MIC
Ministry of Internal Affairs and Communications

ICT Growth Strategy

～Japan's economic growth and contribution to international society by ICT～

June 2013

Council on ICT Strategy and Policy for Growth

ICT Growth Strategy －fundamental perspective －

Mission

- To be the most active country in the world
  ～Japan's economic growth and contribution to international society by ICT～

Vision

- Ⅰ. Creating new value-added industries
- Ⅱ. Solving social problems
- Ⅲ. Improving and strengthening a common ICT infrastructure

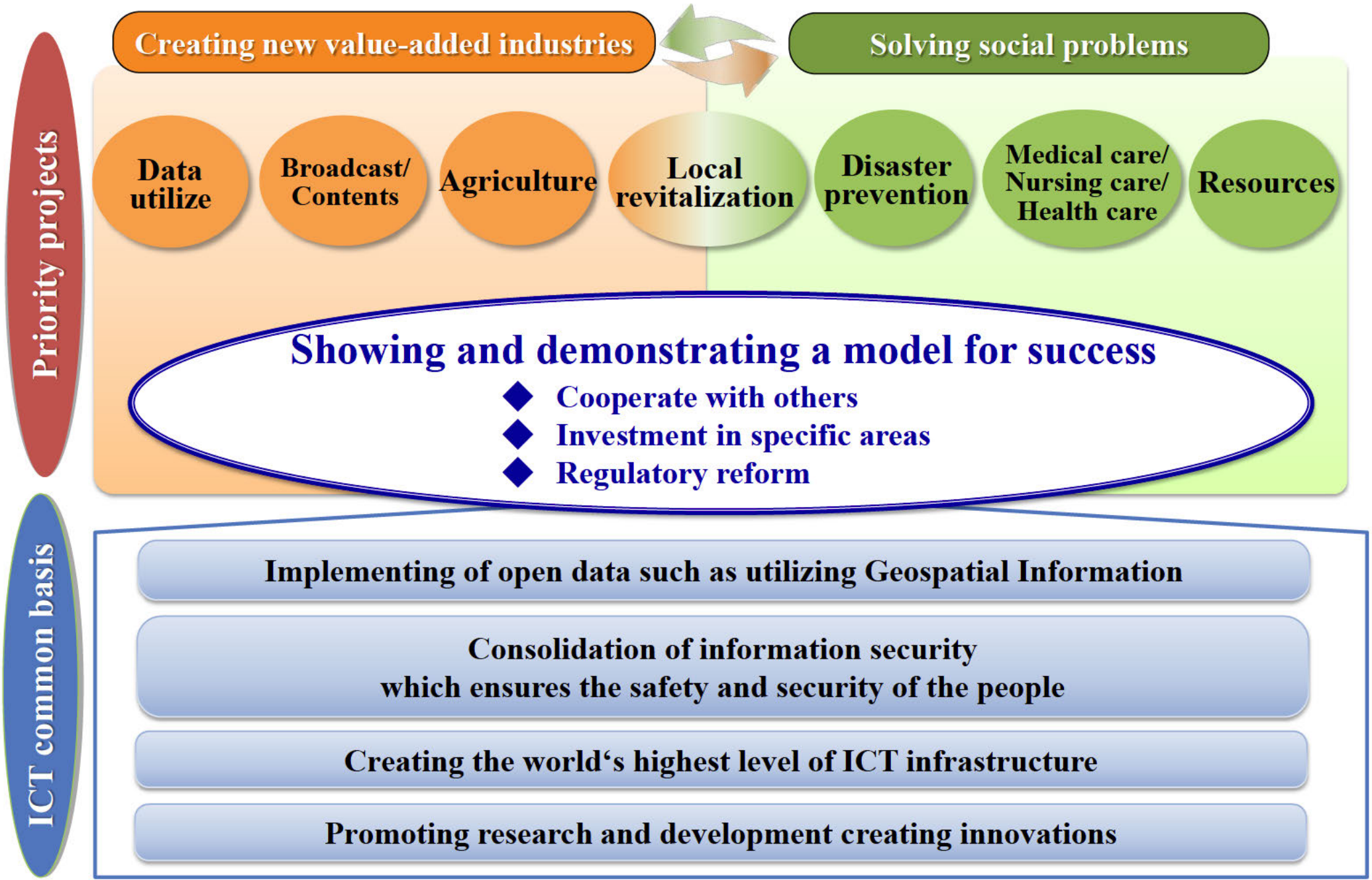
Key Technology:
Big Data & Sensor Network

