

IPC/CE/56/2 ORIGINAL: ENGLISH DATE: MARCH 21, 2025

Special Union for the International Patent Classification (IPC Union) Committee of Experts

Fifty-Sixth Session Geneva, February 25 to 27, 2025

REPORT

adopted by the Committee of Experts

INTRODUCTION

- 1. The Committee of Experts of the IPC Union (hereinafter referred to as "the Committee") held its fifty-sixth session in Geneva in hybrid format from February 25 to 27, 2025. The following members of the Committee were represented at the session: Armenia, Australia, Austria, Belarus, Brazil, Bulgaria, Canada, China, Croatia, Czech Republic, Denmark, Egypt, Estonia, Finland, France, Germany, Greece, Ireland, Israel, Italy, Japan, Kyrgyzstan, Mexico, (Kingdom of the) Netherlands, Norway, Peru, Portugal, Republic of Korea, Republic of Moldova, Romania, Russian Federation, Saudi Arabia, Serbia, Spain, Sweden, Switzerland, Türkiye, United Kingdom, United States of America, Uzbekistan (40). Cyprus, India, European Patent Office (EPO), European Law Students' Association (ELSA International) were also represented. The list of participants appears as Annex I to this report.
- 2. The session was opened by Mr. K. Natsume, Assistant Director General, who welcomed the participants.

OFFICERS

- 3. The Committee unanimously re-elected Mr. Fergal Brady (Ireland) as Chair and elected Ms. Magalie Mathon (France) and Mr. Hee Sang Shin as Vice. Chairs.
- 4. Ms. XU Ning (WIPO) acted as Secretary of the session.

ADOPTION OF THE AGENDA

- 5. The Committee unanimously adopted the agenda, which appears as Annex II to this report.
- 6. As decided by the Governing Bodies of WIPO at their tenth series of meetings held from September 24 to October 2, 1979 (see document AB/X/32, paragraphs 51 and 52), the report of this session reflects only the conclusions of the Committee (decisions, recommendations, opinions, etc.) and does not, in particular, reflect the statements made by any participant, except where a reservation in relation to any specific conclusion of the Committee was expressed or repeated after the conclusion was reached.

REPORT ON THE TWENTY-SEVENTH SESSION OF THE IP5 WG1-WORKING GROUP ON CLASSIFICATION

- 7. The Committee noted an oral report by the Republic of Korea on behalf of the FiveIPOffices (hereinafter referred to as "the IP5 Offices"), on the twenty-seventh session of the IP5 Working Group on Classification (IP5 WG1), held virtually on September 24 to 30, 2024.
- 8. The IP5 Offices agreed to promote five IP5 projects (F projects) to the IPC phase, one of which was from the IPC Revision Roadmap (hereinafter referred to as "Roadmap") candidate areas.
- 9. It was noted that KIPO, on behalf of the IP5 Offices, had posted to the IPC e-forum under project <u>CE 456</u>, the updated lists of all ongoing IP5 projects and proposals (see Annex 48 to project file) to avoid overlapping between the IPC revision requests and the IP5 ongoing revision activities.
- 10. The Committee further noted that the twenty-eighth physical session of the IP5 WG1 will be hosted by KIPO on March 24 to 28, 2025.

REPORT ON THE PROGRESS OF THE IPC REVISION PROGRAM

- 11. The Committee noted a comprehensive status report, presented in Annex 25 to project file CE 462, prepared by the International Bureau containing an update on the activities of the IPC Revision Working Group (hereinafter referred to as "the Working Group") up to early 2025.
- 12. The Committee noted that the total number of revision projects per IPC version remained relatively stable, with an average of approximately 20 projects per version. The electrical field continued to account for the highest proportion of projects, followed by mechanical and chemical fields. The introduction of information on projects related to the new emerging technologies (NETs) indicated the growing need to adapt IPC classifications to reflect technological developments.
- 13. The participation of various national offices as Rapporteurs and Translators was highlighted. In addition to the IP5 Offices, offices such as Brazil, Canada and Germany submitted revision requests under the framework of the updated Roadmap. Translation responsibilities were primarily handled by Canada, France, Switzerland and the EPO for the French version of the IPC.

