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MEETING OF INTELLECTUAL PROPERTY OFFICES (IPOs) ON ICT STRATEGIES AND ARTIFICIAL INTELLIGENCE (AI) FOR IP ADMINISTRATION

Geneva, May 23 to May 25, 2018

SUMMARY BY THE FACILITATOR

AGENDA ITEM 1:   OPENING OF THE SESSION

1.   The meeting was opened by the Director General, Mr. Francis Gurry who highlighted the need for leveraging advanced information technologies to deal with the increased complexity and volume of IP applications, as well as the increased need for collaboration between IP offices.

2.   Mr. Andy Bartlett, Divisional Director, United Kingdom Intellectual Property Office (UKIPO), was invited to facilitate the meeting. Mr. Bartlett highlighted the importance of AI and digital transformation to improve IP office services and invited IP offices to promote their own creativity and innovation and to combine efforts.

AGENDA ITEM 2:   PRESENTATION BY SELECTED IPO'S

3.   UKIPO gave a presentation on the modernization of their ICT platform. The approach is service-based and uses process modelling. After several attempts to develop a modern IT architecture, UK IPO is developing a component-based architecture that will allow for more flexibility and long-term stability.

4.   IPI Switzerland gave a presentation concerning the modernization of its workflow and case management system. This demonstrated a successful approach to deploying off-the-shelf software to IP processing.

AGENDA ITEM 3:   GENERAL DISCUSSION ON ICT STRATEGIES

5.   Discussions were based on the paper WIPO/IP/ITAI/GE/18/3 which contained a number of recommendations whose purpose was to prompt discussion but for which approval was not sought. Delegations welcomed the initiative of WIPO for convening the meeting which was timely and useful for the exchange of views and experience in the area of ICT and business management for effective IP office administration. Delegations discussed general strategic issues including:

- The need for a catalogue of technologies to avoid duplication and proliferation of different solutions.
- Further development of WIPO standards to include APIs, noting that development and implementation of new standards takes considerable time and effort.
- Consistency of APIs across IP offices is important. Third party patent management system providers in particular are unlikely to see a business case in supporting different standards for each Office.
- The need to take a service delivery approach, based on the needs of external stakeholders.
- Approaches to business-driven process modelling based on developing "ideal" models that take advantage of IT capabilities to implement legal requirements, rather than focusing on "as-is" models and recreating existing processes with modern tools.
- Quality at source should be promoted while recognizing there is already international cooperation on OCR technologies for front-file and back-file digitization.

AGENDA ITEM 4: DISCUSSIONS ON SPECIFIC ISSUES (NATIONAL ICT STRATEGIES)

6.   Discussions were based on part I of the paper WIPO/IP/ITAI/GE/18/3. Delegations discussed specific issues including:

- Many parties are developing AI tools for classification. There is an opportunity to combine efforts.
- Collaboration needs to include the sharing of data sets, particularly from offices with large data sets.
- Some offices already have an open policy to share data with other offices.
- Once validated internally, tools can be offered to customers to improve quality at source.
- Delegations discussed issues around publication, dissemination of information and legal status. The needs to reduce duplicate copies of information and to identify a single authentic source of information were noted.
- There are differing practices on records management, particularly with respect to requirements for authenticity and digital signatures, resulting from different national legal frameworks.
- A number of offices are conducting experiments with blockchain-type technology for use in situations like creating shared registries.

7.   Several actions were noted:

- A platform for collaborative projects is being established and interested offices will be able to participate.
- AI-powered automatic classification tools development and generation of data sets required for training such AI tools need closer international collaboration and interested IP offices are invited to participate in a Task Force, facilitated by WIPO (R7 and R8).
- A workshop or webinar will be organized to share specific technical information on search tools for different types of IP rights (R9).
- CWS is expected to discuss standardization of formats for online publication (R10).
- A proposal may be submitted to CWS to create a task force to study utilization of block chain technologies, while noting remarks made by some delegations that a federated model of registry and deep linking of those registries for search and retrieval may be more a practical short-term solution (R12).

8.   Recommendations 1-12 were noted and generally accepted by the delegations, while noting that certain Recommendations (e.g., R 5) needs time for full compliance and implementation with a need for image data e.g. industrial designs to be generated in a machine-searchable format.

9.   The WIPO IB shared information on the WIPO IP Office Suite   It was remarked that those IP offices with limited resources are encouraged to use WIPO IP Office Suite for further international cooperation and data exchange.

AGENDA ITEM 5:   DISCUSSIONS ON SPECIFIC ISSUES (ICT STRATEGY FOR GLOBAL IP PROTECTION)

10.   Discussions were based on part II of the paper WIPO/IP/ITAI/GE/18/3. Delegations discussed specific issues including:

