

**“Pathways to Innovation :**

**Policies, Products, and Processes for Competitive Advantage in a Global Economy”**

# **Intellectual Property Strategy in Japan**

**May 20, 2005**

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Shinshu University**

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- I) Why Intellectual Property ?**
  - II) IP Policy Making**
  - III) Recent Developments of IP Policies**
  - IV) Does IP Policy Matter?**
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# Part I Why Intellectual Property?

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**Knowledge-based Economy**

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graph TD; A([Knowledge-based Economy]) --> B[Productivity  
R&D Efficiency]; A --> C[Intangible Assets  
Dynamic Competition]; B --> D[Sustainable Innovation is critical.]; C --> D;
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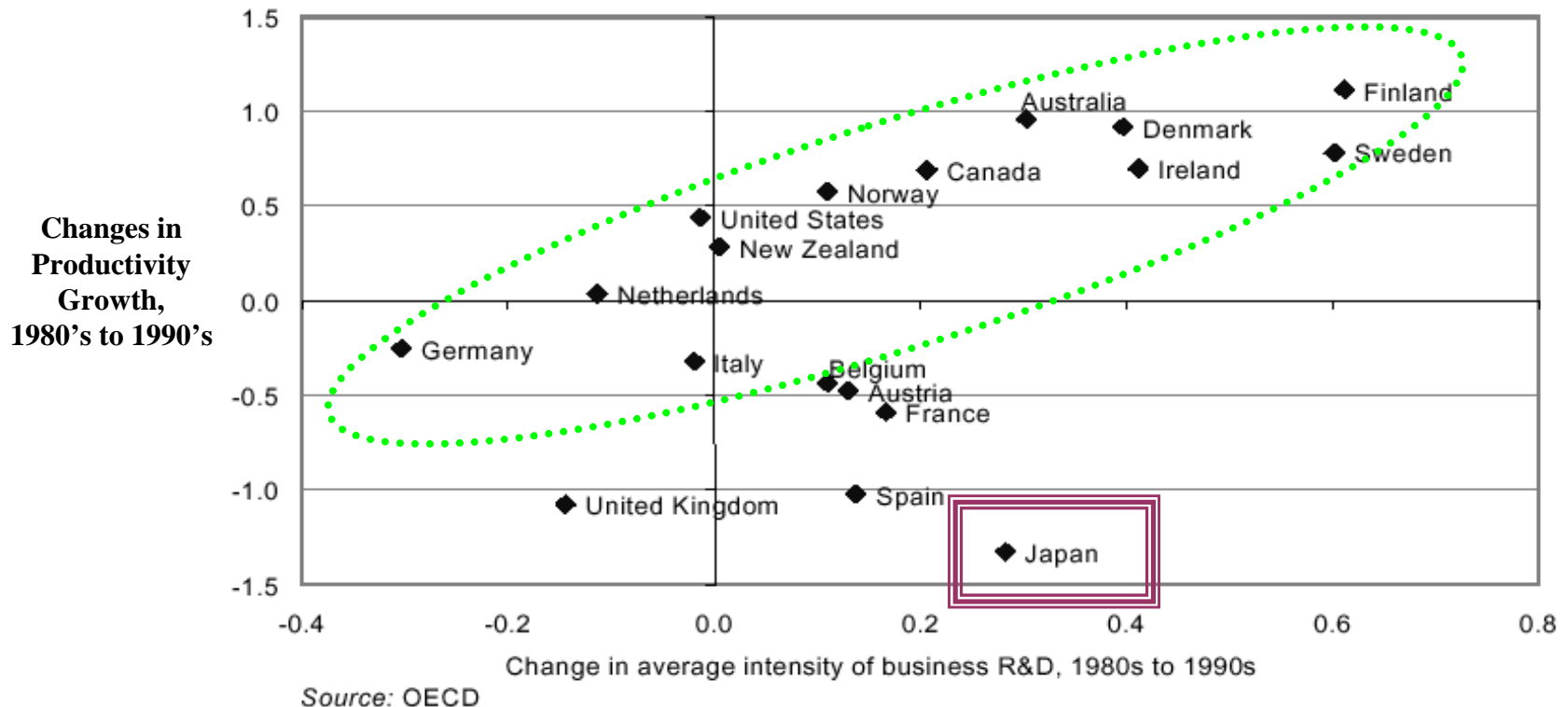
**Productivity  
R&D Efficiency**

**Intangible Assets  
Dynamic Competition**

***Sustainable Innovation is critical.***

# R&D Efficiency

## Intensity of business R&D and Productivity Growth, 1980's to 1990's



Source : OECD Science, Technology and Industry Outlook 2001, reprinted from METI's following report;

