

**The New Strategy
in
Information and Communications
Technology (IT)**

Roadmaps

June 22, 2010

The Strategic Headquarters for the Promotion of
an Advanced Information and Telecommunications
Network Society

The New Strategy in Information and Communications Technology (IT) Roadmaps

1. Purposes

The purposes of the Roadmaps are to specify time frames and describe the specific undertaking of each Ministry in the measures of its own, and to define the roles and goals of each Ministry in joint-Ministerial measures for all undertaking such that the New Strategy in Information and Communications Technology (IT)* may achieve its goals.

*May 11, 2010 decision of the Strategic Headquarters for the Promotion of an Advanced Information and Telecommunications Network Society

2. Framework

We have prepared 30 roadmaps for each set of specific undertaking (for reference) presented in the New Strategy in Information and Communications Technology (IT).

A roadmap describes each Ministry's undertaking by the fiscal year and defines how different Ministries should cooperate with one another for achievements of priority measures.

To define the roles of each Ministry further, a roadmap is accompanied by reference material (*Undertaking by the Ministries*) that describes specific undertaking required of each Ministry in the short-term (2010 to 2011), mid-term (2012 to 2013) and long-term (2014 and beyond) schedules.

For Reference: List of Names of Specific Undertaking

1. Delivering a Citizen-oriented Electronic Administration

(1) Accomplishing IT-aided Administrative Reform and Transparent Administration

- i) Reviewing Previous IT-Related Investments; and Implement the Measures Reform Based on the Lessons from Review
- ii) Developing Plans Related to On-line Access to Administrative Services
- iii) Implementing Fundamental Reform in the Administrative Portal; and Improving Access to Administrative Services
- iv) Initiating the Citizen Identification (ID) System; and Preparing Citizens' Administration-Monitoring System
- v) Consolidating and Aggregating Governmental Information Systems
- vi) Achieving a nation-wide universal electronic administration (e-Administration) service
- (vii) Utilizing the Forum for National and Local Governments)

(2) Establishing an open government and others

- i) Promoting Release and Offering of Administrative Information; and Promoting Citizen Participation in Policy Making and Other Political Activities
- ii) Utilizing Information Held by the Administrative Agencies

2. Regenerating Bonding in Local Communities

(1) Undertaking in the Healthcaremedical Field

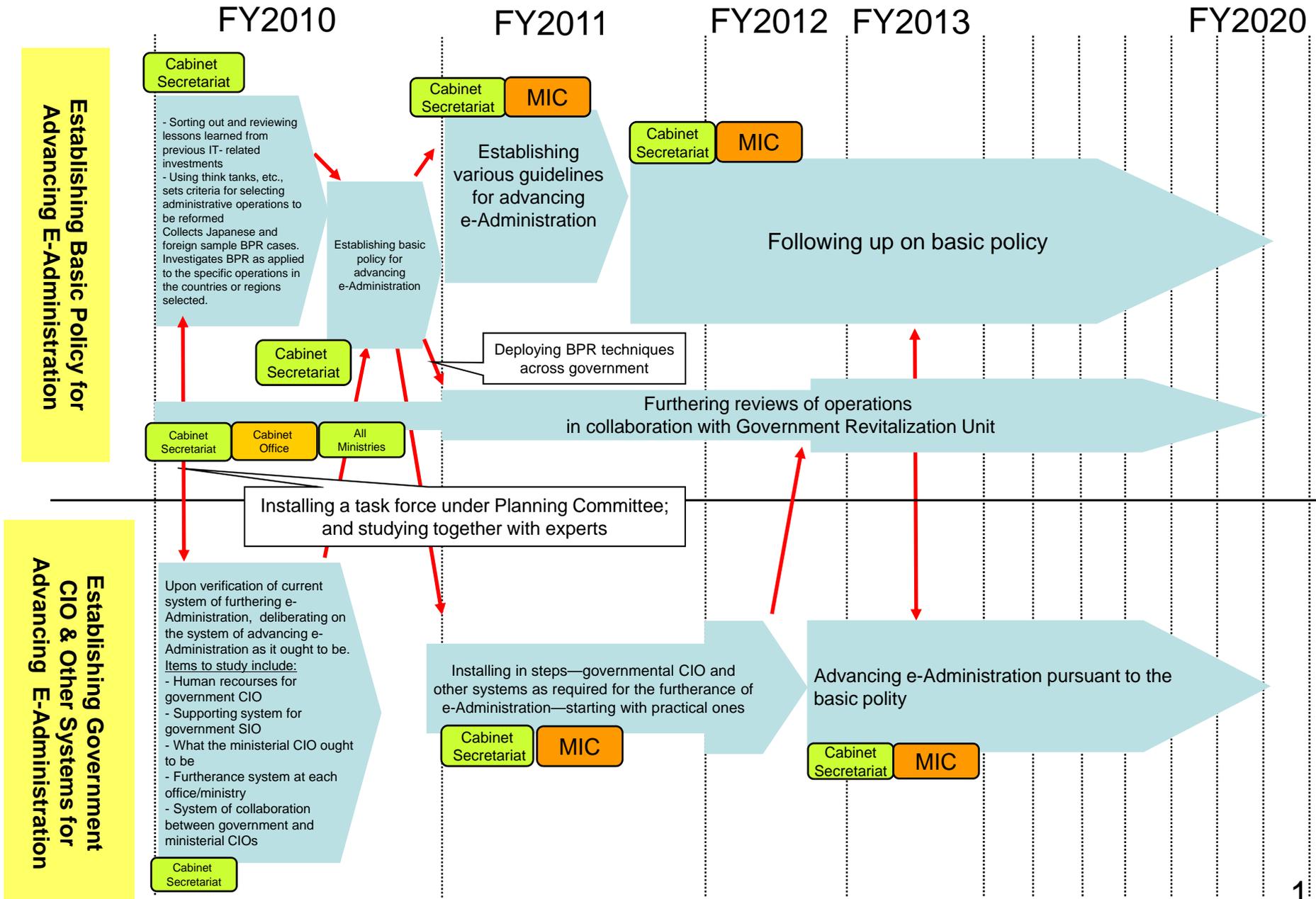
- i) Bringing the “My Hospital Everywhere” Concept into Reality
- ii) Implementing Seamless Community-collaborated Medical Services
- iii) Planning for Efficient Medical Services Using Medical Insurance Claim Data and Others
- iv) Promoting Pharmaceutical Safety Through the Use of Medical Information Database

(2) Undertaking for Seniors

- i) Advancing In-home Medical, Care, Watching and Other Services for the Aged
- ii) Developing and Disseminating Hardware and Software Friendly to Senior Citizens and the Persons with Disabilities

- iii) Promoting Teleworking
 - (3) Undertaking in the Educational Field
 - (4) Moving Toward Establishment of Community Sovereignty and Safety
 - i) Revitalizing Local Communities
 - ii) Advancing Measures Against Disasters, Crimes and Accidents
3. Creating New Markets and Expanding Internationally
- (1) Achieving a Low-carbon Society Through Integration of Environmental and IT Technologies
 - i) Promoting Smart Grid and Low-carbon Homes and Offices
 - ii) Greening the Transport of People and Goods
 - iii) Reducing Environmental Burden by the IT Field
 - (2) Advancing IT-related R&D Where Japan Excels
 - (3) Creating and Expanding New Enterprises Utilizing Younger Generations' Capabilities
 - i) Expanding the Digital Content Market Dramatically
 - ii) Creating a New Market Using Spatial Position Information Service and Other Digital Information
 - iii) Developing Human Resources Related to Advanced IT
 - (4) Securing Competitiveness of Cloud Computing Service
 - (5) Promoting Acquisition and Deployment of International Standards and Export and Investment by Developing an All-Japan Structure
 - i) Undertaking in the Asia-Pacific Region
 - ii) Constructing a Common Cargo Tracking Network for International Distribution System
 - iii) Supporting the Establishment of a Global IT Consortium
 - iv) Expanding Public Procurement Market through IT

Roadmap for Reviewing Previous IT-Related Investments; and Implement the Measures Reform Based on the Lessons from Review



1. (1) i)

Reviewing Previous IT-Related Investments; and Implement the Measures
Reform Based on the Lessons from Review

Short-term Schedule (2010–2011)

○ A basic policy for advancing electronic administration (e-Administration) shall be established.

Cabinet Secretariat:

Installs a task force under the Planning Committee to deliberate chiefly on the following items upon cooperation by MIC. Within FY2010 establishes a basic policy for advancing e-Administration.

- (1) Sorts out and reviews the lessons learned from the previous ICT-related investments.
- (2) Using the think tanks and other such means, sets criteria for selecting certain administrative operations to be reformed. Collects Japanese and foreign cases of business process re-engineering (BPR). Investigates the BPR as applicable to the specific operations in the countries or regions so selected.
- (3) Upon verification of the current system of advancing e-Administration, deliberates on what ought to be the system of advancing e-Administration—such as (a) the human resources for the government CIO, the supporting system for the government CIO, (c) the system of advancing e-Administration at each office and ministry, and (d) the system of collaboration between the government CIO and ministerial CIO.

Cabinet Secretariat: and

Ministry of Internal Affairs and Communications (MIC):

Establish guidelines for advancing e-Administration in keeping with the establishment of the basic policy for advancing e-Administration.

- Reviews of administrative operations shall be furthered.

Cabinet Secretariat and Cabinet Office:

Upon cooperation by MIC, further reviews of the administrative operations in conjunction with the Government Revitalization Unit.

All Ministries:

Review their administrative operations.

- Government CIO and other systems required for advancing e-Administration shall be established.

Cabinet Secretariat: and

Ministry of Internal Affairs and Communications (MIC):

Install the government CIO and other systems in steps as required for advancing e-Administration—starting with practical ones—pursuant to the basic policy for advancing e-Administration.

Mid-term Schedule (2012–2013)

- e-Administration shall be furthered.

Cabinet Secretariat; and

Ministry of Internal Affairs and Communications (MIC):

Advance the e-Administration measures pursuant to the basic policy for advancing e-Administration. Also follow up on, and review the basic policy as required.

- Reviews of administrative operations shall be furthered.

Cabinet Secretariat and Cabinet Office:

Further, upon cooperation by MIC, the reviewing of administrative operations in collaboration with the Government Revitalization Unit while internally expanding implementation of the BPR techniques.

All Ministries:

Continue to review their administrative operations.

- Government CIO and other systems required for advancing e-Administration shall be

installed.

Cabinet Secretariat; and

Ministry of Internal Affairs and Communications (MIC):

Install in steps the governmental CIO and other systems as required for advancing e-Administration—starting with practical ones—pursuant to the basic policy for advancing e-Administration.

Long-term Schedule (2014–2020)

- e-Administration shall be advanced.

Cabinet Secretariat; and

Ministry of Internal Affairs and Communications (MIC):

Advance the e-Administration measures pursuant to the basic policy for advancing e-Administration. Also follow up on, and review the basic policy as required.

- Reviews of administrative operations shall be furthered.

Cabinet Secretariat and Cabinet Office:

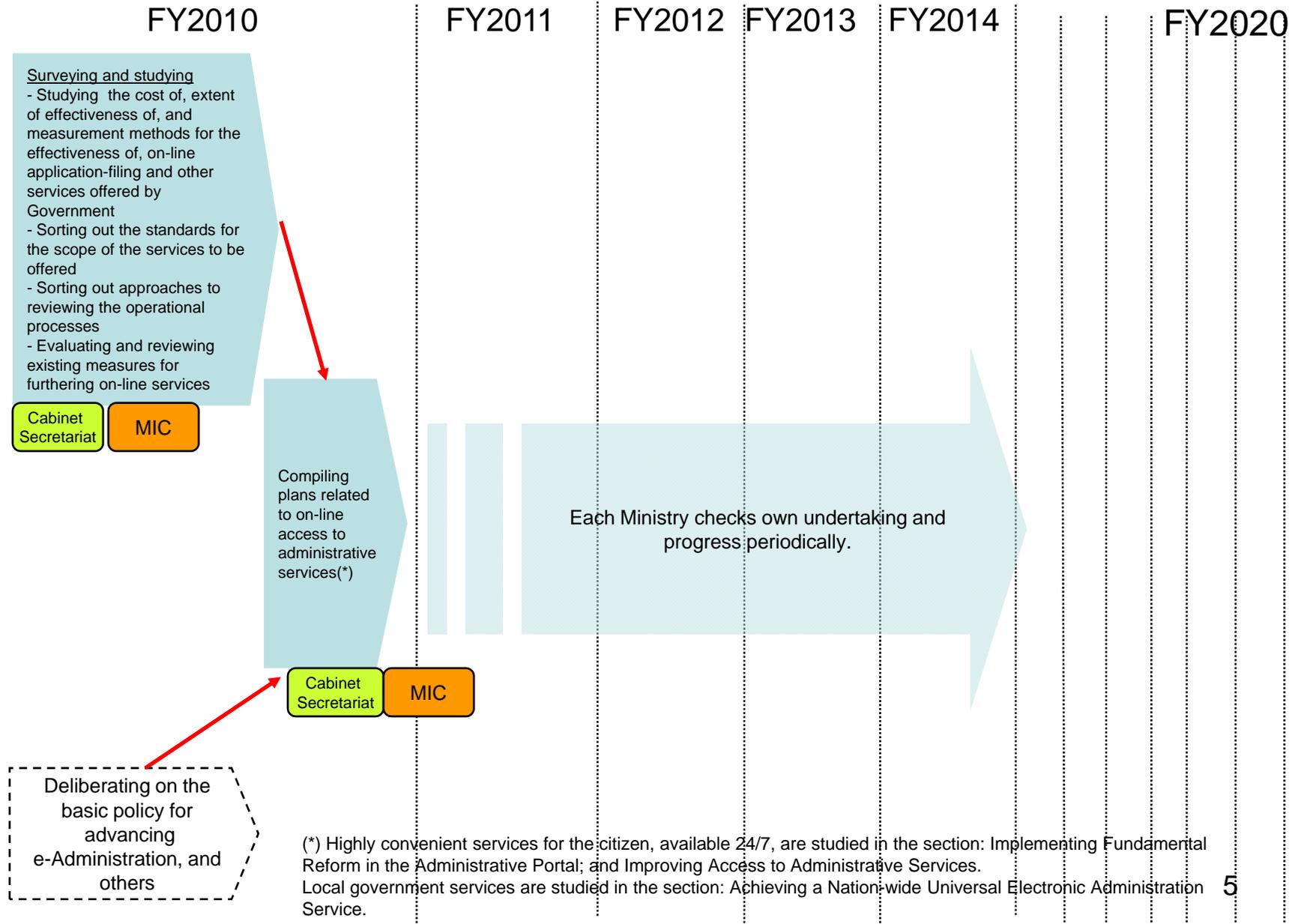
Continue, upon cooperation by MIC, furtherance of reviews of administrative operations in collaboration with the Government Revitalization Unit while internally expanding implementation of the BPR techniques.

All Ministries:

Continue to review their administrative operations.

Roadmap for Developing Plans Related to On-line Access to Administrative Services

Developing Plans Related to On-line Access to Administrative Services



1. (1) ii)

Developing Plans Related to On-line Access to Administrative Services

Short-term Schedule (2010–2011)

- Plans related to on-line access to administrative services shall be established.

Cabinet Secretariat:

Installs a deliberation framework that includes experts. Within FY2010 deliberates on and compiles a plan upon cooperation by MIC and other Ministries.

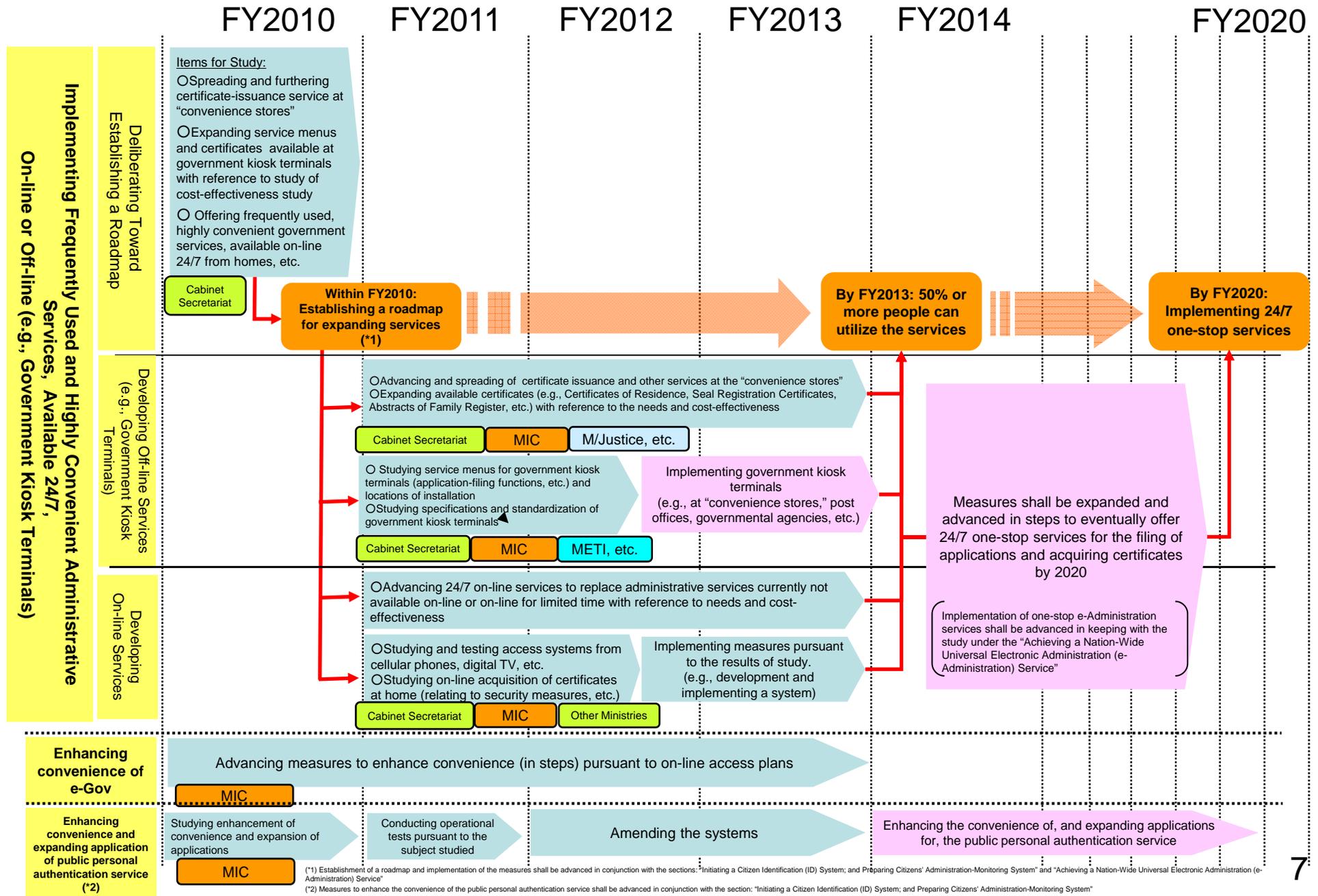
Ministry of Internal Affairs and Communications (MIC):

Within FY2010 investigates on the current usage and costs of on-line government services; offers expertise to Cabinet Secretariat expertise in furtherance of (1) sorting out the techniques of cost-effectiveness evaluation and (2) reviewing the operational processes; and cooperates with Cabinet Secretariat in the deliberation on, and compilation of, plans related to on-line access to administrative services..

Notes: Highly convenient services for the citizen, available 24/7, are studied in the section: Implementing Fundamental Reform in the Administrative Portal; and Improving Access to Administrative Services.

Local government services are studied in the section: Achieving a Nation-Wide Universal Electronic Administration Service.

Roadmap for Implementing Fundamental Reform in the Administrative Portal; and Improving Access to Administrative Services



1. (1) iii)

Implementing Fundamental Reform in the Administrative Portal; and
Improving Access to Administrative Services

Short-term Schedule (2010–2011)

○ Within FY2010, a roadmap shall be established for starting 24/7 one-stop services by 2020— (a) filing of applications to the government, and (b) obtaining certificates (e.g., the Certificates of Residence, Seal Registration Certificates, and Abstracts of Family Register)—all closely related to people’s daily lives.

Cabinet Secretariat:

Acts as the administrator, compiles a roadmap for expanding on-line services. Undertakes the following tasks upon the cooperation of MIC, Ministry of Justice, and METI.

- Studying required operation and systems for the expansion of on-line services (e.g., offering additional types of certificates) with reference to citizen’s needs and analysis of cost-effectiveness for the service so expanded.
- Deliberating on the service menus and locations for installation of government kiosk terminals (administration terminal booths).
- Deliberating on the specifications, standardization, and the like of the government kiosk terminals (administration terminal booths).
- Studying 7/24 on-line access to frequently used or highly convenient government services from homes and others.

Ministry of Internal Affairs and Communications (MIC):

- Spreads and promotes the certificate issuance service at the “convenience stores.”
- Deliberates on, and verifies access systems to administrative services from cellular telephones and digital TV.

○ Measures related to enhancing the convenience of “Government Portal site”

(“e-Gov”) shall be advanced.

Ministry of Internal Affairs and Communications (MIC):

- Starting in FY2010, advances measures related to enhancing the convenience of the “e-Gov” in accordance with the on-line access plans.

○Enhancement of the convenience of, and expansion of application for, the public personal authentication service shall be deliberated.

Ministry of Internal Affairs and Communications (MIC):

- In FY2010 studies enhancement of the convenience of, and expansion of application for, the public personal authentication service.

Mid-term Schedule (2012–2013)

○Installation of government kiosk terminals (administration terminal booths) shall be started, and expanded in steps at the post offices, government offices, and the like. A 7/24 on-line government service shall be advanced.

Cabinet Secretariat:

Undertakes the following projects upon cooperation by MIC, Ministry of Justice, METI, and others:

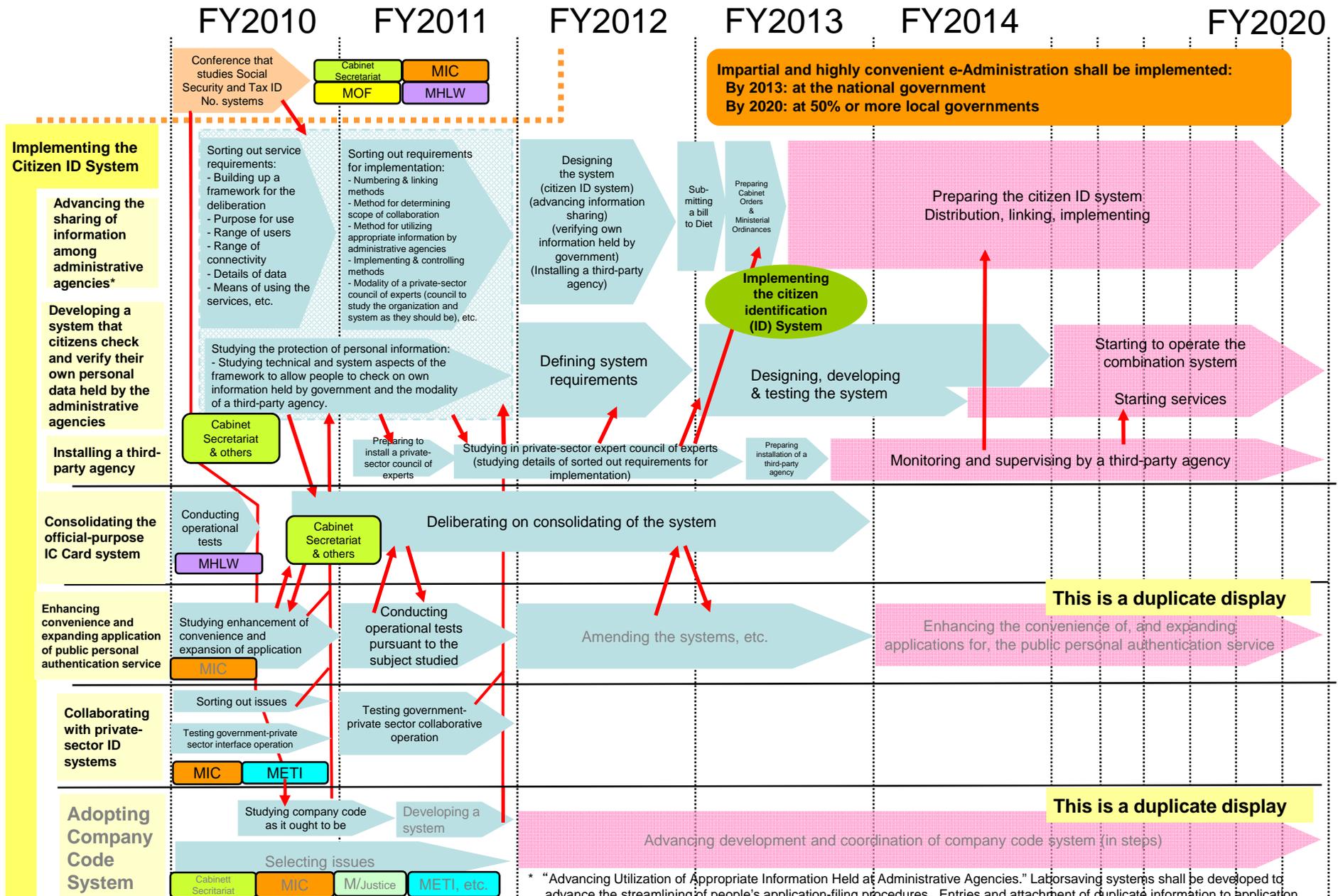
- Advances measures related to expanding the services available at the government kiosk terminals (administration terminal booths).
- Advances 24/7 on-line services.

