WORLD INTELLECTUAL PROPERTY ORGANIZATION

# Committee on WIPO Standards (CWS)

**Ninth Session**
**Geneva, November 1 to 5, 2021**

PUBLICATION OF THE SURVEY RESULTS ON THE PRIORITY OF 40 RECOMMENDATIONS ON ICT STRATEGIES

*Document prepared by the International Bureau*

BACKGROUND

1.     At its sixth session in October 2019, the Committee on WIPO Standards (CWS) noted the 40 Recommendations prepared by the Meeting on ICT Strategy and Artificial Intelligence, which the International Bureau convened for the exchange of views and experiences in ICT and business management for effective Intellectual Property Office (IPO) administration.  The CWS considered the analysis of 40 Recommendations by the Secretariat and their relevancy to the activities of the CWS categorized into three Groups indicated in the Annex of document CWS/6/3.  (See paragraphs 18 to 19 of document CWS/6/34.)

2.     At its sixth session, the CWS created the new Task No. 58 and established the ICT Strategy for Standards Task Force (hereinafter referred to as "ICT Strategy Task Force" or "Task Force") to work on Task No. 58 and designated the International Bureau as the Task Force leader.  The CWS requested the International Bureau to issue a circular inviting IPOs to nominate business managers or ICT policy makers for the new Task Force and for volunteers to serve as co-leader with the International Bureau.  (See paragraphs 17 to 24 of document CWS/6/34.)

3.     At its eighth session, the CWS noted the progress report of the ICT Strategy Task Force, which contains the priority of 40 Recommendations proposed by the Task Force, and the reallocation of the following Recommendations: R20, R33 and R35 to Group 1 from Group 2, with the following recommendations still falling into Group 3 (Recommendations seem to be not relevant to the CWS activity now and in the near future): R03, R07, R08, R24, R25, R29, R30, R31, R34 and 40.  (See paragraph 4 of document CWS/8/13.)

4.     With regard to the priority of the 40 Recommendations, taking into account the results of the survey conducted within the Task Force, the International Bureau, as the Task Force leader, reported the following recommendations, which belong to Group 1 (Recommendations related to the CWS Tasks), as a priority:

  – Sharing information and possible collaboration on emerging technologies for IP administration such as search, classifications and languages (R09);

  – Common conversion software tool to XML, e.g. DOCX convertor (R18 and R4);

  – Re-engineering and digital transformation (R06);

  – Providing IPOs' authority file data or information to the International Bureau (R23);

  – Online services via APIs enabling interoperability of systems, including systems developed by third party solution providers (R39);

  – Developing a prototype for a distributed IP registry, exploring potential use cases of blockchain technology, including IP registry and priority data, and investigating legal and technical possibilities for identifying patent families (R12 and R15); and

  – Exploring improved methods and creating a prototype of centralized service, with open and standard APIs, for data dissemination and data exchange between IPOs and regional/international IP systems (R38).

(See paragraph 6 of document CWS/8/13.)

5.     The CWS also noted that the Task Force survey only had responses from seven Task Force members.  In order to gather opinions from a wider audience, the CWS requested that the International Bureau invite all IPOs to take a survey on priority of the 40 Recommendations and report the results at its ninth session.  (See paragraphs 83 to 84 of document CWS/8/24).

SURVEY RESULTS

6.     In June 2021, the Secretariat issued circular C.CWS.151 inviting IPOs to participate in a survey on priority of 40 ICT Strategy Recommendations, and 27 IPOs responded to the survey. Responses were received from 22 IPOs of the following Member States: Australia, Bahrain, Bosnia and Herzegovina, Canada, Chile, Czech Republic, Ecuador, Estonia, Hungary, Italy, Japan, Mexico, New Zealand (NZ), Norway, Russian Federation, Slovakia, Spain, Sweden, United Kingdom, United States of America (US), Uruguay, and Uzbekistan; and the four following regional Offices: African Regional Intellectual Property Organization (ARIPO), European Patent Office (EPO), European Union Intellectual Property Office (EUIPO), Patent Office of the Cooperation Council for the Arab States of the Gulf (GCC); and the International Bureau (PCT).  Full survey responses are available as Annex I to the present document.

