



Recent development of the IPC

XU Ning

**Head, International Patent Classification
Section**

Infrastructure and Platforms Sector-WIPO

**IP Roundtable
November 30, 2023**

Overviews

- IPC Meetings
- IPC 2024.01
- IPC Revision & NETs & IP5
- Future developments

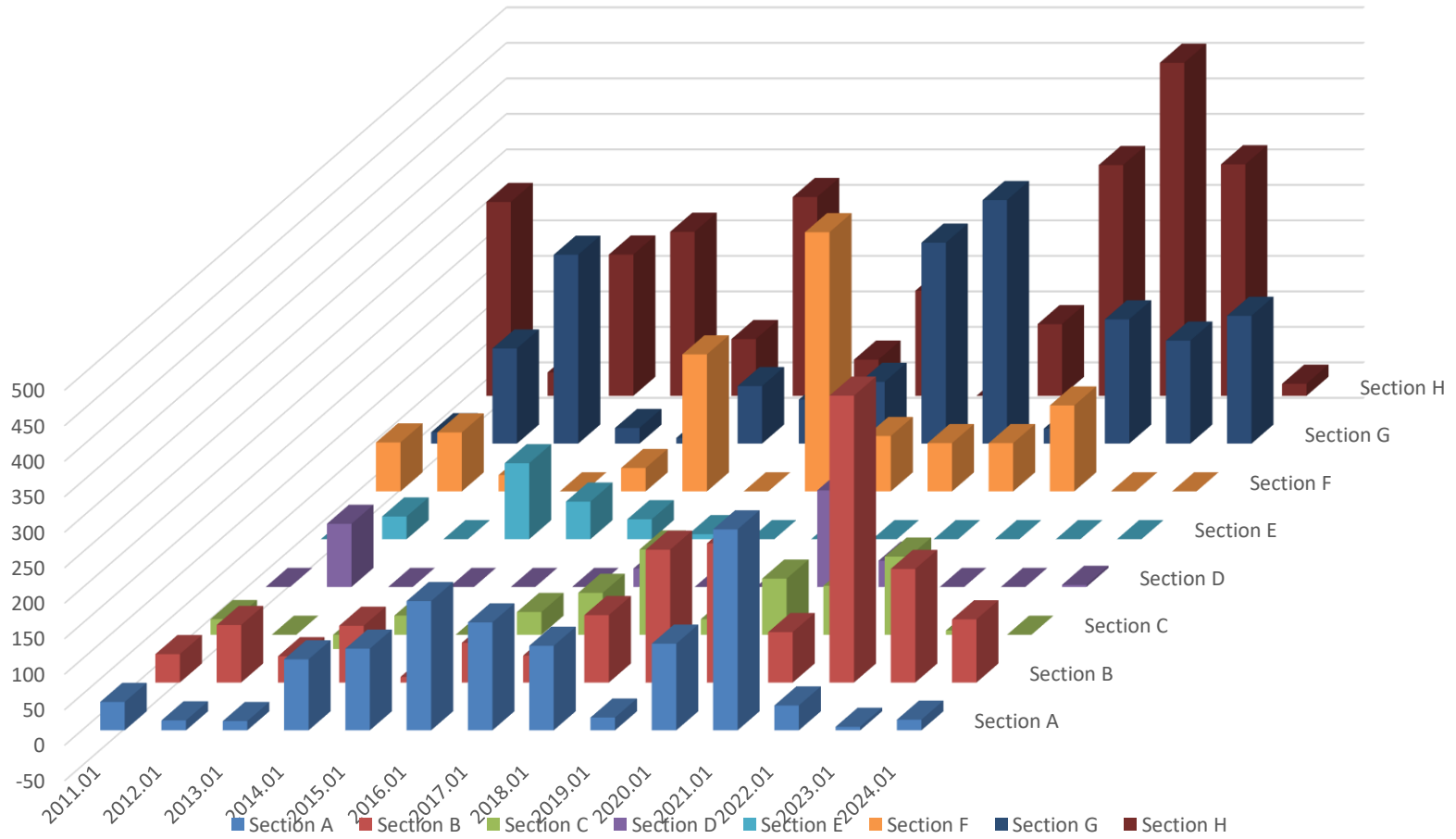
Enter into After-Covid-19 Period

- Three sessions: IPC/WG/43 - WG/45 – Cancelled
- *WG/46 in Hybrid format – Nov. 2021*
- *WG/47 in Hybrid format – May 2022*
- *WG/48 in Hybrid format – November 2022*
- *WG/49 in Hybrid format – April 2023*
- *WG/50 in Hybrid format – November 2023*
- *IPC/CE/54 session (Hybrid) - in February 2023*
- *IPC/CE/55 session (Hybrid) – to be held in March 2024*

