A Changing World

Cities around the world face new challenges and increasing pressures from population growth and technological disruption. Many are beginning to see this as an opportunity to adopt new smart city solutions and insights from The Internet of Things that will help make their communities better places to live.

Ultimately a smart city will be measured by its outcomes. Residents and families want to be safe and live where they can find opportunity. Businesses want to locate themselves where they have the resources they need to thrive. Cities want to deliver services that are efficient, sustainable, and effective — and help local residents and businesses meet their needs.

It’s evident that cities will continue to evolve as they adopt technology and leverage insights to improve operations and drive innovation. It’s also clear that the ways in which cities approach urbanization, technology, business and the economy will ultimately decide which ones will become thriving communities that attract the best talent and businesses of the future.
Urbanization

Today the majority of the world’s people already live in cities, and in the future even more of us will. The United Nations reports that in 2014, 54% of people lived in cities globally; by 2050, that number will climb to nearly 70%. In developed regions such as North America and Western Europe, over 80% of the population already lives in cities. As we become increasingly urban, the expanding population intensifies pressure on cities to optimize the management of public services and to provide better places to live. In 1950 the global urban population was only 764 million. In 2014 this number grew to 3.9 billion, and is projected to surpass 6 billion by 2045.1

Technology

Technology brings our world together as never before, but has also caused massive shifts in the ways that we work, communicate, and go about our daily lives. Smartphones are ubiquitous and give people access to a world of data in the palms of their hands. Incredible amounts of new data are online thanks to the Internet of Things (IoT), which is projected to grow from 6.4 billion connected devices in 2016 to over 20 billion in 2020, according to a study by Gartner.2 In addition, technology uses IoT data to automate many of the tasks that were once staples of the employment base, disrupting industries and leading to economic uncertainty for many. For example, the autonomous vehicle, while improving safety and convenience, will eliminate many jobs for taxi and truck drivers, which represent a significant portion of U.S. employment.

Business and Economy

Throughout history, people have moved to cities for opportunity, culture, and innovation. Cities that continue to advance the conditions for innovation to arise will be the most resilient to disruption and macro-economic and political shifts. The rise of

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smartphones and the sharing economy, with companies such as Uber and Airbnb, is changing how people engage in business and enabling more individuals to become entrepreneurs. These people use their existing assets (their car or apartment) and connected platforms to cut out the middle-men of long-standing industries. This trend is already creating disruption in cities globally as governments decide how to regulate these new business models to soften the negative impact to their local job markets and tax the businesses appropriately. Cities must find ways to support innovation and entrepreneurship while uncovering models that work for the community. They must also use technology to rapidly collect information in real time and analyze trends in order to take effective action in a timely manner. Hitachi helps cities use technology to improve efficiency and safety, as well as drive innovation locally, so they can be resilient in times of change and turn transition into opportunity.

What Does Your City Want to Achieve?

Although cities can have similarities, the problems they face and communities they support are unique and diverse. Hitachi takes a human-centered approach that views cities as an interaction of people, communities, and technology, and as places where we come together to live better lives. Within this context, smart cities implement solutions that help them achieve their basic goals:

- **Improve quality of life** – including public safety, economic opportunity, vibrant communities, and reaching sustainability goals.
- **Increase resiliency** – enabling cities and communities to adapt quickly to changes, now and in the future.
- **Operate efficiently** – optimizing transportation times, reducing energy consumption, and utilizing technology to help people be more effective.

Hitachi Helps Cities Innovate to Solve the Challenges of Our Time

Hitachi is committed to social innovation – applying technology and industry solutions to create smarter, healthier, more efficient societies. As more of humanity moves to urban areas, opportunities arise for furthering social innovation through smart cities. From providing technology designed to keep people safe, to getting people between cities faster and more efficiently, to providing data platforms for local innovation, Hitachi is partnering with cities globally to help make our world a better place to live.
Solutions as a Service: Business Model Innovation to Accelerate Smart Cities

Cities don’t just need innovative technology; they need partners that can provide solutions in an accessible way. Many consumer companies are shifting from ownership to access, allowing customers to pay for everything from cars and tools to data storage and even groceries as a service. Hitachi is providing cities with these same options for smart city solutions. In the UK, Hitachi is providing Trains-as-a-Service with the Intercity Express Rail project. Instead of paying billions of dollars up-front, cities only pay for service delivery based on availability and frequency. Hitachi provided 800 trains and over 700 local jobs needed to support the operation, without requiring up-front capex payments from city customers. With innovations in financing, smart city solutions become more accessible to cities large and small – so that all communities can benefit from the impact of technology and innovation.

Let’s Make Your City Smarter

Hitachi is unique in that it can deliver truly end-to-end solutions. We have the operational and information technologies, industry knowledge and analytics expertise required to make cities smarter. No other company can bring it all together like we can, on such a large scale. We have over 100 years of experience in the operational technology sector – making heavy machinery and infrastructure, as well as over 50 years in information technology – from data storage to visualization and analytics. Our global consulting services teams and innovation labs bring this all together with our customers and partners to provide complete solutions to help cities meet their challenges – so they can turn disruption into opportunity and thrive in a changing world.