The Hitachi Group: IP Strategies

April 22, 2009

Kensuke Oka
Managing Director
Intellectual Property Group, Hitachi, Ltd.
Contents

1 Patent Presence

2 Patenting Strategy

3 Recent IP Topics
Contents

1 Patent Presence

2 Patenting Strategy

3 Recent IP Topics
## 1. Patent Presence

### US Patents Issued 2008

<table>
<thead>
<tr>
<th>Company Group</th>
<th>Number of Patents</th>
</tr>
</thead>
<tbody>
<tr>
<td>Samsung</td>
<td>4,227</td>
</tr>
<tr>
<td>IBM</td>
<td>4,189</td>
</tr>
<tr>
<td>Hitachi</td>
<td>2,289</td>
</tr>
<tr>
<td>Canon</td>
<td>2,132</td>
</tr>
<tr>
<td>Microsoft</td>
<td>2,089</td>
</tr>
<tr>
<td>Panasonic</td>
<td>1,908</td>
</tr>
</tbody>
</table>

### China Patents Laid Open 2008

<table>
<thead>
<tr>
<th>Company Group</th>
<th>Number of Patents</th>
</tr>
</thead>
<tbody>
<tr>
<td>ZTE Corp.</td>
<td>6,215</td>
</tr>
<tr>
<td>Huawei</td>
<td>4,483</td>
</tr>
<tr>
<td>Samsung</td>
<td>4,097</td>
</tr>
<tr>
<td>LG</td>
<td>3,115</td>
</tr>
<tr>
<td>Panasonic</td>
<td>2,285</td>
</tr>
<tr>
<td>Hitachi</td>
<td>1,790</td>
</tr>
<tr>
<td>Sony</td>
<td>1,722</td>
</tr>
</tbody>
</table>

➤ Achieve higher presence in 2009 and beyond

※ Research by Hitachi, with IFI PAT/Questel-orbit, Pat-List/CN
1. Patent Presence

Patents laid open by Industry Segment (2008)

- Information & Telecommunication Systems: 25%
- Power & Industrial Systems: 26%
- Electronic Devices: 19%
- Digital Media & Consumer Products: 16%
- High Functional Materials: 13%
- Logistics and other services: 1%
- Financial Services: 0%

※Aggregation of the number of patents laid open in USA, EU, China and Japan
1. Patent Presence

Power&Industry Segment: Number of Granted Patents (2008)

Outnumbers competitors worldwide

※Research by Hitachi, with Sharesearch, PATOLIS, IFIPAT/Questel-orbit, Pat-List/CN
1. Patent Presence

Info.&Telecom. Segment: Number of Granted Patents (2008)

◆ Competitive against domestic competitors

※Research by Hitachi, with Sharereasearch, PATOLIS, IFIPAT/Questel-orbit, PatList/CN
1. Patent Presence

Building a world-class patent portfolio

2010 Target:

Number of Overseas Applications > Number of Domestic Applications

Hitachi Group Domestic & Foreign Patent Applications

- Japan (less than 50%)
- U.S.A. (18%)
- Europe (15%)
- China (11%, including India)
- Other (over 6%)
- Japan (47%)
- Overseas (53%)

2008

2010 Target
Contents

1 Patent Presence

2 Patenting Strategy

3 Recent IP Topics
2. Patenting Strategy

**Create**
- Flagship (FS) patent activities
  - Invention Creation activities based on the R&D roadmap
  - Selection of advantageous technology and invention creation for building the patent portfolio

**Refine**
- Patent Portfolio Management (PPM) Activities
  - Building up the portfolio for advantageous technology

**Strategic Patent Activities**
- Early selection of important patent applications
- Promotion of intensive patent acquisition activities

**Five Fighting Patent Activities**
- Acquiring 5 patents (for each product and competitor) useful in litigations.

**Competitors’ Information (markets, prior arts, etc.)**

**Build a patent portfolio**

- Core Patents
- Castle Keep Patents
- Inner Moat Patent Portfolio
- Outer Moat Patent Portfolio
- Patents related to the core patents
# 2. Patenting Strategy

## Examples of FS (Create) PPM (Refine)

Build world-class patent portfolios in environmental technologies/social innovation

<table>
<thead>
<tr>
<th>Environment</th>
<th>Theme</th>
<th>Particular Products</th>
</tr>
</thead>
<tbody>
<tr>
<td>Environment</td>
<td>High Efficiency Thermal Power Generation</td>
<td>steam turbines, boilers</td>
</tr>
<tr>
<td>Green Mobility</td>
<td>HEV motors, HEV inverters, lithium-ion battery</td>
<td></td>
</tr>
<tr>
<td>Green IT</td>
<td>data centers with intelligent cooling</td>
<td></td>
</tr>
<tr>
<td>Next Generation Network (NGN)</td>
<td>router, wideband access controller</td>
<td></td>
</tr>
</tbody>
</table>

FS=Flagship, PPM=Patent Portfolio Management
Contents

1 Patent Presence
2 Patenting Strategy
3 Recent IP Topics
3. Recent Topics: Patent Pool Model

Hitachi Group Patent Pool Model

- Integrate the management of invention creation and patent filing in a technology field that involves a diverse group of business divisions and subsidiaries.

- Provide one pool license with others

Ex: Finger Vein Authentication

Subsidiary A (ATM)
Subsidiary B (PC)
Subsidiary C (Security)

Patent Pool

Research Laboratory
Business Division
Hitachi, Ltd.

Licensing (2009)

Company X

Hitachi Group
3. Recent Topics: International Standardization

**International Standardization Team in IP group (Since Aug. 2008)**

Mission: Integrate the standardization activities of business divisions into a Hitachi group-wide activity from a shared corporate perspective

**Activities:**
- Participate in international standardization activities in environmental areas
- Dispatch committee members to IEC, ISO, ITU

**Diagram:**
- Chairman, President and CEO
- Standardization Committee
  - International Standardization, Intellectual Property Group
- Business Divisions
  - Business Groups
  - Subsidiaries
- Business Leaders (Business Strategy)
- Committee Members of Standardization Organizations
- Standardization Organizations

IEC=International Electro-technical Commission
ISO=International Organization of Standardization
ITU=International Telecommunication Union

© Hitachi, Ltd. 2009. All rights reserved.