



Japan. Digital Garden City Nation.



# Improving Citizen's Well-Being toward Digital Garden City Nation



**SMARTCITY**

EXPO WORLD CONGRESS

7 - 9 NOVEMBER 2023

BARCELONA & ONLINE



**JAPAN  
Pavilion**

Organized by



**Smart City  
Institute Japan**

# Key message from the organizer of Japan Pavilion

## Smart City Institute Japan (SCI-Japan)



### Japan Pavilion – introducing “human-centric” smart city case studies and innovative technologies under the country’s vision “Digital Garden City Nation”

Smart City Institute Japan (SCI-Japan) is a private sector-led non-profit organization that was founded in October 2019 by Mitsubishi UFJ Research & Consulting, a think tank and consulting firm, and NIKKEI, Asia's leading economic media group. SCI-Japan is a leading knowledge and public-private-academic partnership platform that promotes the implementation and advancement of smart cities in Japan and the world, with around 700 members and global partners.

SCI-Japan will organize the “Japan Pavilion” at Smart City Expo World Congress 2023 in Barcelona, which will have over 20 exhibitors from central/local governments, academics and private sectors. They will provide a showcase of “human-centric” smart cities for citizens' well-being.

The combined Japan Pavilion and Tokyo Metropolitan Government's stand are one of the largest group exhibit areas, and SCI-Japan will bring over 100 delegates from Japan, not only as exhibitors but also as members of our study tour program.

### Well-Being City Theater

The Japan Pavilion has set up an open theater called “Well-Being City Theater”. Throughout the event, the theater will host a series of joint sessions with our partner countries and organizations across the world.

SCI-Japan will also announce the latest developments in the LWCI (Liveable Well-Being City Indicators) in this theater. Under Prime Minister Kishida's signature policy called “a new form of capitalism”, a vision for Digital Garden City Nation presents a roadmap to achieve rural-urban digital integration and transformation, which will solve crucial issues such as rural depopulation and devastating disasters caused by climate change. The goals are to make living and working anywhere in the country more comfortable, convenient, and sustainable and to improve citizens' well-being. SCI-Japan will be supporting this initiative through the LWCI endorsed by the Japanese government as one of the KPIs for the Digital Garden City Nation Initiative.

### “City-to-City Collaboration” for well-being and sustainable society

In the G7 Sustainable Urban Development Ministers' Communiqué issued in July 2023, it is confirmed that the G7 countries will work to realize smart cities globally, including in emerging and developing economies, by sharing strategies and best practices.

Following this initiative by the G7, we will move forward with “City-to-City” collaboration through LWCI from Japan Pavilion and Well-Being City Theater.

Looking forward to working together toward well-being and sustainable society.



**Smart City  
Institute Japan**



**Tatsuya Kitamura**  
Executive Director  
Smart City Institute Japan  
Supervisor of Japan Pavilion

# Tokyo Metropolitan Government

## Smart Tokyo

We are promoting various initiatives for 20 visions and 20 strategies from "Future Tokyo: Tokyo's Long-Term Strategy", which sets 2040 as the milestone.

As the initiative for Vision 12 and Strategy 10, we are working on "Smart Tokyo".

In this initiative, we aim to improve QOL in Tokyo by 3 pillar policies:

- 1) "TOKYO Data Highway" (Connecting all in Tokyo with digital),
- 2) "DX of areas" (Digital transformation of public facilities and services),
- 3) "DX of government" (Digital transformation of Government)



### ABOUT TOKYO PAVILION

#### ● Leading Areas

##### [Leading Area Otemachi Marunouchi and Yurakucho (OMY) District]

We aim to improve the international competitiveness of Tokyo and Japan by promoting a state-of-the-art smart city in the heart of the city.

##### [Toyosu Smart City]

We are creating "Mixed-Used Type Future City" through Open-Innovation in bay-area, Toyosu.

##### [Takeshiba Area Management Incorporated Association]

We are taking on the challenge of creating a smart city in Takeshiba area, to address issues such as disaster prevention and improving area connectivity.

##### [Tokyo Bay eSG Partner Soft & Wet matter Engineering Laboratory, Yamagata University, Japan]

Yamagata University, a partner of the Tokyo Bay eSG project, will exhibit a state-of-the-art 3D food printer.

#### ● Startups

##### [Be Smart Tokyo]

By collaborating with startups, we create new services to enhance the QOL (quality of life) of residents in Tokyo.

#### ● Infrastructure

##### [BUREAU OF SEWERAGE TOKYO METROPOLITAN GOVERNMENT]

The Bureau of Sewerage treats sewage, manages rainwater, and preserves public water quality in Tokyo.

##### [Bureau of Waterworks Tokyo Metropolitan Government]

Advanced Water Purification, World's Lowest Leakage Rate of about 3%, Robust Water System.

#### ● Mobility

##### [BUREAU OF TRANSPORTATION TOKYO METROPOLITAN GOVERNMENT]

We are a local public enterprise operated by the Tokyo Metropolitan Government. Subway, Bus, Streetcar, Liner were used by approximately 3.0 million people daily in 2022.

##### [EAST JAPAN RAILWAY COMPANY]

We will earn the trust of our customers as a whole group by aiming for ultimate safety levels as our top priority.

#### ● Environment

##### [Bureau of Environment Tokyo Metropolitan Government]

The Tokyo Metropolitan Government is developing the "TIME TO ACT" climate action movement to accelerate effective decarbonization efforts.

#### ● Tourism promotion

##### [Tokyo Tokyo]

We will provide you with charms and information on sightseeing in Tokyo, where modernity and tradition.

#### ● Global Event in Tokyo

##### [SusHi Tech Tokyo 2024]

Over April-May next year, expanding on its successful 2023 event, the Tokyo Metropolitan Government will host "SusHi Tech Tokyo 2024".



Tokyo is proud to present our new concept, "Sustainable High City Tech Tokyo," or "SusHi Tech Tokyo," to the world.

SusHi Tech Tokyo is a symbol of overcoming global urban challenges using cutting-edge technology to create a sustainable society.

**The future is ours to make.  
Be it tomorrow or 100 years from now.**

**Shaping our Tomorrow**



## Maximize the digital power to realize well-being and sustainable cities

With our innovative technologies and integration experience over years, NEC has been helping governments worldwide to solve their challenges so each city and region will be more well-being and sustainable. Our wide range of ICT expertise based on various cutting-edge technologies are being delivered as Smart city solutions. Those are integrated to each local governments' urban plans so as to produce greater social values such as safety and security, quality of life, circular economy, carbon neutrality, and more.