Ministry of Internal Affairs and Communications (MIC):

- Spreads and promotes the certificate-issuance service at the “convenience stores.”
- Amends the current system of offering the public personal authentication service and others.

Roadmap for

Initiating the Citizen Identification (ID) System; and Preparing Citizens' Administration-monitoring System



* "Advancing Utilization of Appropriate Information Held at Administrative Agencies." Latjorsaving systems shall be developed to advance the streamlining of people's application-filing procedures. Entries and attachment of duplicate information to application will no longer be required, as a rule, if such information is already held at an administrative agency. A first example shall be "Streamlining the Processing of Applications for Open-type Research Projects By Utilizing the Next-generation Cross-ministerial Universal R&D Management System (next-generation e-Rad)." (at MEXT).

1. (1) iv)

Initiating the Citizen Identification (ID) System; and
Preparing Citizens' Administration-Monitoring System

Short-term Schedule (2010–2011)

○A framework for the deliberation of the proposed citizen ID system shall be built up. The purpose for use, range of users, range of connectivity, details of data, means for the use, and such shall be defined.

○Possible links to the government information system shall be investigated on the basis of feasibility tests on government-private interface for ultimate utilization of private-sector ID systems.

○The numbering methods and other requirements under the citizen ID system shall be sorted out. Concurrently, an agency shall be designated to study the citizen ID system as it ought to be.

○A personal-information protection system shall be studied that citizens check and verify their own personal data held by the administrative agencies. Also, the requirements for a third-party agency that will monitor the system shall be defined.

Ministry of Health, Labour and Welfare (MHLW):

Sorts out the requirements and other issues related to the official-purpose IC card with reference to infrastructure demonstration projects.

Ministry of Internal Affairs and Communications (MIC):

Sorts out experimental-demonstration projects related to the coordination between the government operation system and private business operators. Also reviews issues in the system.

Ministry of Economy, Trade and Industry (METI):

Establishes and operates a model of government service system where the government and private sectors collaborate with each other.

Ministry of Education, Culture, Sports and Technology (MEXT):

Designs/develops a next-generation e-Rad (a cross-ministerial R&D management system) that would enable repeated reviews of a researcher's achievements and biography.

Cabinet Secretariat; and

All Relevant Ministries:

Launch a task force each to review the requirements of service and implementation of the citizen ID system.

Mid-term Schedule (2012–2013)

○Systems and relevant laws related to the citizen ID system and installation of a third-party agency shall be established.

○Consolidation of the official-purpose IC card shall be deliberated.

○System requirements related to the citizen ID system shall be sorted out. Concurrently, the designing and building of a system shall be started. The preparation for installation of a third-party agency shall also be started.

Cabinet Secretariat; and

All relevant Ministries:

Start system architecture for the citizen ID system. Start preparing for installation of a third-part agency. Investigate possible consolidation of the official-purpose IC card

Ministry of Education, Culture, Sports, Science and Technology (MEXT):

Starts implementing the next-generation e-Rad

Long-term Schedule (2014–2020)

○Services under the citizen ID system shall be started.

○By 2020, 50% or more of the local governments shall amend their legislature to

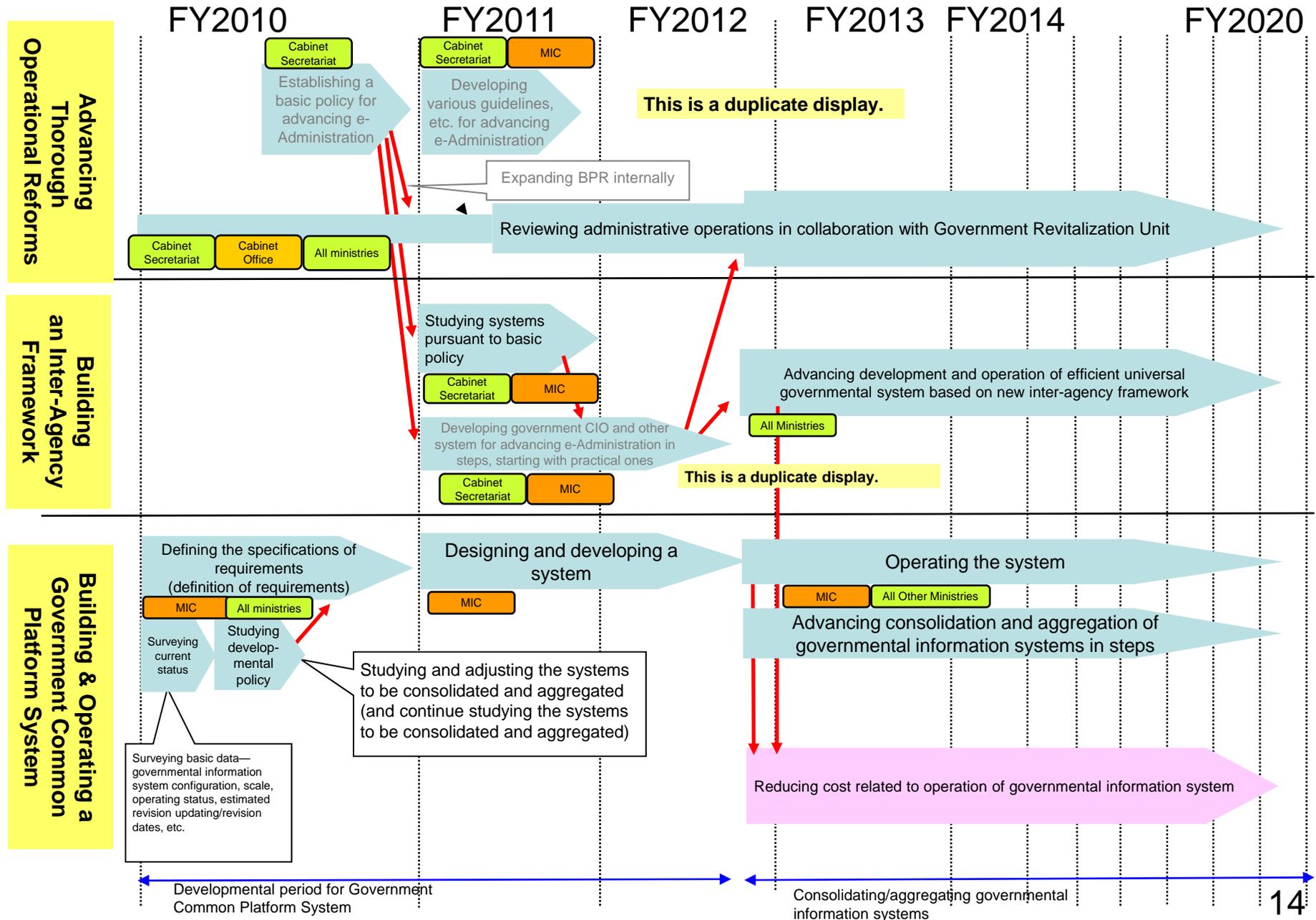
implement their e-Administration, which would be impartial and convenient.

Cabinet Secretariat; and

All relevant Ministries:

Start operating the citizen ID system.

Roadmap for Consolidating and Aggregating Governmental Information Systems



1. (1) v)

Consolidating and Aggregating Governmental Information Systems

Short-term Schedule (2010–2011)

- Reviews of administrative operations shall be furthered.

Cabinet Secretariat and Cabinet Office:

With MIC cooperating, reviews administrative operations in collaboration with the Government Revitalization Unit.

All Ministries:

Thoroughly review their operations.

- The direction of the inter-agency framework shall be studied with reference to the basic policy for advancing e-Administration.

Cabinet Secretariat;

Ministry of Internal Affairs and Communications (MIC); and

Others:

Within FY2011 study the direction of the inter-agency framework.

- The required system specifications shall be defined pursuant to a survey of information systems; and system design and development shall be implemented accordingly. Also, transition to “Government Common Platform System” shall be deliberated.

Ministry of Internal Affairs and Communications (MIC):

With FY2010 conducts a survey of the government-owned information systems, in particular, their system configurations, scale, operating status (the number of transactions), scheduled renewal dates, and the like. Also deliberates on, and adjusts the list of the systems to be consolidated and aggregated. Defines the requirements and specifications for a common intra-government platform.

Starts designing and developing a system in FY 2011.

Other Ministries:

Deliberate transition to “Government Common Platform System.”

Mid-term Schedule (2012–2013)

- Reviews of operations shall be furthered.

Cabinet Secretariat and Cabinet Office:

With MIC cooperating, shall further the reviews of operations in collaboration with the Government Revitalization Unit while deploying the BPR techniques horizontally.

All Ministries:

Continue reviewing operations.

- The development and operation of a common system under a new cross-government framework shall be advanced.

All Ministries:

Advance the development and operation of an efficient and effective common system in a new cross-government framework that includes the government CIO.

- “Government Common Platform System” shall be developed and operated. Concurrently, consolidation and aggregation of the systems shall be advanced in steps.

Ministry of Internal Affairs and Communications (MIC):

Within FY2012 starts operation of “Government Common Platform System.”
Also advances system consolidation and aggregation gradually.

Other Ministries:

Deliberate and implement the transition to “Government Common Platform System.”

Long-term Schedule (2014–2020)

- Reviews of administrative operations shall be furthered.

Cabinet Secretariat and Cabinet Office:

With MIC cooperating, continue furthering the reviews of operations in collaboration with the Government Revitalization Unit while deploying the BPR techniques horizontally.

All Ministries:

Continue reviewing operations.

○The development and operation of a universal government system based on the inter-agency framework shall be advanced.

All Ministries:

Continue to advance the development and operation of the efficient and effective universal government system that is based on the inter-agency framework.

○The “Government Common Platform System” shall be put to operation. Concurrently, system integration and aggregation shall be furthered in steps.

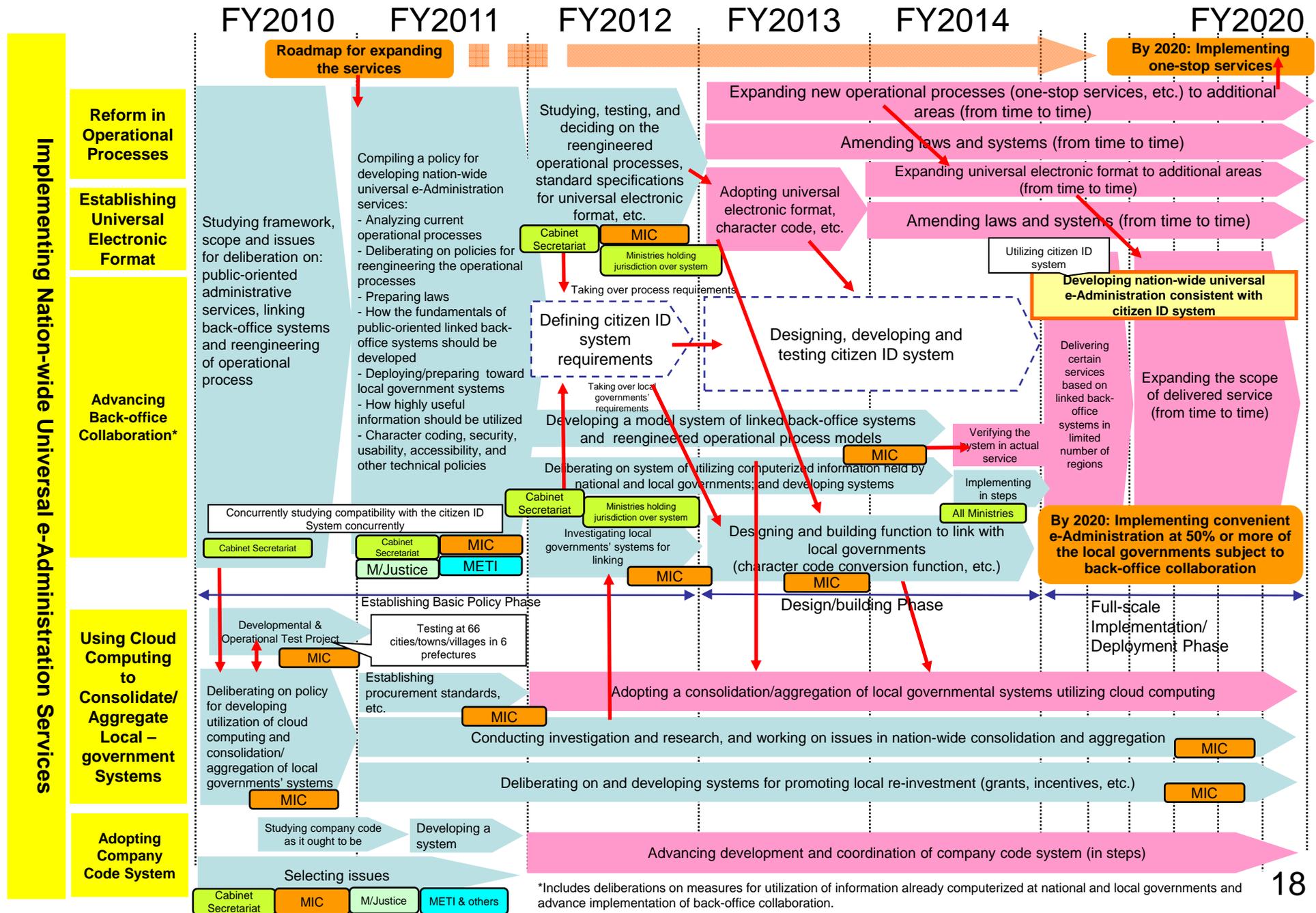
Ministry of Internal Affairs and Communications (MIC):

Shall continue to integrate and aggregate systems into the “Government Common Platform System.”

Other Ministries:

Shall continue to review and implement transition to the “Government Common Platform System.”

Roadmap for Achieving a Nation-wide Universal Electronic Administration (e-Administration) Service



1. (1) vi)

Achieving a nation-wide universal electronic administration
(e-Administration) service

Short-term Schedule (2010–2011)

○A policy for development of e-Administration services at the local government level shall be finalized.

Cabinet Secretariat:

- Within FY2010, deliberates on investigation framework and scope of work, and sorts out organizational and technical issues in system and operation that would advance the universal electronic format for the local governments; the integration of various back-office functions; and operational process reforms and others.

Cabinet Secretariat;

Ministry of Internal Affairs and Communications (MIC);

Ministry of Justice, and

Ministry of Economy, Trade and Industry (METI):

- Within FY2011 finalize the policy for developing the e-Administration services at the local-government level (and also studies local governments' utilization of certain nationally held and other information that would be highly useful for the local governments).

○Policies shall be established for standardizing the specifications of the local governments' information systems; and for deciding on the details of support to be given to the local governments. The procurement standards for local systems shall also be established to help advance their consolidation and aggregation through cloud computing technology.

Ministry of Internal Affairs and Communications (MIC):

- Within FY2010 establishes a policy for undertaking consolidation and aggregation of the local-government information systems by utilizing cloud

computing technology.

- Within FY2011 establishes procurement standards for information systems utilizing cloud computing technology.
- Starting in FY2011 deals with investigations, research and tasks required for nationally expanding consolidation and aggregation.
- Starting in FY2011 advances investigation and preparation of a system of promoting local re-investment.

○A company code system as it ought to be in details—such as the numbering and number control methods—shall be studied; and laws and systems shall be prepared as required.

Cabinet Secretariat;

Ministry of Internal Affairs and Communications (MIC);

Ministry of Justice;

Ministry of Economy, Trade and Industry (METI); and

Other Ministries:

- Deliberate on a company code system as it ought to be, starting FY2010; and prepare laws and systems as required within FY2011.
- By FY2011 identify issues related to development of company code system.

○Utilization of electronic information and linked back-office systems across national and local governments shall be examined.

Cabinet Secretariat;

Ministry of Internal Affairs and Communications (MIC);

Ministry of Justice;

Ministry of Economy, Trade and Industry (METI); and

Other Ministries:

- By FY2011, examine possible models for the utilization of electronic information in high demand.

Mid-term Schedule (2012–2013)

○Standards for reengineered process models and universal electronic format shall be established. The legal system shall be established or amended as required. Introduction of the universal electronic format and unified character code shall be advanced.

Cabinet Secretariat;

Ministry of Internal Affairs and Communications (MIC); and

Other Ministries holding jurisdiction over the system:

- Within FY2012: Deliberate on and verify the post-reform operational processes, define the operational requirements, reflect the results in defining the system requirements for the citizen ID system.
- Within FY2012 deliberate on, verify and adopt the standard specifications for the universal electronic format.
- Within FY2012 investigate the local government and other systems that are to be coordinated with the governmental system, define the requirements for the local systems, and reflect the results on the system requirements for the citizen ID system.
- Starting FY2013, amends the laws and systems as required, and advances the establishment of universal electronic format, character code, and others.

Ministry of Internal Affairs and Communications (MIC):

- Starting FY2012, develops a model system of linking the back-office systems and reengineered process models across the local governments. In FY2014 verifies the system in actual service.
- Starting FY2013, builds up computer functions (such as a character code conversion function) that will be common across, and allow linking of, the local government systems.

○Support to the local governments in adopting and utilizing cloud computing technology shall be continued in order to advance the consolidation and aggregation of their information systems through the utilization of cloud computing technology.

Ministry of Internal Affairs and Communications (MIC):

- Continues to investigate, research, and deal with issues in nation-wide consolidation and aggregation.
- Continues to deliberate on, and establish promotional system for local re-investments.

○Systems of utilization of computerized information retained by national and local governments shall be deliberated and system development shall be advanced.

Cabinet Secretariat; and

All Ministries holding jurisdiction over the system:

- Deliberate on practical measures for utilization of information and advance system development relating to back-office coordination pursuant to the results of deliberation through FY2011.

Long-term Schedule (2014–2020)

○Utilization of computerized and retained information in the national and local governments shall be utilized in steps.

All Ministries:

- Start utilizing information in steps starting with the practical kinds.

○ Starting FY 2015, certain services based on the linked back-office systems shall be implemented in a limited number of regions. The scope of the services shall be expanded from time to time as the required legal system is amended.

Ministry of Internal Affairs and Communications (MIC):

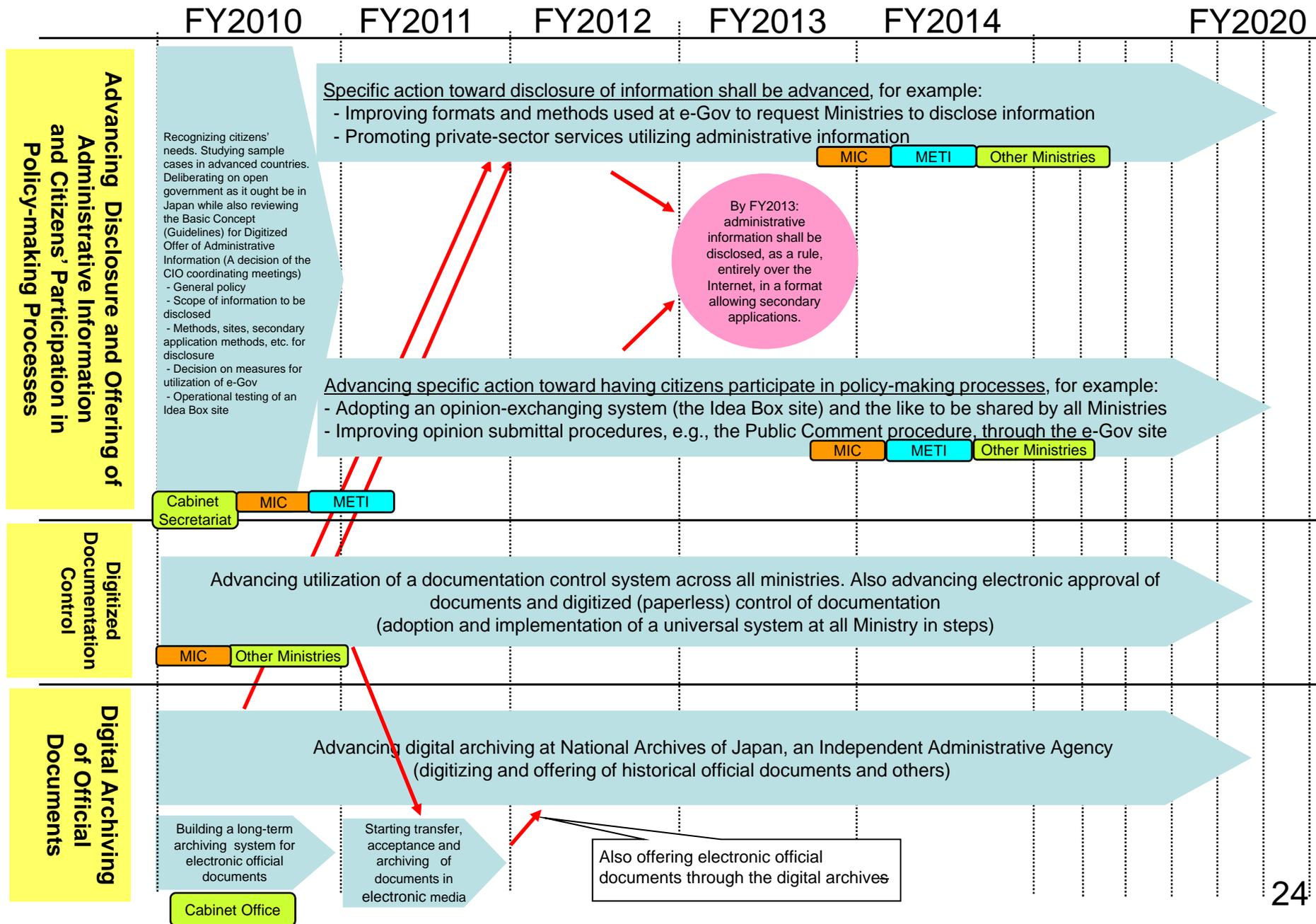
- Continues designing and building the computer functions (such as a character code conversion function) that will be common across, and allow linking of, local government systems.

○Support to the local governments in adopting and utilizing cloud computing technology shall be continued in order to advance the consolidation and aggregation of their information systems through the utilization of cloud computing technology.

Ministry of Internal Affairs and Communications (MIC):

- Continues to investigate, research, and deal with issues in nation-wide consolidation and aggregation.
- Continues to deliberate on, and establish a promotional system for local re-investments.

Roadmap for Promoting Release and Offering of Administrative Information; and Promoting Citizen Participation in Policy Making and Other Political Activities



1. (2) i)

Promoting Release and Offering of Administrative Information; and
Promoting Citizen Participation in Policy Making and
Other Political Activities

Short-term Schedule (2010–2011)

○Open government as it ought to be in Japan shall be deliberated, and required action shall be taken for ultimate implementation.

Cabinet Secretariat:

Deliberates, upon cooperation by MIC, on open government as it ought to be in Japan.

Ministry of Economy, Trade and Industry (METI):

Builds and verifies an open-government demonstration system (e.g., the Idea Box site).

○Digitized (paperless) control of documentation shall be advanced as a prerequisite for furtherance of information disclosure.

Ministry of Internal Affairs and Communications (MIC):

Advances utilization of a documentation control system (to be universally used by all Ministries).

All Other Ministries:

Shall implement the universal documentation control system in steps, and improve the rate of electronic approval of documents.

○ Digital archiving of official and other documents shall be advanced.

Cabinet Office:

Advances digital archiving of documents, and starts accepting and archiving official documents in electronic media.

All Ministries:

Advance digitized control of their documents and start transferring electronic official documents to the National Archives.

Mid-term Schedule (2012–2013)

○ Specific measures related to (1) disclosing and offering administrative information and (2) furthering citizens' participation in the policy-making processes shall be advanced pursuant to the outcomes of the earlier investigations.

