integration**
City of Utrecht, Netherlands
- **Manager for SDGs & Future City Promotion**
City of Yokohama, Japan

SOME SIDE EVENTS RELATED TO THIS TRACK



Migration in Cities:
Can Technology Support
Social and Economic
Integration?



Woman in tech
and innovation
in the Mediterranean



Sharing Cities Encounter:
City Sovereignty and
Access to Data



8/ EXHIBITION AREA

Smart City Expo World Congress 2019 displayed a huge exhibition area expanded over two halls of the Gran Via Venue to display all the latest smart urban solutions.

1,010 companies, institutions, cities, countries, and research centers took part in this dynamic

marketplace and showed the world their most innovative projects and developments on sustainable urban development. It was the perfect platform to catch up on the **most innovative solutions in the Smart City field**, explore novelties in the sector and connect with professional attendees from all around the world.



Exhibitor list

HALL 1		IRIS		B140		STATICAIR		SA	
AID - AUTONOMOUS INTELLIGENT DRIVING GMBH	C106	ISBAK ISTANBUL IT & SMART CITY TECHN. INC.		B124		SWARCO AG		B101	
AIMSUN	D111	IT-C		SA		THE INSTITUTION OF ENGINEERING AND TECHNOLOGY		F140	
AIRLABS	SA	ITS CENTRAL EARTERN CONGRESS KAZAN		D121		TMB		B112	
ALMINE	SA					TORINO WIRELESS		A18	
ALSTOM TRANSPORT S.A.	C122	ITS EUROPEAN CONGRESS LISBON 2020		D121		TRIANGULUM		B140	
AMPERAND A MICROCHARGE.TECH	SA					TWAICE		SA	
ANAS GRUPPO FS ITALIANE	A46	ITS HAMBURG 2021 GMBH		D121		UITP - INTERNATIONAL ASSOCIATION OF PUBLIC TRANSPORT		F138	
ASOCIACIÓN CLÚSTER DE MOVILIDAD Y LOGÍSTICA DE EUSKADI	F118	KARHOO		SA		UNIVRSES		A44	
ATOM TECH	SA	KEOLIS		D114		UPSTREAM - NEXT LEVEL MOBILITY		A40	
ATSUKE	A18	KNOT - DOCKS FOR SCOOTERS		A18		URBANICO		SA	
AUTOSTRADETECH	D105	K-RYOLE		SA		VAIMOO - SITAEL S.P.A.		A144	
AVAIRX	A18	KSH		A18		VECTALIA		A121	
BILBAO PORT	F118	LOOK@		SA		VIANOVA		SA	
BLICKFELD	SA	MAGNA		SA		WIND MOBILITY GMBH		A146	
BOSCH CONNECTED DEVICES AND SOLUTIONS GMBH	D101	MATCHUP PROJECT		B140		WRFCCOIN		SA	
CANGO TECHNOLOGIES	A18	MOBILEYE		B132		XRVISION		SA	
CIAOBII	SA	MONTEM		SA		ZONDATECH		SA	
CIRCUTOR	C113	MOOVIT		A115					
CITIES TODAY	A101	MOPRIM LTD		SA		HALL 2			
CITYSCOOT	SA	MYSMARTLIFE		B140		1OT OU			
CITYTALKS	SA	NAVYA		D110		1RWAVE LLP			
CITYXCHANGE	B140	NEXUS GEOGRAPHICS		D100		2GETTHERE			
CLEM	A18	NIO		A112A		360NS			
CLEVERCITI SYSTEMS GMBH	F130	OUSTER		A48		3E - DELTAQ			
CRRC CORPORATION LIMITED	D132	PARKNCHARGING		F124		666 CO. LTD.			
DCR CO., LTD	A119	PARKSEASON EXPO		SA		ABAKOMM GMBH			
DEEP SOLUTIONS	SA	PBSC URBAN SOLUTIONS		F100		ABB			
DINYCON	F118	PTV GROUP		B103		ACCELERACE			
DRIVE TRUST	SA	RCE SYSTEMS		SA		ACCENTURE LTD			
DYSTEN	D119	REBY		A50		ACOEM			
EASYPARK	D122	REMOURBAN		B140		ADASKY			
EINRIDE	SA	RENFE		B111		ADDIX INTERNET SERVICES GMBH			
EIP - SCC MARKETPLACE	B140	REPLICATE		B140		ADESTO			
EIT DIGITAL ACCELERATOR IVZW	A52	REVISTA VÍA LIBRE - FFE		F136		ADITEL			
ELAN CITÉ	F112	RUGGEDISED		B140		ADTEL SISTEMAS DE TELECOMUNICACION			
ERTICO - ITS EUROPE	D443	SEAT		B100		ADVANTAGE AUSTRIA			
ETERNITY	SA	SHANDONG GRAND ELECTRIC VEHICLE CO.		A112C		AGRA SMART CITY			
EU SMART CITIES AND COMMUNITIES	B140	SHAPES AI		SA		AGRITECTURE			
EUROPEAN SPACE AGENCY	C132	SHARING CITIES		B140		AIRLY			
EXTRUPLAS	A131	SHENZHEN INFYPOWER CO. LTD		A112C		AIRVERYCITY			
FERROCARRILS GENERALITAT DE CATALUNYA	C112	SHOTL		SA		AJUNTAMENT DE BARCELONA			
FLOWBIRD	B118	SILENCE URBAN ECOMOBILITY		C104		AJUNTAMENT DE L'HOSPITALET			
FLUIDTIME DATA SERVICES GMBH	A10	SMALLETECH		SA		ALCATEL - LUCENT ENTERPRISE			
GEOTAB	A120	SMART CITIES INFORMATION SYSTEM (SCIS)		B140		ALERT GASOIL			
GEOVELO	SA	SMART CITY EXPO LATAM CONGRESS		D104		ALLWIZE			
GROWSMARTER	B140	SMART CJM GMBH		SA		ALTO			
IEM	D115	SMART LOCK&DOCK		SA		ALUDEKO-K			
IGARLE	F118	SMARTENCITY		B140		ALUVISA			
IKUSI	F118	SMARTER TOGETHER		B140		ALX SYSTEMS			
IMMENSE	SA	SONTRAFIC		D109		AMAZON WEB SERVICES			
INMOTION LABS	SA	SPARE		SA		AMILTONE			
INTERNATIONAL IPR SME HELPPDESKS	SA	SPRINX TECHNOLOGIES		A26		AMPLIFY DESIGN			
IOT SOLUTIONS WORLD CONGRESS	C111	ST ENGINEERING		C109		AMSTERDAM TRADE			
		STANDARD DEVELOPMENT GMBH		A18					
		STARDUST		B140					



EXHIBITION AREA

ANGOLA	A101	BIRD	B273
ANIXTER LTD	F683	BIRDLY	E521
ANTIGONA	B273	BIRDZ	D401
ANTWERP PORT AUTHORITY	C409	BIT SA	A196
AQUAGENUITY	B207	BLINKAY	C349
AR MEDIAWORKS	B285	BONISYS (I GR.)	A141
ARCHITEKTURBÜRO SABINE KASSNER	A141	BOOSTHEAT S.A.	D403
AREA ETICA	D492	BOUT	D431
ÀREA METROPOLITANA DE BARCELONA	C349	BR SIGNAL	B285
ARMARIOS ELECTRICOS S.A. (ARELSA)	A180	BRAINPORT DEVELOPMENT N.V.	D473
ARSGAMES	B273	BRIEFCAM	B215
ARTWARE S.R.L.	A191	BRIGHTERBINS	D437
ASL SERVICES GMBH	A145	BSC	D413
ASOCIACIÓN CLUSTER TIC ASTURIAS	D443	BTG, BRANCHEVERENIGING VOOR ICT ENTELCOMMUNICATE GROOTGEBRUIKERS	D473
ASPERN SMART CITY RESEARCH GMBH	C379		
ASSE CENTRALE	A197	BUILDWIND SPRL	D4371
ASSIC MAQUILADORA S.A. DE C.V.	B291	BUSAN CENTER FOR CREATIVE ECONOMY & INNOBUSAN CENTER FOR CREATIVE ECONOMY	E571
ASSOCIACIÓ BLOCKCHAIN CATALUNYA	B273		
ASTRO BALTICS OÜ	E561	BUSAN IT INDUSTRY PROMOTION AGENCY	D473
ATENEU DE FABRICACIÓ	B273		
ATIM	E502	BUSINESS FRANCE	D401
ATL	B207	BUSSE COMPUTER NOVOTECH® GMBH	A145
ATOS	D421	BW-I	A141
ATOS WORLDGRID	E502	C95 CREATIVE	D443
AUSTRIAN INSTITUTE OF TECHNOLOGY	E519	CAELUM LABS	B273
AUSTRIAN MINISTRY FOR TRANSPORT, INNOVATION AND TECHNOLOGY	E519	CALALA	B273
		CALYPSO NETWORKS ASSOCIATION	D4371
AUTHENTICITYS	B273	CANADA	A103
AUTODESK	C311	CANON EUROPE	C350
AVANT STUDIO PROYECTOS S.L.	D413	CAPELON	D431
AVIGILON UK LIMITED	F689	CAPENERGIES	E510
AXILION SMART MOBILITY	B223	CAPITA SECURE INFORMATION SOLUTIONS LTD	F677
AXIS COMMUNICATIONS	B215	CARNET	C367
AXXONSOFT	F619	CCTV CENTER	A108
AYUNTAMIENTO DE MADRID	E589	CEA LETI	E502
AYUNTAMIENTO DE PUERTO MONTT	A105	CEA TECH	D401
B2M SOFTWARE GMBH	A129	CEF	D421
B71 SPRL	D4370	CEGEKA GROEP	D437
BABLE	A141	CELLNEX TELECOM	A154
BAG-ERA	E502	CENTRE TECNOLÒGIC DE TELECOMUNICACIONS DE CATALUNYA (CTTC)	D413
BANCO DE OBJETOS	B273		
BAR ILAN UNIVERSITY	A171	CESVA INSTRUMENTS, S.L.	B199
BARCELONA ACTIVA	B273	CETC INTERNATIONAL CO. LTD	B309
BAVARIAN PAVILION	A129	CHAMBER OF COMMERCE OF THE GRAND DUCHY OF LUXEMBOURG	D497
BECHTLE GMBH	A145	CHANDIGARH SMART CITY LIMITED	E597
BEEZEELINX	A114	CHARVET DIGITAL MEDIA	F610
BEIJING BEETECH INC.	D503	CHEETAH LABS	A169
BEIJING WISDON TECHNOLOGIES CO.,LTD	D503	CHENGDU WELL REACH CO., LTD.	F691
BELGIUM WALLONIA	D4370	CHINA FUTURE EDUCATION GROUP	F691
BENTLEY SYSTEMS	B223	CHORDANT	B207
BERCMAN TECHNOLOGIES	E561	CIDOB - BARCELONA CENTRE FOR INTERNATIONAL AFFAIRS	B273
BERGER LEVRAULT SA	A111	CIGO!	D413
BERLIN PARTNER	A141	CIMCON LIGHTING	A184
BETTAIR	D413	CISCO INTERNATIONAL LIMITED	D461
BETTERCITIES 360 GMBH	A145	CITE GESTION	B223
BETTERPOWER BATTERY CO. LTD	A107C	CITELUM-GROUPE EDF	E505
BICCNET - ZENTRUM DIGITALISIERUNG	A129	CITIBEATS	D413
BIGBELLY	F669	CITIOLOG	B215
BIGO TECHNOLOGY PTE LTD	B205		
BIKEEP OÜ	E561		
BIKE'N WIN	D4370		
BIM-Y	D497		
BINDER ENERGIETECHNIK	C379		

CITINTELLY	A210
CITIZENLAB	D4371
CITY OF ATLANTA	B207
CITY OF AURORA	B207
CITY OF CARTAGENA DE INDIAS	F668
CITY OF CASABLANCA	C394
CITY OF DAEGU	B285
CITY OF FLORENCE	F649
CITY OF GRENOBLE	E502
CITY OF HAIFA	A169
CITY OF MESSINA	F649
CITY OF MILAN	F649
CITY OF MONTEVIDEO	B278
CITY OF MUNICH	A129
CITY OF NAPLES	F649
CITY OF PEACHTREE CORNERS	B207
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EXHIBITION AREA

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SICHUAN PAVILION	F691	SICOM ELECTRONIC	A105
SICOM ELECTRONIC	A105	SIEMENS	B223
SIEMENS	B223	SIENESTESIA	B273
SIENESTESIA	B273	SIGI, SYNDICAT INTERCOMMUNAL DE GES	D497
SIGI, SYNDICAT INTERCOMMUNAL DE GES	D497	SIMPLATFORM CO., LTD	C334
SIMPLATFORM CO., LTD	C334	SINAPSE ENERGIA S.L.	C367
SINAPSE ENERGIA S.L.	C367	SINGA SPAIN	B273
SINGA SPAIN	B273	SINGAPORE	B205
SINGAPORE	B205	SIRADEL	E549
SIRADEL	E549	SIS.TER SRL	F687
SIS.TER SRL	F687	SITEP	D413
SITEP	D413	SKALAR	D431
SKALAR	D431	SKYLAB SERVICES PTE LTD	B205
SKYLAB SERVICES PTE LTD	B205	SMART CITY CLUSTER	D443
SMART CITY CLUSTER	D443	SMART CITY CLUSTER DENMARK	D431
SMART CITY CLUSTER DENMARK	D431	SMART CITY EXPO ATLANTA	CD
SMART CITY EXPO ATLANTA	CD	SMART CITY EXPO BUENOS AIRES	CD
SMART CITY EXPO BUENOS AIRES	CD	SMART CITY EXPO CURITIBA	CD
SMART CITY EXPO CURITIBA	CD	SMART CITY EXPO DOHA	CD
SMART CITY EXPO DOHA	CD	SMART CITY EXPO KYOTO	CD
SMART CITY EXPO KYOTO	CD	SMART CITY EXPO LATAM CONGRESS	CD
SMART CITY EXPO LATAM CONGRESS	CD	SMART CITY EXPO SANTIAGO DE CHILE	CD
SMART CITY EXPO SANTIAGO DE CHILE	CD	SMART CITY INFRASTRUCTURE FUND	F589
SMART CITY INFRASTRUCTURE FUND	F589	SMART CITY SWEDEN	D431
SMART CITY SWEDEN	D431	SMART CITY SYSTEM	A147
SMART CITY SYSTEM	A147	SMART COLUMBUS	B207
SMART COLUMBUS	B207	SMART DUBAI	A149
SMART DUBAI	A149	SMART MONITORING	A195
SMART MONITORING	A195	SMART PARKING SYSTEMS	A117
SMART PARKING SYSTEMS	A117	SMART PORTS	C409
SMART PORTS	C409	SMART SELANGOR	B231
SMART SELANGOR	B231	SMART SPACE	C349
SMART SPACE	C349	SMART TAIPEI	B295
SMART TAIPEI	B295	SMARTDATASYSTEM	C367
SMARTDATASYSTEM	C367	SMARTNODES ECO JULES LESMART	D4370
SMARTNODES ECO JULES LESMART	D4370	SNAP4CITY - KM4CITY	A118
SNAP4CITY - KM4CITY	A118	SOCASH PTE LTD	B205
SOCASH PTE LTD	B205	SOFTGUARD	B207
SOFTGUARD	B207	SOGETEL	A117
SOGETEL	A117	SOL	A141
SOL	A141	SOLARFOCUS GMBH	C379
SOLARFOCUS GMBH	C379	SOLEM	A105
SOLEM	A105	SOM MOBILITAT	B273
SOM MOBILITAT	B273	SORAMA B.V.	B215
SORAMA B.V.	B215	SOTAVIA	C367
SOTAVIA	C367	SOUTHERN COMPANY	B207
SOUTHERN COMPANY	B207	SPRINX TECHNOLOGIES	C350
SPRINX TECHNOLOGIES	C350	ST ENGINEERING ELECTRONICS LTD	B205
ST ENGINEERING ELECTRONICS LTD	B205	STAD ANTWERPEN	D437
STAD ANTWERPEN	D437	STADT DORTMUND	A145
STADT DORTMUND	A145	STARLAB BARCELONA	D413
STARLAB BARCELONA	D413	STATE OF GEORGIA DEPARTMENT OF ECONOMIC DEVELOPMENT	B207
STATE OF GEORGIA DEPARTMENT OF ECONOMIC DEVELOPMENT	B207	STAVANGER MUNICIPALITY	D431
STAVANGER MUNICIPALITY	D431	STORYDATA	B273
STORYDATA	B273	SUBMER	D413
SUBMER	D413	SUEZ	E503
SUEZ	E503	SUNCODE	C390
SUNCODE	C390	SUNNA DESIGN SA	A186
SUNNA DESIGN SA	A186	SUR EMPRENDIMIENTOS TECNOLÓGICOS S.R.L.	A191
SUR EMPRENDIMIENTOS TECNOLÓGICOS S.R.L.	A191		

SURAT SMART CITY DEVELOPMENT LTD.	E597
SWISSTRAFFIC AG	E521
SWITZERLAND GLOBAL ENTERPRISE	E521
SYNESIS	A192
SYSLOR	D497
TAHALUF AL EMARAT TECHNICAL SOLUTION	D492
TAIGER SINGAPORE PTE LTD	B205
TAKE CARE OF EACH OTHER NETWORK	B273
TALDOR	A163
TALGILDU FØROYAR	F613
TALQ CONSORTIUM	A114
TBSOFTWARE	E583
TEAMDEV SRL	D421
TECHNISCHE HOCHSCHULE NÜRNBERG	A129
TECNO WORLD GROUP	C350
TECNOSENS S.P.A. - SECURITY DIVISION	A117
TECNOSENS S.P.A. - SENSOR DIVISION	A117
TEGEL PROJEKT GMBH	A141
TEL AVIV	A161
TELENT	A141
TERABEE	D401
TERAFENCE	A169
TERMOSUN ENERGÍAS	C379
TERRAGO	B207
TERRANIS	D401
TETRAEDER.SOLAR GMBH	A145
THE DATA PLACE	B273
THE FUEL MATRIX EUROPE	D4371
THE GRID NYC (NYCEDC/CIV:LAB)	B207
THE HAGUE	D473
THE ORGANIZING COMMITTEE OF KYOTO SMART CITY EXPO	D500
THE SMART CITIZEN	B273
THE SOCIAL COIN S.L.	D413
THE THINGS NETWORK CATALUNYA (TTNCAT) / XARXA OBERTA DE L'INTERNET DE LES COSES (XOIC)	B273
THINGTIA SOLUTIONS	C367
TOILEMAKER	D401
TOP CONNECT	E561
TOROOO INC.	C385
TÓRSHAVN MUNICIPALITY	F613
TOTAL	D401
TOULOUSE METROPOLE	D401
TRACTO-TECHNIK	F631
TRAFFIC SCANNER	C401
TRAFI	A141
TRANSWARP TECHNOLOGY (SHANGHAI) CO., LTD.	A107E
TREEBUILDERS	F647
TREE-CHIP	A105
TRIDONIC GMBH & CO KG	C379
TRIGENIA	A117
TRILLIANT	F665
TRONDHEIM MUNICIPALITY	D431
TRUSTMEUP	A200
TUBA	D403
TULITEC	E561
TUMAKURU SMART CITY LTD.	E597
TUNNEL RADIO	B207

