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PATENT AND TRADEMARK OFFICE



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# Patent Quality Chat

## Leveraging a Harmonized Patent Classification System

October 9, 2018

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**To send in questions or comments during the webinar, please email:**

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# <http://www.uspto.gov/patentquality>

## Patent Quality

Providing high-quality, efficient examination of patent applications is paramount to [our mission](#) at USPTO. To ensure we continue to issue high-quality patents that will fuel innovation well into the future, the [Office of the Deputy Commissioner for Patent Quality](#), along with our partners across the Patents organization, promotes and supports the continuous improvement of patent products, processes and services through collaboration with internal and external stakeholders of the intellectual property community.

### Highlights



#### [Patent Quality Chat](#)

Our next Patent Quality Chat will be on October 9<sup>th</sup>; please mark your calendar to join us for "Leveraging a Harmonized Patent Classification System".

#### [Quality Metrics](#)

See our new metrics approach, categorizing into product, process and perception indicators.

#### [Stakeholder Training on Examination Practice and Procedure \(STEPP\)](#)

Sign up for an upcoming training developed for those interested in a better understanding of the examination process at the USPTO.

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## 2018 Chat Series

Date	Topic	Speaker
Tuesday, October 9 Noon - 1 p.m. ET	Leveraging a Harmonized Patent Classification System <ul style="list-style-type: none"><li>• Presentation Slides (coming soon)</li><li>• Video (coming soon)</li></ul>	<ul style="list-style-type: none"><li>• <b>Christopher Kim</b> Director of Classification Quality and International Coordination Division, <a href="#">OIPC</a> Director (acting) of <a href="#">Classification Standards and Development Division, OIPC</a></li><li>• <b>Justin Krause</b> International Patent Classifier Classification Quality and International Coordination Division, <a href="#">OIPC</a></li></ul>
Tuesday, August 14 Noon - 1 p.m. ET	AIA Trial Statistics from PTAB and Using AIA Trials to Enhance Patent Examination <ul style="list-style-type: none"><li>• <a href="#">Presentation Slides</a></li><li>• <a href="#">Video</a></li></ul>	<ul style="list-style-type: none"><li>• <b>Janet Gongola</b> Vice Chief Judge for Engagement, Patent Trial and Appeal Board</li><li>• <b>Jack Harvey</b> Assistant Deputy Commissioner for Patent Operations</li></ul>



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# Patent Quality Chat

## Leveraging a Harmonized Patent Classification System

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# Today's Topic

USPTO's Office of International Patent Cooperation (OIPC) contributes to the development of the [Cooperative Patent Classification \(CPC\)](#) system and other international classification harmonization efforts (IP5)

-How do harmonization efforts benefit patent quality?

# Agenda

Background of harmonization

Why do we use classification?

International classification harmonization efforts

- Cooperative Patent Classification (CPC)
- IP5 Working Group 1 on Classification – Global Classification Initiative (GCI)
- International Patent Classification (IPC)

Benefits of international harmonization efforts





# Classification Introduction

A patent classification system:

- Organizes knowledge by technical subject matter
- Utilizes a language-neutral and independent categorization

Users of classification include:

- Patent offices
- External stakeholders



# Patent Offices - Patent Classification Search

- Classification codes (symbols) represent technical subject matter
- Language neutral/independent
- Access to International Collection
- Patent family concept
  - Patent documents that share the same priority have the same classification codes



# External Stakeholders

- Protecting intellectual property
  - Whether you are a multinational business or an individual ...  
*you need to protect your intellectual property (inventions, trademarks or designs) across borders*
- Many stakeholders exploit patent information and utilize patent analytics
- There is a wide range of business use of patent information
- Patent analytics are based on classification



# Why is Classification Important?

- Preparing and prosecuting patent applications
- Patent landscape reports
- Technology watch (bulletins)
- State of the art, infringement, patentability, annual statistics reports, freedom to operate, and clearance reports



# International Classification Harmonization Efforts

- Cooperative Patent Classification (CPC)
- IP5 Working Group 1 on Classification  
Global Classification Initiative (GCI)
- International Patent Classification (IPC)