- 14. The average IPC-phase period remained stable at around 9.4 months for F projects and 12.6 months for C projects. A slight increase in revision timelines was observed, particularly in semiconductor-related projects, due to their inherent complexity.
- 15. The Committee took note of the suggestion from the EPO regarding the inclusion of deleted IPC entries in future status reports. The Committee agreed that future reports should aim to present an overall picture of the revision by including statistics on both new and deleted entries, along with the net change in IPC classifications, which would reflect a more accurate evolution of the IPC. The International Bureau was invited to consider the integration of this information into the next report.
- 16. The Committee noted concerns expressed on the frequent application of "electronic approvals" by the Working Group. The Working Group was invited to consider applying this approach carefully, e.g. in special circumstances.
- 17. The Committee discussed the issue raised on the various terms used in Working Group decisions. The Committee invited the Working Group to review and clarify the terminology used in Working Group decisions to ensure transparency, for example, to avoid using "tentatively approved" in its Working Group decision texts. Offices were encouraged to submit suggestions or comments to the IPC e-forum under project **WG 000**.
- 18. The Committee also noted comments about making documents relating to IPC revision strategies and procedures more obvious to offices. The International Bureau was then invited to compile those relevant documents and investigate the ways to make them more visible, e.g. for newcomers.
- 19. The Committee also acknowledged a proposal to schedule the spring session of the Working Group earlier, preferably, in the second half of April or the very beginning of May. The International Bureau was invited to consider this suggestion when planning future meetings, while recognizing potential challenges due to WIPO and national official holidays.
- 20. The Committee expressed satisfaction with the efficiency and strategic direction of the IPC revision conducted by the Working Group, encouraged further participation from offices in the revision process under the Roadmap and emphasized the importance of maintaining a balance between quality and efficiency of the IPC revision.
- 21. The Committee invited the Working Group to continue its efforts in ensuring that IPC revisions remain reflective of technological development, with particular focus on the integration of NETs and the continuous improvement of classification consistency.

REPORT OF THE EXPERT GROUP ON SEMICONDUCTOR TECHNOLOGY (EGST)

- 22. The Committee noted a status report made by the EPO, the leading office of the EGST.
- 23. The Committee was informed that three new subclasses under the new class H10, i.e., H10D, H10F and H10H, had been approved and entered into force in the IPC 2025.01. Two more projects namely, <u>C 517</u> and <u>C 518</u>, containing two new subclasses H10P and H10W, were under discussion on the IPC e-forum targeting for IPC 2026.01.
- 24. The Committee noted that the EGST had almost accomplished all its objectives by creating a Class H10 and its seven subclasses, while five subclasses entered into force in IPC 2023.01 and IPC 2025.01, another two subclasses targeting for IPC 2026.01, which would make a significant milestone.

- 25. The Committee expressed its deep and sincere appreciation to all the EGST members, and, in particular, to the EPO, the leading office of the EGST, for their invaluable dedication and contributions, as well as the remarkable outcomes over the past several years.
- 26. The Committee also noted a potential closing of project <u>CE 481</u> at its next session.

