Hitachi’s IP Strategy

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Intellectual Property Group,
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Focus of Corporate Strategy

Global

Fusion

Environment

Promoting IP Activity in line with Corporate Strategy
2 Promoting Globalization of IP Activity

- FY2012 Overseas Revenue Ratio: Stretch Target over 50%
- FY2012 Overseas Patent Application Ratio: Target 55%

<table>
<thead>
<tr>
<th>FY</th>
<th>2009</th>
<th>2010</th>
<th>2011 Target</th>
<th>2012 Target</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hitachi (Overseas Patent Appl. Ratio)</td>
<td>47%</td>
<td>51%</td>
<td>52%</td>
<td>55%</td>
</tr>
</tbody>
</table>

Increase the number of patent applications in China and PCT applications (For China and emerging countries)

*PCT (Patent Cooperation Treaty) Application: a single application for a patent which has legal effect in Treaty member countries.
## 2 Promoting Globalization of IP Activity

<table>
<thead>
<tr>
<th>Japan Patent Applications Published in 2010</th>
<th>US Patents Issued in 2010</th>
<th>China Patent Applications Published in 2010</th>
</tr>
</thead>
<tbody>
<tr>
<td>Corporate Group</td>
<td>Number of Applications</td>
<td>Corporate Group</td>
</tr>
<tr>
<td>1. Panasonic</td>
<td>14,780</td>
<td>1. IBM</td>
</tr>
<tr>
<td>5. Mitsubishi Electric</td>
<td>7,970</td>
<td><strong>5. Hitachi</strong></td>
</tr>
<tr>
<td>7. Seiko Epson</td>
<td>6,706</td>
<td>7. Toshiba</td>
</tr>
<tr>
<td>...</td>
<td>...</td>
<td>...</td>
</tr>
<tr>
<td>17. GE</td>
<td>1,136</td>
<td>11. Siemens</td>
</tr>
<tr>
<td>21. Siemens</td>
<td>361</td>
<td>15. GE</td>
</tr>
<tr>
<td>...</td>
<td>...</td>
<td>18. Toshiba</td>
</tr>
</tbody>
</table>

※Hitachi Survey based on Shareresearch, Patollis, IFIPAT/Questel-orbit, Pat-List/CN

➢Hitachi leads most of major competitors in the number of patents/patent applications in Japan, US and China.
2 Promoting Globalization of IP Activity

Comparison of PCT Published Applications (Recent 3 year total) with Major Competitors

(Number of Published Applications)

※ Number in brackets: Ranking

- Hitachi actively utilizes PCT applications to strengthen patent protection in emerging countries.

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2 Promoting Globalization of IP Activity

Comparison of US Issued Patents (Recent 3 year total) with Major Competitors

Global

(Number of Published Applications)

Hitachi Gr. (JP-based)

Co.A (JP-based)

Co.B (JP-based)

Co.C (JP-based)

Co.D (JP-based)

Co.A (Non-JP based)

Co.B (Non-JP based)

Co.C (Non-JP based)

Co.D (Non-JP based)

※Hitachi Survey based on IFIPAT/Questel-orbit

➢ Hitachi competes equally with most of major competitors in the number of issued patents.

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2 Promoting Globalization of IP Activity

Comparison of China Published Applications (5 year total) with Major Competitors

Comparison of Southeast Asia Published Applications (5 year total)* with Major Competitors

*total number in year 2005-2009 for Vietnam, Thailand, Indonesia, Singapore, and Philippines

※Hitachi Survey based in Sharereasearch, PATOLIS, IFIPAT/Questel-orbit, Pat-List/CN

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Goal of IP Globalization

Maintain strengthening overseas patent filing, adapting to each business market.
### Focused Technology Themes (Examples)

<table>
<thead>
<tr>
<th>Field</th>
<th>Theme</th>
</tr>
</thead>
<tbody>
<tr>
<td>Global</td>
<td>Storage Systems</td>
</tr>
<tr>
<td></td>
<td>Smart Grid</td>
</tr>
<tr>
<td>Fusion</td>
<td>Information Platform for Social Infrastructure</td>
</tr>
<tr>
<td>Environment</td>
<td>New Power Devices</td>
</tr>
<tr>
<td></td>
<td>Inverters</td>
</tr>
<tr>
<td></td>
<td>Li-Ion Batteries</td>
</tr>
<tr>
<td></td>
<td>Green Mobility</td>
</tr>
</tbody>
</table>
### 4 Environment-related Technology Patent Portfolio

#### Comparison of Patent Portfolio for Environment-related Technology with Major Competitors

**Number of Published Patents/Applications in Major Countries in 2010**

<table>
<thead>
<tr>
<th>Company</th>
<th>JP-based</th>
<th>Non-JP based</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hitachi Gr.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Co.A</td>
<td>3,000</td>
<td>1,000</td>
</tr>
<tr>
<td>Co.B</td>
<td>3,000</td>
<td>1,000</td>
</tr>
<tr>
<td>Co.C</td>
<td>3,000</td>
<td>1,000</td>
</tr>
<tr>
<td>Co.D</td>
<td>3,000</td>
<td>1,000</td>
</tr>
</tbody>
</table>

**Technology Categories**
- High Function Materials
- Social & Industrial Systems
- Power Systems
- Information & Telecommunication Systems

※Total number of Japan published applications, US issued patents, EP published applications and China published applications. Hitachi Survey based on Sharesearch, PATOLIS, IFIPAT/Questel-orbit, Pat-List/CN

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5 Strengthening International Standardization Activity

Aiming at standardization activity that facilitates expanding Hitachi’s strong business fields.

<table>
<thead>
<tr>
<th>Example</th>
<th>Environmentally Conscious Data Centers</th>
</tr>
</thead>
<tbody>
<tr>
<td>Activity</td>
<td>Expanding Hitachi’s strong business of IT/air-conditioner collaborative control, by means of standardization of interfaces between devices.</td>
</tr>
</tbody>
</table>

Providing key persons to international standardization organizations to promote Hitachi’s presence

IEC*1
Vice President
Hiromichi Fujisawa
Corporate Chief Scientist
R&D Group

IEC*1
TC*2111 Chair
Yoshiaki Ichikawa
Senior Chief Engineer
Environmental Strategy Office

- ITSCJ*3 SC27*4 Chair(Security): Kazuo Takaragi, Senior Chief Researcher, Yokohama Research Laboratory
- JEITA*5 Jisso Technology Standardization Committee Chair: Masahide Harada, Senior Project Manager, Yokohama Research Laboratory
- Ecma International TC38 Chair: Osamu Namikawa, Senior Engineer, Information & Telecommunication Systems Company

*1 IEC: International Electrotechnical Commission. One of the major international standards organizations.
*2 TC: Technical Committee, *3 ITSCJ: Information Technology Standards Commission of Japan
*4 SC: Sub Committee, *5 JEITA: Japan Electronics and Information Technology Industries Association

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Goal of IP Activity

- Differentiation, prevention, contribution to sales
- Secure Business Freedom
- Patent Licensing Income

Maximizing Contribution of IP Activity to Business