TYLDA	B292
UBIK SOLUTIONS	E561
UBIWHERE	D449
UCIFI ALLIANCE	E567
UJET	D497
UN-HABITAT	F597
UNIP	E521
UNTERNEHMENSBERATUNG WROBEL	F681
UOC/IN3	B273
UPC TECHNOLOGY CENTER - CIT UPC	F621
URBAN AIR PURIFIER (UAP)	A176
URBAN DIGITAL	A162
URBAN LIGHTING INNOVATIONS	A141
URBAN MOBILITY INNOVATIONS GMBH	A129
URBAN SOFTWARE INSTITUTE	A132
URBANTZ	D4371
URBAN-X	C207
URBASER	C361
URBIOTICA	A150
US PAVILION	B207
UVAX CONCEPTS	A114 / F705
VADECITY	C367
VANWOOW	B273
VBSH SCHAFFHAUSEN	E521
VELODYNE EUROPE GMBH	F615
VERIZON	B207
VEXCEL IMAGING GMBH	C379
VIABLE CITIES	D431
VIKIDONES	B273
VINKA	D431
VINOTION	B215
VITO NV	D437
VITRONIC	A132
VIVAPOLIS	D401
VOCDON.IO	B273
VOILÁP	C299
VOSSLÖH-SCHWABE	A194
WATERVIEW S.R.L.	A117
WATTABIT	C367
WAVECOM	F629
WEEXPAND	A200
WELLNESS TECHGROUP	F673
WESMART	D4370
WI6LABS	D401
WIENIT GMBH	C379
WIKIESFERA.ORG	B273
WIKIMEDIA ESPAÑA	B273
WIKIMEDIA FOUNDATION	B273
WIRTSCHAFTSAGENTUR WIEN	C379
WIRTSCHAFTSFÖRDERUNG SACHSEN	A147
WONDERS INFORMATION CO, LTD.	A107E
WORLDSENSING	D411
XEE	D401
X-NET	B273
ZDE	A141
ZENNER CONNECT AG	E521
ZHEJIANG AOXIN INSTRUMENT CO.,LTD	E583
ZHEJIANG DAHUA TECHNOLOGY CO.,LTD	A107D
ZHEJIANG FONDA TECHNOLOGY CO.,LTD	A107
ZHEJIANG PAVILION	E583

ZONEATLAS	D431
ZOOX SMART DATA	B207

THE VILLAGE

ALSTOM TRANSPORT S.A.	V4
EASYMILE	V2
FCC ENVIRONMENT	V1
MOBILEYE	V3
MOVUS	V5
SILENCE URBAN ECOMOBILITY	V7

Exhibitors that are also part of the Smart Mobility Congress

“ The Smart City Expo World Congress is an enormous event with representatives from cities and companies from all over the world. It’s been really good to be at the USA pavilion pitching our new technology and seeing what’s happening with smart cities around the world. It’s been an incredible networking, really diverse and huge. ”

Henry Gordon-Smith
Founder and Managing Director, Agritecture



Startups

Smart City Expo World Congress had a **specific space and program dedicated to startups**. The area was branded as Smartcity.font, as part of the Fira Barcelona startup initiatives that can be found across the different events organized by Fira Barcelona all along the year.

Startups could contract a participation pack that included a desk and four chairs, a pitch at one of the Agoras, networking activities and a pack of event passes.



Startup List

ADTEL	MASS FACTORY
AIRLABS	MEQUONIC
ALLWIZE	MICROCHARGE
ALMINE	MOBA
ATOM TECH	MOBILE KNOWLEDGE
BETTAIR	MONTEM
BLICKFELD	MOPRIM
BLINKAY	MOSAIC
BSC	OPENAIRLINES
CARGOROO	ORAIN
CARNET	PARKSEASON
CITIBEATS	PARKUNLOAD
CITYSCOOT	RCE SYSTEMS
CITYTALKS	SAALG
CIVICITI	SENSING CONTROL
CTRL4 ENVIRO	SENSITIVE DATA
CTTC	SHAPES
DEEP SOLUTIONS	SHOTL
DRIVETRUST	SINAPSE / WATTABIT
EINRIDE	SITEP
EMSER	SMALLETECH
ETERNITY	SMART CJM
EURECAT	SMART LOCK & DOCK
FIDELITZACIÓ MONEDER	SMARTDATASYSTEM-MYCELIUM
FOOT ANALYTICS	SMARTSPACE
GEOVELO	SOTAVIA
I2CAT	SPARE
IMMENSE	SPARSITY-SMARTCIGO
INMOTION LABS	STARLAB
INNOQUANT MOCA	STATIC AIR
INNOVATION TECHNOLOGIES GROUP	SUBMER
INTELLIGENT TRAFFIC-CONTROL	THINGTIA
INTERNATIONAL IPR SME HELPDESKS	TWAICE
ISARDSAT (LOBELIA EARTH)	URBANICO
KARHOO	VADECITY
K-RYOLE	VIANOVA
LEITAT	WRFCOIN
LOOK@	XRVISION
MAGNA	ZONDATECH

“ One of the ways cities can deal with the problem of air pollution is by providing people actionable information to take action and reduce their exposure. The Smart City Expo World Congress is a great place to bring people together and plan the best solutions. ”

Kristian Lande
Co-Founder & Chief Financial Officer, Air VeraCity

9/ GOVERNMENTS

High Representatives

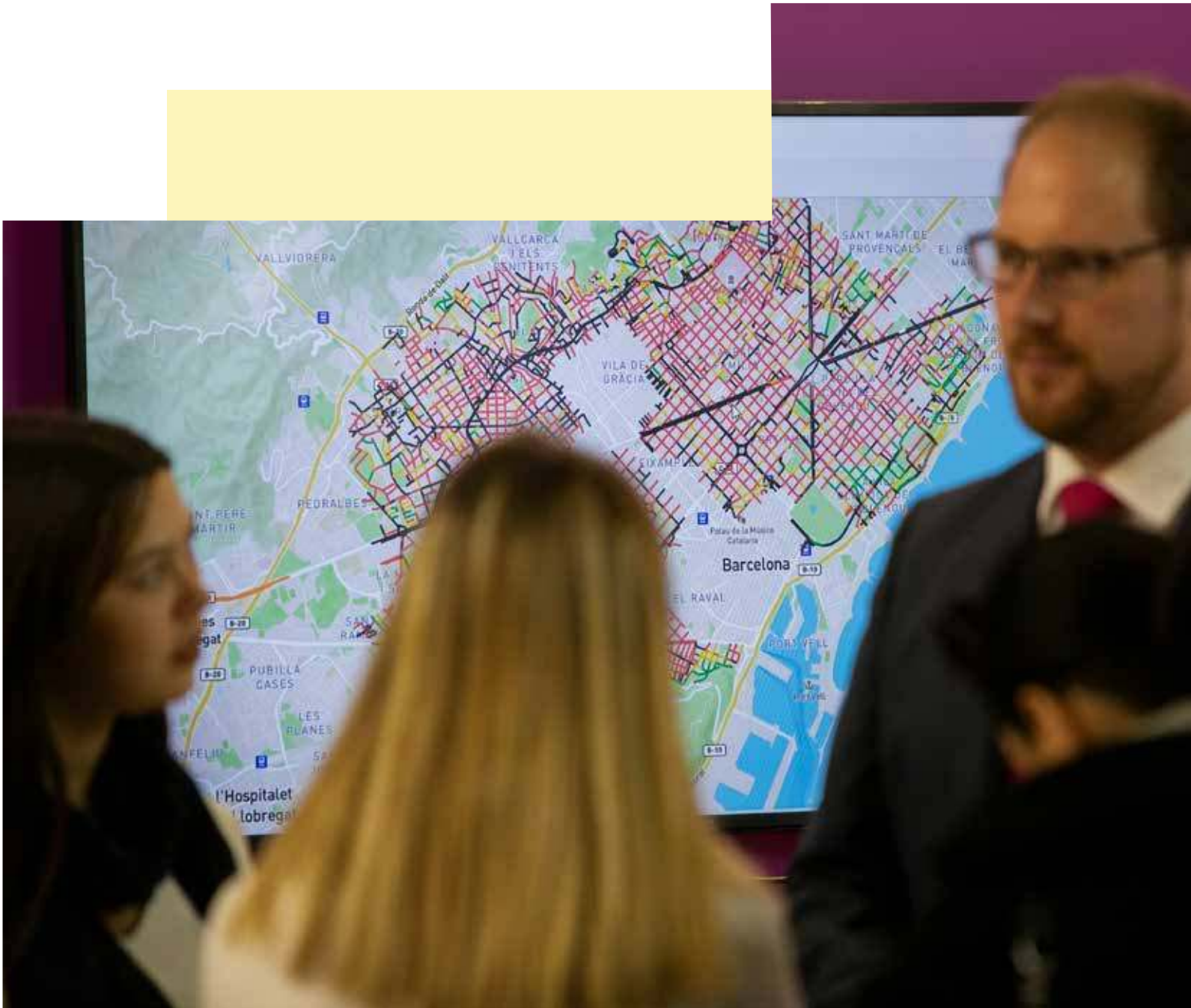
Smart City Expo World Congress was the meeting point for technical and political representatives from more than **700 cities and 146 countries** in the biggest-ever gathering of public authorities in the event’s history. They all shared the latest trends in the use of technologies to implement sustainable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

Here is a detailed list of the top-level representatives - ministers, mayors and deputy mayors - that participated in the event:

JORDI GALLARDO Minister of Presidency, Economy and Enterprise <i>Andorra</i>	MANUEL MARQUE PIMENTEL State Secretary for Territory Planning <i>Angola</i>	LUCAS DELFINO Subsecretary of Municipal Relations, Ministry of the Interior <i>Argentina</i>
FRANÇOIS BELLOT Minister for Mobility & Transport <i>Belgium</i>	JORDI PUIGNERÓ Minister for Digital Policy and Public Administration <i>Catalonia, Spain</i>	KRISTINA HÁFOSS Former Minister of Finance and current Member of Parliament <i>Faroe Islands</i>
AMIR ABHIJAT Joint Secretary, Ministry of Housing and Urban Affairs <i>India</i>	FRANÇOIS BAUSCH Minister for Mobility and Public Works <i>Luxembourg</i>	VIVIAN BALAKRISHNAN Minister for Foreign Affairs <i>Singapore</i>
PATRICIO MUSSI Mayor <i>Berazategui, Argentina</i>	DIEGO FERNÁNDEZ Secretary of Social & Urban Integration <i>Buenos Aires, Argentina</i>	SANTIAGO ANDRÉS Subsecretary of Smart City, Technology & Education <i>Buenos Aires, Argentina</i>
GUSTAVO VALDEZ Governor <i>Corrientes, Argentina</i>	EDUARDO TASSANO Mayor <i>Corrientes, Argentina</i>	MARTÍN PIAGGIO Mayor <i>Gualeguaychú, Argentina</i>
CLAUDE MARINOWER Vice Mayor <i>Belgium</i>	MICHEL MATHIEW President <i>Wavre Province, Belgium</i>	JONAS DONIZETTE Mayor <i>Campinas, Brazil</i>
RAFAEL GRECA Mayor <i>Curitiba, Brazil</i>	CINTHIA RIBEIRO Mayor <i>Palmas, Brazil</i>	CARLOS ROBERTO MASSA JUNIOR Governor <i>Parana, Brazil</i>

NELSON BUGALHO Mayor <i>Prudente, Brazil</i>	ANTONIO DUARTE Mayor <i>Ribeirão Preto, Brazil</i>	WILLIAM JORGE DAU CHAMAT Elected Mayor <i>Cartagena de Indias, Colombia</i>
DANIEL QUINTERO Elected Mayor <i>Medellín, Colombia</i>	MARCOS DANIEL PINEDA GARCIA Mayor <i>Montería, Colombia</i>	VOJKO OBERSNEL Mayor <i>Rijeka, Croatia</i>
TOMAS KOLACNY Deputy Mayor <i>Brno, Czech Republic</i>	ZDENEK HRIB Mayor <i>Prague, Czech Republic</i>	ROBERTO D'AUBUISSON Mayor <i>El Salvador, El Salvador</i>
PATRICE VERGRIETE Mayor & President <i>Dunkirk, France</i>	CLAUS HABFAST Vice-Chair of Council <i>Grenoble, France</i>	KARINE DOGNIN-SAUZE Vice-President in charge of Smart City, Innovation and Digital <i>Lyon, France</i>
CORINNE VALLS Mayor <i>Romainville, France</i>	ROHEY MALICK LOWE Mayor <i>Banjul, Gambia</i>	KONSTANTINOS DIAMANTOS Deputy Mayor of Urban Planning & Digital Policies <i>Larissa, Greece</i>
SOCRATES DIMITRIADIS Deputy Mayor for the Environment <i>Thessaloniki, Greece</i>	VASILENA MITSIADI Vice Mayor <i>Trikala, Greece</i>	SANDOR DR. PAP Vice Mayor <i>Budapest, Hungary</i>
ARUN KUMAR GUPTA Principal Secretary <i>Chandigarh, India</i>	ANJALI SINGH Joint Secretary to Lt. Governor <i>New Delhi, India</i>	ABHISHEK DEV Deputy Commissioner, South Andaman & Secretary Rural Development <i>Port Blair, India</i>
SHALINI RAJNEESH Principal Secretary <i>Tumakuru, India</i>	RIZAL EFFENDI Mayor <i>Balikpapan, Indonesia</i>	MUHAMMAD IDAHAN Mayor <i>Binjai, Indonesia</i>
PAUL MC AULIFFE Lord Mayor <i>Dublin, Ireland</i>	ADAM TESKEY Deputy Mayor <i>Limerick, Ireland</i>	DAVID ETZIONI Vice Mayor & Chairman of the Board <i>Haifa, Israel</i>

MATTEO LEPORE Deputy Mayor for Culture, City Promotion & Civic Imagination <i>Bologna, Italy</i>	CECILIA DEL RE Vice Mayor in charge of Innovation <i>Florence, Italy</i>	PIERLUIGI BIONDI Mayor <i>L'Aquila, Italy</i>
CATENO DE LUCA Mayor <i>Messina, Italy</i>	GIUSEPPE SALA Mayor <i>Milan, Italy</i>	SOICHIRO TAKASHIMA Mayor <i>Fukuoka, Japan</i>
WILD NDIPO Mayor <i>Blantyre, Malawi</i>	MARIO ESCOBEDO Secretary of Sustainable Economy & Tourism <i>Tijuana, Mexico</i>	MAURICIO VILA Governor <i>Yucatán, Mexico</i>
JACK MIKKERS Mayor <i>Den Bosch, Netherlands</i>	MONIQUE LIST-DE-ROOS Vice Mayor <i>Eindhoven, Netherlands</i>	CATHALIJNE DORTMANS Deputy Mayor <i>Helmond, Netherlands</i>
REYNA RUEDA Mayor <i>Managua, Nicaragua</i>	CARLOS TEJADA Mayor <i>Lima, Peru</i>	ABIGAIL BINAY Mayor <i>Makati, Philippines</i>
MIHAI CHIRICA Mayor <i>Iasi, Romania</i>	ASTRID CORA FODOR Mayor <i>Sibiu, Romania</i>	CHOONGHWAN AHN Deputy Minister <i>Sejong-si, South Korea</i>
ADA COLAU I BALLANO Mayor <i>Barcelona, Spain</i>	JAUME COLLBONI First Deputy Mayor <i>Barcelona, Spain</i>	ÁNGEL NIÑO QUESADA Councillor of Innovation & Entrepreneurship <i>Madrid, Spain</i>
JOSÉ BALLESTA GERMÁN Mayor <i>Murcia, Spain</i>	GEMA IGUAL ORTIZ Mayor <i>Santander, Spain</i>	CARLOS FERNÁNDEZ BIELSA Vice President <i>Valencia Provincial Council, Spain</i>
JORGE AZCÓN NAVARRO Mayor <i>Zaragoza, Spain</i>	PONGSAK YINGCHONCHAROEN Mayor <i>Yala, Thailand</i>	TUNÇ SOYER Mayor <i>Izmir, Turkey</i>
AISHA BIN BISHR Director General <i>Dubai, United Arab Emirates</i>	ANGUS MILLAR Councilor <i>Glasgow, United Kingdom</i>	MIGUEL SANGALANG Deputy Mayor of Budget & Innovation <i>Milan, Italy</i>
DEPUTY MAYOR OF BUDGET & INNOVATION Deputy Chief of Staff for Mayor Garcetti <i>Los Angeles, United States of America</i>		



City & Country Pavilions

Over **70 cities, regions and countries** built their own pavilion to spread their success in the implementation of smart solutions, promote their local companies and gather insights from other cities and regions. Their delegates also organized a myriad of activities (**receptions, workshops, tours, talks**, etc.), 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 **Dubai Paperless Strategy**, which aims at turning its government completely paper-free by 2021; the **Digital Faroe Islands** program, set to establish a digital infrastructure for

citizens, industry and the public sector in the small Nordic nation; or the always worth-seeing **Smart Nation and Digital Office of Singapore**.

In addition, a vast number of government authorities from around the world and major global institutions, like the **United Nations Human Settlements Program** (UN-Habitat) or the **International Association of Public Transport** (UITP) identified areas of common ground.



These were the cities, regions and countries exhibiting at Smart City Expo World Congress 2019:

Atlanta	Estonia	Nordrhein-Westfalen
Austria	European Union	Norway
Baden-Württemberg	Faroe Islands	Paris
Barcelona	Finland	Perm (Russia)
Bar-Ilan	Flanders	Poland
Barranquilla	France	Saxony
Bayern	Grenoble	Selangor
Belgium	Haifa	Seoul
Berlin	Hangzhou	Shanghai
Brandenburg	Hessen	Shenzhen
Brussels	Huzhou	Sichuan
Buenos Aires	Incheon	Singapore
Busan	India	South Korea
Canada	Israel	Spain
Cartagena de Indias	Italy	Sweden
Casablanca	Jeju	Switzerland
Catalonia	Kyoto	Taipei
Chile	Leeds	Tel Aviv
Daegu	L'Hospitalet de Llobregat	Thailand
Darmstadt	Luxembourg	United States
Denmark	Lyon	Wallonia
Dortmund	Moscow	Zhejiang
Dresden	Munich	Zurich
Dubai	Netherlands	

“A city is a complex place. Even if you have your own ideas, you have to know and understand what other people are thinking about smart cities. And the Smart City Expo World Congress is the place to do that.”

