

# The 7th Asia Smart City Conference in YOKOHAMA



The 7th Asia Smart City  
Conference in Yokohama

## Report

November 13-15, 2018

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- The 7<sup>th</sup> Asia Smart City Conference
- “Fostering a Marketplace for Co-innovation”

## OVERVIEW

The 7th Asia Smart City Conference was organized by the City of Yokohama with the World Bank and Asian Development Bank Institute (ADBI) as the co-organizers from November 13-15, 2018. ASCC aims to create pilot projects which realize urban Smart City solutions in Asia by providing a forum where diverse participants can network and take part in cross-cutting discussions on urban development.

## CONCEPTS

- Peer-to-peer learning: an engaging structure wherein cities can learn from the experience of other cities, to reflect upon the lessons learnt in similar contexts.
- Exponential technologies: how exponential technologies, otherwise known as disruptive technologies, could leap-frog development steps for developing countries.
- Power of the private sector: the private sector has a large role to play in addressing development challenges of cities, especially given the infrastructure service delivery gap in cities, through the introduction of a “Market Place” modality wherein we ensure there is an active dialogue between those that present the “development challenges” and “solution providers” sourced from Japan and globally.

### Special features of the conference (Unique Value Proposition)

- Interactive multilogue: city leaders can not only make presentations about their cities’ activities but also get ideas or hints from other cities, firms, or international organizations
- Discussions on topics such as urban issues and solutions, as well as financing for the creation of pilot projects for smart city development in Asia
- Co-creation of knowledge and providing opportunities for networking

## AGENDA

DAY 1	DAY 2	DAY 3
PM Site visit Cocktail Reception	AM Introduction Thematic Session 1-4 PM Networking Lunch Thematic Session 5-8 Welcome Reception	AM Capstone sessions  PM Networking Lunch Plenary Meeting

## THEMATIC SESSIONS

### **Session 1: Water and Waste**

Technology can play an important role in terms of ensuring efficiencies in service delivery for water supply, sanitation and solid waste management, particularly with regards to operation and management, monitoring etc.

### **Session 2: Transportation and Mobility**

Developing countries facing a large transport infrastructure gap can leap frog car-dependent transport and adopt multimodal strategies that reduce pollution, energy consumption and congestion, while increasing road safety and boosting economic growth.

### **Session 3: Energy Efficiency**

Energy efficiency has been the core of Japan's efforts on smart cities. What are some recent private-sector led initiatives?

### **Session 4: Disaster Resilience**

Accurate forecasting, monitoring and reporting of hazards can inform smart and swift decisions for effective disaster response. How does technology help reduce economic and social damage from natural disasters?

### **Session 5: Urban Infrastructure Provision for Smart Cities**

IoT and other technologies are generating massive volumes of data, both structured and unstructured. How are cities and their stakeholders utilizing these data points for data informed urban planning and management? How is this data being managed and shared beyond individual sector silos? How is this data being utilized to improve the service provisioning to citizens?

### **Session 6: Utilizing Big Data/ Open Data for Land Development**

Better data on the pace and extent of urbanization could improve infrastructure development, industrial policy, environmental planning, and land management. How can we utilize this massive accessible data for better land development?

### **Session 7: Retooling Manufacturing and Industrials**

New technologies are changing the way we produce goods and is repainting the landscape of the manufacturing industry. What impact will this have on industrialization, labor productivity and job creation in developing countries, and what opportunities exist?

### **Session 8: Citizen Engagement through Smart Technology**

Smart technologies - the internet, mobile phones, and all the other tools to collect, store, analyze, and share information digitally - have spread rapidly in much of the world. Digital dividends, or the broader development benefits from using these technologies, have lagged. While in many instances smart technologies have boosted growth, expanded opportunities, and improved service delivery, their aggregate impact has fallen short and is unevenly distributed - how do we ensure inclusive development in an era of smart technologies?





## ■ PANEL DISCUSSIONS

### **Capstone 1: Integrated Urban Development**

How can cities organize themselves to promote comprehensive urban development designed to promote priority issues in the city as a whole? What are some of the important mechanisms to prevent silo-based approaches and create an enabling environment which puts citizens in the driver's seat? This session served as a capstone session on integrated urban development, based on the discussions on Day 2 morning.

### **Capstone 2: Exponential Technologies**

What are some of the game changing technologies emerging today, and what are the implications for development impact? This session served as a capstone session towards exponential technologies and thinking, based on the discussions on Day 2 afternoon.

## ■ PLENARY Meeting

### **Opening Session**

Key note speech by leaders from the Japanese Government.  
Video messages by leaders from International Organizations.

### **Roundtable Session**

Presenting the latest efforts on smart city development by Asian city leaders and developers, followed by sharing the results of the smart city discussions with all participants.

### **Closing Session**

After announcing the results of the Youth Event that was held the previous day, we announced the "Yokohama Declaration" which summarized the discussions of ASCC.





## CO-LOCATED EVENTS

### Business Forum

Nikkei ESG Management Forum of Nikkei Business Publications (Nikkei BP) organized an event, 'Business Forum', which theme is "Sustainable City with SDGs supported by Enterprise and Local government". Nikkei ESG Management Forum is an organization of around 150 enterprises which advocate ESG management.

### Yokohama Youth Event 2018

Yokohama City University students presented the results of their research on the issues for Japanese SMEs to expand overseas business and future prospects. This event was sponsored by Nissin Co., Ltd.

### Yokohama Info-Market

In 2017, YOKOHAMA URBAN SOLUTION ALLIANCE (YUSA) was founded aiming at contributing to solving urban problems in emerging countries and creating business opportunities for Yokohama based companies.

The event, which was organized in collaboration with Yokohama City and YUSA, introduced the technology of companies in Yokohama as well as Yokohama city's know-how on urban development.





# Session 1

## Water and Waste

Smart Waste and Smart Water could indeed change the behavior and awareness among citizens. Data backed analysis will change people's attitude in waste creation and water consumption.

Increasing demands of the growing cities and pressure on managing increasing waste and water usage calls for innovative ideas, and solutions, smart practices and technologies to improve the system. The session discussed how we can move toward the circular economy than linear process with four main enabling factors – offering policy and regulations to create market, filling technology knowledge gap, strategizing financing, and raising citizens' awareness on the importance of better waste and water management. All elements need to also well calculate the sequencing of management plan. For instance, for solid waste, cities may want to first prepare professional municipal waste collection, followed by raising capacity to offer sanitary landfill and then reduce the amount by separation and recycling. The session summarized how Smart Waste and Smart Water could indeed change the behavior and awareness among citizens. Data backed analysis will change people's attitude in waste creation and water consumption as shown in cases in Japan and in Asia. AI and Open data can also fill the gap of staff capacity – they can monitor, analyze and implement efficient and effective solution in infrastructure O&M.

Moderator: Haruka Imoto (World Bank – TDLC)  
Key Speaker: Dave Tumalak (City Councilor, Cebu City, Philippines)  
Solution Providers: Kevin Sagawa (Finetech Co., Ltd.),  
Kenichi Watanabe (Goodman Inc.),  
Takeshi Konishi (Guun Co., Ltd.),  
Toshitaka Kato (Takenaka Corporation),  
Kaoru Kikuyama (JFE Engineering Corporation), and  
Yasuo Tajiri (Toshikogyo Co., Ltd.)



