

# IP Strategy of Hitachi

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**Hiroyuki Hirayama**

**Corporate Officer,**

**General Manager of Intellectual Property Group**

**Hitachi, Ltd.**

# IP Strategy of Hitachi



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1. **Basic Policy of IP Strategy and Overall Strategy**
2. **Patent Strategy—Building an International Patent Portfolio—**
3. **Exploitation Strategy—Strategic Patent Use—**
4. **Summary**

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## ■ Vision: Creating IP Value

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### ■ Mission

- Build a world-class patent portfolio
- Strategically use IP



### ■ Goal

- Help increase corporate value

- 1) Improve IP value and exploitation index**
- 2) Take steps to strengthen Hitachi Group's IP capabilities (capture synergies)**
- 3) Adopt a more global approach to obtaining rights and exploitation strategy**
- 4) Strengthen IP competitiveness**

- 1) Improve IP value and exploitation index**
- 2) Take steps to strengthen Hitachi Group's IP capabilities (capture synergies)
- 3) Adopt a more global approach to obtaining rights and exploitation strategy
- 4) Strengthen IP competitiveness

# 1-3 Improve IP Value and Exploitation Index

- Use the two internal management indicators to monitor annual changes in each business group and reflect in IP strategy

## ■ IP Value (Estimated value at a specific point in time)

- Unique Hitachi model
- Aim to double by FY09

## ■ Patent Exploitation Contribution/Exploitation Index (Annual result)

**Patent exploitation contribution** = Royalty income + Cross licensing effect +  
Contribution by strategic exploitation\* + Contribution to internal implementation

\*Contribution to order receiving, licensing refusal, alliance, etc.

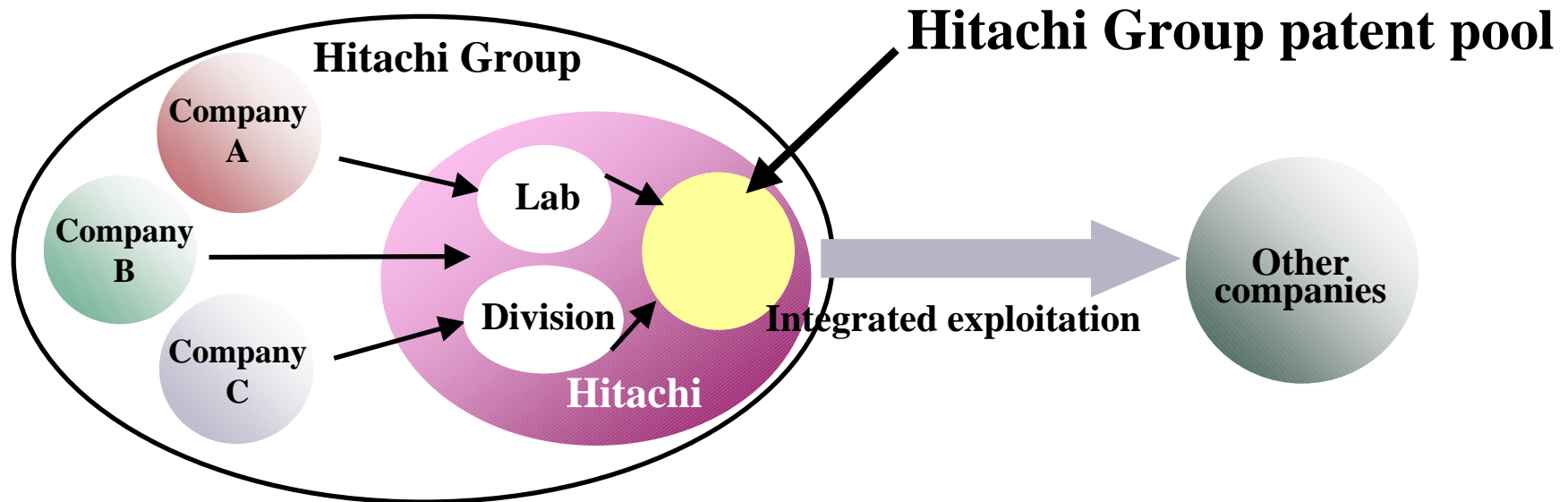
$$\text{Patent exploitation index} = \frac{\text{Exploitation contribution}}{\text{IP-related expenses}}$$

- 1) Improve IP value and exploitation index
- 2) Take steps to strengthen Hitachi Group's IP capabilities (capture synergies)**
- 3) Adopt a more global approach to obtaining rights and exploitation strategy
- 4) Strengthen IP competitiveness



