

Industry Agenda

# The Future of Urban Development & Services

## Innovative Cities: Future of Cities and Ageing Societies Roundtable

In partnership with Mori Building Company and The Mori Memorial Foundation

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# Introduction

The World Economic Forum's Future of Urban Development & Services (FUDS) initiative held a roundtable in Tokyo on 15 October 2015 in partnership with Mori Building Company and The Mori Memorial Foundation, and with representatives from government, the Forum's Industry Partners and guests from industry and civil society. Participants discussed the urban development challenges presented by ageing societies, and the implications for cities like Tokyo. Participants sought to develop workable solutions and provide learnings from Japan's experience for the rest of the world.



01: Hiroo Mori, Director and Executive Vice-President, Mori Building Company, Japan

Today, 54% of the world's population lives in cities, and that proportion is forecast to grow to over 66% by 2050. While the world is urbanizing at a rapid rate, it is also rapidly ageing; by 2047, the number of people over the age of 65 will exceed the number of children.

Nowhere is this phenomenon more prevalent than in Japan, where about 25% of the population is currently over 65 years of age. By 2050, this proportion is set to rise to around 38%. As over 92% of Japan's population live in cities, the burgeoning ageing population is influencing how cities are designed, what services they offer and where people live – and these developments will continue in the future. This will particularly impact urban services, including health services and individuals' well-being. Urban innovations are starting to challenge how ageing cities function and what they offer in services. At the roundtable, innovative answers to the following questions were explored:

- How are cities in Japan and elsewhere becoming smart and innovating to respond to the numerous challenges presented by an ageing population, including access and mobility, city planning and design, infrastructure, urban services, health services and mindfulness?
- What can be learned from experiences in Japan and in cities from other regions, particularly Europe and North America, that are facing similar trends? How can Japan's experience be shared with the rest of the world?

# Synopsis

After opening remarks by Hiroo Mori, Director and Executive Vice-President, Mori Building Company, Japan, the context for the roundtable was set up by an overview of the Future of Urban Development & Services initiative and the Forum's Vision for Tomorrow project given by Alice Charles, Lead, Urban Development, World Economic Forum. Kaori Iida, Senior Editor, Economics News Division, NHK, Japan, and moderator of the roundtable, introduced the challenge of an ageing society faced by Japan. The discussion leaders then shared their perspectives on their groups' topics.

## The City of Fukuoka

The challenges presented by ageing cities and opportunities to provide innovative solutions for urban services were covered by Soichiro Takashima, Mayor of Fukuoka, Japan, from the perspective of a municipal government:

- A city faces many challenges as a result of a rapidly ageing population, regardless if its population is increasing or decreasing.
- Government can provide solutions and take advantage of new technologies, such as big data, information and communications technologies (ICTs) and the Internet of Things (IoT), to provide high-quality urban services for citizens.
- The availability of data enables government to be more objective and effective in its policy planning and investment.
- Government data should be shared with citizens, which could also facilitate the development of IoT technologies that will play an important role in creating private-sector businesses.



## Cities and Design

Opportunities to provide smart innovations in the face of challenges posed by ageing cities were covered by Akihiko Tobe, General Manager, Business and Engineering Solutions, Hitachi, Japan:

- Integrated, accessible and smart transportation systems and solutions, such as integrated rail, tram, bus and even boat, will be required to meet the needs of an ageing population. Cities should design their transport infrastructure accordingly.
- Universal urban design will be needed to solve urban problems, especially in providing urban services. An ageing society can lead to a new industry, notably in health and longevity.



## Cities and Services

The challenges that ageing cities pose for urban services and the opportunities for solutions were covered by Masahiro Ikeno, Vice-President, Global Business Unit, NEC Corporation, Japan:

- As the most rapidly ageing city in the world, Tokyo is facing many challenges. However, the learnings from those challenges provide insights that can help develop solutions and the creation of inclusive and operationally smart cities.

01: Soichiro Takashima, Mayor of Fukuoka, Japan  
02: Akihiko Tobe, General Manager, Business and Engineering Solutions, Hitachi Ltd, Japan

- Data science based on big data can optimize the operations of cities. For example, sensors are installed everywhere in a smart city, and huge volumes of data are generated and collected. Mature cities already have an enormous volume of accumulated data. ICTs can integrate new and stored data into one big database. By monitoring and analysing the database, behaviours and the status of cities can be simulated in a virtual world, and the computed outcome can be used in the real world as feedback to save resources, protect the environment and make cities more sustainable.
- New technologies, such as social networking services, will promote more open and real-time communication between governments, communities and citizens. Tablet PCs and smart phones enable easier access to e-services, and also provide do-it-yourself capability to fit each individual's needs in a faster and timelier manner.
- On-demand service applications, which act as a matching engine for supply and demand, maximize the use of expertise and resources in cities and around the world. These tools allow people to easily use their knowledge and experience, and that contributes to encouraging the use of such services in the mature city.



