

Utilizing Claims of Granted Patents

Masanobu UEDA
Japan Patent Office

November 28, 2012



Outlines

- Points to consider in using claims of granted patents
 - Differences of claims
 - Differences of examination guidelines
- Concept of the PPH

Points to consider in using claims of granted patents

- Patent claims in each IP Office may be different as a result of the examination
 - Inventive steps requirements
 - Description requirements
 - Consideration of experiment results submitted afterward

Claim

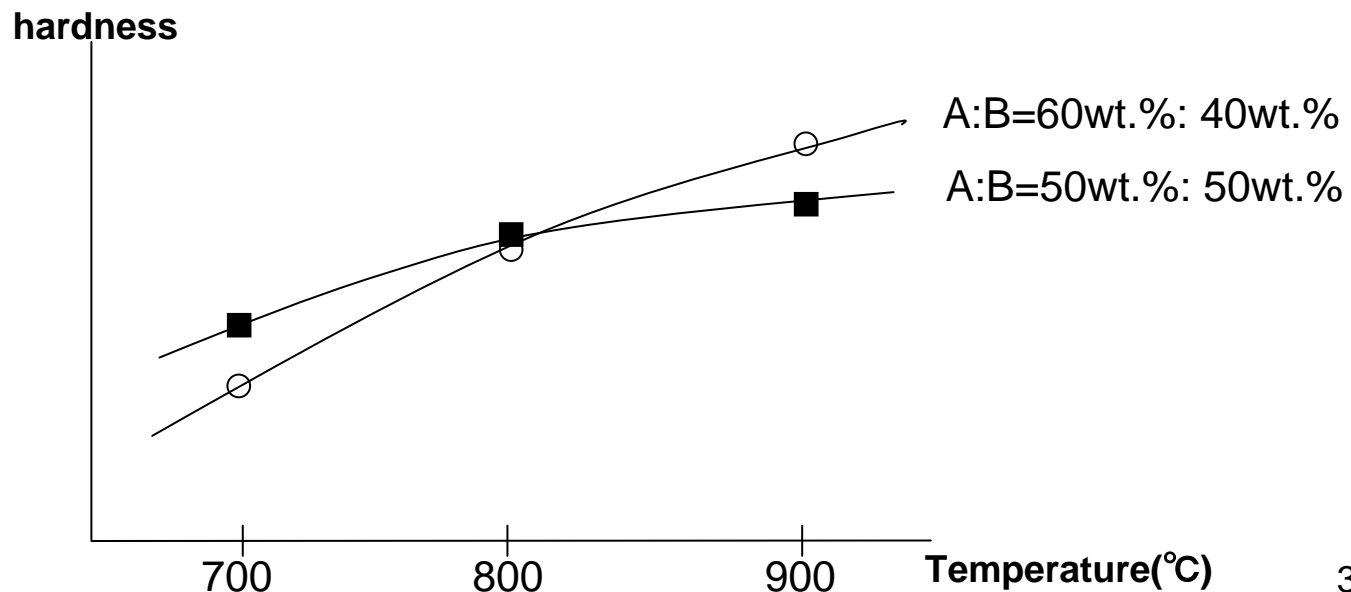
Alloy consisting of **metal A 10-90wt.%** and **metal B 90-10wt.%** hardened through heat treatment at **700 degree or higher**.

Description

- The ratio of **metal A is 10-90 wt.%, preferably 30-90 wt.%, more preferably 50-90 wt.%**. **➡ adequate hardness**

Example

T=700, 800, 900°C
A:B=50wt.%,50wt.%
60wt.%,40wt.%



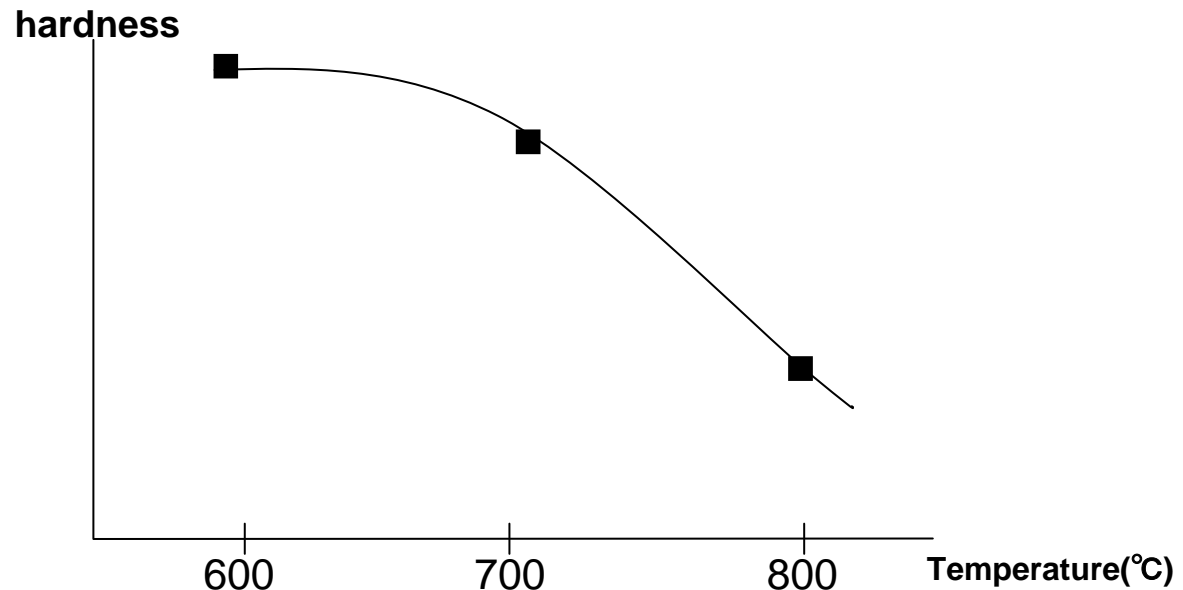
Description

- Alloy consisting of **metal A** and **metal B** hardened through heat treatment at 800 degree or lower.
- The ratio of **metal A** and **metal B** is arbitrary.
- The hardness is favorably increased at **800 degree or lower**.