NEC has been developing and delivering Smart city solutions back in 2011 by participating to a program in EU for development of FIWARE. We are leveraging this globally recognized open-source software as one of important components for our data platform cities, NEC City OS, as well as our Integrated Control and Command Center, ICCC.

Enabling data utilization in Smart city worldwide is key for each government to have sustainable growth, as data can connect multiple stakeholders from public and private sectors to promote co-creation, act as common language to

elevate well-being, and lead to realization of citizen-centric Smart city.

With the data utilization, NEC has started delivery of Smart city solutions in Europe, and extending our experience to Japan, India, and other countries worldwide. Now in 2023, our Smart city solution portfolio is broad enough to cover diverse challenges in society, and always being enhanced through implementation and collaboration at each city.

NEC continues to work to implement innovative technologies and establish standards for excellence in society.

We are looking forward to seeing you at NEC exhibition at #C101, Hall1 so you will be in touch with our smart city successful cases and proposals for bright future.



**Yutaka Ukegawa**

NEC Corporation  
Cross-Industry Business Unit  
Corporate EVP and  
President of Business Unit

### HIGHLIGHT

**NEC exhibits four themes in our pavilion, provides short seminars, and joins two round-table discussions in auditorium or in thematic room.**



NEC's Smart city vision represents our mindset to realize true value for society through our ability to maximize power of digital technologies.

During this event, NEC experts will be up on stage for round tables at 1:30 pm on November Thursday 7th for 'Up-to-date Policies for Cities in Motion', and at 12:00 pm on November 8th for 'Propelling Urban Living with Enabling Tech'. Short seminars from NEC are in Japan pavilion throughout event.

We exhibit four themes.

- **Smart city services in Japan**

As society matures and our lifestyle and values become

more diverse, personalization of services become increasingly beneficial for users and providers. We present variety of Smart city services in Japan to be used by both residents and/or visitors.

- **Building Smart cities worldwide**

NEC has been implementing Smart city worldwide and empowering lives and building tomorrow. We showcase several successful cases that we harness digital innovations to build inclusive, fair, and safer societies.

- **Circular economy in regions**

Promotion of circular economy is one of the important steps to reach carbon neutrality. NEC is integrating our own excellent AI technologies to advance regional resource circulation. We present case studies of circular economy roll out.

- **Future city with digital collaboration**

NEC presents our view on Smart city and society in far future. We envision real and virtual worlds convergence over our digital twin technology and innovative digital collaboration for virtuous cycle of economy in each region.

Please come and visit us at #C101, Hall1, and roundtable sessions at auditorium and thematic room.

## “Keihanshin” and its Endless Effort towards Achieving a Better Smart City

Three regions and cities in western Japan, Kyoto, Osaka, and Kobe, together form the economic zone known as "Keihanshin". Each of them has been striving to realize their own concept of "Smart City".

Kyoto Prefecture has a Science City called "Keihanna Science City" that is located south of Kyoto Prefecture and has more than 150 research, educational, and cultural facilities in an open innovation center. Since 2014, Keihanna Science City has hosted the annual Kyoto Smart City Expo that synthesizes provides a forum for BtoB and BtoG (Business to Government) exchanges.

Under Osaka's "Smart Health City Plan", Osaka Prefecture is actively promoting the establishment of Osaka as a health industry base. The plan includes supporting startup companies that aim to develop therapeutic applications (SaMD).

One of Kobe city's initiatives is "Be Smart KOBE" project that aims to support technology demonstrations and implementation in Kobe City. The project targets proposals from businesses possessing cutting-edge technology and is designed to address issues such as "disaster prevention," "promotion of citizen wellbeing".

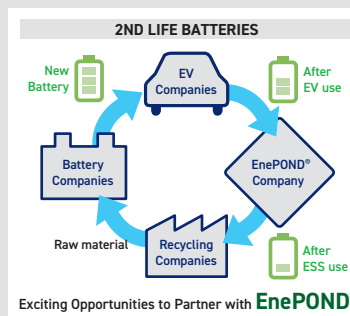
### HIGHLIGHT

### Keihanshin Startups: Creative and Sustainable Solutions

#### Kyoto: CONNEXX SYSTEMS

CONNEXX SYSTEMS is the advanced energy storage solution provider. It is expected that a significant amount of EV batteries become Industrial Waste. EnePOND® is an over 1000V Energy Storage System (ESS) that connects retired EV batteries in series without modification. It is enabled by applying the patented BIND Battery configuration.

EnePOND® is an energy storage system that utilizes retired EV batteries, retaining 70-80% usable potential. Our unique BIND Battery technology and matrix design enable the retired EV batteries without disassembly or reassembly so that we can provide the



least expensive ESS.

EnePOND® can be used for renewable energy aggregation, virtual power plants (VPPs), and distributed DC power sources for fast chargers,

#### Osaka: EEL Lab

We are a plant-based B2B Leather manufacturing company, primarily focused on addressing the issues of food wastage, animal cruelty, and global warming through the production of leather from leftover pineapple leaves. Our goal is to help corporates and brands make more sustainable decisions by providing transparent and convenient solutions using our products.

Our value propositions are the competitive price and the high performance of the leather. We offer our products at a price of \$20 to \$50 per meter. This is at least 30 to 40% cheaper than the cost of producing animal-based leather.

We offer our customers higher quality and durability while reducing with a lower carbon footprint.

#### Kobe: NeuralPort

NeuralPort Inc. is a Japanese sports tech company. The CEO, Shimafuji, started the startup after conducting research in eye tracking and neuroscience. We have developed an eye tracking VR stress check system. It quantifies stress in 3 minutes using a proprietary algorithm (Patent pending). And for athletes, the system also includes vision training to measure dynamic and deep vision. In the future, we plan to develop new VR contents that use neurofeedback methods to guide the ZEN state (SMR waves).



## Super City Concept and Initiatives

The Super City is conceived as a society of the future, to be realized by 2030, that incorporates the perspective of its citizens, involves their participation, and does the following:

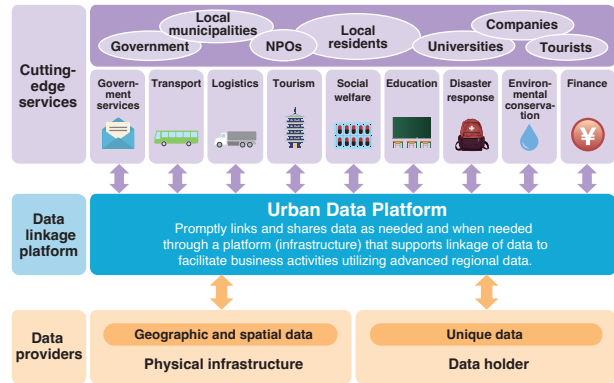
- (1) Utilizes cutting-edge technologies, such as AI and big data, to provide services in a wide range of sectors covering all aspects of citizen life, including government services, mobility, healthcare, and education.
- (2) Develops a data linkage platform that allows multi-sector data connection and data sharing.
- (3) Promotes bold, comprehensive regulatory reform to allow cutting-edge services.