Cabinet Office:

Advances digital archiving, and accepts and offers official documents in electronic media.

Ministry of Internal Affairs and Communications (MIC):

Advances utilization of the documentation control system.

All Other Ministries:

Disclose and offer administrative information, promote citizens' participation in policy-making processes, and advance digitized (paperless) document control.

Long-term Schedule (2014–2020)

○ Advancement of specific measures related to (1) disclosing and offering administrative information and (2) furthering citizens' participation in the policy-making processes shall be continued.

Cabinet Office:

Advances digital archiving, and accepts and offers official documents in electronic media.

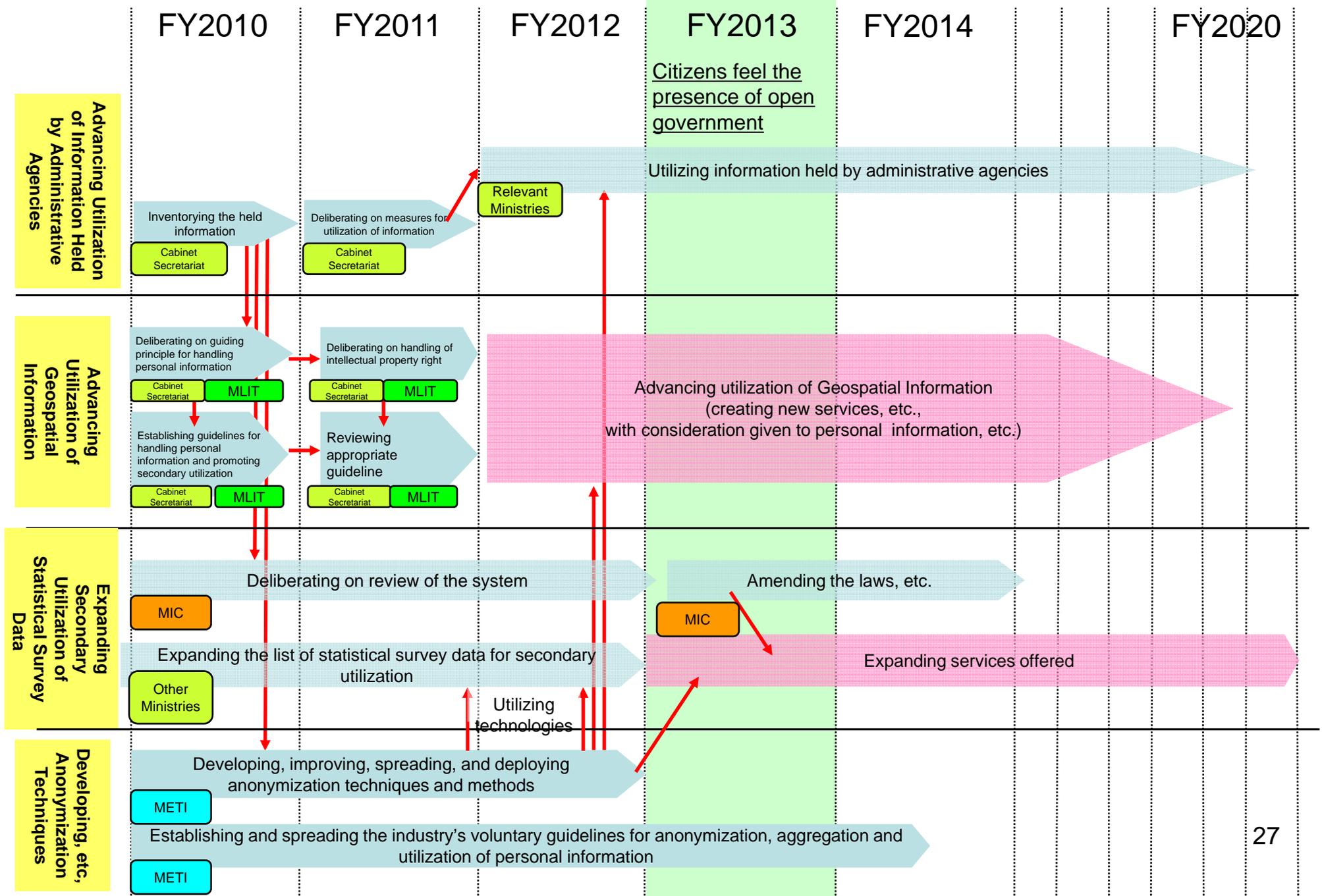
Ministry of Internal Affairs and Communications (MIC):

Advances utilization of the documentation control system.

All Other Ministries:

Disclose and offer administrative information, promote citizens' participation in the policy-making processes, and advance digitized (paperless) documentation control.

Roadmap for Utilizing Information Held by Administrative Agencies



1. (2) ii)

Utilizing Information Held by the Administrative Agencies

Short-term Schedule (2010–2011)

Government-held information shall be inventoried and methods of utilization shall be deliberated. Systems shall be prepared or improved, issues shall be resolved, and technologies shall be developed as required for utilization of information.

Cabinet Secretariat:

Inventories, and deliberates on measures to utilize, the information held by the administration; Studies any information in conjunction with the citizen ID System if the information is related to the citizen ID System and requires a special attention as personal information.

Cabinet Secretariat; and

Ministry of Land, Infrastructure and Transport (MLIT):

Study, and establish guidelines for, the handling of personal information and intellectual property right involved in utilization of Geospatial information .

Ministry of Internal Affairs and Communications (MIC):

Reviews the systems of utilization of statistical survey data for actual utilization of such data.

Ministry of Economy, Trade and Industry (METI):

Develops anonymization techniques and systems. Establishes and spreads the industry's voluntary guidelines.

Mid-term Schedule (2012–2013)

Utilization of information shall be advanced. The services offered shall be expanded further utilizing the anonymization techniques.

Cabinet Secretariat; and

Ministry of Land, Infrastructure and Transport (MLIT):

Advance utilization of Geospatial information.

Ministry of Internal Affairs and Communications (MIC):

Continues to review the systems of utilization of statistical survey data. Amends laws as necessary.

Ministry of Economy, Trade and Industry (METI):

Continues to develop anonymization techniques and systems. Establishes and spreads the industry's voluntary guidelines.

Roadmap for Bringing the “My Hospital Everywhere*” Concept into Reality

(Japan's Personal Health Record Service)

FY2010

FY2011

FY2012

FY2013

FY2014

FY2020

“My Hospital Everywhere”
(Japan's Personal Health Record Service)
Construction of Framework

Task Force Administration
Office: **Cabinet Secretariat**

- Sorting out the management structure
- Prepares several optional modes of offering the required information to individuals
- Establishing the methodology for digitizing required information
- Sorting out issues related to ownership and handling of medical treatment information
- Sorting out issues related to ownership and handling of health-related information
- Deliberating on appropriate security level for the particular information to be handled.

MHLW
METI
MIC

Studying the 1st-Phase Services

Deliberating on computerized information

Deliberating* by operator on implementation
*in details toward service startup in 2013

Implementing a model project

METI

Cabinet Secretariat

MHLW

METI

MIC

Investigating possible creation of private-sector services

METI

Feeding back results of investigation

Following up toward offering the 2nd-phase services

Studying the 2nd-Phase Services

Deliberating on the management structure and offering methods

Deliberating on appropriate security levels for information to be handled (including utilization of HPKI)

Cabinet Secretariat

MHLW

METI

MIC

Utilizing the results of operational tests appropriately

Testing project

Urasoe

MIC

MHLW

METI

PHR project

METI

Deliberating on an information distribution measure that would be efficient and secure;
-Reflecting on preparation of computerized medical and health information, such as establishing collaborated information mechanism between patients and medical institutions, etc.

MIC

Preparing a standard format

MHLW

METI

Notifying

MHLW

Preparing to offer service at medical institutions

Starting to offer Detailed Receipt for Medical Charges and Medicine Dispensing Records to individuals

Offering the 1st-Phase Services

Preparing a standard format

MHLW

METI

Standardizing the details of entries, and preparing a standard format

MHLW

Notifying standard format as established

MHLW

Expanding the range of medical information offer to individuals

Offering the 2nd-Phase Services

Preparing a standard format

M/Health

METI

Deliberating on seamless community-collaborated medical services and utilization in 2nd Phase services

MHLW

METI

Utilization of the format

Expanding the range of medical information offer to individuals

MHLW

METI

MIC

MHLW

METI

MIC

MHLW

METI

MIC

Advancing standardized of currently undefined digitized information

METI

M/Health

Deliberating on development toward 1st-Phase services

METI

Deliberating on development toward 2nd-Phase services

METI

Utilizing the format

Establishing data exchanging standards to further utilization of health-related information

METI

M/Health

METI

Establishment of digitized medical- and health-related information

- Detailed Receipt for Medical Charges and Medicine Dispensing Records
- Health Checkup & Examination Data
- Patient's Discharge Summary
- Test Data (urine, blood, CT images, etc.)
- Vital signs, weight, blood pressure, meals, exercises, etc.

*A national-level information distribution service to enable citizens to manage and utilize their own medical-service and health information electronically

2. (1) i)

Bringing the “My Hospital Everywhere” Concept into Reality

(Japan's Personal Health Record service)

Short-term Schedule (2010–2011)

○The required framework for the “My Hospital Everywhere” Concept (Japan's Personal Health Record service) shall be investigated.

Cabinet Secretariat:

Acting as the Task Force administrator: investigates on the management structure and compiles the results of investigations in the following items upon cooperation of the relevant Ministries.

Ministry of Health, Labour and Welfare (MHLW):

Within FY2010 investigates the methodology for digitizing required information (in collaboration with METI); sorts out the issues of ownership and handling of medical treatment information; and deliberates on the security level of the information handled.

Ministry of Economy, Trade and Industry (METI):

Within FY2010 investigates the methodology for digitizing required information (in collaboration with MHLW); sorts out the issues of ownership and handling of health-related information; prepares several optional modes of offering the required information to individuals; and Investigates into implementing model projects and creating private-sector services.

Ministry of Internal Affairs and Communications (MIC):

Deliberates on the methodology of implementing security levels in conjunction with data communications; and investigates the measures for distribution of information.

○Establishment of digitized medical- and health-related information shall be advanced.

Ministry of Health, Labour and Welfare (MHLW):

Within FY2011: initially establishes the standard formats and offering methods for the detailed receipt for medical charges and the medicine dispensing records; and then issues associated notices (in collaboration with METI). Standardizes the entries and formats for the patient's discharge summary (Tentatively in FY2012). Prepares standard formats for the health checkup and examination data (in collaboration with METI).

Ministry of Economy, Trade and Industry (METI):

Within FY2011 establishes standard formats and offering methods for the detailed receipt for medical charges and the medicine dispensing records (in collaboration with MHLW). Prepares standard formats for the health checkup and examination data (in collaboration with MHLW). Advances standardization of currently undefined digitized health-related information.

Ministry of Internal Affairs and Communications (MIC):

Deliberates on measures for efficient and secure distribution of information (in collaboration with MHLW and METI).

Mid-term Schedule (2012–2013)

○A management service for medication and other records, scheduled to start by 2013, shall now be deliberated.

Cabinet Secretariat:

Deliberates on implementing a management service for medication and other records in collaboration with relevant Ministries (FY 2012). Deliberates on a structure for the management service in and after FY2014.

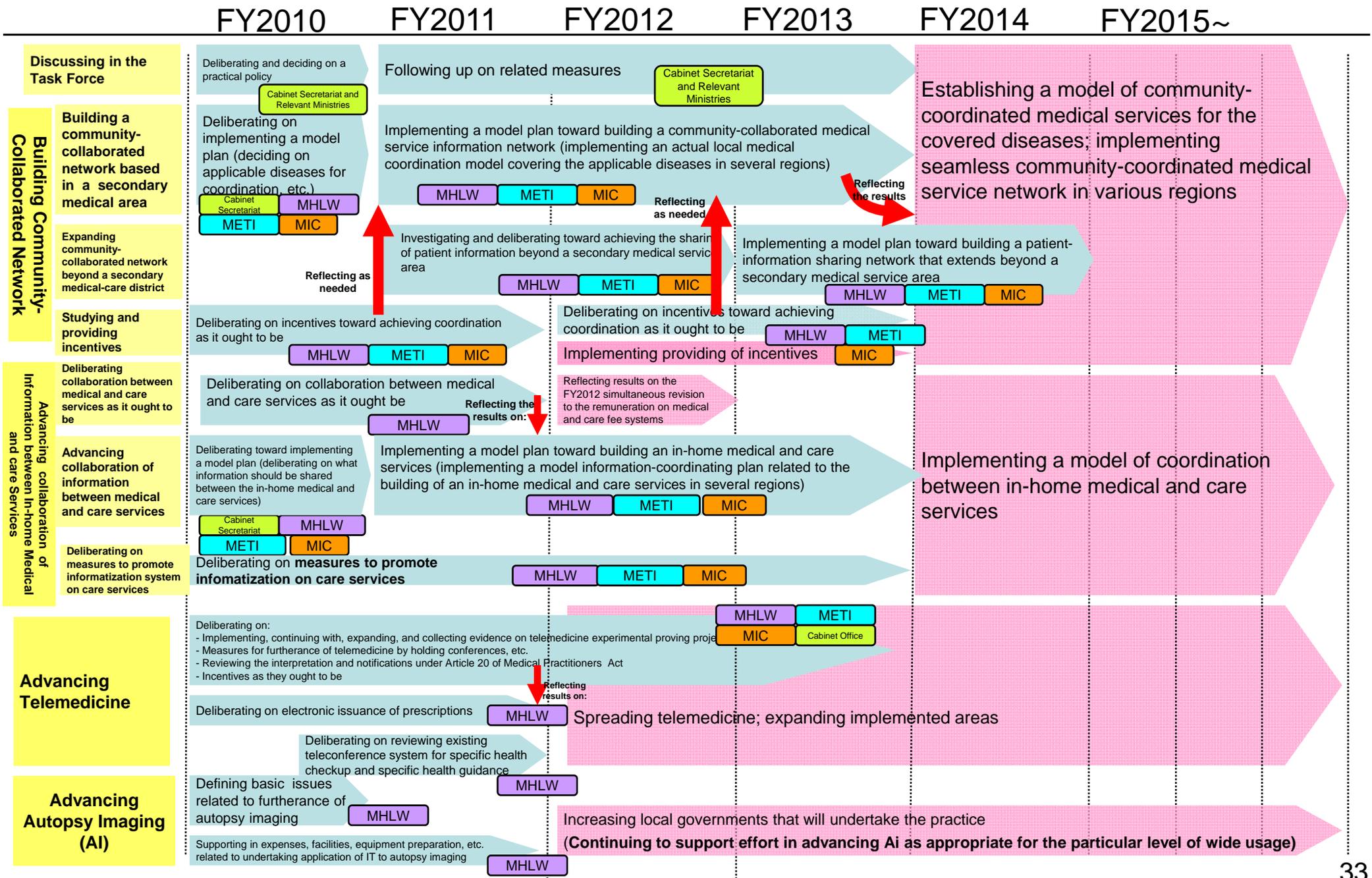
Ministry of Health, Labour and Welfare (MHLW):

Issues notices on the standard formats and offering methods for medical- and health-related information, as developed. Deliberates on the utilization of the information in seamless community-collaborated medical services.

Ministry of Internal Affairs and Communications (MIC):

Deliberates on measures for efficient and secure distribution of information (in collaboration with MHLW and METI).

Roadmap for Implementing Seamless Community-collaborated Medical Services



2. (1) ii)

Implementing Seamless Community-collaborated Medical Services

Short-term Schedule (2010–2011)

- A specific policy shall be developed within FY2010. Construction of community-collaborated medical information network model shall be started in FY2011. Supporting effort shall be made to advance and deliberate on Telemedicine and to advance autopsy imaging (Ai).

Cabinet Secretariat:

Acting as the Task Force administrator: deliberates on what body should operate the task force. Compiles the results of investigations in the following items upon cooperation of the relevant Ministries.

Ministry of Health, Labour and Welfare (MHLW):

Determine the diseases to be covered by community-collaboration; deliberates on data to be shared by the in-home medical and care services; implements in several localities a model plan for building a community-collaborated medical information network and an in-home medical-care service network; deliberates on incentives for promoting community collaboration.

Deliberates on furthering telemedicine services, and in particular, reviews the system and investigates various ways of spreading and expanding the services; deliberates on electronic issuance of prescriptions.

Supports the effort to define and undertake the basic requirements for advancing autopsy imaging (Ai).

Ministry of Economy, Trade and Industry (METI):

Deliberates on and implement a model plan for community-collaborated medical information network in collaboration with MHLW; deliberate on incentives for promoting community-collaboration.

Investigate various ways of spreading and expanding telemedicine services in collaboration with MHLW.

Deliberate on data to be shared by the in-home medical and care services; and implement in several localities a model plan for building an in-home medical-care service network.

Ministry of Internal Affairs and Communications (MIC):

Study and implement a model plan for a community-collaborated medical information network in collaboration with MHLW; deliberate on incentives for promoting local coordination.

Investigate various ways of spreading and expanding telemedicine services in collaboration with MHLW.

Mid-term Schedule (2012–2013)

○ Shall build up, operate, and verify a model network for community-collaborated medical data; and advance telemedicine.

Cabinet Secretariat:

Manages the Task Force as the administrator.

Ministry of Health, Labour and Welfare (MHLW):

Implements in several localities a model plan for building a community-collaborated medical information network for the diseases to be covered. Deliberates on incentives for promoting local collaboration.

Defines the requirements and concepts for advancing telemedicine, and in particular, reviews the system and investigates various ways of spreading and expanding.

Continues to support effort in advancing autopsy imaging (Ai) as appropriate for the particular level of wide usage.

Implements in several localities a model plan for building an in-home medical-care network.

Ministry of Economy, Trade and Industry (METI):

Deliberates on, and implement, a model plan for community-collaborated medical information network in collaboration with MHLW. Deliberates on incentives for promoting local coordination.

Investigates, in collaboration with MHLW, various ways of spreading and expanding telemedicine services.

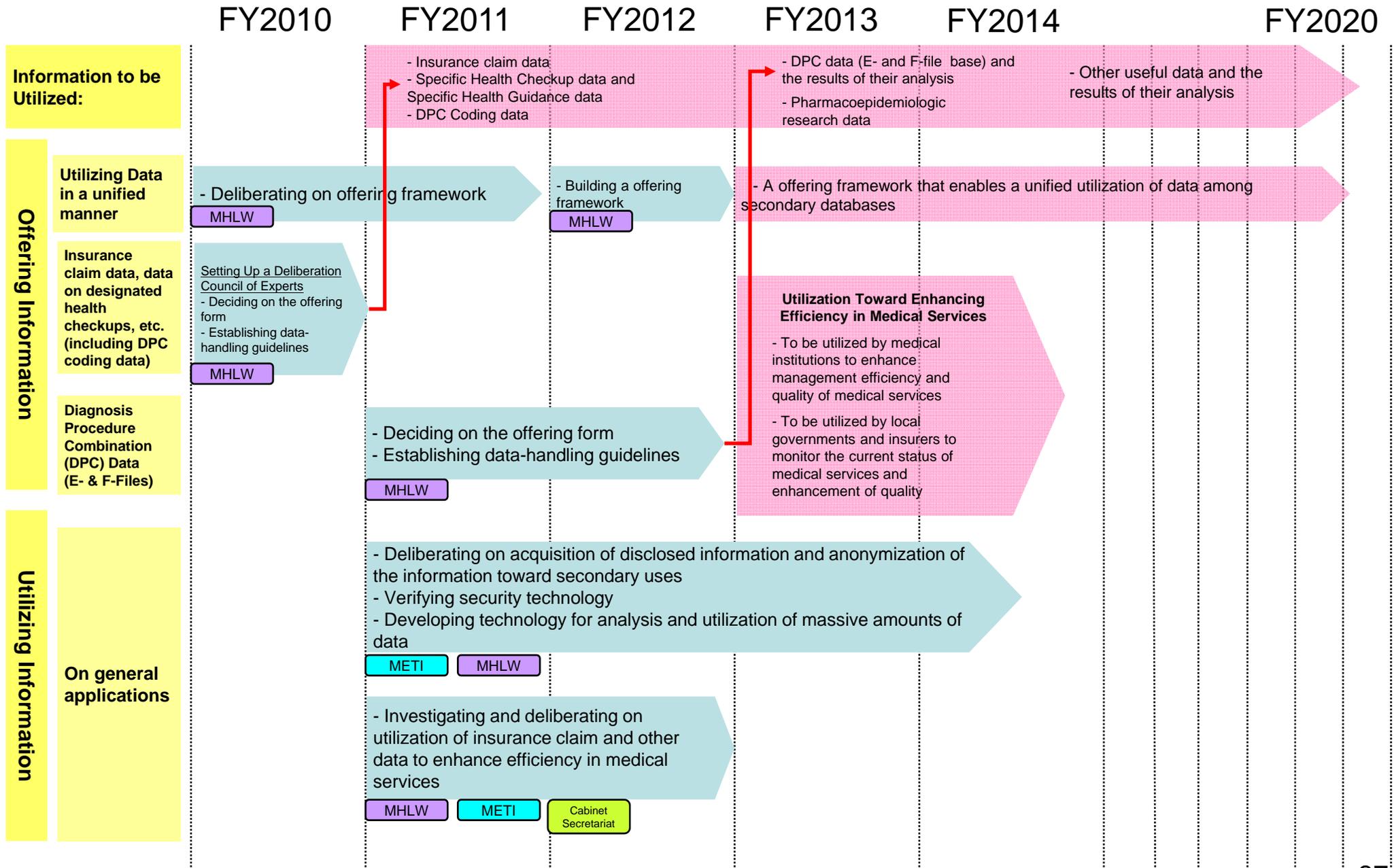
Implements in several localities a model plan for building an in-home medical-care network.

Ministry of Internal Affairs and Communications (MIC):

Deliberates and implements a model plan for a community-collaborated medical information network in collaboration with MHLW. Deliberates on incentives for promoting local coordination.

Investigate, in collaboration with MHLW, various ways of spreading and expanding telemedicine services.

Roadmap for Planning for Efficient Medical Services Using Medical Insurance Claim Data and Others



2. (1) iii)

Planning for Efficient Medical Services
Using Medical Insurance Claim Data and Others

Short-term Schedule (2010–2011)

○Rules for offering medical insurance claim and related data shall be established, and the actual offering shall be started. Research and development of technology for analysis and utilization of massive amounts of data shall also be implemented. An initial investigation shall be made into the manner in which data may be utilized for efficient rendering of medical services. Study shall be made on frameworks for utilization of various types of data in a unified manner. Study shall also be started on developing technologies for anonymization, security, and analysis and utilization of massive data.

Ministry of Health, Labor and Welfare (MHLW):

FY2010: Starts deliberating on a data-offering framework for utilization of various types of data in a unified manner.

Within FY2010: Sets up a deliberation council of expert.

Within FY2010: Establishes guidelines for data utilization.

Early FY2011: Starts data-offering service.

FY2011: Starts investigating and deliberating on utilization of medical insurance claim data for efficient rendering of medical services.

Ministry of Economy, Trade and Industry (METI):

FY2011: Starts investigating an anonymization scheme that allows linking of various medical service data in a chronological order.

FY2011: Verifies security technologies in collaboration with MHLW.

FY2011: Develops technologies for analysis and utilization of massive amount of data.

Mid-term Schedule (2012–2013)

○High-quality, efficient medical services utilizing various data shall be achieved. A

data-offering framework suitable for utilization of various types of data in a unified manner shall also be built up. Also continued are investigations into anonymization and security techniques and future development of technology for mass-data analysis and utilization.

Ministry of Health, Labour and Welfare (MHLW):

Within FY2012: Builds up a data-offering framework capable of data utilization in a unified manner across the medical information database and other required databases.