Example

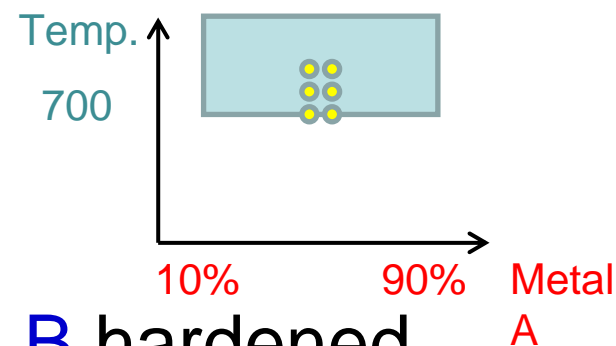
T=600, 700, 800°C

A:B=10wt.%,90wt.%



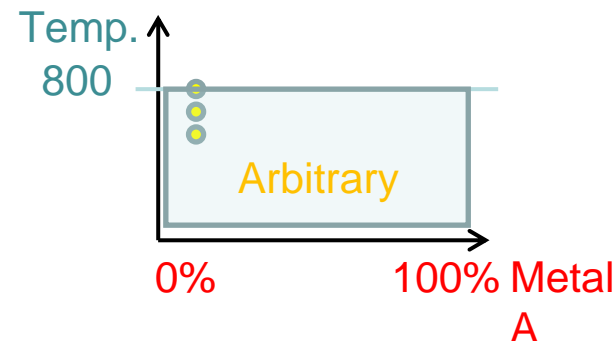
Present Application

Alloy consisting of **metal A 10-90wt.%** and **metal B 90-10wt.%** hardened through heat treatment at **700 degree or higher**



Cited Document

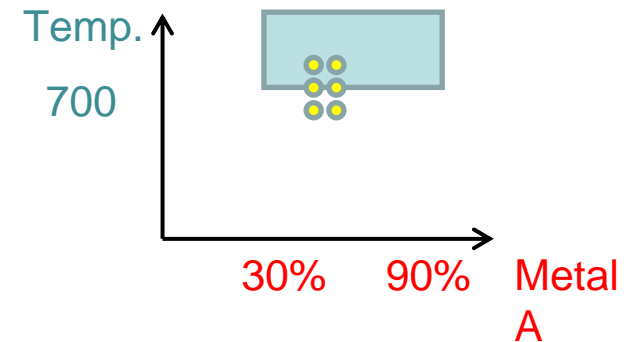
Alloy consisting of **metal A** and **metal B** hardened through heat treatment at **800 degree or lower**



Granted Claim of Patent Office A

Alloy consisting of **metal A 30-90wt.%** and **metal B 70-10wt.%** hardened through heat treatment at **800 degree or higher.**

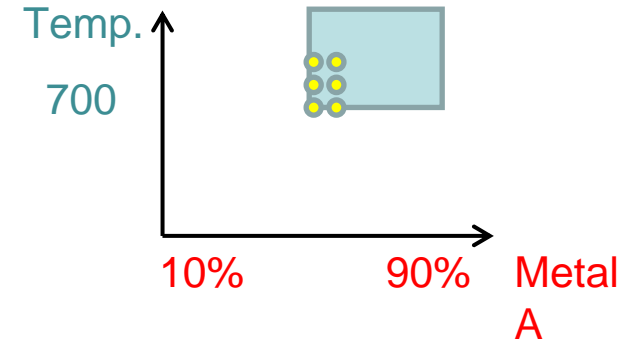
- The ratio of **metal A** is limited from 10-90wt.% to **30-90wt.%**
(The ratio of **metal B** is limited from 90-10wt.% to **70-10wt.%**)
- The temperature is limited from 700 degree or higher.
to **800 degree or higher.**



Granted Claim of Patent Office B

Alloy consisting of **metal A 50-90wt.%** and **metal B 50-10wt.%** hardened through heat treatment at **700 degree or higher.**

- The ratio of **metal A** is limited from 10-90wt.% to **50-90wt.%**
(The ratio of **metal B** is limited from 90-10wt.% to **50-10wt.%**)
- The temperature is not limited.



➔ Difference

- **Range of the ratio of metal A and metal B**
- **Range of the temperature of heat treatment**

✓ Lack of Novelty

Present Application

Alloy consisting of **metal A 10-90wt.%** and **metal B 90-10wt.%**
hardened through heat treatment at **700 degree or higher**

Disclosure of the cited document

Alloy consisting of **metal A 10wt.%** and **metal B 90wt.%** hardened
through heat treatment at **700 or 800 degree**



Claimed invention of the present application is
disclosed in the cited document.

