

# Hitachi Consulting



The Japanese earthquake and resulting tsunami wrecked lives and devastated communities

## In the wake of Japan's earthquake and tsunami



Seiki Maenosono  
Hitachi Consulting managing director

■ In the wake of the great East Japan earthquake and tsunami, the “smart city” concept is considered to be crucial to Japan's rebuilding effort. The public and private sectors are increasingly turning their attention towards the smart city as a way of solving the complex problems they face today.

A number of government-led initiatives are creating smart city business opportunities for local technology companies, intensifying competition for orders. But is the smart city concept, as presently defined, really an immediate answer to Japan's recovery?

The concept often refers to environmentally friendly urban designs, which utilise alternative energy sources, spawning new demand for

technologies, such as the smart grid, and machine-to-machine (M2M) communication infrastructure.

Such technologies are undoubtedly the core constituents of the smart city concept; however, in reality, what makes a city really smart and sustainable is not the individual technology, but collaboration between citizens, public and private sectors, and a platform to connect the dots and continuously nurture social innovations for sustainable living of the future.

Hitachi Consulting is supporting the City of Miyako, in Iwate prefecture, to draw up a blueprint for a future sustainable economy, with the strong belief that such collaboration is critical above all other concerns.

However, in many cases, technological perspectives tend to precede other matters whenever the smart city is discussed. What would encourage stakeholders to collaborate? How would we efficiently monetise new service concepts? Such critical questions remain unanswered, although the smart city is widely discussed and expected to make a difference with the many options to rebuild devastated areas, and create a benchmark for the country.

So what is really required for Japan to rebuild its cities and economy? Here are some of the actions to be taken in order to create the basis for a successful implementation of smart city initiatives as a part of Japan's overhaul:

- Special economic, deregulated zones;
- Tax incentives to attract foreign investment;
- Public-private partnerships for urban regeneration and management;
- Government backing for a technology “platform” to converge green technologies.

Considering the demographic challenges in the impacted areas, it is crucial that these cities attract outside resources through such things as healthcare, education and tourism, for example. It is also helpful to set up programmes to match citizens' expectations with the needs of various industries and the public sector to shape the future of valued services.

In any case, it is citizens and enterprises that play the central role in creating smart and sustainable communities, and it is an imperative for central and local government to

unleash private-sector potential through deregulation and incentives. After all, it is about the private and public sectors working closer together than before.

However, such actions are facing the vertically structured administrative framework of Japanese society. And risk-averse “act on precedent” culture is bringing Japan to a halt.

Fourteen months after the tsunami, 90 per cent of the debris still has to be cleared. Government and local municipalities are still struggling to co-ordinate a response to the disaster, without the strength of vision to shape the future of the impacted communities, while the private sector is using smart city proposals as a sales pitch only to sell their products in these areas.

Thus, there remains a huge gap



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between where we are and where we need to be in rebuilding disaster-resilient, sustainable urban economies. Although the smart city concept is definitely an option to address simultaneously Japan's 3Es (earthquake-tsunami, energy and economy), the question is probably not “what it should be?” but rather “how we get there?”

If we look back on our history, it has always been people with purpose who innovate and eventually turn vision into reality. And such innovation would no longer be serendipity if the right people come together with right support in place. If we envisage a disaster-resilient, sustainable urban community as the end goal, we need to consider creating a knowledge platform as an enabler on the journey to smart cities.

Acknowledge platform may include universities, vocational training institutions, R&D and start-up centres for enterprises of all sizes. It may even extend to meetings, incentives, conferencing and exhibitions (MICE), and business parks with shared services and research facilities.

The core asset in such a community is human capital and the brain power which, with the right incentives, will attract people and know-how from around the world. It is also critical that such a hub is industrialised or, put simply, monetised as an integrated community.

Public-private partnership is a prerequisite for such an effort, but this is a relatively easy choice for stakeholders, compared to the complexity of building a smart city, and is a natural extension of their existing values which have wide-ranging impact. Also a successful intelligence hub will continue to evolve as the basis for a knowledge-based economy and innovations platform.

Once such a platform is created, further steps can be taken to bring people closer together. Virtual town hall meetings may activate dialogue between the municipality, businesses, universities and citizens. Universities and enterprises may find new ways to collaborate with the third sector. Business-matching schemes may pave the way for local start-ups to connect with global investors or vice versa.

Just as you need to learn basic arithmetic before studying applied maths, Japan may need to practise basics to create an evolving eco-system, which can also work as an enabler for building a more complicated way of living like a smart city.

**340k**  
evacuees in temporary housing

**80%**  
of farmers short of arable land

**2%**  
decline in city population

**80%**  
of population decline due to young people moving