## Cross-group IP Scheme

- Integrated management of invention and creation, patent application and exploitation regarding technologies relevant to businesses across the Hitachi Group (e.g. finger vein)



# IP Strategy of Hitachi



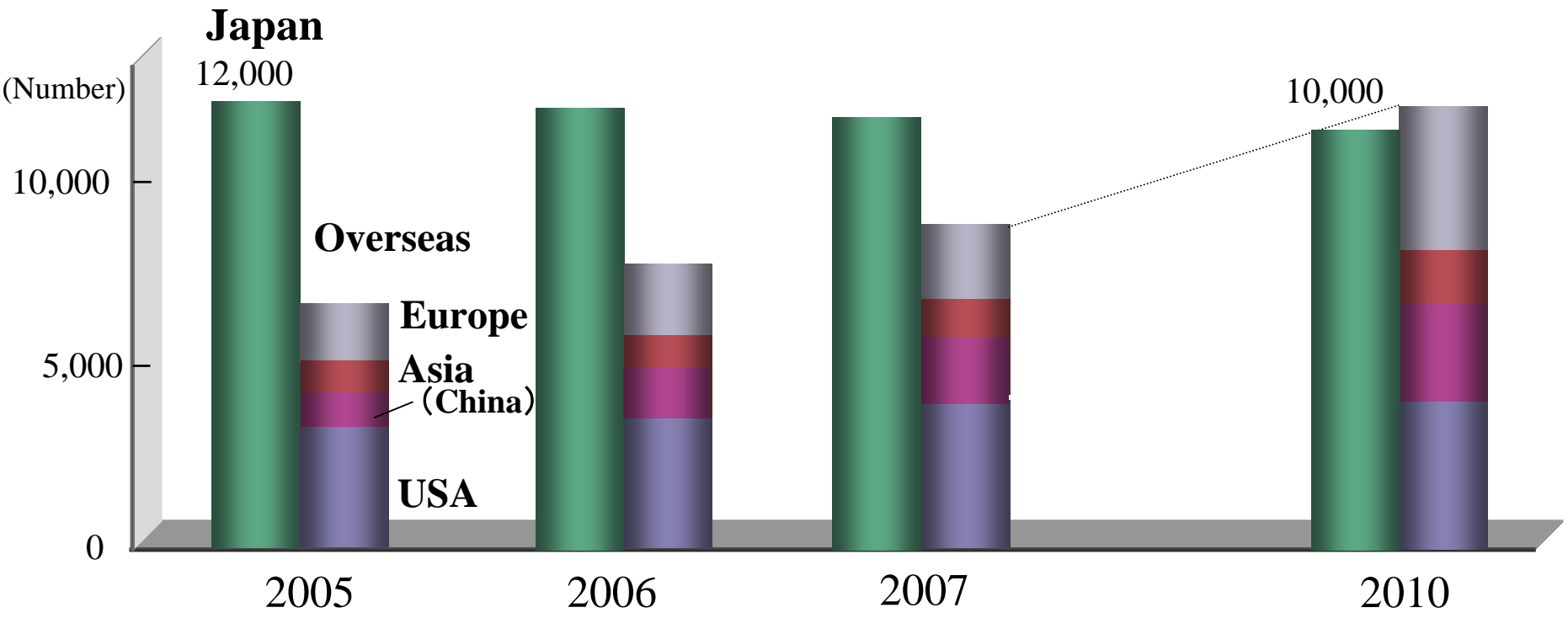
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## Hitachi Group Domestic/Foreign Patent Applications

**Targeted fields:**  
**Europe: Automotive, railway**  
**China: ATM, elevators and escalators**

**2010: Japan < Overseas**



## Process for obtaining IP rights

## Goal

*Creation*

*Development*

**Flagship (FS)  
patent activities**

**Patent portfolio  
management (PPM)**

Build a  
world-class  
patent  
portfolio

Mission of IP Group

■ **Aim: Build a patent portfolio in areas of technological strength**

## ■ Theme Selection Standards

- (a) Technologies where Hitachi has a strong position
- (b) Technologies for supporting core (targeted fields) businesses in 3 years

## ■ Activities

- Secure rights for core patents and peripheral patents related to core patents
- Strategic patent activities (selection of important candidates)