### Cities and Healthy Living

Akio Yonekura, Chief Executive Officer, Executive Officer, Campus for H, Asuka Holdings, Japan, provided an overview of the challenges presented by ageing cities and opportunities to enable healthy living:

- In 1955, life expectancy in Japan was 65 years. Today, however, reaching the age of 100 is not unrealistic. If people know that they will likely live another 40 years after retiring at the age of 60, they should ask themselves how they want to live after retirement.
- Life planning in the 21st century needs to cover a life expectancy of 100 years and most of these people will live in cities. Thus, cities should have a 100-year life plan and provide support in executing the plan.

- According to today's public health researchers, important aspects of life in the 21st century are a sense of connection, learning opportunities and fun. In addition, mindfulness is essential for a happy life during a 100-year lifespan. This is another way to look at how people live healthily and happily in ageing cities.



### Cities and "Tokyo"

Takeo Hirata, Secretary-General, Secretariat of the Headquarters for the Tokyo 2020 Olympic and Paralympic Games Cabinet Secretariat, Cabinet Office of Japan, provided an overview of the challenges Tokyo faces from an ageing society, and how the Tokyo 2020 Olympic and Paralympic Games will address the resulting needs:

- While the Tokyo 2020 Olympic Games are well known, the Paralympic Games must not be forgotten. They encourage people to think about the closely linked issues of ageing and normalization.
- Construction for the Games is being accelerated in the lead-up to 2020. However, the important point is to consider how to use infrastructure smartly and sustainably.
- All of the infrastructure needs to be planned and delivered in accordance with "universal design".
- "Volunteer education" and "multilingual preparation" are crucial for creating a barrier-free environment.
- At the Tokyo Olympic Games of 1964, foreign visitors represented only one-seventieth of those attending; today, the situation is very different. The security of Olympians, Paralympians and visitors from overseas needs to be considered, especially in the context of a potential disaster.

**01:** Masahiro Ikeno, Vice-President, Global Business Unit, NEC, Japan

**02:** Akio Yonekura, CEO, Executive Officer, Campus for H, Asuka Holdings, Japan

**03:** Takeo Hirata, Secretary-General, Secretariat of the Headquarters for the Tokyo 2020 Olympic and Paralympic Games Cabinet Secretariat, Cabinet Office of Japan

# Breakout Discussions

Since the Tokyo Olympic Games of 1964, Japan has rapidly developed its economy. As an urban centre, Tokyo accelerated the delivery of urban services, such as social infrastructure and transport mobility. Today, over 50 years after those Olympic Games, Japan is faced with an ageing society, in which about 25% of the population is older than 65 years of age. Tokyo itself has many socio-economic and structural issues in the following four areas:

1. **Urban design** – The city's design and layout presents its elderly population with challenges concerning mobility, accessibility, liveability and safety. In addition, Tokyo's urban infrastructure is growing older, and significant expenditure will be required to retrofit and upgrade it to ensure the needs of citizens are met. Yet, with an ageing population, the question remains as to how infrastructure will be operated and maintained in the future.
2. **Urban services** – The lack of access to appropriate urban services is a concern (such as mobility services to meet the needs of elderly people, or "mobility refugees"), as are the lack of labour to deliver vital public services and the high demand for care services.
3. **Healthy living** – An unsustainable healthcare system is not designed to meet the needs of an ageing society. Another issue is the lack of focus on positive well-being and quality of life for elderly citizens after they retire.
4. **"Tokyo"** – Rejuvenation is required beyond 2020, and the business of operating and maintaining urban services in the city will be critical.

Japan is now working hard to solve these urban problems; for example:

- Issues concerning ageing infrastructure are being addressed through remote safety and risk monitoring tools.
- Self-driving vehicles are enabling elderly citizens to safely navigate the urban environment.
- Robotics and ICT are supporting the elderly in adapting to jobs, and are providing opportunities for lifelong education.

The urban development challenges posed by an ageing society were discussed from the four issue areas, with the aim of providing workable solutions and learnings from Japan's experience for the rest of the world. The insights gained are summarized in the following four issue areas.