Han-Seok Ko
President Seoul Digital Foundation

10/ THE CONGRESS

Cities are shaping our future and leading the way in the fight against climate change. Combine effective road management, cap and trade, sustainable energy, excellent public transportation, and a zero-waste program and you'll have an urbanist's -or even a citizen's- dream city. That dream city may not be a reality yet, but the debates that took place at the Congress helped draw better future cities.

The 2019 edition focused around five main tracks allowing for in-depth discussion in a wide range of formats that ranged from the classic round-table format to one-to-one dialogue or active networking: **Digital Transformation, Urban Environment, Mobility, Governance & Finance, and Inclusive & Sharing Cities.**

With a full program of **123 sessions**, the conference attracted an increased number of delegates. The presentations and debates were held in the main Auditorium and five Theme Rooms, and organized around the above-mentioned tracks and themes, say sets of dedicated sessions that allowed participants to dive deep into the hottest topics of the debate.

More than **400** **thought-provoking leaders** and global innovators such as **Laura Faye Tenenbaum, Janette Sadik-Khan, Benedetta Tagliabue, Shira Rubinoff** and **Roland Busch** shared the latest thinking on what a city made of dreams can offer and how to transform urban environments for the better.

The general sentiment was that **as the Smart City concept is more mature, we need a call to action to move ahead.** The keynote speakers agreed that "a smart city is a city that gives people choices" and that "we can harness technology to help us more efficiently", while humanizing it, which will probably make more sense for citizens. But, of course, there is no one size fits all solution.

Both the Auditorium and the Theme Rooms were at their full capacity during the three days. How Blockchain can help cities build better governance and transportation, what are the challenges and opportunities of Artificial Intelligence, how can sensors and mesh networks tackle environmental problems, what is the future of work and education and how to preserve the Right to the City were some of the main themes that pervaded the different sessions.

“ One of the things that I really like about the Smart City Expo World Congress is that it has put cities at the center of this discussion. We’re not going to have the cities that we want to see in the future just by having shiny toys and new technology. We need to focus on strategy and the SCEWC is a perfect way to have the kind of discussion and conversation to build the cities that we want to see. ”

Janette Sadik-Khan

Bloomberg Associates, New York City, USA

Key figures



+400

Speakers



123

Sessions



9

Conference rooms



5

Tracks



32

Themes



540

Call for speakers applications



Opening Session Cities Made of Dreams



Speakers

Jordi Puigneró / Minister of Digital Policy and Public Administration - Government of Catalonia - Spain

Jaume Collboni / First Deputy Mayor - Barcelona City Council - Spain

Vivian Balakrishnan / Minister for Foreign Affairs - Government of Singapore

Francisco Polo / Secretary of State of Information, Society and Digital Agenda - Government of Spain

Cities are the places where we can commit to a better world 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. Jordi Puigneró and Jaume Collboni highlighted that Barcelona has become one of the European capitals of digital technologies, "a European hub for 5G", an open city that provides opportunities for all. Both the SmartCat strategy from the government of Catalonia and the strategic plan for digital technologies unfolded by the Barcelona City council aim at placing tech at the service of people. Because the 4IR has to be more citizen-centric not to leave anybody behind. At his turn, Vivian Balakrishnan examined the consequences of the developments in Artificial Intelligence (AI). "AI is a no regrets move", he stated. He also made it clear that AI is a transformative technology which will redefine the economy and society. For Singapore, in fact, it's the next phase of the definition of the smart city nation plan. For that reason, said Balakrishnan, it's important to focus on strengths and look for solutions that

are acceptable to people, with a focus on respect for privacy, and human welfare. Eventually, Francisco Polo emphasized the capacity of Spain to lead the smart city development and stressed that "in a hyperconnected world, governments have the responsibility to build cities for the people, efficient and attractive, cities where you would want to live". That is to say, cities made of dreams, to echo the motto of the event. Right after the authorities, the director of the Smart City Expo World Congress, Ugo Valenti presented the Tomorrow.city project, the new platform of platforms which will "make visible the invisible" by combining research, knowledge, business and investment to promote liveable cities for all.

“ The Fourth Industrial Revolution has to be citizen centric. We cannot leave anybody behind. ”

Jaume Collboni



Keynote Session

Roland Busch: Disruption Is Coming to Town: How IoT Makes Cities Smart for the Next Generation



Speaker

Roland Busch / Deputy CEO and CTO - Siemens - Munich - Germany

Today cities are coated with sensors and Internet of Things (IoT) applications are enabling smart initiatives worldwide. For a reason, said Roland Busch. By 2030, there will be like 40-43 cities with 10 million people or more. Smaller cities are also growing, so the challenge is big. Not just in the mobility area, which won't get better with sharing platforms, said Busch, but also in the infrastructure and cybersecurity domains. The Deputy CEO and CTO of Siemens pointed out that there are two ways to deploy technologies and grow cities smarter. One is optimization. When talking about moving people within a city, we're referring to optimizing trains or guiding people to a place. Buildings and air quality can also be improved through IoT. The other way is the disruptive way, which is about tearing down silos and coming through an IoT platform enabling to link and communicate things (traffic, buildings, etc.). In this light, Roland Busch enhanced that MindSphere, which is the cloud-based, open IoT operating system

from Siemens that connects products, plants, systems, and machines to harness the wealth of data generated by IoT with advanced analytics, will be the Operating System for the Expo2020. In the end, making technology work in cities is a collaborative work. Public, private partnerships are the cornerstone of this process. Yet Roland Busch made it clear that we need to add two more Ps to the equation: Planning and People (cybersecurity). "P to the fifth is getting the trick, together with new business models and, of course a very solid IoT platform", concluded Busch. This might be the formula to get cities smarter for the next generation.

Public and Private Partnerships are essential but we need to add Planning and People to the equation (P⁵).

Roland Busch



Keynote Session

Laura Faye Tenenbaum: We Must Respond to the Climate Crisis with Courage



Speaker

Laura Faye Tenenbaum / Science Communicator - NASA's Jet Propulsion Laboratory - Burbank - US

Everybody has an idea about climate change and its impact. The five last years have been the hottest years ever, raising sea levels and undermining food and water security for many people, but climate deniers have been confusing it all. Yet giving up is not the solution, claimed Laura Tenenbaum. "We have to try something. In fact, we have to try everything we can possibly try", she added. But what? What to do to respond to the climate crisis with courage? The science communicator told the audience that there are three things that people can do: First of all, spend as much time as possible in nature, because nature reminds us what we're fighting for. Second, we also have to take responsibility for our own actions. "Not everybody has the situation where they can have an electric car or solar panels", she admitted. "But you do what you can do." In this light, and this is the third to do, she encouraged people to participate in

groups, thus get active in their own communities and make them "a utopia". Not only to improve mobility, which is a pressing issue. "We need to electrify transportation, of course, but we also need to electrify the entire grid and that's not going to happen without people coming together", she insisted. "None of us know what the solution is going to bring but the effort we put out there will help us as individuals and as a community", she concluded. Tenenbaum ended up her keynote by noting that we need to reevaluate what's important and be aware that "more stuff doesn't necessarily make us happier."

“The ideas and the technology to fight climate change are already there. Now we need the will to put them through.”

Laura Faye Tenenbaum



Keynote Session

Benedetta Tagliabue: How Can Architecture and Public Space Capture the Essence of the City?



Chair

Martha Thorne / Dean - IE School of Architecture and Design / Pritzker Architecture Prize - Madrid - Spain

Speaker

Benedetta Tagliabue / Director - Estudio Miralles Tagliabue - Barcelona - Spain

Architecture has the power to boost what cities are and what cities want to be. Yet, there's no one-fits-all formula. When you do a city project, you have to adapt it to different circumstances. Before making a transformation in a particular place, you have to understand it. And sometimes, a simple idea, like having a place to have a cup of tea next to a hospital is very powerful. In a fruitful conversation with Martha Thorne, Benedetta Tagliabue made it clear that making cities nowadays is not just the area of the architecture. It involves many other sectors and also the participation of citizens, so there are many agents working together, which enriches the whole process. "We have so many layers that are inside us, and so many layers that are inside places", she said. "Usually places have a strong personality and sometimes we just don't see it", she pinpointed. The director of Estudio Miralles

Tagliabue emphasized that architects can't be on top of everything, so it's important for them to learn. In the end, she stressed that "the cities of the future should integrate in some ways the countryside". An idea that can make tremendous strides in providing benefits to citizens as a truly integrated approach to development must go beyond intra-city policy coordination and traditional rural issues. Tagliabue admitted that the equilibrium between differences is something complex that can bring conflict, but also that creating harmony within diversity is the key for our future. How to express that harmony is another matter.

“The cities of the future should integrate in some way the countryside.”

Benedetta Tagliabue



Fira Barcelona

#SCEWC19

DIBU2PIA

Keynote Session

Janette Sadik-Khan: Change the Street, Change the World



Speaker

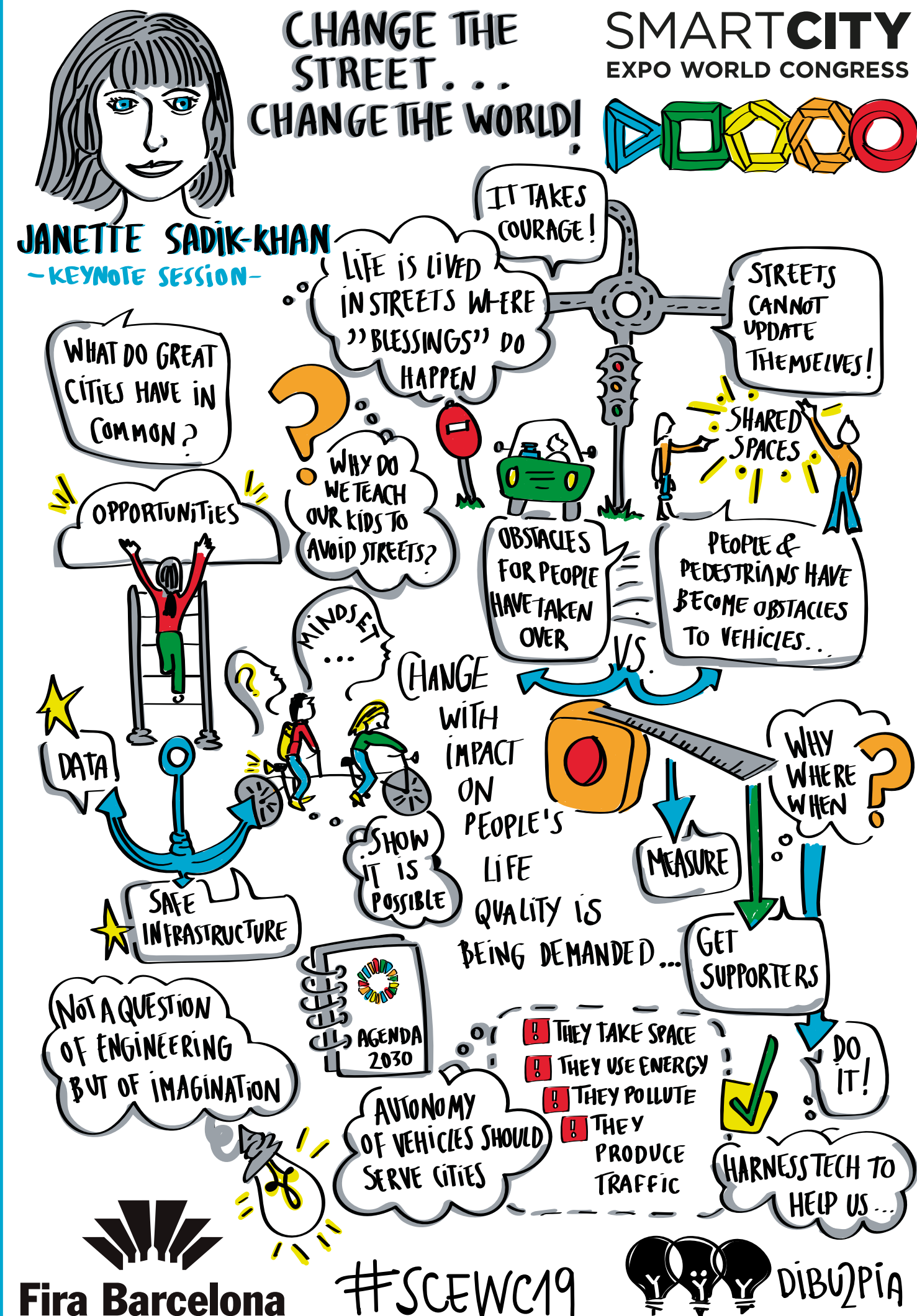
Janette Sadik-Khan / Principal Transportation - Bloomberg Associates - New York - US

What do the greatest cities have in common? Janette Sadik-Khan started up her presentation with this simple but powerful question to make it clear that “cities are great because what happens at street level”. Unfortunately, life on our streets, which have been taken over by cars, doesn’t always add up to our love for our cities. And it’s not that we don’t know how to fix that, “it’s that we’ve spent most of the last century doing something else”, she said. Thus, we have streets that are inefficient and deadly. How do we solve that? Building more roads is not the solution, said the Former New York City Commissioner of Transportation. “Our streets don’t update themselves”, she added, “but it would be great if they could.” Today, there’s an urban revolution about redesigning and reimagining our streets to give people more choices for getting around. In this light, Sadik-Khan explained how New York laid down more than 640 km of bike

lanes in six years and carved out 2.5 hectares of pedestrian-only space at Manhattan’s heart. In the end, solutions are closer than we think. The Principal Transportation at Bloomberg Associates also underlined that the Superblock Districts in Barcelona are a model for the world. Yet changing the physical infrastructure of the city is not enough. It’s all about changing its soul. Moreover, cities need to lead in the design of the streets and not just react. Because “when you change the streets, you change the world”, she concluded.

“Changing the hardware on our streets is almost always the most difficult part of changing our cities.”

Janette Sadik-Khan



Keynote Session

Shira Rubinoff: Cybersecurity and Cities:
What Is at Stake?

Chair

Pipo Serrano / Head of Digital Strategy - Broadcaster - Barcelona - Spain

Speaker

Shira Rubinoff / President - Prime Tech Partners - New York - US

As smart cities evolve and become more connected with each passing day, new challenges to our security and expectations of privacy arise. "Today it's the first time in history that we have three generations working side by side with each other: we have the boomers, we have Gen X and Millennials", clarified Shira Rubinoff. This means you have to adapt to different mindsets when it comes to training in cybersecurity. So, you can't shove everybody into one box and say: "do it my way". Education is certainly a key part of the solution. It entails promoting continuous training and creating global awareness. Yet this is not plain sailing. The President of Prime Tech Partners insisted that people need to be very careful of what they put online. "The number one thing that I tell people is to stop and pause before

they do anything online", she said. In other words, we need to be aware of what we do. Rubinoff also advised companies to know their data and have a plan to deal with cyberattacks, be they ransomware or impersonations. In this respect, backups and collective intelligence might be strong protective tools. The expert ended up her talk by stressing that we all need to be proactive in our security posture to stop emerging threats. And being in a rush is not a good excuse to avoid tackling the problem.

“Humans are the weakest link in cybersecurity. So, before doing anything, stop and pause.”

Shira Rubinoff



Fira Barcelona

#SCEWC19

DIBU2PIA

Plenary Session

Our Greatest Challenge: Making a More Inclusive Urban World



Chair

Natalia Olson-Urtecho / Chief Innovation Office and Board Member - RadicalXChange & New Urbana - Washington - US

Speakers

Reyna Rueda / Mayor - Managua - Nicaragua

Sameh Wahba / Global Director Urban, Disaster, Risk Management, Resilience and Land - The World Bank Washington - US

Miguel Gamiño / Executive Vice President and Head of Global Cities - Mastercard - New York - US

Anthony Salcito / VP Education and Public Sector - Microsoft - Redmond - US

Renata Ávila / Executive Director - Ciudadanía Inteligente - Santiago - Chile

Building more inclusive cities has certainly the potential to create opportunities for a better life. Natalia Olson-Urtecho introduced the session by recalling that innovation should be bottom-up and work for the interests of all the people in any place. But how can we make innovation serve the common good? Both Reyna Rueda and Sameh Wahba coincided that people have to be at the core of transformative urban policies. Wahba also added that they need to be “evidence-based and data-driven”. On the same token, Anthony Salcito enhanced the potential of Artificial Intelligence to respond to cities’ needs, but he also put on the table the need for a skills agenda to address the future. Miguel Gamiño recognized that cities have more in common than not and underlined the need to work together and “be intentional

on the path to inclusivity”. In the end, he said, it’s not just about bearing tools but making a plan. A wake-up call that Natalia Olson-Urtecho seized to ask the panelists what kind of actions are to be taken considering that “technology is biased”. Renata Ávila offered a solution: “Let’s shift that bias for good. Let’s include women because we need women designing the tools of the future”, she said. In the end, the city of tomorrow will be about “diversity, creativity and livability, concluded Sameh Wahba. “Making a more inclusive urban world is creating a better society for all”, sentenced Rueda.

“We need women designing the tools of the future.”

Renata Ávila



Plenary Session

How to Make Governments More Agile, Transparent and Participative?



Chair

Alice Charles / Lead Cities, Infrastructures and Urban Services - World Economic Forum - Geneva - Switzerland

Speakers

Rohey Malick Lowe / Mayor - Banjul - Gambia

Aisha Bin Bishr / General Director - Smart Dubai - UAE

Cassie Roach / VP Global Public Sector - Cisco - Denver - US

Miguel Sangalang / Deputy Mayor of Budget and Innovation - City of Los Angeles - US

Cities need to be agile to quickly adapt to changing needs. At the same time, they must be transparent and participative, bringing key stakeholders and citizens with them on their journey of transformation. Alice Charles started up the session by asking the participants what governments should do to put citizens at the heart of smart cities. Aisha Bin Bishr fired up the conversation by making it clear that the Fourth Industrial Revolution is not just about technology but about making people happier. "Simplicity is the main element when talking about smart cities. Technology comes at the end", she stated while announcing that the Asian city has already managed to digitize more than 88 services. On the same token, Cassie Roach underlined that once you have dialogue in your community, you get the agility. Mayor Rohey Malick Lowe went a

little further by underlining that "citizens need to take the ownership of the city." Yet are all these actions sustainable economically speaking? Is it possible to monetize the data needed to carry on all these advancements? Bin Bishr emphasized that cities need the support of the private sector. Miguel Sangalang echoed that sentiment by stating that "it's all about collaboration" and that small partnerships, also with startups, allow governments to experiment to build better smart cities. "We should listen", he said. Alice Charles ended up the session by stressing that "cities can really get solutions by listening to other cities."

