

Remarks for Special Issue on Sustainable Data-driven City Management

Today's world is one of ever increasing complexity. As globalization and diversification bring new and unexpected changes, communities struggle to maintain ties to local cultures and traditions, weaving an ever more intricate web of social and environmental issues that threaten to paralyze local governments and residents. At NEC, we are committed to helping to solve social issues that challenge communities around Japan and around the world by leveraging our expertise in ICT. Our goal is the achievement of a society that embodies the values of safety, security, efficiency, and equality.

From a global perspective, we see more and more people heading to the cities, leading to increasing urban concentration and overcrowding. Globally, the percentage of city dwellers is expected to reach 70 percent by 2050, with crime and the risk of terrorism increasing in tandem. At the same time, the online world is exploding, with millions more people getting connected every day. This has given rise to new types of crimes that cannot be prevented by conventional methods, increasing the necessity to develop digital technology-based anti-crime measures.

When we look more specifically at Japan, we see an aging population with fewer and fewer children — a trend likely to accelerate in the future. Increasing social security costs and a decreasing workforce, as well as slumping consumption and declining economic vitality, pose severe challenges for governments at both national and local levels. Aggravating the financial stress imposed by changing demographics will be the increased burden on local economies imposed by deteriorating infrastructure that needs to be maintained or repaired. So grim is the outlook that almost half of municipalities in Japan may disappear by 2040 due to depopulation.

NAKAMATA Chikara

Executive Vice President



We have been working all over the world to support the transition to secure, safe cities with our advanced technology, which includes security technology, as well as AI and IoT technologies such as biometrics and image analysis. For example, our crowd behavior analysis technology is contributing to city management — particularly in cases of natural disasters or other emergencies — by analyzing security camera footage in real time to capture the degree of congestion of a large crowd and the flow of people, making it possible to generate alerts appropriate to the emergency conditions. The results of the analysis can subsequently be used for crowd behavior prediction, further refining city management capabilities. At the same time, measures are incorporated to protect individual privacy.

By converting real-world events — which have gone unnoticed until now — into digital data and then using that data for visualization, analysis, prescriptions, we will be able to help execute evidence-based city management by setting clear key performance indicators (KPI) and implementing a visualized plan-do-check-act (PDCA) cycle.

For effective exploitation of information, it is important to take privacy into consideration while assuring quality and utilizing a wide range of data sources. The key to maximizing value is to connect data across a broad range of sources and inputs, transcending specific fields such as disaster management, safety, tourism, transportation, construction, healthcare, and infrastructure maintenance. Integrating diverse data in this way will create new value, new opportunities, and stimulate new ideas. This in turn will promote innovation in municipal and private sectors, improving and enhancing services for residents, thus leading to increased

value and differentiation of the city as a whole with a focus on new business creation and human resource development at the community level.

While NEC has data utilization platforms and advanced digital technologies in AI, networking, and security to help achieve these goals, we are also — as part of our efforts to accelerate data utilization — focusing on community co-creation activities. These activities aim at economic growth and creation of sustainable communities by helping solve local issues in collaboration with municipalities, local enterprises, and residents, through the efforts such as the establishment of a smart city promotion council and the conclusion of a comprehensive cooperation agreement.

By collecting a wide range of urban data and integrating it around a human-oriented core, NEC will help transform lifestyles into ones that are more abundant and meaningful, while achieving cities that are safer, more reliable, more sustainable, and easier to live in. By integrating the real world with cyberspace, NEC is aiming to create a human-centered society where people's lives and interactions will be enhanced through city management. At NEC, we will set our own priority themes and our own KPIs from the perspective of environment, social, and governance (ESG) to maximize our social value. In so doing, we believe we can contribute to the United Nation's Sustainable Development Goals (SDGs).

In this special issue on sustainable data-driven city management, we introduce NEC's solutions for achievement of safer cities, various technologies for city management, and case studies of our commitment to community co-creation.

We hope that you will enjoy reading this issue and look forward to your continuous guidance and encouragement.

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