**01:** Kaori Iida, Senior Editor, Economics News Division, NHK, Japan

## Cities and Design

- Given the ageing society and shrinking population, important questions to consider in the context of cities and design are: How can people be encouraged to continue living in cities? How can people interact so that cities become lively and more exciting?
- "Affordability" is one of the challenges to overcome to keep the elderly in cities. Business can offer solutions; it also must provide affordable accommodation and facilities that meet the needs of a less active population.
- "The feeling of living in the community" is a vital challenge that needs to be addressed. The elderly population do not want to interact just with the elderly, but also with younger generations.
- Community houses in Berlin are good examples, as they provide accommodation at an affordable rent and also allow for community interaction and communication. Public and open spaces are well designed, and different generations can meet and interact.
- In New York City, the elderly frequent fast-food restaurants not only for the affordable food, but also to interact with younger generations who spend time there chatting, studying or working, which makes the elderly feel that they are part of the community.
- Barcelona's City Hall has developed simple applications that create age groups and allow users to share information, thus promoting interaction among different age groups.
- New technologies, such as driverless cars, offer the elderly new-found mobility and could change the design of the city.



- Diversity and inclusion will become even more critical when considering the urban city of the future. Ageing is not only a problem faced by Japan, but also by other people around the world.

## Cities and Services

- An important question to ask is: What services would make cities more sustainable and viable for the future?
- Financial and commercial challenges exist. Nowadays, people stay active and in good health for more than 20 years after reaching retirement age. It is essential to make their lives healthier and happier.
- Interactions among people are critical. In the city of Fukuoka, for example, town houses are built, an extra budget is given to each, and people living in them consider how to use the budget. Such town houses are also built in small towns. This initiative promotes deep conversation in the community and tightens the connections within it.
- Creating jobs and increasing the opportunities to employ elderly citizens are important. The IoT and ICT, with their new technologies, and the idea of the shared economy could be breakthroughs to activate idle capability. This is one way of revitalizing the elderly and providing financially affordable services for them. Also, creating jobs and increasing employment opportunities can be a way to shift the elderly from being pension beneficiaries to becoming taxpayers who help to reduce social costs.
- “Shared” is also one of the key words for future communities. Shared services encourage interactions between people. In addition, the IoT and ICT help to utilize idle assets and workforces.



01: Breakout discussion: Cities and Design

02: Hanseul Kim, Director, Corporate Initiatives Group, LIXIL Group, Japan



## Cities and Healthy Living

- An important question about healthy living in urban environments is: What is the purpose of life when life expectancy reaches 80 years?
- It is crucial for an ageing society, where a large number of people are at least 60 years old yet still healthy and motivated to work, to provide a “mission” encouraging retired individuals to become more involved in their communities.
- How to integrate death into life and society is critical. Japan can learn much from countries such as Denmark, where the concept of terminal care is popular.
- Challenges in society and the social system need to be discussed. The current social system was designed to meet the needs of people retiring at the age of 60. The social cost has become notably high, however, in situations where the retirement age and pensionable age are set at 60, but the population is declining and ageing.
- Technologies that did not exist 50 years ago are available today, such as big data, artificial intelligence (AI) and the IoT. However, regulations may prevent new ideas and solutions from being realized. For example, a robot (with AI) is allowed to be used only for nursing care, but not for a medical treatment in Japan.
- Municipal governments already have the necessary data. Japan is a perfect place to test the new model of “healthy living” supported by big data.



**01:** Shoukei Matsumoto, Managing Director and Buddhist Priest, Japan Fellowship of Buddhists, Japan  
**02:** Satoru Hiraga, Representative Director and Managing Director, Marsh Japan (MMC), Japan  
**03:** Chikatomo Hodo, Chairman, Accenture, Japan  
**04:** Rosemary Feenan, Director, Global Research Programme, Jones Lang LaSalle, United Kingdom

## Cities and “Tokyo”

- Tokyo should create an urban development vision for 2020 and beyond. The city needs to consider what will happen after the Olympic Games: what is their legacy?
- Tokyo is not the only city facing the challenge of an “ageing population” and “population decline”. Migration is a response to these two trends and should be discussed in the context of Tokyo.
- (Re-)Designing and (re-)shaping the city will ensure its appropriate size, help to revitalize it, and enable interaction and communication. Research indicates that approximately 50 hectares is the optimum size for a city.
- Denmark provides good examples of cities that have improved energy efficiency by retrofitting buildings.
- Cities can be revitalized through downsizing or re-forming; this, in turn, contributes to improved energy efficiency.