“Education and collaboration are key to build better smart cities.”

Miguel Sangalang



Plenary Session

How to Turn Technology into a Force for Inclusion?



Chair

Sally Eaves / CEO and Founder - Aspirational Futures - London - UK

Speakers

Soichiro Takashima / Mayor - Fukuoka - Japan

Roland Busch / Deputy CEO & CTO - Siemens - Munich - Germany

John Farmer / CTO - New York's Mayor's Office - US

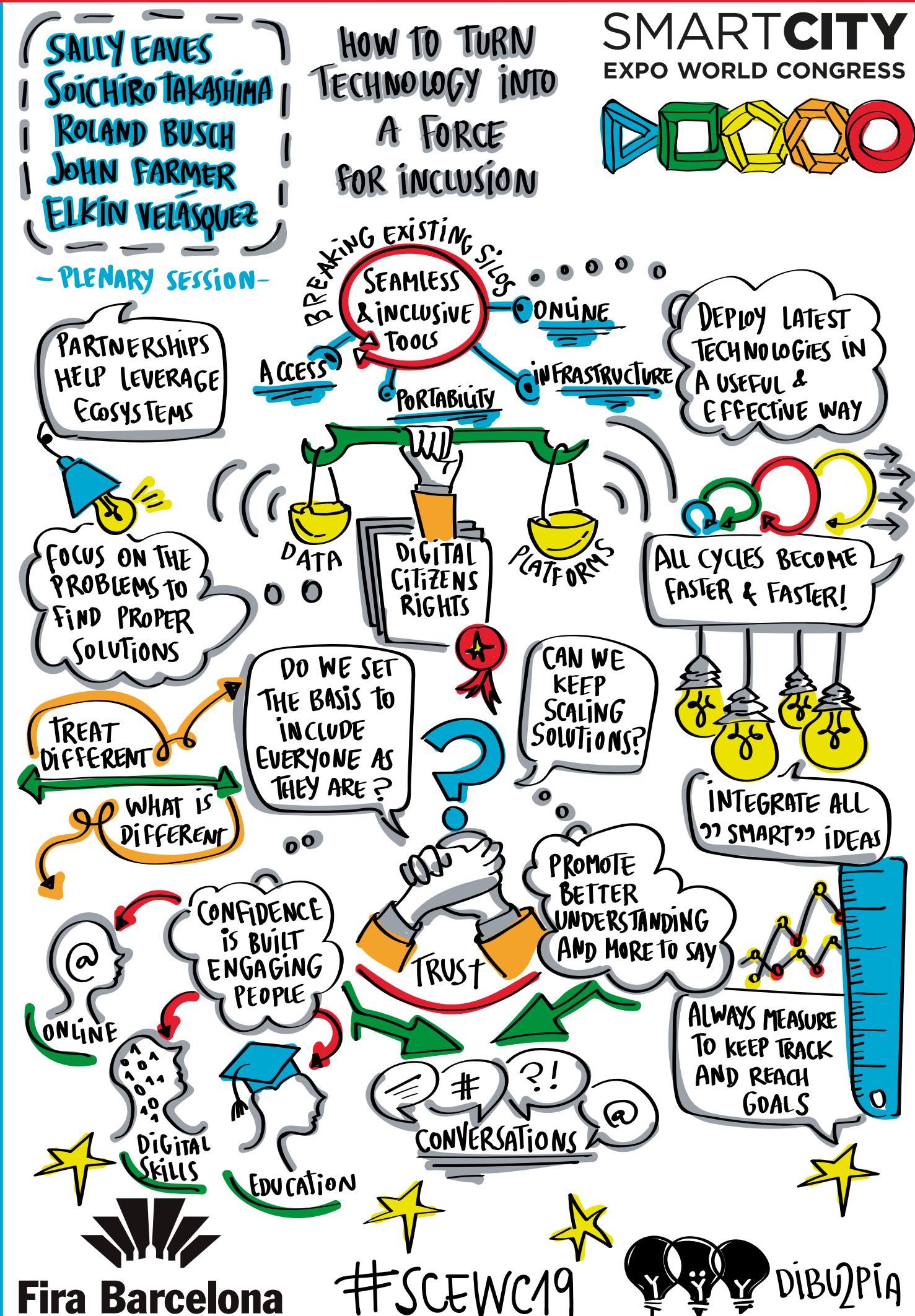
Elkin Velásquez / Regional Director for Latin America and the Caribbean - UN-Habitat - Rio de Janeiro - Brazil

To turn technology into a force for inclusion, we have first to make it available to many, not just a few, said Soichiro Takashima to fired up the session. Then he described some of the advancements developed by Fukuoka to provide better services for citizens while raising awareness about caring for the city, such as a city app, sensors and IoT to take care of the aging population or GPS devices to monitor people with dementia. Roland Busch enhanced the need to find the right partners to deploy the latest technologies in a proper way and break down silos, while John Farmer insisted that cities have to make sure that technology itself is inclusive. At his turn, Elkin Velásquez focused on the crisis in Latin America and wondered whether we are really setting the basis for including everyone. "We need to take the responsibility to facilitate

the conversation in a society that is unequal", he sentenced. Similarly, Soichiro Takashima underlined that cities need to clearly identify problems and then use technology to solve them, but he also admitted that "it's difficult to change existing systems". In this respect, speakers agreed that education is key but that it needs to be connected with other ecosystems. John Farmer made a last comment on the need for measuring all the work done. All in all, agreed the experts, we still need to push forward to make technology inclusive and so "make visible the invisible."

“A Smart City has to be an inclusive city.”

John Farmer



Plenary Session

Cities Spearheading the Global Green Revolution



Chair

Mitchell Kosny / Professor - Ryerson University School of Urban and Regional Planning - Toronto - Canada

Speakers

Mauricio Vila Dosal / Governor - State of Yucatan - Mexico

Karine Dognin-Sauze / VP in charge of Smart City, Innovation and Digital - Lyon Métropole - France

Bertrand Camus / CEO - SUEZ - Paris - France

Miguel Eiras Antunes / Global Smart Cities Leader - Deloitte - Lisbon - Portugal

Laura Faye Tenenbaum / Science Communicator - NASA's Jet Propulsion Laboratory - Burbank - US

Mitchell Kosny started up the session with a provocative statement: "I think the whole thing of the green revolution and climate change is the elephant in the room", as it's really the issue that frames everything else that's going on. Bertrand Camus said that there are solutions, that smart technologies, captors and algorithms can tackle major environmental challenges. Laura Tenenbaum acknowledged that the technology already exists, that the problem is not the lack of ideas but the will to put them through, "We're still talking about dreams instead of what we're able to accomplish", she complained. In this light, she made a wake up call to encourage people to determine what's really important and start working. In her turn, Karine Dognin-Sauze admitted that "we need to manage growth in a different way and orchestrate green growth". Miguel Eiras added that green growth is a

business, and that we should stop thinking about it as a cost. Yet Mauricio Vila wondered whether this cost is likely to fall and whether we're doing enough to make people aware of the situation. In this scenario, is it possible to move further?, asked Kosny. The younger generations are further pushing ahead the green revolution, said Camus. Miguel Eiras echoed that sentiment: "Our kids will make the change". But we need to take the decision all together. "Education is really key", sentenced Laura Tenenbaum. Kosny ended up by stating that as citizens it's our responsibility to "go out there and make a difference".

“We should become as organized as the polluters. Then, we will win.”

Laura Tenenbaum



Plenary Session

Smart Cities: The Global & Local Conversation



Chair

Pipo Serrano / Head of Digital Strategy - Broadcaster - Barcelona - Spain

Speakers

Mauricio Vila Dosal / Governor - State of Yucatan - Mexico

Santiago Andrés / Undersecretary of Smart City and Educational Technology - Buenos Aires - Argentina

Rafael Greca / Mayor - Curitiba - Brazil

Tye Hays / Chief Technology Officer - Atlanta - USA

Hiroyuki Suzuki / Strategic Director - Advanced Telecommunications Research Institute International - Kyoto - Japan

Reem Al Mansoori / Digital Society Development - Doha - Qatar

Since 2013, spin-offs of the Smart City Expo World Congress have taken place on four continents, with local editions adapted to the specific needs and interests of their host cities. Representatives from Mexico, Argentina, Brazil, Atlanta, Kyoto and Doha explained how important innovation is for cities and what are the opportunities opened by Smart City strategies. Mauricio Vila stressed that fighting global issues like climate change means turning them into local problems. Rafael Greca followed up by highlighting that "it's essential to prepare cities for innovation". Accordingly, Santiago Andrés added that "people should be at the heart of the Smart City". In this light, Tye Hays recalled that security and privacy should be a priority. In the end, concluded

Hiroyuki Suzuki, "Smart cities are platforms to share knowledge and technology, to develop businesses and improve citizens' life." Our future depends on it. Reem Al Mansoori echoed this sentiment by stating that "Doha is committed to promote awareness and understanding of smart cities and the development of smart initiatives for a sustainable future." In the end, all the participants invited the audience to keep on discussing about the evolution of the Smart City on their respective conferences.

“People should be at the heart of the Smart City.”

Santiago Andrés



Cities to Move On: Embracing All Forms of Mobility



Chair

Martha Thorne / Dean - IE School of Architecture and Design /Pritzker Architecture Prize - Madrid - Spain

Speakers

François Bausch / Minister for Mobility and Public Works - Luxembourg

Abigail Binay / Mayor - Makati City Council - Philippines

Lacina Koné / Director - Smart Africa - Kigali - Rwanda

Felipe Urbano de Saleta / Head of Business Development, Communications and External Affairs

FCC Environment - Barcelona - Spain

Mohammad Farjoud / Head of Tehran Smart City - Iran

As new forms of mobility emerge constantly, the question is no longer what new mode of transportation can fulfill citizens' needs, but rather how all of them ought to be coordinated and regulated. How can governments best seize the opportunities of emerging forms of transportation? To begin with, François Bausch said that cities need to create an infrastructure "to move people, not to move cars". But how to do that? There are no miracle solutions. Mohammad Farjoud considered that introducing a change of behavior among the population is a great challenge. All the more so as "change is not something that comes automatically", pointed out Martha Thorne. Change needs regulations, but regulations should support the strategies, added Farjoud. In this scenario, how to deal with the car-sharing phenomenon and global platforms? Lacina Koné acknowledged

that services such as Uber are not regulated in Rwanda, but “they solve problems in terms of jobs”. He also remarked that, in Africa, 63% of the population live in rural areas. Hence, sustainable mobility solutions are a must. In the end, “all the solutions need to be sustainable, but also affordable”, underlined Felipe Urbano de Saleta. Thus, we might think about “decreasing our necessity for travel”, noted the Head of Tehran Smart City. And, above all, add citizens to the Public Private Partnership (PPP) equation, he concluded.

“ We have to create an infrastructure to move people, not to move cars.”

Francois Bausch



Plenary Session

Future Cities: Tapping the Transformative Power of Emerging Technologies



Chair

Pipo Serrano / Head of Digital Strategy - Broadcaster - Barcelona - Spain

Speakers

Daniel Quintero / Elected Mayor - Medellin City Council - Colombia

Jeff Merritt / Head of IoT, Robotics and Smart Cities - San Francisco - US

Emilia Saiz / Secretary General - UCLG - Barcelona - Spain

Richard Budel / CTO Public Sector - London - UK

Big data, artificial intelligence, sensors and 5G technologies have the potential to reduce the downsides of urbanization and offer better living conditions for citizens. And sometimes a small change can trigger a revolution, said Pipo Serrano. But how can these innovations be fairly implemented in all levels and sectors within cities? "We have the talent and the people to do this transformation", said Daniel Quintero to begin with a note of optimism. But we need to be cautious, added Jeff Merritt. Cars are a good example of how technology can lead to unintended harm, he said. Richard Budel echoed that sentiment by pinpointing that "it's not about the technology, but actually about the way we implement it". Emilia Saiz emphasized that actually cities might need "very low tech" at the beginning and be sure that the discussion about what it's needed takes place at the local level.

Quintero responded that, in fact, technology could help cities to collaborate more, but for that they need "inspiring leadership". Actually, said Jeff Merritt, "your tech strategy will end up becoming your city's strategy", so we need to think about it and develop a seed of policies to move forward. In this light, Budel claimed that cities can be more transparent about the way things are done. Yet Daniel Quintero ended up stating that governments alone don't have the solution to all problems, the ecosystem does. That is the reason why cities need to favor "a new social contract" to develop a new kind of citizenship, concluded Emilia Saiz.

“Technology can help us collaborate, but we need inspiring leadership for that too.”

Daniel Quintero



Dialogue Session

Agenda 2030: How Are Cities Leading the Implementation of the Sustainable Development Goals?



Chair

Graham Colclough / Partner - Urban DNA - London - UK

Speakers

Miquel Rodríguez Planas / Commissioner for Agenda 2030 - Barcelona City Council - Spain

Agata Krause / Adviser - United Nations Economic Commission for Europe - Geneva - Switzerland

Barcelona backed the 2030 Agenda right from the start and is taking the lead in the promotion, implementation and monitoring of its fulfilment. The session presented some of the initiatives the city is leading and discussed what are the key challenges and opportunities in partnering up with other stakeholders to carry out global sustainability agendas. In this respect, Miquel Rodríguez said that, when developing the 169 targets of the agenda, all the budgets need to be aligned. And this is a challenge. A worthy one, as Agata Krause noted, because “without a thoughtful consideration of the Sustainable Development Goals (SDGs), we will not go further”. Graham Colclough wondered whether we have to stimulate that sense of urgency. Krause responded that it's important to take personal responsibility in adopting SDGs,

understand the opportunities and hopes linked with them, and understand complex problems to address the future. This entails trying to overcome several challenges at the same time, pinpointed Miquel Rodríguez, and this is not a piece of cake. Hence, we need to work together to make it possible, correctly assessing how far we are from our target and working in the right direction, sentenced both experts.

“This is the future. Without a thoughtful consideration of SDGs, we will not go further.”

Agata Krause



Digital Transformation

Digital Trust & Cybersecurity: Privacy & Security in the Digital Economy



Participants

Shira Rubinoff / President - Prime Tech Partners - New York - US

Diana Fernández / Systems and Cloud Systems Business Development Director - Oracle - Dusseldorf - Germany

Manolo Jiménez Salinas / Mayor - Saltillo - Mexico

John Biggs / Contributing writer - Techcrunch - New York - US

Sokwoo Rhee / Associate Director for CPS Innovation - National Institute of Standards and Technology Gaithersburg - US

Arthur Keleti / IT Security Strategy - T-Systems Hungary - Budapest - Hungary

Kirk Arthur / Senior Director Worldwide Government - Microsoft - Redmond - US

Grace Andrea Quintana Ortega / Deputy Director - Ministry of IT and Communications - Bogotá - Colombia

Smart cities operate on a foundation of technology. All sorts of connected devices coat the urban landscape, which obviously produce a tremendous amount of data, which can be hacked and pose a risk of safety and security to the citizens it is designed to help. Great efforts are being made in the pursuit of security excellence and obviously there is still a great amount for us to do. How cities can promote cyber resilient systems and at the same time help citizens deal with cybersecurity? Panelists of the sessions dedicated to this theme discussed how to improve the security of current devices and systems as well as how to go further in the secure smart city design.

Takeaways:

- Cities have a much higher risk of cyberattacks and are more vulnerable to malware than ever before as 127 new devices are connected to the internet every second.
- City governments need to protect their digital infrastructure by promoting cyber-resilient systems.
- An ethical approach is needed on the storage and use of personal data.
- Citizens need education and assistance in dealing with cybersecurity.
- Collaboration and partnership between different organizations is key to combat cyberattacks.

“A Smart City never goes offline, so neither do the threats.”

Arthur Keleti

Digital Transformation

Artificial Intelligence: Challenges and Opportunities



Participants

Soledad Guilera / Executive Director - Center for Evidence Based Policy at University Torcuato Di Tella Buenos Aires - Argentina

Maite López Sánchez / Professor - University of Barcelona - Spain

David Puentes / Artificial Intelligence and Business Development Director - Government of Catalonia Barcelona - Spain

David Gregory / Business Development Manager - Milestone Systems - London - UK

Dimosthenis Karatzas / Associate Director - Computer Vision Center - Cerdanyola - Spain

Derras Mustapha / Director of Research and Innovation - Berger-Levrault - Toulouse - France

Deborah Colville / City Innovation Manager - Belfast City Council - UK

Younus Al Nasser / Assistant General Director - Smart Dubai - UAE

Linqiang Wu / Vice President and CTO - Citydo Group - Huzhou - China

Today, the advancement of Artificial Intelligence seems unstoppable. For some, the concept is associated to job loss, income inequality, biased data and surveillance and control but it's also helping officials improve traffic, emergency services or prevent crime. But how can cities make the most of it while mitigating all the risks?

Takeaways:

- AI should not be a black box. We need to set ethical guidelines for its implementation.
- The active participation of informed citizens is needed to understand the implications of living in an AI enabled city.
- We also need a common skills path to prepare for the requirements of the AI enabled industry.

- There are many opportunities to use AI for safety in cities: traffic monitoring, public safety, criminal antiterror, incident response... For operational efficiency, we need to build an open platform to connect all devices and data together.
- We have to ensure a balance between effectiveness/efficiency and privacy in the use of biometrics.

“There are many ethical implications of AI we need to consider and then regulate its applications accordingly.”

Maite López

Digital Transformation

5G Cities: The Enabler of the Future



Participants

Nicol Turner Lee / Fellow - Governance Program's Center for Technology Innovation Brookings Institution
Alexandria - US

Ricardo Poeta / Business and Innovation Manager - Ubiwhere - Aveiro - Portugal

Paul McAuliffe / Lord Mayor - Dublin - Ireland

Cynthia Curry / Director Smart Cities Ecosystem Expansion - Metro Atlanta Chamber - US

Eldar Fayzullin / Head of Smart City Lab - Moscow Government - Russia

José Antonio Aranda / Innovation and Product Strategy Director - Cellnex - Madrid - Spain

Nicola Farronato / Advisor Deputy Mayor of Turin for Innovation and Smart City - Turin - Italy

It isn't just a buzzword anymore. What we have the potential to witness with the evolution of 5G will be this actual specificity where we will see enterprise-based applications and services right across those networks. We are at a stage right now where the capacity we have to actually bring what consumers now demand when it comes to technological resources needs an improved infrastructure. So, what can cities do to leverage the power of the new network platform and take digital transformation to new heights?

Takeaways:

- Connectivity of city components through 5G allows us to automate functions to focus on what really matters.
- Cities need to be open to allow testing of new products relying on 5G, as it will attract businesses, jobs and capital.