<http://www.meti.go.jp/report/downloadfiles/g30314b04j.pdf>

# R&D Efficiency of individual firms

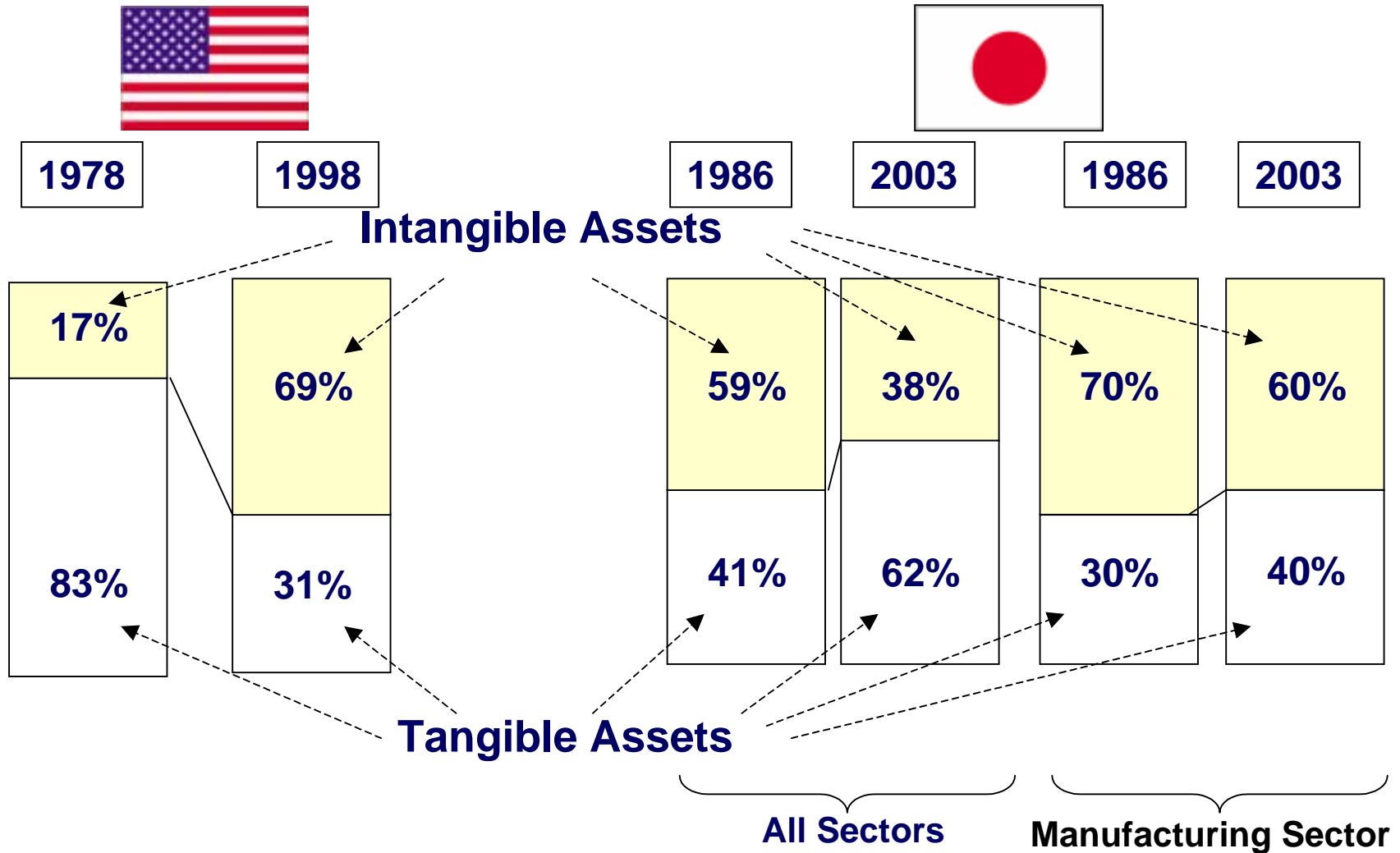
Profits in 5 years / R&D in the previous 5 years (%)

	1988 ~ 92	1989~ 93	1990~ 94	1991~ 95	1992~ 96	1993~ 97	1994~ 98
<b>SEI*</b>	173	158	138	116	110	108	112
<b>NEC</b>	44	34	25	21	21	26	33
<b>Toshiba</b>	71	58	38	35	39	37	39
<b>Sony</b>	43	24	12	3	14	23	32
<b>Matsushita</b>	51	42	32	24	21	22	26
<b>Toyota</b>	154	120	88	59	63	79	93
<b>Sharp</b>	63	65	62	59	58	52	45
<b>Canon</b>	110	93	80	82	93	106	121
<b>Bridgestone</b>	304	274	251	228	216	210	226

\* Sumitomo Electric Industries

Source: Roichi Murakami, "Crisis-driven Innovation Management", Works, Dec. 1999-Jan. 2000

# Increasing Intangible Assets



Source: METI, White Paper on International Trade 2004

# More investment in intangible assets

	Company	(A) R&D Expenses (%)	(B) Marketing Expenses (%)	(A)+(B) Intangible Assets (%)	(C) Investment in Tangible Assets (%)	(A)+(B)+(C) Total Investment (hundred million ¥)
Pharma- ceuticals	TAKEDA	70	16	<b>86</b>	14	1,133
	EISAI	76	12	<b>88</b>	12	613
Communi- cation / Game	NTT	81	1	<b>82</b>	18	2,557
	SQUARE	74	12	<b>86</b>	14	196
Electronics	TOSHIBA	64	4	<b>68</b>	32	4,368
	FUJITSU	67	5	<b>72</b>	28	4,886
Automobile	TOYOTA	56	12	<b>68</b>	32	7,673
	MAZDA	50	16	<b>66</b>	34	1,374
Average		67	10	<b>77</b>	23	2,850

The figures represent the amount of FY2000.

Source; METI, White paper on Int'l Trade 2001

# Part II IP Policy Making

## IP-based Nation

- 2002 Policy Statement by Prime Minister KOIZUMI  
Basic Law on IP
- 2003 IP Strategy Headquarters  
IP Strategic Program 2003
- 2004 IP Strategic Program 2004 (revised one)  
Policy Package against Counterfeiting & Piracy

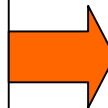
## IP Strategy Headquarters

(Members)

- All Ministers
- 10 Experts from Private Sector

(Chairman)