## Key Takeaways

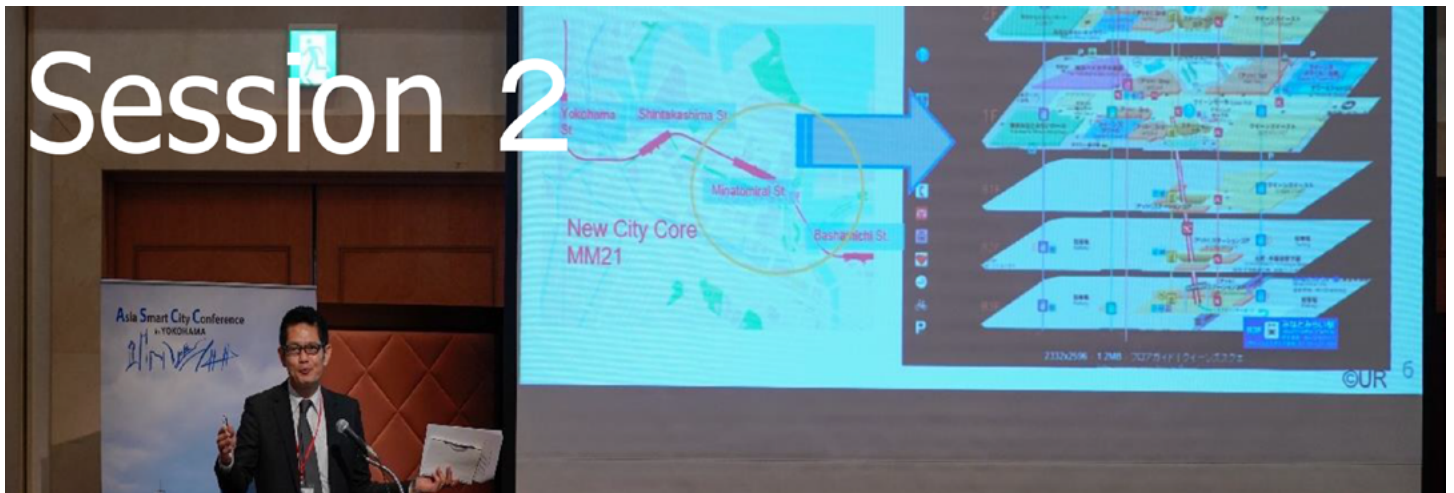
**Needs for cities to mitigate technology knowledge gap:** Majority of cities identified their challenges and were keen to learn about technologies, and they may be able to make a policy decision if cities have more integrated system to choose right technology addressing their needs. The session heavily illustrated the needs for cities to be technically ready to choose right solutions. Based on that, cities can choose from varieties of solutions, including focusing on separation and segregation including food waste, fluff fuel, introducing sanitary land fill, standard incinerators or more modern Waste to Energy plants. The knowledge can be coupled with affordability aspect – how much can citizens afford when choosing a solution.

**Enable policy and regulations, and financing:** Circular economy gets materialized when legal and regulatory framework enables the market to perceive garbage, sewage or wastewater as resources. The sounding waste management and water management is enabled by setting a right legal and regulatory framework, seamlessly planned and implemented by a national government and a local government. Policies and regulations can have both aspects of carrots and sticks, enforcing by identifying both the penalties and benefits of compiling the regulation. Financing is often the bottleneck, and one way to approach this common challenge is by defining the shares that local government can financially bear and the shared that can be allowed from national budget and sometimes the additional resources from donors to fill the gap.

**Share the value with citizens and working with citizens:** Waste and water management require citizens' engagement throughout the process. This is the case at the time of waste collection to reduce the waste amount to separation of waste, and less consumption and using environmentally friendly products in case of water. Local governments need to continuously have a dialogue with citizens as well. This is especially important in the setting where informal sector has a strong presence in the current management model. Policies should always consider how the decision could affect the people's livelihood.



# Session 2



## Transport and Mobility

Smart solutions in transport and mobility sector should facilitate in reducing pollution, easing congestion, enhancing safety, overcoming fleet routing, asset tracking challenges, and other concerned issues.

Many countries, including developed ones, are still struggling with large transport infrastructure gap and inefficiencies in the existing systems, such as longer travel time, congestions, increasing accidents, and large incident response time etc. What these countries and cities need is to leap frog from car-dependent transport and adopt multimodal strategies that reduce pollution, energy consumption and congestion, while increasing road safety and boosting economic growth. This can be achieved by highly accurate, real-time and historical traffic data that enables cities to predict, manage and plan future traffic conditions more appropriately. Through road network insights, governments and businesses can make better decisions around engineering, traffic flow, fleet and passenger routing, and more.

Smart solutions in transport and mobility sector should facilitate in reducing pollution, easing congestion, enhancing safety, overcoming fleet routing, asset tracking challenges, and other concerned issues. Some examples of transport IoT solutions are smart parking, use of sensors, digital road pricing, intelligent traffic management, and integrated multi-modal transport.

Moderator: Yuko Okazawa (World Bank – TDLC)

Solution Providers: Akitake Fujita (Author D. Little), Maxime Sicard (Faurecia), Benjamin Butcher (NEC)



## Key Takeaway

**Significance of traffic management and mobility management:** The discussion highlighted that to deal with traffic congestion, while investing in new transport infrastructure is important to meet the demand, it is equally, or even more important to consider traffic management and mobility management in transport planning and development. More roads will encourage a car-dependent society, whereas a modal shift to public transport will ease traffic congestion and promote a low-carbon society. The discussion also acknowledged combining the environmental sustainability lens with economic incentives is critical in making actual changes on the ground.

**Transit oriented development in Japan – combining mass transit and land development:** Commentators from Japan explained how its railway-oriented land development scheme works, and how mass transit is often coupled with housing and land development along the alignment, offering affordable housing in the suburbs whilst securing an efficient means of transport to access jobs at the city center. The discussion highlighted that, to make such schemes work, the private sectors' initiatives and involvement in railway/ land development is critical, supported by the public sector being the facilitators of such developments, creating an enabling environment for such schemes to work well (e.g. as represented in the Land and Housing Development Law).

**Role of data in informing the right timings for introducing various public transport modes:** The discussion also pointed to the fact that when cities realize the need for public transport, it is often too late – how do we get upstream involvement in identifying the right timings for introducing public transport modes: BRT, LRT, Metro? Often is the case that when a city realizes the need and is preparing a BRT project, the city has grown to a level in need for a Metro. Solution providers offered streamlined and efficient procedures for traffic demand forecasting and acquiring real-time demand data, which will be important for data-informed transport planning.



## Energy Efficiency

Cities can play a crucial role in reaching out to private sectors and citizens and harnessing their engagement in energy efficiency initiatives.

Energy Efficiency is one of the critical challenges for developing cities. Cities are said to consume 75% of energy in the world, and the consumption rate is expected to rise soon due to the on-going urbanization process. This session discussed how to address the challenge of energy management in developing cities using smart technologies. Specifically, the participants discussed the importance and possible approach to visualize the energy consumption status and share the data among relevant stakeholders. Yokohama city, for example, launched several energy efficiency initiatives including the home energy management system (HEMS) and building energy management system (BEMS). These initiatives help the city to visualize the energy consumption level and strengthen the public-private partnership that further lead to new energy management initiatives. Since energy management cannot be achieved without the change in the way of thinking by each citizen, the city also launched awareness campaigns at the grassroots level. The session concluded that cities can play an important role in reaching out to private sectors and citizens and harnessing their engagement in energy efficiency initiatives.

Moderator: Mian Shaukat Shafi (Asian Development Bank)  
Key Speakers: Shuji Okazaki (City of Yokohama),  
Jayanti Maharani (Directorate of Energy, Telecommunications, and Informatics  
BAPPENAS)  
Solution Provider: Masakazu Hirokawa and Erwin Avianto (iFORCOM Co., Ltd.),  
Stuart Kay (GreenPlace Assets)



## Key Takeaways

**Significance of clear policies and pilot projects for energy efficiency:** The developing countries still struggle to implement energy efficiency initiatives, but it is happening and commercial and the household level. It is a challenge, however, to shift from their current energy usage to green energy usage. Governments (especially municipal government) should take initiatives in planning and implementing policies and projects on energy management. In the case of Indonesia, for example, the national government promotes renewable energy mix up to 23% by 2025 and 31% by 2050, and actively introducing smart street lights using solar power. Clear vision and landmark projects can assist the government to implement smart cities initiatives efficiently.