Gold

20-25/year



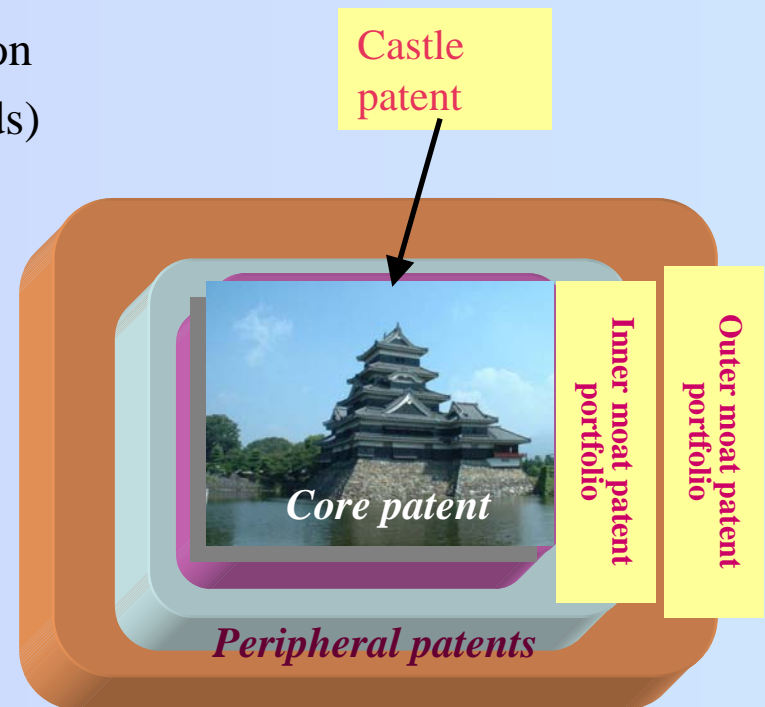
silver

Approx. 75/year



Bronze

Approx. 200/year



## Examples of themes for building a powerful patent portfolio — FS (creation), PPM (development) themes —

Theme	Business Segment
Storage systems (SAN/NAS storage solutions, high-density HDDs)	Information & Telecommunication Systems
Security systems (finger vein systems, secure PCs, $\mu$ -chips)	Information & Telecommunication Systems
Electric powertrain systems	Power & Industrial Systems
Digital consumer electronics (Wooo)	Digital Media & Consumer Products

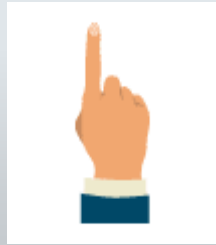
**Finger vein authentication**

# 2-5 Patent Strategy —Finger Vein Authentication Systems—

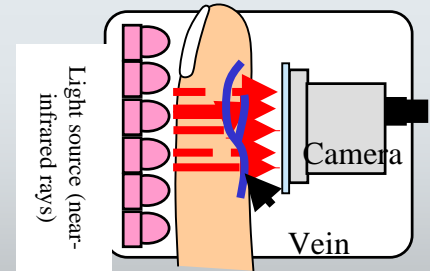
$1/500,000$  ← False acceptance rate →  $1/200$  million

$1/2000$  ← False rejection rate →  $1/10,000$

Fingerprint authentication



Finger vein authentication



▪ Domestic/foreign patent portfolio : presently exceeds 300



PC



Room access

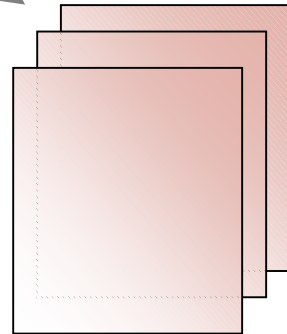


Automobiles



ATM

Other applications



## U.S. Patent Registrations in 2006

<b>Company</b>	<b>Number of Patents (Rank)</b>	<b>2005 Rank</b>
<b>IBM</b>	<b>3,651 (1st)</b>	<b>1st</b>
<b>Samsung</b>	<b>2,803 (2nd)</b>	<b>6th</b>
<b>Hitachi Group</b>	<b>2,639 (3rd)</b>	<b>2nd</b>
<b>Matsushita Electric Industrial Co., Ltd.</b>	<b>2,530 (4th)</b>	<b>5th</b>
<b>Canon Inc.</b>	<b>2,418 (5th)</b>	<b>3rd</b>