- Prime Minister Koizumi



## IP Strategic Program

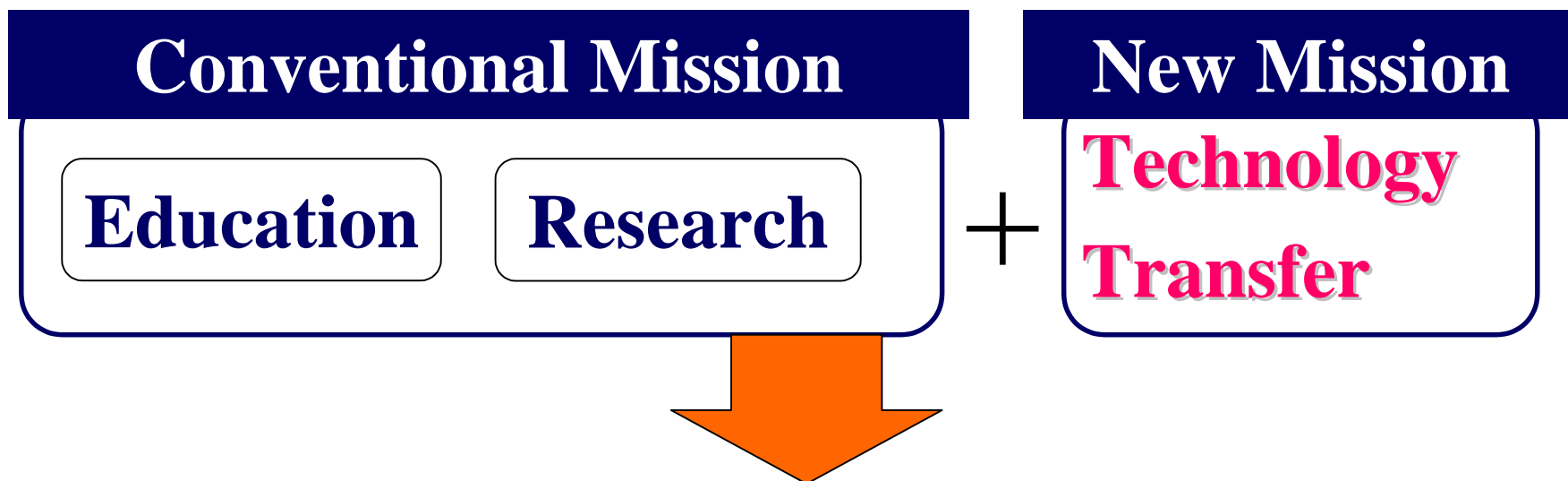
1. IP Creation
2. IP Protection
3. IP Exploitation
4. Promotion of Media Contents Business
5. Human Resources Development

# Part III, Major Policy Developments

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- **Universities**
- **Patent Examination**
- **IP High Court**
- **Measures Against Counterfeiting & Piracy**

# 1. Universities

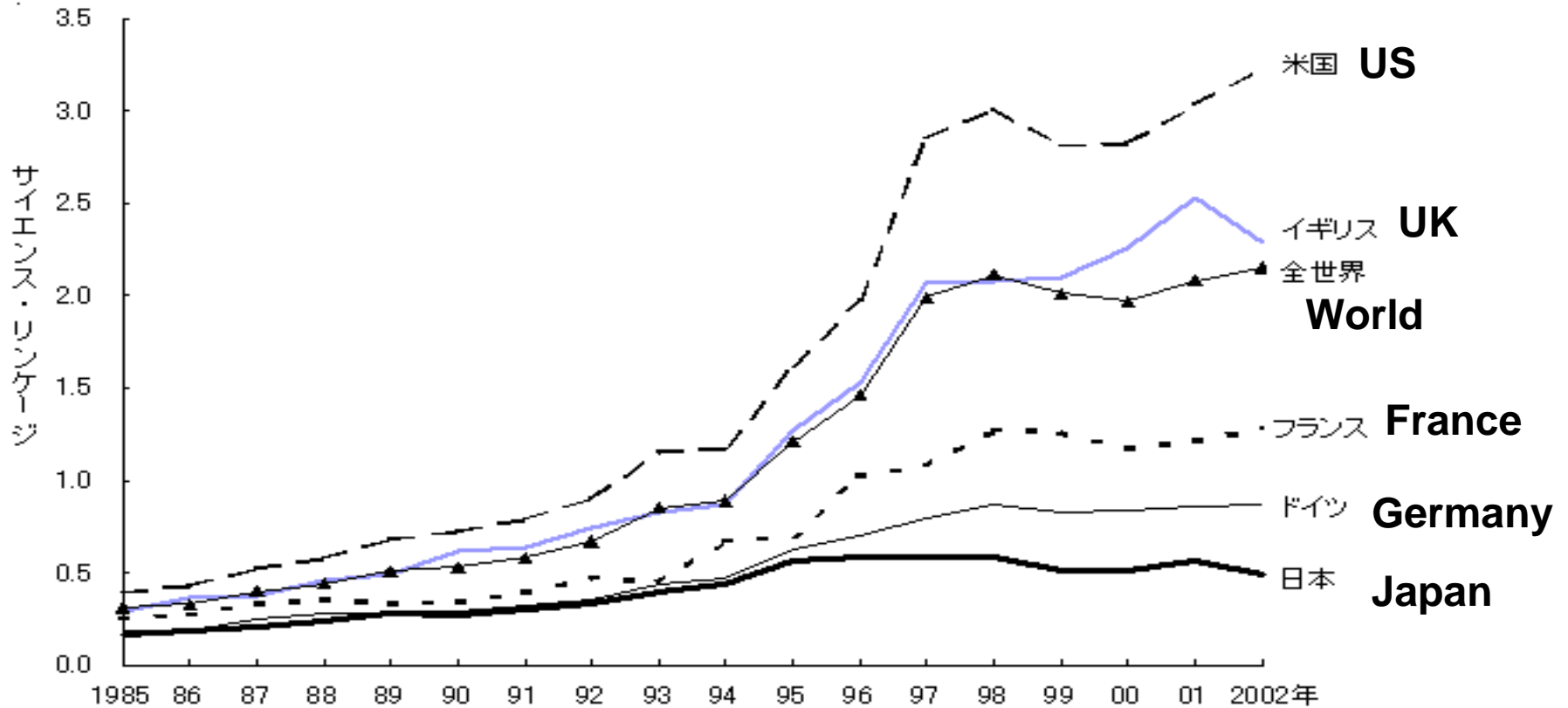


Universities are encouraged to

- establish their **IP-focused Organizations(TLOs)**
- set up **Rules & Regulation (IPR Ownership)**
- secure **Funding (Patent Prosecution Fee)**

# Science Linkage

## Science Linkage of US Patents by country of origin



**Science Linkage = (Science publications cited in US Patents) / (US Patents)**

**Source: NISTEP, Science and Technology Indicators 2004 –Data Updated in 2005-**

## 2. Patent Examination

Huge Backlog




Current First Action Period : **26 months**  
(Waiting period for examination)