**Importance of public-private partnership in energy management:** Speakers from cities have emphasized the importance of bridging the public and private sectors. In the case of Yokohama city, the city successfully launched the Yokohama Smart Business Association (YSBA) that consist of 18 major companies in Japan including Tokyo Electric Power Company (TEPCO). This collaboration is pivotal for the city to learn about the latest technological trend in the market and realize an environmentally robust, disaster resilient, and economically strong “energy-recycling city.” Solution providers also commented on the importance of public-private partnership since it has the potential to generate cross-sectoral and cross-industrial collaborations. On another front, they asserted that the public sector needs to work hard on disclosing and promoting open data usage (i.e. asset data and energy-usage data). Making data available for the public allows public sectors as well as private sectors to reduce cost, enhance financial assets, enhance economic resilience, and to optimize other city assets.

**Importance of citizen engagement in energy management:** The discussion also touched upon the issue of citizen engagement in energy management. Some households that installed HEMS and PV power generation system receive automatic email alerts from time to time. The alert enhances awareness of their energy consumption at a household level contributing to the peak saving of approximately 15.2 percent. These visualization and data sharing approaches among stakeholders as the indispensable approach to install a new energy saving mechanism at a personal as well as a corporate level.

# Session 4



## Disaster Resilience

A technology-supported and informed solution supports practitioners in planning, risk assessment, detection, prevention, protection, preparedness, damage assessment, response, public safety and recovery operations, across all levels of government, along with the public and industry.

Natural hazards come unexpected and often cost many lives and damage to property. The statistics of disaster impact are alarming - 500,000 people are affected by disaster directly, 2 million people affected, and 5 billion dollars lost in last 2 decades, which means 130 million dollars per day of losses. This points to a huge need to ensure disaster resilience and incorporate disaster risk reduction methods using smart solutions. It is crucial to have access to the most updated and comprehensive information when it comes to making effective decisions in the wake of a disaster. A technology-supported and informed solution supports practitioners in planning, risk assessment, detection, prevention, protection, preparedness, damage assessment, response, public safety and recovery operations, across all levels of government, along with the public and industry. In a nutshell, smart solution is an enabler for an effective disaster management. The question is how does technology support solutions and help reduce economic and social damage from natural disasters? Key areas where smart and swift decisions can be made using technology include accurate forecasting, monitoring and reporting, among others. An example to illustrate this is the case of meteorological disasters. By using real-time information about predicted wind speeds, rain and other weather factors, areas likely to be inundated and stranded can be evaluated using what-if scenarios. Also, real-time location of ambulance and flood-relief vehicles, survey of impacted areas using surveillance cameras, and drone-captured videos can help in making sure that the right resources will be deployed to the right areas at the right times.

- Moderator: Jude Kohlhase (Asian Development Bank)
- Key Speaker: Metro Manila
- Solution Provider: Chiho Kimpara (Japan Weather Association),  
Takayoshi Yokoyama (JVCKenwood Cooperation),  
Joe Paluska (One Concern)



## Key Takeaways

**Need for Disaster Risk Management Plans and Programs at all levels:** The participants unanimously agreed to having DRM plans and programs as a first step towards disaster management. While the governments, especially at national level are endeavoring to develop acts and guidelines for DRM, translation of those into detailed plans at sub-national level is needed for effectiveness. Cities like Manila and councils in Fiji prepare hazard maps for towns but they expressed the need for having modernized solutions for these towns. Manila also faces other issues about DRM plans - resistance of stakeholders to some resiliency programs, lack of capacity, budget constraints, lack of coordination among local government and citizens. All these issues need to be resolved and DRM planning should be part of urban plans at all levels.

**Importance of simple but smart solutions for DRM:** Radio system is a simple, inexpensive and effective mechanism for early warning communication. In 2011 Tohoku earthquake, public radio was the most powerful communication system while cellphone and internet failed. Using it as a digital radio system that uses transmitters, makes it a smart solution. Japan Weather Association (JWA) also proposed some simple solutions, such as short-term prediction forecasting based on mesh precipitation values from radar observation, non-orographic rainfall, and calculation of risks. Monitoring of data for early warning purposes is another humble but smart solution where timeline information is provided according to rain condition, based on which disaster prevention plans are prepared in advance.

**Importance of seamless and strong network:** The need for cutting edge technology in disaster prevention and management is unarguably agreed but to support the effectiveness seamless networks are imperative. Smart systems in disaster predictions, early warning, organizing evacuation, and post disaster recovery would not work efficiently if it's not connected seamlessly and functions in coordination and as a systematic network.

# Session 5



## Urban Infrastructure Provision for Smart Cities

Local governments will have greater responsibility for ensuring the collection and the public availability of public data.

IoT and other technologies are generating massive volumes of data, both structured and unstructured. The question is how are cities and their stakeholders utilizing these data points for data informed urban planning and management? How is this data being managed and shared beyond individual sector silos? How is this data being utilized to improve the service provisioning to citizens? What would be relevant is to leverage this data in developing smart solutions, including electronic service delivery, smart buildings, IoT-enabled water and waste management systems, and so on and so forth.

Smart cities enable the use of open data that can create new urban services such as better transport connections, accident risk warnings, and home monitoring for part-time and full-time careers. Furthermore, by controlling this data, businesses will be able to offer personalized services for users, for example smart meter data could permit utilities to offer new tariffs, such as time-of use pricing which will encourage end-users to use energy in off-peak times when it is cheaper. Typically, local governments will have greater responsibility for ensuring the collection and the public availability of this data.

Moderator: Francis Ghesquiere (World Bank)  
Solution Provider: Hideyo Sato (Dassault Systemes),  
Taisuke Watanabe (EX Research Institute)



## Key Takeaways

**Importance of investments on data and IoT:** The cities are keen on adopting smart solutions for their infrastructure development, given the growing importance of data and IoT. They also realize the importance of investing in data and technology as that brings accuracy in analysis and hence provision of urban infrastructure, cutting down the costs in the long-term. It was also established that better services could be provided through IoT solutions. For instance, A solution provider proposed the use of GPS tracker for vehicles for solid waste management, to ensure fair collection and transferring of waste.

**Need for funds for financing urban infra and solutions that are affordable:** The participating countries acknowledged the need for investments in data and cutting -edge technology, but they also expressed their concern over the costs of some of those solutions. Most of the municipalities are fund deficit. They need smart solutions but affordable at the same time. Phnom Penh in Cambodia and Philippines are looking forward to adapting to changing technologies but do not have sufficient funds to do so. A solution provider offered proposals on developing 3D city models using rich data, applied in Singapore but that raised questions on affordability and financial incapacities of the cities. Simple affordable solutions like using smart sensor for waste data reporting increases the efficiency of waste management system, as suggested by a solution provider.

**Data banking and data sharing is a solution in itself:** The experts in the panel highlighted that data banking and data sharing should be a way forward to save the cost of unnecessary duplication. This is also an efficient way for saving time on data collection and analysis.





## Utilizing Big Data/ Open Data for Land Development

It is important to develop digital data infrastructures to enable the integration, harmonization, connectivity and scalability of multi-dimensional urban datasets.

Rapid urbanization has resulted in an unprecedented pressure on development of land in cities around the world, triggering increased densification and demand for urban infrastructure facilities. Better data on the pace and extent of urbanization could improve infrastructure development, industrial policy, environmental planning, and land management. Question arises that how can we utilize this massive accessible data for better land development?

Smart urban data management solutions are required to transform the physical and functional complexities of cities into digital data environments (3D cadaster, Building Information Modelling or BIM and city models). It is important to develop digital data infrastructures to enable the integration, harmonization, connectivity and scalability of multi-dimensional urban datasets. This infrastructure is required to underpin the next generation of data-driven modelling and decision-support tools to enable the design of smart, productive, and resilient cities. This data could then be put to relevant use to generate accurate and timely analytics.