✓ Lack of Inventive Step

Present Application

Alloy consisting of **metal A 10-90wt.%** and **metal B 90-10wt.%** hardened through heat treatment at **700 degree or higher**

Disclosure of the cited document

- The ratio of **metal A** and **metal B** is arbitrary.
- The hardness is favorably increased at **800 degree or lower**.



A person skilled in the art would arbitrarily arrange the ratio of metal A and metal B and arrange the temperature of the heat treatment in the range of 800 degree or lower, in order to make the alloy hard, easily arriving the present invention.

Amendment of the Claim

Alloy consisting of metal A 30-90wt.% and metal B 70-10wt.% hardened through heat treatment at 800 degree or higher.

Argument by the applicant

- The amended claimed invention is not specifically disclosed in the cited document any more.
- The cited document does not encourage a person skilled in the art to increase the temperature of the heat treatment to 800 degree or higher.
- The present invention has found that, in the specific range of the ratio of metal A and metal B, hardness of the alloy is increased when heated at 800 degree or higher.

➡ The amended claimed invention is novel and inventive.

✓ Lack of Novelty

The same reason as that
of Patent Office A

Present Application

Alloy consisting of **metal A 10-90wt.%** and **metal B 90-10wt.%**
hardened through heat treatment at **700 degree or higher**

Disclosure of the cited document

Alloy consisting of **metal A 10wt.%** and **metal B 90wt.%** hardened
through heat treatment at **700 or 800 degree**



Claimed invention of the present application is
disclosed in the cited document.

✓ Lack of Inventive Step

Present Application

Alloy consisting of **metal A 10-90wt.%** and **metal B 90-10wt.%**
hardened through heat treatment at **700 degree or higher**

Disclosure of the cited document

- The ratio of **metal A** and **metal B** is arbitrary.
- The hardness is favorably increased at **800 degree or lower**.



The logic is different from that of Patent Office A.

A person skilled in the art would arbitrarily arrange the ratio of metal A and metal B. A person skilled in the art would also suitably arrange the temperature of the heat treatment **even beyond 800 degree** in the light of the common general technical knowledge that the alloy's hardness changes according to the composition of alloy or the temperature of heat treatment. So, the present claimed invention is easily arrived based on the disclosure of the cited document.

✓ Noncompliant of Support requirement

Not pointed out by
Patent Office A

Common general technical knowledge:

- The adequate temperature of the heat treatment depends on the composition of the alloy.

Fact described in the cited document:

- In case of the alloy of metal A 10wt.% and metal B 90wt.%, hardness of the alloy lowers at higher than 700 degree.

Fact disclosed in the present application:

- The hardness is confirmed only when A: B= 50wt.%, 50wt.% and A: B= 60wt.%, 40wt.% by the experiment in the description.



It is not supported that hardness of the alloy is increased through heat treatment at 700 degree or higher in all the range of metal A: metal B= 10wt.%, 90wt.% ~ 90wt.%, 10wt.%

Amendment of the Claim

Alloy consisting of metal A 50-90wt.% and metal B 50-10wt.% hardened through heat treatment at 700 degree or higher.

Argument by the applicant

- The amended claimed invention is not specifically disclosed in the cited document any more.
- The cited document suggests that hardness of the alloy is decreased through heat treatment at higher than 700 degree.

To the contrary, the present invention has found that, in the specific range of the ratio of metal A and metal B, hardness of the alloy is increased when heated at 800 degree or higher.



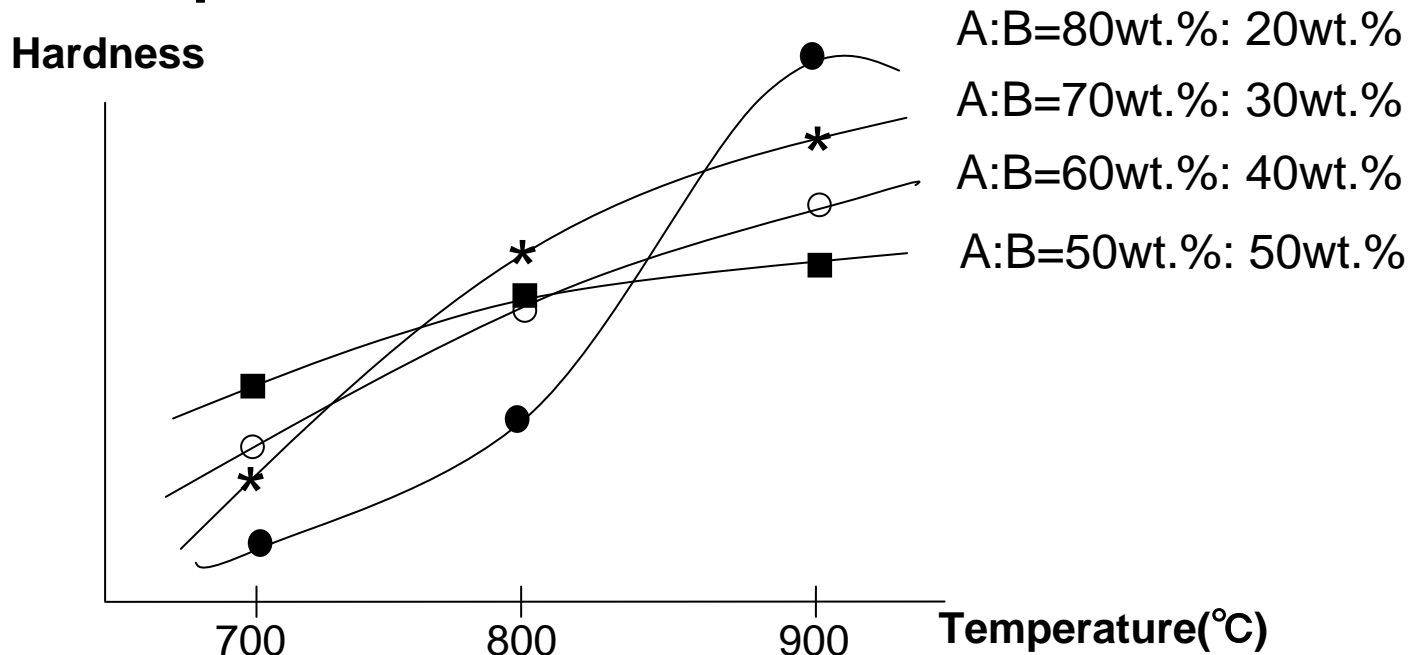
The amended claimed invention is novel and inventive.