- Maintain a high ranking on a consolidated basis in 2007 and beyond

Search system: IFIPAT/Questel-ORBIT (Prepared by IFI-CLAIMS) and MicroPatent



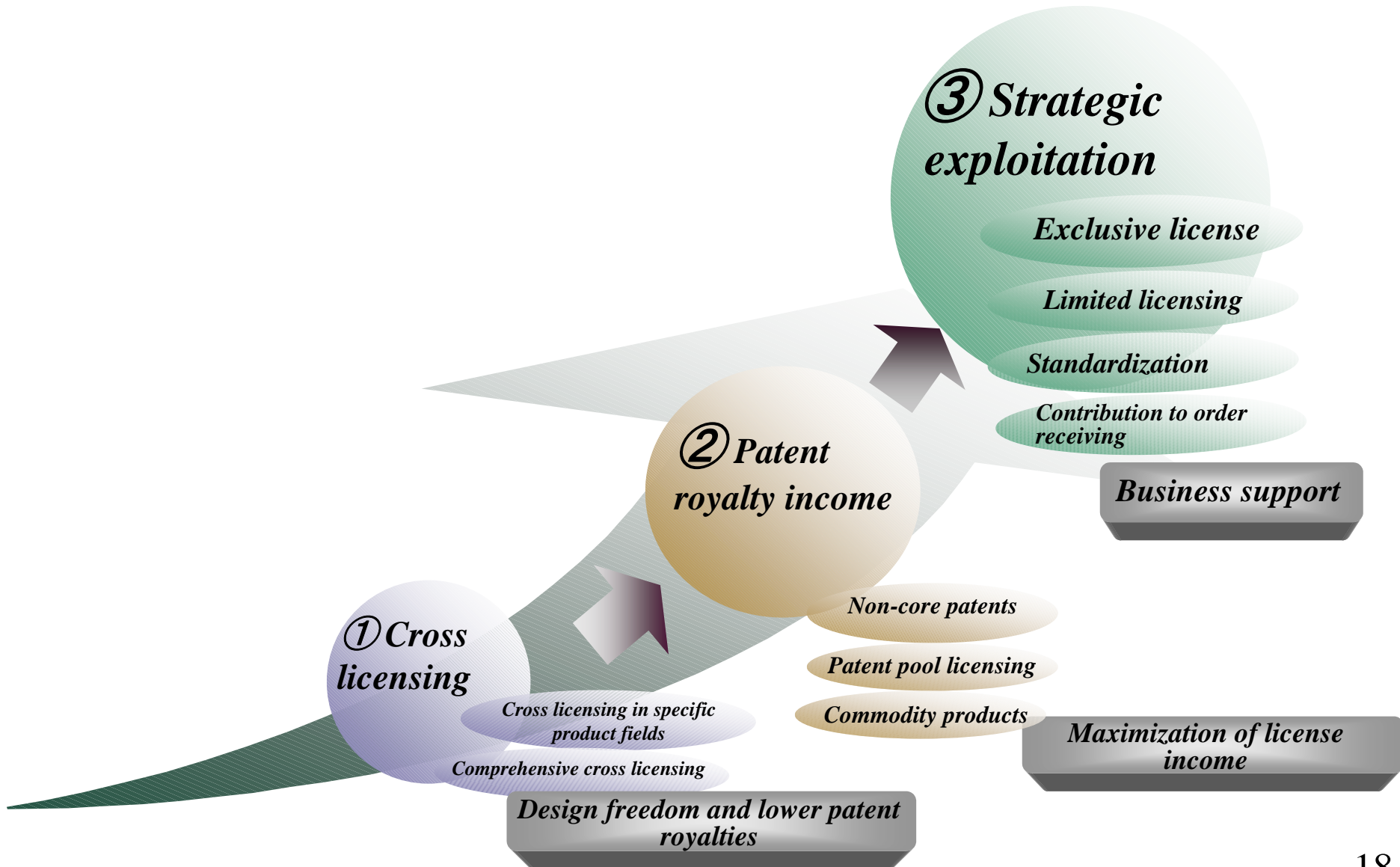
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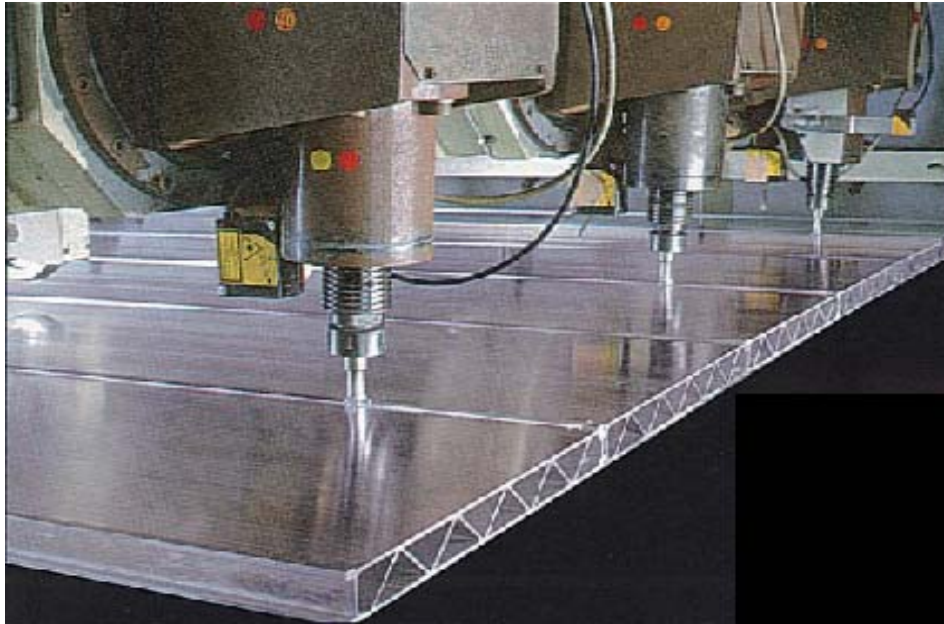
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# 3-1 Exploitation Strategy —Strategic Patent Use—