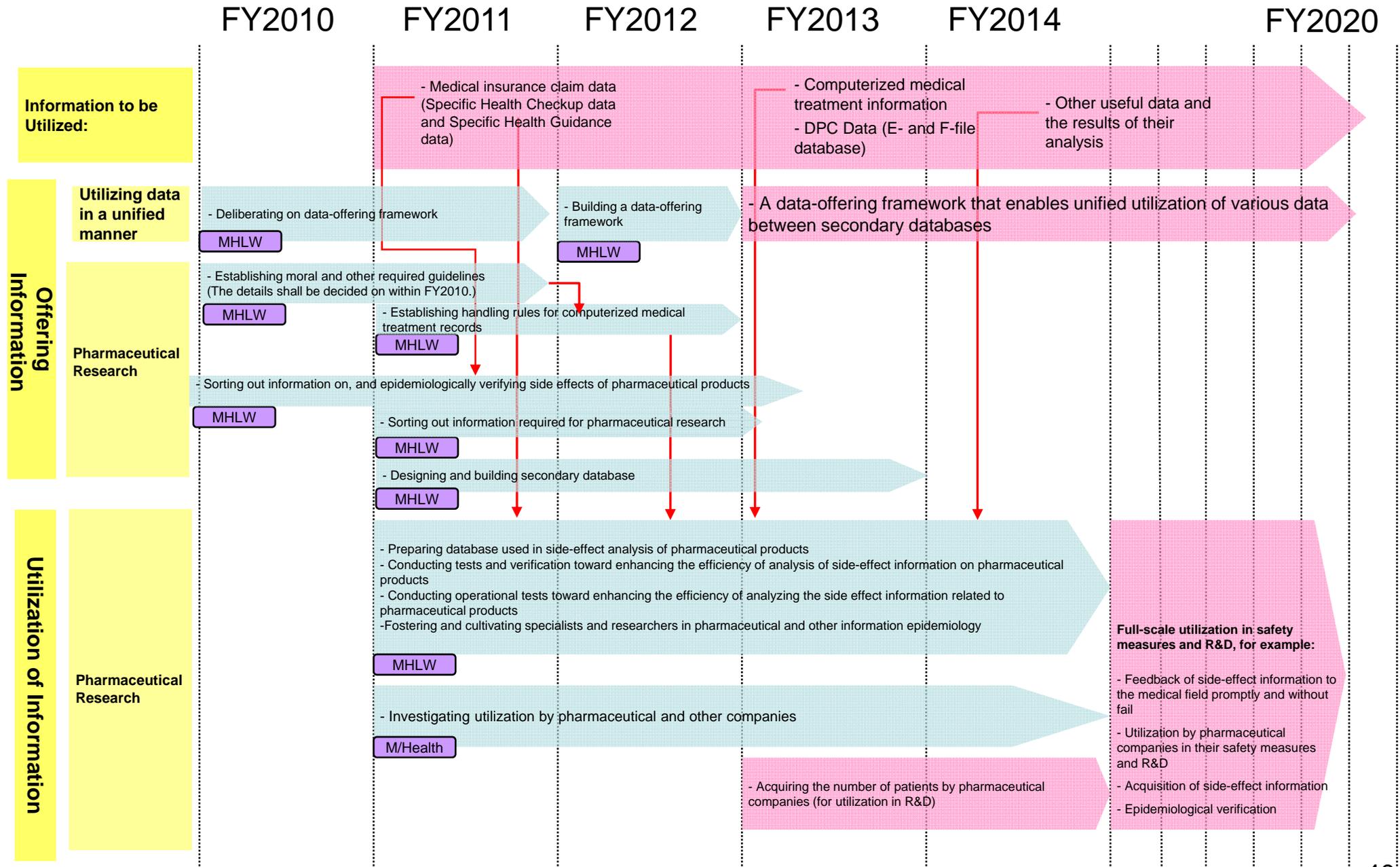
Within FY2013: Advances utilization of Diagnosis Procedure Combination (DPC: A patient classification system in Japan) data (E- and F-files and others) in the field where medical services are rendered.

Ministry of Economy, Trade and Industry (METI):

FY2012 and FY2013: Continues to investigate into anonymization schemes that allow linking of various medical service data in a chronological order.

FY2012 and FY2013: Continues to develop technologies for analysis and utilization of massive data.

Roadmap for Promoting Pharmaceutical Safety through the Use of Medical Information Database



2. (1) iv)

Promoting Pharmaceutical Safety Through the
Use of Medical Information Database

Short-term Schedule (2010–2011)

○The required moral guidelines for utilization of medical information database, which would be conducive to pharmaceutical safety, shall be established. Sorting out information required in pharmaceutical research shall be started. Additionally, establishment of base points for data acquisition and utilization shall be started. The preparation of pharmaceutical research database (secondary database) shall be completed.

Ministry of Health, Labour and Welfare (MHLW):

FY2010: Starts investigating into data-offering framework that would allow utilization of various types of data in a unified manner.

FY2010: Starts selecting side-effect data on, and verifying epidemiological effect of, pharmaceutical products.

Within FY2011: Determines the details of the moral and other required guidelines.

FY2011: Starts sorting out information required in pharmaceutical research.

Within FY2011: Establishes base points for medical information database to be used in pharmaceutical research.

FY2011: Starts designing databases.

FY2011: Starts investigating in utilization of the database by pharmaceutical and other companies.

Mid-term Schedule (2012–2013)

○A database for pharmaceutical research shall be built. Trial operation shall be started for acquisition of side-effect and other data at the data acquisition-utilization center.

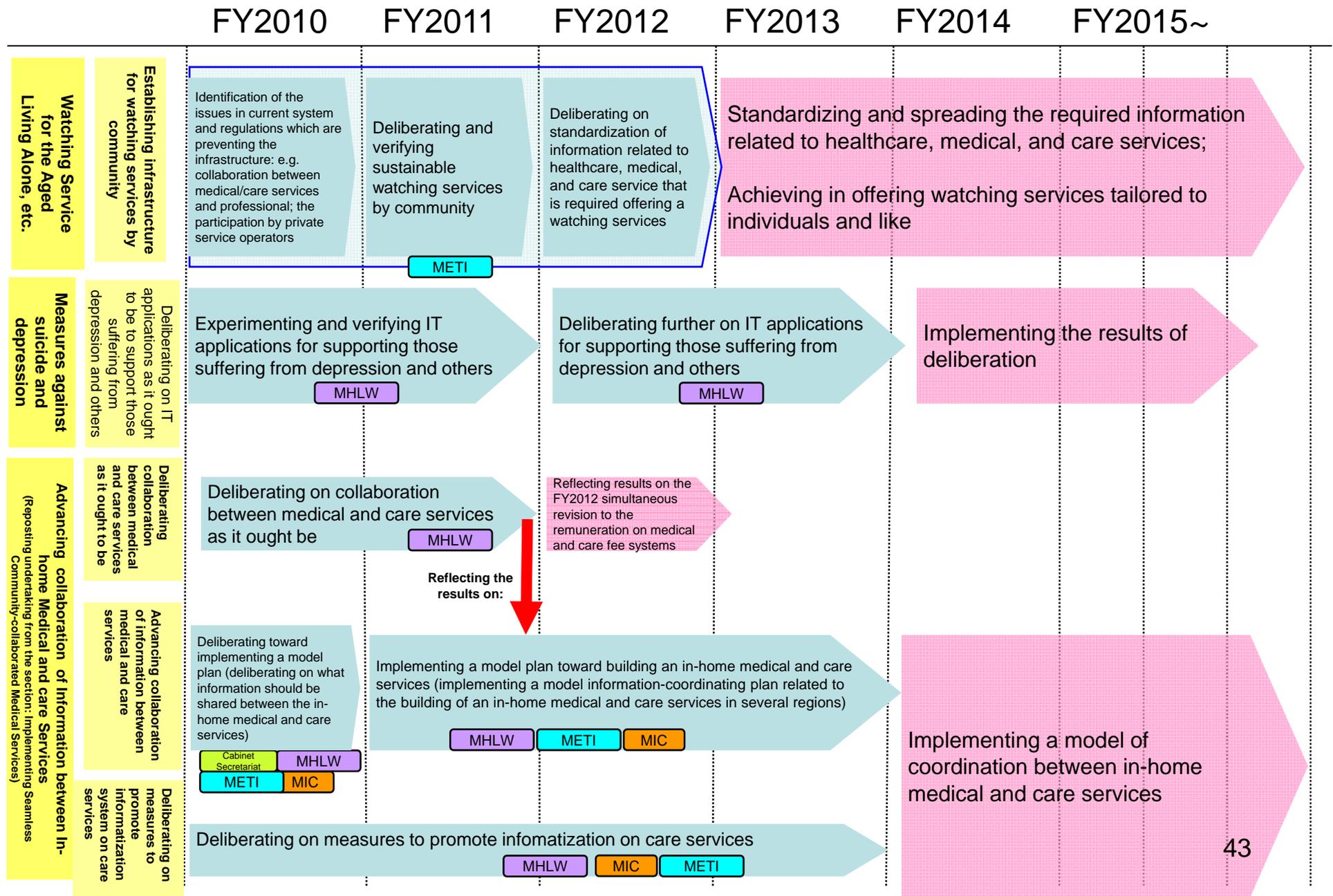
Ministry of Health, Labour and Welfare (MHLW):

Within FY2012: Builds up a data-offering framework that allows utilization of data across the medical information database and other required databases in a unified manner.

Within FY2013: Builds up a medical information database for pharmaceutical research purposes.

Within FY2013: Starts trial operation of databases by Pharmaceuticals and Medical Devices Agency (PMDA) and other pharmaceutical-product regulatory agencies.

Roadmap for Advancing In-home Medical, Care, Watching, and Other Services for the Aged



2. (2) i)

Advancing In-home Medical, Care, Watching, and Other Services
for the Aged

Short-term Schedule (2010–2011)

○Work shall start to establish an infrastructure for providing watching services by community. Reports from the project teams on suicide, depression and similar problems shall be compiled. A general mental-health information site (a provisional name) shall be set up and expanded.

Ministry of Health, Labor and Welfare (MHLW):

Experiments with, and validates, IT-aided depression (and the like) support.

Ministry of Economy, Trade and Industry (METI):

Identifies problems in the systems and regulations that would hinder the establishment of an infrastructure for watching services by community. Also deliberates on and verifies sustainable watching services by community; and deliberates on standardization of health, medical and care data which are required in providing sustainable watching services by community.

Mid-term Schedule (2012–2013):

○Establishment of an infrastructure for providing watching services by community shall be undertaken. A general mental-health information site (a provisional name) shall be expanded.

Ministry of Health, Labour and Welfare (MHLW):

Further the deliberation on IT applications to supporting service to those suffering from depression and the like.

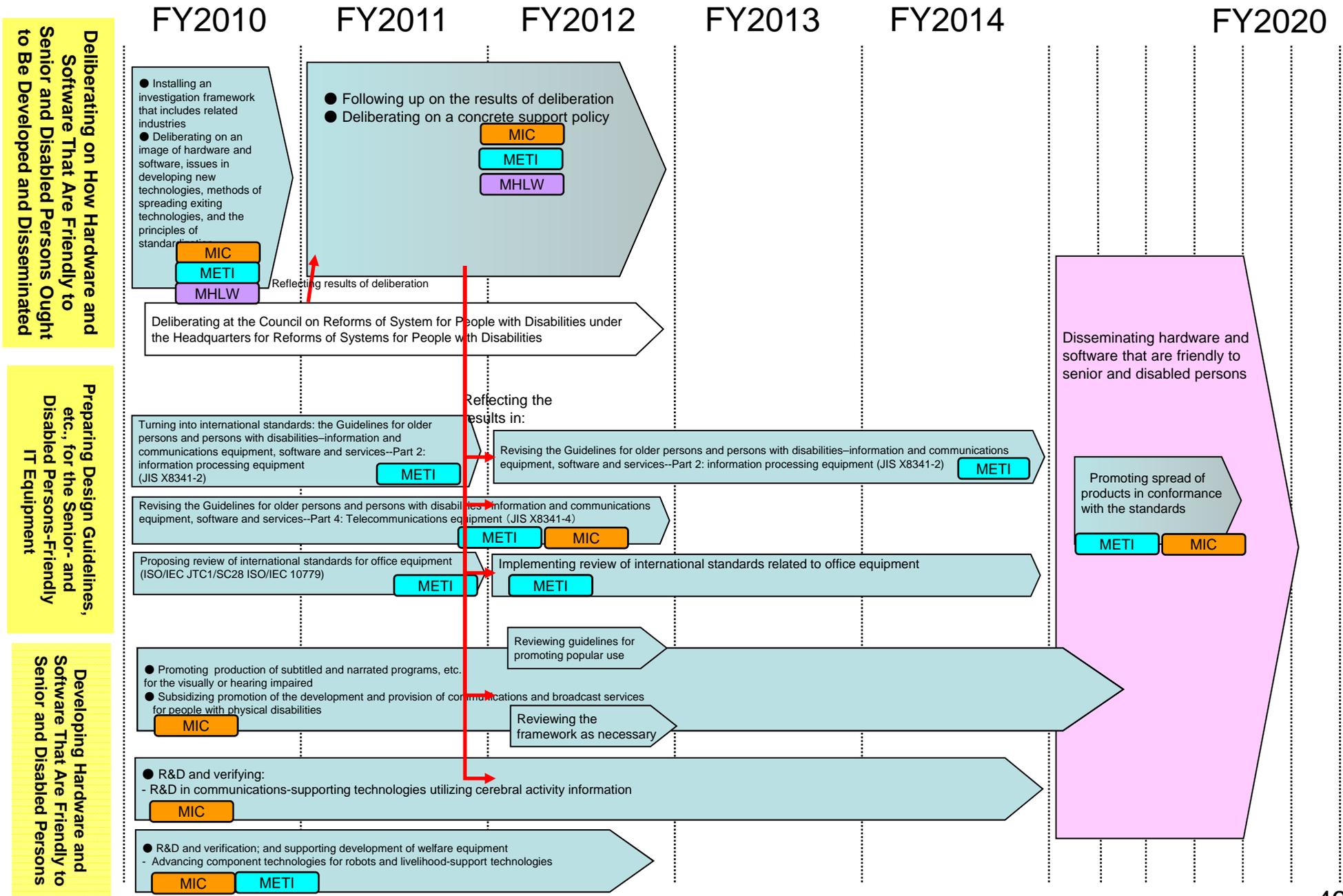
Ministry of Economy, Trade and Industry (METI):

Identifies problems in systems and regulations that would hinder the establishment of an infrastructure for watching services by community.

Concurrently, deliberates on and verifies sustainable watching services by community; and deliberates on standardization of health, medical and care data which are required in providing the watching services.

Notes: Refer to the ministerial schedules under the "Implementing Seamless Community-collaborated Medical Services" for the actual undertaking under the "Advancing Collaboration of Inforamtion Between In-home Medical and Care Services."

Roadmap for Developing and Disseminating Hardware and Software Friendly to Senior Citizens and the Persons with Disabilities



2. (2) ii)

Developing and Disseminating Hardware and Software Friendly to
Senior Citizens and the Persons with Disabilities

Short-term Schedule (2010–2011)

○ Within FY2010, an investigation framework shall be set up to deliberate on hardware and software that would be friendly to the seniors and persons with disabilities. The framework shall compile a report on the manners in which such hardware and software may potentially be used, issues in the development of new technologies, measures for spreading existing technologies, and the principles of standardization.

Ministry of Economy, Trade and Industry (METI);

Ministry of Internal Affairs and Communications (MIC); and

Ministry of Health, Labour and Welfare (MHLW):

Install an investigation framework consisting of related industries. Investigate into hardware and software may potentially be used and the measures for spreading the existing technologies. Establish standard for specifications of hardware and software. Investigate into issues involved in the development of new technologies. Follow up on the results of investigations. Deliberate on a concrete support policy.

Ministry of Internal Affairs and Communications (MIC):

Advances development of communications support technologies that utilize cerebral activity information. Furthers development of component and other technologies in robotics (in collaboration with METI). Promotes production of subtitled and narrated programs , etc. for the visually or hearing impaired. Subsidizes promotion of the development and implementation of communications and broadcast services for people with physical disabilities. Updates design guidelines for electronic communications equipment friendly to older persons and persons with disabilities (in collaboration with METI).

Ministry of Economy, Trade and Industry (METI):

Advances development of component and other technologies in robotics (in collaboration with MIC). Furthers development of livelihood-support technologies. Revises guidelines for information processing, telecommunications, and office equipment to older persons and persons with disabilities (in collaboration with MIC in the communications fields).

Mid-term Schedule (2012–2013)

○The results of investigation as of the end FY2011 shall be adopted and followed up.

Ministry of Economy, Trade and Industry (METI);

Ministry of Internal Affairs and Communications (MIC); and

Ministry of Health, Labour and Welfare (MHLW):

Follow up and adopt the results of the investigation based the progress through FY2011. Deliberate on a concrete support policy.

Ministry of Internal Affairs and Communications (MIC):

Continues advancing the development of communications support technologies that utilize cerebral activity information. Furthers development of component and other robotics technologies (in collaboration with METI). Reviews the guidelines for spreading subtitled and narrated programs , etc. for the visually or hearing impaired. Subsidizes promotion of the development and implementation of communications and broadcast services for people with physical disabilities. (also reviews the system as required).

Ministry of Economy, Trade and Industry (METI):

Revises guidelines for information-processing, telecommunications and office equipment friendly to older persons and persons with disabilities (in collaboration with MIC in the communications fields). Advances development of component and other technologies in robotics (in collaboration with MIC).

Long-term Schedule (2014–2020)

○ Hardware and software shall be developed and the spreading of products based on the standards shall be promoted on the basis of investigations and development achieved through FY2013.

Ministry of Economy, Trade and Industry (METI); and

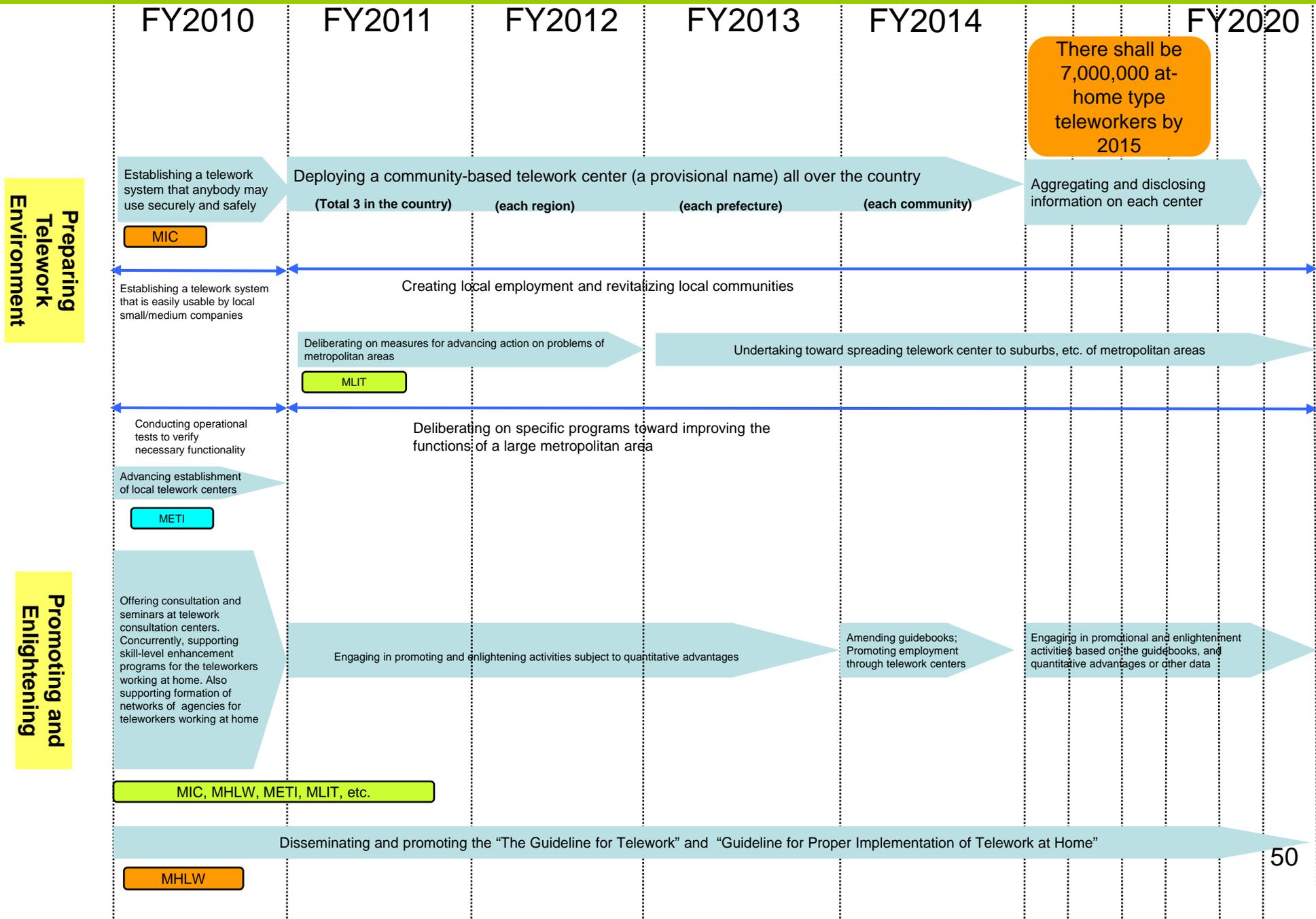
Ministry of Internal Affairs and Communications (MIC):

Promote spreading of products that conform to the standards.

Ministry of Internal Affairs and Communications (MIC):

Advances practical use of technologies in in-home watching, livelihood, and care support services. Spreads subtitled and narrated programs , etc. for the visually or hearing impaired. Subsidizes promotion of the development and implementation of communications and broadcast services for people with physical disabilities

Roadmap for Promoting Teleworking



2. (2) iii)

Promoting Teleworking

Short-term Schedule (2010–2011)

Ministry of Internal Affairs and Communications (MIC):

Establishes a telework system that anybody may use securely and safely. Also installs a community-based telework center (a provisional name) in several locations in the country.

Ministry of Health, Labour and Welfare (MHLW):

Conducts consultation and seminars at the telework consultation centers in collaboration with MIC and Ministry of Land, Infrastructure and Transport. Also disseminates and promotes the “The Guideline for Telework” and the “Guideline for Proper Implementation of Telework at Home”. Supports skill-level enhancement programs for the teleworkers working at-home. Also supports formation of a network of agencies for teleworkers working at home.

Ministry of Economy, Trade and Industry (METI):

Advances establishment of local telework centers.

Ministry of Land, Infrastructure, Transport and Tourism (MLIT):

Conducts surveys on the ratio of teleworkers to the working population, and deliberates on suitable measures to advance teleworking in metropolitan areas.

Mid- to Long-term Schedule (2012–2020)

By 2015: There shall be 7,000,000 at-home type teleworkers*.

Ministry of Internal Affairs and Communications (MIC):

Installs a community-based telework center in each prefecture to promote expansion of local businesses. Aggregates and publicizes data from every center.

Ministry of Health, Labour and Welfare (MHLW):

Disseminates the “The Guideline for Telework” and the “Guideline for Proper Implementation of Telework at Home”

Ministry of Economy, Trade and Industry (METI):

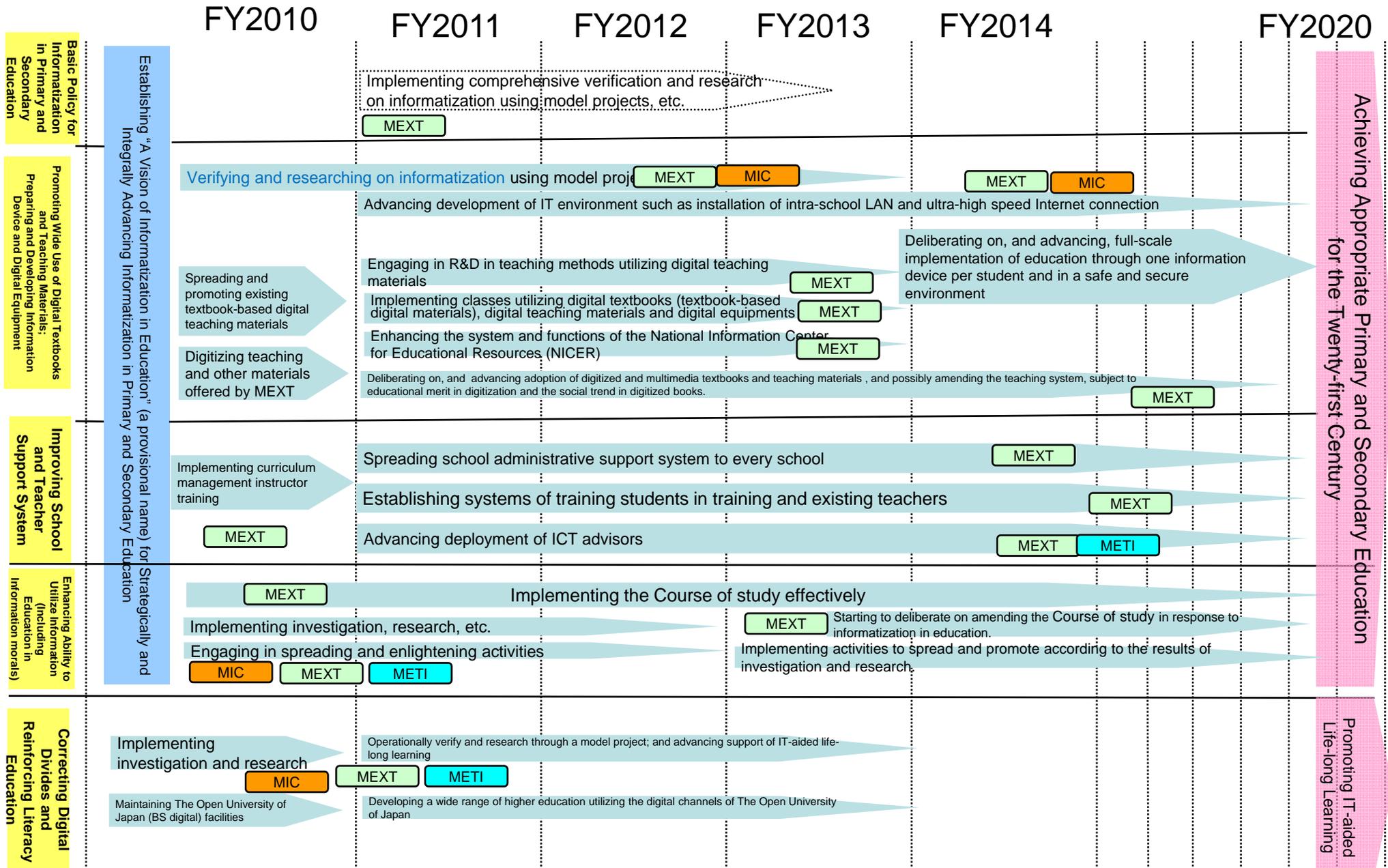
Undertakes activities to spread and promote telework in collaboration with MIC, MHLW and MLIT. Amends the telework implementation and operation guidebooks for the businesses.