Moderator: Yuko Okazawa (World Bank - TDLC)  
Key Speaker: Ho Chi Minh City  
Solution Provider: Shiori Taniguchi (Air Asia Survey Co., Ltd.),  
Tomomi Matsuoka (Google Earth Outreach),  
Katsuya Homma (Pasco Corporation)



## Key Takeaways

**Data is merely a means and not an end:** The session collectively agreed that the questions being asked are far more important than the data itself – what does one aim to achieve with the acquired data? In relation to this point, the discussion highlighted that the definition of data, upon provision, is important. For example, while “rainfall intensity” is straightforward in terms of what it entails, but “flood risk” is not. Ensuring accurate definition for data, clarity on how it is derived and calculated, and focus on what the data will be used for, are critical especially in an era where one needs to be equipped with a critical lens to deal with massive information and big data.

**Collective access to data and user-friendly interfaces can empower citizens:** A panelist highlighted a case where a citizens’ group was able to stop illegal logging with the help of the visualization of the extent of the project – this only happened when an incomprehensible map was transformed to a user-friendly visualization, alerting people the adverse impacts that the project is likely to have. The evidence indeed empowered citizens to bring about changes with high socio-economic impact – they became part of the policy dialogue.

**Connecting data providers and data users:** The discussion highlighted that there is often a mismatch of data providers and its users – how do we connect the two? Spatial Data Infrastructure (SDI) was featured as an effective tool/ platform to ensure this connection, but many agreed that this issue goes beyond physical measures.



## Retooling Manufacturing and Industries

As we enter Industry 4.0, we need to figure out how to harmonize disruptive technologies and humanities. We can fully appreciate technological advancement only if we can assure the progress of humanities and peer-learning.

Disruptive technologies, such as 3D printing, virtual reality, artificial intelligence and internet of things (IoT), have changed the landscape of industries. They have brought enormous benefits to people (consumers) and cities helping to create new ideas and allocate resources more efficiently. Some digital platforms offered by online companies such as Google, Facebook and Amazon, for example, changed the fundamental nature of industries and our daily lives. On another front, these technologies have also brought some new challenges to be addressed including digital divide and job transformation. This session discussed the opportunities and threats for cities and their people through the introduction of disruptive technologies. Many participants pointed out the importance of the revitalization of humanity as we enter Industry 4.0, the current trend of automation and data exchange in manufacturing technologies. We can fully appreciate technological advancement only if we can assure the progress of humanities and peer-learning.



## Key Takeaways

**Create and promote knowledge sharing platform:** Disruptive technologies helped people to estimate future social phenomenon which was difficult in years ago. Some construction firms now use smartphone applications to monitor individual workers and alert those who may encounter health or safety issues. Healthcare providers also utilize AI to collect medical data efficiently to make accurate diagnoses and reduce the burden of their workers. While technologies have made it easy for everyone to process his or her assignments, they do not necessarily encourage knowledge sharing among employees, generating some inefficiency at an organizational level. It is important to increase the channel of knowledge exchange on disruptive technologies and generate more innovative idea with our colleagues.

**Importance of upgrading technological literacy:** The discussion of smart cities often focuses on smart people and their skills. It is based on the idea of Society 5.0, or Industries 4.0. but many people in developing cities are still living in Society 2.0 or Industry 2.0. Whether like it or not, however, they cannot avoid catching up with the latest technologies as consumers or users of the technologies. To have a breakthrough in developing cities, it is important to address the issue of knowledge sharing, and training, capacity building connected with disruptive technologies. In the Philippines, there are some good windows for the younger generation. But the question is how do we prepare our young people for this kind of technological advancement? What are the new regulations and laws that need to be put into place? What about in terms of people; how do we prepare them?

**Learn from successful cases to help to transform local industries:** Some cities have successfully utilized disruptive technologies to boost local industries while others struggle to adopt AI and other digital devices. More often city officers tend to worry too much about technologies and reluctant to undertake any measures. To accelerate smart city initiatives, it is important to foster peer-to-peer learning and understand the basics of the successful transformation of industries from purely manufacturing to more digital: What do the successful players do when they face displacement issues? Cities can be a platform to collect and distribute those good practices.



# Session 8

## Citizen Engagement

Smart citizen engagement increases solidarity and increase happiness among citizens and offers opportunity for more cost effective and less bureaucratic city management. It augments transparency, speed and follow-up data driven policy making process.

The session covered how technology could enhance citizens' participation in policy planning, decision making and policy implementation and communication. This includes the broad level of municipal budgeting, holistic urban development, and to thematic specific solid waste management. Other services and solutions are sought and shared inclusive of citizens of different age group and with diverse background. Smart citizen engagement increases solidarity and increase happiness among citizens and offers opportunity for more cost effective and less bureaucratic city management. It augments transparency, speed and follow-up data driven policy making process. The analysis utilizes AI.

Moderator: Ramola Singru (Asian Development Bank)  
Saswati Belliappa (Asian Development Bank)  
Solution Provider: Miguel Arana Catania (Madrid City Council),  
Jiwon Nam (SRPOST Inc.),  
Tae Nakaya (Yokohama Community Design Laboratory)



## Key Takeaways

**Create engagement modality:** The engagement windows and modalities vary depending on the needs of each city. Local government or public agency could set an online platform for citizens to submit their comments and this can be in a relaxed manner to more formalized petition manner. The platform could conduct an online survey on policy choices and refer the result when making policy decision. Some platform has stronger lead in activating platform and others are operated with natural commitment from citizens themselves. Open data and open source based on trust is the key to encouraging active participation from citizen themselves, to maximize the power of a citizen engagement online platform.

**Ensure inclusiveness of citizens with low digital literacy:** The question was raised how to ensure inclusiveness for citizens with digital bind, especially those aging population, vulnerability households or in any special need group. First the commitment on local government side is needed – if community can't access then government needs to reach out to community. The community reach could be with technology and without technology, and citizens should have options to choose depending on their comfortability on the modality. The traditional mean is as important as the former, including the public hearing, and face to face meetings between local government council members and citizens. Second, the 'digital' citizens, often in the younger generation, can peer learn the usage and usefulness of Smart Technology. It enables citizens' active peer learning. Third, the inclusiveness can rather foster by usage of technology. This includes data such as sensor information in informal settlement, enables designing subsidy program with special needs using technology.

**Harness smart citizens and smart government:** The participant also agreed that we would all aim for Smart Citizen and Smart Government before Smart Technology. Each city could consider what are city's unique selling points and what are the assets, and it is important to be attentive to needs beyond political vision. Peer to peer network on Smart City and Smart Citizen Engagement within a country and beyond borders could be beneficial in deepening this thinking, including the ASCC itself, or another network such as Asian Smart City Network.



## Integrated Urban Development

To realize an inclusive as well as sustainable smart city that improves the Quality of life (QOL) of the city dwellers, each city needs to set a clear vision for urban development and keep questioning “which challenges should be solved,” “what are the bottleneck to solve the challenges?” and “what technology is needed to eliminate the bottleneck?”

Served as a capstone session on integrated urban development based on the discussions on Day 2 morning, this covered the following topics: How can cities organize themselves to promote comprehensive urban development designed to promote priority issues in the city as a whole? What are some of the important mechanisms to prevent silo-based approaches and create an enabling environment which puts citizens in the driver’s seat? Speakers from the national government and academia discussed the importance of setting clear visions, promoting collaboration and harnessing citizens’ improvement.

Moderator: Francis Ghesquiere (World Bank)  
Speakers: Yukihiro Tokunaga (Ministry of Land, Infrastructure, Transport and Tourism, Japan)  
Fumihiko Nakamura (Yokohama National University)  
Nobuharu Suzuki (Yokohama City University)  
Lena Ng (AMATA Corporation PCL)



## Key Takeaways

**Shift from technology-oriented city to challenge-oriented city:** Until recently, many cities have blindly prioritized utilizing technology without clarifying challenges to be solved. To realize an inclusive as well as sustainable smart city that improves the Quality of life (QOL) of the city dwellers, each city needs to set a clear vision for urban development and keep questioning “which challenges should be solved,” “what are the bottleneck to solve the challenges?” and “what technology is needed to eliminate the bottleneck?”