# Cooperative Patent Classification (CPC)

*What is CPC ?*

Classification system developed jointly by USPTO and EPO

Launched in 2013

International Coverage

USPTO system for classification searching



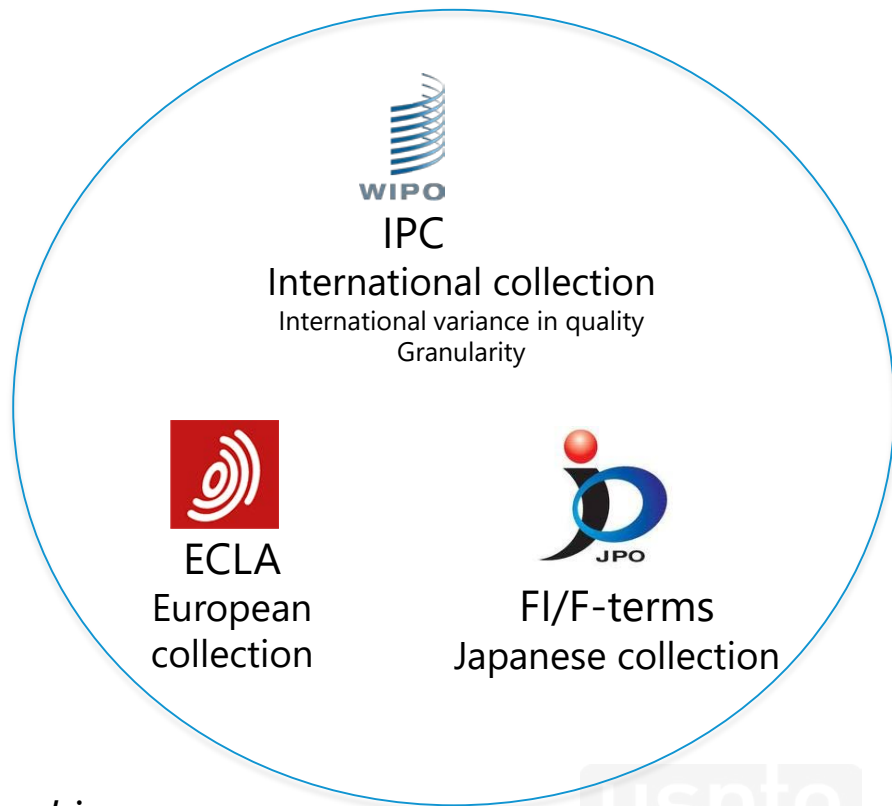
# Benefits of CPC

Quantity (Coverage)

Quality (Harmonization)

# Pre- CPC Landscape

The situation before CPC was ...



*Each system had its own bias*

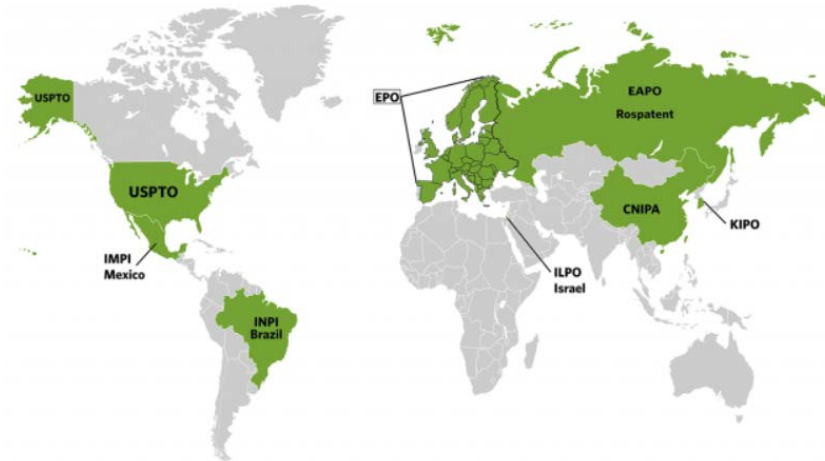




# CPC Coverage

## Wide Coverage

- 4 of 5 major IP Offices classifying in CPC  
(USPTO engaging JPO on classification cooperation)
- 27 countries classifying in CPC



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# CPC Document Collection

- Over 52 million worldwide documents in CPC
- One stop shop for most of the world's documents

*(including some Japanese documents)*

Country	Country Code	Number of publications classified in CPC (family or document level) as of February 2017	Number of publications classified in CPC (family or document level) as of January 2018	Growth % of Publications w/ CPC (family or document level) from February 2017 - January 2018
EPO	EP	3,113,030	3,252,119	4.5%
United States	US	11,650,065	12,019,335	3.2%
WIPO (PCT)	WO	2,998,490	3,191,752	6.4%
ARIPO	AP	3,718	9,042	143.2%
Austria	AT	649,104	651,706	0.4%
Australia	AU	1,360,654	1,608,650	18.2%
Belgium	BE	551,554	552,051	0.1%
Brazil	BR	380,715	396,665	4.2%
Canada	CA	1,269,831	1,303,570	2.7%
Chile	CL	11,344	12,975	14.4%
China	CN	2,406,586	3,913,343	62.6%
Czech Republic	CZ	42,734	43,127	0.9%
Estonia	EE	5,278	5,304	0.5%
France	FR	2,395,208	2,408,804	0.6%
Finland	FI	112,202	113,658	1.3%
Germany	DE	4,740,975	4,807,060	1.4%
Greece	GR	52,753	53,272	1.0%