Ministry of Land, Infrastructure, Transport and Tourism (MLIT):

Amends the telework implementation and operation guidebooks for the businesses. Conducts quantitative surveys of teleworkers working at their homes. And spreads and promotes telework, which would contribute to enhancing the functions of metropolitan areas.

*Refers only to those of the teleworkers as defined in the Council Decision On the Relevant Ministries To Promote Telework dated May 29, 2007, who actually work in or at homes.

Roadmap for Undertaking in the Educational Field



Achieving Appropriate Primary and Secondary Education for the Twenty-first Century

Promoting IT-aided Life-long Learning

2. (3)

Undertaking in the Educational Field

Short-term Schedule (FY2010–FY2011)

I. Informatization in Primary and Secondary Education

Within FY2010, Ministry of Education, Culture, Sports, Science and Technology (MEXT) shall establish a basic policy for informatization of education. The Ministry shall start verification and research based on the basic policy to advance the informatization in Primary and Secondary education in collaboration with the relevant Ministries.

Ministry of Education, Culture, Sports, Science and Technology (MEXT):

FY2010

- Establishes “A Vision of Informatization in Education” (a provisional name), which would strategically and integrally advance the informatization in Primary and Secondary education, based on discussion in “the Conference on Informatization in Primary and Secondary Education”.
- Spreads and promotes the existing textbook-based digital teaching materials.
- Digitizes teaching and other materials offered by MEXT.
- Implements training of curriculum management for supervisors.
- Implements the Course of Study effectively.

FY2011

Pursuant to “A Vision of informatization in Education” (a provisional name) above:

- Verification and research on informatization of education comprehensively using model projects and others.
 - (1) Verification and research using model projects and others.
 - (2) Engages in research and development in teaching methods utilizing digital teaching materials.
 - (3) Implements classes utilizing digital textbooks (textbook-based digital

materials), digital teaching materials and digital equipments.

(4) Reinforces the system and functions of the National Information Center for Educational Resources (NICER).

(5) Deliberates on, and advances adoption of digitized and multimedia textbooks and teaching materials, and possibly amending the teaching system, subject to educational merit in digitization and the general trend in digitized books.

(6) Spreads into every school a school administrative support system (which includes management of students' study-evaluation records; teaching administrative support such as generation of teaching materials and guideline; sharing of information among schools, homes, and communities; and supporting studying at home and in the communities).

(7) Teaches students in training to be competent in utilization of IT (to be discussed in the investigation of measures for enhancing teachers' quality and capabilities). Establishes training systems for existing teachers (to enable every teacher to utilize IT, thus eliminating regional disparities).

(8) Implements the Course of Study effectively.

Ministry of Internal Affairs and Communications (MIC):

FY2010–2011

Conducts IT-aided classroom work and implements “Future School Promotional Project” for tests and research in collaboration with MEXT.

Ministry of Internal Affairs and Communications (MIC), and

Ministry of Education, Culture, Sports, Science & Technology (MEXT):

FY2011

Advancing development of IT environment such as installation of intra-school LAN, ultra-high speed Internet connection, and the like.

Ministry of Internal Affairs and Communications (MIC),

Ministry of Education, Culture, Sports, Science & Technology (MEXT), and

Ministry of Economy, Trade and Industry (METI):

FY2010–2011

- Conduct investigation and research into information morals education and others.

- Launch promotional and enlightening activities.

Ministry of Education, Culture, Sports, Science and Technology (MEXT), and
Ministry of Economy, Trade and Industry (METI)

FY2011

- Promote deployment of ICT advisors.

II. Eliminating Digital Divides and Reinforcing Literacy Education

Efforts shall be made to eliminate digital divides through utilization of social education facilities. People's interest in recurrent education using IT shall be supported. IT literacy education shall be reinforced through e-learning and similar approaches (by Ministry of Education, Culture, Sports, Science and Technology (MEXT), Ministry of Internal Affairs (MIC), and Ministry of Economy, Trade and Industry (METI)).

Mid-term Schedule (FY2012–FY2013)

I. Informatization in Primary and Secondary Education

Appropriate systems shall be developed for full-scale deployment of primary and secondary education of the 21st century pursuant to the results of model project tests and the situation of utilization of IT, e.g., in enhancing capabilities of teachers.

Ministry of Education, Culture, Sports, Science and Technology (MEXT)

FY2012–2013

Implements item (1) through (8), shown under the FY2010–2011 schedule, in accordance with “A Vision of Informatization in Education” (a provisional name).

FY2013

- (1) Deliberates on and advances for full-scale deployment of education through one information device per student and in a safe and secure environment.
- (2) Starts deliberating on amending the Course of Study in response to informatization in education.

Ministry of Internal Affairs and Communications (MIC):

FY2012

Conducts IT-aided classroom work and implements “Future School Promotional Project” for tests and research in collaboration with MEXT.

Ministry of Internal Affairs and Communications (MIC); and
Ministry of Education, Culture, Sports, Science and Technology (MEXT)

FY2012–2013

Continue advancing development of IT environment such as installation of intra-school LAN ultra-high speed Internet connection.

Ministry of Internal Affairs and Communications (MIC);

Ministry of Education, Culture, Sports, Science and Technology (MEXT); and

Ministry of Economy, Trade and Industry (METI):

FY2012–2013

- Continue investigating and researching into education in information moral and the like.
- Continue implementing promotional and enlightening activities.
- Implement additional promotional and enlightening activities related to informatization pursuant to the results of associated investigation and research.

Ministry of Education, Culture, Sports, Science and Technology (MEXT); and

Ministry of Economy, Trade and Industry (METI):

FY2012–2013

- Continue promoting deployment of ICT advisors.

II. Eliminating Digital Divides and Reinforcing Literacy Education

Efforts shall be made to eliminate digital divides through utilization of social education facilities. Personnel's interest in recurrent education using IT shall be supported. IT literacy education shall be reinforced through e-learning and similar approaches (by Ministry of Education, Culture, Sports, Science and Technology (MEXT), Ministry of Internal Affairs and Communications (MIC), and Ministry of Economy, Trade and Industry (METI)).

Long-term Schedule (FY2014–FY2020)

I. Informatization in Primary and Secondary Education

Ministry of Education, Culture, Sports, Science and Technology (MEXT):

FY2014–2020

Continues implementing item Nos. (5) through (8) for FY2010-2011 and Nos.

(1) and (2) under FY2012-2013 , pursuant to the foregoing “A Vision of Informatization in Education” (a provisional name).

Ministry of Internal Affairs and Communications (MIC); and

Ministry of Education, Culture, Sports, Science and Technology (MEXT)

FY2014–2020

Continue advancing development of IT environment such as installation of intra-school LAN, ultra-high speed Internet connection.

Ministry of Internal Affairs and Communications (MIC);

Ministry of Education, Culture, Sports, Science and Technology (MEXT); and

Ministry of Economy, Trade and Industry (METI):

FY2014–2020

- Continue implementing additional promotional and enlightening activities related to education in information moral pursuant to the results of associated investigation and research.

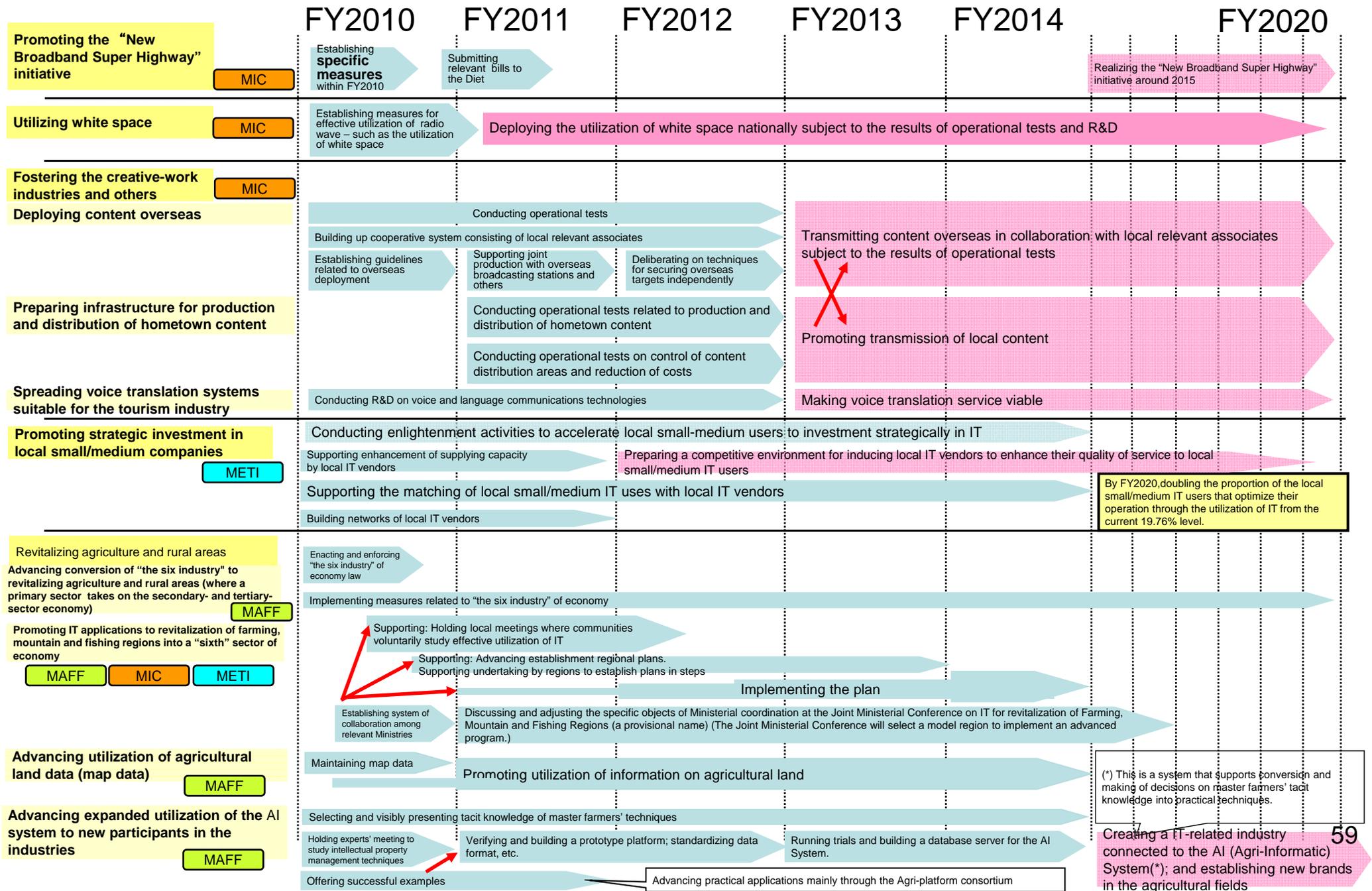
Ministry of Education, Culture, Sports, Science and Technology (MEXT); and

Ministry of Economy, Trade and Industry (METI):

FY2014–2020

- Continue promoting deployment of ICT advisors.

Roadmap for Revitalizing Local Communities



(*) This is a system that supports conversion and making of decisions on master farmers' tacit knowledge into practical techniques.

Creating a IT-related industry connected to the AI (Agri-Informatic) System(*); and establishing new brands in the agricultural fields

2. (4) i)

Revitalizing Local Communities

Short-term Schedule (2010–2011)

- The “New Broadband Super Highway” initiative shall be promoted.
Ministry of Internal Affairs and Communications (MIC):
Within 2010 decides on specific measures, and submits relevant bills to the Diet in 2011.

- Deploying citizens’ media nationally by utilizing white space and others.
Ministry of Internal Affairs and Communications (MIC):
Generates a measure for taking advantage of white space, and conducts local operational tests and R&D that would help technical and operational investigations.

- Fostering the creative-work industries and others.
Ministry of Internal Affairs and Communications (MIC):
Deploying content overseas, and conducts operational tests related to production and distribution of hometown content. Concurrently, researches and develops voice translation systems suitable for tourism purposes.

- Promoting local small-to-medium-size companies to invest strategically in the IT industry.
Ministry of Economy, Trade and Industry (METI):
Improves delivery capacity of local IT vendors. Builds up networks of local IT vendors. And concurrently, promotes small-to-medium IT users to invest in the IT industry.

- Revitalizing agriculture and rural areas by applying IT.

Ministry of Agriculture, Forestry and Fisheries (MAFF):

Builds a system of coordinating with other relevant Ministries. Advances establishment of regional revitalization plans for a farming, mountain and fishing region by holding local meetings—for example, plans for turning the region into a "sixth industry" to revitalize agriculture and rural (The term “the sixth industry” has been synthesized by multiplying the industrial sectors: first (primary), second (secondary), and third(tertiary) to come up with the “the sixth industry.” The sixth industry is expected to synergistically create new value in a farming, mountain, and fishing village through effective use and integration of agricultural, forestry and fishery products, resources, products, and their production, processing and distribution activities). Concurrently, maintains and updates of the agricultural land data (map data). Also selects and visibly presents master farmers’ tacit knowledge related to practical techniques.

Ministry of Internal Affairs and Communications (MIC):

Collaborating with MAFF, undertakes work in promoting IT applications to revitalization of a farming, mountain or fishing region—for example, to turn a region into a “sixth” sector of economy.

Ministry of Economics, Trade and Industry (METI):

Advances spreading of plant-producing factories to revitalize a farming, mountain or fishing region— for example, to turn a region into a “sixth” sector of economy. Concurrently, advances adoption of advanced farming technologies.

Mid-term Schedule (2012–2013)

- Deploying citizens’ media nationally by utilizing white space and others.

Ministry of Internal Affairs and Communications (MIC):

Promotes wide utilization of white space by changing systems—for example, amending Ministerial ordinances—pursuant to the results of deliberation.

- Fostering the creative-work industries and others.

Ministry of Internal Affairs and Communications (MIC):

Deliberates on techniques by which a region may transmit information on its

own pursuant to the results of operational tests. Undertakes R&D in, and promotes startup of voice translation service for the tourism field.

Mid-to-Long term Schedule (2012–2020)

- Promoting regional small/medium companies to invest in IT strategically.

By FY2020, the percentage of small/medium companies utilizing IT to optimize their management shall be doubled from the current 19.7% level.

Ministry of Economy, Trade and Industry (METI):

Collects the best practices of the local small/medium IT vendors.

- Revitalizing Farming, Mountain and Fishing Regions by Applying IT.

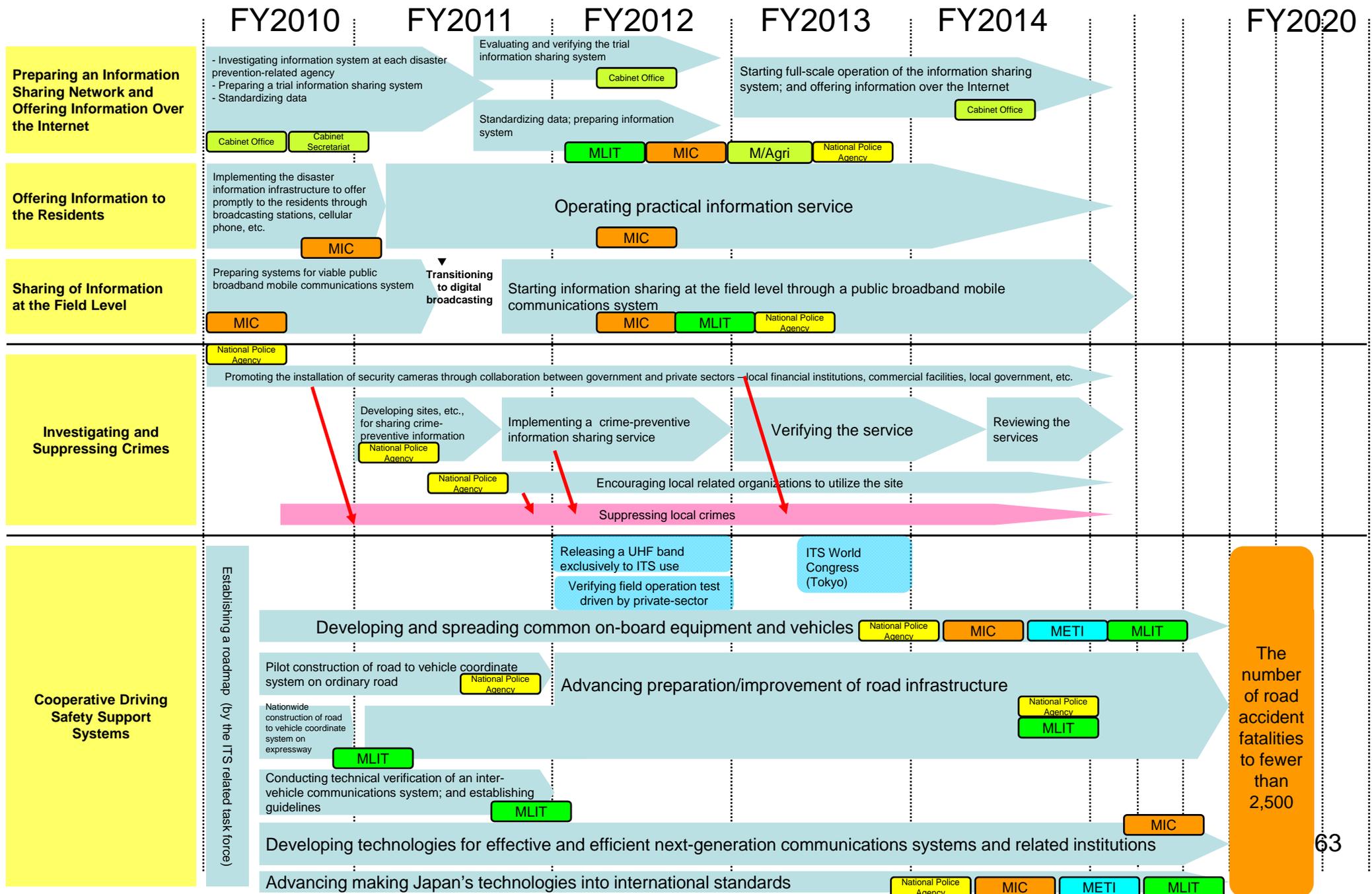
Ministry of Agriculture, Forestry and Fisheries (MAFF):

Collaborating with other relevant Ministries, continues undertaking work toward establishing and realizing regional revitalization plans such that a model region would be created. Concurrently, builds up a database server for an agri-informatics (AI) system, creating a new IT-related industry and establishing a brand in the agricultural field.

Ministry of Economy, Trade and Industry (METI):

Collaborating with MAFF, advances improvement in productivity in agriculture through the utilization of advance technologies.

Roadmap for Advancing Measures against Disasters, Crimes and Accidents



The number of road accident fatalities to fewer than 2,500

2. (4) ii)

Advancing Measures Against Disasters, Crimes and Accidents

Short-term Schedule (2010–2011)

○Certain measures against disasters shall be advanced: establishment of an information sharing system for the disaster prevention-related agencies; prompt offering of information to the local residents; and development of viable mobile communications system that enables sharing of information at the field sites.

Cabinet Office; and Cabinet Secretariat;

Ministry of Internal Affairs and Communications (MIC);

Ministry of Agriculture, Forestry and Fisheries (MAFF);

Ministry of Land, Infrastructure, Transport and Tourism (MLIT);

National Police Agency:

Investigate the information systems of disaster prevention-related agencies.

Develop and maintain a trial information sharing system. Standardize data.

Ministry of Internal Affairs and Communications (MIC):

Develops the disaster information offering infrastructure that uses existing broadcasting stations and cellular phone networks and the like into a viable system. Develops a public broadband mobile communications system into a viable system.

○Measures Against Crimes.

National Police Agency:

Continues to implement measures for promoting the installation of security cameras. Starts a crime-preventive information sharing service by FY2011.

○In FY2010 a roadmap shall be established by a task force as a measure against accidents. Establishment of a road infrastructure for a cooperative driving safety support systems shall be furthered. Development of common on-board equipment and vehicles

shall be promoted.

National Police Agency; and

Ministry of Land, Infrastructure, Transport and Tourism (MLIT):

Advance establishment of a road infrastructure.

Ministry of Land, Infrastructure, Transport and Tourism (MLIT):

Verifies the technology and establishes guidelines for a cooperative driving safety support systems by an inter-vehicle communications.

Ministry of Internal Affairs and Communications (MIC):

Implements development of technologies for the next-generation communications (inter-vehicle, pedestrian-vehicle, and the like) systems and prepares institutions.

Mid-term Schedule (2012–2013)

○ Full-scale operation of a disaster information sharing system shall be started as a measure against disasters. Offering disaster information to residents shall be advanced. The sharing of information at the field level shall be furthered. Offering information over the Internet shall be started.

Cabinet Office:

Evaluates, verifies, and starts full-scale operation of an information sharing system. Offers information over the Internet.

Ministry of Internal Affairs and Communications (MIC):

Starts practical operation of an information service system for residents.

Ministry of Internal Affairs and Communications (MIC);

Ministry of Land, Infrastructure, Transport and Tourism (MLIT); and

National Police Agency:

Promote implementation of public broadband mobile communications.

○ About measures against crimes.

National Police Agency:

Verifies and improves the crime-preventive information sharing service by FY2014.

○Establishment of a road infrastructure for a cooperative driving safety support systems shall be furthered as a measure against accidents. Use of common on-board equipment and vehicles shall be widely promoted.