**From individual optimization to total optimization:** The optimization for one sector or one entity is not necessarily an optimal solution for the entire city. Cities should make efforts optimizing their operations based on needs and seeds. One way to encourage this total optimization is to promote the linkage of data and technologies as well as collaborating with different stakeholders. (e.g. using a shared platform to integrate management and conduct data analysis.)

**4Ps (Place, Politics, Prize and People) and the impact of culture in smart city development:** It is important to consider 4Ps when we think about smart city development: What are the characteristic of your location? What kind of political context should you consider at the global, national and municipal level? What kind of incentives can you provide to promote smart city initiatives? and how can you harness trust and friendship among smart people who can realize the smart city? While we tend to forget about the culture issues when we focus too much on the technical side of smart city development, culture plays a key role affecting the 4Ps.

**Shift from multi-modal mobility to inter-modal mobility:** In a smart city development, it is important to consider the way in which people can connect with others through their movement. Cities can help its people from taking multi-modal mobility (each citizen can choose his or her mobility and do not necessarily interface with others) to taking inter-modal mobility (each citizen can connect with others taking the mobility).

**Importance of the leadership to bridge different stakeholders:** The historical lesson of the successful development of the city of Yokohama suggested that the strong leadership is crucial in bridging different stakeholders and implement a public project. Consistent efforts to have dialogue and share the vision would be crucial to achieving the ambitious goal.





## Exponential Technologies

All over the world, digital identity has become a norm with every individual having an average of 21 identities. Digital identity is associated with almost all aspects of our life and we use them to do transactions, every now and then.

This capstone session invited panelists representing Accenture, Hitachi, Nissan Digital, and Asia University for an interactive dialogue towards exponential technologies and thinking, based on discussions on the afternoon of Day 2. Moderated by Daniel Levine, the discussions focused on what are some of the game changing technologies emerging today, and what are the implications for development impact.

Moderator: Daniel Levine (World Bank - TDLC)  
Speakers: Christine Leong (Accenture Digital)  
Takashi Kai (Hitachi, Ltd.)  
Tony Thomas (Nissan Motor Corporation)  
Hisakazu Okamura (Asia University)



## Key Takeaways

**Digital Identity is everyday life:** All over the world, digital identity has become a norm with every individual having an average of 21 identities. Digital identity is associated with almost all aspects of our life and we use them to do transactions, every now and then. This is being supported by Artificial Intelligence (AI), which is also becoming a kind of an identity. This leads to the common need to understand how to use the data stored i.e the actual application, wisely. Everything is linked through data unity, which makes the use portable for end users and organizations but also raises the challenge of security.

**Leading towards Society 5.0:** Moving from Society 4.0, which was essentially based on Information Technology, shift is towards Society 5.0 that focuses on IoT and data information, analyzed by AI, robots and drones, replacing human efforts. Society 5.0 is an effort by the Japanese government considering their declining population. Innovation in leading edge technology is covering all aspects of life, such as health, mobility, and information bank.

**Mobility is changing how the world is evolving today:** Earlier the use was restricted to mechanically driven vehicles, which slowly but steadily has been moving to automatic transmission and going forward it will be totally technology and data reliant. With leading innovations, we are evolving towards an ecosystem, where vehicles and humans will co-exist, e.g robo cars, ride sharing, on demand car etc. Challenge is to think how we collaborate this with cities: thinking beyond the vehicles and finding solutions on intertwining mobility with city fabric and its development. Intelligent mobility is also relevant for a more sustainable system that uses energy saving solutions, such as e-power and power.

**Importance of smart cities:** With the constantly changing demands, such as upcoming Olympics in Japan in 2020, need for earthquake protection, and aging population, there is an imperative need for smart solutions. A smart city is possible if it is under a leadership that develops, coordinates, finances, and manages political scenario. Japan is one of the leaders in providing smart solutions for urban development and infrastructure provision. This is supported by a case of Deltamas city in Indonesia, which is being developed based on Japanese collaboration. Out of the total 204 companies in the city, 86 are Japanese companies that are supporting infrastructure development, including railways and bus system.



# Plenary Meeting



## Fostering Collaboration for Smart City Development

Starting with Mayor Hayashi's opening remark that emphasizes the importance of realizing low carbon society, this plenary meeting focused on the importance of articulating visions for smart city development, cross-organizational collaboration in mobilizing resources and accelerating innovation, and city-to-city peer learning. The Japanese government, in particular, emphasized the importance of overseas expansion in ecological infrastructure as well as the promotion of the private-public partnership to accomplish the sustainable development goals.

## Key Takeaways

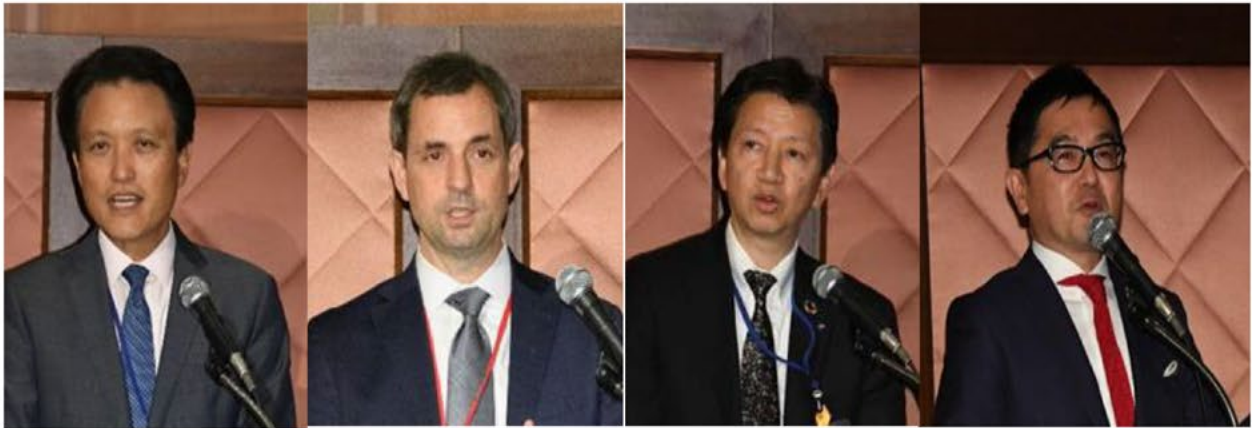
**Significance of overseas expansion in ecological infrastructure:** Many developing countries struggle to undertake numerous urban development projects owing to the inefficient infrastructure. Promoting smart city development thus should be the core of its international technical cooperation. The Ministerial Meeting on Strategy relating Infrastructure Export and Economic Cooperation in June 2018 also emphasized the importance of urban infrastructure assistance such as energy efficient water and sewage, ecological transportation and energy saving facility development. We need to work hard on providing enough intangible support (i.e. human resource development) as well as tangible support (i.e. facility development) to promote these ecological infrastructure projects.

**Significance of the Public-Private Partnership (PPP):** To achieve smart city development, it is indispensable to collaborate with the private sector in solving urban issues. In its "Future City" initiative the City of Yokohama advocates the metropolis plan that tackles on the social issue through the collaboration with municipal governments, academic organizations, and private firms. The city already implemented a pilot PPP project in Tsunashima district that advocates people-centric community development. These initiatives contribute to generating innovative ideas and networking opportunities as well as reducing carbon dioxide. Since many firms offer innovative solutions to urban affairs, the public sector needs to identify and support these "seeds" to scale-up the innovation.

**Transforming the existing social system to achieving the zero-carbon society:** While the City of Yokohama has been successful in implementing urban development projects that leads to livable city development, the city realizes the importance of involving local citizens and changing the existing social system to realize the decarbonized society. The city recently made "the Zero Carbon Yokohama Declaration" that aims to achieve zero CO2 emission during the early years of this century. The city is also in the process of launching the SDG design center which aims to promote initiatives addressing economic, social and environmental problems.

