
Hitachi's IP Strategy for Achieving Global Growth

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1. Intellectual Property (IP) Activities for Social Innovation Business

Serving the World with our Social Innovation Business
SOCIAL INNOVATION - IT'S OUR FUTURE

Hitachi Group's IP Slogan

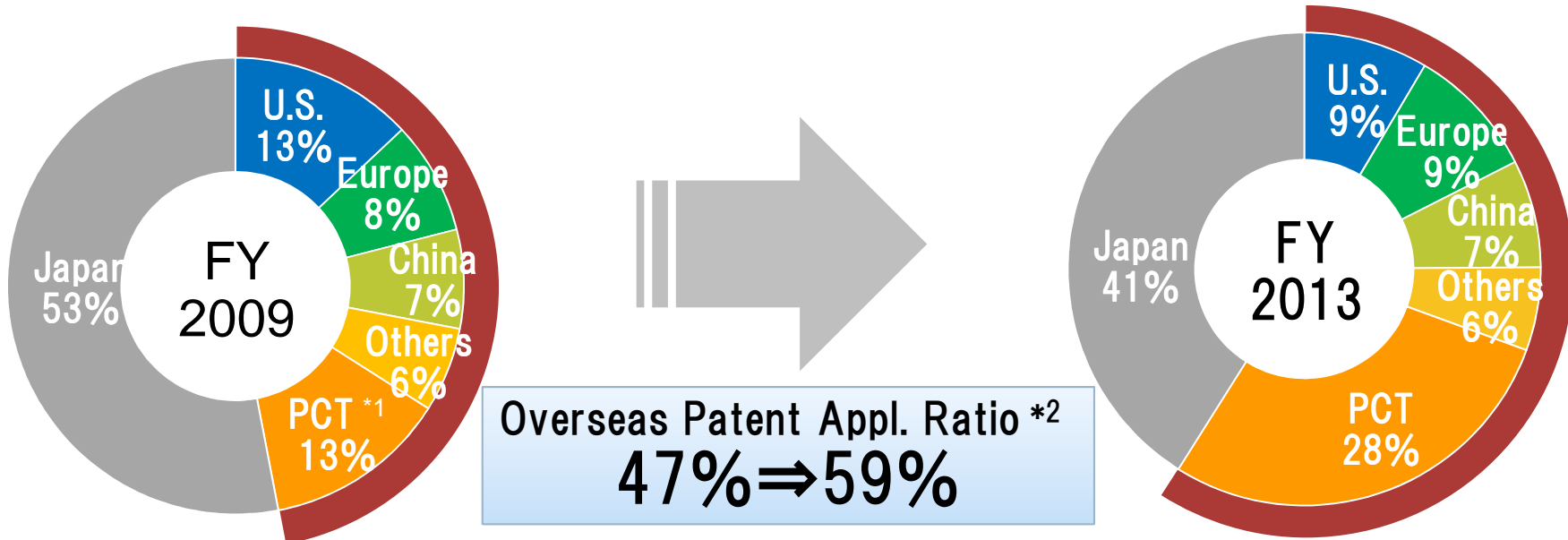
"Let's make it happen with the Power of Patents"

- ◇ Create the Power of Patents through Global IP Activities
- ◇ Support our Business Growth with the Power of Patents

2. Globalization in our IP Activities

2-1 Create the Power of the Patents Globally (1)

Using PCT Applications, Create the Power of Patents Globally



PCT : Patent Cooperation Treaty

*1 One PCT application can be treated as applications in multiple PCT signatory countries.

*2 Overseas Patent Appl. Ratio = $\frac{\text{The number of overseas patent Applications}}{\text{The number of patent Appl. in W.W.}}$

For each PCT application, we counted expected number of countries where we plan to obtain patents.