Based on this Super City concept, Tsukuba City in Ibaraki Prefecture and Osaka City in Osaka Prefecture were designated as Super City National Strategic Special Zones\* in April 2022.

In the SDGs spirit of "Leave No One Behind," Tsukuba City has undertaken the Tsukuba Super Science City Initiative to bring together world-leading science and technology to advance societal implementation of cutting-edge technologies such as digital robotics, and further optimize urban functionality. Through these efforts, Tsukuba City strives to overcome social issues and realize innovative ease of living, all while deepening ties between both fellow citizens, and between citizens and government, on the basis of civic participation.

With the theme of Expanding "Health and Life" with Data, Osaka City is undertaking innovative

## Super City Structure (Image)



As leaders of the Digital Garden City Nation Initiative, we will implement cutting-edge services and data sharing across multiple fields, accompanied by bold regulatory reforms.

developments at two green-field sites: Yumeshima, which will be the venue for Expo 2025 Osaka, Kansai, Japan, and at the large-scale Umekita Phase 2 project in front of Osaka Station. These will be the location for three projects (Yumeshima Development Plan; Expo 2025 Osaka, Kansai, Japan; and Umekita Phase 2) which aim to improve residents' quality of life and enhance the city's competitiveness by implementing various cutting-edge services, mainly in the fields of healthcare and mobility.

We at the Cabinet Office booth are looking forward to explaining the various Super City initiatives and cutting-edge services of each participating local government.

\* National Strategic Special Zone: A regulatory reform system that provides bold deregulation and preferential tax treatment in specified regions and fields in order to create the most business-friendly environment in the world.

### Cabinet Office, Government of Japan

1-11-39 Nagata-cho, Chiyoda-ku, Tokyo 100-0014, Japan

[URL](https://www.chisou.go.jp/tiki/kokusentoc/english/super-city/index.html) https://www.chisou.go.jp/tiki/kokusentoc/english/super-city/index.html

[E-mail](mailto:g.super-city.i9e@cao.go.jp) g.super-city.i9e@cao.go.jp



## The Largest Satellite Earth Observation community in Japan

Consortium for Satellite Earth Observation (CONSEO) was established in 2022 with aiming to be a platform to enhance industry, Academia, Government partnerships of Satellite Earth Observation in Japan.

Currently, CONSEO consists of more than 200 corporations/organizations, 35 experts, 15 group of ministries.

For anyone who seeks for solutions or partners to address to societal challenges and wide variety of market needs, CONSEO is the gateway to meet the companies and academia groups in Japan which own expertise, technologies and solutions using satellite Earth Observation.

## CONSEO can support Social/Technology by offering satellite data service/solution



### Consortium for Satellite Earth Observation

Secretariat : JAXA (Japan Aerospace Exploration Agency)

2-1-1 Sengen, Tsukuba, Ibaraki 305-8505, Japan

[URL](https://earth.jaxa.jp/conseo) https://earth.jaxa.jp/conseo

[E-mail](mailto:z-conseo@ml.jaxa.jp) z-conseo@ml.jaxa.jp



## The city that gives birth to a smart city ecosystem beyond boundaries

In Nago City, a "smart city" is not a term for a patch-work landscape made of ready-made technologies.

In the emergence of digital technology, "smart city" has functioned as a beacon that unites the local government, industry and academia.

In the age of VUCA, technology is hard to be forged alone; yet, with the active engagement of various players, Nago envisions a future in which social issues are identified and solved in a collective and democratic manner.

## A brand-new approach to smart city with industry-government-academia collaboration



With the opportunity enhanced by technology assemble the local government, industry, academia to identify and solve problems together in Nago.

### Nago City (Nago Smart City Promotion Council)

1-19-24, Onaka, Nago City, Okinawa 905-0017, Japan

[URL](https://smart-nago.or.jp/about/) https://smart-nago.or.jp/about/

[E-mail](mailto:info@smart-nago.or.jp) info@smart-nago.or.jp



## Climate Change Policy Headquarters City of Yokohama

Since April 2015, we established the association to achieve an energy recycling city, named "Yokohama Smart Business Association (YSBA)", with major companies.

With this Association, we are working to operate energy management systems, promote new initiatives, and develop technologies and systems we have cultivated over the years.

We are working through public-private partnerships to construct business models.



© Hideo MORI

In Minato Mirai 21, central business district of Yokohama, we have strived to achieve net-zero CO2 emissions from electricity consumption by 2030, utilizing public private partnership.

### Climate Change Policy Headquarters City of Yokohama

6-50-10 Hon-cho, Naka-ku, Yokohama, Kanagawa 231-0005, Japan

[URL](https://www.city.yokohama.lg.jp.e.sj.hp.transer.com/city-info/yokohamashi/org/ondanka/) https://www.city.yokohama.lg.jp.e.sj.hp.transer.com/city-info/yokohamashi/org/ondanka/

[E-mail](mailto:ak00-sonohara@city.yokohama.jp) ak00-sonohara@city.yokohama.jp

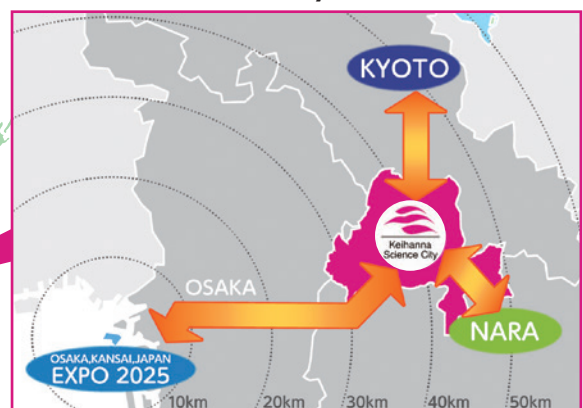


## KEIHANNA EXPO 2025 is coming!

KEIHANNA EXPO 2025 is an attempt to contribute to the realization of a wonderful future society by bringing together the full strength of Keihanna Science City, which is blessed with high R&D capabilities and rich historical and cultural resources.

By developing various contents that are fun and exciting, we hope to use the power of science, technology and culture, to provide solutions to the various issues which humankind is facing, and to contribute to the realization of a healthy, peaceful, and prosperous future.