11. Additional experiment result submitted by the applicant

Description originally filed

- The ratio of **metal A** is 10-90 wt.%, preferably 30-90 wt.%, more preferably 50-90 wt.%.

Additional experiment result



Argument by the applicant

➡ Experiment result shows that hardness of the alloy is increased through heat treatment at 700 degree or higher in the range of the ratio of **metal A 50-90 wt.%** and **metal B 50-10 wt.%** as stated in the description originally filed.

➤ Inventive steps

What temperature range and what ratio range are considered to involve inventive steps, considering the disclosure and the working examples?

- Suggestion in cited document
- Motivation
- Obstructive factor
- Unexpected results

➤ Description requirements

What temperature range and what ratio range are considered to be supported by the description?

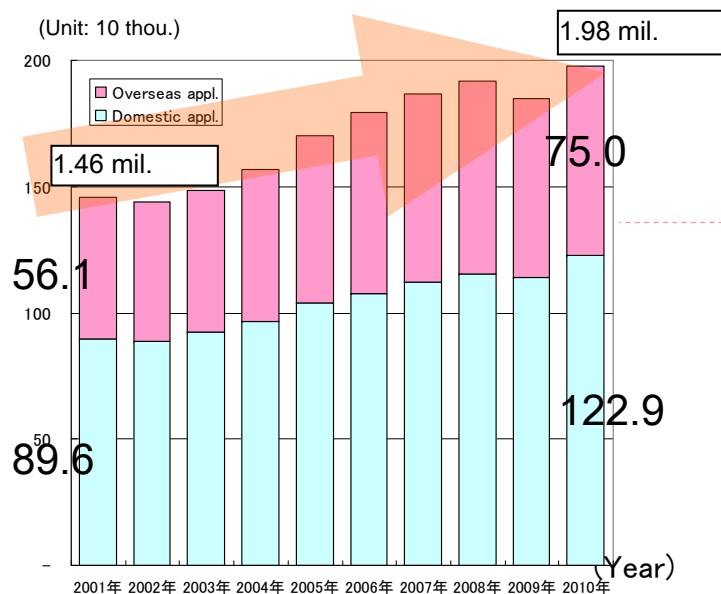
- Disclosure by the description originally filed (especially Examples)
- Common general technical knowledge
- Experiment results submitted afterward

✓ *Background*

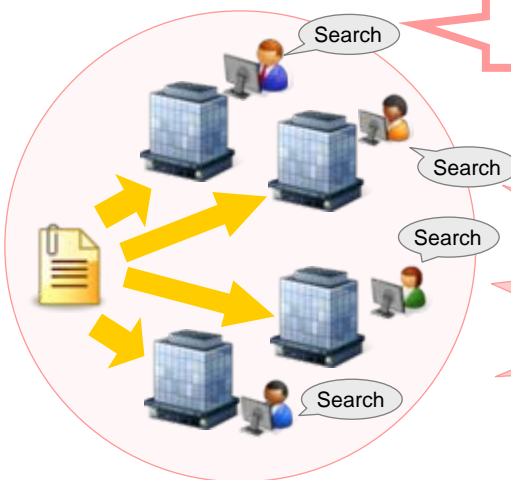
✓ *Current Situation of PPH Program*

✓ The number of patent applications in the world is increasing along with the globalization of business. In particular, the number of applications filed abroad is significantly increasing.

Changes in Patent Appl. Filed in the Whole World



Source: WIPO Industrial Property Statistics



The number of applications filed in many offices is increasing.

