Smart Cities
Pilot Stage to Real Business

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Urbanization rate by region
地域別の都市化比率

The 2007 Revision Population Database
Projects Launched Around the World

世界でプロジェクトが動いている

Smart City Market Size: ¥4Quadrillion
スマートシティ市場は4000兆円
Challenge: “Quickly Expanding Frontline”
課題は「戦線急拡大」

- “Quickly expanding frontline” ⇒ Difficult to construct bottom-up strategies
  - Time degradation: result of the next decade will decide the next century, competition for the next 1 year seat
  - World level competition: developed countries, BRICs, Africa, Middle East
  - Massive parties involved: wide variety of industries, Who is the Buyer? Seller? What makes the difference?
  - Countries’ large impact: “B to C”+“B to B”+“B to G”+“G to G”
- Lack of resources
  - Global human resources
  - Lack of cross-boundary human resources
  - Lack of foreign information (shale gas and photovoltaic cell)
- “Scaling up”
  - Complexity, system assurance etc.
  - Standardization, indexing

Fundamental Issues toward Business
事業化に向けた本質的な問題

- Smart city business - Who is the key actor? Whose business?
- How can business operate if the governments calls off subsidies for these business?
  ⇒ Who should provide the fund, instead of the governments?
- Various energy issues are emerging...
  ⇒ How population issues and aging of society issues are corresponded?
  ⇒ Where does “mobility” fit in?
- How private companies actively go into this business?
  ⇒ What is the plan for “Business Model”?
  ⇒ How much time do companies consume for collecting their funds?

What is “Smart City”?
For what purpose smart city has to be promoted?
# New Smart City Declaration

1. **Citizens and enterprises**
The key players in Smart Cities are their citizens and the enterprises engaged in industrial activities there. Together they will realize an optimum society for citizens.

2. **Quality of life of citizens**
The objective of Smart Cities is to further enhance the quality of life (QOL) of their citizens.

3. **Clear vision**
It is essential for Smart Cities to have a clear vision and to be promoted in accordance with that vision.

4. **Always evolving**
Smart Cities will continue to evolve ahead of the needs of citizens and changes in the local communities.

5. **Japan’s contribution to the world**
Japan will transmit to the world its experience in building better societies through overcoming natural disasters and the demographic issues of a low birth rate and aging population.

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### From Pilot Stage to Real Business

- “Government”, “Government offices”
  ⇒ “Citizens”, “Residents”, “Local authority”

- “Goods”, “Hardware”, “Technology”
  ⇒ “Service”, “Software”, “Lifestyle”

- “Electrical industry”, “Automobile industry”
  ⇒ “Cross-boundary”, “Trans-industrial collaboration”
From Pilot Stage to Real Business

<table>
<thead>
<tr>
<th>8 Categories</th>
<th>3 Directions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Administrative Service</td>
<td>(1) Improving efficiency by contracting-out and upgrading administrative service</td>
</tr>
<tr>
<td>Home Network</td>
<td>(2) Services that increases QOL such as medical/health care and security/safety etc.</td>
</tr>
<tr>
<td>Medical/Health care</td>
<td>(3) Changing from personal services to community level services</td>
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<td>Ecological Service</td>
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<tr>
<td>Smart Village</td>
<td></td>
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<tr>
<td>Marketing</td>
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<td>Mobility</td>
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<td>Energy</td>
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Japans’ Position within the World

- Presence in the world
  - “Smart City Expo World Congress 2011”
    - Japan’s presence is small
  - South Korea’s presence is large in Asia
    - Asia’s No.1 smart grid = Jeju Island project
    - World’s No.1 smart mobility = Seoul
    - Smart city neighboring Incheon Airport is amazing
- Japan’s projects
  - 180 projects are run individually
  - Co-operation and information sharing is difficult
Challenges for Japan (1)
Losing the “Information Battle”
日本の課題①
情報戦で負けている

Japan is unlisted in the top 10 cleantech countries

1 Denmark
2 Germany
3 Sweden
4 United Kingdom
5 Israel
6 Switzerland
7 United States of America
8 United Arab Emirates
9 China
10 Canada

Tackling the Information Battle
情報戦に挑む

• “People”, “Goods”, “Money” and “Information”!
  • Japanese firms do not have…
    – Ranking of the number of alternative energy patents and CT ranking
    – Firm’s website in Chinese, Top page exists but no white paper
    – The stance “good products will sell” is unfriendly.
    – US firms used the media to gain ground in Japan
    – Social infrastructure projects are “war without weapons.” How can firms gain superiority.
  • The government does not have…
    – No search results for the words like “E-Japan” and “u-Japan”
    – Found on government affiliated organization’s website top-page, but…
  • Advancing to overseas market with the media
Challenges for Japan (2)
Unclear position
ポジションが不明確

End-consumer/End-user

Mass merchandise markets,
Bulk buyers
i.e. Commercial facilities, Big companies...

Electronic Equipment Makers
i.e. SONY, PANASONIC, IBM...

SC and Electronic component Suppliers
i.e. Intel, Toshiba, TDK...

Equipment and Material Suppliers
i.e. AMAT, ULVAC, SUMCO...

Constructions, General Constructions,
Offices
i.e. Sekisui House, Daiwa, Commercial facilities,
Big companies, Civil services,
Transport facilities, Taisei Co., Shimizu Co., Kokuyo...

Solution Vendors
i.e. Panasonic, SHARP, Philips...

Module Makers
i.e. SHARP, Kyocera, Mitsubishi Electric...

Equipment and Material Suppliers
i.e. AMAT/TEL/3M...

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Challenges for Japan (3)
Lack of Cross-boundary Human Resources
クロスボーダー人材の不足

Automobile Industry
Electronics Industry
Construction Industry
Computer Industry
Energy Industry
Others

Cross-boundary professionals (human resources)
Trans-industrial IT professionals
City managers who understand/know everything
Consulting firms
Mega business companies

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### Challenges for Japan (4)
Lack of Support Framework for Expanding Businesses Internationally

日本の課題④
海外進出支援の枠組み欠如

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<th>Needs Segment</th>
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<td>Target Technologies, products</td>
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### Expectations and Proposals for Real Business
事業化に向けた期待と提言

- **Changing from “selling goods” to “service providing”**
  - Create a framework to generate new money flow
- **Information battle, “visualizing” Japan**
  - Constantly transmitting advanced information to the world
  - Positioning international conferences as a part of the national strategy
- **Clarifying the position**
  - Strong will of the senior management, vision
  - Reforming the firm’s awareness
- **Nurturing cross-boundary general producers**
  - Nurturing cross-industrial personnel
  - Creating a trans-industrial network
Smart City Related Information
スマートシティ関連情報集

- 世界スマートシティ総覧
  - 世界400プロジェクト
  - 厳選172プロジェクト
  - 地域別動向
  - プロジェクト・マッピング
  - 市場規模

- 世界スマートハウス・ビル総覧
  - 世界121社の戦略分析
  - 産業別動向
  - 企業マッピング
  - 市場規模

- 世界スマートシティ総覧 [事業・サービス編]
  - 世界240プロジェクトから分析
  - 8分類36サービスを網羅
  - 20事例の詳細
  - 市場規模

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