## Keihanna Science City



The Keihanna Science City is nestled in the green Keihanna hills stretching over Kyoto, Osaka, and Nara prefectures in western Japan.

### KYOTO PREFECTURAL GOVERNMENT

Yabunouchi-cho, Nishiiru, Shinmachi, Shimodachiuri-dori, Kamigyo-ku, Kyoto city, Kyoto 602-8570, Japan

[URL](https://www.pref.kyoto.jp) https://www.pref.kyoto.jp [E-mail](mailto:bunkaga@pref.kyoto.lg.jp) bunkaga@pref.kyoto.lg.jp



## How to combine citizen and industry-centered approaches for smart cities?

When considering future smart cities, the key is to grasp the city's unique attributes and structures and the requirements of its citizens.

To achieve this, a citizen-centered approach should be adopted, building ecosystems that include industries in the region.

ABeam Consulting supports municipalities to realize Smart Cities by shaping concepts and building ecosystems with private companies.

We also provide services to enterprises to solve social and environmental issues and create new business models with digital technologies, while considering each municipality's unique characteristics, citizens' needs, and industries in the region.

## ABeam Consulting strives to be the No. 1 global consulting firm from Japan and Asia



ABeam Consulting provides services and solutions to clients in various industries and combines the knowledge acquired to lead digital transformations to solve social issues across industries.

### ABeam Consulting Ltd.

2-2-1 Yaesu, Chuo-ku, Tokyo 104-0028, Japan

URL <https://www.abeam.com/jp/en>

E-mail [JPABDGTLTechDXI@abeam.com](mailto:JPABDGTLTechDXI@abeam.com)



NEC Solution Innovators, Ltd.

## 'Social well-being services' that connect communities and residents

The challenges facing Japan, such as an aging population and health disparities, are pressing. To address these issues, we leverage digital technologies. Specifically, we offer a digital healthcare service using AI and biotechnology in Japan, aiming to extend healthy lifespans and reduce health disparities. To further enhance convenience, we provide tailored communication tools to local residents through a citizen portal, which features secure public personal authentication via the Individual Number Card. We call these services 'Social well-being services' and are committed to contributing to the creation of a well-being community through them.

## We provide a variety of services that accelerate local initiatives



We provide a digital healthcare service using AI and biotechnology in Japan, as well as a citizen portal utilizing the Individual Number Card.

### NEC Solution Innovators, Ltd.

1-18-7 Shinkiba, Koto-ku, Tokyo 136-8627, Japan

URL <https://www.nec-solutioninnovators.co.jp/>

E-mail [ta-hashimoto@nec.com](mailto:ta-hashimoto@nec.com)



Internet Initiative Japan

## "DX edge" - distributed infrastructure for smart city

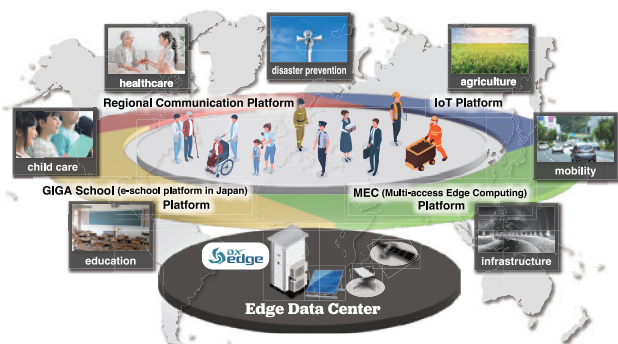
IIJ's "DX edge" is an enabler of smart city. It is a small and distributed management platform of the computing resources and data. Public sector and enterprises can serve the various applications that help the Digital Transformation of the city.

"DX edge" is the turn-key solution. quick deployment, expandable on demand. IIJ provides system integrations for specific use cases.

"DX edge" could be integrated with the on-site PV and battery, using renewable energy and the internet connection via LEO satellite. It means "DX edge" is the best solution for the rural or remote area without stable infrastructures.

## "DX edge" is a distributed infrastructure service for IoT, AI, and applications

### Edge data center realizes smart society



"DX edge" is open to partners who offer IoT, AI, and applications for a wide range of industry use.

### Internet Initiative Japan Inc.

Iidabashi Grand Bloom 2-10-2 Fujimi, Chiyoda-ku, Tokyo 102-0071, Japan

URL <https://www.iij.ad.jp/en/>



# H-UTokyo Lab.

Hitachi and UTokyo Joint Research

## Urban Well-being for Mega City

Society 5.0, a super smart society that enriches people's lives. H-UTokyo Lab is running Habitat Innovation Project to realize Society 5.0, where people live a comfortable, energetic and high-quality life.

Currently, we are developing "Tokyo Smart City 2030 Plan" to achieve urban well-being for the mega city through a human-centric, diverse, sustainable, pleasurable, and slow-digital life. We focus on 6 key areas: citizen participation, people-centric urban assessment, ecosystem of data infrastructure, social acceptance, data governance and human resource development.

This exhibition is to showcase specific projects that contribute to that goal.

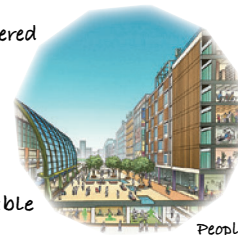
## Urban Well-being for Mega City

CONCEPT

Human Centered  
Slow Digital  
Diverse  
Sustainable  
Pleasurable  
Walkable

METHODOLOGY

Data Infrastructure  
Citizen Participation  
Data Governance  
Social Acceptance  
HR Development  
People-Centric Assessment



"Tokyo Smart City 2030 Plan" achieves urban well-being for the mega city through a human-centric, diverse, sustainable, pleasurable, and slow-digital life.

### H-UTokyo Lab.

7-3-1 Hongo, Bunkyo-ku, Tokyo 113-0033, Japan

[URL](http://www.ht-lab.ducr.u-tokyo.ac.jp/en/) http://www.ht-lab.ducr.u-tokyo.ac.jp/en/

[E-mail](mailto:office@koshizuka-lab.org) office@koshizuka-lab.org



## A symbiotic future created by Re:Earth a No-code Web GIS platform

We Eukarya Inc. offer a No-code Web GIS (Geographic Information System) based analytics/visualization OSS platform, namely "Re:Earth" for governments, public sectors and companies.

We have more than 50 use cases in Japan and achieved \$2M as revenue in 2022.

Re:Earth has been adopted by Japanese government for providing an official 3D city model platform, in Project PLATEAU.

Eukarya also use Re:Earth to create jobs for refugee engineers and single mothers.