TOP100 Global Innovators Awards

Receive consecutive 3-year from 2011

“Excellent” evaluation in “Volume”, “Influence” and “Grant Ratio”



2-2 Create the Power of the Patents Globally (2)

Patent Applications Published in 2013 (Granted patents for U.S.)*

Japan			U.S.			PCT			China			Europe		
Corporate Group			Corporate Group			Corporate Group			Corporate Group			Corporate Group		
1	Panasonic	10,600	1	Samsung	6,900	1	Panasonic	3,300	1	State Grid Corp. of China	6,200	1	Samsung	2,600
2	Hitachi	9,800	2	IBM	6,800	2	Huawei	2,400	2	Huawei	4,500	2	Siemens	2,300
3	Toyota	9,300	3	CANON	4,000	3	ZTE	2,300	3	Hon Hai	3,900	3	BOSCH	1,700
4	CANON	8,400	4	SONY	3,400	4	Qualcomm	2,200	4	Samsung	3,200	4	GE	1,700
5	Toshiba	8,300	5	Panasonic	3,200	5	Hitachi	2,200	5	SINOPEC	3,200	5	LG	1,600
6	Mitsubishi Electric	5,600	6	LG	3,100	6	Siemens	2,200	6	ZTE	3,100	6	Qualcomm	1,300
7	SHARP	5,500	7	Hon Hai	2,800	7	LG	2,000	7	Zhejiang Univ.	2,700	7	Panasonic	1,200
8	EPSON	4,800	8	Microsoft	2,700	8	Intel	1,900	8	Tsinghua Univ.	2,400	8	Ericsson	1,200
9	Fujitsu	4,400	9	Toshiba	2,700	9	BOSCH	1,900	9	Panasonic	2,400	9	Huawei	1,100
10	RICOH	4,300	10	Fujitsu	2,500	10	SHARP	1,800	10	SONY	2,300	10	PHILIPS	1,000
			11	Hitachi	2,300				11	Hitachi	2,100	13	Hitachi	900

Ranking
#2('12)→#2('13)

Ranking
#10('12)↘#11('13)

Ranking
#7('12)↗#5('13)

Ranking
#11('12)→#11('13)

Ranking
#16('12)↗#13('13)

According to the Global Expansion of our Business,
Shifting from Japan and US Weighted Application Strategy to Market Weighted

* Based on Hitachi's survey using Sharersearch, Patolis, IFIPAT/Questel-orbit, and Pat-List/CN
Ranking is based on the number of the patent applications without rounding off.

2-3 Global Integrated IP Management

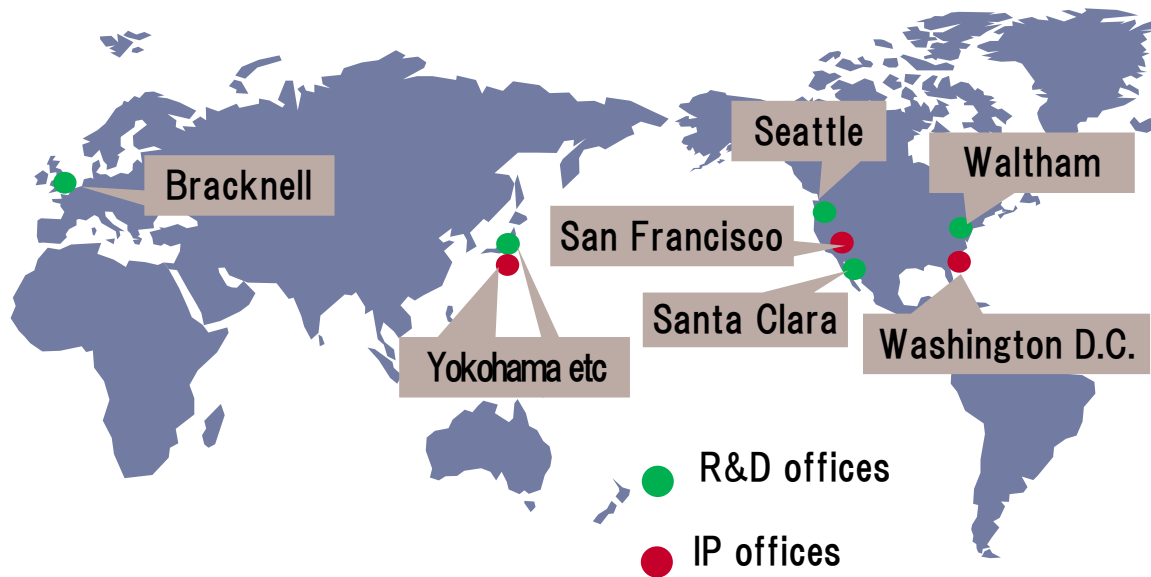
Global Business Management and Expansion of R&D Function Overseas