Making projects into national policy and comprehensive implementation

issues

- ◆Economic growth
- ◆Employment
- ◆Information transmission capacity
- ◆Town development
- ◆Super-aging society
- ◆Resource problems
- ◆Open innovation
- ◆Cybersecurity
- ◆Utilizing of personal data

ICT Growth Strategy —perspective—



ICT Growth Strategy － Perspective of each measure －

Projects implemented by industry-academia-government collaboration

Creating new value-added industries

Super-aging society × ICT

○Construction of Smart Platinum Society
- Establishment of an ICT health (disease prevention) model
- Nationwide expansion of EHR(Electronic Health Record)
- Improvements in ICT literacy

○Promotion of Telework

Creation of a new industry of a scale of 23 trillion yen by 2020

Resource problems × ICT

【Minerals, Water, Foods, Infrastructure】

○Realization of a satellite-applied "broadband at sea"

○Expansion of advanced water-related systems 【overseas expansion】

○Knowledge industrialization of agriculture and establishment of a value chain

○Efficient maintenance management of roads and bridges

An economic effect of 20 trillion yen by 2025

Creating new value-added industries

Broadcasting contents

○Efficiency and speed improvements in the processing of broadcast content rights 【overseas expansion】

◆Improvement of system to promote

Achieving overseas business sales three times as high as the present sales by 2018

Broadcasting services

○Support for the early realization of next-generation broadcasting systems (4K･8K, Smart TV)

◆Improvement of system to promote broadcasting services
◆Development of Road Map

Creation of Innovation

○Promotion of ITS Pilot Projects

Geospatial Information

○Construction of a geographic-spatial(G-spatial)open data platform
○Construction of the world's most advanced G-spatial disaster prevention system
○Attainment of a success model of G-spatial City (tentative name)

Expanding the relevant markets to a scale of 62 trillion yen in 2020

ICT Smart Town Development

○Expansion and acceleration of ICT smart town development

Environmental improvement implemented by the government

ICT Smart Town Development

○Construction of a common platform ← Developing a system for deploying successful examples (by 2018)

Creation of Innovation

○Establishment of a public appeal system accepting applications at all times
○Establishment of a frame that will challenge ingenious people

Cybersecurity

○Improvements in analytical capability by establishing CYREC
○Promotion of international cooperation (e.g., Japan-ASEAN cyber security cooperation)

Open data / Big data

○Promotion of "open data" and "big data"

Projects implemented by industry-academia-government collaboration①

Super-aging society × ICT

Construction of Smart Platinum Society

○Establishment of an ICT health (disease prevention) model

- Implementing a large-scale social demonstration in order to establish a health (disease prevention) model using health-care points (i.e., points given to health promotion efforts, such as exercise initiatives) and other incentives

○Nationwide expansion of EHR(Electronic Health Record)

- Studying the standardization of the data and system specifications of EHR and its operational rules, and achieving a significant reduction of system-related costs to promote the spread and deployment of EHR throughout Japan

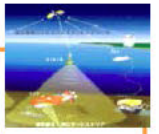
○Improvements in ICT literacy

- For literacy improvements in the utilization and application of cloud services, Implementing demonstrations, e.g., demonstrations of personal information management methods in community centers, school classrooms, and other spaces available

Promotion of Telework

- Making a nationwide appeal for enterprises that desire the full-scale introduction of a telework system and implementing a demonstrative project to establish a new ICT-applied model that can evaluate the flexibility and appropriateness of the telework system