7.     The following table shows the number of votes each recommendation received, sorted by Borda score and split into categories as described below (Recommendations highlighted in orange are categorized in Group 3 mentioned in paragraph 3 above and ones highlighted in green are prioritized by the Task Force as indicated paragraph 4 above):

| Recommendation Number | High Votes | Medium Votes | Low Votes | Borda Score | Category |
|---|---|---|---|---|---|
| R04 | 18 | 6 | 1 | 67 | A |
| R07 | 19 | 4 | 1 | 66 | |
| R23 | 17 | 7 | 1 | 66 | |
| R05 | 13 | 10 | 3 | 62 | B |
| R06 | 14 | 7 | 5 | 61 | |
| R16 | 13 | 9 | 4 | 61 | |
| R02 | 11 | 13 | 2 | 61 | |
| R27 | 14 | 6 | 6 | 60 | |
| R01 | 13 | 9 | 3 | 60 | |
| R20 | 13 | 7 | 5 | 58 | |
| R28 | 12 | 9 | 4 | 58 | |
| R40 | 12 | 9 | 4 | 58 | |
| R19 | 11 | 11 | 3 | 58 | |
| R21 | 12 | 7 | 7 | 57 | |
| R31 | 11 | 10 | 4 | 57 | |
| R14 | 9 | 11 | 6 | 55 | C |
| R32 | 11 | 6 | 9 | 54 | |
| R11 | 9 | 9 | 7 | 52 | |
| R29 | 8 | 11 | 6 | 52 | |
| R09 | 8 | 10 | 8 | 52 | |
| R30 | 6 | 15 | 4 | 52 | |
| R39 | 9 | 7 | 10 | 51 | |
| R34 | 10 | 5 | 10 | 50 | |
| R37 | 9 | 7 | 8 | 49 | |
| R10 | 9 | 6 | 10 | 49 | |
| R22 | 4 | 15 | 7 | 49 | |
| R08 | 6 | 11 | 8 | 48 | D |
| R03 | 8 | 7 | 9 | 47 | |
| R25 | 7 | 9 | 8 | 47 | |
| R12 | 6 | 10 | 9 | 47 | |
| R13 | 7 | 6 | 13 | 46 | |
| R35 | 5 | 10 | 10 | 45 | |
| R18 | 5 | 9 | 12 | 45 | |
| R26 | 5 | 11 | 7 | 44 | |
| R15 | 4 | 11 | 10 | 44 | |
| R17 | 3 | 12 | 11 | 44 | |
| R36 | 4 | 11 | 9 | 43 | |
| R24 | 6 | 8 | 8 | 42 | |
| R33 | 2 | 5 | 16 | 32 | E |
| R38 | 1 | 7 | 15 | 32 | |

8.     To compare the preferences for each recommendation, a score was calculated using a Borda count, which is a standard mathematical method for comparing preference selections. The Borda count used here assigns 3 points for High votes, 2 point for Medium votes, and 1 point for Low votes.  Given that ICT Strategy for Standards Task Force has limited resources available and a large number of recommendations, it makes sense to start by focusing on recommendations with stronger support.

9.     The table above sorts recommendations by their Borda score.  The recommendations were then split into categories based on score.  Category A has recommendations with the highest level of support, characterized by many High votes and almost no Low votes.  Category B recommendations have moderate high support, with double digit High votes and a small number of Low votes.  Category C recommendations have moderate support, with slightly more or equal High votes to Low votes.  Category D recommendations have mixed support, with large numbers of Medium votes but generally more Low votes than High votes.  Category E recommendations have limited support, with very few High or Medium votes.  The full text of the recommendations in each category are shown in Annex II to the present document.

10.     Categories A and E have well defined boundaries, with noticeable gaps in scoring.  The boundary between C and D is less well defined, and a case could be made for adjusting the boundary higher or lower, combining the two categories, or other approaches.  In any case, the differences between C and D may be less important than simply noting that many items in both categories have broad support for Medium or High priority.

11.     It is noted that the participating Offices had different interpretations of the survey questionnaire and rated recommendations by different criteria.  Some Offices gave a low priority vote to a recommendation because they already implemented it, while some others gave a high priority because the recommendation is still important for Offices.  Furthermore, depending on the digitalization status at Offices, the given priority is different.  For example, R03 (Back-file capturing of IP data by OCR conversion of image data) was indicated as a priority by some Offices which are in the early stages of digitalization.

12.     Priority ratings to certain Recommendations vary depending on the business coverage of the participating Offices, e.g., some Recommendations related to patent business, which are not relevant to trademark Offices such as EUIPO.  Some responses had no priority rank but instead a comment to clarify or indicate 'not applicable'; e.g., see US response to R14 and EPO and NZ responses to R32, respectively.

13.     In addition to the rating, valuable comments which explain their rating or other relevant information, were provided by participating Offices.  Some outstanding comments are:

   –   Some Offices partially rank the priority of a Recommendation, e.g., EPO's response to R04 - High for first part of Recommendation, but Low for common tools.

   –   Readiness in terms of resources and timelessness, e.g., R03 requires resource and time to achieve it.)

