

## **Committee on WIPO Standards (CWS)**

### **Eighth Session**

**Geneva, November 30 to December 4, 2020**

### **REPORT BY THE ICT STRATEGY FOR STANDARDS TASK FORCE**

*Document prepared by the ICT Strategy for Standards Task Force Leader*

#### **BACKGROUND**

1. At its sixth session, held 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 its activities 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 to “prepare a proposal for a roadmap of future development and enhancement of WIPO Standards, including policy recommendations, in view of more effective production, sharing, and utilization of data by IPOs and other interested parties, taking the following activities:

- to review the Recommendations in Group 1 indicated in the Annex of document CWS/6/3, in collaboration with other relevant CWS Task Forces;
- to review the Recommendations in Group 2 and Group 3 indicated in the Annex of document CWS/6/3;
- to prioritize Recommendations and suggest a timeline; and
- to explore the impact of disruptive technologies on IP administration and IP data in view of harmonization and collaboration.”

3. The CWS also 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 manager(s) and/or ICT policy maker(s) 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.)

4. The CWS requested the ICT Strategy Task Force to provide a progress report on Task No. 58 at its seventh session, including a prioritization of the work items in relation to the 40 Recommendations listed in the Annex of document CWS/6/3 (see paragraph 27 of document CWS/6/34). At its seventh session, the CWS noted the content of the progress report delivered by the International Bureau as the Task Force leader, including a suggestion by several Task Force members to develop new standards on authority files for trademarks and industrial designs such as WIPO Standard ST.37 for patent authority file. The Task Force also prioritized the topic on developing a common DOCX <sup>1</sup>conversion tool. The CWS noted that the Task Force agreed on the reallocation of the following Recommendations: R20, R33 and R35 to Group 1 from Group 2. Relevant Standard(s) or CWS Task(s) for Recommendations R04, R05, R09, R10, R11, R13, R15, R22, R33 and R35 were also modified. Those amendments are reflected in the revised Table “40 RECOMMENDATIONS AND CWS ACTIVITIES” presented as the Annex to the present document. The CWS was informed that the Task Force would prepare a strategic roadmap for consideration at the eighth session of the CWS (see paragraphs 19 to 20 of document CWS/7/29).

#### REPORT ON ACTIVITIES

5. The ICT Strategy Task Force met in person during the period of the seventh session of the CWS in Geneva in July 2019 and online in July 2020. The Task Force members reviewed 40 Recommendations and discussed their priority. At the July 2020 online meeting, the Task Force discussed the development of a common DOCX conversion tool and shared the experience of the Offices in overcoming the disruptions caused by the COVID-19 global pandemic, in relation to Recommendation 06 “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”.

6. In terms of prioritization, the Task Force conducted a survey participated by its member Offices and seven Offices responded. According to the results, the following recommendations, which belong to Group 1 mentioned above, are considered a priority, as reflected in the table of the Annex to the present document:

- 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

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<sup>1</sup> A DOCX file is a document created by word processing applications such as Microsoft Word, OpenOffice Writer or Apple Pages, which follows the open XML format that is designed to make document content more open and accessible.

- 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).

7. With regard to DOCX conversion, the Task Force members noted that the DOCX converter has both information technology (IT) and policy implications as captured in Recommendation R18. The Task Force also noted that different Offices are already developing/using their own DOCX converters and several IPOs suggested/supported the development of a common DOCX converter for IPOs. Taking into account that several Offices already use their own tools, the Task Force members agreed to perform a comparison of existing tools and eight Offices confirmed their active participation in the exercises. The International Bureau has recently created a new wiki page to facilitate this discussion.

8. In addition, the Task Force agreed on discussing a common technical specification for DOCX converters as long as there was not a big impact on their existing systems. As a first step in moving forward with a common technical specification for DOCX converter, the Task Force members will share their challenges in developing and using their own tool.

9. The CWS is invited to review and comment on the updated table, in particular the priority level reproduced in the Annex to this document.

#### WORK PLAN

10. The Task Force planned to prepare a strategic roadmap for consideration at the eighth session of the CWS. Due to the COVID-19 pandemic, however, the Task Force has not started a substantive discussion on the strategic roadmap. Taking into account the result of the review exercise and the survey on the priority of 40 Recommendations, the Task Force plans to prepare a draft strategic roadmap for consideration at the ninth session of the CWS.

11. The Task Force also plans to prepare a proposal for a revised list of Recommendations taking into account the relevance of the current 40 Recommendations to the CWS present and future activities in collaboration with other CWS Task Forces for consideration by the CWS; and explore the impact of disruptive technologies on IP administration and IP data in view of harmonization and collaboration.