Japan Centric IP Management ⇒ Globally Integrated IP Management
(Promote IP Activities of Each Location & Manage Patents Globally as One Portfolio)

R&D and IP Offices for Data Storage Systems

R&D and Business Areas Promoting Global IP Management



IP Offices (Cover Areas)	Big Data	Elevator	Railway
Japan (Asia except for China)	✓	✓	✓
San Francisco, Washington D.C. (North and South Americas)	✓		
Munich (Europe)	✓		✓
Beijing, Shanghai (China)		✓	

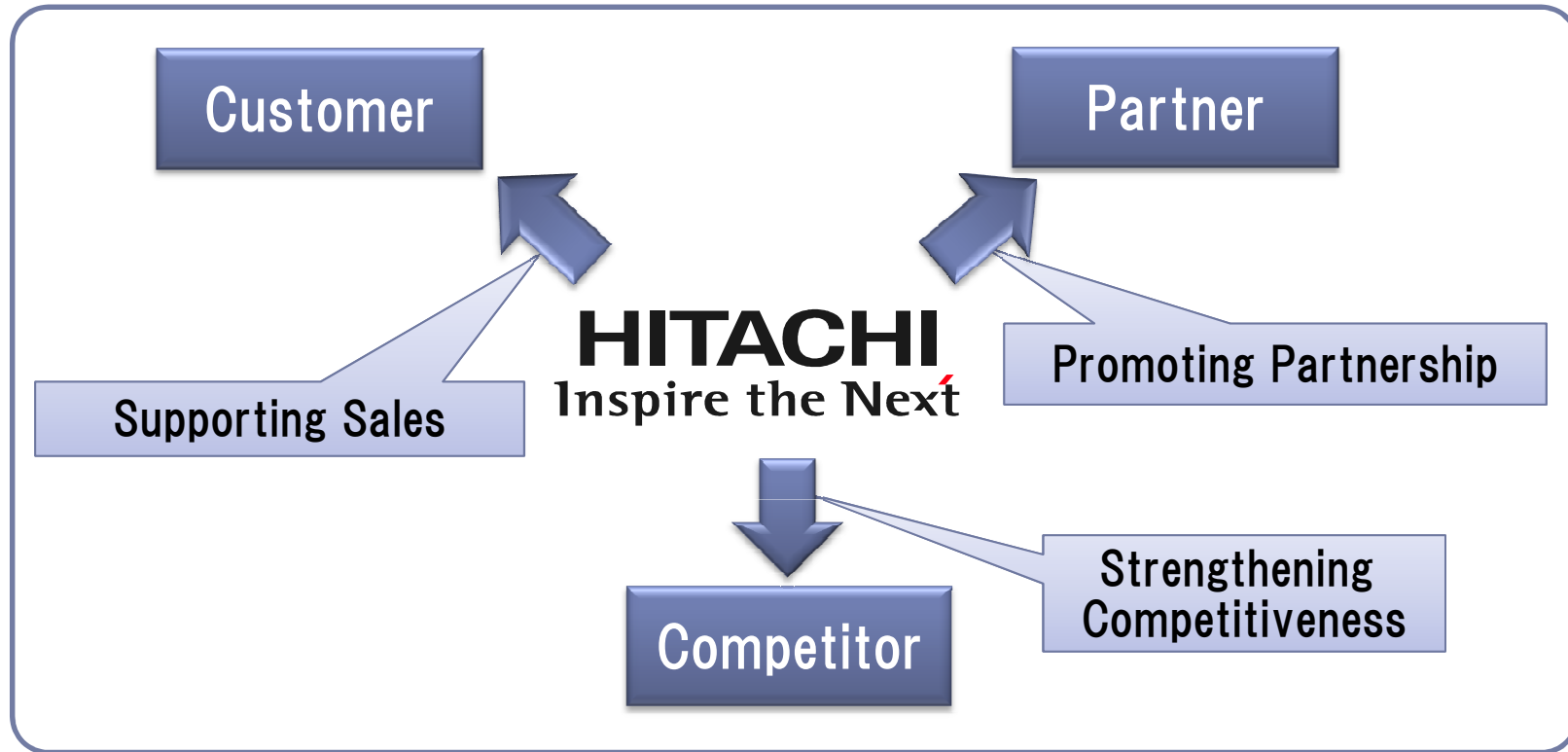
Manage over 2,500 Patents * Created in Multiple Countries as One Portfolio