*For expeditious examination*

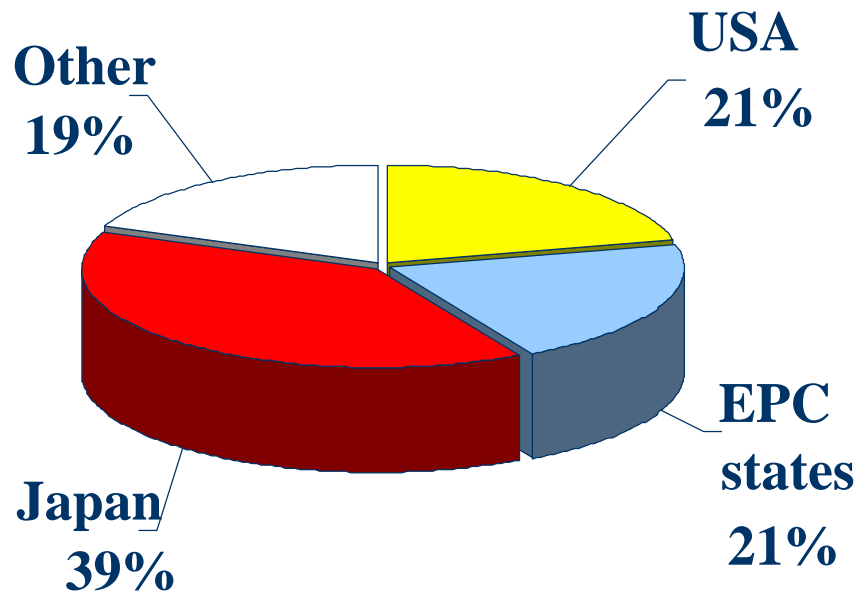
500 examiners for 10-years fixed-term  
Outsourcing prior art search



Final Goal 0 (Real time examination)

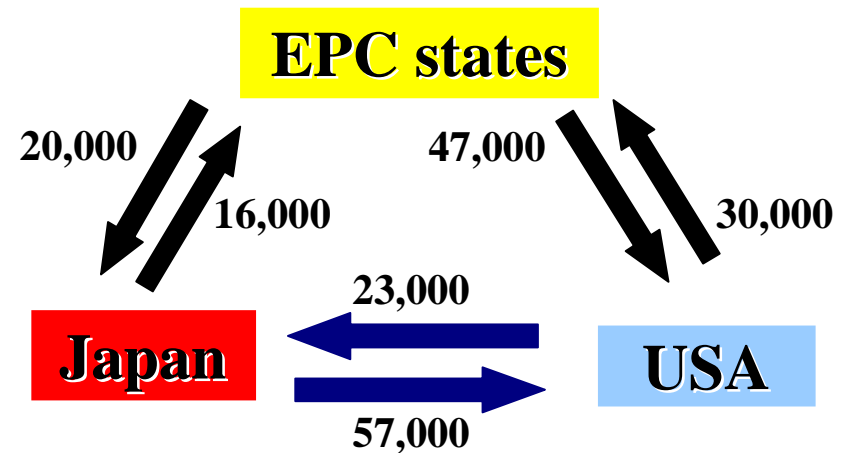
# Worldwide "Patent Explosion"

## World Patent Applications by Bloc of Origin



Resource: Trilateral Statistical Report 2002 edition

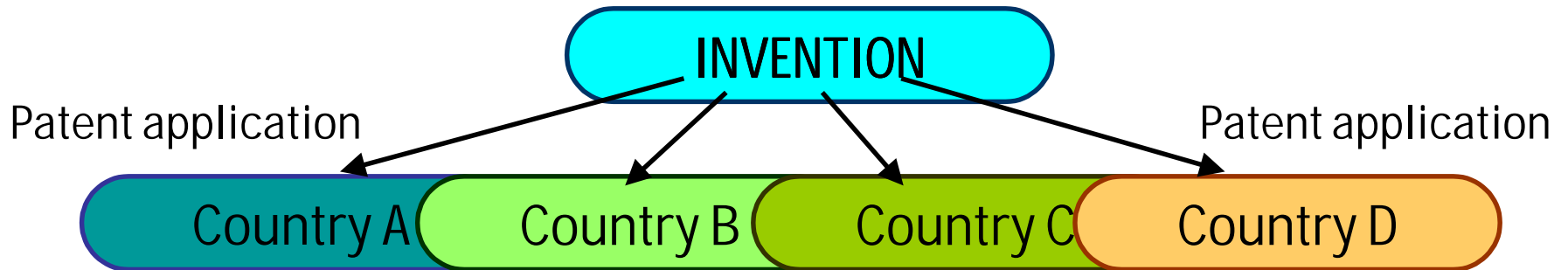
## Flows of Applications between Trilateral Blocs