- There are still a lot of concerns on the deployment of 5G and that's a conversation cities need to have with their citizens.
- The evolution of 5G is going to be an organic process: Cities need to pay attention to the technical work, the consumer education aspect and the impact of this technology on the city infrastructure.
- There's a global coherence around 5G technology. The bottom line is: the train has left the station but the question is how we are going to harness it for the public good.

“By automating functions through 5G, cities can really focus on what matters. And what matters is policymaking to improve citizens' quality of life.”

Ricardo Poeta

Digital Transformation

Internet of Things: Connectivity for Data-Driven Cities



Participants

Vivian Zhang / Director, Chief Editor - 36 kr Global Research and Analysis, Kr8 - Beijing - China

Lou Celi / Founder and CEO - ESI ThoughtLab - Philadelphia - US

Brenna M. Berman / CEO and Executive Director - City Tech Collaborative - Chicago - US

Rosa Paradell / Innovation Business Development Director - I2Cat Foundation - Barcelona - Spain

Yong Lu / Vice President - Shanghai Lianshu IoT Co., Ltd - Shanghai - China

TJ Costello / Global Director - Communities and Transportation - Cisco - Boston - US

Elisa Rönka / Business Development Innovation Manager - Siemens - Zürich - Switzerland

Eduard Martín Lineros / CIO and 5G Program Director - Mobile World Capital - Barcelona - Spain

Val Jelinic / Head of Ecosystem and IoT Solutions - Zenner Connect - Zürich - Switzerland

Cities around the world are turning to the Internet of Things (IoT) not only to enhance basic services, such as water and energy supply, but to improve traffic congestion, air pollution and public safety, while reducing costs. Yet connectivity between devices, security and the management of all the amount of data produced are still challenges ahead. How can cities unlock the full potential of IoT to truly improve the life of their citizens?

Takeaways:

- Smart city platforms enable to better manage cities. Sensors coupled with data can help reach a “zero emergencies” level where any circumstance can be anticipated.
- People spent 90% of their time inside buildings. Smart buildings provide up to 26% increase in employee productivity, up to 20-30% improved space utilization and represent about €1.7 million

savings per year on utilization, maintenance and lost/stolen equipment.

- 5G can help improve IoT capabilities and services like smart lighting, autonomous vehicle networks, and peer to peer communications.
- Gaining support is challenging but essential: the recent backlash to facial recognition in San Francisco and 5G towers in Brussels vividly demonstrates the problem with failing to gain citizen and stakeholder support.
- More innovation also means more cyber risk. Cybersecurity should not be an afterthought for cities.

“We have to work together with governments to deliver better services because technology can't wait; citizens can't wait.”

TJ Costello

Digital Transformation

Digital out of Home: Digital Signage



Participants

Christian von den Brincken / Managing Director Ströer SE and Co. KGaA - Cologne - Germany
Roberto Antoniotti / CEO - Voilap - Limidi di Soliera - Italy
Florian Rotberg / Managing Director - Invidis Consulting - Munich - Germany
Gaby Kaminsky / Managing Director - Cityzone - Tel Aviv - Israel
Freya Amann / Urban Marketing Expert - Ströer Deutsche Städte Medien - Munich - Germany

Successful Smart City concepts require more than data, technology and infrastructure. This two-hour session presented technologies that enable to visualize what a smart city can do and particularly focused on strategies, best practice and business cases on how out of home, sensors, digital touchpoints and content can enable cities to generate, process and distribute information.

“The KPI you should have as a city is reducing stress.”

Christian von den Brincken

Takeaways:

- Digitization changes the whole game. Digital signage entails the use of technologies such as LCD, LED, projection and e-paper to display digital images, video, web pages, weather data, restaurant menus, or text. This new media can be used in public services as in mobility or security, or even as street furniture.
- Managing the digital life puts pressure on us. As a city, you will be successful when you succeed reducing stress. This is the KPI you should have as a city.
- Just installing a screen or having a digital home company doesn't make you smart.
- A space is digitally transformed when it becomes responsive.
- If you don't know your ecosystem, you won't be able to manage it. A customer centric communication portal is key for a smart space.

Digital Transformation

Data Virtualization: Big Data, Cloud and City Platforms



Participants

Cornelia Levy-Bencheton / Principal Board Member - CLB Strategic Consulting - New York - US
Bill Bayer / Vice President - NTT- Wayne - US
Edwin Diender / Chief Digital Transformation Officer and Vice President - Huawei - Shenzhen - China
Charbel Aoun / AI City - Nvidia - London - UK
Martin Skjold Grøntved / GNSS Project Manager - Danish Agency for Data Supply and Efficiency - Copenhagen - Denmark
Belinda Chen / Deputy Director - Institute for Information Industry - Taipei - Taiwan
Gary Brantley / CIO - Atlanta City Council - US
Meredith Hodgman / Co-founder and International Program Director - Women in Smart Cities Global - Sydney - Australia

Cities need data to solve urban problems, but there isn't a single path to capture this data and leverage it to enable better decisions. New platforms can help cities accommodate city-centric solutions to address a wide range of urban challenges. Yet how a city approaches platform adoption depends on many factors. How can local governments break silos and choose a unique system that streamlines workflows and supports collaboration and efficiency?

Takeaways:

- Using integration platforms cities can turn data into stories about consumer behavior and target insights to solve many of the existing problems.
- Data platforms can be seen as a structure with components that can be moved around, substituted and added.

- Future policy makers should make alternative legislations based on research results for the emerging technologies, as old frameworks will not work.
- Friendly locations where implementation is agile and easy should be used to help governments decide on what and how to implement at large scale.
- Data insights should be used justly and rightfully to benefit the entire society.

“Safe cities are the cornerstone of the Smart City foundation.”

Edwin Diender

Digital Transformation

4th Industrial Revolution: A New Era for Cities and Societies



Participants

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The Fourth Industrial Revolution goes beyond simple device connectivity towards an Internet of Everything which is changing the way we live. Cities can make the most of the advances of AI, robotics, IoT, machine learning, and other technologies, not only to increase urban economic productivity and wellbeing but also to reduce environmental footprint. Are citizens ready to take this bet? How can cities deal with the impact of this new revolution?

Takeaways:

- The Fourth Industrial Revolution (4IR) is an innovation revolution. Information, communication and data create some significant changes but also certain challenges.
- Innovation is linked to trial, to error and failure and the fastest and cheapest you are able to do this iteration, the more successful you will be in your innovation product.

- The longstanding historical patterns of discrimination and violence by gender, by race and so on and so forth are unfortunately being reproduced in automated decision-making systems that we are building and selling. So, we need to rethink and reevaluate that.
- Smart Cities should be focusing on citizens' needs and issues. In the end, it's all about using data in a smarter way. Speed, agility, efficiency, scalability are the most important dimensions of innovation.
- Smart Digital Twins help track KPIs and understand the state-of-the-art in smart cities. Satellite communications and 5G bring enhanced capacities to move forward.

“We need people to come up with ideas on how to use data.”

Juanita Rodríguez

Urban Environment

Digital Twins and Urban Planning: Bridging the Digital and Physical



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Digital Twins, which provide a virtual replica of a product, a service or even a process, are becoming rapidly indispensable to know the pulse of a city in real time. Artificial Intelligence, advanced analytics and the Internet of Things (IoT) have added a new dimension to this modeling concept. However, implementing digital twin technology requires a strong digital culture. How can cities introduce this technology to become smarter?

“Technologists don't need to supply technology; they need to collaborate in integrating development.”

Gabrielle Van Zoeren

Takeaways:

- A smart city needs a digital replica first whereby the future decisions can be simulated effectively thus making the real city secure and intelligent.

- Twinning is classified into three categories, the US style where data is privatized, Chinese style where data is state protected and the EU model where data creates citizen opportunity. Data that is created with citizens can then be used in other technology functions like simulations, monitoring infrastructure and managing material metabolisms in the city. This allows innovative models like crowdfunding to be integrated in infrastructure developments.
- Citizens often fail to ask questions of the ultimate ownership, costs and vulnerability of infrastructure in age of climate change. There is a lack of information on value chain and long-term monitoring.
- From using surveys for housing quality to open source mapping of public transit data, participation allows co-production of data, value and ultimately the city.
- Public participation is often inaccessible to a large section of the population like children and women. Using technology in creative and fun ways overcomes this barrier.

Urban Environment

Green Cities: Safe, Sustainable and Inclusive Public Spaces

Urban Environment

Smart Buildings



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Cities live in an environmental paradox. On one hand, rapid urbanization and increasing pollution are taking their toll on the quality of life of their inhabitants and the global environment. On the other hand, they are centers of economic growth and creative thinking on how to be more connected and aware of the importance of sustainable development. How can they solve this paradox and implement innovative ideas to get greener?

“We need to work with nature’s own solutions.”

Cheryl Jones Fur

Takeaways:

- One of the biggest challenges in cities is to find a way towards sustainable growth while at the same time preserving natural systems and resources for future generations.
- Using data in ways that holds the whole community together can help advance greening in cities.
- Good governance is key to greening a city.
- Algorithm solutions can help map certain social groups and include them in projects.
- Public Private Partnerships are essential to achieve green advancements.

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Smart buildings offer a scalable foundation for creating the smart city as they address the same needs as city infrastructure, i.e. energy, water, trash, lighting, ventilation, connectivity, parking, security and emergency services. This two-hour session dug into the ecosystem of smart cities to explain how smart building technology can push cities closer to their goal of being better places to live in.

“We can’t have rigid spaces anymore. Understanding how buildings can be flexible enough to allow things to happen is key for the Smart City development.”

Ken Dooley

Takeaways:

- CO₂ emissions coming from buildings have become much more prominent. It’s crucial to optimize energy consumption and production inside of buildings.
- AI technologies can also be harnessed to preserve the maximum energy that the buildings are consuming. This is called peak shaving.
- Electric load management will be a prerequisite for future buildings.
- Culture is the first thing you need to deal with when you want to implement something different in the public sector. Technology is the easy part.
- Smart city includes smart buildings, smart ICT, smart grid but also smart users, who are key in the development of smart infrastructures.

Urban Environment

Energy Transition: Redefining the Energy Mix and Distribution Systems



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Cities require more and more energy to run their activities, which has alarming environmental consequences. Reducing energy related emissions is fundamental to curb the rise of global temperatures. Yet it turns out that swapping fossil fuels for renewables is not so simple. How can renewable solutions get funded and be economically sustainable? What policies local governments need to implement to improve energy performance and lower emissions?

Takeaways:

- The current energy system is very rigid. With new renewable energy sources integrated into the grid, cities need the system operators to be more flexible and new economic models to incentivize smaller generators.

- Consumers don't only respond to prices but to socio-economic factors like climate change.
- Peer-to-peer energy trading is going to add more flexibility to the systems operators.
- User engagement is key but it's not easy to get feedback from the citizens, as they need to be involved in the process from the beginning.
- Communication and trust are crucial to make intercorrelations for both energy efficiency and CO₂ reduction solutions by the use of data collected from buildings, low voltage grid and other resources.

“ We need to think about the consumer as a social actor, not just a market player.”

Yostina Boules

Urban Environment

Smart Infrastructures: The Disruptive Impact of Smart Materials and Infrastructures



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Smart cities need smart foundations. All the more as we enter a period of unmitigated climate disruption. Yet local governments are still loath to risk experimenting with infrastructure assets despite there's a myriad of innovations encouraging disruption in the field. How can we create enabling environments toward the next generation infrastructure integrating green and gray and filling the need for climate-resilient solutions?

Takeaways:

- To cut emissions, it's key to electrify everything and then decarbonize the electricity supply.
- Digital Twins technology and Blockchain are to be useful in ports but it takes time to implement them.
- Resilience is a priority but solutions should be tailored for each city.

- There is a risk of designing well performing buildings that may meet and even exceed environmental targets but no one wishes to work or live in. A holistic approach becomes necessary to weight up the many and complex issues to find the right balance in any project.
- A human-centered sustainability is necessary when talking about placemaking.

“ Using local materials and local craft skills can help reduce the carbon footprint of material transportation but also reinforce the material qualities that create a sense of place.”

Phillip Hall-Patch

Urban Environment

Urban Food and Agriculture: Bringing Nature Back to the City



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The potential of fostering food and agriculture within urban areas is transversal and far-reaching. It brings an opportunity to strengthen urban-rural linkages, advancing not only towards smart cities but also smart regions. As 80% of all the food that is produced is already consumed in cities, and considering the current unprecedented levels of urban population growth, how can agriculture in cities ensure lower emissions and higher food security?

“The best way to predict the future is to create it.”

Marie-Angélique Schott

Takeaways:

- About 80% of food that is produced globally goes to cities, but it travels long distances before reaching urban inhabitants. This, together with fuel use, greenhouse gas emissions and excess of fertilizers makes the current food system highly unsustainable.
- Urban agriculture is not only a solution in terms of reducing the carbon footprint, but it also provides social cohesion and generally improves health.
- Bringing nature back to the city and to its inhabitants, and promoting green spaces mimicking nature makes cities more resilient to tackle catastrophic events.
- Urban agriculture projects, such as greenhouses in roofs, are highly flexible since they enable to deploy a high diversity in objectives and business models. Urban agriculture can be a tool that can bring back mental health to communities.
- Yet traditional and urban agriculture are not competing against each other. Urban agriculture and the new model of eating well that comes with it is a complement to what is produced in rural areas.

Urban Environment

Future-Proof Cities: Building Resilience and Acting on Climate Change

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From the comfort of our home it may be difficult to realize how climate change is already affecting our lives. But it has observable effects on our environment. Many cities are coping with its negative impacts and developing climate-resilient infrastructure and green spaces. But this is no mean feat. How can city governments partner up with the private sector and bring everyone to the table to improve their climate adaptation strategies?

Takeaways:

- Climate change is one of the most important challenges that we are facing today. In order to tackle it, resilience, say the ability to resist disruptions, must be built and brought within city strategies.
- Governments should address the systemic barriers to green infrastructure and services. Citizens cannot be asked to be greener when barriers to resilience tools.

- Building resilience against climate change can also tackle inequalities, since the most affected areas are usually the most deprived ones, thus becoming a target for action.
- Scientific evidence and data are key in the design of resilience strategies. Collecting as much data as possible helps understand what is actually happening and where it is more urgent to deploy measures to make the city more resilient.
- Solving climate change problems and building city resilience must necessarily involve a change in citizens' behavior. This implies combining both bottom-up and top-down approaches.

“All the divisions across the city need to understand they play a role in resilience and climate change.”

Genesis D. Gavino

Mobility

Shared Mobility: Getting Ready for the MaaS Era



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The emergence of new mobility services such as carsharing, ride-hailing or ridesharing have changed how citizens make transportation choices. Some say these services help people give up their cars and choose more sustainable options. Others consider that they contribute to congestion and pollution in cities. What do policymakers need to develop plans that help cities maximize the benefits of shared mobility, while reducing the potential downsides?

“ Smart mobility is a means, not a goal. ”

Monique List-de-Loos

Takeaways:

- On-demand and shared transport systems like shared bikes or scooters have expanded the last years. The existing challenge is how to integrate

these new means of transport with existing public transport so that it adds value and citizens can find it more useful.

- Private companies should be involved in developing more sustainable mobility policies.
- Car-sharing companies may reduce the number of cars on city streets while making private transport more accessible for those who need it occasionally. Besides, car owners earn money and governments get more revenue from taxes associated to this activity.
- New mobility policies need citizen's trust. Personalized packs that suit best the mobility needs of citizens can be created.
- Public transport can also be used for alternative purposes, like advertising jobs on bus screens when the bus is approaching the premises of a company that requires workforce, helping solve the issue of employment.

Mobility

Mobility of Tomorrow: Connected, Autonomous, Disruptive



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Over the past few years, the transport sector has been catching up with disruptive forces such as autonomy, connectivity, electrification, and shared mobility. The potential benefits they can bring are related to reduction in accidents, in transport costs or in time taken for deliveries. However, there are still challenging issues in terms of traffic infrastructure and product affordability. How can cities leverage new mobility solutions so that they benefit everyone?

Takeaways:

- We are advancing towards a more autonomous vehicle but we are still not ready for the coexistence of both systems. Transition will be extremely hard to manage, but cities need to capitalize on the possibilities opened by the disruption.

- There are five key benefits of autonomous vehicles: better use of city space, less traffic jams, less accidents and fatalities, more valuable time, and individual mobility for all.
- Over the long run, autonomous mobility will enable a new shared mobility in cities because 50-80% of the cost of a taxi or a bus is the driver. Sharing is the key to advance autonomous mobility.
- Autonomous vehicles will be part of an open mobility ecosystem composed of autonomous vehicles plug into other shared mobility services, public and private, for the benefit of an inclusive mobility in society.
- Cities still need to address the regulatory and local infrastructure issue. In this respect, public-private collaboration is needed.

“ Mobility is the big driver for the new urban revolution. ”

Maíta Fernández-Armesto

Mobility

Intelligent Transport Systems: Towards Less Congested and Safer Cities



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Digital technologies are transforming vehicles and, by extension, the city transport infrastructure. Traffic lights, car parks or tollbooths are gradually able to communicate with each other and with the vehicles that use them. These Intelligent Transport Systems improve road safety and traffic management. Yet they also pose many challenges. Why do cities need to develop a secure smart infrastructure that powers efficient transportation systems?

“The big challenge is to bring AI and humans together.”

Nadun Muthukumarana

Takeaways:

- Combining data, Artificial Intelligence (AI) and simulations can help better plan citizens' 24/7 mobility needs.
- Collaborative transit apps need to be adapted to every city requirements.
- AI solutions can act as agents for city authorities by providing information on issues to be addressed in city streets.
- The reliability of the mobility environment can be a sell opportunity for the city.
- The management of all the mobility functionalities can be made available as a service, so that opportunities arise.

Mobility

Sustainable Mobility: Active and Micro-Mobility to Achieve Low-Carbon Cities



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It's a fact: traditional models to move people from homes to jobs or vice versa, and around the city, are becoming increasingly unsustainable. Transportation currently causes 23% of energy-related CO₂ emissions, and is projected to grow to 80% by 2050. New micro-mobility services have sprung to tackle this situation. Is this good or bad news for sustainable transport? How can cities properly regulate these services to respond to citizens' needs?

Takeaways:

- The traditional ways in what we're moving people and goods in cities are not working anymore. They're really getting completely against what we should be doing in terms of climate action and social cohesion.
- Cities should reduce motorized trips, improve vehicles technology, develop a road safety

strategy prioritizing intersections and promote an active mobility which favors zero emission vehicles, bicycles and walking.