REPORT ON THE PROGRESS OF THE CPC AND FI REVISION PROGRAMS

- 27. The Committee noted a <u>presentation</u> provided by the EPO on the recent updates of the CPC and a <u>presentation</u> made by the JPO on the recent progress and developments of FI/F-term.
- 28. The Committee noted that, as of February 2, 2025, the CPC data coverage was increased to about 78 million patent documents, including 2.7 million NPL documents by using Artificial Intelligence (AI).
- 29. The Committee was further informed about the integration of IPC 2025.01 into the January 1, 2025-release of the CPC, resulting in only three CPC releases in 2025 instead of four, i.e. January 1, May 1 and August 1.
- 30. The Committee was informed that the FI revision in 2025.01 covered 300 main groups while F-term revision related to 18 themes in 2024.04. The Committee was informed that a List of candidate areas for FI revision had been established, which is similar as the List of IPC candidate areas under the IPC Revision Roadmap.
- 31. The Committee further noted that the FI reclassification methods continued to include Machine learning, search logical expression and intellectual reclassification.
- 32. The Committee expressed its gratitude to the EPO and JPO for their efforts to integrate IPC 2025.01 into the CPC and FI in January 2025 and reconfirmed the shared understanding that the coherency between the IPC and IPC-based classification schemes was important and the efforts to enhance and maintain such coherency should continue, and, in particular, in NET-related areas.

AMENDMENTS TO THE GUIDE TO THE IPC AND OTHER BASIC IPC DOCUMENTS

- 33. Discussions were based on Annex 109 to project file <u>CE 454</u>, containing a rapporteur report with a compilation of proposed amendments, with comments, to the Guide to the IPC (hereinafter referred to as the "Guide"), in particular in Annexes 98 to 108 to the project file, submitted respectively by Canada, the EPO, the Russian Federation, the Republic of Korea, China, the International Bureau and the United Kingdom.
- 34. The Committee adopted, with some modifications, the amendments to the heading on the first page and to paragraphs 37, 37bis, 42, title of section VII, 72, 74bis and its heading, 107bis, 111, 182bis, 183 and 187 of the Guide, which appear in Annexes 111 and 112 to the project file. These amendments will be included in the version 2025 of the Guide.
- 35. Discussions were based Annex 108 to project file <u>CE 455</u>, containing a rapporteur report with a compilation of proposed amendments with comments to the Guidelines for Revision of the IPC (hereinafter referred to as the "Guidelines"), in particular in Annexes 103 to 107 to the project file, submitted respectively by Canada, China, the EPO, Republic of Korea and the International Bureau.
- 36. The Committee adopted, with some modifications, the amendments to the heading on the first page and to paragraphs 61bis, 70bis, 99, 109, 109*bis* and 109*ter* of the Guidelines, which appear in Annexes 109 and 110 to the project file.

INTEGRATION OF NEW EMERGING TECHNOLOGIES (NET) INTO THE CANDIDATE AREAS FOR REVISION UNDER THE IPC REVISION ROADMAP

- 37. Discussions were based on a rapporteur report in Annex 5 by the International Bureau containing a summary of comments by Brazil and China in Annexes 3 and 4 to project file CE 551.
- 38. The Committee recalled the initial proposal by the International Bureau (Annex 1 to project file CE 551) at its last session aiming at promoting the transparency and visibility of the NET-related technologies by integrating them into the current IPC candidates for revision under the IPC Revision Roadmap. The Committee noted a shared common understanding that it would be important to tagging the NET-related areas in the context of the Roadmap, and consequently, this would help visualize the revision activities by the Working Group in the NET-related areas. However, certain offices also expressed concerns about whether it was worth putting too much efforts in developing potential objective criteria for NET identification, since it would be simply indicative, instead of binding.
- 39. The Committee reconfirmed the decision at its last session that current revision practice for NETs should continue to be implemented and applied when submitting new revision requests by using IPC revision template. The International Bureau would take necessary steps to make those requests or projects visible on the IPC e-forum, while discussions on potential objective criteria for identification of the NETs would still continue under project <u>CE 551.</u>