## Next Steps

The World Economic Forum will use the insights gained from this roundtable to inform the work of the Future of Urban Development & Services initiative in urban services and the Vision for Tomorrow project, an initiative originated in Japan.



## List of Participants

Chikatomo Hodo	Chairman	Accenture	Japan
Tadashi Waki	Managing Director	Accenture	Japan
Taisuke Sasanuma	Representative Partner	Advantage Partners Inc.	Japan
Arata Oguri	Principal	Arup, Japan	Japan
Takeo Hirata	Secretary-General, Secretariat of the Headquarters for the Tokyo 2020 Olympic and Paralympic Games Cabinet Secretariat	Cabinet Office of Japan	Japan
Akio Yonekura	CEO, Executive Officer	Campus for H, Asuka Holdings Inc.	Japan
Yasuo Motoi	Executive Officer	Dentsu Group	Japan
Sogo Fujisaki	Director, Corporate Social Responsibility	Fujitsu Limited	Japan
Soichiro Takashima	Mayor of Fukuoka	Fukuoka City	Japan
Sakie Fukushima	President and Representative Director	G&S Global Advisors Inc.	Japan
Shinya Ominami	Chairman	Green Valley	Japan
Kentaro Ichiki	Creative Director	Hakuhodo Inc.	Japan
Akihiko Tobe	General Manager, Business and Engineering Solutions	Hitachi Ltd	Japan
Motohisa Furukawa	Member of the House of Representatives	House of Representatives of Japan	Japan
Shoukei Matsumoto	Managing Director and Buddhist Priest	Japan Fellowship of Buddhists	Japan
Rosemary Feenan	Director, Global Research Programme	Jones Lang LaSalle	United Kingdom
Shinichi Koizumi	Special Advisor to the Chairman	Keidanren (Japan Business Federation)	Japan
Masa Inakage	Professor, Dean Graduate School of Media Design	Keio University	Japan
Atsushi Seike	President	Keio University	Japan
Satoshi Hijikata	President	Kokusai Kogyo Co. Ltd	Japan
Hiroshi Otake	Executive Officer, Learning Therapy Centers	Kumon Institute of Education Co. Ltd	Japan
Kazuyuki Ishibashi	Director, 2020 Project Preparation Office	LIXIL Group Corporation	Japan
Hanseul Kim	Director, Corporate Initiatives Group	LIXIL Group Corporation	Japan

Satoru Hiraga	Representative Director and Managing Director	Marsh Japan (MMC)	Japan
Sunil Dubey	India Ambassador	Metropolis	Australia
Hiroo Ichikawa	Executive Director, Institute of Urban Strategies, Mori Memorial Foundation	Mori Building Co. Ltd	Japan
Hiroo Mori	Director and Executive Vice-President	Mori Building Co. Ltd	Japan
Masahiro Ikeno	Vice-President, Global Business Unit	NEC Corporation	Japan
Kaori Iida	Senior Editor, Economics News Division	NHK (Japan Broadcasting Corporation)	Japan
Shunichi Funahashi	Deputy General Manager, Department of Redevelopment in Central Osaka Area, Osaka Main Office	Obayashi Corporation	Japan
Kohey Takashima	Chief Executive Officer and Founder	Oisix Inc.	Japan
Yuichiro Sugahara	President and Chief Executive Officer	Tamagoya Co. Ltd	Japan
Michael Kimmelman	Architecture Critic	The New York Times	USA
Tim Tompkins	President	Times Square Alliance	USA
Masahito Ara	Senior Manager, Energy Sales and Service Planning	Tokyo Gas Co. Ltd	Japan
Hiroyuki Mukai	Executive Vice-President	Transcosmos Inc.	Japan
John Dinsmore	Health Innovation Lead/Deputy Director, Centre for Practice & Healthcare Innovation	Trinity College Dublin	Ireland

### From the World Economic Forum

Alice Charles	Community Lead, Infrastructure and Urban Development Industry
Akira Tsuchiya	Executive Director, Head of Japan
Masao Takahashi	Head of Business Engagement - Japan
Kayo Hirano	Community Lead, Infrastructure Industries
Kiriko Honda	Community Lead, Business Engagement - Japan
Mihoko Kashiwakura	Community Lead, Regional Strategies - Japan
Hisako Katayama	Project Manager, Vision for Tomorrow – Japan





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