Resource problems × ICT



Minerals

○Realization of a satellite-applied "broadband at sea"

- Developing high-speed communication suitable to the offshore environment

Water

○Expansion of advanced water-related systems

- Demonstrating water-related systems, such as leak detection systems using big data in suitable areas, including overseas

Food

○Knowledge industrialization of agriculture and establishment of a value chain

- Implementing a demonstration of networking a number of production areas in remote locations to share the know-how of skilled farmers and market information
- Implementing the research and development of technologies, such as information-sharing technologies, toward the establishment of a value chain

Infrastructure

○Efficient maintenance management of roads and bridges

- Implementing the research and development of sensor technologies in order to grasp the state of infrastructure from wired and wireless sensors

○Sophistication of ICT-applied road management

- Implementing a demonstration that will enable efficient road management based on an analysis of data collected from vibration sensors, to grasp the surface conditions of roads

Projects implemented by industry-academia-government collaboration②

Broadcasting contents

Promotion of an expansion overseas

○Efficiency and speed improvements in the processing of broadcast content rights

・Providing support to initiatives that will promote broadcasters and rights holders' efficient and prompt processing of broadcast content rights in the fields of music and performers

○Promotion of an expansion of overseas markets

・Information on food and tourism resources will be transmitted according to the needs of the overseas areas through broadcast channels or networks. The project will promote the activation of the regional areas with consideration of business expansion in the future and provide support to the transmission of video contents of pop culture as well

Improvement of system to promote

○Improvement of system to promote overseas expansion of broadcasting contents（in the first half of fiscal year 2013）

・Establishing a system (general incorporated association) as a national project to promote an overseas expansion of broadcast contents and related products

Broadcasting services

Next-generation broadcasting systems

○Support for the early realization of next-generation broadcasting systems

・Providing support to the verification of necessary technologies for the early initiation of 4K/8K broadcasting and the spread and promotion of next-generation smart TV service

Development of system to promote

4K/8K（Super-high vision）

○Establishment of NexTV-F （May 2013）

・Approximately 30 broadcasters, manufacturers, and telecommunications carriers jointly established NexTV-F (the Next Generation Television and Broadcasting Promotion Forum)

Smart TV

○Establishment of Next-generation Smart TV Promotion Center(JUL 2013)

・Establishing the Next-generation Smart TV Promotion Center in the IPTV FORUM JAPAN in order to spread applications for next-generation smart TV in preparation

Platform of Cable TV

○Establishment of new platform operators (within fiscal 2013)

・Establishing platform operators as infrastructure common to the cable TV industry (Establishing a study organization within the Japan Cable and Telecommunications Association in July this year)

Projects implemented by industry-academia-government collaboration③

Creation of Innovation

Promotion of ITS Pilot Projects

○Establishment of ICT-applied ITS next-generation infrastructure

- Implementing a large-scale demonstrative experiment on public roads in preparation for the practical use of advanced driver assistance technology that will connect vehicles, roads, and networks in pursuit of the actualization of a safe, environment-friendly, and economic road traffic society

ICT Smart Town Development

Expansion and acceleration of ICT smart town development

○Demonstration to attain ICT smart town development

- Implementing a demonstrative project for the actualization of ICT Smart Town in order to attain disaster-resistant towns, revitalize local economies, create employment opportunities, and attempt local development and problem solution by applying cutting-edge ICT including sensor, cloud, and wireless devices
- Steadily implementing the demonstrative project that has already started (in five places) while also evaluating them. Meanwhile, the acceleration of the demonstrative project is necessary in order to respond to new social issues, such as the revitalization of communities, education, and aggressive agriculture
- Accelerating the deployment of the demonstrative project in key areas (21 areas) while grasping and visualizing the activities of the project with the aim of spreading ICT Smart Town around 2018

Projects implemented by industry-academia-government collaboration④

G-spatial × ICT

Construction of a geographic-spatial (G-spatial) open data platform

○Construction of platform

- Constructing a platform that allows the utilization and application of flexible combinations of G-spatial-related data items possessed by the public and private sectors. Contributing to the realization of the "G-spatial Information Center"
- Opening the platform to organizations, such as private companies, for the utilization of the platform to develop and demonstrate the creation of a variety of new services