National Police Agency; and

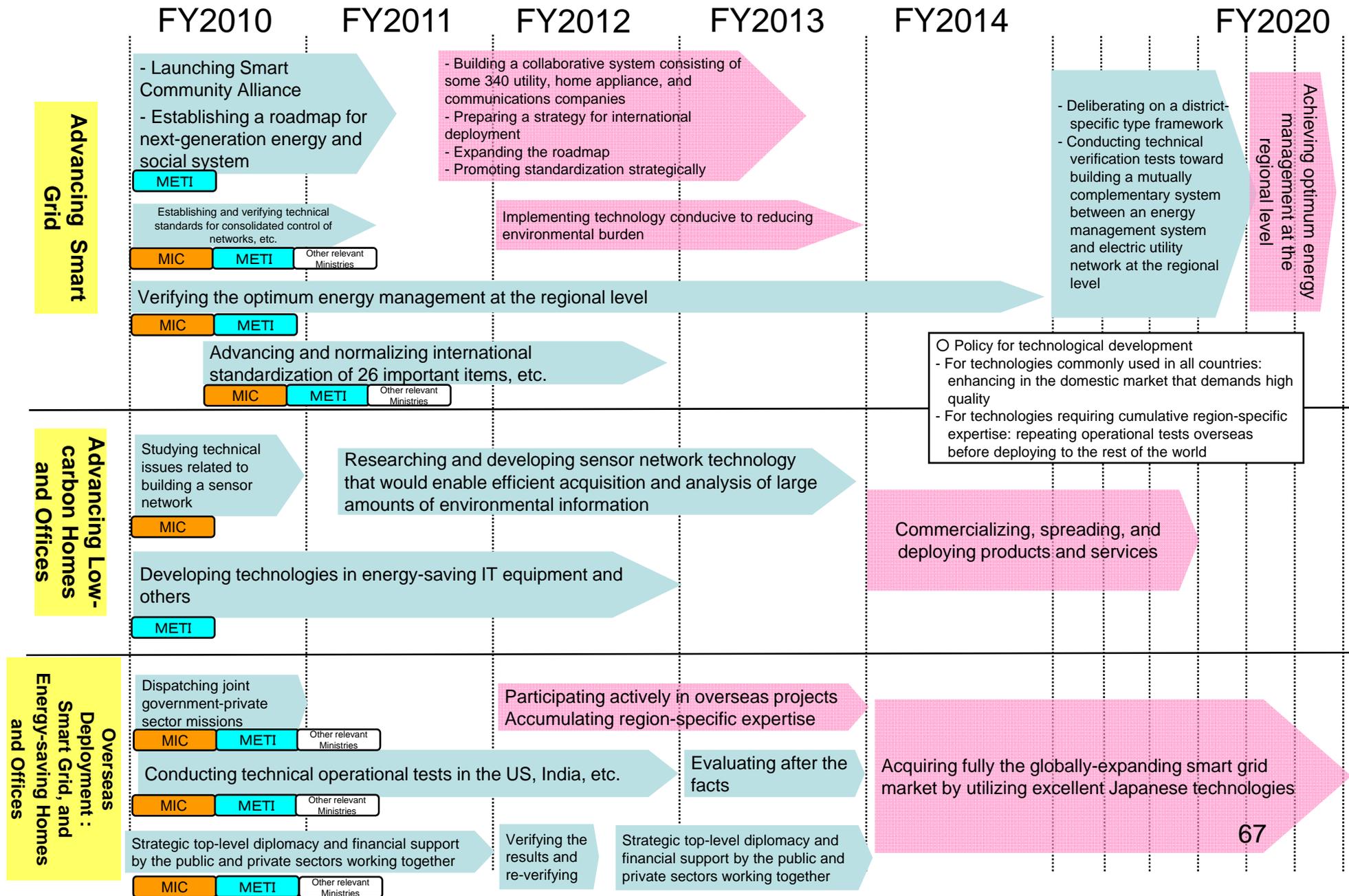
Ministry of Land, Infrastructure, Transport and Tourism (MLIT):

Advance establishment of a road infrastructure.

Ministry of Internal Affairs and Communications (MIC):

Continues developing technologies and prepares institutions for the next-generation communications systems.

Roadmap for Promoting Smart Grid and Low-carbon Homes and Offices



3. (1) i)

Promoting Smart Grid and Low-carbon Homes and Offices

Short-term Schedule (2010–2011)

○Smart grid shall be advanced.

Ministry of Economy, Trade and Industry (METI):

In FY2010, launches Smart Community Alliance. Establishes a roadmap for the next-generation energy and social systems. Selects a community for the smart community demonstration project. Also starts international standardization of 26 important items.

Ministry of Internal Affairs and Communications (MIC):

Starts verifying technical specifications for a communications network system using a local community as the empirical field. Furthers, concurrently, standardization of technical specifications related to a consolidated network control system.

○Development of low-carbon homes and offices shall be advanced.

Ministry of Internal Affairs and Communications (MIC):

Studies technical issues related to building a wireless sensor network.

Ministry of Economy, Trade and Industry (METI):

Starts developing technologies in energy-saving IT equipment and others.

○Work in overseas deployment of smart grid and energy-saving homes and offices shall be advanced.

Ministry of Economy, Trade and Industry (METI):

Dispatches joint government-private sector missions. Starts a demonstration project in the US and India.

Ministry of Internal Affairs and Communications (MIC):

Launches activities in overseas deployment of related communications network

system in collaboration with METI.

Mid-term Schedule (2012–2013)

- Development of low-carbon homes and offices shall be advanced.

Ministry of Economy, Trade and Industry (METI):

Completes development of technologies in energy-saving IT equipment and others; and develops practical applications.

Ministry of Internal Affairs and Communications (MIC):

Establishes technologies related to wireless sensor networks.

- Work in overseas deployment of smart grid and energy-saving homes and offices shall be advanced.

Ministry of Economy, Trade and Industry (METI):

Completes the demonstration project in the US and India.

Long-term Schedule (2014 – 2020)

- Smart grid shall be advanced.

Ministry of Economy, Trade and Industry (METI):

Deliberates district-specific frameworks. Verifies technologies in preparation for establishing a complementary relationship between a local Energy Management System (EMS) and the electric utility network.

- Development of low-carbon homes and offices shall be advanced.

Ministry of Economy, Trade and Industry (METI):

Commercializes, spreads and deploys energy-saving IT and others.

Ministry of Internal Affairs and Communications (MIC):

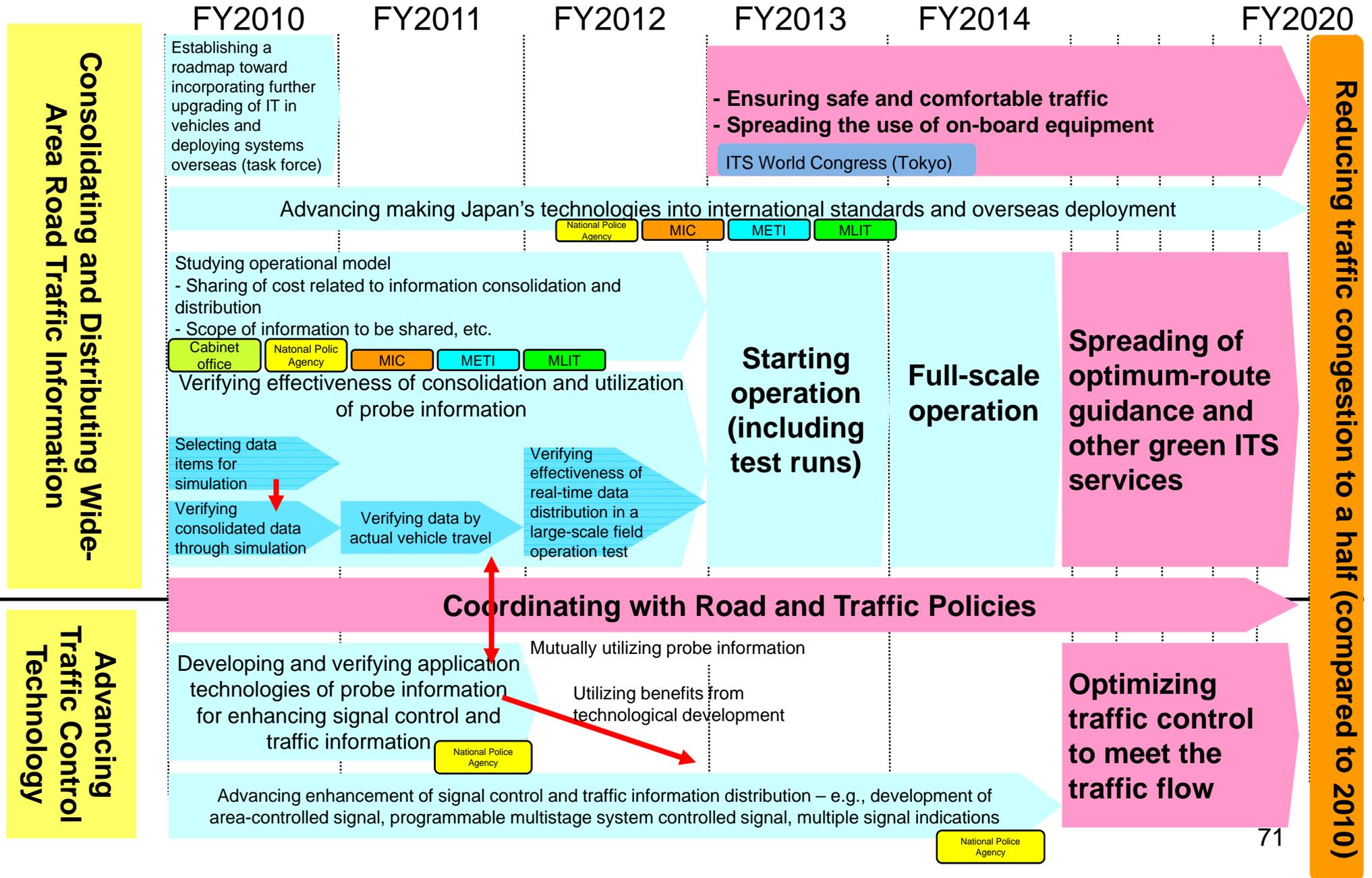
Commercializes, spreads, and deploys technologies related to launching of wireless sensor networks.

- Work in overseas deployment of smart grid and energy-saving homes and offices shall be advanced.

Ministry of Economy, Trade and Industry (METI):

Participates actively in overseas projects. Creates demands for systems in Asia.

Roadmap for Greening the Transport of People and Goods



3. (1) ii)

Greening the Transport of People and Goods

Short-term Schedule (2010–2011)

○FY2010: A task force shall be installed to establish a roadmap toward incorporating further upgrading of IT in vehicles and deploying systems overseas.

○FY2010: A green intelligent transport systems (ITS) operational model shall be studied in details—for example, sharing of cost of consolidation and distribution of wide-area road traffic information, and scope of information to be shared.

○FY2010: Potential contribution that aggregation of the probe information held by the government and private sectors may have to the reduction of traffic congestion and CO₂ shall be evaluated through the simulation. Concurrently, application technologies for enhancing signal control shall also be developed.

National Police Agency; and

Ministry of Land, Infrastructure, Transport and Tourism (MLIT):

Conduct simulated aggregation using road traffic and vehicle travel information

Ministry of Internal Affairs and Communications (MIC): and

Ministry of Economy, Trade and Industry (METI):

Support simulated aggregation of information held by the government and private sectors.

National Police Agency:

Develops application technologies for enhancing signal control and traffic information.

○FY2011: Verification using actual vehicle travel shall be conducted. Application technologies for enhancement of signal control shall also be verified.

National Police Agency; and

Ministry of Land, Infrastructure, Transport and Tourism (MLIT):

Provide road traffic and vehicle travel information. Conduct the foregoing verification. Utilize probe information for such purposes as measures for reducing road traffic congestion in accordance with the results of the verification.

Ministry of Internal Affairs and Communications (MIC); and

Ministry of Economy, Trade and Industry (METI):

Support the foregoing verification work.

National Police Agency:

Verifies application technologies for enhancing signal control and traffic information.

Mid-term Schedule (2012–2013)

○FY2012: An operational model of green ITS shall be established.

○FY2012: A large-scale field operation test(FOT) to verify the effectiveness of real-time data consolidation and distribution shall be conducted.

National Police Agency; and

Ministry of Land, Infrastructure, Transport and Tourism (MLIT):

Conduct the foregoing FOT to verify the effectiveness on a public road. Apply the probe information to such purposes as measures for reduction of traffic congestion in accordance with the results of the verification of effectiveness.

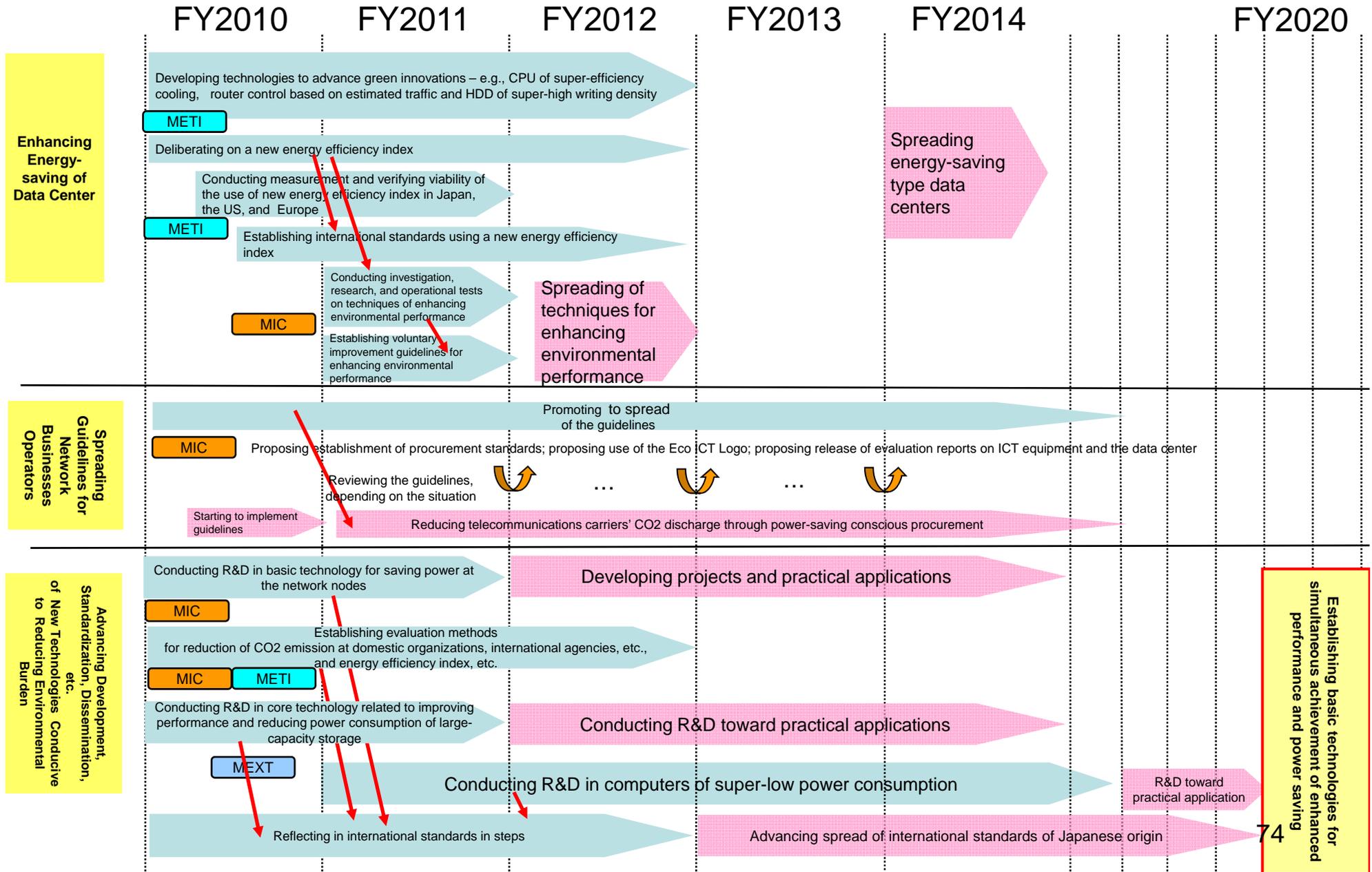
Ministry of Internal Affairs and Communications (MIC); and

Ministry of Economy, Trade and Industry (METI):

Support the foregoing FOT to verify the effectiveness.

○FY2013: Green ITS shall be widely promoted domestically and abroad at the ITS World Congress (Tokyo). Starting FY2014: A full-scale deployment shall be promoted.

Roadmap for Reducing Environmental Burden by the IT Field



3. (1) iii)

Reducing Environmental Burden by the IT Field

Short-term Schedule (2010–2011)

○The energy-saving of the data center shall be advanced.

Ministry of Internal Affairs and Communications (MIC):

In FY2011 conducts operational tests on techniques to render the data center energy-saving with reference to the new energy efficiency index established by METI. Presents voluntary improvement guidelines for enhancing environmental performance of the center.

Ministry of Economy, Trade and Industry (METI):

Starts development of technologies for advancing green innovation. Establishes a new energy efficiency index of Japanese origin.

○Guidelines for encouraging network business operators to adopt low-carbon ICT equipments shall be widely promoted.

Ministry of Internal Affairs and Communications (MIC):

In FY2010, starts implementing the environmental guidelines for network business operators.

○Development, standardization, and dissemination of new technologies related to reduction of environmental burden in the IT field shall be furthered.

Ministry of Internal Affairs and Communications (MIC):

In FY2011 accomplishes enhancement of both speed and power efficiency of the network nodes. Implements proving tests and others toward establishment of techniques for evaluation of reduced CO₂ emission. Achieves international standardization through activities in international agencies and others.

Ministry of Economy, Trade and Industry (METI):

Domestically, studies techniques for evaluation of reduced CO₂ emission, also

studies energy efficiency index and others in collaboration with the Green IT Promotion Council and others. Accomplishes international standardization through activities in international agencies and others.

Ministry of Education, Culture, Sports, Science and Technology (MEXT):

In FY2011 completes research and development of the core technology related to enhancing performance and reducing power consumption of large-capacity storage.

Mid-term Schedule (2012–2013)

○Energy-saving of the data center shall be furthered.

Ministry of Economy, Trade and Industry (METI):

Completes development of technologies for advancing green innovation and implements their practical applications. In FY2012 succeeds in turning a new energy efficiency index of Japanese origin into an international standard.

○Development, standardization, and dissemination of new technologies related to reduction of environmental burden in the IT field shall be furthered.

Ministry of Education, Culture, Sports, Science and Technology (MEXT):

By FY2013 consolidates hardware, software, and other elemental technologies in the Information Science and Technology field. Advances research and development aimed at establishing core technology for reduction of power consumption in the entire IT field.

Long-term Schedule (2014–2020)

○Energy-saving of the data center shall be furthered.

Ministry of Economy, Trade and Industry (METI):

Furthers practical applications, dissemination, and expansion of technologies to advance green innovation.

○Development, standardization, and dissemination of new technologies related to reduction of environmental burden in the IT field shall be furthered.

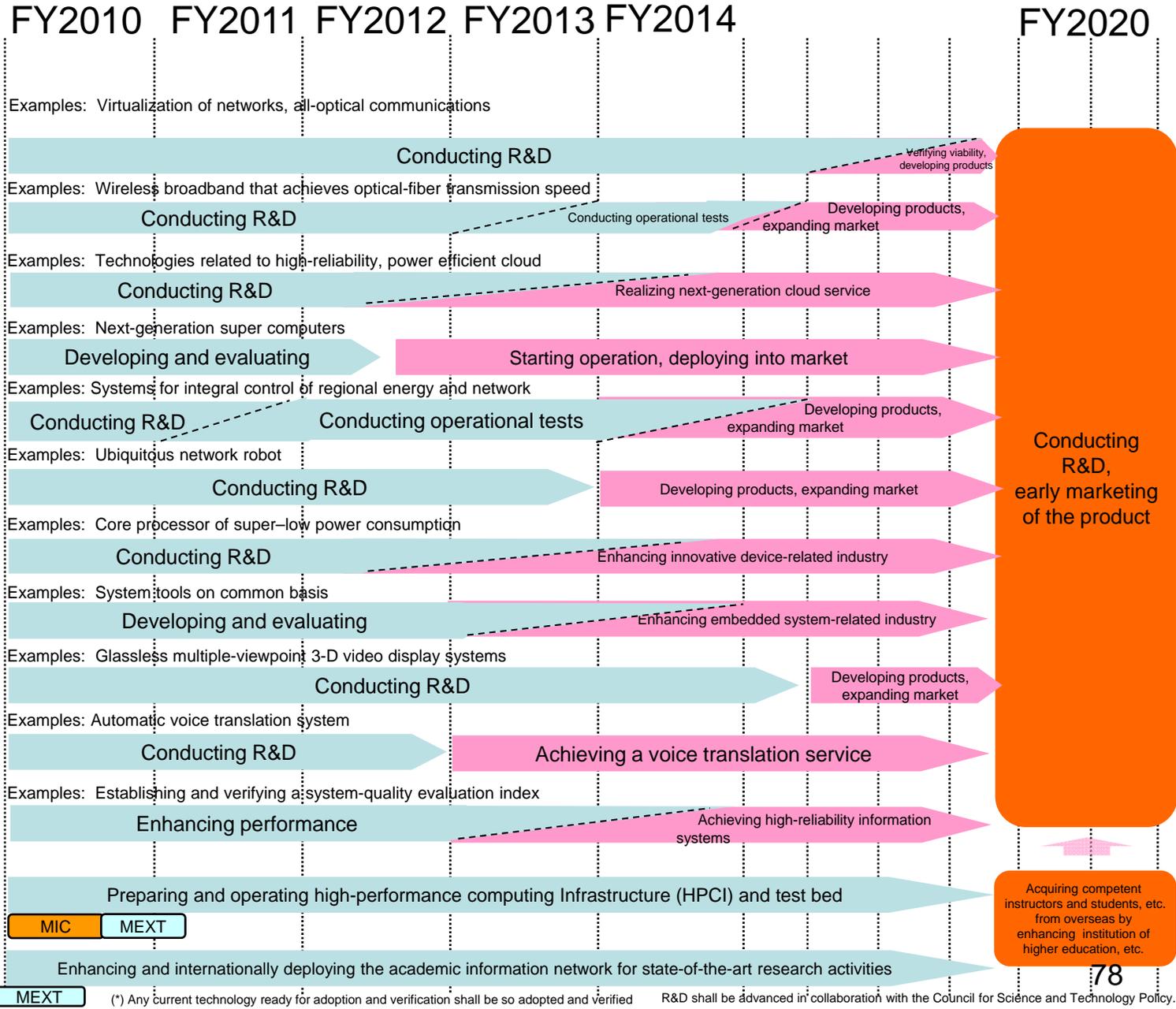
Ministry of Education, Culture, Sports, Science and Technology (MEXT):

By FY2020 achieves commercial viable core technologies that would simultaneously enhance expanded functionalities and reduced power consumption in IT systems by furthering research and development in revolutionary technologies that would enhancing functionalities and power reduction.

Roadmap for Advancing IT-related R&D Where Japan Excels

Implementing R&D and Intellectual Property Strategy Integrally

Examples of Technological Fields Where Japan Excels



(*) Any current technology ready for adoption and verification shall be so adopted and verified immediately. R&D shall be advanced in collaboration with the Council for Science and Technology Policy.

3. (2)

Advancing IT-related R&D Where Japan Excels

Short-term Schedule (2010–2011)

Ministry of Internal Affairs and Communications (MIC):

Undertakes research and development in elemental technologies in new-generation optical networks, next-generation wireless, cloud computing, smart grid, robotics, 3-D video, and voice translation.

Ministry of Education, Culture, Sports, Science and Technology (MEXT):

Undertakes research and development in elemental technologies in next-generation computers, innovative devices, and software engineering. Also promotes construction of high-performance computing infrastructure (HPCI) and a formation of a consortium that has a key role in the construction.

Ministry of Economy, Trade and Industry (METI):

Undertakes research and development in elemental technologies related to cloud computing, smart grid, robotics, innovative devices, embedded systems, and software engineering.

Mid-term Schedule (2012–2013)

Ministry of Internal Affairs and Communications (MIC):

Continues undertaking from the short-term schedule: research and development in new-generation optical networks, next-generation wireless, cloud computing,

smart grid, robotics, 3-D video, and voice translation. Especially promotes the early marketing and offering service in cloud computing and voice translation.

Ministry of Education, Culture, Sports, Science and Technology (MEXT):

Continues undertaking from the short-term schedule: research and development in the next-generation computers, innovative devices, and software engineering. Especially promotes the startup of operation of the next-generation computers, early marketing and expanding the market for software engineering. Furthers construction and startup of HPCI operation.

Ministry of Economy, Trade and Industry (METI):

Continues undertaking from the short-term schedule: research and development in strategic areas—cloud computing, smart grid, robotics, innovative devices, embedded systems, and software engineering. Especially prompts early marketing, offering service and expanding the market for cloud computing, smart grid, embedded systems, and software engineering.

Long-term Schedule (2014–2020)

Ministry of Internal Affairs and Communications (MIC):

Promotes product development and market expansion for new-generation optical networks, next-generation wireless, cloud computing, smart grid, robotics, 3-D video, and voice translation.

Ministry of Education, Culture, Sports, Science and Technology (MEXT):

Promotes product development and market deployment for next-generation computers, innovative devices, and software engineering. Continues operation of HPCI.

Ministry of Economy, Trade and Industry (METI):

Promotes product development and market expansion for cloud computing, smart grid, robotics, innovative devices, embedded systems, and software engineering.