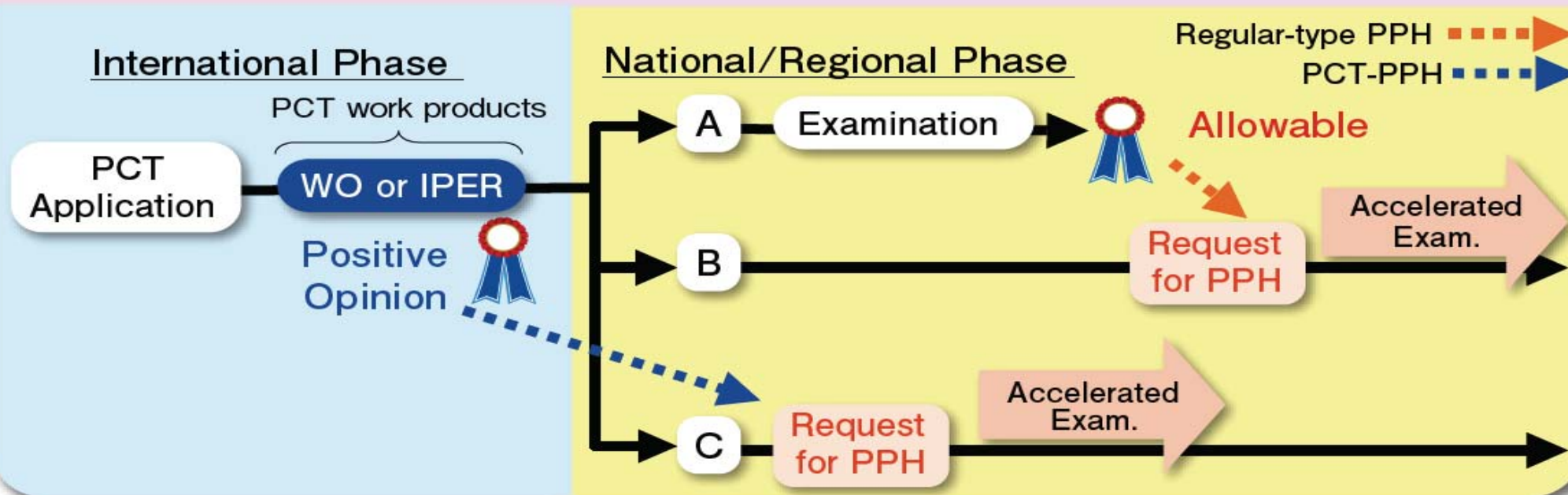
Increasing duplication work!

Growing Demand for Worksharing

✓ *Background*

✓ *Current Situation of PPH Program*

➤ If a patent application has been determined to be patentable in the Office of First Filing (OFF), the corresponding application is qualified for accelerated examination in Offices of Second Filing (OSFs) with a simplified procedure.



As of the end of June, 2012

		OLE																							
		JP	US	KR	GB	CA	DE	AU	DK	EP	SG	FI	RU	AT	HU	ES	MX	PT	IL	TW	NO	CN	IS	PH	Total
		JP		5520	1395	24 (0)	100 (3)	607	-	2	598	8	1 (0)	51(2)	0	0	0	10	0	0	46	0	253	0	0
US	1783(44)		627	49 (1)	2422 (60)	88	190 (10)	7	406	9	2 (0)	36(1)	0	2	1	49	-	0	109	6	210	0	-	5996	
KR	202	957		6	5	3	-	0	-	-	0 (0)	1	-	-	2	-	-	-	-	-	3	-	-	1179	
GB	71(5)	294	27		10 (2)	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	402	
CA	4(4)	152	1	0 (0)		0	-	0	-	-	1 (0)	-	-	-	0	-	-	-	-	-	-	-	-	158	
DE	93	80	19	0	32		-	-	-	-	-	-	-	-	-	-	-	-	-	-	0	-	-	224	
AU	-	153	-	-	-	-		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	153	
DK	10	107	4	-	2	-	-		-	-	-	0	-	-	-	-	-	-	0	-	-	-	-	123	
EP	117(55)	281	-	-	-	-	-	-		-	-	-	-	-	-	-	-	-	-	-	-	-	-	398	
SG	0	2	-	-	-	-	-	-	-		-	-	-	-	-	-	-	-	-	-	-	-	-	2	
FI	6	26	0	-	2 (0)	-	0	-	-	-		1	0	0	0	-	-	-	-	-	-	-	-	35	
RU	3	10	0	-	-	-	-	0	-	-	0 (0)		-	-	0	-	-	-	-	-	-	-	-	13	
AT	1	1	-	-	-	-	-	-	-	-	0 (0)	-		0	-	-	-	-	-	-	-	-	-	2	
HU	2	3	-	-	-	-	-	-	-	-	0 (0)	-	0		-	-	-	-	-	-	-	-	-	5	
ES	0	0	0	-	0 (0)	-	-	-	-	-	0 (0)	0	-	-		0	0	-	-	-	-	-	-	0	
MX	0	1	-	-	-	-	-	-	-	-	-	-	-	-	0		-	-	-	-	-	-	-	1	
PT	0	-	-	-	-	-	-	-	-	-	-	-	-	-	0	-		-	-	-	-	-	-	0	
IL	0	5	-	-	-	-	-	0	-	-	-	-	-	-	-	-		-	-	-	-	-	-	5	
TW	2	3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		-	-	-	-	-	5	
NO	0	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		-	-	-	-	2	
CN	10	49	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		-	-	-	60	
IS	0	5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		-	-	5	
PH	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0	
Total	2304	7651	2074	79	2573	698	190	9	1004	17	4	89	0	2	3	59	0	0	155	6	466	0	0	17383	

The number in parentheses shows the cumulative number of PPH MOTTAINAI requests out of the total number of PPH requests. (The number of OLE-US is not noted.)