**MERIT of City-to-city collaboration** There are many benefits to have city-to-city collaborations. It can be summarized as follows:

- M: Mobilization of Resources
- E: Environment / Equity / Economy
- R: Relationship Building
- I: Inspiration/ Integration / Innovation / Insight
- T: Transition / Transmission / Transformation



## Business Forum

### "Sustainable City with SDGs supported by Enterprise and Local government"

Nikkei ESG Management Forum, which Nikkei Business Publications Inc. serves as secretariat, held a business forum and gave lectures, inviting organizations that pioneers SDGs.

【Date/Time】 DAY2 November 14th (Wed) 10:30 – 12:30

【Participants】 Approx. 80 attendees

- Speakers:
- Woochong Um, Director General, Sustainable Development and Climate Change Department (SDCC), Asian Development Bank  
"Addressing Complex Development Challenges at Scale"
  - Francis Ghesquiere, Practice Manager, East Asia and Pacific Region, World Bank  
"Supporting Sustainable Urban Development in Asia and the Pacific Region"
  - Kenji Hosaka, Executive director for Future City Promotion Division, Climate Change Policy Headquarters, City of Yokohama  
"SDGs Future City Yokohama – Solving Social Challenges and Creating New Value in Cooperation with Diverse Stakeholders"
  - Tetsuo Ohkawa, CEO, Ohkawa Printing Co., Ltd.  
"Significance of SMEs Tackling SDGs"





## Yokohama Youth Event 2018

At this event, with financial cooperation from Nissin Co., Ltd., the student of Yokohama City University announced the results of research on issues and future prospects for Japanese small and medium enterprises to expand overseas.

【Date/Time】 DAY2 November 14th (Wed) 14:00-16:30

【Participants】 Approx. 70 attendees

- Moderator: Kendra Hirata, CITYNET Yokohama Project Office
- Speaker: David Dole, Senior Capacity Building and Training Economist, Asian Development Bank Institute
- Commentator: Brian Johnson, Research Manager, Institute for Global Environmental Strategies (IGES)  
 Yan Zhang, Research Project Consultant, Asian Development Bank Institute (ADB I)  
 Yasuaki Nakamura, Deputy Director for Development Cooperation, International Affairs Bureau, City of Yokohama  
 Hiroshi Ueda, Secondly Survey Group, Osumi co., Ltd





## Yokohama Info-Market

The City of Yokohama and YOKOHAMA URBAN SOLUTION ALLIANCE cooperated and introduced the technology of Yokohama's companies in addition to Yokohama City's know-how on the city development. In addition, we provided opportunities for companies that provide solutions and emerging-market cities seeking solutions to urban issues.

【Date/Time】 DAY2 November 14th (Wed) 10 : 00 – 16 : 00 /

DAY3 November 15th (Thu) 9 : 30 – 14 : 00

【Exhibitor】 ComPower Inc, Fenic co., Ltd, Finetech Co., Ltd., JVC KENWOOD Corporation, NEC Corporation, NIHON GENRYO Co., Ltd., Toshikougyo CO.,Ltd., Global Environment Centre Foundation (GEC)

【Presenter】 Global Environment Centre Foundation (GEC) (14th)  
YOKOHAMA URBAN SOLUTION ALLIANCE (15th)



## **ANNEX 1: The 7<sup>th</sup> Asia Smart City Conference Yokohama Declaration**

For the past seven years, we have held the "Asia Smart City Conference" with an aim to enhance city-to-city collaboration and partnership among cities and related international institutions to achieve smart and sustainable urban growth in Asia.

In the meantime, international target such as the Sustainable Development Goals (SDGs), New Urban Agenda under HABITAT III, and the Paris Agreement under Conference of the Parties (COP21) were adopted. Recently, international community is accelerating to realize sustainable growth as we see some cities are working together to achieve their challenging goal of zero carbon. With a prominent increase of urban population, cities are getting to play more and more important roles as they directly support citizens' life. Citizens should be proactively engaged by enabling platforms for collaboration and participatory planning along with government and private sector to co-create innovative solutions to enable inclusiveness and an improved quality of life for Livable Cities.

"Fostering a Marketplace for Co-Innovation" was the main theme for this Conference, and the impact of new exponential technologies on cities was discussed as well as essential topics including water, waste, transport, energy efficiency, and resilience.

In the panel discussion, we discussed integrated urban development, shared the knowledge on innovative technologies and future directions. Based on these arguments, participants deepened their understanding of the importance of learning from each other beyond the border in the plenary session. These discussions lead the participants to the following ideas.

Multilateral discussions by diverse participants are the source for the co-creation of effective and innovative solutions. We will strengthen Peer-to-Peer learning through a platform such as "Asia Smart City Alliance" and other platforms for city collaboration of our development partners and utilize it as an ideal venue to exchange ideas, experiences and innovations. We seek sustainable growth while incorporating new technology appropriately. The Conference also recognized the power and potential of the private sector in achieving development goals to co-create sustainable cities.

We will report the content of this Yokohama Declaration to the Conference of the Parties 24 (COP24), to be held in Poland in December this year, and to other relevant international conferences.



## ANNEX 2: Site Visit

【Date/Time】DAY1 November 13th (Tue) 13:30-17:00

【Participants】 Approx. 70 attendees

【Locations】

- New Yokohama city hall (Low carbon type city hall with maximum consideration for the environment to be completed in 2020)



- Water and environment solution hub (Hokubu-Daini Wastewater Treatment Plant and Hokubu Sludge Treatment)



- From waste to energy (Resources and Waste Recycling Bureau Tsuzuki Plant, can · bottle · PET bottle sorting facility)



## ANNEX 3: List of Speakers

### DAY 2 (November 14)

#### 1. Introduction session

Speaker	<ul style="list-style-type: none"> <li>● Ken Akaoka, Director General, International Affairs Bureau, City of Yokohama</li> <li>● Daniel Levine, Senior Officer, Tokyo Development Learning Center, World Bank</li> <li>● Chul Ju Kim, Deputy Dean, Asian Development Bank Institute</li> </ul>
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#### 2. Thematic Sessions

##### (1) Water and waste

Speaker	<ul style="list-style-type: none"> <li>● Dave Tumalak , City Councilor, Cebu City, Philippines</li> <li>● Yugi Sukriana, ST., M.Sc, Advisor, City Government of Bandung, Indonesia</li> <li>● Bunrith Soeum, Deputy Provincial Governor, Battambang Provincial Administration, Cambodia</li> <li>● Ramon III D. Durano, Danao, Philippines</li> <li>● Takanori Arima, Director, Environmental Bureau, Kitakyushu, Japan</li> <li>● Muhammad Nasim Khan, Municipal Corporation, Rawalpindi, Pakistan</li> <li>● Tserendulam Shagdarsuren, Director, Healthy City Network of Mongolia</li> <li>● Igor Alexandrovich Alexeyev, Deputy Director, Utilities Department, Astana City, Kazakstan</li> </ul>
Solution Provider	<ul style="list-style-type: none"> <li>● Kevin Sagawa, FINETECH CO., Ltd.</li> <li>● Kenichi Watanabe, GOODMAN Inc.</li> <li>● Takeshi Konishi, Guun Co., Ltd.</li> <li>● Toshitaka Kato, Takenaka Corporation</li> <li>● Kaoru Kikuyama, JFE Engineering Corporation</li> <li>● Yasuo Tajiri, TOSHIKOGYOU Co., Ltd.</li> </ul>
Commentator	<ul style="list-style-type: none"> <li>● Noriaki Yokouchi, Environmental Planning Bureau, City of Yokohama, Japan</li> <li>● Danilo Temonio Jaque, Managing Director, Asian Institute of Technology Alumni Association</li> <li>● Xiaotian Fu, World Resources Institute, China</li> </ul>
Moderator	<ul style="list-style-type: none"> <li>● Haruka Imoto, Knowledge Management Analyst, WB</li> </ul>