Resource:  
Annual Report of EPO(CY), USPTO(FY), JPO(CY) in 2002

# Towards Global Patent System

## Independent patent system



○ Applicants → Increased Costs

○ Patent Offices → Increased Burden of Examination

Needs for **Global Patent System**

# 3. IP High Court

**IP Lawsuits**

**High-technologies**

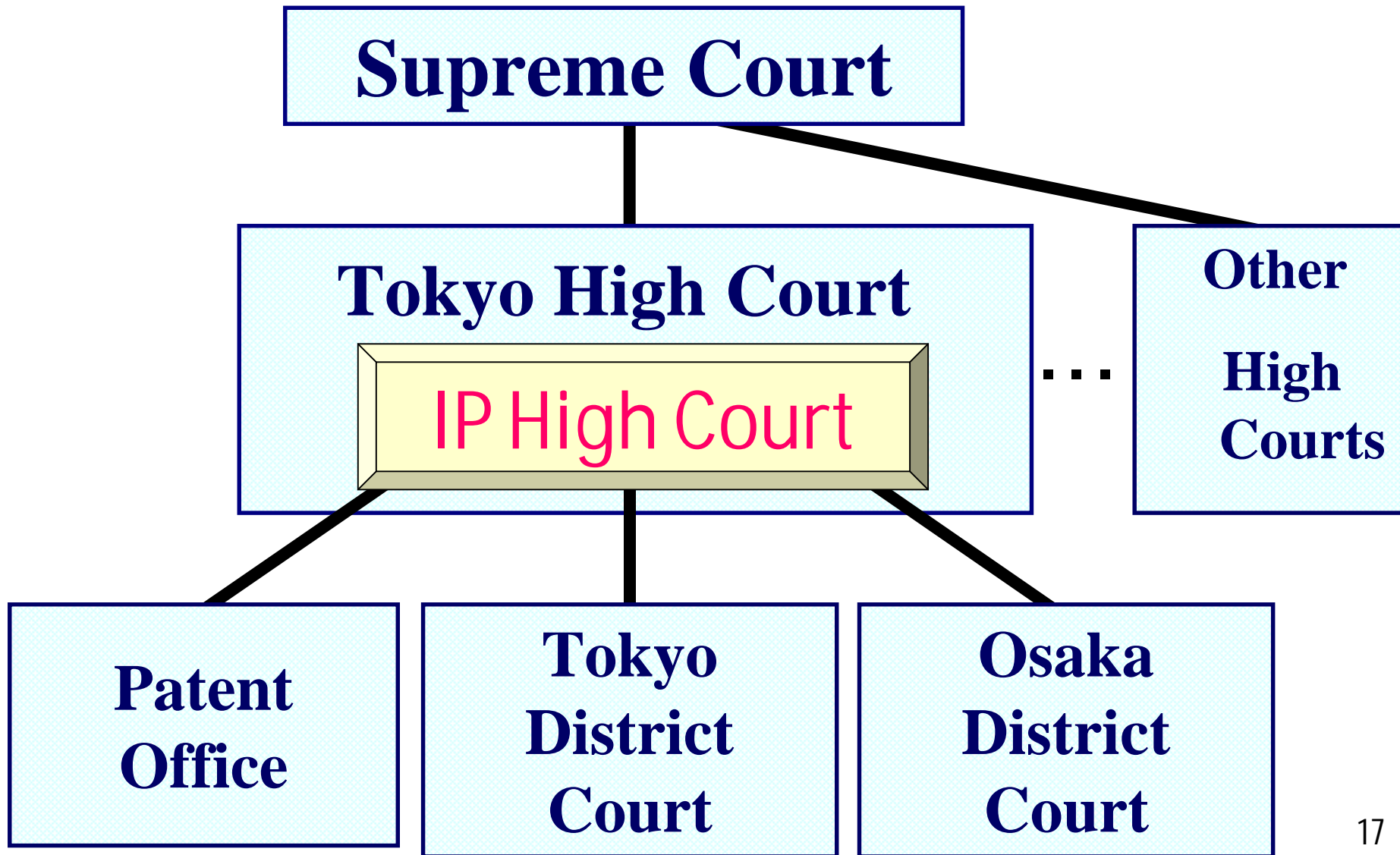
**Global & fierce  
competition**

**Expertise**

**Forseeability & speed  
of court decision**

**IP High Court** was established in **April, 2005.**

# IP High Court in Japanese Judicial System



# 4. Anti-Counterfeiting and Piracy

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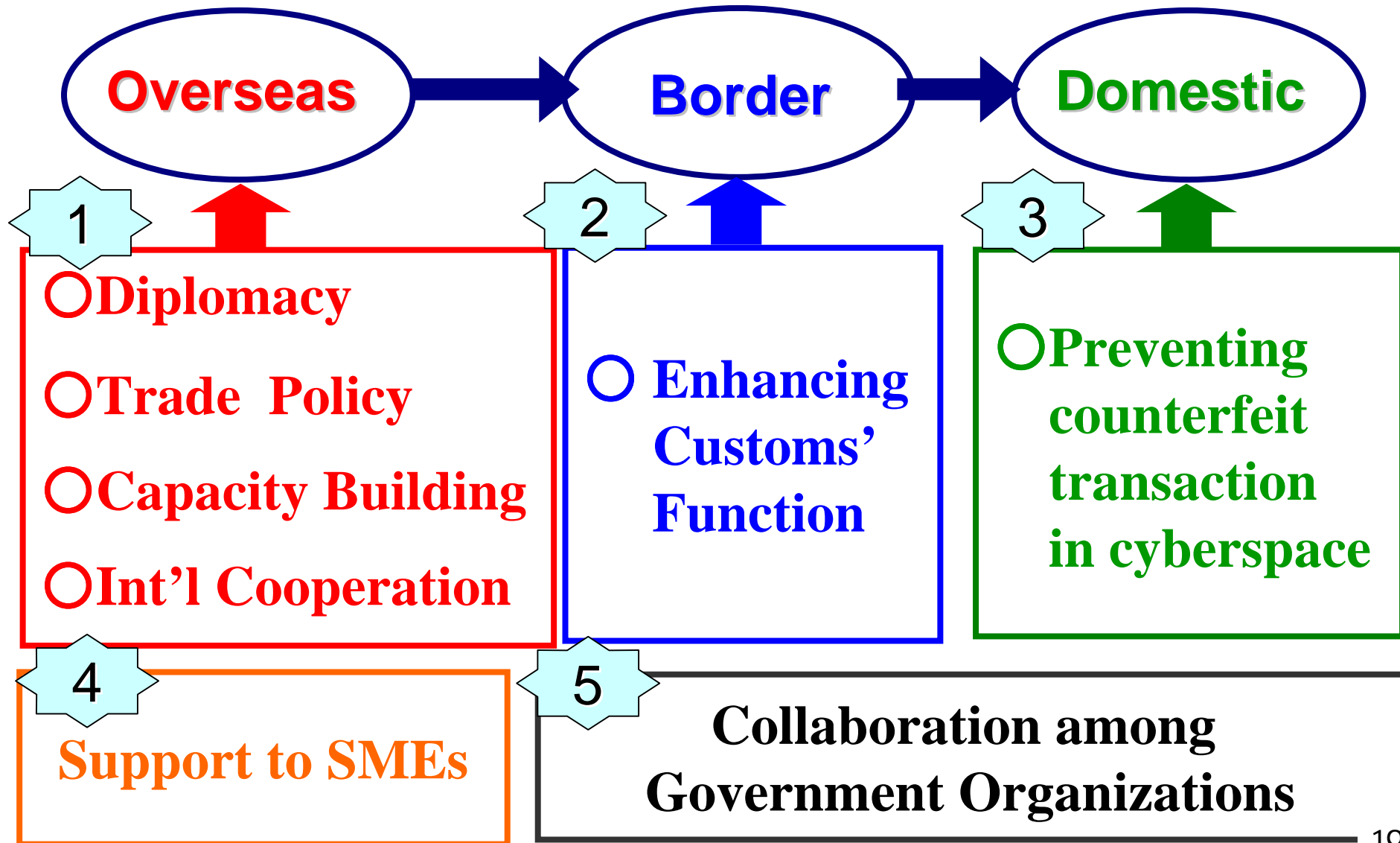
**“The global trade in counterfeit goods is estimated at over**