REPRESENTATION OF SUPPLEMENTARY CLASSIFICATION IN THE IPC

- 40. Discussions were based on Annexes 12 and 13 containing a rapporteur report and a proposal from China regarding the representation and unification of numbering formats for supplementary classification symbols in the IPC. The project aimed to address the inconsistencies between secondary classification schemes and indexing codes, clarifying their role and enhancing classification efficiency. The proposal reaffirmed that the proposed unification would not change the function of indexing schemes or secondary classification but would aim to standardize their representation for better usability. It also suggested that automated methods could facilitate reclassification with minimal resource investment.
- 41. China presented a proposal to unify the numbering of supplementary classification symbols, i.e. assigning 6,000 series numbers for symbols combined with primary classification symbols of multiple sections and 8,000 series numbers for those combined with primary classification symbols only of the same section. China emphasized that this approach would improve classification accuracy, reduce misclassification errors, and enhance IPC usability for public users and automated systems.
- 42. The Committee acknowledged the merits of the proposal by China to enhance the user-friendliness of the IPC. However, it was also noted concerns raised by offices regarding the necessity of the proposed changes, their impact on office IT systems, and the workload involved in reclassification. Some offices questioned whether the potential benefits of the proposed changes would outweigh the associated costs and efforts. Additionally, it was mentioned whether Artificial Intelligence (AI) could eventually reduce the need for secondary classification and indexing codes.
- 43. The Committee decided to keep project <u>CE 552</u> active for further discussions, which would provide valuable insights into broader classification challenges. It was further decided to revise the title from "Representation of Supplementary Classification in the IPC " to "Secondary Classification and Indexing Schemes in the IPC " to better reflect the scope of discussions.

- 44. The Committee noted with gratitude that Germany volunteered to compile a list of existing indexing schemes (see Annex 14 under project <u>CE 552</u>) to facilitate further deliberations while offices would continue gathering feedback, including from public users, regarding the usability and potential improvements to the IPC.
- 45. The International Bureau was invited to compile a list of projects from the past covering related issues to reflect all the historical discussions, to ensure continuity and to avoid redundant efforts.

RECLASSIFICATION STATUS REPORT AND TREATMENT OF NON-RECLASSIFIED PATENT DOCUMENTS

- 46. Discussions were based on Annex 5 to project file <u>CE 532</u>, containing a rapporteur report by the International Bureau on "AI-based IPC reclassification and relevant documentation" and Annex 3 to project file <u>CE 569</u>, containing a reclassification status report from IPCWLMS by the International Bureau.
- 47. The Committee noted the update on the Al-based IPC reclassification service, aiming to replace the " Default Transfer " mechanism with an automated system leveraging DocDB data and IPCCAT technology.
- 48. The Committee acknowledged the achievements of the project to date, while also noted the significant technical challenges, particularly the complexity of data processing and longer-than-expected execution times.
- 49. The Committee expressed appreciation for the efforts made by the International Bureau and encouraged further exploration of Al-based solutions while ensuring reliability and transparency in the decision-making process.
- 50. The Committee also noted the latest IPC reclassification statistics from IPCWLMS, which indicated an increasing backlog of patent families remained to be reclassified for certain IPC versions, particularly from 2017 onwards. It was noted that the problem with increased backlog might be the result of the data quality issue, such as, mis-formatted reclassification data or incorrectly application of reclassification status indicators, e.g. using "B" instead of "R" for reclassified symbols. It was further noted that the International Bureau would investigate such increases in more detail, with help from the EPO and try to find a solution to the problem.
- 51. The Committee noted, with gratitude, the intention of the EPO to propagate CPC reclassification data into the IPC, which might help mitigate reclassification burdens in the IPC.
- 52. Having reviewed the overall picture of the reclassification statistics and noted that certain legacy IPC versions remained to be reclassified had been more than 10 years old and with no significant intellectual reclassification progress in the past years, the Committee decided to apply default transfers for IPC versions 2009.01 to 2015.01 to improve search efficiency and reduce the backlog.
- 53. The Committee acknowledged concerns from offices about the lower accuracy of the reclassification data after applying default transfers and confirmation from the EPO that it would be possible to mark those default transfer families in DocDB for future review when a better solution is found, e.g. when better reclassification tools become available.
- 54. The Committee also agreed to establish a Task Force, to review the current and future reclassification challenges, report reclassification issues encountered in offices and propose solutions, in which the following offices volunteered to participate: Brazil, China, the EPO, the Republic of Korea and Sweden. The Committee agreed that its other members could join the

Task Force at any later stage. New project <u>CE 562</u> was created to facilitate the discussion, with the EPO and the International Bureau as Co-Rapporteurs.