   –   Readiness of common or relevant tools - R05 and others: Recommendations are quite helpful, however, some Offices do not have the technological tools to do so or there may be limitations, including IPO constraints and applicant constraints/limitations.

14.     It is noted that the results of this survey are quite different from the survey results of the Task Force explained in paragraph 4 above.  For example, R38 was a prioritized recommendation from the Task Force survey, but it belongs to the least priority category of this survey of all IPOs.

15.    It is proposed that the ICT Strategy for Standards Task Force should be asked to prepare a strategic roadmap for consideration by the CWS (see paragraphs 19 to 20 of document CWS/7/29) taking into account the results of the survey and should consider the survey results when it updates its work plan for 2022.

*16.    The CWS is invited to:*

*(a)    note the content of this document and the responses to the survey as reproduced in Annex I of this document and indicated in paragraph 6 above; and*

*(b)    request the ICT Strategy Task Force to take into account the results when it prepare the strategic roadmap and its work plan as indicated in paragraph 15 above.*

[Annex I follows]

**ANNEX I**

Annex I of CWS/9/2 can be found here:
https://www.wipo.int/edocs/mdocs/cws/en/cws_9/cws_9_2-annexi.zip


[Annex II follows]

**CATEGORIES FROM THE SURVEY RESULTS ON ICT STRATEGY RECOMMENDATIONS**

CATEGORY A

R07: Explore the possibility of AI-powered automatic classification tools to enhance the use of, and control the quality of, classification symbols allotted to IP applications.

R04: In addition to bibliographic data such as names of applicants, the full text of patent specification should be converted into, or generated at the source, to make patent applications searchable. Consider common tools or at least closer WIPO Standards for the preparation of XML from word processor formats to ensure consistency.

R23: IPOs are encouraged to provide their authority file or the link to their website of authority file to the IB.

CATEGORY B

R05: Image data and complex elements such as image of a device trademark, an industrial design and graphs contained in IP applications should be generated as machine-searchable data in accordance with relevant WIPO Standards (in particular WIPO Standard ST. 96).

R06: Re-engineer and transform the current business models and workflow processes based on paper transactions into modernized and optimized business models and workflow processes based on digital IP data transactions, with collaboration of business, ICT and legal representatives at all stages.

R01: Develop an online data exchange protocol covering key common transactions to generate high quality IP data at the source, based directly from output from IP management systems, with a view to create and exchange IP data with IPOs and the IB in accordance with WIPO Standards.

R02: In introducing an online data exchange protocol, implement appropriate policies and consider ICT systems in use by IP applicants and IP agents to facilitate their use of the protocol to submit high quality IP data.

R16: The application body formats for WIPO Standard ST.36 and ST.96 should be carefully analyzed and recommendations made for more specific, practical forms of implementation than the general standards (which allow for an enormous number of options) which meet all the needs for patent processing and allow reliable two way transformations between the two.

R27: Encourage the wider use of existing standardized data exchange mechanisms, promote wider use of electronic filing and prioritize creation of additional electronic forms to improve the quality and reliability of data received from applicants, thereby reduce the errors caused by data content and format inconsistencies.

R20: IPOs and the IB should agree formats for packages (for PCT, this could be based on the existing PCT Annex F packages), which can be readily prepared by third party software (also including export of a filed application from another IPO) and pushed to Office servers to prepopulate most of a draft application prior to completion in an online filing system.

R28: Establish a self-service, centralized transaction processing model wherein users and IPOs connect to a central IB platform for data services. This will change the paradigm from one based around batch transmission of forms and responses to one of real-time updates to the International Register entered directly by the parties concerned.

R40: Explore the possibility of global joint projects to capitalize on common interests and synergy of IPOs.

R19: IPOs and the IB should agree PLT-compatible bibliographic/description data packages for use in their online filing systems, together with a common method of coding Office-specific sections, allowing more effective reuse of bibliographic/description data from previously filed applications and development of third party IP management systems to deliver bibliographic/description data without the need for conversion or retyping.

R31: IPOs should continue and expand their use of standard grounds of refusal.

R21: IPOs should participate in WIPO projects to use global common tools and platforms to which ICT systems of IPOs should be connected, such as WIPO CASE, WIPO global portal of IP registries, and provide IP data in accordance with relevant WIPO Standards.


CATEGORY C

R14: The IB and IPOs should begin consultations on a standardized model for data exchange for the traditionally bilateral paper exchanges in the PCT, taking into account investments in assuring security requirements are optimized.

R32: The quality of exchange between IPOs and with the IB would be improved if IPOs move to using WIPO Standard ST96 for Hague-related XML components.

R11: IPOs should share information on ICT solutions for records management, in particular on the appropriate use of standard ICT packages and the solutions for guaranteeing authenticity of digital records, signatures, etc.