**500 billion Euro**

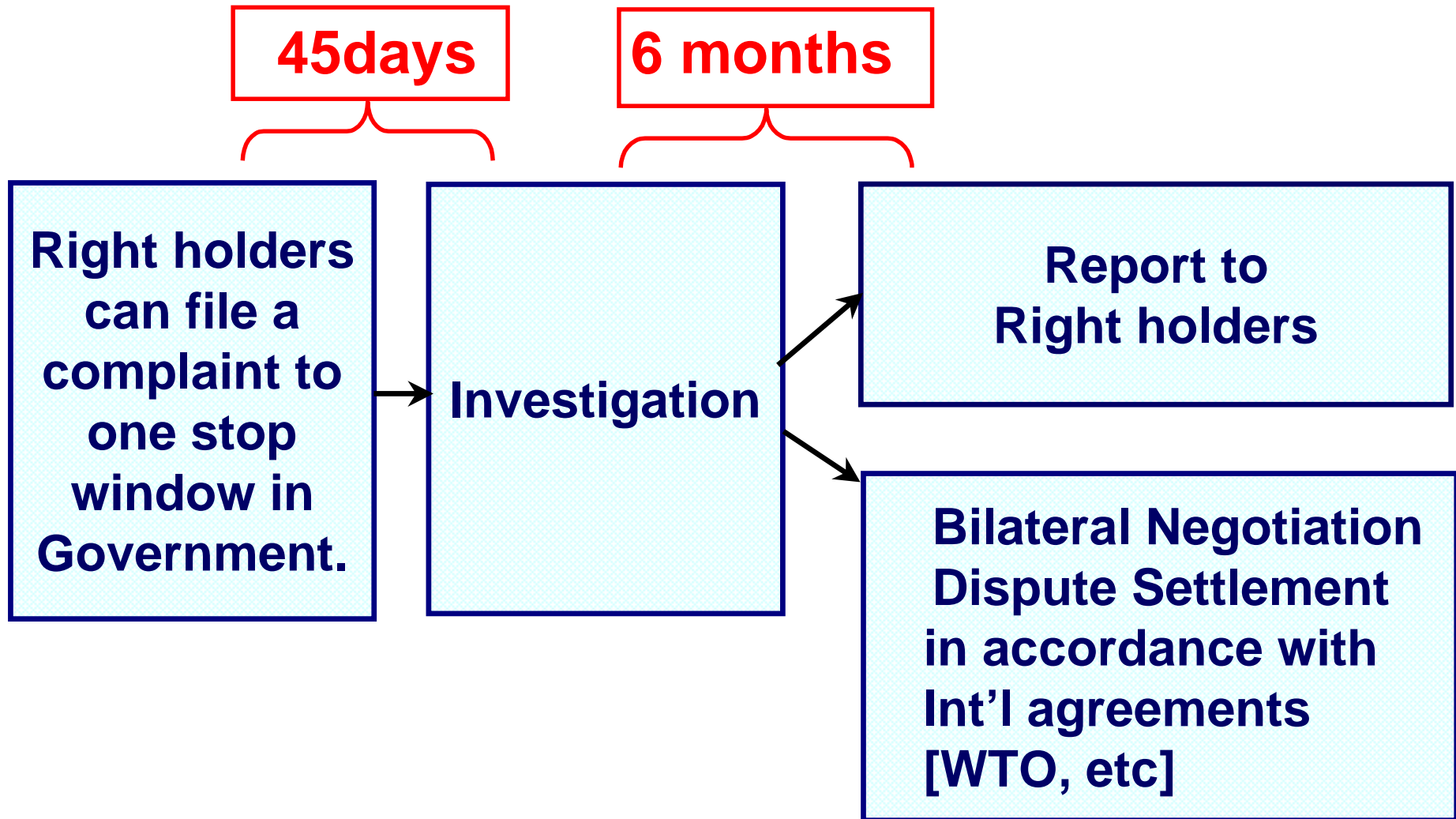
**annually and is escalating rapidly.”**

**Source: The First Global Congress on Combating Counterfeiting, organized by WCO (World Customs Organization] and Interpol, 16/06/2004**