55. The Committee recognized the importance of ensuring the IPC remain a reliable and effective classification system and reaffirmed its commitment to addressing reclassification challenges through both immediate and long-term strategies. The Committee encouraged offices to submit reclassification data to IPCWLMS in the correct format, including the appropriate attributes for already reclassified and deactivated IPC symbols, along with corresponding version indicators, to improve processing efficiency.

REPORT ON IPC-RELATED IT SYSTEMS

- 56. The Secretariat provided a general overview of ongoing developments in the IPC related IT systems and, in particular, about certain changes related to WIPO IPCPUB Common Look and Feel (L&F), followed by a demonstration to visualize those changes.
- 57. The Committee noted concerns expressed by certain offices about the lower visibility of several functions in the IPCPUB Common L&F which were better presented in the old IPCPUB. The Committee invited offices to submit their comments or suggestions in writing to the IPC eforum under project CE 447 ("Comments for improving the IPC Internet publication") for further investigation by the International Bureau.
- 58. The Secretariat explained that the WIPO Common L&F was part of WIPO Official New IP Portal launched all across the Organization for providing greater consistency, for example, unified navigation to facilitate movement between WIPO IP services, and modernize look and feel to implement a common user interface for a consistent and unified user experience, etc.

EXPERIENCE FROM OFFICES ON COMPUTER-ASSISTED (E.G., AI-BASED) CLASSIFICATION

- 59. The Committee noted, with gratitude, the presentations on the experience with computer-assisted (e.g. Al-based) classification provided by the EPO and JPO.
- 60. The Committee observed that both offices had made significant advancements in the application of AI for pre-classification, classification and reclassification of patent documents.
- 61. The EPO presented its experience in Al-based classification, highlighting its structured approach towards pre-classification, classification, and reclassification, including its further improvement of the Al-powered "CPC Text Categoriser" available for the public for CPC pre-classification, the reclassification process, where Al assists examiners in batch processing, and its dynamic Al-generated tagging for Y section classifications.
- 62. The JPO presented its AI initiatives, including its machine learning models to allocate FI and F-Term symbols to foreign patent documents, enabling comprehensive prior art searches for both Japanese and foreign documents and method for patent classification by machine learning using F-value and the need for standardized metrics for AI-classification across offices. The Committee welcomed the JPO's efforts in exploring the use of AI for creating new classifications.
- 63. The Committee discussed the challenges faced by offices, including AI performance disparities across different technical fields, limitations in handling certain classification areas (e.g. those heavily reliant on figures), the necessity of high-quality training data and leveraging examiner feedback for improving classification accuracy over time. The absence of standardized quality assessment metrics for AI-based classification was also highlighted.

- 64. The Committee acknowledged the importance of continued information exchange in this field and encouraged further collaboration among offices. The JPO proposed the establishment of standard criteria for AI classification, including standardized training data and evaluation metrics, to ensure comparability of results across offices.
- 65. The Committee invited more offices to share their experiences and insights on Al-based classification at its next session. It was informed that all presentation materials, including past ones, are made available on the IPC e-forum under project <u>CE 524</u>.

NEXT SESSION OF THE COMMITTEE OF EXPERTS

66. The Committee noted that the next (fifty-seventh) session would be held in Geneva in early 2026, subject to the schedule of WIPO meetings, including principal Committees.

CLOSING OF THE SESSION

67. The Chair closed the session.

68. The Committee of Experts unanimously adopted this report by electronic means on March 17, 2025.

[Annexes follow]