## (2) Transport and mobility

Speaker	<ul style="list-style-type: none"> <li>● Kriangyos Sudrabha, Deputy Governor, Bangkok, Thailand</li> <li>● Neang Mony Roath, Technical Official, Urbanization, Phnom Penh Municipality, Cambodia</li> <li>● Vichekal Tema, Administration Deputy Director, Phnom Penh City Hall Administration</li> <li>● Irakli Gokhelashvili, Senior Specialist, Economic Development Department, Tbilisi Municipality City Hall, Georgia</li> <li>● Berlinh Phetchantharth, Director, Industry and Commerce Department of Vientiane Capital Administration Office, Laos</li> <li>● Pen Sophea, Deputy Director, Phnom Penh Department of Land Management Urban Planning Construction and Cadaster</li> </ul>
Solution Provider	<ul style="list-style-type: none"> <li>● Akitake Fujita, Arthur D. Little</li> <li>● Maxime Sicard, Faurecia</li> <li>● Benjamin Butcher, NEC Corporation</li> </ul>
Commentator	<ul style="list-style-type: none"> <li>● Tsutomu Yoshigi, Deputy Managing Director, Japan Overseas Infrastructure Investment Corporation for Transport and Urban Development (JOIN)</li> <li>● Katsunori Sasaki, Director, Business Promotion Division, International Business Office, Urban Renaissance Agency (UR)</li> <li>● Hitoshi Ara, Senior Representative, Japan International Cooperation Agency (JICA)</li> <li>● Daizong Liu, WRI China Cities' Director, World Resources Institute</li> <li>● Arifin Tasrif, Ambassador, Embassy of Indonesia</li> </ul>
Moderator	<ul style="list-style-type: none"> <li>● Yuko Okazawa, Urban Specialist, WB</li> </ul>

## (3) Energy efficiency

Speaker	<ul style="list-style-type: none"> <li>● Shuji Okazaki, Director, Climate Change Policy Headquarters, City of Yokohama</li> <li>● Jayanti Maharani, First Level Planner, Directorate of Energy, Telecommunications, and Informatics BAPPENAS</li> </ul>
	<ul style="list-style-type: none"> <li>● Lena Ng, Chief investment officer, AMATA Corporation PCL</li> <li>● Indonesian Ministry of National Development Planning</li> <li>● Berdakh Raziev, Specialist on Strategic Development and International Cooperation, Secretary of Mayor's Office, Tashkent City Municipality, Uzbekistan</li> <li>● Shaukat Mahmood, Managing Director, Government of Pakistan (Rawalpindi Water and Sanitation Agency, Punjab)</li> </ul>
Solution Provider	<ul style="list-style-type: none"> <li>● Masakazu Hirokawa and Mr. Erwin Avianto, iFORCOM Co., Ltd.</li> <li>● Stuart Kay, GreenPlace Assets</li> </ul>
Commentator	<ul style="list-style-type: none"> <li>● Alfonso Vegara Gorroño, Associate Director of Future Cities Research (Fundacion Metropoli)</li> <li>● Junichi Fujino, Principal Researcher, Institute for Global Environmental Strategies (IGES)</li> <li>● Makoto Kato, General Manager, Overseas Environmental Cooperation Center(OECC), Japan</li> <li>● Thomas Schmeing, Embassy of Germany</li> <li>● Mahoyo Yamamoto, Ministry of Environment, Japan</li> </ul>
Moderator	<ul style="list-style-type: none"> <li>● Mian Shaukat Shafi, Senior Project Officer, Central and West Asia Department (CWRD), ADB</li> </ul>

#### (4) Disaster resilience

Speaker	<ul style="list-style-type: none"> <li>● Metro Manila, Philippines</li> <li>● Alipate Mataivilia, Senior Accounts Officer, Ministry of Local Government, Fiji</li> <li>● Hezhou city, China</li> <li>● Swastika Swaran Lata Deo, Manager, Finance Department, Nausori Town Council, Fiji</li> <li>● Gerber S. Eresmas, Bases Conversion and Development Authority, Bases Conversion and Development Authority (BCDA), Philippines</li> </ul>
Solution Provider	<ul style="list-style-type: none"> <li>● Chiho Kimpara, Japan Weather Association</li> <li>● Takayoshi Yokoyama, JVCKENWOOD Cooperation</li> <li>● Joe Paluska, One Concern</li> </ul>
Commentator	<ul style="list-style-type: none"> <li>● Nozomi Kawasaki, Director, Japan ICT Fund (JICT)</li> <li>● Cassandra B. Sawadjaan, First secretary and Consul, Embassy of Philippines</li> </ul>
Moderator	<ul style="list-style-type: none"> <li>● Jude Kohlhase, Senior Urban Development Specialist, CWRD, ADB</li> </ul>

#### (5) Urban infrastructure provision for smart cities

Speaker	<ul style="list-style-type: none"> <li>● Igor Alexandrovich Alexeyev, Deputy Director, Utilities Department, Astana City, Kazakhstan</li> <li>● Gerber S. Eresmas, Bases Conversion and Development Authority, Bases Conversion and Development Authority (BCDA), Philippines</li> <li>● Bunrith Soeum, Deputy Provincial Governor, Battambang Provincial Administration, Ministry of Interior, Cambodia</li> <li>● Alipate Mataivilia, Senior Accounts Officer, Ministry of Local Government, Fiji</li> <li>● Irakli Gokheshvili, Senior Specialist, Economic Development Department, Tbilisi Municipality City Hall, Georgia</li> <li>● Berlinh Phetchantharath, Director, Industry and Commerce Department of Vientiane Capital Administration Office, Laos</li> <li>● Ho Chi Minh City, Vietnam</li> <li>● Neang Mony Roath, Technical Official, Urbanization, Phnom Penh Municipality, Cambodia</li> <li>● Alipate Mataivilia, Senior Accounts Officer, Ministry of Local Government, Fiji</li> <li>● Swastika Swaran Lata Deo, Manager, Finance Department, Nausori Town Council, Fiji</li> <li>● Tserendulam Shagdarsuren, Director, Healthy City Network of Mongolia</li> </ul>
Solution Provider	<ul style="list-style-type: none"> <li>● Hideyo Sato, Dassault Systèmes</li> <li>● Taisuke Watanabe, EX Research Institute Ltd.</li> </ul>
Commentator	<ul style="list-style-type: none"> <li>● Junichi Fujino, Principal Researcher, Institute for Global Environmental Strategies (IGES)</li> <li>● Danilo Temonio Jaque, Managing Director, Asian Institute of Technology Alumni Association</li> <li>● Cassandra B. Sawadjaan, First secretary and Consul, Embassy of Philippines</li> </ul>
Moderator	<ul style="list-style-type: none"> <li>● Francis Ghesquiere, Practice Manager, East Asia Pacific, Urban and Disaster Risk Management, WB</li> </ul>

## (6) Utilizing big data/ open data for land development

Speaker	<ul style="list-style-type: none"> <li>● Ho Chi Minh City, Vietnam on Smart City and Innovation District, Vietnam</li> <li>● Shaukat Mahmood, Managing Director, Government of Pakistan (Rawalpindi Water and Sanitation Agency, Punjab)</li> <li>● Muhammad Nasim Khan, Municipal Corporation, Rawalpindi, Pakistan</li> </ul>
Solution Provider	<ul style="list-style-type: none"> <li>● Shiori Taniguchi, Asia Air Survey Co., Ltd.</li> <li>● Tomomi Matsuoka, Program Manager, Google Earth Outreach</li> <li>● Katsuya Homma, PASCO Corporation</li> </ul>
Commentator	<ul style="list-style-type: none"> <li>● Hidefumi Imura, Contract Professor, Yokohama City University</li> <li>● Togo Uchida, Director, ICLEI- Local Governments for Sustainability</li> </ul>
Moderator	<ul style="list-style-type: none"> <li>● Yuko Okazawa, Urban Specialist, WB</li> </ul>