# Overview of Anti-Counterfeiting and Piracy



# Investigation system on unfair IP practices by foreign countries



# Part IV, Does IP Policy Matter?

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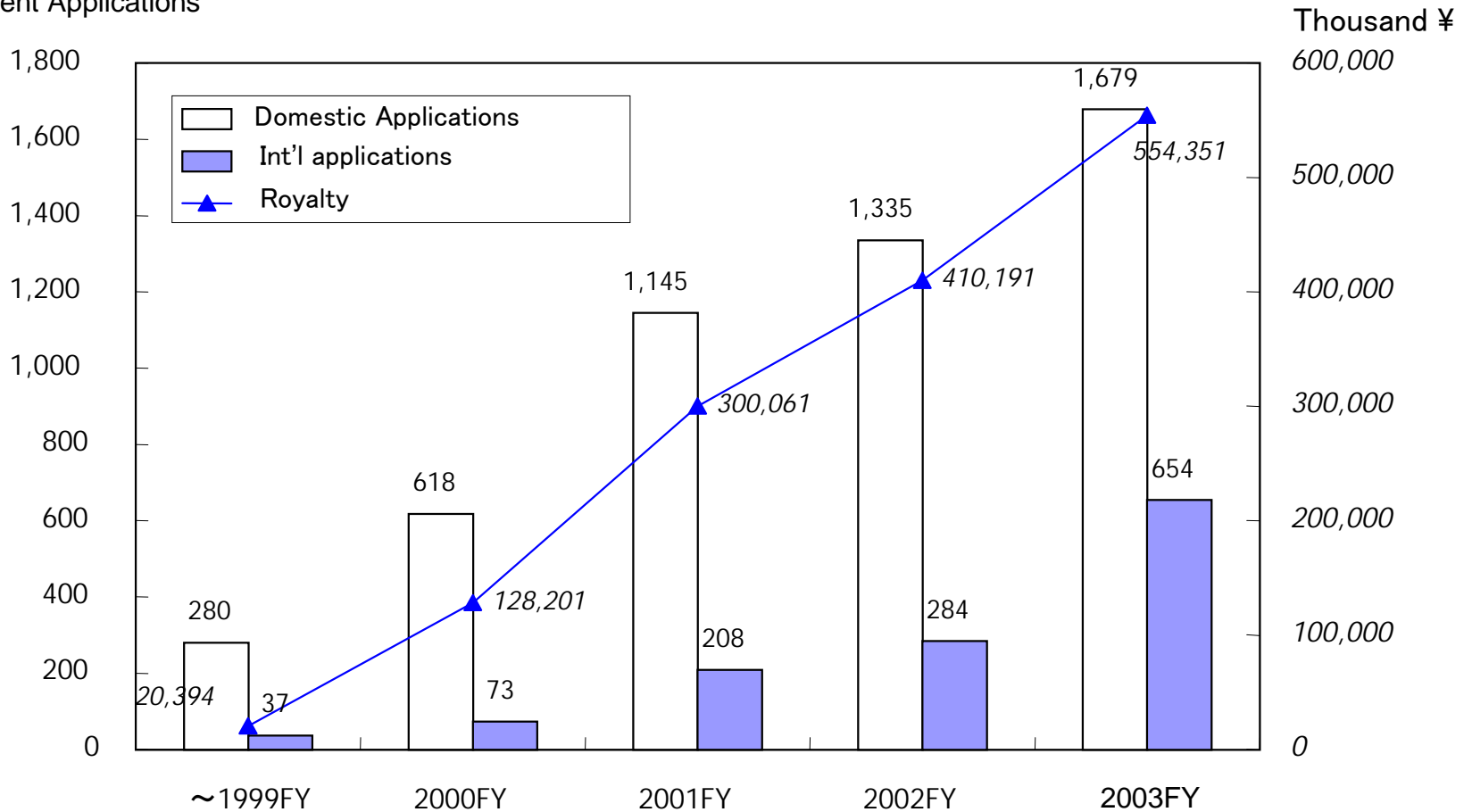
- **IP-related Activities in Universities**
  - **Technology Transfer**
  - **Start-ups**

## **2. IP in Corporate Strategy**

- **IP as “visible” assets**
- **IP Disputes**

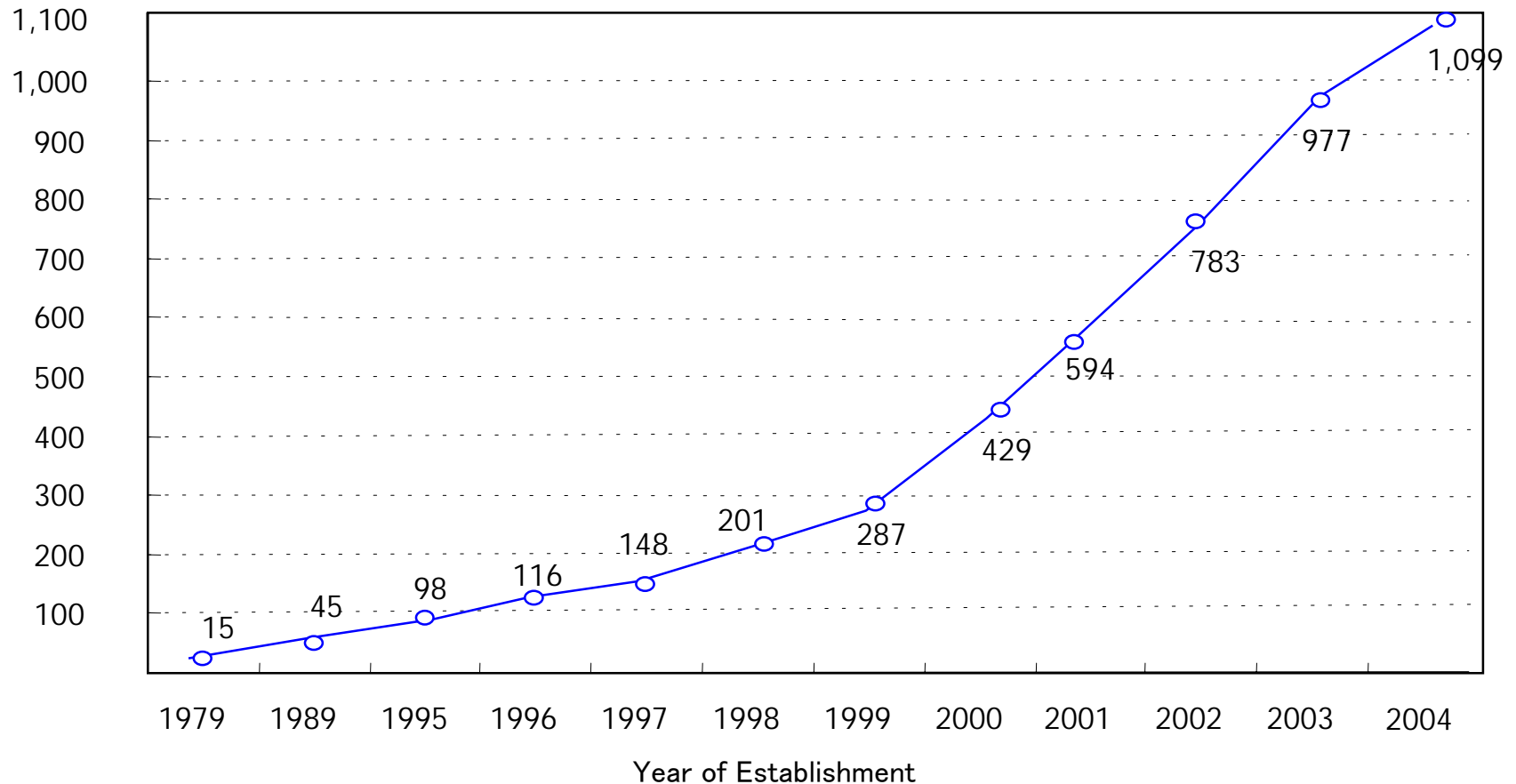
# Technology Transfer from TLOs

Patent Applications



Source : METI, [http://www.meti.go.jp/policy/innovation\\_corp/tlo2/tlosuii.pdf](http://www.meti.go.jp/policy/innovation_corp/tlo2/tlosuii.pdf)

