ICTs for inclusive social and economic development in Japan

3 December, 2013

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Basic Act on the Formation of an Advanced Information and Telecommunications Network Society [IT Basic Law] (*come into effect in January 6, 2001)

New ICT strategy

Declaration on the Creation of the World’s Most Advanced IT Nation (June 14, 2013)

1. Overview of Japan's ICT policies

- In addition, the Japanese Government has formulated the national ICT strategies, such as “e-Japan Strategy” and implementation plans.
- Ministries and agencies concerned have been cooperating and implementing various policies in accordance with these national ICT strategies.
2. MIC's major ICT policies

- Households accessible to ultra high-speed broadband: 99%
- Rate per unit speed: Lowest rate (among OECD member countries)
- 3rd generation mobile ratio: 100% (achieved for the first time in the world in 2012)

Establishing world's most advanced ICT infrastructure

Further promotion of ICT utilization and application is necessary!

- Solutions for social issues such as disaster prevention, medical treatment and education by ICT utilization and application
- Spread of cloud service and promotion of big data utilization under the cooperation of multi-stakeholders
- Implementation of ICT capacity development

Promotion of ICT infrastructure development along with ICT utilization and application

Implemented under the cooperation of multi-stakeholders

ICT infrastructure development (spread of broadband)

- Promotion of the spread of broadband through ensuring and enhancing a fair competition environment in the telecommunications market.
- Promotion of IPv6 in collaboration with the private sector
- Achievement of a wireless broadband by prompt and smooth frequency reallocation

Establishment of a safe and Secure Platform

- Ensuring information security, protection of privacy of users of telecommunication services under the cooperation of multi-stakeholders
- Promotion of child online protection by introducing filtering
3. Promotion of international cooperation and contribution

(1) ICT utilization and application to solve issues in social and economic development

Selecting urgent and important issues and considering how ICT can provide solutions for these issues.

- Global warming
- Resources
- Foods, Water
- Population problem etc.

Challenges on a global scale

Specific issues with respect to each country

International contribution by Japan's best practices of ICT utilization and application

Policies and demonstration projects for Japan's ICT utilization and application

- Measures for disaster prevention
- Measures for coping with super-aging society
- Achievement of advanced medical treatment
- Achievement of advanced education

Promoting international cooperation and contribution

(2) Establishment of a Safe and Secure Platform for ICT utilization and application

Information and data crosses borders through ICT infrastructure and services. Therefore, international collaboration is required to deal with issues such as information security, protection of privacy, child online protection.
Mobile Health (m-Health) – Establishment of Home Medical Treatment/Nursing Care ICT System

Validation Process

mHealth

Terminal

Transmission Protocol

Measuring Instrument

EHR

Pharmacies

Clinics

Central Medical Organization

Nursing Care Facilities

Patients, Area Residents

Home Medical Care Visiting Care

Home Gateway

Mobile Gateway

PC

Smartphones

USB

Bluetooth, WiFi, Zigbee

Wireless transmission

Blood Oximeter

Physical Composition Meter

Glucometer

Sphygmomanometer

Optic Circuits 3G Circuits, LTE, etc.

Wireless transmission Home Gateway

Utilization of individually collected vital data

Individuals upload daily vital data to the medical cloud, which may be utilized by medical organizations, etc.

Utilization of mobile terminals, sensors, etc.

By use of mobile terminals and sensors, transmission among medical devices (M2M: machine to machine) based on the transmission standards such as NFC and Continua can be realized

A variety of uses

An individual may easily make measurements and upload data. Because the circuit is wireless, the network can be used for home and remote medical care, and health management
ICT for Disaster Prevention realizes collection, analysis, and distribution of disaster prevention information consistently and enables the transmission of disaster prevention information promptly and reliably.

Japan’s ICT for Disaster Prevention makes it possible to transmit disaster prevention information to residents promptly and reliably. Furthermore, the use of community one-seg transmitters powered by rechargeable solar power batteries for distribution units can contribute to bridging digital divide in villages that have no electricity.
4. Future activities

Considering international cooperation in the following issues in the future.

(1) Addressing issues based on Japan's ICT utilization and application

- Cooperation in addressing issues in social and economic development, by achieving e-health, ensuring disaster prevention, coping with the super-aging society and so on, based on experiences and results of Japan's ICT utilization and application.

(2) Sharing Japan's information and best practices towards establishing a safe and secure platform for ICT utilization and application

- Sharing Japan's information on case examples and best practices concerning measures for ensuring information security, protection of privacy and child online protection and so on to establish a safe and secure platform for ICT utilization and application.

Thank you all for your attention!