Country	Country Code	Number of publications classified in CPC (family or document level) as of February 2017	Number of publications classified in CPC (family or document level) as of January 2018	Growth % of Publications w/ CPC (family or document level) from February 2017 - January 2018
Hungary	HU	73,100	80,213	9.7%
Israel	IL	84,600	85,052	0.5%
Korea	KR	1,420,956	2,004,580	41.1%
Luxemburg	LU	60,773	60,786	0.0%
Mexico	MX	239,169	258,684	8.2%
The Netherlands	NL	532,843	535,150	0.4%
Norway	NO	171,479	173,385	1.1%
OAPI	OA	13,191	13,192	0.0%
Poland	PL	86,310	97,602	13.1%
Portugal	PT	100,790	108,739	7.9%
Russian Fed.	RU	306,103	419,765	37.1%
Spain	ES	629,519	676,559	7.5%
Sweden	SE	330,853	332,310	0.4%
Switzerland	CH	576,238	577,499	0.2%
Turkey	TR	28,661	28,684	0.1%
United Kingdom	GB	2,118,079	2,129,113	0.5%

The CPC system is used for search by **more than 45 Patent Offices** and by **more than 32,000 examiners** worldwide



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# Asian Collection in CPC

CPC also has China and Korea prior art.

- China classifies all its new patent applications into CPC
- Korea classifies all its new patent applications and PCT's. Korea will have its whole backfile collection classified in CPC by the end of 2018.

China and Korea provide Asian influence in CPC

- USPC and ECLA were based on a western world view. This can create western bias leading to problems in the classification of knowledge from non-western cultures.



# CPC Quality

- CPC is jointly owned and maintained by USPTO and EPO
- Greater focus on classification harmonization among offices



# Summary of USPTO Efforts in CPC

The USPTO is working to improve CPC collections

- US collection contribution
- Engaging more countries in CPC
- CPC is dynamic

Working to improve quality/harmonization among Offices

***Ensure confidence to users***

# International Classification Harmonization Efforts IP5 Global Classification Initiative

IP5 Working Group 1 on Classification



The Global Classification Initiative (GCI):