IPC 2024.01

- Available as Early publication at IPCPUB
- Entry into force in Jan. 2024
- **966** amendments, including **338** new subdivisions

Evolution of IPC number of groups per section



What's New IPC 2024.01

Technology	IPC
Apparatus for radiation diagnosis, e.g. combined with radiation therapy equipment	A61B 6/00
Instrumentation or dashboards for vehicles	B60K 35/00, B60K 37/00
Installations for supplying electrical power to stationary aircraft	B64F 1/00
Aircraft powered by electric energy*	B64D
Control of position, course or altitude of land, water or air vehicles*	G05D 1/00
Image enhancement or restoration	G06T 5/00
Near-field transmission systems, e.g. inductive loop type	H04B 5/00

■ Response to New Emerging Technology fields (NETs)

IPC Revision Roadmap

- Established in 2013 by IPC/CE
- Identify IPC areas as revision candidates, where:
 - large amount of patent applications;
 - with significant growth rate;
 - IPC is not sufficient for an effective search
- The List is updated twice a year by WIPO
- IPOs can propose new candidates to the List, e.g. for NETs

New Emerging Technologies (NET)

Technology	IPC version	IPC
<i>Semiconductor Devices</i>	<i>2023.01</i>	<i>H10B, H10K, H10N</i>
Unmanned aerial vehicles [UAV]	2023.01	B64U (new)
Artificial Intelligence	2023.01	G06N
Image or video recognition	2022.01	G06V (new)
Data Switching networks	2022.01	H04L
Central traffic control systems	2022.01	H04W
Internet of Things (IoT)	2020.01	G16Y (new)
3D Printing	2015.01, 2020.01 2021.01	B33Y (new)
Autonomous Road Vehicles	2020.01	B60W
Machine Learning	2019.01	G06N
Bioinformatics	2019.01	G16B (new)

What's New IPC 2024.01

Technology	IPC
Apparatus for radiation diagnosis, e.g. combined with radiation therapy equipment	A61B 6/00
Instrumentation or dashboards for vehicles	B60K 35/00, B60K 37/00
Installations for supplying electrical power to stationary aircraft	B64F 1/00
Aircraft powered by electric energy*	B64D
Control of position, course or altitude of land, water or air vehicles*	G05D 1/00
Image enhancement or restoration	G06T 5/00
Near-field transmission systems, e.g. inductive loop type	H04B 5/00

■ Coherent evolution of IPC as a basis for other classification schemes (IP5 WG1)

IP5/WG1 (Working Group on Classification)

- Two virtual technical sessions were held in March and Oct. 2023
- Promotion of IP5 projects to IPC phase:
 - 12+8 projects in March & Oct. 2023
- NETs/Environmentally Sound Technologies(ESTs):
 - *Robots (a new subclass B70R);*
 - *Cellular immunotherapy (A61K);*
 - *Hydrogen; Gaseous mixtures containing hydrogen;*
(C01B 3/00)

Future Developments (1)

■ Upcoming IPC 2025.01

■ IPC/WG/49&50 approved + more candidates at IPC/WG/51 for IPC 2025.01:

- * **Robots** (B25J & B70R)
 - *Preservation of foods, foodstuffs or non-alcoholic beverages (A23B, A23C, A23D, A23L A21D)*
- * **Hydrogen; Gaseous mixtures containing hydrogen**; (C01B 3/00)
- * **Cellular immunotherapy (A61K)**;
- *More new subclasses for semiconductor devices:*
 - *H10D; H10F; H10H*

Future Developments (2)

- ***The need for a new type of universal indexing/tagging scheme covering cross-cutting technologies?***
- An ongoing project under discussion at the IPC/CE

Future Developments (3)

- AI for IPC (re)classification

IPCCAT-neural 2023: text categorization in the IPC at subgroup level

- IPCCAT-neural at IPC subgroup level is now cross lingual in **12** languages
- Automatic prediction in 99% places of the IPC
- Top-three guess **precision > 82%**

AI-based reclassification:

- WIPO's Initiatives to develop an AI-based reclassification service
- Similar technology as used for IPCCAT
- Target: dealing with un-reclassified families
- Testing & validation stage

Thank you for your attention !