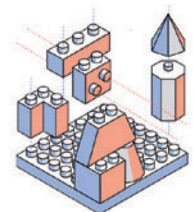
## Features of Re:Earth



No code



Web browser base



Highly extensible

Re:Earth is a platform developed under the philosophy of providing a highly public service that is not dependent on a specific company.

### Eukarya Inc. & Hidenori Watanave Laboratory, The University of Tokyo

[URL](https://reearth.io/) https://reearth.io/ [E-mail](mailto:info@eukarya.io) info@eukarya.io



## Manipulate the digital twin using a tangible interface to freely redesign the city

Tangible Interface XR can be utilized for landscape simulations at the city scale, as well as in the consideration process of how spaces are utilized and arranged at the human scale. By flexibly combining various workshop methods, it has the potential to elevate the quality of participatory urban planning processes to a level higher than conventional approaches.

This experiential tool is realized by combining cutting-edge technologies such as 3D city models, VR technology, and 3D printing with the traditional analog approach of conventional architectural models.

Regardless of age or background knowledge, anyone can operate it intuitively and deepen discussions while enjoying them with other participants.

## Conducting citizen-participatory urban design workshops using an experiential tool



The physical model and the 3D city model within VR dynamically interact, vividly illustrating participants' ideas in real-time.

### PLATEAU YOKOHAMA Project

[URL](https://info-lounge.jp) https://info-lounge.jp [E-mail](mailto:info@info-lounge.jp) info@info-lounge.jp



Mebuku Ground Inc.

## World's 1st Self-Sovereign Identity by Dynamic Opt-in

"my Digital Certificate" is Digital ID 3.0 which goes beyond security(2.0). Its identifier wrapped by authorized PKI certificates holds multiple private keys with SSI (Self-Sovereign Identity). "my Digital Certificate" enables a user to connect with multiple services seamlessly. Also, it can merge with existing ID while keeping user interface, just functioning as the Digital Infrastructure. All functions are safely stored at your mobile phone, leading access to x-service at your hand in your everyday digital life. "my Digital Certificate" will be a digital foundation for wide range of entities.

## "my Digital Certificate" opens a road for Digital Society

**World's 1st Self-Sovereign Identity by Dynamic Opt-In**

Mebuku ID App

めぶく ID (mebuku ID) provides users with manageability of his/her own personal data by dynamic Opt-in.

**THE HIGHEST SECURITY**  
Mebuku ID consists of  
A) "my Digital Certificate" containing 12-digit identifier assigned to each one of the residents in Japan.  
B) Private key in Secure Element.

Dynamic Opt-in Interface

A user can Opt-In/ cancel anytime, anywhere by one click on iPhone/ Android.

"my Digital Certificate" helps Digital Society where multiple services create additional value.

### Mebuku Ground Inc.

6F AQERU Maebashi 2-30-8 Omotecho, Maebashi-shi, Gunma-ken 371-0024 Japan  
[URL](https://mebukuba.jp/) [E-mail](mailto:mebuku-ir@mebukuba.jp) mebuku-ir@mebukuba.jp



## Padel Galis is the leading company in the design, manufacturing and installation of padel courts worldwide

Since its beginnings it has manufactured more than 10,000 padel courts that are set in more than 70 countries all around the world. Cooperation with top partners to reach the best product and processes innovation are the core of the company's culture.

Working with the best team makes it possible to offer top quality services to our customers and players.

## Padel-Social and Community Sport for Citizen's Well-Being

Padel is an effective tool for helping to achieve community well-being.

The advantage of padel is that it can be easily enjoyed by all people, regardless of their age, gender and sports experience. In terms of community well-being, strong ties between residents, local government, and businesses are essential. Padel combines each of these elements which helps achieve this goal.

Padel is rapidly growing and is a popular sport worldwide. Padel tournaments and competitions will be held in various countries and cities, and will increase inter-city exchanges and relationships. This sport will also serve to connect communities between other cities. Therefore, we believe Padel will become an important element of citizens' wellbeing.

## Padel courts by Padel Galis



Padel Galis, located in Valencia (Spain), is part of the Atitlan Business Group, family-owned company present in different sectors focused on the creation and consolidation of long term value.

### GRUPO GALIS WORLD, S.L.

Poligono Godofredo Calle Puigcampana, 5 y 7, 46460, Silla, Valencia, España  
[URL](http://padelgalis.com/) [E-mail](mailto:info@padelgalis.com) info@padelgalis.com

## Expectations for Padel are very high in Japan



Presentation of the launch of padelgalis and propadel japan in Japan at the Embassy of Spain in April 2023.

### ProPadel Japan Inc.

1-24-3, Minamiaoyama, Minato-ku, Tokyo 107-0062, Japan  
[URL](https://propadeljapan.com/) [E-mail](mailto:info@propadeljapan.com) info@propadeljapan.com

Takehiko Nagumo

## Liveable Well-Being City Indicator A New Smart City Approach from Japan

At this year's G7 meetings, the Japanese government emphasized that a single aggregated indicator like GDP cannot fully capture citizens' welfare, and "policymakers need to follow multidimensional indicators for measuring welfare" (G7 Finance Ministers and Central Bank Governors Meeting Communiqué, May 2023). In line with this perspective, SCI-Japan developed Japan's own evaluation system of well-being called the "Liveable Well-Being City Indicator (LWCI)" to further smart city development and improve citizen's well-being.



**Takehiko Nagumo**  
Executive Managing Director  
Smart City Institute Japan

The introduction of the LWCI is a requirement for local governments to receive funding from the "Digital Garden City Initiative Promotion Subsidy". This Japanese government subsidy was introduced in FY 2022 for the national government to support local governments to use digital technology and a data linkage platform for resolving local issues and revitalizing local economies. Between FY 2022 and FY 2023, 45 regions (cities and prefectures) were selected as leading smart cities to receive the subsidy.