Notes:

1. Any current technology related to cloud computing and innovative devices that can be adopted and verified shall be so adopted and verified immediately while research and development are carried out
2. Research and development shall be advanced in collaboration with the Council for Science and Technology Policy

Roadmap for Expanding the Digital Content Market Dramatically

FY2010

FY2011

FY2012

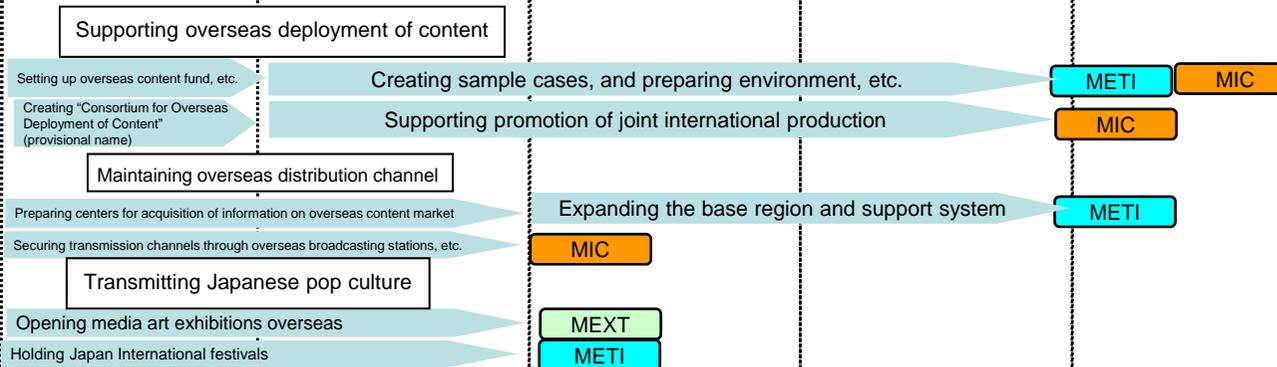
FY2013

FY2014

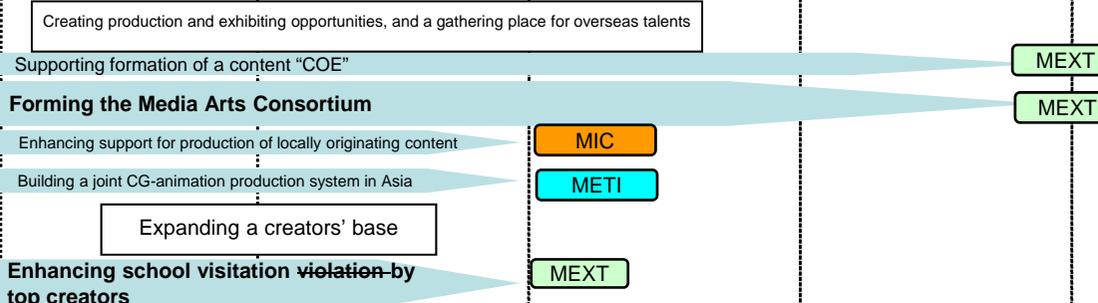
FY2020

Note: Measures shall be implemented in line with the Intellectual Property Strategic Program 2010

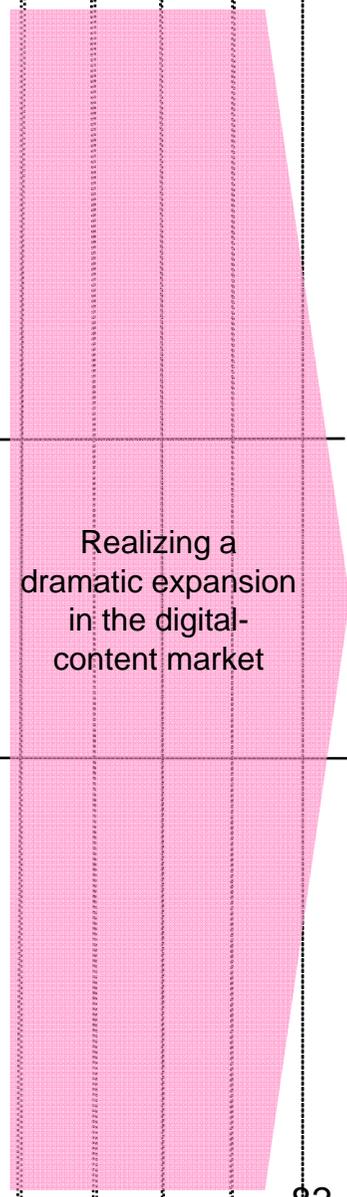
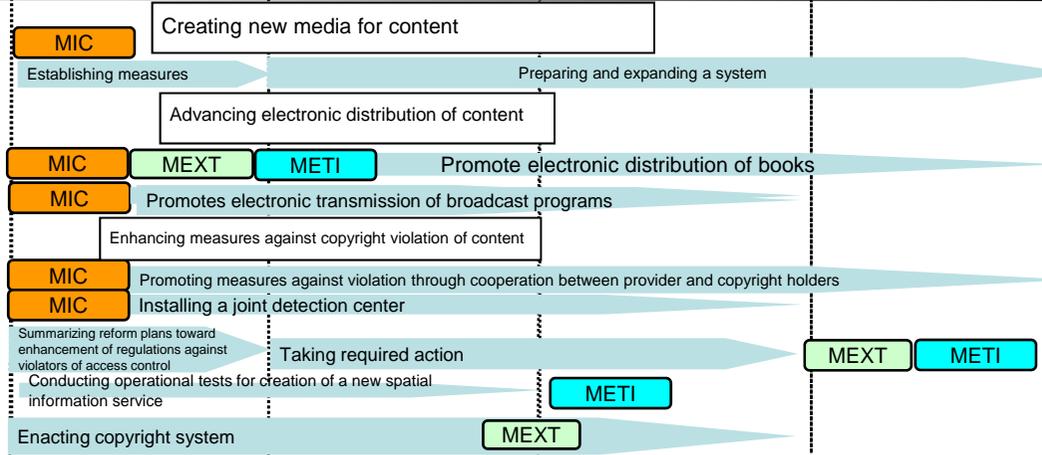
Overseas
Deployment



Developing
Human
Resources



Digitizing and
Networking
Content



3. (3) i)

Expanding the Digital Content Market Dramatically

Short-term Schedule (2010–2011) and Mid-term Schedule (2012–2013)

To the end that our digital content market may be expanded dramatically, the following measures shall be implemented in line with the Intellectual Property Promotion Plan 2010 for overseas deployment, developing human resources, and digitizing and networking content (*Indicates a short-term measure.):

1. Overseas Deployment

○ A framework shall be built around content to bring overseas profit home. The framework supports overseas deployment of content, maintains overseas distribution channel, and transmission of Japanese pop culture.

Ministry of Economy, Trade and Industry (METI):

Sets up overseas content fund and other centers for acquisition of information on overseas content market*, opens a Japan international festival*, and others.

Ministry of Internal Affairs and Communications (MIC):

Creates a “Consortium for Overseas Deployment of Content (a provisional name)” setting up an overseas content fund and systems to support promotion of joint international production and secure transmission channels through overseas broadcasting stations.

Ministry of Education, Culture, Sports, Science and Technology (MEXT):

Organizes Media Arts Festival in Foreign Countries

2. Developing Human Resources

○ A “production center” attractive to talented artists from overseas shall be set up by providing production and exhibition opportunities, creating a gathering place for overseas talents, and expanding a creators’ base.

Ministry of Internal Affairs and Communications (MIC):

Enhances support for content production in local communities.*

Ministry of Education, Culture, Sports, Science and Technology (MEXT):

Supports formation of a content “COE” (common operating environment), forms the Media Arts Consortium, and enhances school visitation by top creators.*

Ministry of Economy, Trade and Industry (METI):

Builds up a joint CG-animation production system in Asia.*

3. Digitalizing and Networking Content

○ Digitalization and networking of world-leading content shall be promoted by creating new media for content, furthering electronic distribution of content, enhancing measures against copyright violation of content, and enacting copyright legislature.

Ministry of Internal Affairs and Communications (MIC):

Establishes measures to utilize radio waves—for example, utilization of white space*. Promotes electronic transmission of broadcast programs. Installs a joint detection center. And promotes measures against copyright violations through cooperation between the provider and copyright holders.

Ministry of Internal Affairs and Communications (MIC);

Ministry of Education, Culture, Sports, Science and Technology (MEXT); and

Ministry of Economy, Trade and Industry (METI):

Promote electronic distribution of books.

Ministry of Education, Culture, Sports, Science and Technology (MEXT):

Deliberates overall issues related to copyright system.

Ministry of Education, Culture, Sports, Science and Technology (MEXT); and

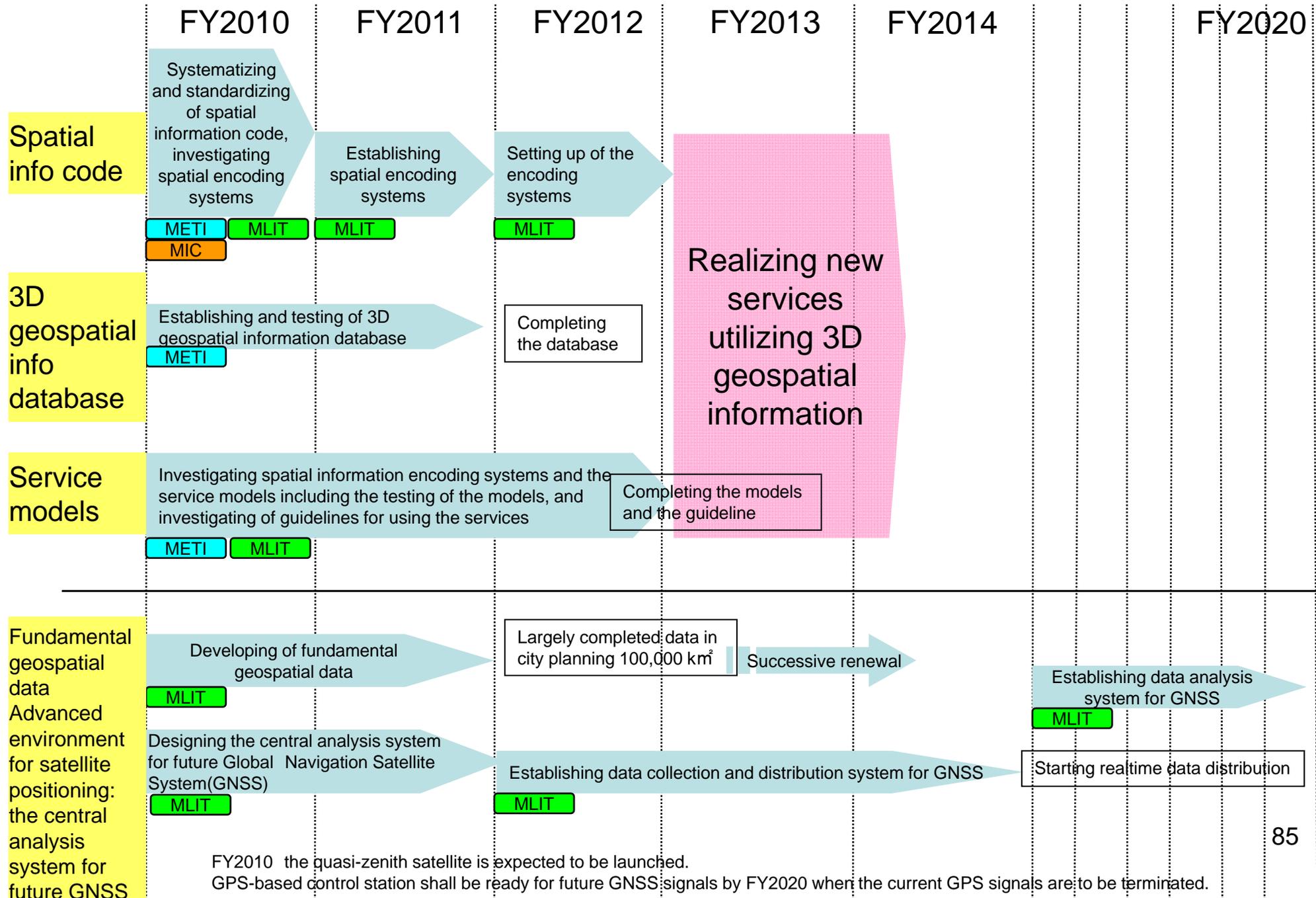
Ministry of Economy, Trade and Industry (METI):

Summarize reform plans toward enhancement of regulations against violators of access control.*

Ministry of Economy, Trade and Industry (METI):

Conducts operational tests for creation of a new special information service.*

Creating New Markets Using Spatial Info Services and Other Digital Info



3. (3) ii)

Creating New Markets Using Spatial Information Services and Other
Digital Information

Short-term (FY2010, FY2011)

A spatial information encoding and control system and database shall be established, and service models shall be studied and tested as required for development of a new spatial information service. Additionally, a fundamental geospatial database and advanced satellite-positioning environment shall be established.

Ministry of Land, Infrastructure, Transport and Tourism (MLIT);

Ministry of Economy, Trade and Industry (METI); and

Ministry of Internal Affairs and Communications (MIC):

Systematize and standardize spatial information code, investigate spatial information encoding systems and service models including the testing of the models; and investigate guidelines for using the services.

Ministry of Land, Infrastructure, Transport and Tourism (MLIT):

Establishes a spatial information encoding system and fundamental geospatial database (to be completed largely in city planning areas), and design a central analysis system that will be compatible with future Global Navigation Satellite Systems (GNSS).

Ministry of Economy, Trade and Industry (METI):

Establishes and tests 3D geospatial information database.

Middle-term (FY2012, FY2013)

New services utilizing 3D geospatial information shall be realized.

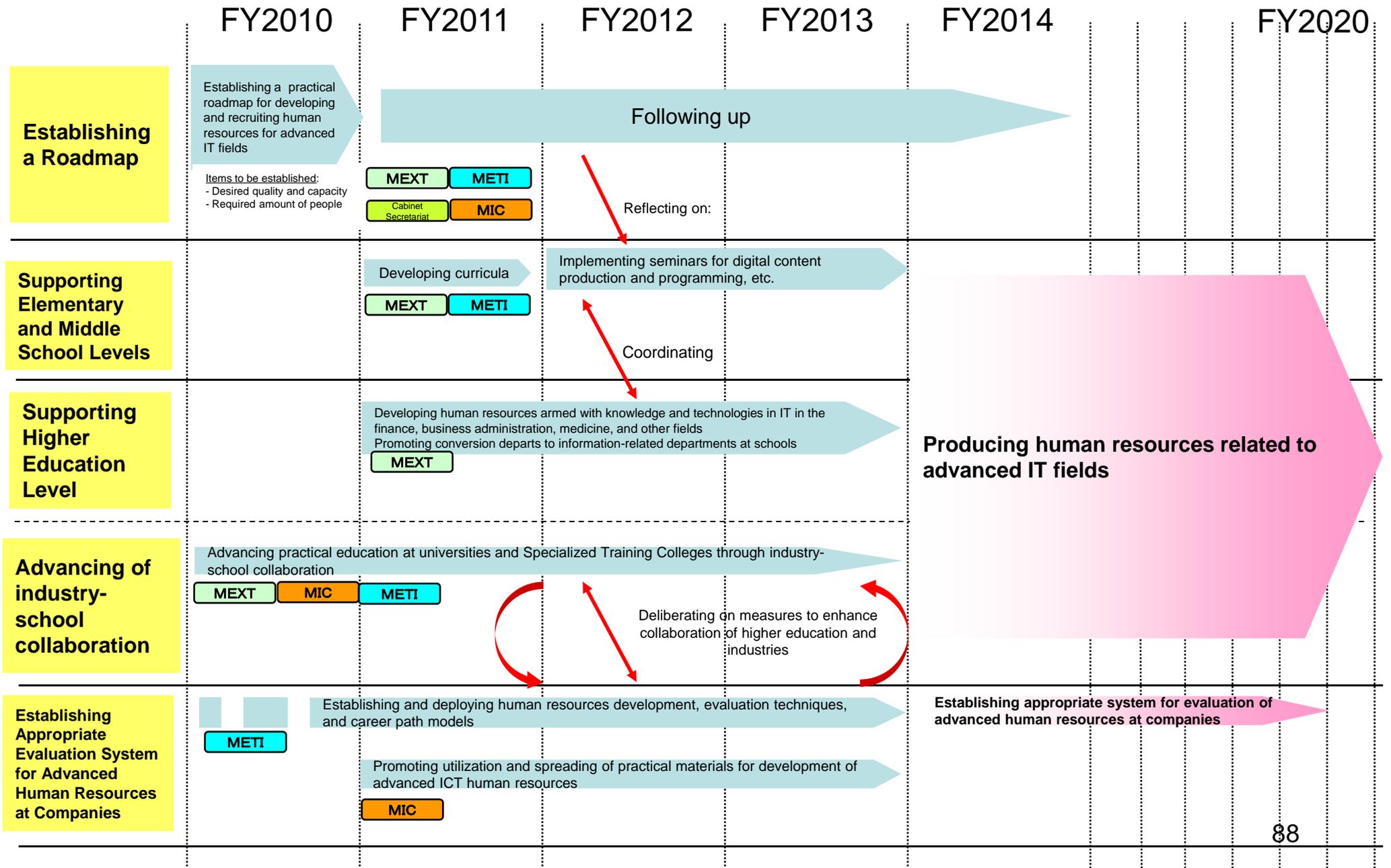
Ministry of Land, Infrastructure, Transport and Tourism (MLIT):

Starts-up a spatial information encoding system and establishes a central analysis system that will be compatible with GNSS.

Ministry of Economy, Trade and Industry (METI):

Completes the guidelines for the service models in collaboration with MLIT.

Roadmap for Developing Human Resources Related to Advanced IT



3. (3) iii)

Developing Human Resources Related to Advanced IT

Short-term Schedule (2010–2011)

○ Within FY2010, a practical roadmap for developing and recruiting human resources and others for the advanced IT field shall be established. Advancement of practical educational programs at colleges offered through industry-school collaboration shall continue.

Cabinet Secretariat;

Ministry of Internal Affairs and Communications (MIC);

Ministry of Education, Culture, Sports, Science and Technology (MEXT); and

Ministry of Economy, Trade and Industry (METI):

Establish a practical roadmap for developing and recruiting human resources for the advanced IT field.

Ministry of Internal Affairs and Communications (MIC);

Ministry of Education, Culture, Sports, Science and Technology (MEXT); and

Ministry of Economy, Trade and Industry (METI):

Develop IT-aided educational and learning environment at universities and Specialized Training Colleges. Advance practical education offered through industry-school collaboration. Study measures to enhance collaboration between higher education and companies (reflecting companies' evaluation techniques and career path models to college curricula, and reflecting college records on companies' personnel evaluations and career path models).

Ministry of Internal Affairs and Communications (MIC):

Promotes utilization and spreading of practical materials for development of advanced ICT human resources.

Ministry of Education, Culture, Sports, Science and Technology (MEXT):

Develops curricula for digital content production and programming and the like aimed at the elementary and middle school levels pupils.

Develops human resources in the finance, management, medicine, and many

other fields at university, armed with knowledge and techniques in IT. Promotes reorganization into information-related departments.

Ministry of Economy, Trade and Industry (METI):

Develops curricula for digital content production and programming and the like aimed at the elementary and middle school pupils.

Advances establishment and deployment of human resources development, personnel evaluation technique, and career path models at companies.

Mid-term Schedule (2012–2013)

○ All-Ministry collaborative development and recruitment of human resources and such others for the advanced IT fields shall be furthered along the foregoing roadmap.

Ministry of Internal Affairs and Communications (MIC);

Ministry of Education, Culture, Sports, Science and Technology (MEXT); and

Ministry of Economy, Trade and Industry (METI):

Develop IT-aided educational and learning environment at universities and Specialized Training Colleges. Advance practical education offered through industry-school collaboration. Study measures to enhance collaboration between higher education and companies (reflecting companies' evaluation techniques and career path models to college curricula, and reflecting college records on companies' personnel evaluations and career path models). (Continued from previous years).

Ministry of Internal Affairs and Communications (MIC):

Promotes utilization and spreading of practical materials for development of advanced ICT human resources. (Continued from previous years).

Ministry of Education, Culture, Sports, Science and Technology (MEXT):

- Implements courses in digital content production and programming and the like aimed at the elementary and middle school levels pupils.

- Develops human resources in the finance, management, medicine, and many other fields at university, armed with knowledge and techniques in IT. Promotes reorganization into information-related courses (continued from previous years).

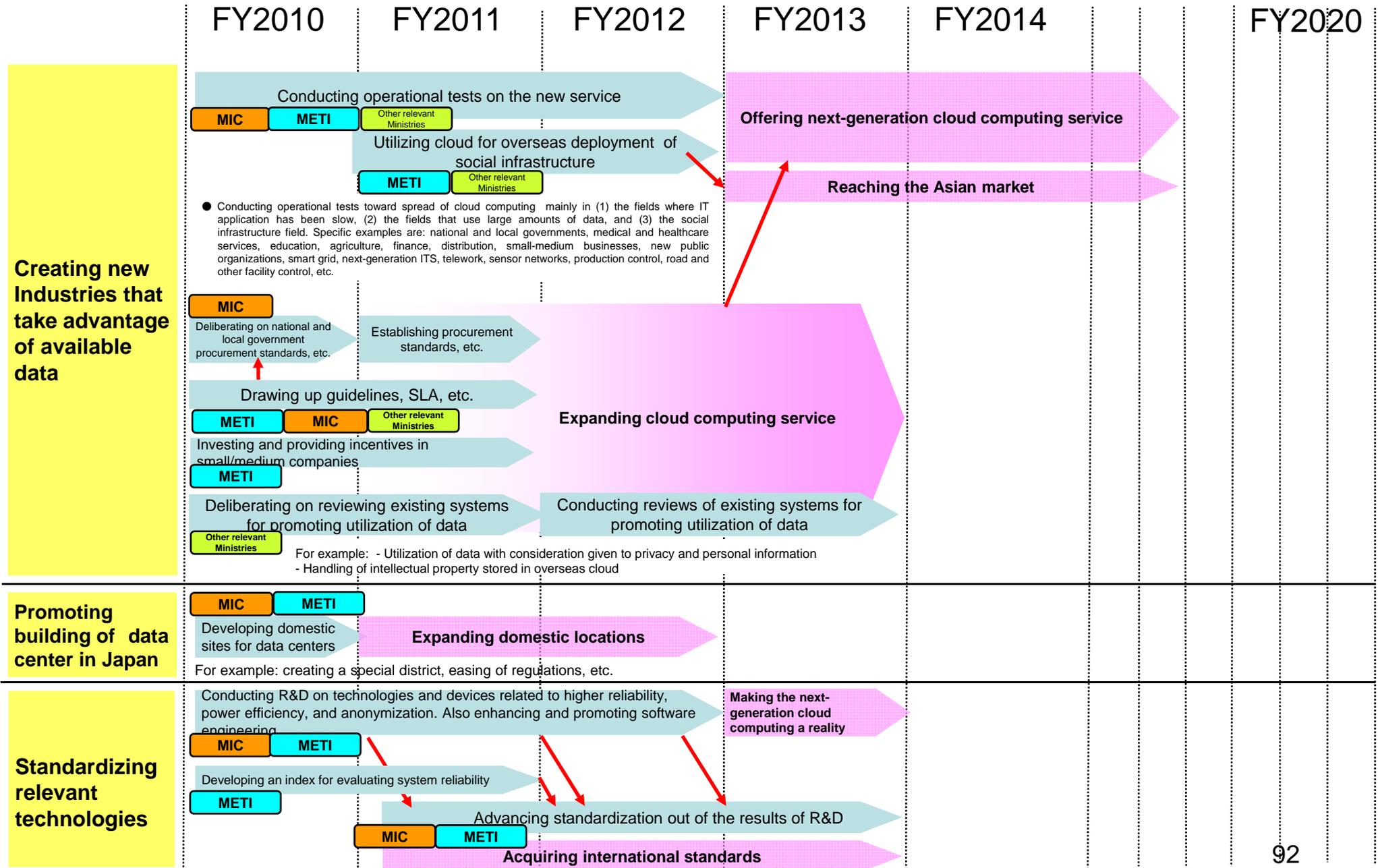
Ministry of Economy, Trade and Industry (METI):

- Implements courses in digital content production and programming for the

elementary and middle school pupils.

- Advances establishment and deployment of human resources development, personnel evaluation technique, and career path models at companies (Continued from previous years).

Roadmap for Securing Competitiveness of Cloud Computing Service



3. (4)

Securing Competitiveness of Cloud Computing Service

Short-term Schedule (2010–2011)

- Appropriate environment shall be developed for furthering the expansion of cloud computing service and building of data centers in Japan.