* Maintained US patents for data storage systems



3. Supporting our Business Growth

3-1 Supporting our Business Growth



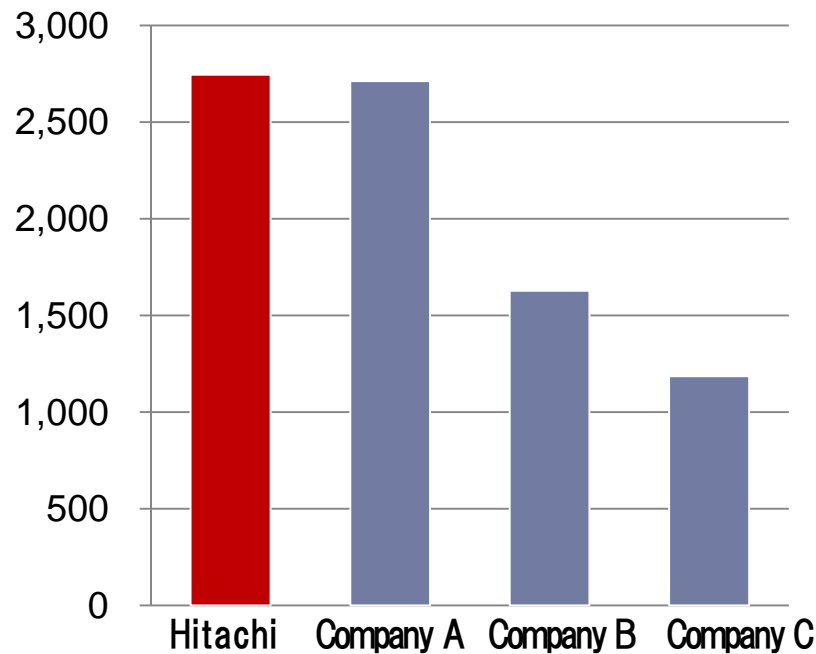
“ Let’s make it happen with the Power of Patents ”

Serving the World with our Social Innovation Business

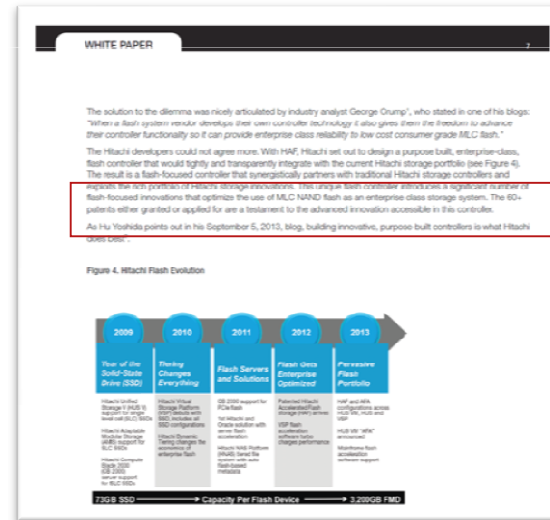
Create Top-Level Patent Portfolio in a Major Market (U.S.) and Appealing Patents in Website