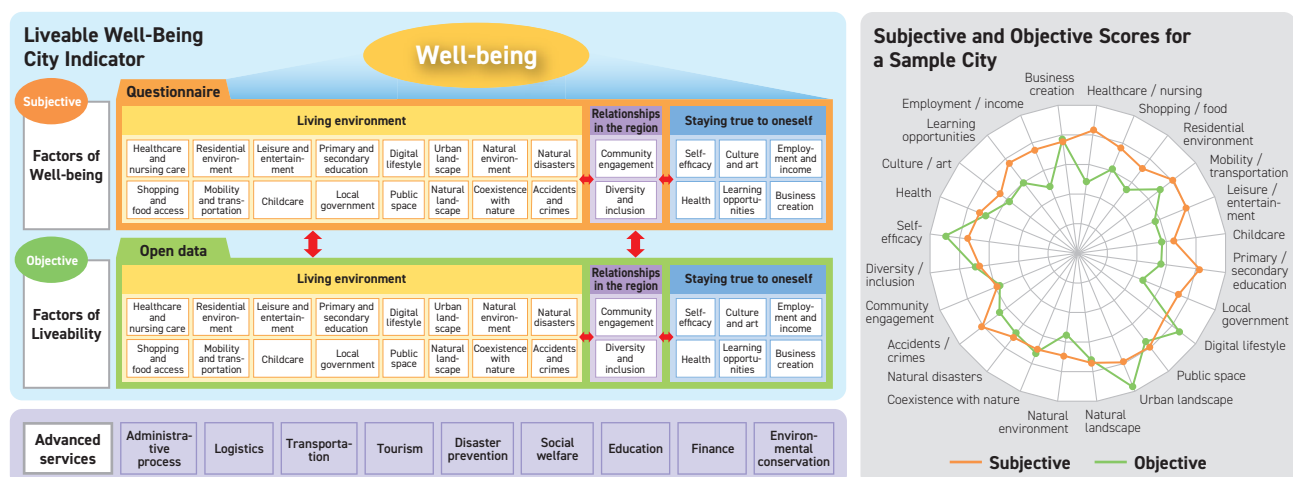
The LWCI was developed and introduced for the following purposes.

- ✓ Clarify "human-centric" principles in smart cities development.
- ✓ Visualize "Liveability" and "Well-being" from the viewpoint of citizens.
- ✓ Create opportunities for local governments to "refine originality" rather than compete their ranking.
- ✓ Introduce international frameworks such as WHO.
- ✓ Utilize both objective and subjective data. Open and free.
- ✓ Use for evidence-based policy making (EBPM) and wise spending in smart city development.

LWCI is a comprehensive evaluation tool of cities and is composed of 24 categories of subjective indicators and 24 corresponding categories of objective indicators. The 24 categories can be divided into four domains: "urban environment," "natural environment," "community relations," and "staying true to oneself".

Both the survey results of the subjective index and the open data that make up the objective index are published on the SCI-Japan's website. We have also developed a user-friendly dashboard where one can visualize the LWCI data and compare one's city with another.

Tampere City in Finland is introducing the concept of LWCI to create its own local version, and we are hoping to create a network of cities across the world that share a framework of well-being. We look forward to discussing how we can collaborate with you on evaluating and improving the well-being of your city's citizens.



# SMARTCITY

EXPO WORLD CONGRESS

7 - 9 NOVEMBER 2023

BARCELONA & ONLINE



## Don't miss highlights of our "Well-Being City Theater"!

### DAY 1



Title	Speakers
<b>Signing of MoU between Institute for Information Industry and SCI-Japan</b>	Institute for Information Industry / Tak Nagumo, SCI-Japan
<b>Joint Event with City of Tampere: Tampere's smart solutions and international collaboration on the Liveable Well-Being City Indicator (LWCI)</b>	Anniina Autero, City of Tampere / Kristian Valkama, Business Tampere / Tak Nagumo, SCI-Japan
<b>Korea-Japan Joint Event</b>	Ellie Lee, Smart City Association / Tak Nagumo, SCI-Japan
<b>Japan Night – Networking "Japanese Sake" Reception (invitation only)</b>	Co-hosted by Consulate-General of Japan in Barcelona and SCI-Japan "Japanese Sake" arranged by Yashima

### DAY 2



<b>Joint Event with Connected Places Catapult</b>	Andrew Cockburn, Connected Places Catapult / Tak Nagumo, SCI-Japan
<b>Joint Event with FIWARE Foundation</b>	FIWARE Foundation / Tak Nagumo, SCI-Japan
<b>Padel Night – Networking "Sake and Cava" Japan-Spain Friendship Reception (invitation only)</b>	Co-hosted by ProPadel Japan and SCI-Japan

### DAY 3



<b>Signing of MoU between Royal Melbourne Institute of Technology and SCI-Japan</b>	Marta Fernandez, Royal Melbourne Institute of Technology / Tak Nagumo, SCI-Japan
<b>Signing of MoU between Taipei Computer Association and SCI-Japan</b>	Sam Shen, Taipei Computer Association / Tak Nagumo, SCI-Japan

The program is subject to change without notice.

Please download & check the **Japan Pavilion's theater program (complete ver.)**



Exhibitors



Organized by



Smart City  
Institute Japan



# Japan Pavilion Event Program

## DAY 1

Tuesday, 7 November

\*The program is subject to change without notice.

Time	Organization	Title and Speakers
10:00 - 10:15	SCI-Japan	<b>Opening by SCI-Japan</b> Tak Nagumo, Executive Managing Director, SCI-Japan
10:15 - 10:45	Institute for Information Industry (Taiwan) and SCI-Japan	<b>Signing of MoU between Institute for Information Industry and SCI-Japan</b> Cheng Hong Cho, Institute for Information Industry Tak Nagumo, Executive Managing Director, SCI-Japan
10:45 - 11:00	JETRO Kyoto	<b>Introduction of Startups from Keihanshin (Kyoto, Osaka, Kobe)</b> Hideki Sho, Chief Director, JETRO Kyoto Hisashi Tsukamoto, Representative Director & CEO, CONNEXX SYSTEMS Corporation Olivia Greiner, Business Manager, PEEL Lab
11:00 - 11:15	Tokyo Metropolitan Government	<b>TOKYO URBAN STRATEGY for creating a sustainable future</b> Masashige Fujita, Director for Smart City Strategy, Digital Services Promotion Division, Bureau of Digital Services, Tokyo Metropolitan Government
11:15 - 11:30	Consortium for Satellite Earth Observation Secretariat: JAXA (Japan Aerospace Exploration Agency)	<b>Can Satellite Earth Observation contribute to Smart City?</b> Yusuke Muraki, Senior Engineer, JAXA
11:30 - 11:45	NEC Corporation	<b>A proposal of Purpose-driven city management</b> Mitsuyo Nishioka, Executive Professional, Smart City Business Division, NEC
11:45 - 12:00	NEC Solution Innovators, Ltd.	<b>A portal website that delivers necessary information to each resident</b> Haruka Kitazawa, Engineer, NEC Solution Innovators, Ltd.
12:00 - 13:00	City of Tampere (Finland) and SCI-Japan	<b>Joint Event with City of Tampere: Rethinking wellbeing</b> Anniina Autero, City of Tampere Kristian Valkama, Business Tampere Tak Nagumo, Executive Managing Director, SCI-Japan
13:15 - 13:30	Israel Pavilion	<b>Introducing Israel Delegation</b> Sergio Vinitsky, CEO, VISERCO Ltd.
13:30 - 13:45	Kyoto Prefectural Government	<b>Introduction of Keihanna Science City</b> Kyoto Prefectural Government
13:45 - 14:00	H-UTokyo Lab.	<b>Urban Well-being for Tokyo 2030 by Digital &amp; Design Together</b> Atsushi Deguchi, Professor, The University of Tokyo