○Reinforcement of arrangements including public-private cooperation toward the nationwide spread of G-spatial information applications

- Creating a best practice collection of utilization and application examples of G-spatial information, in order to promote the multi-purpose use of G-spatial information possessed by local governments
- Local governments and public service companies will establish a collaborative model, in order to make efficiency improvements in the production and updating of maps, and systematically expanding the model

Construction of the world's most advanced G-spatial disaster prevention system

○Actualizing the provision of precise information by various means

- Developing and systematically introducing a system that will make a big data analysis of G-spatial information in real time, apply various means of transmitting information including the message function of quasi-zenith satellites, and actualize a model system that will provide each individual with precise information

○Introducing advanced disaster management systems, such as disaster-response robots

- Developing and systematically introducing a disaster prevention system that will apply advanced information to large-scale disasters and special disasters that people cannot approach, as well as utilizing necessary equipment such as robots under unmanned, remote control

Attainment of a success model of G-spatial City (tentative name)

○Implementing a leading-edge utilization and application model

- Establishing a leading-edge model of the utilization and application of G-spatial information with ICT in cooperation with ministries concerned with areas such as the advancement of transportation and agriculture

○Implementing demonstrative projects abroad

- Implementing G-spatial and ICT demonstrative projects overseas centered on the ASEAN regions, in order to reinforce international competitiveness and promote an expansion of the use of "G-spatial information × ICT"

Development of Environment by government

ICT Smart Town Development

○Construction of a common platform

- Constructing a common platform based on the demonstrative project of ICT Smart Town in key areas throughout Japan to allow the cross-linkage of services and data in a number of fields
- Developing a system mainly organized by the stakeholders of the demonstrative project to spread and deploy success examples obtained from the demonstrative project along with the common platform by 2018

Creation of Innovation

○Establishment of a public appeal system accepting applications at all times

- Providing support to the actualization of technological achievements of universities, venture companies, and other entities in order to create innovations from research and development
- Establishing a new public appeal system in place of the conventional system of accepting opinions once a year so that support can be provided to new ideas whenever they are created

○Establishment of a frame that will challenge ingenious people

- Creating an environment to ensure ease of providing financial support to innovative ideas that will cause change in the world in order to give more opportunities to ingenious human resources without actually focusing on the achievements of the human resources

Cybersecurity

○Improvements in analytical capability by establishing CYREC

- Establishing the Cybersecurity Research Center (CYREC) in the National Institute of Information and Communications Technology and improving the analytical capability of Japan in order to cope with cyber-attacks that are becoming more sophisticated and complex

○Promotion of international cooperation (e.g., Japan-ASEAN cyber security cooperation)

- Ensuring the safety of the global Internet environment with the cooperation with ASEAN countries

Open data / Big data

○Promotion of “open data” and “big data”

- Developing environmental conditions, such as data format unification, for the opening of data (Actualizing the opening of data at the level the same as that of other developed countries by the end of fiscal 2015)
- Preparing a policy for reviewing the handling of personal data within the year under the IT Strategy Headquarters
- Establishing a system (trust framework) that will enable the utilization and application of appropriate data while ensuring consumers of the transparency of data

○Supporting new ideas for a base expansion of ICT Value Creation

- Making arrangements that will focus on venture companies resources to create and expand ideas leading to the solution of social and regional issues toward the creation of new added value applied with ICT, including big data