Maintained U.S. Patents*1 for Data Storage System

Appealing Patent Portfolio in White Paper*2



The 60+ patents either granted or applied for are a testament to the advanced innovation accessible in this controller.



Appealing "Hitachi Accelerated Flash" of Hitachi's SSD data storage by using patents

SSD: Solid State Drive

*1 Data in 2013

*2 <http://www.hds.com/assets/pdf/hitachi-white-paper-accelerated-flash-storage.pdf>

Protecting and Appealing our Technology used in Facility Monitoring Service by Patents

Facility Monitoring Service



Anomaly Decision System: HiPAMPS

Utilize sensor data collected from machines and equipments, and report status changes of them to a user

◆ **Data Mining Technology**
(Learn normal status of facilities and detect abnormal situations)
Japanese patent #4,832,609

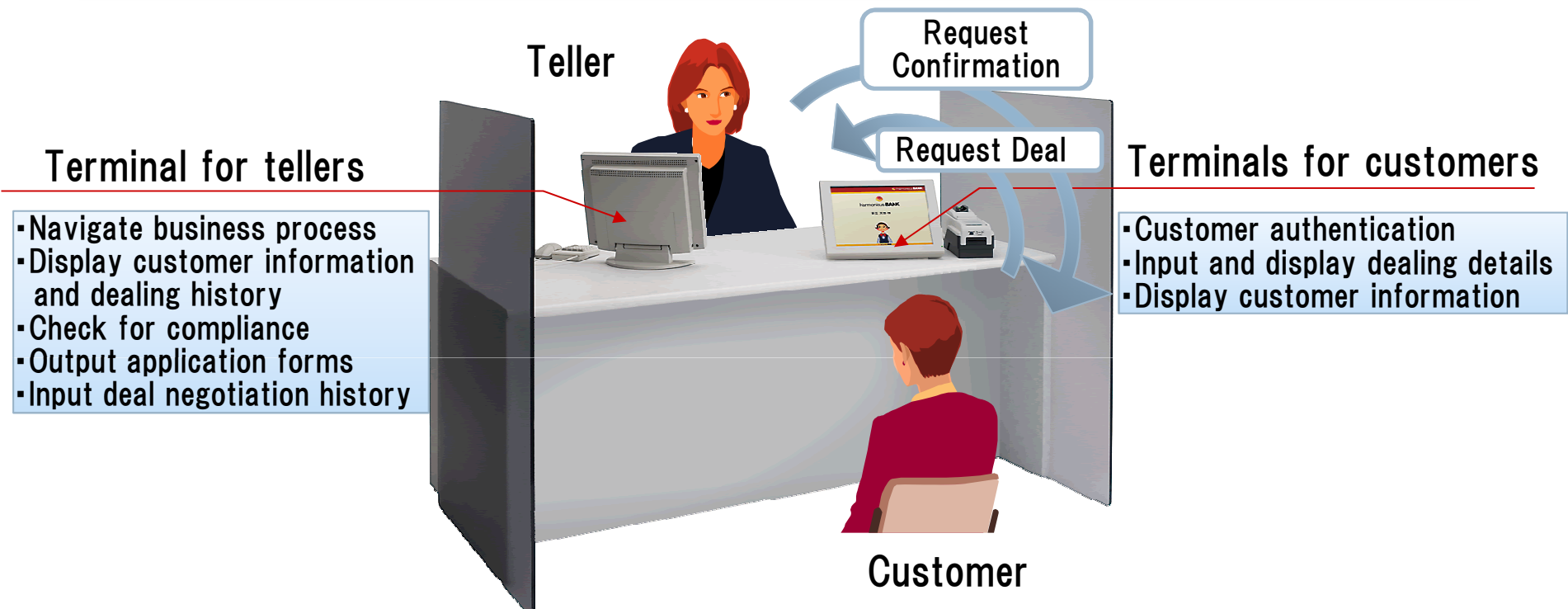
◆ **User friendly interface**
(Display different statuses of machines and equipments in different colors)
Japanese patent #5,081,999