Number of Requests for PCT-PPH

As of the end of June, 2012

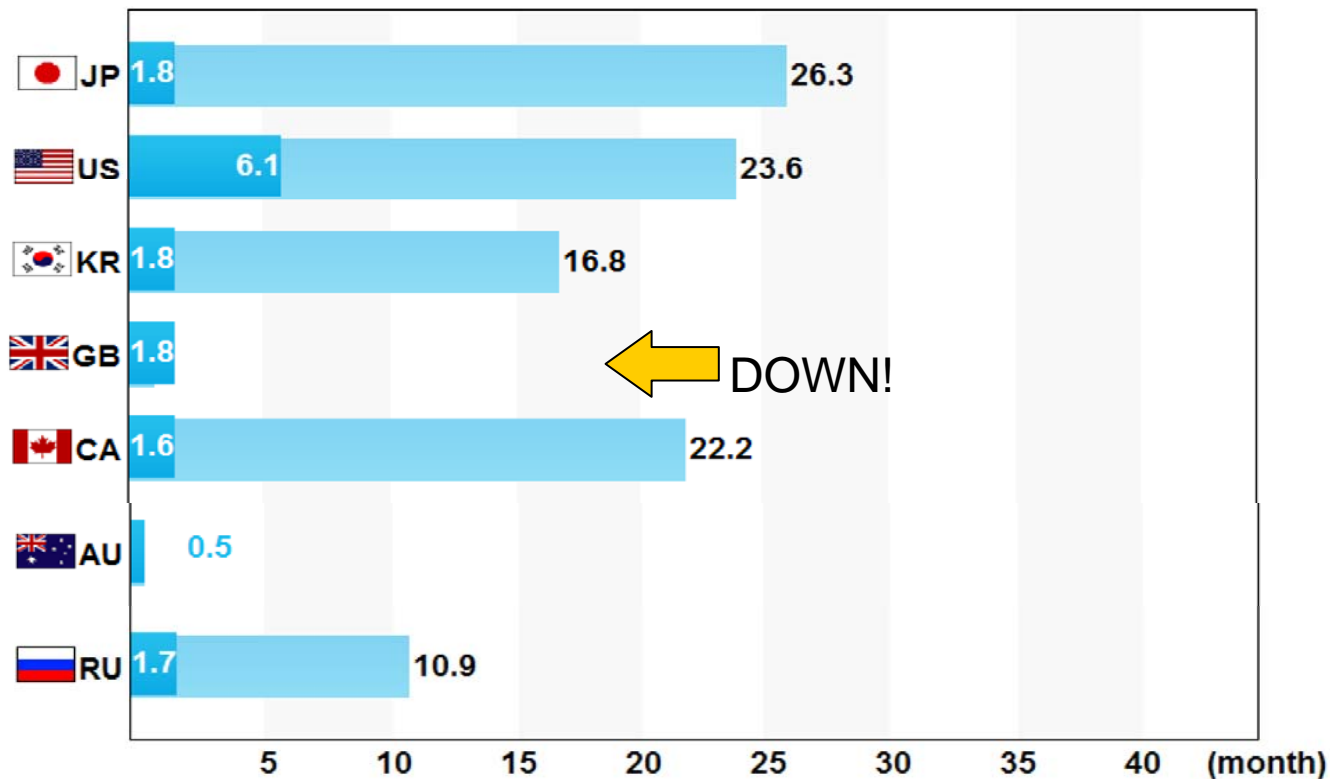
		Office of Filing																			
		JP	US	KR	CA	AU	DK	EP	FI	RU	AT	ES	MX	PT	SE	NO	CN	IS	PH	Total	
ISAIPEA	JP	1184	754	-	-	-	0	283	0	-	-	1	2	0	5	0	62	0	1	2292	
	US	19	198	15	-	7	0	25	0	6	0	0	-	-	0	0	4	0	-	274	
	KR	-	1469	41	-	-	-	-	-	-	-	-	-	-	-	-	-	84	-	-	1594
	CA	-	-	-	48	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	48
	AU	-	149	-	-	7	-	-	-	-	-	-	-	-	-	-	-	-	-	-	156
	EP	428	1171	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1599
	FI		36	-	-	-	-	-	-	-	0	0	0	-	-	-	-	-	-	-	36
	RU	-	11	-	-	-	0	-	-	0	-	-	0	-	-	-	-	-	-	-	11
	AT		10	-	-	-	-	-	-	0	-	-	-	-	-	-	-	-	-	-	10
	ES	2	6	-	-	-	-	-	-	0	0	-	-	0	0	-	-	-	-	-	8
	SE	8	42	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	51
	XN	3	34	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	37
	CN	7	35	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	43
	Total	1651	3915	57	48	14	0	0	308	0	6	0	1	2	0	6	0	150	0	1	6159

PPH meets not only office satisfaction but also user satisfaction!

Speed Up!