- Improving IPC from CPC and/or FI/F terms
- New Emerging Technologies

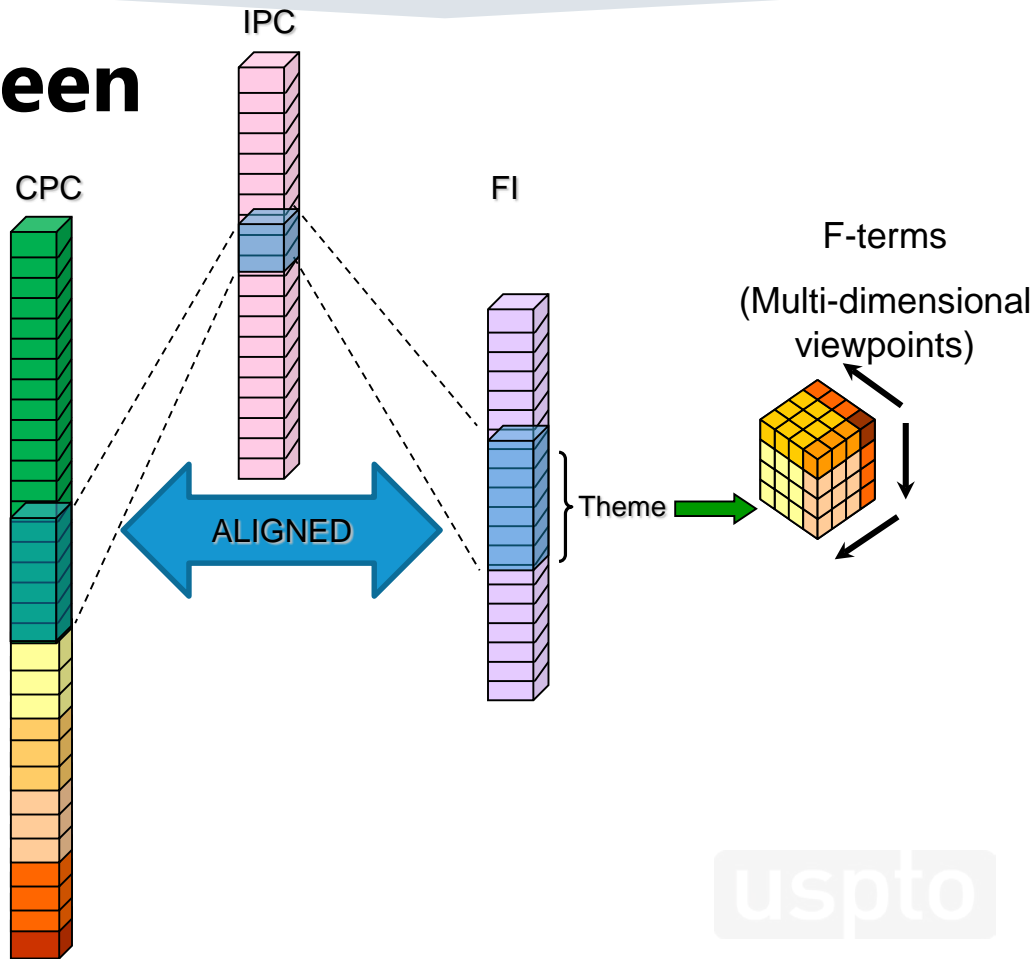


# Relationship Between Classification Systems

**CPC** = Cooperative Patent Classification

**IPC** = International Patent Classification

**FI** = Japan's File Index Classification



# Summary of USPTO Efforts in IP5

- Working to improve IPC granularity
  - CPC and FI/F-terms contribute to IPC further subdivisions
- Introducing new emerging technologies into IPC together in IP5
- Working to improve quality/harmonization among IP5 Offices



# International Patent Classification (IPC) is Important for CPC and IP5

- IPC is the foundation of local classification systems  
CPC  
FI/ F-terms
- IPC is - for the time being - the only common classification scheme with all the major offices, including Japan
- USPTO has obligation to IPC as a party to the Strasbourg Agreement

## CPC

### B30B

## COOPERATIVE PATENT CLASSIFICATION

**PRESSES IN GENERAL** ( producing ultra-high pressure or ultra-high pressure and high temperature to effect modifications of a substance, e.g. for making artificial diamonds [B01J 3/00](#) ) ( ( compressing means for refuse receptacles [B65F 1/1405](#) ) )

### NOTE

This subclass provides for presses in general and also for those presses, for particular purposes, which are not provided for elsewhere.

**B30B 1/00** Presses, using a press ram, characterised by the features of the drive therefor, pressure being transmitted directly, or through simple thrust or tension members only, to the press ram or platen

**B30B 1/001** . . . { by explosive charges }

**B30B 1/002** . . . { by internal combustion mechanism }

**B30B 1/003** . . . { by an elastic bag or diaphragm expanded by fluid pressure }

**B30B 1/005** . . . { by thermal expansion or evaporation }

**B30B 1/006** . . . { by a scissor or lazy-tongs mechanism }

**B30B 1/007** . . . { using a fluid connection between the drive means and the press ram }

**B30B 1/008** . . . { by a rod swinging between a fixed plane and the ram }

**B30B 1/02** . . . by lever mechanism ( by toggle mechanism [B30B 1/10](#) )

**B30B 1/04** . . . operated by hand or foot

**B30B 1/06** . . . operated by cams, eccentrics, or cranks

**B30B 1/08** . . . operated by fluid-pressure means

**B30B 1/10** . . . by toggle mechanism

**B30B 1/103** . . . ( operated by screw means )

**B30B 1/106** . . . ( operated by another toggle mechanism )

**B30B 1/12** . . . operated by hand or foot

**B30B 1/14** . . . operated by cams, eccentrics, or cranks

**B30B 1/16** . . . operated by fluid-pressure means

# Summary of USPTO Efforts in IPC for Users

- Work to improve IPC granularity among many offices
- Work underway on important IPC classification projects (e.g. semiconductors)



# Benefits for Patent Offices of CPC, IP5 and IPC International Harmonization Efforts

- Patent offices throughout the world have access to more international coverage of patent documents
- Patent offices can search internationally using classification codes
- Patent offices are working to improve quality/harmonization among many offices



# Benefits for External Stakeholders of CPC, IP5 and IPC International Harmonization Efforts

- Stakeholders can better identify patenting activity throughout the world through access to more international coverage of patent documents.
- Stakeholders can identify patenting activity easier through classification codes
- Stakeholders can have more certainty in their patenting activity analysis through better harmonization among offices



# Contact Information

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# Let's Chat about Leveraging a Harmonized Patent Classification System

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# Next Patent Quality Chat

## TBD

November 13, 2018

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# Other Patent Quality-Related Events

<https://www.uspto.gov/about-us/events>

<b>October 18</b>	<b>Inventor Info Chat</b> – <i>In Spanish</i> Responding to Pre-Examination Notices (virtual)
<b>October 24</b>	<b>Partnering in Patents</b> 25 <sup>th</sup> Anniversary Event hosted by USPTO and AIPLA (in Alexandria and virtual)
<b>November 27</b>	<b>Patents for Humanity 2018 Awards Ceremony</b> (in Alexandria and virtual)

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# Thank you for joining us today!

Patent Quality Chat  
Webinar Series 2018  
October 9, 2018

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