## (7) Retooling manufacturing and industrials

Speaker	<ul style="list-style-type: none"> <li>● Ramon III D. Durano, Danao, Philippines</li> <li>● Indonesian Ministry of National Development Planning</li> </ul>
Solution Provider	<ul style="list-style-type: none"> <li>● Masakazu Hirokawa and Mr. Erwin Avianto, iFORCOM Co., Ltd.</li> <li>● Takanori Fujita, Project Lead for Healthcare Data Policy C4IR Japan, World Economic Forum Centre for the Fourth Industrial Revolution Japan</li> </ul>
Commentator	<ul style="list-style-type: none"> <li>● Katsuhiko Yonezaki, Assistant Professor, Yokohama City University</li> <li>● Arifin Tasrif, Ambassador, Embassy of Indonesia</li> </ul>
Moderator	<ul style="list-style-type: none"> <li>● Daniel Levine, Senior Officer, WB</li> </ul>

## (8) Citizen engagement through smart technology

Speaker	<ul style="list-style-type: none"> <li>● Yugi Sukriana, ST., M.Sc, Advisor, City Government of Bandung, Indonesia</li> <li>● Kriangyos Sudrabha, Deputy Governor, Bangkok, Thailand</li> <li>● Berdakh Raziev, Specialist on Strategic Development and International Cooperation, Secretary of Mayor's Office, Tashkent City Municipality, Uzbekistan</li> <li>● Pen Sophea, Deputy Director, Phnom Penh Department of Land Management Urban Planning Construction and Cadaster Government of Pakistan (SURR Social)</li> <li>● Vichekal Tema, Administration Deputy Director, Phnom Penh City Hall Administration</li> <li>● Berdakh Raziev, Specialist on Strategic Development and International Cooperation, Secretary of Mayor's Office, Tashkent City Municipality, Uzbekistan</li> <li>● Takanori Arima, Director, Environmental Bureau, Kitakyushu, Japan</li> </ul>
Solution Provider	<ul style="list-style-type: none"> <li>● Miguel Arana Catania, Madrid City Council</li> <li>● Jiwon Nam, SRPOST Inc.</li> <li>● Yokohama Community Design Laboratory</li> </ul>
Commentator	<ul style="list-style-type: none"> <li>● Makoto Kato, General Manager, Overseas Environmental Cooperation Center, Japan (OECC)</li> <li>● Alfonso Vegara Gorroño, Associate Director of Future Cities Research, Fundacion Metropoli</li> </ul>
Moderator	<ul style="list-style-type: none"> <li>● Ramola Singru, Senior Urban Development Specialist, CWRD, ADB</li> <li>● Saswati Belliappa, Safeguards Specialist, SARD, ADB</li> </ul>

## DAY 3 (November 15)

### 1. Panel Discussion

#### (1) Capstone 1 on Integrated Urban Development

Panelist	<ul style="list-style-type: none"><li>● Yukihiisa Tokunaga, Deputy Director-General for Engineering Affairs, City Bureau, Ministry of Land, Infrastructure, Transport and Tourism, Japan</li><li>● Fumihiko Nakamura, Executive Director, Vice President, Yokohama National University</li><li>● Nobuharu Suzuki, Professor, Yokohama City University</li><li>● Lena Ng, AMATA Corporation PCL</li></ul>
Moderator	<ul style="list-style-type: none"><li>● Francis Ghesquiere, Practice Manager, East Asia Pacific, Urban and Disaster Risk Management</li></ul>

#### (2) Capstone 2 on Exponential Technologies

Panelist	<ul style="list-style-type: none"><li>● Christine Leong, Accenture Digital</li><li>● Takashi Kai, General Manager, Government and Public Planning Division, Hitachi, Ltd.</li><li>● Tony Thomas, Corporate Vice President, Chief Information Officer, Nissan Motor Corporation</li><li>● Hisakazu Okamura, Professor, Asia University</li></ul>
Moderator	<ul style="list-style-type: none"><li>● Daniel Levine, Senior Officer, WB</li></ul>

### 2. Plenary

#### • Opening Session

Opening Speech	<ul style="list-style-type: none"><li>● Fumiko Hayashi, Mayor, City of Yokohama</li></ul>
Keynote Speech	<ul style="list-style-type: none"><li>● Hideo Suzuki, Director-General/ Assistant Minister, Global Issues, Ministry of Foreign Affairs, Japan</li><li>● Takaaki Katsumata, Parliamentary Secretary, Ministry of the Environment, Japan</li></ul>
Video Message	<ul style="list-style-type: none"><li>● Maimunah Mohd Sharif, Executive Director, UN-HABITAT</li><li>● Mark Watts, Executive Director, C40</li></ul>

#### • Panel Discussion

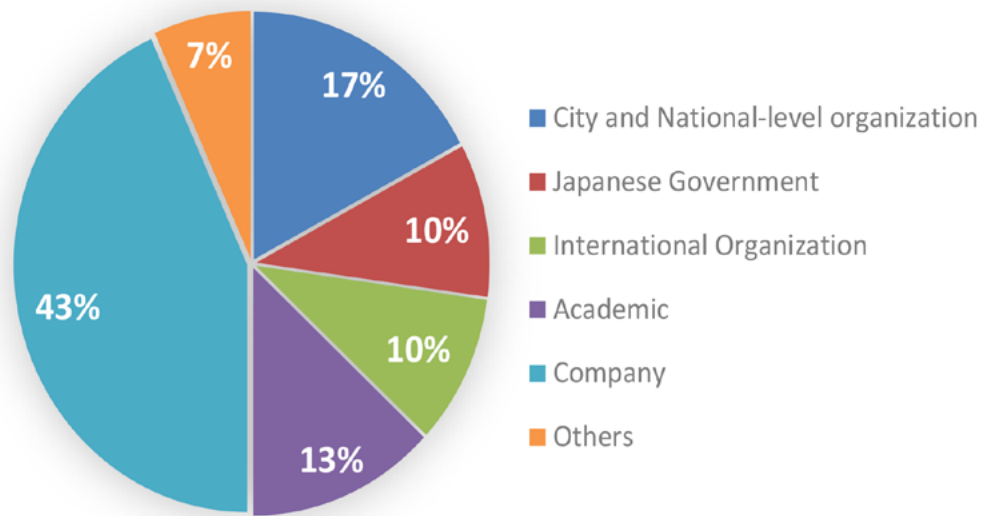
Panelist	<ul style="list-style-type: none"><li>● Francis Ghesquiere, Practice Manager, East Asia Pacific, Urban and Disaster Risk Management, WB</li><li>● Manoj Sharma, Chief, Urban Sector Group, Sector Advisory Service Division, SDCC, ADB</li><li>● Eriko Yakushiji, Director General, Climate Change Policy Headquarters, City of Yokohama</li><li>● Evelyn Nacario Castro, Director, MDCDB, Province of Cebu</li></ul>
Moderator	<ul style="list-style-type: none"><li>● Kazuhiko Takeuchi, President, IGES</li></ul>

#### • Closing Session

Student Speech	<ul style="list-style-type: none"><li>● Ayumi Ariizumi, Yokohama City University (Student)</li></ul>
Joint Declaration	<ul style="list-style-type: none"><li>● Ken Akaoka, Director General, International Affairs Bureau, City of Yokohama</li></ul>

## ANNEX 4: Participating Cities & Organizations

### Sector Representation



**500 participants from some 30 cities and national-level organizations across 14 countries**

- Organizer: City of Yokohama
- Co-organizer: Tokyo Development Learning Center (World Bank Group)  
Asian Development Bank Institute
- Supporter: Cabinet Office, Government of Japan  
Ministry of Finance, JAPAN  
Ministry of Foreign Affairs of Japan  
Ministry of the Environment, Government of Japan  
Institute for Global Environmental Strategies (IGES)  
Japan International Cooperation Agency (JICA)  
Yokohama City University

# Asia Smart City Conference

in YOKOHAMA



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