Chapter 1
Basic principles for global expansion
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1. The switch to ICT industries to capture global market growth

- The declining birth rate and aging population is advancing at an unprecedented speed in Japan. And contraction of the domestic market continues.
- The shift of production bases overseas in the wake of the March 11th Tohoku Earthquake and the entry of foreign competitors are prompting fears of a hollowing-out of industry.
- Thus, global expansion is needed that captures the growth potential of Asian and other emerging nations. It is critical for us to bolster the international competitiveness of our ICT industries, which are strategic since they support about a third of Japan’s economic growth.

2. Japan’s international contributions as an advanced “issue-solving” nation

- Japan is an advanced “issue-solving” nation in terms of many social issues such as a declining birth rate and an aging population. Our store of knowledge and experience represents beneficial solutions to countries about to face similar issues.
- We must realize “open innovation” that crosses traditional corporate and industry divisions and we need, among other things, the formation of solution-based projects through links between corporations in the same industries and in different industries, the establishment of global expansion assistance frameworks, and a shared international strategy vision.
- The government must actively support the construction of “problem-solving” models and global expansion through "open innovation" in the private sector and these must be promoted jointly by government and industry.

3. The construction of global cooperative relationships

- It is necessary to aim to form solutions based on global cooperative relationships.
- Because standardization is an effective means of global expansion, coordinated links with standardization activities are needed.
- It is necessary to continue building cooperative relationships by promoting the creation of global partners beginning in the standardization stage.
Incorporate ICT into public utility and infrastructure fields such as transport, power, ecology, disaster-response, logistics, and education.

Cooperate with a wide range of stakeholders, from infrastructure operators to solution providers.

Contributions are critical from the upper processes in the project lifecycle ("initial motion" is a key point). It is important to collect and analyze data on the partner country’s national land plans and development trends, as is the construction of a framework stakeholders can share and take in.

Japan selects proposals that should have priority based on information about the partner country.

Work in harmony with the partner country’s social, economic, and institutional circumstances.

Needs-driven project formation and expansion that gives due regard to price competitiveness and not just technology alone.

Shift from R&D-based system topologies to implementation and application-based system topologies.

Form projects by means of the Japan Initiative with the participation of foreign corporations, etc.

Implement promotions firmly based on the partner country’s needs.

Present specific benefits for the partner country such as job creation.

Contributions from upper processes

Needs-driven system construction

Sharing value with partner countries

Project formation through the Japan Initiative

Specific policies to realize project formation through the Japan Initiative

Generating problem-solving solutions

Form proposals that include operations and management.

Provide solutions that address the move from goods to services by combining digital devices (systems) and services.

Make systems based on consumer and user perspectives and on partner country circumstances.

Make use of Japan’s excellent user interfaces.

Decide on specifications and modularize products in view of overseas expansion from the development stage onward.

Broaden expansion to adjacent nations using the partner country as an axis.

Forming projects embedded in public infrastructure

Incorporate ICT into public utility and infrastructure fields such as transport, power, ecology, disaster-response, logistics, and education.

Cooperate with a wide range of stakeholders, from infrastructure operators to solution providers.
Project Formation Through the Japan Initiative (Specific projects)

ASEAN Smart Network (tentative name)

Concept
- Join people and goods using high-speed multi-purpose ICT infrastructure
- Introduce Japan’s problem-solving ICT application models
- Contribute to ASEAN planning (connectivity master plan, ICT master plan, etc.)

→ Result in economic stimulation, resolution of social issues, contribute to greater connectivity as well as help the spread of Japan ICT

Sensor networks
- **A key elemental ICT model** in the promotion of global expansion of problem-solving public infrastructure
- **Expansion policies**
  - Propose models that incorporate sensor networks into public infrastructure that have a high priority for the partner country
  - Propose application models with a view to fields with high social needs in the partner country
- **Key matters**
  - Standardization activities in various fields
  - Exploit the superiority of Japan’s operations, including knowledge sharing from the Tohoku Earthquake
- **Priority countries** Indonesia, Thailand, Vietnam, etc.