Ministry of Internal Affairs and Communications (MIC):

Conducts (collaborating with METI and other relevant Ministries) operational tests for the new service. Establishes cloud procurement standards for the national and local governments to apply in the process of utilizing cloud computing service. Develops (collaborating with METI and other relevant Ministries) guidelines, SLA, and the like for attaining safe environment to use without concern, and defining the parties' responsibilities and the quality. Develops (collaborating with METI) appropriate environment, e.g., creation of a special district and easing of regulations, to further the building of a data center in Japan. Advances (collaborating with METI) development of technologies (e.g., network-related technologies) and standardization for bringing next-generation cloud computing to a reality.

Ministry of Economy, Trade and Industry (METI):

Conducts operational tests on the new service (in collaboration with MIC and other relevant Ministries). Furthers (collaborating with relevant Ministries) utilization of cloud computing in deploying overseas social infrastructure, such as in a global consortium. Develops (collaborating with MIC and other relevant Ministries) guidelines, SLA, and the like for attaining safe environment to use without concern, and defining the parties' responsibilities and the quality. Prepares such systems as investment and incentives for medium/small companies for expanding cloud computing service to them. Develops (collaborating with MIC) appropriate environment, e.g., creation of a special district and easing of regulations, to advance building of a data center in Japan.

Advances (collaborating with MIC) development of technologies (e.g., data center-related technologies) and standardization for bringing next-generation cloud computing to a reality. Develops (collaborating with MIC) a system reliability evaluation index.

Other relevant Ministries:

Deliberate on reviewing existing systems for promoting utilization of data.

Mid-term Schedule (2012–2013)

○ Activities leading to successful offering of next-generation cloud computing service and acquiring the Asian market, such as operational tests, overseas expansion, preparation of promotional systems, and standardization, shall be conducted.

Ministry of Internal Affairs and Communications (MIC):

Conducts operational tests on the new service (continued from previous years).

Advances technological development and standardization (also continued).

Ministry of Economy, Trade and Industry (METI):

Conducts operational tests on the new service (continued from previous years).

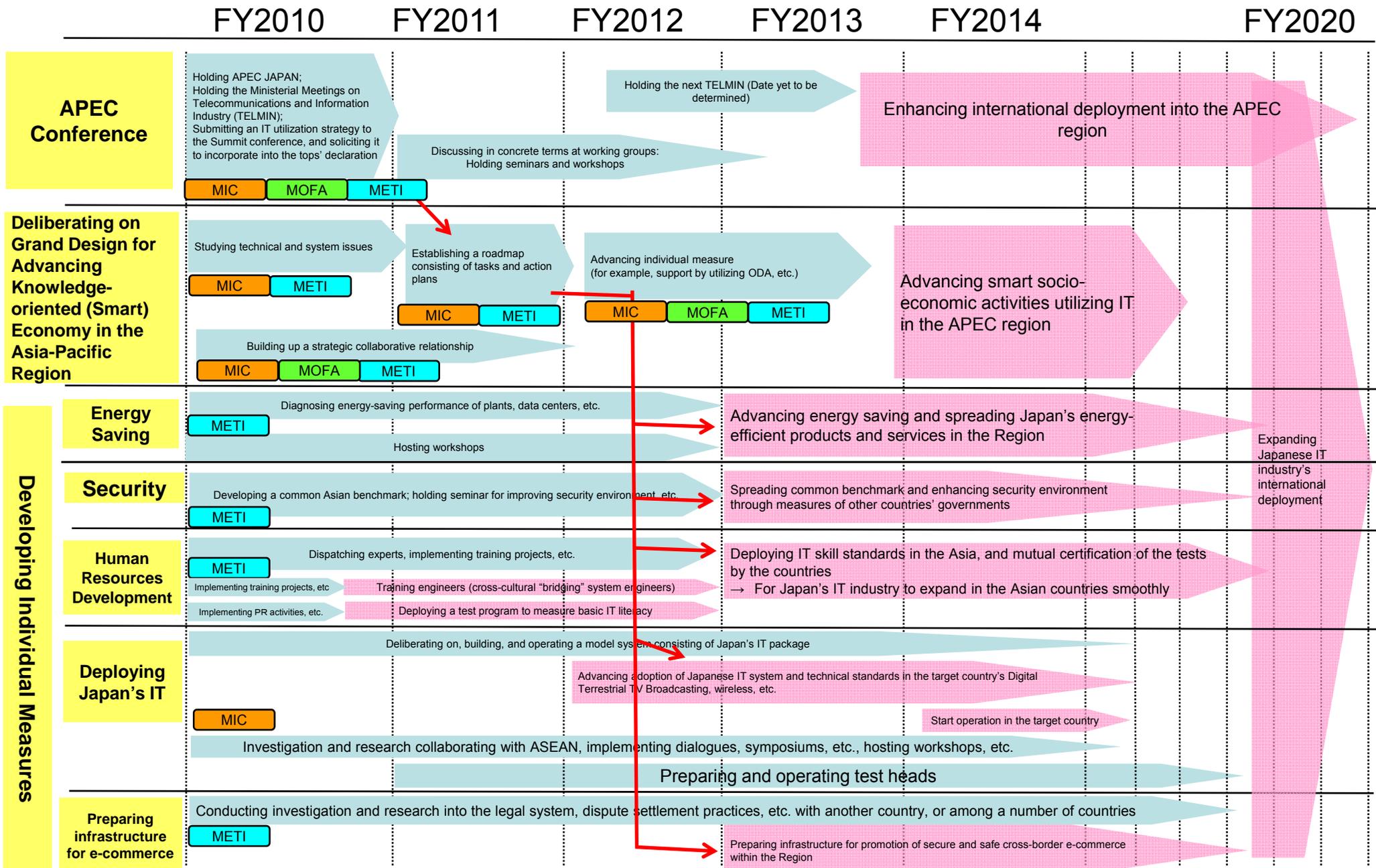
Further utilization of cloud computing in deploying overseas social infrastructure, such as in a global consortium (continued from previous years).

Advances technological development and standardization (also continued).

Other relevant Ministries:

Review systems in order to promote utilization of data.

Roadmap for Undertaking in the Asia-Pacific Region



3. (5) i)

Undertaking in the Asia-Pacific Region

Short-term Schedule (2010–2011)

A roadmap shall be established for transforming the Asia-Pacific Region into a knowledge-oriented (smart) economy while leading Japan to achieve growth. A proposal to advance an IT utilization strategy shall be submitted to the 2010 APEC Summit conference.

Ministry of Foreign Affairs (MOFA):

Collaborating with MIC and METI, undertakes promotion of the strategy to APEC conference, submitting it to the Summit conference, and soliciting incorporation of the strategy into the tops' declaration.

Ministry of Internal Affairs and Communications (MIC):

Deliberates on, builds up and start operating a model system consisting of an IT package. Concurrently, starts building strategic collaborative relationship with other countries. In collaboration with METI, studies technical and system issues involved in turning the Asia-Pacific Region smart. Materializes work at the 2010 APEC: Ministerial Meetings on Telecommunications and Information Industry (TELMIN) based on a ministerial declaration.

Ministry of Economy, Trade and Industry (METI):

Collaborating with MIC, studies technical and system issues involved in turning the Region smart; and proposes agenda for the 2010 APEC Summit conference. Establishes a roadmap for tasks, action plans, and others.

Mid-term Schedule (2012–2013)

Advances turning the Region smart in accordance with the roadmap; and promotes bringing IT into the country as proposed by Japan.

Ministry of Foreign Affairs (MOFA):

Actively takes advantage of ODA and others in the strategic IT fields in

collaboration with MIC and METI.

Ministry of Internal Affairs and Communications (MIC):

Advances the Region to adopt Japanese IT systems and technical standards in Digital Terrestrial TV Broadcasting, wireless and others.

Ministry of Economy, Trade and Industry (METI):

By FY 2012 advances turning the Region smart through energy saving, security, human resources development and such other individual measures. Supports turning the countries smart through utilization of ODA and others.

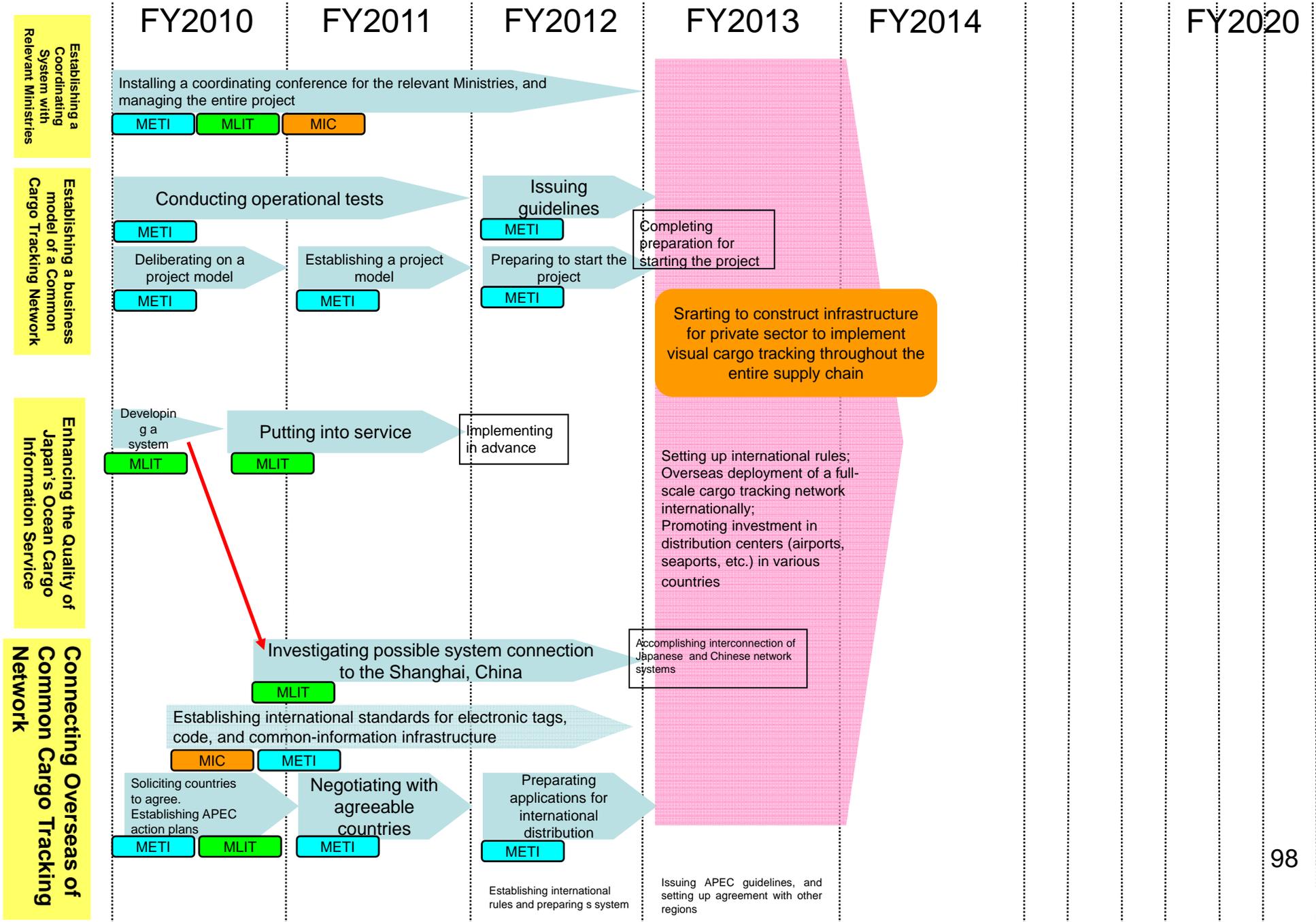
Long-term Schedule (2014–2020)

An infrastructure and the like shall be developed for advancing electronic commerce in the Region.

Ministry of Economy, Trade and Industry (METI):

Promotes development of an infrastructure for advancement of intra-regional electronic commerce through investigation and research into the legal system, dispute settlement practices, and other issues with another country, or among a number of countries.

Roadmap for Constructing a Common Cargo Tracking Network for International Distribution System



3. (5) ii)

Constructing a Common Cargo Tracking Network for International
Distribution System

Short-term Schedule (2010–2011)

Construction and oversea deployment of a common cargo tracking network shall be advanced. To that end, a business model of the network shall be established; operational tests, conducted; and international rules, set up. Concurrently, an ocean cargo information service shall be developed and placed in service.

Ministry of Economy, Trade and Industry (METI);

Ministry of Land, Infrastructure, Transport and Tourism (MLIT); and

Ministry of Economy, Trade and Industry (METI):

Install coordinating conference for the relevant Ministries; share information, make adjustments, and manage the entire project.

Ministry of Economy, Trade and Industry (METI):

Establishes a business model of a common cargo tracking network operation.

Ministry of Land, Infrastructure, Transport and Tourism (MLIT):

Offers a ocean cargo information service.

Ministry of Internal Affairs and Communications (MIC); and

Ministry of Economy, Trade and Industry (METI):

Negotiates with agreeable countries and international standardization organizations toward international standardization of electronic tags, code, and the like in connection with the proposed common cargo tracking network.

Mid-term Schedule (2012–2013)

An actual common cargo tracking network shall be implemented.

Ministry of Economy, Trade and Industry (METI):

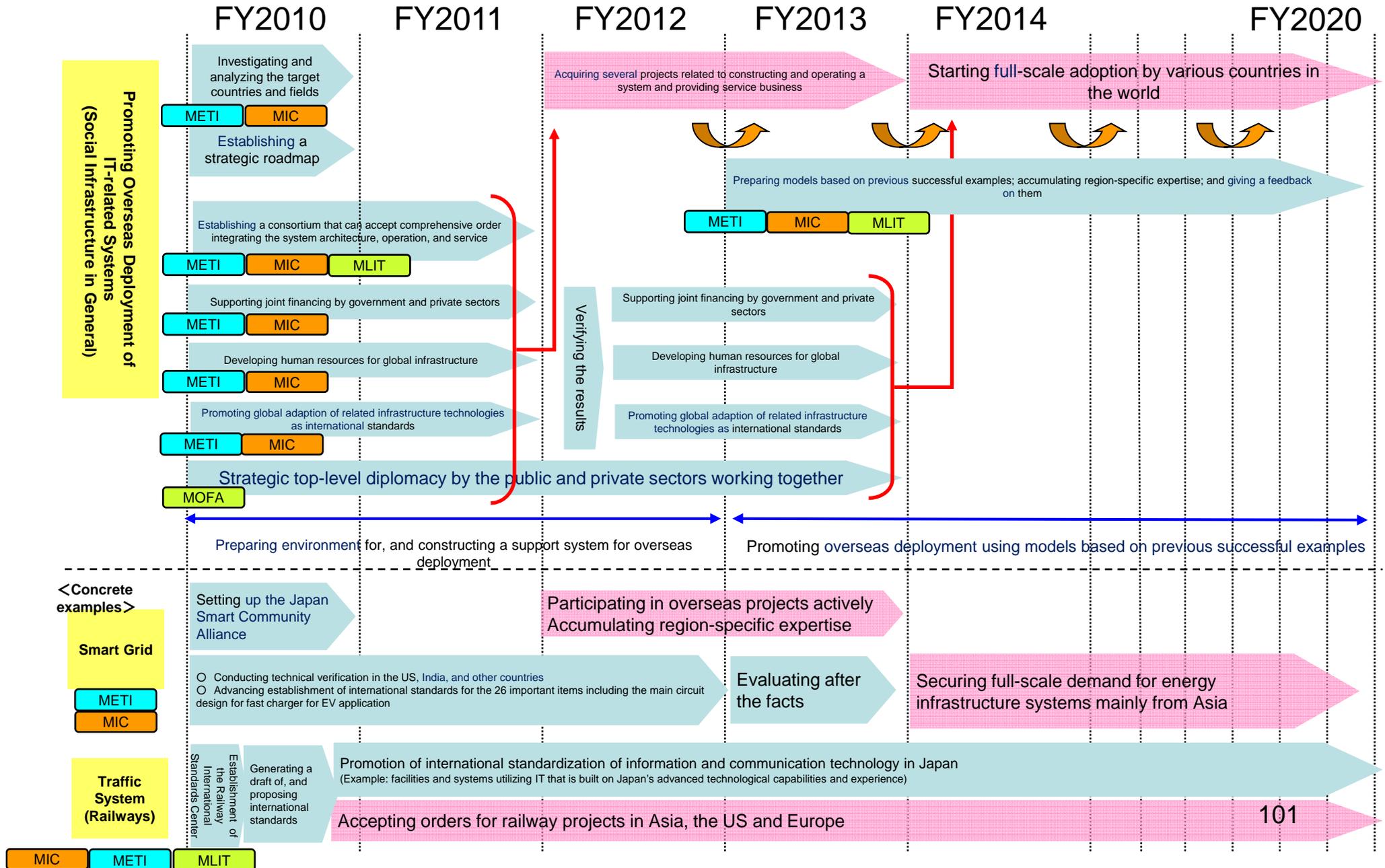
By FY2012 issues guidelines for a common cargo tracking network operation.

Ministry of Internal Affairs and Communications (MIC); and

Ministry of Economy, Trade and Industry (METI):

By FY2012 establish international standards for electronic tags, code, and others as required for a common cargo tracking network operation.

Roadmap for Supporting the Establishment of a Global IT Consortium



3. (5) iii)

Supporting the Establishment of a Global IT Consortium

Short-term Schedule (2010–2011)

- A plan for furtherance of global IT consortium shall be generated.

Ministry of Economy, Trade and Industry (METI); and

Ministry of Internal Affairs and Communications (MIC):

Within FY2010 investigate and analyze the candidate countries and fields, and establish a strategic roadmap in collaboration with relevant Ministries after generating systems for investigating and furthering .

- Establishment of a consortium shall be supported.

Ministry of Economy, Trade and Industry (METI):

Within FY2011 supports, in collaboration with relevant Ministries, building a consortium that is capable of accepting a comprehensive order integrating system architecture, operation and service based on the strategic roadmap. Also brings Japan's IT-related system technologies international standards; and advances support of joint government-private sector financing and development of human resources for global infrastructure.

Ministry of Internal Affairs and Communications (MIC):

Collaborating with METI, supports building a consortium. Also brings Japan's IT-related system technologies into international standards; and supports financial aspects of overseas deployment. Furthers development of human resources in advanced IT fields.

Ministry of Foreign Affairs (MOFA):

Collaborating with METI and MIC, supports strategic top-level diplomacy by the public and private sectors working together. Concurrently, actively seek to take advantage of cooperative opportunities through international organizations, bilateral economic collaboration with another country, ODA and others.

Ministry of Land, Infrastructure Transport, and Tourism (MLIT):

Supports establishment of a consortium in collaboration with METI and MIC.

Mid-term Schedule (2012–2013)

- Overseas deployment of IT-related systems shall be promoted.

Ministry of Economy, Trade and Industry (METI):

Collaborating with relevant Ministries, prepares models based on previous successful examples; accumulates region-specific expertise; and gives a feedback on them. Verifies short-term accomplishments, amends the strategies in international standardization, financial supports, and human resources development; and re-implement them.

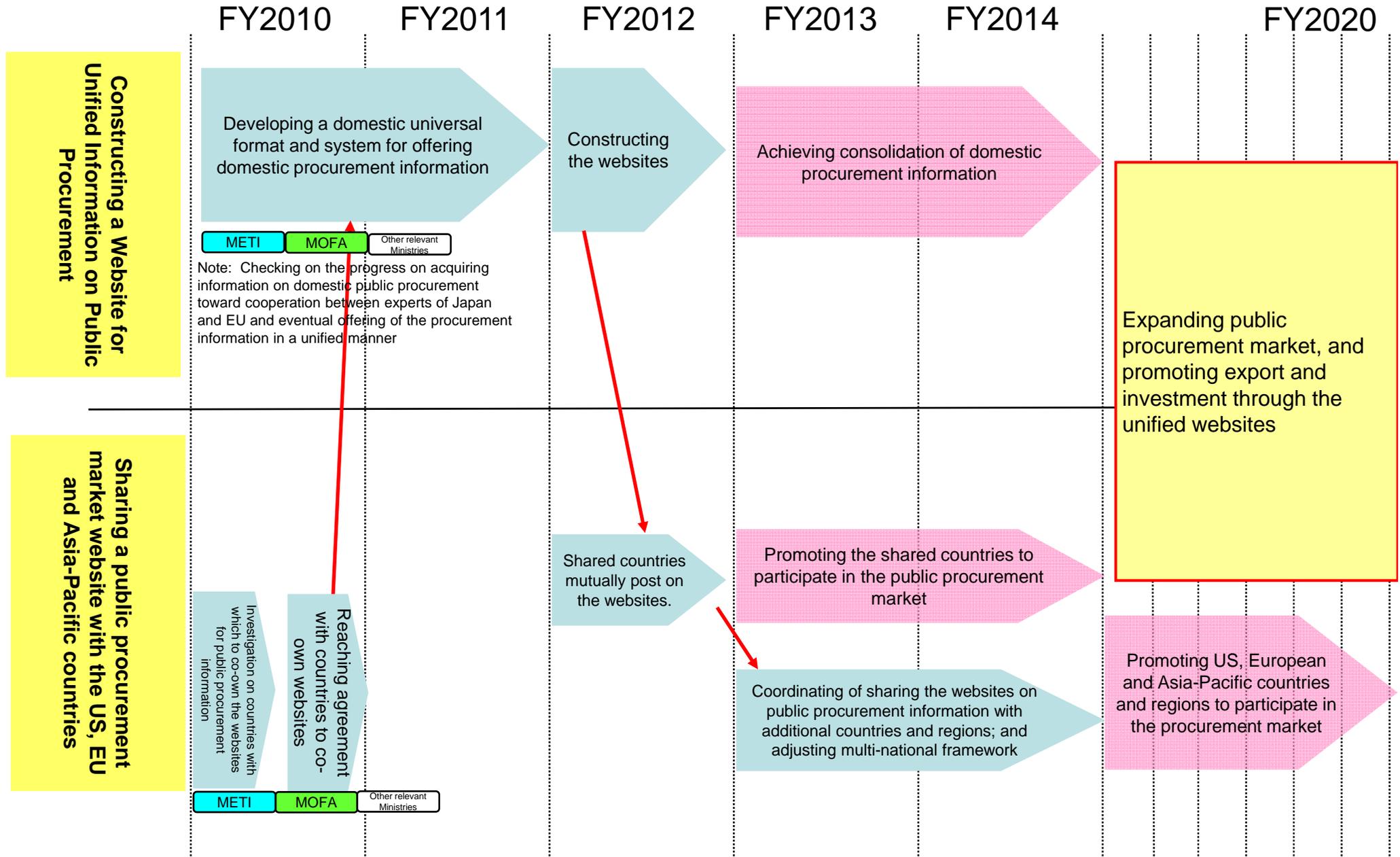
Ministry of Internal Affairs and Communications (MIC):

Collaborating with METI, reduces previous successful examples into models; accumulates any region-specific expertise; and gives a feedback. Verifies short-term accomplishments as reflected in the feedback, amends the strategies in international standardization and re-implements them.

Ministry of Land, Infrastructure, Transport and Tourism (MLIT):

Collaborating with METI and MIC, prepares models based on previous successful examples; accumulates any region-specific expertise; and gives a feedback.

Roadmap for Expanding Public Procurement Market through IT



3. (5) iv)

Expanding Public Procurement Market through IT

Short-term Schedule (2010–2011)

A format and system for unified offering information on domestic public procurement shall be developed. The objectives are to ensure the transparency of, and to promote mutual participation into, other countries' public procurement market. An agreement between Japan and EU for mutual cooperation shall be reached.

Ministry of Foreign Affairs (MOFA); and

Ministry of Economy, Trade and Industry (METI):

Arrange an agreement between EU and Japan on mutual cooperation. Develop a domestic universal format and system for offering information on domestic procurement. Check on the progress on acquiring information on domestic public procurement such that the information may be eventually offered in a unified manner.

Mid-term Schedule (2012–2013)

Consolidation of information on domestic public procurement shall be achieved. Mutual sharing of information public procurement with EU and other countries shall be made a reality.

Ministry of Foreign Affairs (MOFA); and

Ministry of Economy, Trade and Industry (METI):

Construct and start operating a domestic procurement information website.
Bring mutual posting on websites between Japan and EU to a reality.

Long-term Schedule (2014–2020)

Public procurement market websites shall be launched and shared with the US, EU and Asia-Pacific countries.

Ministry of Foreign Affairs (MOFA); and

Ministry of Economy, Trade and Industry (METI):

Coordinate with US, European and the Asia-Pacific countries and regions for Japan's co-ownership in websites on public procurement information.