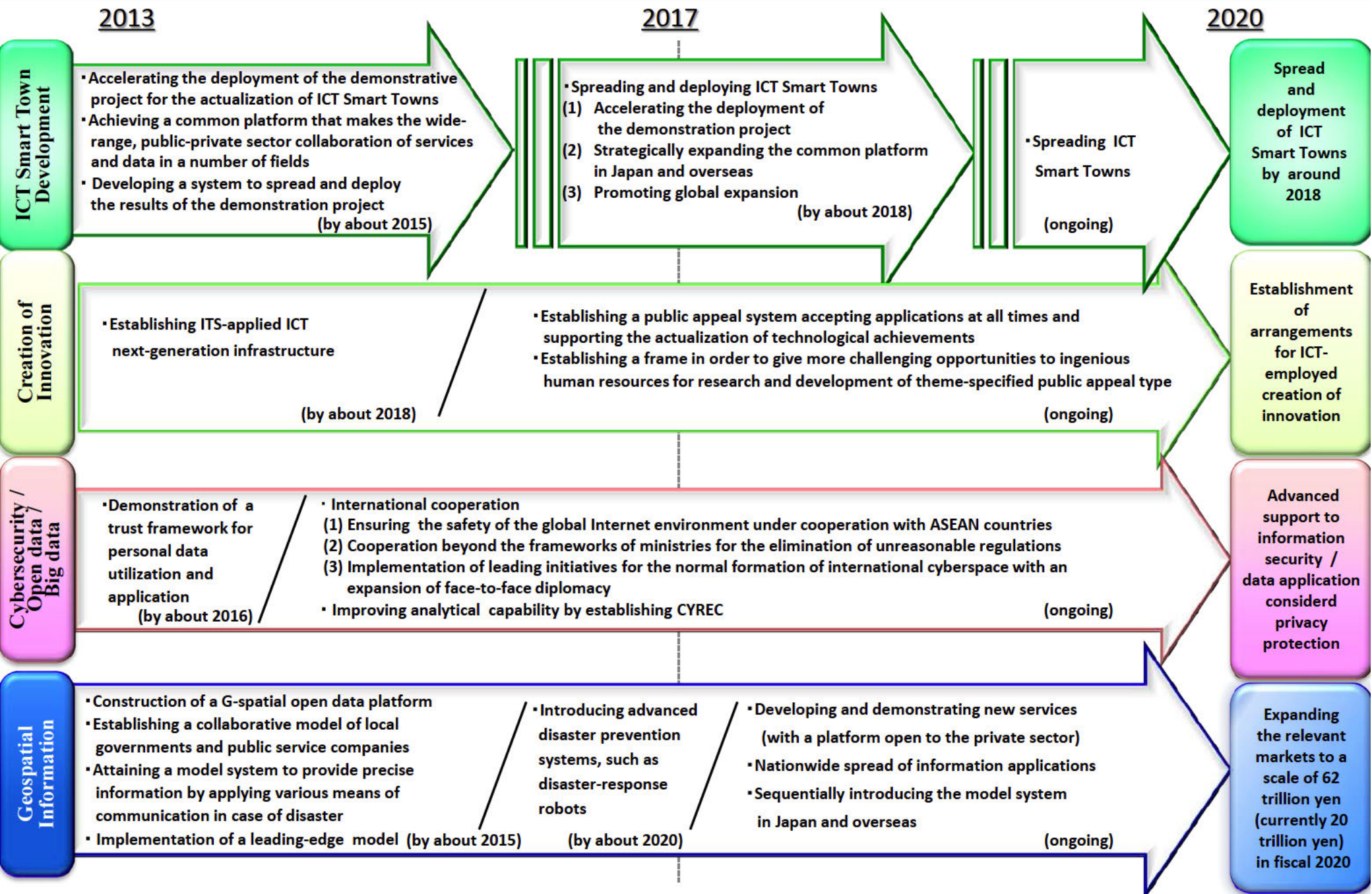
Development of System to Promote/Road Map①

Establishment of Council for Driving ICT Strategy and Policy for Growth

- Management and periodical evaluation of ICT Growth Strategy in a (plan-do-check-action) PDCA cycle
- Promotion of the cooperation with parties concerned including relevant ministries, governmental agencies, and industry-academia stakeholders