Disaster response
- **ICT use in the ASEAN region**, which is prone to frequent natural disasters, **is expected to play a great role in effective disaster responses**
- **Expansion policies**
  - Propose models for specific countries and for the entire ASEAN region
  - Build and deploy package-type systems based on system characteristics and highlighted function groupings
- **Key matters**
  - Actively present knowledge from the Tohoku Earthquake in tandem with Japanese proposed systems
  - Application of multifaceted systems for normal times and emergencies
- **Priority countries** All of ASEAN (common platform), plus Indonesia, Myanmar, the Philippines, Vietnam, etc.

eGovernment
- **eGovernments are expected to grow rapidly in the next few years, and massive demand is expected**
- **Expansion policies**
  - Proposals focused on target fields
  - Proposals tied to platform layers and infrastructure layers apart from individual applications or services
- **Key matters**
  - Pitches to partner governments from the initial stage
  - Careful study of each country’s current circumstances
- **Priority countries** Indonesia, Philippines, Thailand, Vietnam, etc.

Three Priority Fields

Common Expansion Scenarios
- **Short-term support** (one to two years)
  - **Build domestic cooperative frameworks** for related corporations in each field to work together, whose activities are supported as needed by MIC or other related ministries
  - **Select priority countries** and **quickly embark on advance initiatives** (feasibility studies, small pilot projects, etc.) while closely scrutinizing the country’s needs
  - **Promote benefits to third-party countries** at international forums, etc. and incorporate benefits as appropriate in ASEAN-wide planning
- **Long-term support** (three to five years)
  - Aim to implement actual systems in the partner country as quickly as possible and **ramp up specific proposals to ASEAN as a whole**
Chapter 2  Project Formation — Common Expansion Scenarios for the Three Priority Fields

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### 2011–2012 (short-term support)

1. **Build domestic cooperative frameworks for each field**
   - Feedback, information sharing

2. **Detailed study and research of each field (identify issues, etc.)**

3. **Consult with partner country**
   - Seminars and invitations

4. **Conduct feasibility studies (with small pilot projects)**

5. **Promote benefits**
   - ASEAN ICT Ministers Meeting
   - Other international forums and meetings

6. **Incorporate benefits**
   - Initiatives toward building a common ASEAN platform (disaster response field)
   - Combine benefits

### 2013–2015 (long-term support)

7. **Study full-scale system implementation**
   - Examine expansion into priority fields
   - Expand package-type system models

8. **Create scenarios and promote adoption for ASEAN-wide expansion and expansion into other countries**

- **Implement Smart Network (target year)**

**Smart network strategy for ASEAN**
- Coordinate with other ASEAN plans (connectivity master plan, ICT master plan, etc.)
Standardization Strategies

- Weighed standardization areas using the criteria of “does a prominent global market exist?” “do Japanese corporations have a strong presence?” and “can the Tohoku Earthquake experience be applied?”
- Selected optical access systems, digital signage, and smart grids as the priority fields

**Optical access systems**

- A prominent global market exists for optical access services, as subscribers worldwide continue to increase rapidly.
- Despite the recent rise of Chinese corporations, Japanese corporations still have a relatively strong presence in this field and have an edge in foreign markets.
- Deliberations on the IEEE 10GE-PON\(^1\) standard, the optical access network methodology used in Japan, began in February 2011 at the ITU-T SG 15 and discussions are continuing with the aim of concluding an official ITU recommendation by the end of 2012.

**Digital signage**

- Reasonably large market growth is expected, as digital signage using small networked displays are spreading to small retail outlets and offices.
- The effectiveness of digital signage as a media that disseminates a wide range of information was seen in the March 11\(^{th}\) Tohoku Earthquake. By conveying to the world Japan’s experience in this area, digital signage systems and products are expected to expand to overseas markets.
- In March of this year, the ITU-T SG 16, which handles multimedia, set digital signage as a new examination topic to promote work on creating a digital signage recommendation, and work began on writing a draft recommendation. DPAA\(^2\) and other forums are also examining digital signage standardization.