- Combining micromobility with public transport can be a winning formula.
- Cities need the right fiscal and regulatory frameworks to maximize what a transition to zero emission vehicles could mean. All the stakeholders should be included in the process.
- Business as usual is no longer an option. The systemic nature of the change requires numerous complementary investments.

“The best transportation plan is a land use plan.”

Dale Bracewell

Mobility

Seamless Transport: Commuting Easily While Paying Smarter



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This might be the most radical departure from today's reality. Seamless transportation primarily refers to a door-to-door and on-demand service where travelers have many clean, cheap and flexible ways to get around through a combination of self-driving, shared vehicles and public transport. This is a new area of opportunity. Yet, achieving seamless intermodal mobility is not plain sailing. How can cities manage the transition to this system?

Takeaways:

- Commuting remains the backbone of urban and also suburban transport. Making it efficient and sustainable means acknowledging the importance of the daily movements into and out of city cores and going to the root of the problem: why do people use their cars?
- Cities cannot replace stream of big vehicles by streams of small vehicles. The worst thing we could do is further atomize transportation movements.

- Being multimodal means being connected first. Mobile phones and apps can help improve the mobility system as they enable to integrate some services and include a system of rewards to make sure people are using it.
- Mobility as a Service (MaaS) requires an open system which needs to be more convenient than the car for the customer. That is the reason why it is key to develop first and last mile solutions. Creating new transportation means should be part of the solution to unemployment.
- Collaboration between the public and private sector to co-create and share data is essential for innovations to happen and to be adopted.

“The overabundance of cars in city centers is a consequence of infrastructural and supply deficits in the periphery: that is what we need to focus on.”

Arnd Bätzner

Mobility

Public Transport: Planning Cities Around Mass Transit Networks



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Public transport is undeniably a sustainable way of moving around the city as it increases travel time reliability while reducing traffic congestion, thus air pollution. However, the emergence of ride hailing, ride sharing and on-demand services, as well as micro-mobility options, forces local governments to adapt. How to take advantage of the opportunities brought by these innovations while steering a truly sustainable urban transport?

Takeaways:

- Cities need to make use of all the data collected to know what the user really wants and strengthen public private partnerships to improve multimodal transport contributing to create an innovative city.
- Listening to the citizens and adapting to the cultural heritage of the city is key to plan a long-term transport solution.

- Autonomous vehicles might be a solution to provide a door-to-door service which overcomes the difficulty associated with the last mile transportation services.
- Geospatial tools are key to develop any city's mobility planning, but they need to be open source so that developers can create tailored solutions.
- Cities need eco-friendly solutions as mobility is just the tip of the iceberg. The real problem is the climate emergency.

“Cars have no relevance anymore.”

Silvia Casorrán

Governance & Finance

Smart Territories: Smart City Strategies and Smart Nations



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Smart cities have been proved to innovatively improve their citizens' lives through sustainable, accessible and technologically advanced solutions. However, they have the untapped potential to include non-urban regions in their strategic projects. Smart regions can serve as clusters of collaborating cities to effectively transform the territory, consequently creating a stronger relation between a region and its citizens.

Takeaways:

- People should be the center of cities' goals. We should think beyond smart cities.
- Data is the most valuable resource of the system. It should ensure inclusion and cybersecurity to

build a powerful digital infrastructure and digital economy.

- Small cities are well positioned to become smart cities as it is easier to move a speedboat than a supertanker.
- Urban Openness is key to develop smart territories. That means creating an Open Innovation environment by empowering citizens with Open Data and ICT technologies.
- The public private collaboration needs better strategies to finally implement pilot projects.

“Small is the new big.”

Kristina Háfoss

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Metropolitan Governance: Connecting Urban Cores with their Peripheries



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There is no one-fits-for-all formula. The models of metropolitan governance vary according to different factors as each city has its peculiarities due to historic and political reasons. However, tackling metropolitan challenges in line with Agenda 2030 and the Sustainable Development Goals (SDGs) calls for a shared vision among all the stakeholders involved. How to strengthen urban governance to significantly empower cities and solve citizens' problems?

Takeaways:

- Metropolitan governments are a way of getting over the difficulties that municipalities face, but they need a strong political leadership to become smarter.
- There is an urgent need to create alliances between cities to face new challenges and enhance capabilities of municipalities.

“Smart Cities are the new social justice.”

Eugene Grant

- Citizen participation on planning using Artificial Intelligence (AI), the Internet of Things (IoT) and advanced data analytics as well as a collaborative ecosystem between public and private sectors is necessary to achieve smart city goals.
- Small cities can faster adapt to changes and apply innovations so that they become more transparent and functional.
- In the end, it's all about connectivity, data and shared services.

Governance & Finance

Co-Cities: The Strength of Collective Intelligence



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Innovative solutions and services benefit cities, but they also should make sense in people's everyday lives. Co-creation methods give citizens, city officials, academics and the private sector an equal say in the design process of urban solutions. This collaborative approach plays a key role in smart cities as it taps into what works well for people and the environment. How can municipalities leverage collective knowledge to make cities better?

Takeaways:

- Co-building a city implies bringing citizens into the mix, not only in the decision-making process but also in the implementation of strategies. Yet, it's an open-ended method so it requires a change of mindset since there is no planning ahead.
- There are always common points from which to define the common goods that should be the ground for participatory and inclusive

approaches. Working with people to shape the city implies translating the concepts of smart cities and technologies to the problems that people understand, for example, energy bills.

- Going to the field and sensing, mapping by finding as much data as possible, then designing the strategy and co-creating a solution in workshops is a way to advance smart cities.
- One of the hurdles to overcome is data integration and service collaboration between the different governance sections.
- Citizens should be informed about data use in order to promote trust and engagement. Community trust is essential in co-creation.

“Technology will not solve all of our problems. We need to go back to the power of conversation.”

Mara Balestrini

Governance & Finance

Data-Strategies: Principles, Standards, Digital Rights and Data Ethics



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Ulrich Ahle / CEO - Fiware Foundation - Berlin - Germany

Onyeka Onyekwelu / Lead Engagement Officer - London Office of Technology and Innovation - UK

Theo Blackwell / Chief Digital Officer - London City Council - UK

Marta Galcerán / Congress Coordinator - Smart City Expo World Congress - Barcelona - Spain

María Inés Leal / Innovation Project Manager - Lyon Métropole - France

Nicolas Pernoud / Software Architect - Lyon Métropole - France

François Croteau / Responsible for the Smart and Digital City, IT, Innovation and Organizational Performance Montréal City Council - Canada

Kimberly LaGrue / CIO - New Orleans City Council - US

Todd Asher / Media & Technology - Bloomberg - New York - US

In the last few years, cities have upskilled their data capabilities and data governance has become mainstream discussion. Although individuals have expanded rights over their data, under the European GDPR and Data Protection Act (DPA), there are still strong concerns about the governance of smart city data and the protection of citizens' digital rights. What should cities do develop a successful and responsible management of data and technological sovereignty guaranteeing citizens' digital rights?

Takeaways:

- Improving management strategies while ensuring the security and privacy of citizens' data is a big challenge. In this regard, the human-centered approach, the communication with the citizen and the collective encountering of solutions are essential.
- The interoperability of different systems in order to be able to share and compare the data with other cities/entities or, possibly, third party actors is of great relevance.

- Many citizens are still skeptical, so it's important to explain why data is being shared, keep on discussing solutions and promoting trust.
- The data standards for Civic Tech promote the scoring of privacy and relevancy of data, engaging with the developer community, working with local agencies and using open standards to publish municipal data. The Cities Coalition for Digital Rights also favor the universal access to the internet, privacy and data protection, transparency, accountability, a participatory democracy and having open and ethical standards.
- We really don't know which are the best policies yet.

“You have to be intentional and very careful about who you're sharing your data with.”

Kimberly LaGrue

Governance & Finance

Government Innovation: Agile, Decentralized, Blockchain-powered



Participants

Tess O'Brien / Manager, Media and Digital Strategies - Bloomberg - New York - US
Carlos Moreno / Special Envoy for Smart Cities of Paris Mayor - INTI Live in a City Living - Paris - France
Giani Minetti / CEO - Paradox Engineering - Novazzano - Switzerland
Bruno Opazo Ruiz / Director - CORFO - Santiago de Chile - Chile
Giorgio Prister / President - Major Cities Europe - Rome - Italy
Leonie van den Beuken / Program Director - Amsterdam Smart City - The Netherlands
Fernando Nogueira / Head of Mobilab+ - Sao Paulo Open Innovation Lab - Brazil
Kari Aina Eik / Secretary General - OiER/United for Smart Sustainable Cities - Vienna - Austria
Michael Donaldson / Commissioner for Digital Innovation - Barcelona City Council - Spain

Many governmental systems are still based on hierarchical bureaucratic solutions that no longer reflect the digital world we live in. Now, a new vision for government is needed to deal with emerging uncertainties and pressures. Blockchain technologies can help cities move towards a more agile organization to improve public services and create new businesses. What models have become lighthouses in citizen engagement in governance? How can cities better plan for an innovative governance?

“We do not need tech solutions looking for problems.”

Fernando Nogueira

Takeaways:

- Smart Cities need a new paradigm in urbanism of proximity. Concepts like 'City of 15 minutes and Territory of 30 minutes' promote proximity-driven urban development.

- The radical solution to promote sustainable mobility is to favor immobility.
- Collecting measurable parameters can help create value with the help of open and interoperable platforms. Regarding security, such platforms should allow the community of users to maintain the quality of the infrastructure by using Blockchain and distributing ownership. Yet people still need to be aware of the opportunity the Blockchain technology presents.
- There is still a gap between the vision that tech companies have for cities and the inequality and living concerns experienced by citizens. Moreover, there are concerns about privacy. Understanding what data is used for is essential.
- Organizations like the United Nations can be leveraged in sharing the knowledge and expertise among different cities of the world thereby creating a world geared effectively towards accomplishing the Sustainable Development Goals.

Governance & Finance

Financing Strategies: Investing in Inclusive Economic Development



Participants

Roland Kleverlaan / Managing Director - Crowdfunding Hub - Amsterdam - The Netherlands
Aniyia Williams / Co-Founder - Zebras Unit - San Francisco - US
Ramon Gras Alomà / Aretian Urban Analytics and Design - Cambridge - US
Jeremy Burke / Co-Founder - Aretian Urban Analytics and Design - Cambridge - US
Erji Gao / Vice President, Executive President - Caixin Media, Caixin Insight - Beijing - China
Ann Fournier / Chief Innovative Procurement Squad - Digipolis - Antwerpen - Belgium
Ángela Pérez / Head of Structured Finance - Elecnor - Madrid - Spain
Michael Flynn / Government and Public Services Financial Advisory Leader - Deloitte - Dublin - Ireland
Francisco Gonçalves / Project Manager - Energy Cities - Brussels - Belgium

More and more cities across the world are exploring ways to upgrade infrastructure with smart technologies. Yet paying for these projects presents a significant challenge. Accordingly, governments need to seek creative funding solutions such as forming partnerships, procuring products and services, or even crowdfunding schemes. What are the advantages of each option? How can local authorities choose the most fitting strategies?

“Smart cities should be heavily empowered by financial markets.”

Erji Gao

Takeaways:

- Successful innovation districts demonstrate distinct characteristics of a network of talent, organization and urban infrastructure. Building models that link the variables of urban development to investment decisions can help decreasing risks for investors.

- Long-term investment in technology often becomes risky as it changes faster than the infrastructure that it supports. Thus, investments in smart cities should be based on creating value. Alliances of investors can help fund risky startups, helping governments with innovative solutions.
- Wider integration of funding streams needs to be made available to the developing world contexts. In high risk investment areas, municipalities are constrained by not having 'bankable' assets and other socio-political difficulties. At the same time, private enterprises in this context lack experience and are often badly structured projects. Such projects need to be funded by various mechanisms that identify real needs and focus on adequate but strong cash returns.
- Cities need to be smart to connect different types of financing sources: There are innovative modes of procurement coupled with adequate policies that create a community of young startups which are able to bring new solutions quickly and then scale them appropriately.
- Another perspective to be considered: How do the smart cities can power finances?

Inclusive & Sharing Cities

Bridging the gap: Ensuring Digital, Social and Gender Inclusion



Participants

Catherine D'Ignazio / Assistant Professor - Massachusetts Institute of Technology - Cambridge - US
Federico Batista Poitier / Director for Partnerships and External Affairs - World Enabled - Berkley - US
James Thurston / Vice President for Global Strategy and Development - G3ict - Washington US
Eunice Rendon / Director - Agenda Migrante Legal/VIRAL - México City - México
Jesús Hernández / Director of Accessibility - Fundación ONCE - Madrid - Spain
Suparno Barnejee / Vice President - Nokia - Washington - US
Shalini Rajneesh / Principal Secretary - Government of Karnataka - Bangalore - India
Inés Sánchez de Madariaga / Chair on Gender Equality, Policies in Science, Technology, and Innovation - UNESCO - UPM - Madrid - Spain

In today's cities, social inclusion is not only the right thing to do but also the smart framework to foster. More inclusive societies are more likely to attract talent and tourists, while making the most of their human capital. Yet creating more inclusive cities comes with increasing challenges as the digital, gender and social gaps need to be addressed holistically. What are the best strategies to ensure future cities are inclusive cities?

“Innovation is people.”

Federico Batista

Takeaways:

- Technology can be a real enabler of rights of people, but we have to make sure that the benefits accrue to all communities around the world.

- 25% of the global population have disabilities but only 4% of digital development is thought for people with disabilities. Technology should be a mechanism and not a solution to inclusion in cities.
- A feminist perspective starts with the idea that gender and race inequality are real. To achieve women inclusion in smart cities, we need gender-engaged approaches as well as data literacy and digital participation.
- Digital accessibility has co-benefits for all, as it helps countries better understand their global development agendas and human rights obligations, serving as a tool for civil society to foster equal opportunities.
- Sharing best practices internationally will ensure that inclusive projects are better designed.

Inclusive & Sharing Cities

Smart Cities in Spain: Local Initiatives and National Plans



Participants

Francisco Javier García Vieira / Director of Public Digital Services - Red.es - Government of Spain
Mario Marcelo Regidor / Councillor - Public Administration, Human Resources, Technological Innovation and Sports - Government of Las Palmas de Gran Canaria - Spain
José Ballesta Germán / Mayor - Murcia - Spain
José Morales / Manager - EPRINSA - Córdoba - Spain
Gema Igual Ortiz / Mayor - Santander City Council - Spain
Antonio Alcolea / Deputy General Director of Information Society Development - Government of Spain
Javier Torres / Deputy Vice President and Executive Director - Department of Innovation, Transparency, Participation and Transports - Government of Ibiza - Spain
Mentxu Balaguer / Deputy of Modernization - Government of Valencia - Spain
Albert Marín Acevedo / Responsible for ICT and Smart City Strategy - Terrassa City Council - Spain
David Cierco Jiménez de Parga / Director General - Red.es - Spain

The Spanish Smart Cities National Plan is promoting projects tapping into the use of technologies such as IoT, Big data or AI for the improvement of public services and attention to citizens' needs. Moreover, various calls were launched to develop more sustainable tourism and smart building in the territory's cities. How can these initiatives be escalated on a regional level? How can national strategies promote the development of better governance considering each city's needs?

“Cities have the potential to foster change, even on a global scale.”

Mario Marcelo Regidor

Takeaways:

- No matter the size, Spanish cities are improving their public services in complex and transformative ways.
- Data transparency is key to develop smart city and eco-friendly plans to cope with climate change.
- Open data and information are essential to improve strategies related to tourism.
- There are still financial capacity gaps among cities. A strategic collaboration between cities and institutions is needed to develop effective smart city models.
- Change is in our hands.

Inclusive & Sharing Cities

Sharing Cities: Platform Labor in Urban Cities



Participants

Melissa Renau / Researcher - Dimmons - IN3 - Castelldefels - Spain

Ricard Espelt / Researcher - Dimmons - IN3 - Castelldefels - Spain

Álvaro Porro / Commissioner for Social Economy, Local Development and Consumption - Barcelona City Council - Spain

Mayo Fuster / Researcher - IN3 - Castelldefels - Spain

Katalin Gennburg / Elected Member - Berlin House of Representatives - Germany

Matteo Lepore / Deputy Mayor for Culture, City Promotion and Civic Imagination - Bologna City Council - Italy

Departing from the Common Declaration of Principles and Commitments for the Sharing Cities (Barcelona, 2018) agreed by around 50 cities, this panel analyzed the impact of platform labor in urban spaces. It also highlighted the importance of an alliance among cities and the work carried on by the Sharing Cities Action Taskforce.

“Cities need to stand up if they want to protect their sovereignty.”

Álvaro Porro

Takeaways:

- Cities are in constant change. The rate of unemployment has decreased but poor workers rate has increased.

- Platforms such as Uber, Airbnb, Deliveroo, etc. are involved in a new way to organize the system. Creating new tools for cities to deal with their impact is essential.
- Regulating the situation is more and more necessary as it gets confusing for citizens. Cities need to stand together to have more power of negotiation.
- The best resistance is using the power of data to create city platforms including jobs proposals, quality of labor, insurances, etc. that maintain the labor dignity.
- The Declaration of Sharing Cities signed at the Sharing Cities Summit 2018 in Barcelona is a step forward for a shift in the sharing economy aligned with the Sustainable Development Goals (SDGs). But cities need to keep on promoting the idea of sharing cities, sharing ideologies and common goals too.

Inclusive & Sharing Cities

Circular Economy: Moving from Linear to Circular Cities



Participants

Emanuele Bompan / Editor-in-chief - Renewable Matter - Bologna - Italy

Maayke Damen / CEO Excess Materials Exchange - Amsterdam - The Netherlands

Miguel Angel González San Román / Digital Solutions Director - Minsait - Madrid - Spain

Zuzana Prochazkova / International relations - Repairably - Bratislava - Slovakia

Tamara Streefland / Cities Team Lead - Metabolic Amsterdam - Netherlands

Fernando Sogo / Head of the Nordic Region - Urbaser - Madrid - Spain

Nancy Thomas / Director IMS - Luxembourg

In a finite-resources world, circular economy offers an alternative to our take-make-dispose society by closing resource cycles and retaining value as much as possible, for as long as possible. Cities represent a key enabling environment for this transition, but efforts remain to be made to embed circular economy principles in urban infrastructure and services. How can city governments most effectively facilitate the circular transition?

Takeaways:

- Cities are a perfect place to embed the circular economy vision because of their scale and the fact that all challenges addressed by circular economy can be found at city level. But each city needs to define what being circular is by working with the local community.
- Circular economy is not just about waste, it's about innovation: in economy, in commerce, in the way we enable space to repair and reuse.
- A common challenge in Circular Economy is the fact that the legal classification of “waste” makes

reutilization difficult. People engaged in circular economy would like to change the law so that materials can be classified into “continued use”.