Time	Organization	Title and Speakers
14:00 - 14:15	NEC Corporation	<b>A proposal of Purpose-driven city management</b> Mitsuyo Nishioka, Executive Professional, Smart City Business Division, NEC
14:15 - 14:30	Internet Initiative Japan Inc.	<b>"DX edge" - distributed infrastructure for smart city</b> Murosaki Takashi, Manager, Service Development Section, Infrastructure Services, InfrastructureEngineering and Technology Department, Internet Initiative Japan Inc.
14:30 - 14:45	NEC Corporation	<b>Enabling Efficient City Operations</b> Koji Kikuchi, Senior Director, NEC Corporation
14:45 - 15:00	ABeam Consulting Ltd.	<b>Are your smart cities economically sustainable?</b> Satoshi Tachibana, Executive Officer, Principal, Digital X Innovation BU leader, ABeam Consulting Ltd.
15:00 - 15:15	NEC Corporation	<b>Evolving Smart Cities to support Urban Digital Twins and trusted data exchange using Data Spaces</b> Ernoe Kovacs, Senior Manager, NEC Laboratories Europe Martin Bauer, Principal Standardization Engineer, NEC Laboratories Europe
15:15 - 15:30	Nago City	<b>Toward the "Symphonic City" Nago</b> Taketojo Toguchi, Mayor of Nago City
15:30 - 15:45	NEC Corporation	<b>A proposal of Purpose-driven city management</b> Mitsuyo Nishioka, Executive Professional, Smart City Business Division, NEC
15:45 - 16:00	NEC Solution Innovators, Ltd.	<b>Digital healthcare service using AI and biotechnology</b> Ayaka Mikuni, Public Relations, NEC Solution Innovators, Ltd.
16:00 - 16:30	Tsukuba City	<b>Tsukuba Super Science City Initiative</b> Tatsuo Igarashi, Mayor of Tsukuba City
16:30 - 17:00	Smart City Association (Korea) and SCI-Japan	<b>Korea-Japan Joint Event: South Korea's Smart City Revolution: From Vision to Reality</b> Ellie Lee, Global Project Team Manager, Smart City Association Tak Nagumo, Executive Managing Director, SCI-Japan
17:15 - 17:30	Ministry of Land, Infrastructure, Transport and Tourism	<b>Project PLATEAU: The initiative of Digital Twin in Japan</b> Yuya Uchiyama, Director for IT Strategy and Coordination, Information Policy Division, Policy Bureau, MLIT
17:30 - 19:00	<b>Japan Night: Networking "Japanese Sake" Reception</b> Co-organized by Consulate-General of Japan in Barcelona and SCI-Japan	

# Japan Pavilion Event Program

## DAY 2

Wednesday, 8 November

\*The program is subject to change without notice.

Time	Organization	Title and Speakers
10:15 - 10:45	Connected Places Catapult (UK) and SCI-Japan	<b>Joint Event with Connected Places Catapult: Innovation Twins</b> Andrew Cockburn, Head of Global Business, Connected Places Catapult Tak Nagumo, Executive Managing Director, SCI-Japan
10:45 - 11:00	Kakogawa City	<b>Kakogawa City ~ Safety and Security Initiatives ~</b> Isao Tada, Digital Society Service Planning Dept Expert, TIS Inc. / Advisor for Smart City Promotion and Support, Kakogawa City
11:00 - 11:15	Tokyo Metropolitan Government	<b>Be Smart Tokyo -Making Tokyo “smarter” and more enjoyable with startups-</b> Rina Miyata, Staff of Government & Public Services, Deloitte Touche Tohmatsu LLC Midori Mizote, Project Manager of CIC Institute, CIC Toranomom LLC Kai Fujii, CBO of Liquidous Inc.
11:15 - 11:30	Info Lounge Corporation	<b>Conducting citizen-participatory urban design workshops using an experiential tool.</b> Iwao Kobayashi, Vice President, Info Lounge Corporation
11:30 - 11:45	NEC Corporation	<b>FIWARE Ecosystem to take your business to the next level</b> Shuhei Sasano, General Community Manager, iHub Base, NEC Cristina Brandtstetter, Chief Marketing Officer, FIWARE Foundation
11:45 - 12:00	Cabinet Office, Government of Japan	<b>Super City Initiative</b> Takashi Tanno, Chief, Office for Promotion of Regional Revitalization, Cabinet Office, Government of Japan
12:00 - 12:15	JETRO Kyoto	<b>Introduction of Startups from Keihanshin (Kyoto, Osaka, Kobe)</b> Hideki Sho, Chief Director, JETRO Kyoto Anna Shimafuji, CEO/Founder, NeuralPort Inc. Hisashi Tsukamoto, Representative Director & CEO, CONNEXX SYSTEMS Corporation
12:15 - 12:30	Consortium for Satellite Earth Observation Secretariat: JAXA (Japan Aerospace Exploration Agency)	<b>Can Satellite Earth Observation contribute to Smart City?</b> Yusuke Muraki, Senior Engineer, JAXA
12:30 - 12:45	Internet Initiative Japan Inc.	<b>"DX edge" - distributed infrastructure for smart city</b> Murosaki Takashi, Manager, Service Development Section, Infrastructure Services, Infrastructure Engineering and Technology Department, Internet Initiative Japan Inc.
12:45 - 13:00	Yokohama City	<b>Aiming for Sustainable Development and a Decarbonized Society through City-to-City Cooperation</b> Takehiro Kuribayashi, Chief Representative, The City of Yokohama Europe Representative Office
13:00 - 13:15	NEC Corporation	<b>A proposal of Purpose-driven city management</b> Mitsuyo Nishioka, Executive Professional, Smart City Business Division, NEC