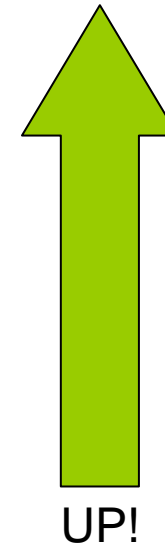
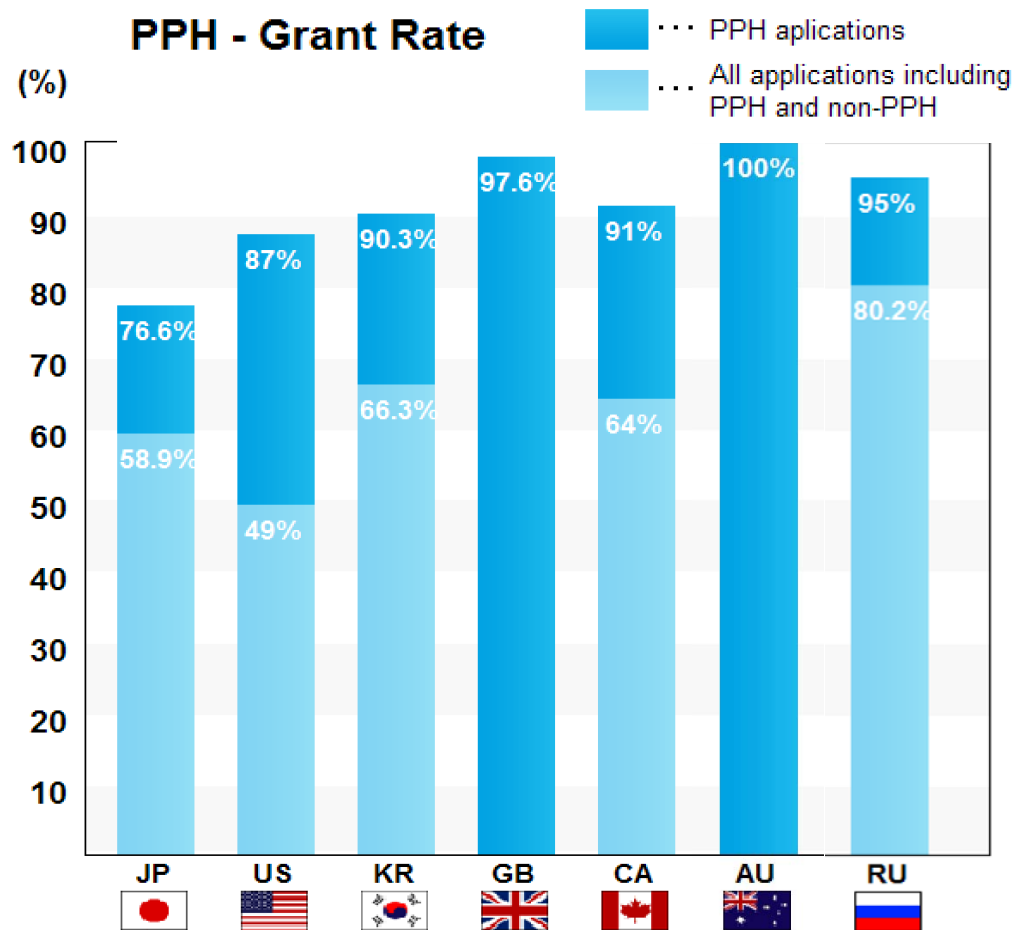
PPH - Average Pendency from PPH Request to First Office Action

■ ... PPH applications
■ ... All applications including PPH and non-PPH



PPH meets not only office satisfaction but also user satisfaction!

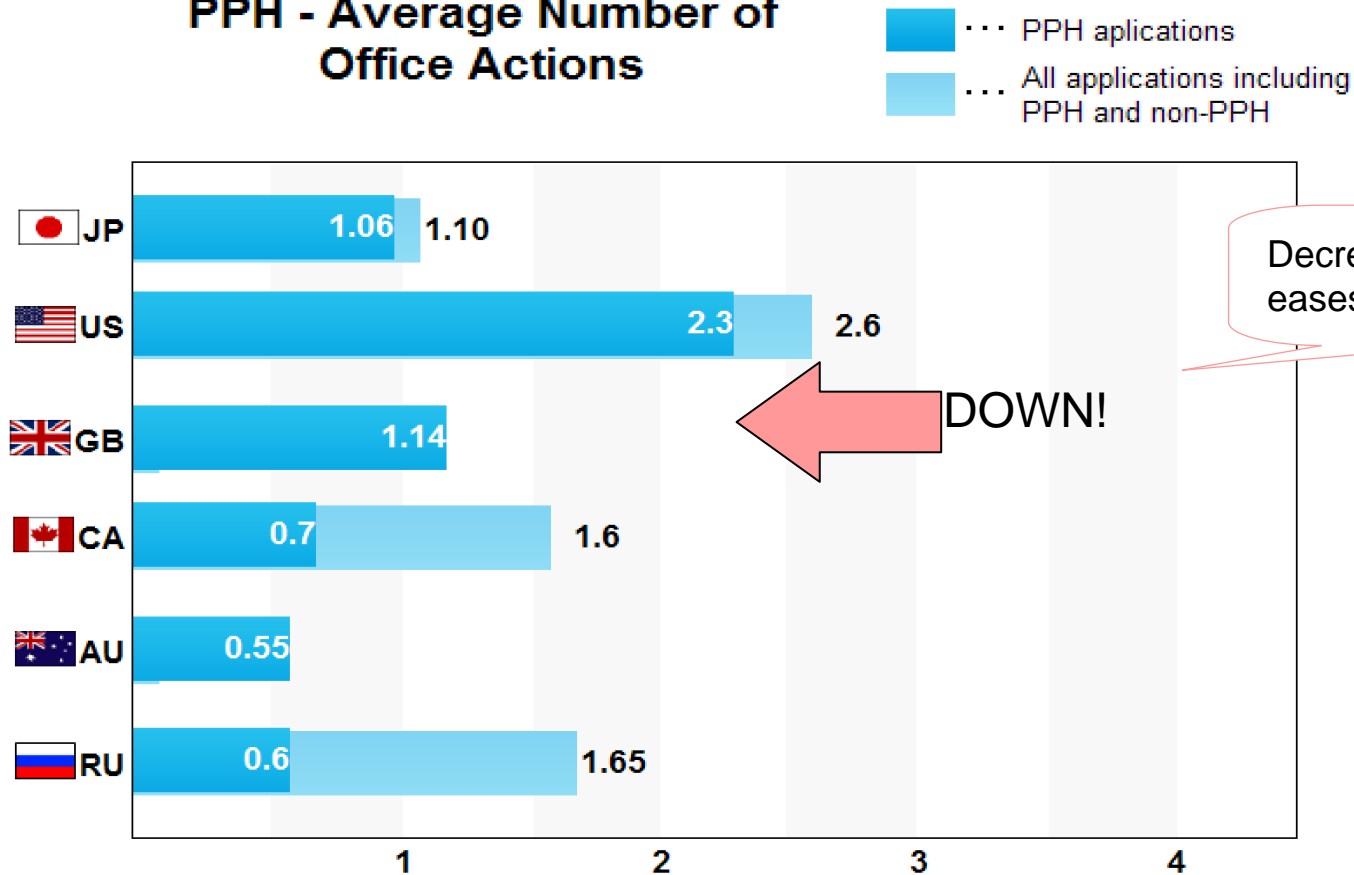
Increase in Grant Rate!