- A market for materials exchange has been created by tagging and identifying materials in products, then using Blockchain to store the data, and Artificial Intelligence to match buyers and sellers, thus optimizing financial and environmental aspects.
- Optimizing the efficiency and sustainability of the waste management systems in cities is of crucial importance. “Waste-to-energy” plans do not always work, even if they are a good first step in places where nothing can be done with waste.

“We should remove ‘waste’ from our vocabulary with the help of technology and strategies.”

Zuzana Prochazkova

Inclusive & Sharing Cities

Future of Work and Education: Skills for a Digital and Automated World



Participants

Sandra Baer / President - Personal Cities - Washington - US

Victor Mulas / Disruptive Technology for Development (DT4D) Program Lead - World Bank - Arlington - US

Lina Gálvez Muñoz / Member European Parliament - Brussels - Belgium

Tomás Díez / Director and Co-founder Fab Lab Barcelona - Barcelona - Spain

Taisuke Matsuzaki / ICT Collaboration KOBE CITY - Japan

Cristina Mateo / Associate Dean - IE School of Architecture and Design - Madrid - Spain

Flor Daniela García Hernández / Head of recruitment - FCC - Madrid - Spain

The world of work is going through a period of unprecedented change at the hands of machines. Automation and Artificial Intelligence (AI) are redefining the workforce development and the education ecosystem needs to catch up so that workers are able to develop new jobs and cope with new models, involving learning new skills throughout life. What is the role of cities in promoting a better education and an active inclusion of all citizens?

Takeaways:

- Cities need to address geographical and social challenges, rapid urbanization, climate change and technological breakthroughs.
- Education and access to job will be a critical barrier for social equality. Crucial skills for the future will be creative talent and digital skills. Therefore, it is necessary to provide education for everyone and offer new work opportunities.

- It's not the first time we have an industrial revolution. The difference is that now it runs at a faster pace. Cities need to invest in innovation, skills, education and policies on the transition.
- Public private partnerships are useful to foster programs involving schools, local authorities and companies to get unique outcomes and benefits for everyone.
- The workspace city is a concept describing a dynamic and enthusiastic space, but with contingent jobs; a space which is connected but at the same time suffers a lot of attention deficit; a city which is out and about, but where citizens are more isolated than ever before; a city which is diverse but not for everyone.

“Robots can take care of us, but they don't care about us.”

Lina Gálvez

Inclusive & Sharing Cities

Right to the City: Housing, Gentrification and Urban Justice



Participants

Eva García Chueca / Global Cities Program Scientific Coordinator - CIDOB - Barcelona - Spain

Ricard Gomà / Director Barcelona Institute of Regional and Metropolitan Studies - Barcelona - Spain

Diego Fernández / Secretary of Social and Urban Integration - Government of Buenos Aires - Argentina

Eckhart Hertzsch / CEO -Joanes Stiftung - Berlin - Germany

Damiano Avellino / Vice president - Fairbnb.coop - Bologna - Italy

Lucy Joffe / Assistant Commissioner for Housing Policy - New York City Council - US

Anees Arnold / Co-founder - {delft}LINK - Cape Town - South Africa

Katalin Gennburg / Elected Member - Berlin House of Representatives - Germany

Jonathan Wilson / Project Manager: Urban Data - South African Cities Network - Johannesburg - South Africa

Henri Lefevre's idea, Right to the City, has been interpreted in many ways. Geographer David Harvey defined it as “the right to change ourselves by changing the city”. The concept encompasses affordable housing, inclusivity, re-greening, tactical urbanism and much more. The implementation of the 2030 Agenda underpins its raison d'être. What should cities do to ensure that we have the freedom to remake our cities to create vibrant communities?

Takeaways:

- Cities are the result of three interrelated dimensions, according to Henri Lefevre's: the material dimension related to the access to material resources which are key to ensure good living conditions; the political dimension, which refers to the possibility of exercising the full content of citizenship; and finally the socio-cultural dimension, related to diversity and social mixture.
- The Right to the City has been an important political flag historically used by civil society organizations and social urban movement and claimed by some

local governments and city networks. It has been used to propose alternative models for cities that foster urban justice and equality.

- We're living in a dystopic present. To deal with it, you can “do your part, be fluid and speed up the tipping point.”
- We have all the technology to make cities efficient. The only thing that is missing is engaging the people in all this development.
- The Right to the City can only be a reality if the different urban stakeholders get together and get engaged, because the urban transformation that is proposed by the Right to the City is deep but also controverted, so it needs a coalition of different strategies.

“The Right to the City demands a change in the predominant values of society.”

Eva García

11/ SIDE EVENTS

An extensive program of theme specific Side Events drove attendees to the heart of key urban issues addressed by leading organizations from all around the globe. Here are just a few of the +90 Side Events featured in 2019:

City Challenge – Izmir, Turkey



As a fast-growing and dynamic city, Izmir is currently dealing with the digitalization of its public services, and the creation of an integrated data planning platform, which aims at making a significant leap forward in developing a digital strategy for the city.

To help Mayor Tunç Soyer and his team, thirty selected world-class experts shared their expertise and work together in an immersive, 4-hour session to stretch everyone's thinking and develop new possibilities for the city of Izmir. Co-organized with the World Bank Group, this workshop followed the success of last year's first edition with the city of Belgrade.



Other highlighted Side Events



Inaugural Convening of the G20 Global Smart Cities Alliance

A workshop with city leaders from the public and private sector to define and advance new global standards for the responsible and ethical use of smart city technologies.



Union for the Mediterranean
Union pour la Méditerranée
الإتحاد من أجل المتوسط

Promoting the Role of Women in the Circular Economy

Role, challenges and opportunities of businesswomen participation in the circular economy: what is the role of policy makers and women related networks in the circular economy? What are the lessons to be learned from successful business models?



Innovative tools to enhance SDG11 performance monitoring in cities

The event highlighted the innovative use of mobile apps in driving citizen engagement in several countries, generating valuable data in a fast and smart way.



The Role of Younger Generations in Future Proofing Cities

Action taken by city leaders today will directly impact future generations set to inherit urban environments. How do we ensure that cities remain inclusive & representative across generations and communities as they grow?



Migration in Cities: Can Technology Support Social and Economic Integration?

Technology is changing the dynamics of migration. Displaced peoples –currently over 70 million around the world– increasingly use digital platforms and social media to learn about services and potential threats. How technology and data can help cities manage rapid flows and welcome recent arrivals?

12/ ACTIVITIES

With more than 24,000 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



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

This international matchmaking initiative aimed at assisting SMEs, start-ups, entrepreneurs, universities, research groups, corporations, institutions and cities in finding international partners for product development, manufacturing and licensing agreements, joint ventures or other types of partnership.

This sixth edition brought together **405 participants from 49 different 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. **1,278 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.

SCEDX3 Smart City Educational Xperience 3



How can we start improving our cities from now on? Are our cities flexible enough to adapt to our dream-city? Over thirty students coming from different schools gathered together to rethink the concept of Ildefons Cerdà's urban "isle" meeting our dream-needs and creating new urban spaces for inclusion and equality. The students faced several challenges, bringing out innovative solutions to today's specific urban and social conflicts and dilemmas.

Test Drive Spaces

Two dedicated spaces for visitors to freely test mobility solutions: one indoors, for micromobility options, and one outdoors for driverless, electric and connected vehicles.

Outdoor Test Drive



Micromobility Test Drive



Urban Furniture Area



Digital signage, smart and ecological furniture, pedal charging stations, outdoor customizable screens and smart waste management solutions.

Networking Breaks

Networking breaks during Theme Sessions were also an opportunity to connect with sector professionals.



Digital Transformation



Urban Environment



Mobility



Governance & Finance



Inclusive & Sharing Cities



13/ WORLD SMART CITY AWARDS

As global population continues to grow and climate change is accelerating, smarter, inclusive, and more sustainable cities have become a pressing need for a better future for all citizens. The 9th edition of the World Smart City Awards got to celebrate the most innovative ideas and projects that are nurturing sustainable development in urban areas around the world, thus coping with the unforeseen circumstances brought by climate related disasters piling up to enhance quality of life.

This edition, seven different categories covering key smart cities 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 cities vision.
- The **Innovative Idea Award**, considering concepts contributing to the successful transformation of our cities.
- The **Digital Transformation Award**, prizing ground-breaking solutions digitally 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** rewarding initiatives to better move around the city.
- The **Governance & Finance Award**, giving recognition to great initiatives aimed at improving urban governance.
- The **Inclusive and Sharing Cities Award**, rewarding initiatives spurring the positive effects of collaborative practices and inclusive initiatives

After an unprecedented number of entries, reaching **54 countries and 450 proposals**, the winners were selected based on a careful review of their proposals and considering the innovation, impact, and feasibility of the projects, thus their benefits for cities and citizens.

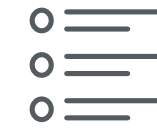
The winners were announced on November 20th, in a ceremony that attracted an audience of more than **1,000 key public and private decision makers**, providing an excellent opportunity to gain prestige and visibility.

Key figures



9th

Edition



7

Categories



+450

Proposals
from 54 countries



Winners 2019



City Award

GrowSmarter Stockholm, Sweden

The Swedish capital was commended for its “innovation, openness and connectivity” and efforts to improve living conditions for residents. GrowSmarter brings together the public and private sectors to integrate 12 smart city solutions across energy, infrastructure, and mobility. The project has been chosen to receive support from the European Commission’s smart cities and communities’ category under the Horizon 2020 funding stream.



Urban Environment Award

Hexagon Madison, USA

Hexagon was awarded for connecting satellite and operational data to trigger predictive maintenance for utilities. Italian utility company Hera leveraged this technology to improve its operations. Today, the solution is monitoring 6,200 km of Hera’s network to detect changes in the Earth’s surface that could impact infrastructure. With the monitoring and analysis solution, Hera registered a 40% improvement on inspection efficiency.



Innovative Idea Award

FCC Environment Barcelona, Spain

FCC Environment was awarded for the development of a self-supporting modular lorry chassis with permanent electric traction, plug-in function, high-power batteries, and advanced low entry cab, which is suitable to all urban service purposes.



Inclusive & Sharing Cities Award

Buenos Aires Government Buenos Aires, Argentina

What policy should be put forward to tackle informal settlements? For years, the only answer involved evictions and social housing in the outskirts. That is changing in Barrio 31, in Buenos Aires, which was recognized for a project to address informality, with the aim of integrating the neighborhood to the formal city.



Innovative Idea Award Special Mention

Street Furniture Camp Vadodara, India

Street Furniture Camp was recognized for creating urban furniture comprised of objects and pieces used alongside of the roads, streets, parks, gardens, etc. and utilized for various public, and non-public uses in the urban environment in India.



Governance & Finance Award

Data Science Federation of Los Angeles Los Angeles, USA

The Data Science Federation of Los Angeles was awarded for tackling tough city problems that will make a difference in many areas and expand on early work in data science and data-driven decision making for City Government. These challenges address social, economic, and policy issues that could be better informed through data and come from departments, the City Council, the Mayor’s office, and citizens.



Mobility Award

Urban Cable Car
La Paz, Bolivia

La Paz claimed the Mobility Award for the development of the RIM, presented as the first main public transport network of a city made up of cable cars. The system is composed of 10 operational lines, 31.6 km and 37 stations, being the largest urban cable car system in the world and having moved more than 242 million users since its opening



Digital Transformation Award

The world's first 5G-powered digital twin city
Government of Yingtan - China

Yingtan was recognized for envisioning an IoT-based, Smart Yingtan, and building the world's first 5G all-domain digital twin city, using 5G+NB-IoT networks, digital foundation for cities, high-precision city information models, and an AI-powered IoT brain to develop applications.



WORLD
SMART CITY
AWARDS 2019

9TH EDITION

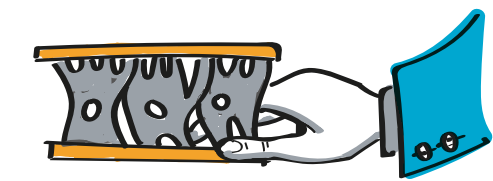
FINALISTS

WINNERS

ATTENDEES

thank you!!

SMARTCITY
EXPO WORLD CONGRESS



PROJECTS
DISRUPTIVE

SOLVING
REAL CITY
PROBLEMS

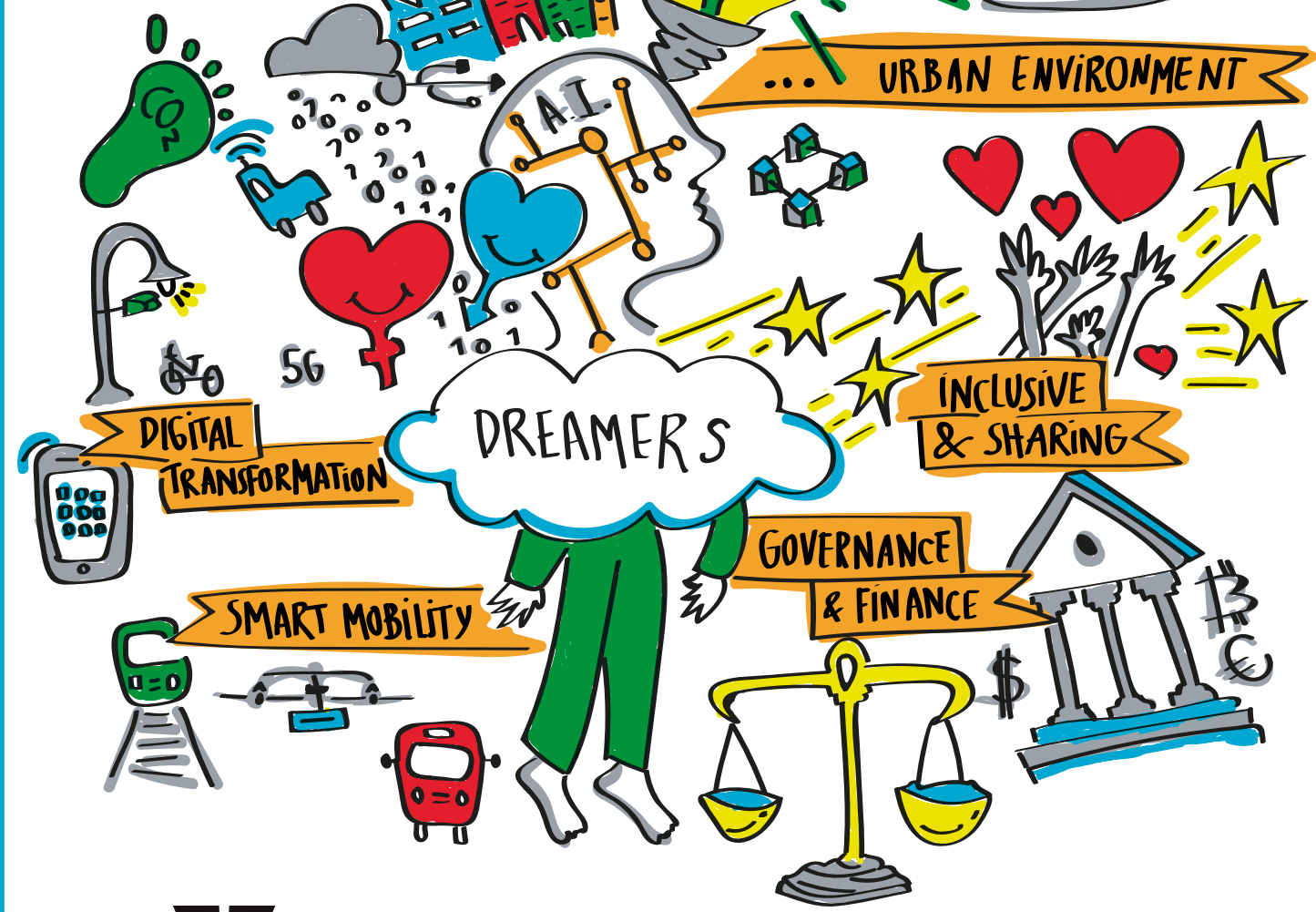
CITIES MADE
OF DREAMS

CUTTING
EDGE

INNOVATIVE
IDEAS

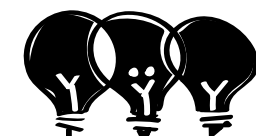
IMPROVING
LIFE QUALITY

... URBAN ENVIRONMENT



Fira Barcelona

#SCEWC19



DIBU2PIA

14/ DISTRICTS

The exhibition area of the 9th edition of the Smart City Expo World Congress was divided into Districts including Agoras for nonstop debate on city challenges. In these open areas, attendees had the opportunity to know more about strategic topics, opening the door to a more interesting, inspiring, and memorable experience.

North District

The North District welcomed a variety of activities related to the five tracks of the Congress. Experts from all over the world discussed how to bring the Circular Economy to cities, how ports can be more sustainable, how to better manage water and public procurement, how to use citizen data in a good way or how to attract talent to cities.

The Brokerage Event, organized by ACCIÓ, took place in this spot too. This event was as an easy way to meet potential cooperation partners and had a great success.



Central District

The Central District gave some insights about how to use city ratings, how to unlock the potential of nature-based solutions in smart cities, how to develop inclusive urban growth, how to achieve digital transformation in governments, how to use satellite technologies to accelerate MaaS adoption or how to face environmental challenges.

The area also welcomed the inauguration of **EIT Urban Mobility**, a pan-European partnership of around 50 businesses, education and research excellence institutions as well as multifaceted cities, aiming at delivering innovative solutions to meet 21st century urban mobility challenges.

“Technology is a great opportunity but it requires democratic leadership.”

Ada Colau
Mayor of Barcelona



South District

At the South District, attendees could learn about IoT and city platforms, the regulatory challenges of the new urban mobility, new mobility trends, positive energy districts or the Towards Zero Waste initiative developed by the Smart City Expo World Congress.

It was also a spot for startup pitches. Startups had 5 minutes to pitch about their projects, hoping to connect with potential investors, clients and business partners from both private and public sectors.

“Shared mobility is a reality, but it still faces many challenges in terms of regulation and infrastructures as well as cooperation between the public and the private sector.”

Mar Alarcón
CEO Social Capital



City Possible Plaza

This edition, the SCEWC premiered a unique partnership with Mastercard to bring to life City Possible – Mastercard’s people-centric, collaborative approach to urban development. Located next to the Speakers Room, the City Possible Plaza provided a space for advancing the conversation on how collectively develop more

inclusive and more sustainable cities. The plaza hosted a curated program of Tech Talk panels, Tech Hub workshops and digital content that brought to life the most pressing urban issues, and displayed the latest innovation, while attendees grabbed a bite or had a coffee.