Appealing our technology by indicating the patent number in our website*

HiPAMPS: Hitachi Power Anomaly Measure Pick up System
PaaS: Platform as a Service
SaaS: Software as a Service
* URL: http://www.hitachi-power-solutions.com/products/product02/p02_73.html

Filing patents for joint developed systems and appealing them



2006: Developed the navigation system for investing type financial instruments and filed a patent jointly

2008: Installed the navigation system to the Bank of Kyoto
⇒ New Released, indicating the joint patent application

2010: Developed the navigation system for public relation business and filed a patent jointly

Enforcing patents for protecting our business

Leading company in Sintered Rare Earth Magnet



- ◆ Global patent portfolio (600 patents in W.W.)
- ◆ Includes essential patents for manufacturing etc after some basic US patents are expired in July 2014.



Filed patent infringement investigation before ITC against 29 companies.



Achieved settlement with most of the companies



Rare earth magnets “NEOMAX®”

ITC: International Trade Commission

Creating Patent Portfolios covering the sales points in limited time
⇒ Creating Barriers to Entry for the Competitors

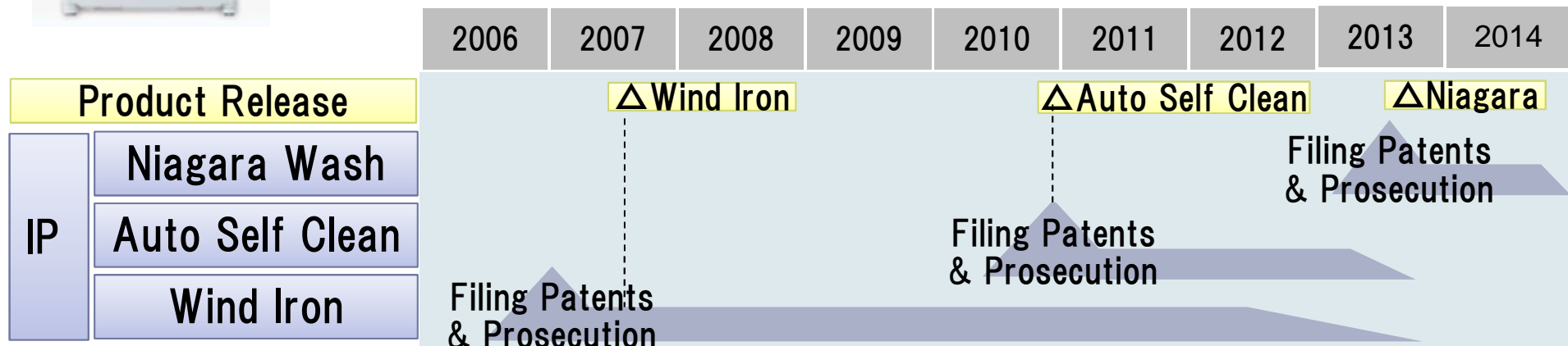


Sales points

Niagara Wash: High-flow-rate pumping system to suppress coarsening and darkening

Auto Self Clean: Cleaning the entire tub in every wash to eliminate bacteria from the tub