- Several offices would have difficulty sharing any information about unpublished applications, although some also had experience in publishing limited categories of such information. Concerns included legal restrictions and the interests of applicants (R15).
- In spite of this, the objective of facilitating information exchange is valid and requires effective action, but other technical and legal solutions need to be considered.
- Offices are considering migration to WIPO Standard ST.96, noting issues with convertibility and dealing with multiple formats in reality. The CWS XML4IP Task Force is expected to consider new elements for ST.96, including search and examination reports and possible expansion of the Task Force work to cover the implementation issues including XML validation mechanisms to enhance interoperability between offices (R16 and R17). Additional legal and operational expertise may be needed for these additional elements.
- Common tools, where appropriate, would help to ensure that standards were implemented consistently. Docx converters for application bodies would be an early example (noting that legal and procedural issues were involved in addition to pure technical consistency).
- In addition to CWS Task Force, some Offices agreed to exchange more technical information, preferably by regular webinar or other online meeting format, regarding experience on conversion tools, validation tools, use of APIs to deliver services to customers, integration with 3rd party systems, and other topics including the direction of long term IT strategy.
- The CWS Task Force on APIs may provide a "reference implementation" that could be used by offices and 3rd parties to develop compatible systems.
- Authority files are already made available by some offices and have been standardized in WIPO standard ST.37. Other offices are encouraged to implement the standard. (R23)
- There is no global policy on barrier-free exchange of patent information, although many delegations already have such a policy and would like to see it more widely implemented. Such a policy should specify the scope of patent information (bibliographic data, full-text data, citation and classification data, and work products of offices). (R22)
- Offices are increasing their participation in WIPO DAS and consider that it provides a cost-effective method for moving away from paper-based document exchange and might offer solutions to related issues concerning the right to share unpublished information, such as search and examination results. Offices also support the concept of creating simple electronic packages for document exchange, noting that investment in new systems needs to be justified by the benefits. (R25)

11.   Recommendations 13-24 were noted and generally accepted by the delegations. Some recommendations should be followed up with specific actions, for example by exchanging technical information on a collaboration platform and by videoconference meetings or webinars. In some cases (e.g. R16, R17, R19, R21, R23), the relevant CWS Task Forces need to

consider a wider range of issues. Regarding patent information policy, the IB should consider how a global policy on barrier-free data exchange could be formalized.

12.   Presentations were delivered by the IB on ePCT and on the PCT Resilient and Secure Platform.

AGENDA ITEM 6:   DISCUSSIONS ON SPECIFIC ISSUES (GENERAL ICT STRATEGIES)

13.   Discussions were based on part II and part III of the paper WIPO/IP/ITAI/GE/18/3. Delegations discussed issues including:

- Offices wish to move to fully online processing for Madrid and Hague transactions. More offices will consider integration with Madrid e-filing and work with the IB to improve the protocols and processes.
- Offices are developing online tools for validation of goods and services which could further benefit from the Madrid Goods & Services Manager.
- The Hague bulletin is being migrated to ST.96 format and offices should transition to this new format by 2021, if possible.

14.   Recommendations 27-34 on Madrid and Hague were noted and generally accepted.

- The IB is exploring netting solutions to optimize the handling of multiple currencies and payments across multiple IP services and to improve reconciliation and reliability of financial transactions.
- International security standards are generally supported by many offices. National offices, however, are also required by national regulations to implement national security standards and polices but could explore the possibility of agreement on international standards for international data exchange systems.
- Many offices are considering cloud hosting or have already started to use cloud hosting for certain applications and data. At present, no offices are planning to use public cloud service providers for storing or processing unpublished patent applications.
- Standards are necessary but need to be decided and implemented quickly to take account of new technologies. Maintenance cycles and governance also need to be considered in the dynamic environment of changing requirements from users and changing technologies.
- Offices agreed to actively participate in the CWS Task Force, providing input by end June, to prepare a final proposal for a new WIPO standard on APIs for consideration and adoption at the CWS/6 which will be held in October 2018.
- In some cases (e.g. R32, R33), the relevant CWS Task Forces need to consider a wider range of issues.

15.   Recommendations 35-40 on general ICT policies and strategies were noted. Netting solutions needs to be considered in a wider context than that expressed in R35, with a more effective transaction framework.

16.   The discussion on the paper WIPO/IP/ITAI/GE/18/3 was concluded with delegations expressing support for continued discussion and exchange of technical information, in particular via online collaboration tools and via videoconference and/or webinars.

17.   WIPO Secretariat proposed that a dedicated web site and wiki site for ICT Strategy and AI be created to facilitate Member States in their exchange of information and organizing virtual meetings for specific topics and possible joint projects. Delegations welcomed the proposal.

AGENDA ITEM 7

18.   The WIPO Secretariat presented a summary of the results of the replies to the WIPO Circular regarding AI applications to IP office administration (see document ITAI/GE/18/1).

19.   Delegations agreed that the field of AI is changing rapidly and that it would be useful to share experiences and best practices through an online collaboration platform.

AGENDA ITEM 8:   PRESENTATIONS BY SELECTED IP OFFICES

20.   Presentations were given by:

- The Federal Institute of Industrial Property (FIPS), Russian Federation.
- United States Patent and Trademark Office (USPTO).
- Korean Intellectual Property Office (KIPO).
- IP Australia.
- European Patent Office (EPO).
- Japan Patent Office (JPO).

These presentations gave a valuable insight into the impressive progress that has already been made in various offices to harness the potential of AI in our IP administration systems. The discussions demonstrated the desire from offices for an ongoing exchange of information and experience in AI, which would also avoid a duplication of effort amongst other things.

AGENDA ITEM 9:   PRESENTATIONS BY A LEADING AI SCIENTIST

21.   Mr. Wei Xu, Distinguished Scientist, Baidu, gave a presentation on the current status of AI and his thoughts on the future of AI.

AGENDA ITEM 9 (CONT):   PRESENTATIONS BY THE IB OF WIPO

22.   WIPO Secretariat gave a presentation of WIPO's AI tools.

AGENDA ITEM 10:   DISCUSSIONS ON APPLICATIONS OF AI

23.   Delegations agreed to continue the exchange of information and seek further cooperation as demonstrated by the proposals for a website, webinars and sharing of information on classification tools.

AGENDA ITEM 11:   FACILITATOR'S SUMMARY

24.   The delegations thanked the Facilitator for his guidance and facilitation at the meeting and his intention to post the Facilitator's Summary (this document) on the WIPO web site.

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