R29: Promote wider sharing of data concerning terms of goods and services that are acceptable or not by IP Offices to further reduce the need for costly and time-consuming processes (irregularity and refusal processes).

R30: Create a more comprehensive, user-friendly and machine accessible database of terms of goods and services that could reduce irregularities.

R09: Share information on emerging search technologies, especially image search, classification tools and language tools, and consider ways in which the technology can be shared and made available to smaller IPOs to improve the quality and efficiency of IP information search.

R34: IPOs are encouraged to consider participating in DAS as depositing and accessing IPOs for design priority documents, which would potentially reduce costs and risk with regard to provision of certified copies in respect of Hague international registrations.

R37: Consider standardized security mechanisms as part of the review of data exchange protocols.

R39: Share information about online services (filing, subsequent transactions, etc) with the aim of identifying common transactions and services that could be made available through APIs to enable interoperability of systems, including systems developed by third party solution providers.

R10: Develop a reference platform for online publication and search, while contributing to the international cooperation under CWS about systems for providing access to publicly available patent information of IPOs participating in the CWS Task No. 52. The platform would be linked to international and/or regional databases to automate the dissemination of information.

R22: IPOs need to share and disseminate patent information and data without any barriers and free-of-charge or at a marginal cost.

CATEGORY D

R03: Back-file capturing of IP data by OCR conversion of image data should be properly undertaken in accordance with good quality control and relevant WIPO Standards.

R25: IPOs should consider the use of WIPO DAS, particularly for processing patent and design applications.

R08: Strengthen international cooperation for internationally coherent practices of using international classifications and for the provision of technical support to make local language versions of international classifications available.

R12: In cooperation with interested Member States, the IB should develop a prototype for a distributed IP registry. The prototype could be used for IP applications to create an authentic registry of IP application numbers, for example to be used for validation of priority claims. Study the possibility of using a distributed IP registry linking to WIPO CASE or the International Register. The potential of blockchain technologies for linking such distributed registries should also be explored.

R26: Develop further a new recommendation on a signed electronic package format for priority documents, including application bodies in full text formats (where available) and bibliographic data in XML format as a part of WIPO Standards. The new format could be exchanged via WIPO DAS or directly between applicants and IPOs.

R13: IPOs to work towards increasing the degree of exchanging standardized fully XML based data with the IB, considering synchronous models such as ePCT machine to machine services.

R24: Explore the possibility of an international Fund-in-Trust voluntarily contributed by IPOs to enhance international cooperation for digitizing IP data as a global public good.

R35: Enhance international cooperation among IPOs and the IB to adhere to agreed settlement timetables, the use of web-forms for data collection and the adoption of standardized electronic filing systems.

R18: Common conversion software should be developed for the validation and conversion of major document types (initially DOCX; other formats could also be considered) into simplified XML formats. The software should be carefully version controlled, be suitable for integration into national processing systems both by local deployment and by reference to an API for centralized instances and be capable of producing either WIPO Standard ST.36 or ST.96 output in formats which allow for accurate conversion between the two at a later stage, if required. Converters for the other direction (ST.36 or ST.96 to DOCX) should be considered at a later stage if it will assist the process of effective amendment/correction of applications.

R36: Agree on an international standard for information security such as ISO/IEC 27001 as a means to demonstrate reasonable assurance of internal control effectiveness by Offices. Where Offices are required to comply with their own national information security standard, a mapping to the international standard can be provided to demonstrate a healthy information security management system. For external Cloud service providers, agree on minimum certification and independent audits against standards prescribed by the Cloud Security Alliance STAR or SSAE (ISAE) SOC II Type 2 as a means of information security assurance in the Cloud.

R15: IPOs should investigate legal and technical possibilities for identifying patent families prior to publication and ensure permission for IPOs processing family members to access search and examination reports. This recommendation should be considered in conjunction with R12 regarding the establishment of distributed registries, considering that a limited amount of information (e.g. priority references) could eventually be shared on a distributed registry prior to publication.

R17: The work on development of search and examination report standards for WIPO Standard ST.96 should not simply convert the ST.36 standard to the expectations of ST.96, but analyze whether the structures encourage easy reuse of data between stages of search and examination both with an IPO and between different IPOs.

CATEGORY E

R33: Technical issues related to the acceptance of moving images need to be considered, alongside the associated preparations with regards to integrity in terms of transmission and storage - as well as publication and sharing.

R38: Improved methods should be explored for integration with international systems and for centralized systems. Create a centralized service, as a demonstration/prototype, with open and standard APIs, for dissemination of classification and standards data and for transactional data exchange between IPOs and regional/international IP systems.

[End of Annex II and of document]