Wind Iron: Drying with approx. 300km/h wind to smooth out wrinkles

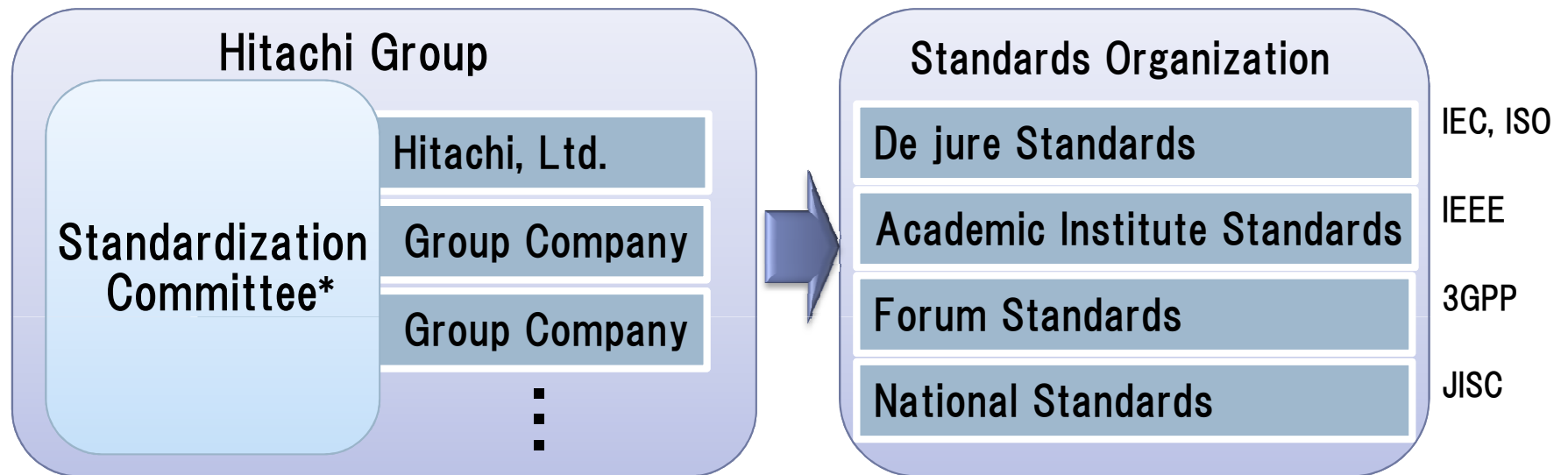


Obtain 10-20 Patents for Each Sales point

4. International Standardization Activities

4-1 International Standardization Activities

Hitachi Group Standardization Committee, Supporting Standardization Activities by Corporate, to Accelerate Global Expansion of our Business



Missions of Standardization Committee

- ◆ Select priority themes to support standardization activities
- ◆ Coordinate IP policies among Hitachi group to participate in standard organizations
- ◆ Share best practices, educate employees, and run incentive systems

IEC: International Electrotechnical Commission
 ISO: International Organization for Standardization
 IEEE: Institute of Electrical and Electronics Engineers
 3GPP: Third Generation Partnership Project
 JISC: Japanese Industrial Standards Committee

*Organized by CTOs etc from 33 companies and business sections

Make Japanese Technologies an International Standard to Promote Global Expansion of Business

UHV power transmission, achieving high transmission efficiency,
is highly required in emerging countries to meet with increasing power demand

Started standardization activities in ALL-JAPAN to make Japanese 1,100kV power
transmission technology an international standard (2006)

Replaced the existing standard, which has neither operation records
nor plans with the 1,100KV power transmission (2009)

Hitachi Participates in an operational test and a practical use
projects of State Grid Corporation of China for 1,100KV power
transmission

-2009: Operational Test between Jin-dong-nan and Jingmen
Hitachi Installed equipments to the Nanyang facility

-2013: Practical use between Huainan and Shanghai
Hitachi installed equipments to the Zhejiang north facility



Nanyang
Power Transmission Facility

END

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HITACHI
Inspire the Next