Discussions were mainly focused on policies for people, citizen-centric communities, inclusive urbanization, inclusive growth, digital resilience, smart transport, new urban partnerships, Sustainable Development Goals (SDGs) and innovative governance, digital rights, the inclusion of women in tech, the integration of informal settlements and the role of younger generations in future-proofing cities.

In addition, Mastercard participated in plenary and theme sessions of the congress.

19 Nov

Plenary Session - Our Greatest Challenge: Making a More Inclusive Urban World

Miguel Gamiño – Executive Vice President Enterprise Partnerships & Head of Global Cities – Mastercard

Solution Talk - Facing Social Challenges and Building Inclusive Cities

Jody Barnett – Mastercard –VP Enterprise Partnerships

20 Nov

Theme Session - Co-Cities: The Strength of Collective Intelligence

Nicola Villa – Mastercard – SVP Strategic Growth

“Partnering with the congress to bring people together is really important to us. We have the possibility to engage with the folks that we know, and also to introduce what we’re doing to people that we may not have met yet or haven’t build a relationship with. So, this is about an upbringing together current and new relationships, all for the purpose of building better cities for people everywhere in the world.”

Miguel Gamiño
Executive Vice President and Head of Global Cities, Mastercard

15/ CO-LOCATED EVENTS

A great program of parallel events turned Barcelona into the global capital of urban innovation for three days:



Smart Mobility Congress

Smart Mobility Congress is a premiere event that gathers multi-sectorial experts and industry practitioners to develop connections and business, discuss case studies and promote network among peers. Under the claim **Leading the Way**, this year the event displayed again new solutions and **explored how smart mobility is reshaping our cities**. Its ultimate goals are to help accelerate development of mobility products, services and projects and shorten their go-to-market time; and to **tackle the urban mobility challenges** faced by modern cities and economies.



Circular Economy European Summit

The Circular Economy European Summit, 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 its presence in the Smart City Expo World Congress, it showed 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.



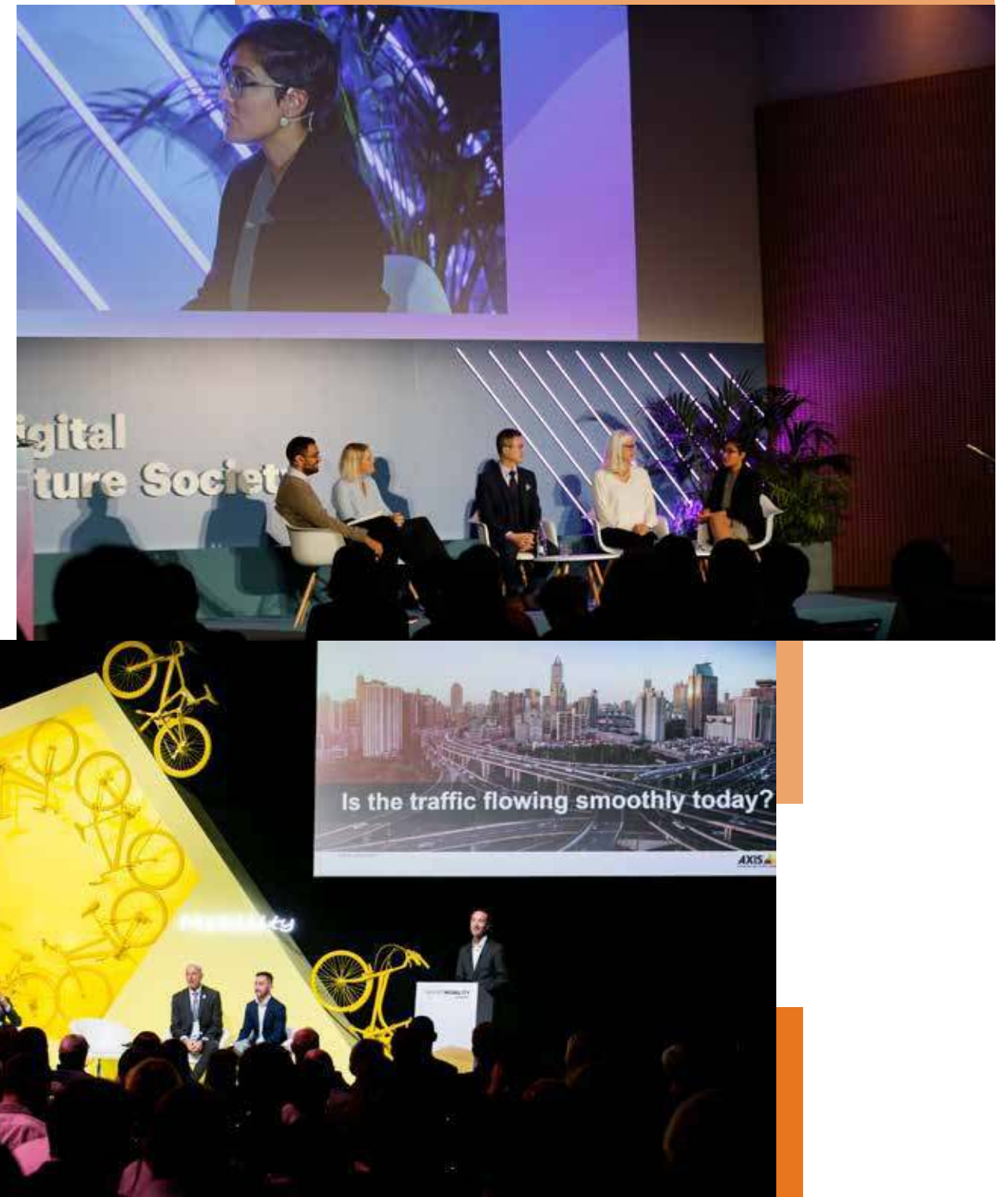
Digital Future Society

The Digital Future Society Summit discussed the **challenges and opportunities of facial recognition and biometric technologies**. Attendees had the opportunity to join **top-tier international speakers** in the debate around digital trust and ethics when it comes to the use of these emerging technologies in the public sphere.



Smart City Week

With more than **50 free-of-charge activities** arranged throughout Barcelona, Smart City Week **"City in Action"** reflected on how technologies can change the city and how citizens interact with them, supporting the notion of a city that uses technologies and accumulated knowledge to **achieve a more sustainable, fair and inclusive urban environment**.



16/ SMART CITY EXPO ABROAD EDITIONS

Spreading the word on the urban revolution

After nine editions, the Smart City Expo World Congress has established as the international benchmark for discussing and learning how to turn our cities into effective, inclusive, and sustainable urban environments. Since 2013, spin-offs events have taken place on four continents, with local editions adapted to the specific needs and interests of their host cities.

In 2019, Smart City Expo was held in Brazil, Argentina, Mexico, USA, Japan and Qatar:

SMARTCITY EXPO CURITIBA

BRAZIL - 2nd EDITION
Planning the Cities We Want

The second edition of the Smart City Expo Curitiba took place in the Expo Renault Barigui the 21-22 March 2019. Under the motto Planning the cities we want, Smart City Expo Curitiba brought together influential companies, researchers and representatives to discuss new and innovative ways to meet the needs of Brazilian cities. More than 6,700 visitors could draw inspiration from speakers like Bibop Gresta, Co-Founder of Hyperloop, or Brooks Rainwater, Director of the Center for City Solutions of the National League of Cities.

SMARTCITY EXPO BUENOS AIRES

ARGENTINA - 2nd EDITION
Fostering Talent, Creating the Future

Argentina celebrated its 2nd edition of the Smart City Expo Buenos Aires taking place from 24-25 April 2019 at the Centro de Exposiciones y Convenciones (CEC) in the City of Buenos Aires. The event gathered prestigious experts and researchers along with public representatives and companies from around the globe to discuss and find new solutions to the challenges that Argentinian cities are facing. The Congress featured premier speakers such as Juma Assiango, UN Habitat Global Coordinator for Safer Cities Program; Sandra Särav, Global Affairs Director for the Ministry of Economic Affairs of Estonia; or Anni Sinnemäki, Deputy Mayor for Environmental Affairs of Helsinki.



SMARTCITY EXPO LATAM CONGRESS

PUEBLA (MEXICO) - 4rd EDITION
Radical Inclusion, a Place for Everyone

Smart City Expo Latam Congress celebrated its 4rd edition on 2-4 July 2019 in the city of Puebla, Mexico, and welcomed almost 13,000 professional visitors from 350 countries, and held congress sessions by 280 speakers, such as Mikael Colville-Andersen, CEO of Copenhagenize Design, or Natalia Martinez-Kalinina, General Manager & Latin America Lead of the Cambridge Innovation Center. The event included an Exhibition Area designed to share projects, gain brand visibility and connect with other players of the smart city ecosystem.

SMARTCITY EXPO ATLANTA

USA - 1st EDITION
Redefining Smart

Smart City Expo Atlanta, the first US spin-off of Smart City Expo, was celebrated from 11-13 September 2019 at the Georgia World Congress Center. The event included an Exhibition Hall highlighting cutting-edge solutions in smart urban development as well as a venture-backed startup competition and a hackathon. Over 4,000 attendees joined this first edition, and more than 200 speakers took the stage to spark insights on how to implement cutting-edge technologies and financing equitable infrastructure.

SMARTCITY EXPO KYOTO

JAPAN - 6th EDITION
Creating a Meta-Comfort Smart Society

With 10,518 worldwide participants gathering in KyotoKSCE2019, 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 present urgent issues that Japan is facing, such as regional decline of societal and economic vitality due to decreasing birthrate and aging population.

SMARTCITY EXPO DOHA

QATAR - 1st EDITION
Safe Smart Cities

The first edition of Smart City Expo Doha took place between 30-31 October at the Qatar IT Conference & Exhibition 2019 (QITCOM2019), under the theme “Safe Smart Cities”. Under the patronage of His Highness, the Emir of Qatar Sheikh Tamim bin Hamad Al-Thani, the Ministry of Transport and Communications hosted the Smart City Expo Doha at Qitcom 2019 where both events drove conversations around intelligent technologies, while also exhibiting Qatar’s established smart city projects.

2020 Editions

First confirmed editions for 2020:

SMARTCITY EXPO CURITIBA

Brazil
26 - 27 March 2020

SMARTCITY EXPO SANTIAGO DE CHILE

Chile
26 - 27 May 2020

SMARTCITY EXPO ATLANTA

USA
10 - 11 June 2020

SMARTCITY EXPO LATAM CONGRESS

Merida (Mexico)
23 - 25 June 2020

SMARTCITY EXPO BUENOS AIRES

Argentina
16 - 17 September 2020

SMARTCITY EXPO KYOTO

Japan
October 2020

SMARTCITY EXPO DOHA

Qatar
Late 2020

“ Smart Cities are platforms to share knowledge and technology, to develop businesses and improve citizens’ life. ”

Hiroyuki Suzuki

Strategic, Representative Director and Executive Vice President
Keihanna Research Complex Project, ATR, Kyoto, Japan



17/ IN OTHER WORDS

Shira Rubinoff

President, Prime Tech Partners

"The Smart City Expo World Congress is a fantastic place to talk about IoT, the advancements of 5G, which speeds up things and productivity, but also to understand that we need to institute all sorts of security around our interconnected devices."

François Bausch

Minister for Mobility and Public Works, Luxembourg Government

"It's very important to organize events like the Smart City Expo World Congress to better plan the mobility of today and tomorrow."

Mar Alarcón

Founder and CEO, Social Capital SL

"I think that conferences like the Smart City Expo World Congress are amazing. I'm really impressed by how the congress grew compared to 2018. I think it's 20% bigger in terms of speakers and exhibitors and it's a good arena to establish a dialogue between public administrations and private platforms or even citizens. It's definitely the place to do this."

Martin Brynskov

Chair, Open & Agile Smart Cities

"The Smart City Expo World Congress is the prime spot to discuss all the things that are difficult around technology. The heavy emphasis on the human perspective and the societal issues has really increased the value of both the Expo and the Congress."

Mitchel Kosny

Professor, Ryerson University School of Urban and Regional Planning, Toronto, Canada

"When I came for the first time at the Smart City Expo World Congress four years ago, it was all about technology. Now, the agenda has moved and we are talking about what are the implications of that technology. But there is still a long way to go to get to the point where we own the technology and we use it, rather than the other way around."

Paulo Humanes

Vice President Business Development & New Mobility, PTV Group

"The Smart City Expo World Congress is a fantastic place to understand how the smart city ecosystem is moving, not only from a mobility perspective but also from an energy yield and an environmental perspective. It's a unique opportunity where you get everybody together to really discuss and understand what is at stake."

Shuhei Okuno

Deputy Director General, Climate Change Policy Headquarters, Yokohama

"The Smart City Expo World Congress is an amazing place to learn. I think it's fantastic that all the stakeholders of the smart city field -say organizations, companies and institutions-, can gather together in the same place to discuss how to make better cities."

Reyna Rueda

Mayor, Managua, Nicaragua

"The Smart City Expo World Congress is a fantastic space to share local experiences and learn about municipal policies that work to improve citizens' life. We bring home a bunch of positive energy, ideas and dreams that can come true."

Mike Lake

CEO, Leading Cities

"Every year I think the Smart City Expo World Congress is an amazing event! It can't possibly get any better! And then every year I'm wrong. I come back and it's bigger, there are more people and more cities involved. And frankly, the content of the Congress is so powerful, so informative and visionary... Every year it's impressive!"

Trever Esko

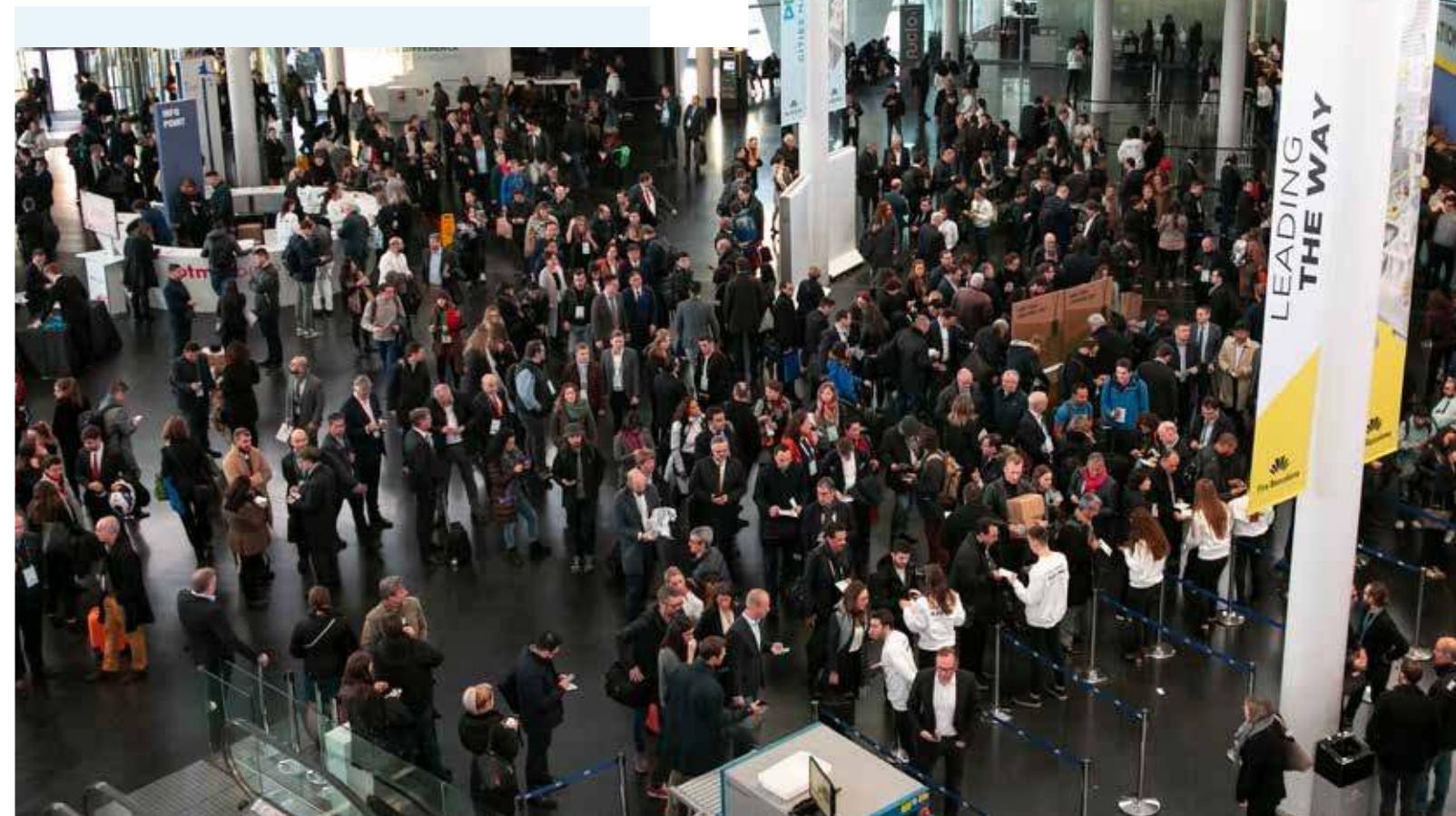
Financial Services and Public Sector Lead, WW Industry Solutions, Microsoft

"Regional and city urbanization are going to affect everybody on the planet in the coming years and this is where governments are really collaborating and talking about how to address and solve those problems."

Oliver Kraft

Executive Director, Siemens

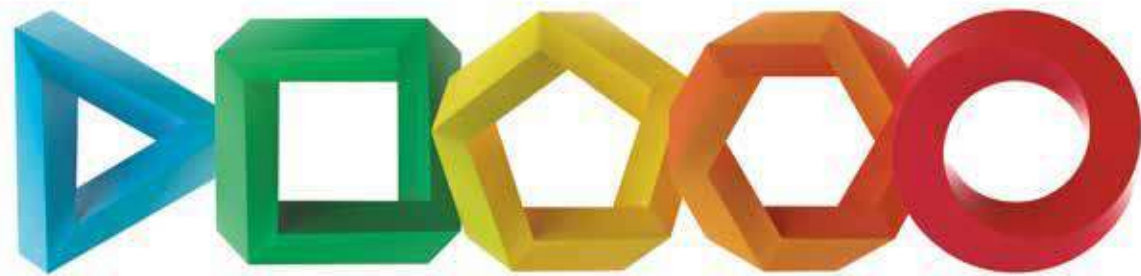
"Environments are getting smarter. In order to speed up that process, we need to share what we have and therefore it makes a lot of sense actually to attend this kind of conferences and congresses in order to share what we have, to exchange knowledge and information."



See you next edition:

17 - 19 November 2020

We'll celebrate our 10th edition!
This is a significant achievement.
So, stay tuned.



*Meanwhile, catch up on the discussion
on our social media networks and check
our website updates for takeaways and
next steps.*

www.smartcityexpo.com





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