	2013	2017	2020
Super-aging society × ICT	・Establishing technical verification and operation rules for EHR ・Implementing a large-scale social demonstration of an ICT-applied health model ・Developing environment for improvements in the ICT literacy of elderly people ・ Promotion of telework (by about 2017)	・Promoting a nationwide expansion of EHR ・Establishing and spreading an ICT-applied health model ・Activating communication by promoting literacy improvement initiatives ・ Diffusion of new work style (by about 2020)	Creation of a new industry of a scale of 23 trillion yen in 2020
Resource problems × ICT	・Demonstrative experiments of short-term projects in various fields (1) Sharing information including the know-how of skilled farmers and market information (2) Advanced load management using data collected from vibration sensors mounted onto vehicles such as buses (by about 2017)	・Research and development in medium-to long-term projects in various fields (1) Information collaboration technology to attain a consistent value chain covering the stages of production, distribution, and consumption (2) Sensor technology to attain the efficient maintenance management of roads, bridges, etc. (by about 2020)	An economic effect of 20 trillion yen by 2025
Broadcasting contents	・Establishing an all-Japan system for the promotion of overseas expansion (by about 2013) ・ Improving the processing efficiency and speed of broadcast content rights (by about 2015)	・Accelerating and promoting an overseas expansion supported by the all-Japan system (1) Goal settings by key countries and others (2) Studying and preparing action plans (3) Implementation of initiatives for the execution of the plans (ongoing)	Achieving overseas business sales three times as high as the present sales by 2018
Broadcasting services	・Starting service 4K and Smart TV using long.124° /long.128° CS and CATV (By about 2014)	・Expanding service 4K using long/110° CS ・Starting service 8K ・Expanding service Smart TV ・Functional Expanding a CATV platform, and expanding participation companies (By about 2016)	・Starting service 4K and 8K for BS ・Expanding service for Smart TV ・Expanding participation companies for a CATV platform (By about 2020)	Achieving the world's first next-generation broadcasting services and creating a new market

Road Map②


2013
2017
2020
ICT Smart Town Development
・Accelerating the deployment of the demonstrative project for the actualization of ICT Smart Towns
・Achieving a common platform that makes the wide-range, public-private sector collaboration of services and data in a number of fields
・Developing a system to spread and deploy the results of the demonstration project
(by about 2015)
・Spreading and deploying ICT Smart Towns
(1) Accelerating the deployment of the demonstration project
(2) Strategically expanding the common platform in Japan and overseas
(3) Promoting global expansion
(by about 2018)
・Spreading ICT Smart Towns
(ongoing)
Spread and deployment of ICT Smart Towns by around 2018
Creation of Innovation
・Establishing ITS-applied ICT next-generation infrastructure
(by about 2018)
・Establishing a public appeal system accepting applications at all times and supporting the actualization of technological achievements
・Establishing a frame in order to give more challenging opportunities to ingenious human resources for research and development of theme-specified public appeal type
(ongoing)
Establishment of arrangements for ICT-employed creation of innovation
Cybersecurity / Open data / Big data
・Demonstration of a trust framework for personal data utilization and application
(by about 2016)
・International cooperation
(1) Ensuring the safety of the global Internet environment under cooperation with ASEAN countries
(2) Cooperation beyond the frameworks of ministries for the elimination of unreasonable regulations
(3) Implementation of leading initiatives for the normal formation of international cyberspace with an expansion of face-to-face diplomacy
・Improving analytical capability by establishing CYREC
(ongoing)
Advanced support to information security / data application considerd privacy protection
Geospatial Information
・Construction of a G-spatial open data platform
・Establishing a collaborative model of local governments and public service companies
・Attaining a model system to provide precise information by applying various means of communication in case of disaster
・Implementation of a leading-edge model
(by about 2015)
・Introducing advanced disaster prevention systems, such as disaster-response robots
(by about 2020)
・Developing and demonstrating new services (with a platform open to the private sector)
・Nationwide spread of information applications
・Sequentially introducing the model system in Japan and overseas
(ongoing)
Expanding the relevant markets to a scale of 62 trillion yen (currently 20 trillion yen) in fiscal 2020