## What is FSW (Friction Stir Welding)?

➔ Welding technique that uses mechanical friction heat



Solid-state welding method that uses the plastic flow of metal, whereby frictional heat generated by a revolving FSW tool inserted in the welding joint creates clean joints.

⇒ Realizes joints with minimal distortion      【Developed by TWI, British welding research institute】

Used FSW for the first time in the world on rolling stock after obtaining license from TWI Ltd., which discovered this technique



Build a patent portfolio based on creation of patents specific to rolling stock



Patent portfolio

Japan: Approx. 280

U.S.: Approx. 80

Europe: Approx. 80

## FSW Patent Exploitation Strategy

『FSW is synonymous with Hitachi』 in the rolling stock industry

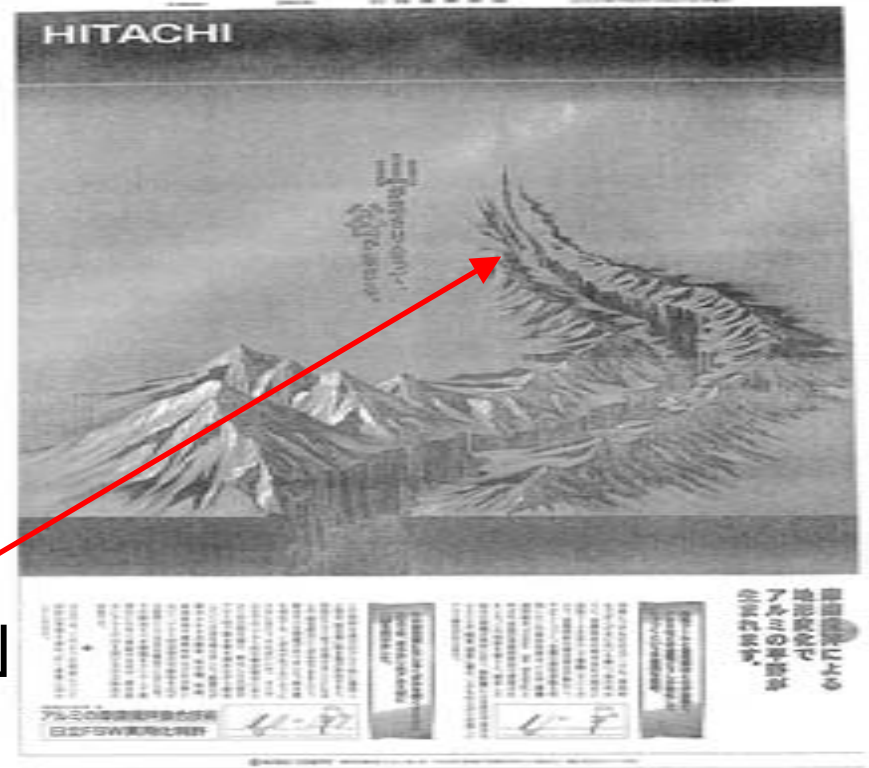
■ Principle With Rolling Stock No license notice (2001)