Time	Organization	Title and Speakers
13:15 - 13:30	<b>H-UTokyo Lab.</b>	<b>Urban Well-being by Design &amp; Happiness</b> Takashi Michikata, Associate Professor, The University of Tokyo Anna Yokokubo, Assistant Professor, The University of Tokyo Rin Sakamoto, PhD Student, The University of Tokyo
13:30 - 13:45	<b>ABeam Consulting Ltd.</b>	<b>Are your smart cities economically sustainable?</b> Satoshi Tachibana, Executive Officer, Principal, Digital X Innovation BU leader, ABeam Consulting Ltd.
13:45 - 14:00	<b>Mebuku Ground Inc.</b>	<b>Mebuku ID, World's first Self-Sovereign Identity by Dynamic Opt-in</b> Osamu Yachida, Executive Adviser, Mebuku Ground Inc.
14:00 - 14:30	<b>Sakai Town</b>	<b>Smart city initiatives in Sakai Town</b> Masahiro Hashimoto, Mayor of Sakai Town
14:30 - 14:45	<b>NEC Corporation</b>	<b>Smart City Use Cases in Europe</b> Jose Luis Maté, General Manager, Public Services, NEC Europe Ltd.
14:45 - 15:00	<b>Nago City</b>	<b>Toward the "Symphonic City" Nago</b> Taketoyo Toguchi, Mayor of Nago City
15:00 - 15:15	<b>Eukarya Inc.</b>	<b>A symbiotic future created by Re:Earth, a No-code web GIS platform</b> Michi Okada, Board Member/Designer, Eukarya Inc. Haruka Yasuda, Project Manager, Eukarya Inc.
15:15 - 15:30	<b>Hamamatsu City</b>	<b>Signing Ceremony for Hamamatsu City to join the FIWARE Foundation</b> Tomoko Mizutani, Director General, Smart City Promotion Department, Hamamatsu City Cristina Brandtstetter, Chief Marketing Officer, FIWARE Foundation
15:30 - 15:45	<b>NEC Corporation</b>	<b>A proposal of Purpose-driven city management</b> Mitsuyo Nishioka, Executive Professional, Smart City Business Division, NEC
15:45 - 16:15	<b>FIWARE Foundation (Germany) and SCI-Japan</b>	<b>Joint Event with FIWARE Foundation</b> Stefano De Panfilis, COO, FIWARE Foundation Tak Nagumo, Executive Managing Director, SCI-Japan
16:15 - 16:30	<b>NEC Corporation</b>	<b>Context management, Digital Twins and Data Spaces build on European Standards</b> Mads Petersson, Product Innovation Manager, KMD
17:00 - 17:30	<b>ProPadel Japan Inc.</b>	<b>Padel-Social and Community Sport for Citizen's Well-Being</b> Salva Segura, Chief Growth Officer, Padel Galis Koji Nakatsuka, President, FIP-Asia Pacific Committee and Japan Padel Association Leandro Martínez-Zurita, Director, ProPadel Japan Inc. Toshio Matsushima, President & CEO, ProPadel Japan Inc.
17:30 - 19:00		<b>Padel Night: Japan-Spain Friendship "Sake &amp; Cava" reception (invitation only)</b> Co-organized by ProPadel Japan and SCI-Japan



# Japan Pavilion Event Program

## DAY 3

Thursday, 9 November

\*The program is subject to change without notice.

Time	Organization	Title and Speakers
10:00 - 10:45	SCI-Japan	<b>Liveable Well-Being City Indicator (LWCI): A New Smart City Approach from Japan</b> Tak Nagumo, Executive Managing Director, SCI-Japan
10:45 - 11:00	Info Lounge Corporation	<b>Conducting citizen-participatory urban design workshops using an experiential tool</b> Iwao Kobayashi, Vice President, Info Lounge Corporation
11:00 - 11:15	Tokyo Metropolitan Government	<b>Overview of Tokyo Waterworks</b> Tsutomu Shioda, Head of Kanamachi Purification Office, Bureau of Waterworks, Tokyo Metropolitan Government <b>Technologies of the Sewerage System in Tokyo</b> Hideyuki Watanabe, Director of Seibu 1st Sewerage Office, Bureau of Sewerage, Tokyo Metropolitan Government
11:15 - 11:30	Cabinet Office, Government of Japan	<b>Super City Initiative</b> Takashi Tanno, Chief, Office for Promotion of Regional Revitalization, Cabinet Office, Government of Japan
11:45 - 12:00	Mebuku Ground Inc.	<b>Mebuku ID, World's first Self-Sovereign Identity by Dynamic Opt-in</b> Osamu Yachida, Executive Adviser, Mebuku Ground Inc.
12:15 - 12:45	Royal Melbourne Institute of Technology (Australia/Barcelona) and SCI-Japan	<b>Signing of MoU between Royal Melbourne Institute of Technology and SCI-Japan</b> Marta Fernandez, Executive Director, RMIT Europe Tak Nagumo, Executive Managing Director, SCI-Japan
13:00 - 13:45	SCI-Japan	<b>Game engine as a dynamical spatial description system - introduction of "Common Ground"</b> Keisuke Toyoda, Project Professor, The Institute of Industrial Science, The University of Tokyo / Executive Advisor, SCI-Japan
13:45 - 14:00	Eukarya Inc.	<b>A symbiotic future created by Re:Earth, a No-code web GIS platform</b> Michi Okada, Board Member/Designer, Eukarya Inc. Haruka Yasuda, Project Manager, Eukarya Inc.
14:00 - 14:15	JETRO Kyoto	<b>Introduction of Startups from Keihanshin (Kyoto, Osaka, Kobe)</b> Hideki Sho, Chief Director, JETRO Kyoto Anna Shimafuji, CEO/Founder, NeuralPort Inc. Olivia Greiner, Business Manager, PEEL Lab
14:30 - 14:45	Kakogawa City	<b>Kakogawa City ~ Safety and Security Initiatives ~</b> Isao Tada, Digital Society Service Planning Dept Expert, TIS Inc. / Advisor for Smart City Promotion and Support, Kakogawa City

Time	Organization	Title and Speakers
15:00 - 15:15	Hamamatsu City	<b>Sustainable Urban Development Rooted in Well-Being ~The Challenges of Hamamatsu – a Miniature Japan ~</b> Tomoko Mizutani, Director General, Smart City Promotion Department, Hamamatsu City
15:15 - 15:30	<b>Ministry of Land, Infrastructure, Transport and Tourism</b>	<b>Project PLATEAU: The initiative of Digital Twin in Japan</b> Yuya Uchiyama, Director for IT Strategy and Coordination, Information Policy Division, Policy Bureau, MLIT
15:30 - 16:00	<b>Taipei Computer Association (Taiwan) and SCI-Japan</b>	<b>Signing of MoU between Taipei Computer Association and SCI-Japan</b> Cynthia Chen, Deputy Secretary-General, Taipei Computer Association Tak Nagumo, Executive Managing Director, SCI-Japan
16:45 - 17:00	<b>SCI-Japan</b>	<b>Closing by SCI-Japan</b> Noriyuki Yanagawa, Representative Director, SCI-Japan Tak Nagumo, Executive Managing Director, SCI-Japan