**Smart grids**

- In the midst of the tight power supply situation in Japan after the Tohoku Earthquake, the question is “how will Japan cope?” Expectations are rising for smart grid systems, which offer these functions, and their supporting communication technologies as one answer to this problem.
- At the ITU, the ITU-T FG Smart was set up in May 2010, and venues for smart grid discussions are being prepared at the IEC and other organizations. And the IEEE and other organizations are already working on standards for efficient wireless communications for smart meters.

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*1. 10 Gigabit Ethernet-Passive Optical Network  *2. Digital Place-based Advertising Association*
Assertive Use of Financing

Financial assistance is a key factor for global expansion of project proposals

Points on the use of financing schemes

- Use of long-term financing schemes is effective for improving power, rail, and water infrastructure and for incorporating ICT into operation and management functions.
- Use of project financing that relies mainly on private sector financing and formation of public-private partnerships (PPPs) should be promoted when forming package-type infrastructure proposals.

JICA

- Use ODA in the ICT field
- Effective use of international yen loan schemes dependent on global expansion of next-generation public infrastructure systems
- Use aid schemes for preliminary cooperative examinations related to PPP infrastructure projects and BOP business-related promotion

JBIC/NEXI

- Check that the necessary support measures are currently in place
- Make active use of financing guarantee systems offered by JBIC and trade insurance offered by NEXI
- Anticipate continued efforts to make financing conditions more flexible and expand risk-taking and the holding of seminars, etc., to share knowledge and expertise

Industry reform mechanisms

- Make use of investment schemes for projects that endeavor to commercialize leading technology through public-private-academic partnerships and to drive overseas expansion through collaborations of regional venture businesses and large corporations
- Cooperation from the initial project formation stages is anticipated to generate useful advice on profitability and forming corporate alliances

International organizations

- Make use of assistance related to feasibility studies, joint research, and pilot projects by the ITU, APT, and other international organizations

Private sector financing

- Use participation loan schemes with JBIC
- Use project financing
While forming pilot projects for sensor networks, disaster-response ICT systems, and eGovernment, it is appropriate to advance the formation of the framework along the two axes of enhancing the project-matching function and financing coordination and, later, aim to expand functions sequentially.

Formation of the framework should be led by the private sector, but it is important to build a framework in which public and private interests cooperate, such as having the government participate as an observer.

It is necessary to package Japan’s ICT and actively promote the Japan brand at conventions, symposiums, and other venues in various countries.

It is necessary to arrange the platforms for conveying information about state of the country as its tackles earthquake reconstruction and the reconstruction process.
Chapter 3

The Role of Government

- Constructing information exchange and collaboration platforms between governments is effective in developing infrastructure in countries because the development of infrastructure is closely related to decisions by governments on national/local development plans and urban development plans, and joint public-private initiatives are necessary for Japanese corporations to actively expand overseas.

Pitch projects through intergovernmental dialogue

- Actively encourage projects at the government level (high-level sales) and set out a joint public-private mission
- Early information gathering through intergovernmental dialogue
- Sign memorandums of understanding with partner country governments

Assist pilot projects in partner countries

- Support preliminary studies and pilot projects
- When conducting pilot projects, it is necessary to convert them into implementation/application projects that result in actual expansion
- Construct flexible assistance schemes so that assistance is available even for projects that assume expansion several years in the future

Communicate the Japan brand and the state of reconstruction efforts

- Arrange platforms for conveying information about the state of the nation as it tackles earthquake reconstruction and the reconstruction process
- Actively convey information and offer assistance at conventions, symposiums, and other events

Strengthen ties within government

- Strengthen intragovernmental liaison meetings and ties between related ministries