*12. The CWS is invited to note the content of this document and provide comment on the updated table of 40 Recommendations, which is reproduced in the Annex to this document.*

[Annex follows]

**REVISED 40 RECOMMENDATIONS AND CWS ACTIVITIES<sup>1</sup>**

<b>Recommendations</b>	<b>Category</b>	<b>Relevant WIPO Standards and CWS Tasks</b>	<b>Priority</b>
R1. 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.	Group 1	Task No.41 - ST.96, Task No. 56 - API standard	
R2. 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.	Group 1	Task No. 56 - API standard	
R3. 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.	Group 3	WIPO ST.22	
R4. 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.	Group 1	Task No.44-ST.26, Task No.38-ST.36, Task No.41-ST.96	Yes
R5. Image data and complex elements such as the 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 )	Group 1	ST.67 Task No.41 - ST.96, Task No. 49 - Trademark Standardization TF Task No.57 - Design Representation TF, Task No. 61 - 3D TF, Task No. 62 - Digital Transformation TF	
R6. 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	Group 1	Task No. 62 - Digital Transformation TF	Yes
R7. 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	Group 3	ST.8	

<sup>1</sup> This is based on the Annex of document CWS/6/3. Only differences are the editorial improvements in the description of some Recommendations, the updated information on some Recommendations in the column of Relevant WIPO Standards and CWS Tasks' and the replacement of the column of Remark by Priority.

Recommendations	Category	Relevant WIPO Standards and CWS Tasks	Priority
R8. Strengthen international cooperation for internationally coherent practices for using international classifications and for the provision of technical support to make local language versions of international classifications available	Group 3	ST.8	
R9. 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	Group 1	ST.67 Task No.41 - ST.96, Task No. 49 - Trademark Standardization TF Task No. 57 - - Design Representation TF, Task No. 61 - 3D TF	Yes
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	Group 1	Task No. 52 - Public access to patent information (PAPI TF) Task No. 62 - Digital Transformation TF	
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	Group 1	Task No. 24 - ATRs Task No. 56 - API standard, Task No. 59 - Blockchain TF Task No. 62 - Digital Transformation TF	
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	Group 1	Task No. 59 - Blockchain TF	Yes
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	Group 1	Task No.38- ST.36, Task No.41- ST.96, Task No. 56 - API standard	
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	Group 1	Task No.56- API standard	

Recommendations	Category	Relevant WIPO Standards and CWS Tasks	Priority
<p>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</p>	Group 1	<p>Task No. 59 - Blockchain TF Task No. 62 - Digital Transformation TF</p>	Yes
<p>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</p>	Group 1	<p>Task No.38- ST.36, Task No.41- ST.96</p>	
<p>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</p>	Group 1	<p>Task No.38- ST.36, Task No.41- ST.96</p>	
<p>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</p>	Group 1	<p>Task No.38- ST.36, Task No.41- ST.96</p>	Yes

Recommendations	Category	Relevant WIPO Standards and CWS Tasks	Priority
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.	Group 1	Task No.41- ST.96	
R20. IPOs and the IB should agree on package formats (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.	Group 2		
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	Group 1	Various WIPO Standards, and Task No.44-WIPO Sequence Tool	
R22. IPOs need to share and disseminate patent information and data without any barriers and free-of-charge or at a marginal cost	Group 1	Task No. 52 - Public access to patent information Task No. 57 - ICT Strategy for Standards TF	
R23. IPOs are encouraged to provide their authority file or the link to their website of authority file to the IB	Group 1	Task No.51 - Authority File TF (ST.37)	Yes
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	Group 3		
R25. IPOs should consider the use of WIPO DAS, particularly for processing patent and design applications	Group 3		
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	Group 1	Task No.38- ST.36, Task No.41- ST.96	

Recommendations	Category	Relevant WIPO Standards and CWS Tasks	Priority
R27. Encourage the wider use of existing standardized data exchange mechanisms, promote wider use of electronic filing and prioritize the creation of additional electronic forms to improve the quality and reliability of data received from applicants, thereby reducing the errors caused by data content and format inconsistencies	Group 1	Task No. 41 - ST.96, Task No. 56 - API standard, Task No. 62 - Digital Transformation TF	
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	Group 1		
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)	Group 3		
R30. Create a more comprehensive, user-friendly and machine accessible database of terms of goods and services that could reduce irregularities	Group 3		
R31. IPOs should continue and expand their use of standard grounds of refusal	Group 3		
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	Group 1	Task No.41- ST.96	
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	Group 2	Task No. 49 - Trademark Standardization TF Task No. 57 - Design Representation TF	
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	Group 3		
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	Group 2	Task No. 41- ST.96	



Recommendations	Category	Relevant WIPO Standards and CWS Tasks	Priority
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 the 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	Group 1	Task No. 56 - API standard	
R37. Consider standardized security mechanisms as part of the review of data exchange protocols	Group 1	Task No. 56 - API standard	
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	Group 1	Task No. 56 - API standard	Yes
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	Group 1	Task No. 56 - API standard	Yes
R40. Explore the possibility of global joint projects to capitalize on common interests and synergy of IPOs	Group 3		

[End of Annex and of document]