# Start-ups from Universities



Source : METI, [http://www.meti.go.jp/policy/innovation\\_corp/whatsnew/shiryuu.pdf](http://www.meti.go.jp/policy/innovation_corp/whatsnew/shiryuu.pdf)

# US-Japan Comparison

	US(*1) 2003FY (N=165)	Japan(*2) 2003FY (N=36)
Patent applications	7,203	1,679
Royalty	1,034M\$	5M\$
Start-ups	1980~2003 4,081	~2004 1,099

\*1 Source: AUTM Licensing Survey; FY 2003 Survey Summary

\*\*2 Source: METI, [http://www.meti.go.jp/policy/innovation\\_corp/tlo2/tlosuii.pdf](http://www.meti.go.jp/policy/innovation_corp/tlo2/tlosuii.pdf)

# IP as “visible assets” in management

**Jan., 2004**

**As of Sep., 2004**

**METI**

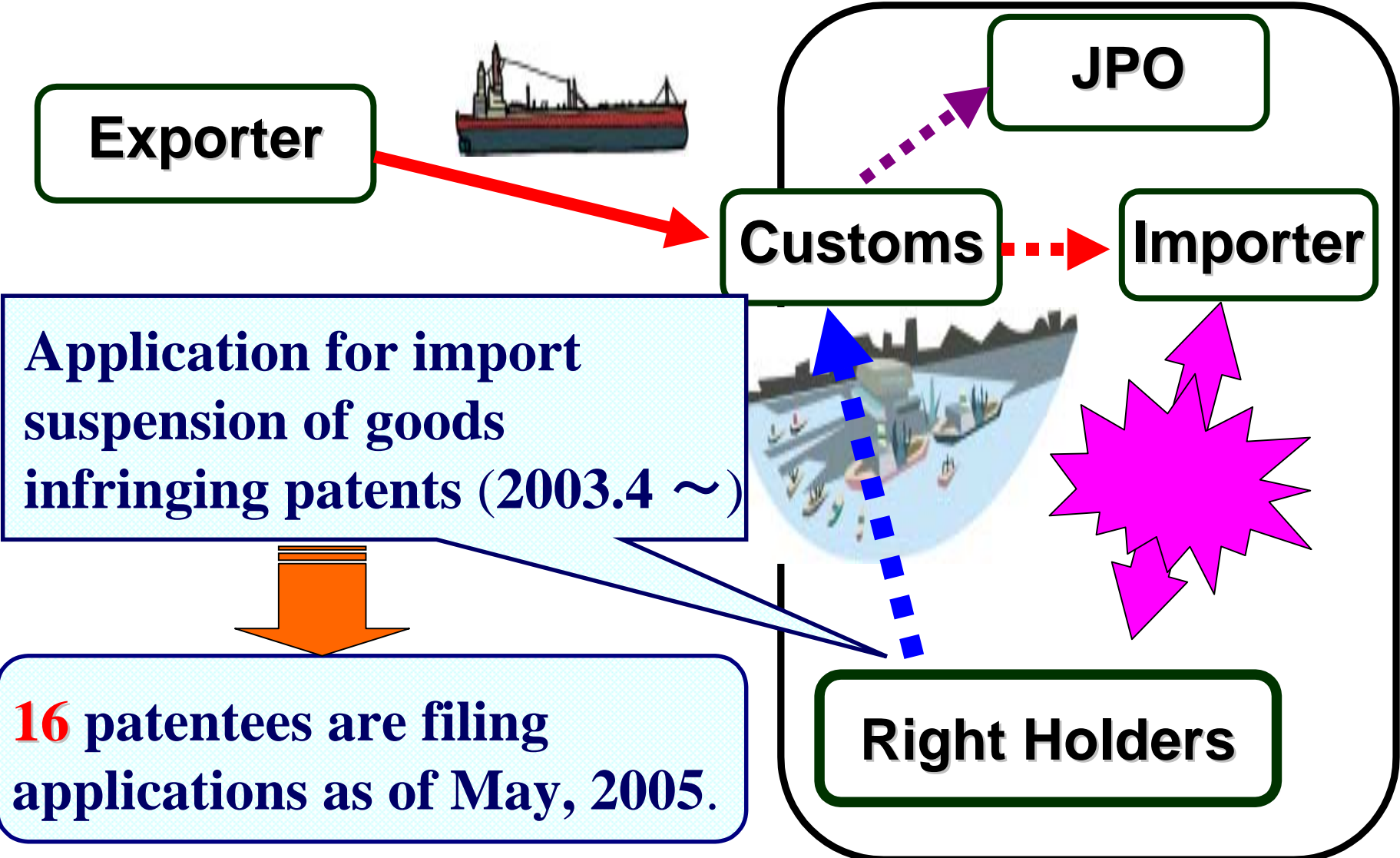
**Companies that disclose IP report**

**“Guideline On disclosure of IP”**

Olympus	Iseki
Hitachi	Tokyo Electron
Kabu. com	Mitsui Engineering &
Asahi-kasei	shipbuilding
Hitachi Chemical	NEC
Bridgestone	Mitsubishi Electric
Konica Minolta	JSR
Ajinomoto	Takeda Pharmaceutical
	Fujitsu

**100?**

# IP Disputes at Border



*IP Policy does have an effect on activities of both universities and industries.*

*However, the overall effect on innovative activities is yet to be seen... .*