- All manufacturers of rolling stock in Japan
- All companies manufacturing aluminum extrusions in Japan

■ Newspaper advertisements

(Nikkei Business Daily—full-page advertisement)

「Heel and groove」



## Main achievements of FSW patent exploitation strategy

**Total orders for railcars: more than 1,000**

- **2002: Tsukuba Express**
- **2003: Tozai Line, Tokyo Metro**
- **2005: 13 Line (Fukutoshin), Tokyo Metro**
- **2005: U.K. CTRL (Channel Tunnel Rail Link)**



## Types of contribution to orders from patents

Type	Form	Method (e.g.)
A	Promote to general public	Website postings, newspapers adverts, etc.
B	Promote proprietary patents (portfolio) to customers	Showcase patent portfolio in pamphlets, proposals, etc.
C	Request comparative evaluation with other companies' proposals	Present patent documentation
D	Request use of own technologies in product specifications	Present patent documentation
E	Do not permit licensing to rivals	Prove infringements, issue patent infringement warnings, file lawsuits

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**1. Promote management of “IP that integrates business”, “R&D” and “IP strategies”**

**2. Focus on IP that helps make business successful**

- Improve IP value
- Improve patent exploitation contribution

**3. Develop IP specialists**

- Patent attorneys
- IP managers



# Cautionary Statement

Certain statements found in this document may constitute “forward-looking statements” as defined in the U.S. Private Securities Litigation Reform Act of 1995. Such “forward-looking statements” reflect management’s current views with respect to certain future events and financial performance and include any statement that does not directly relate to any historical or current fact. Words such as “anticipate,” “believe,” “expect,” “estimate,” “forecast,” “intend,” “plan,” “project” and similar expressions which indicate future events and trends may identify “forward-looking statements.” Such statements are based on currently available information and are subject to various risks and uncertainties that could cause actual results to differ materially from those projected or implied in the “forward-looking statements” and from historical trends. Certain “forward-looking statements” are based upon current assumptions of future events which may not prove to be accurate. Undue reliance should not be placed on “forward-looking statements,” as such statements speak only as of the date of this document.

Factors that could cause actual results to differ materially from those projected or implied in any “forward-looking statement” and from historical trends include, but are not limited to:

- fluctuations in product demand and industry capacity, particularly in the Information & Telecommunication Systems segment, Electronic Devices segment and Digital Media & Consumer Products segment;
- uncertainty as to Hitachi’s ability to continue to develop and market products that incorporate new technology on a timely and cost-effective basis and to achieve market acceptance for such products;
- rapid technological change, particularly in the Information & Telecommunication Systems segment, Electronic Devices segment and Digital Media & Consumer Products segment;
- increasing commoditization of information technology products, and intensifying price competition in the market for such products, particularly in the Information & Telecommunication Systems segment, Electronic Devices segment and Digital Media & Consumer Products segment;
- fluctuations in rates of exchange for the yen and other currencies in which Hitachi makes significant sales or in which Hitachi’s assets and liabilities are denominated, particularly between the yen and the U.S. dollar;
- uncertainty as to Hitachi’s ability to implement measures to reduce the potential negative impact of fluctuations in product demand and/or exchange rates;
- general socio-economic and political conditions and the regulatory and trade environment of Hitachi’s major markets, particularly, the United States, Japan and elsewhere in Asia, including, without limitation, a return to stagnation or deterioration of the Japanese economy, or direct or indirect restriction by other nations on imports;
- uncertainty as to Hitachi’s access to, or ability to protect, certain intellectual property rights, particularly those related to electronics and data processing technologies;
- uncertainty as to the results of litigation and legal proceedings of which the Company, its subsidiaries or its equity method affiliates have become or may become parties;
- possibility of incurring expenses resulting from any defects in products or services of Hitachi;
- uncertainty as to the success of restructuring efforts to improve management efficiency and to strengthen competitiveness;
- uncertainty as to the success of alliances upon which Hitachi depends, some of which Hitachi may not control, with other corporations in the design and development of certain key products;
- uncertainty as to Hitachi’s ability to access, or access on favorable terms, liquidity or long-term financing; and
- uncertainty as to general market price levels for equity securities in Japan, declines in which may require Hitachi to write down equity securities it holds.

The factors listed above are not all-inclusive and are in addition to other factors contained in Hitachi’s periodic filings with the U.S. Securities and Exchange Commission and in other materials published by Hitachi.

**HITACHI**  
Inspire the Next 