PPH meets not only office satisfaction but also user satisfaction!

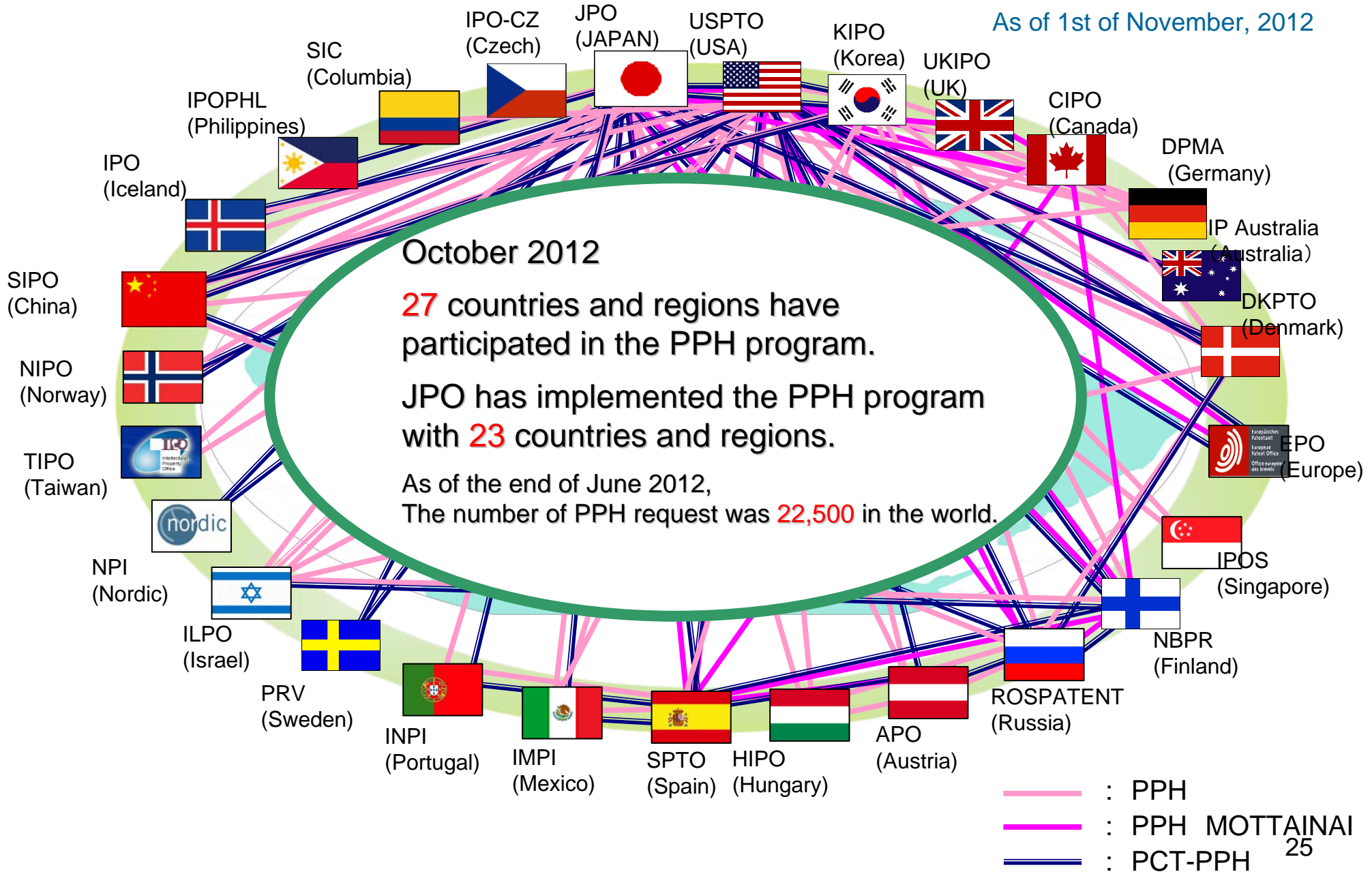
Low Cost!

PPH - Average Number of Office Actions



Expanding PPH Network

As of 1st of November, 2012



➤ JPO website

(In Japanese)

http://www.jpo.go.jp/cgi/link.cgi?url=/torikumi/t_torikumi/patent_highway.htm

(In English)

http://www.jpo.go.jp/cgi/link.cgi?url=/torikumi_e/t_torikumi_e/patent_highway_e.htm

➤ USPTO website

http://www.uspto.gov/patents/init_events/pph/index.jsp

Thank you for your kind attention!

