

Committee on Development and Intellectual Property (CDIP)

Eighteenth Session

Geneva, October 31 to November 4, 2016

COMPILATION OF MEMBER STATES INPUTS ON ACTIVITIES RELATED TO TECHNOLOGY TRANSFER

prepared by the Secretariat

1. During its 17th session, the Committee on Development and Intellectual Property (CDIP), while discussing the document CDIP/17/9 on *Mapping of Activities Related to Technology Transfer*, the Committee decided that “interested Member States should submit proposals for discussion at the eighteenth session of the Committee. The proposals should separate general policy issues and specific proposals for possible action. The Member State submissions should reach the Secretariat by July 10, 2016.”

2. Accordingly, the annexes to this document contain the submissions made by WIPO Member States on the above-mentioned subject.

3. *The Committee is requested to consider the information contained in the annexes to the present document.*

[Annexes follow]

Joint Proposal of the Delegations of the United States, Australia, and Canada on the Agenda Item Related to the Report on the WIPO Expert Forum on International Technology Transfer Contained in the Document CDIP/15/5 and the Mapping of Activities Related to Technology Transfer Contained in Document CDIP/17/9.

Proposal on General Policy Issues and a Way Forward:

WIPO is actively involved in a wide range of technology transfer related activities that benefit least developed and developing countries as well as countries with economies in transition, as clearly described in document CDIP/17/9, which contains information on existing technology transfer-related services and activities undertaken by WIPO during the 2014/2015 biennium.

At CDIP/17, the Chair suggested that interested Member States should submit proposals to the Secretariat by July 10, 2016, for the consideration at CDIP/18 regarding both general and concrete issues relating to a way forward for addressing next steps and a role for WIPO in technology transfer.

In order to build upon the good work conducted during the mapping exercise (document CDIP/17/9) and to ensure the sustainability of the gain from the project, ***Project on Intellectual Property and Technology Transfer: Common Challenges – Building Solutions:***

1. We propose that the Secretariat review and update the existing WIPO Technology Transfer webpage¹ by incorporating links to additional materials, documents and activities contained in the mapping document, for example, links to WIPO GREEN, WIPO Re:Search and WIPO Match as well as to the guides on commercialization, valuation and licensing commissioned by WIPO. The Secretariat should consider options to make this webpage more intuitive and user-friendly.
2. We propose that the Secretariat provide a roadmap on how WIPO will continue to promote awareness of existing WIPO resources in the area of technology transfer to policy makers, practitioners, and research institutes to ensure broader understanding of the issues.
3. We propose that the Secretariat continue to actively engage in international fora and conferences on technology transfer.² Similar to document CDIP/17/9, the Secretariat should also undertake a mapping exercise of initiatives and activities currently taking place on technology transfer in other international fora, with a view to providing an update to the CDIP on the international fora and conferences where technology transfer is currently being discussed, as well as the role that WIPO can continue to play in this regard.
4. We propose that the Secretariat promote the usage of the web forum established under the “Project on Intellectual Property and Technology Transfer: Common Challenges-Building Solutions” as it is a useful tool to address Member States questions

¹ This is in line with Recommendation 2(g) of the Evaluation Report of the Project on Intellectual Property and Technology Transfer: Common Challenges – Building Solutions (document CDIP/16/3).

² This is in line with Recommendation 3 of the Evaluation Report (document CDIP/16/3).

and issues related to technology transfer. The Secretariat should also establish a link to the web forum from the WIPO Technology Transfer webpage (noted in item 1).

5. We propose that WIPO investigate taking up a market based approach to facilitate innovation and commercialization by providing a means for public sector patent holders to signal their licensing intent and promote their key areas of technology within a single platform. As part of investigating activities in this area, WIPO should consider utilizing existing platforms and collaborate with Member States that have similar systems in place such as Australia's Source IP platform (<https://sourceip.ipaustralia.gov.au/#!/about>). For instance, the Secretariat should invite submissions from those Member States on national practices and experiences in the development of market based approaches and platforms on technology transfer, to inform WIPO's work in this area.

In order to translate the project outputs into sustainable tangible outcomes resulting in wider benefits:

6. In line with the Committee's decision reflected in the Summary by the Chair of CDIP16 that invited interested Member States to submit proposals for discussion at the eighteenth session of the Committee, we propose that the Committee base its future work under this agenda item on concrete, practical projects that deliver tangible outcomes for Member States with the goal to promote international technology transfer, build capacity in least developed, developing, and transitional countries to enable more effective technology transfer and improve collaboration between technology transfer participants. As a first step, and in building on the valuable work of the recent mapping exercise in document CDIP/17/9, the Secretariat should undertake a gap analysis of WIPO's existing technology transfer-related services and activities in respect of the WIPO Development Agenda "Cluster C" recommendations, in order to assist in the consideration and evaluation of any proposals and priority areas, going forward.

An overview of the activities already undertaken by the CDIP in the area of technology transfer can be found in the Annex to this document.

Annex A

Background on activities undertaken by the CDIP in the area of technology transfer

The Committee first discussed the technology transfer project at **CDIP/4** (November 2009) and approved it with some modifications at the **CDIP/6** (November 2010).

The final approval project document contemplated, as a first step, the preparation of a Project Paper including a detailed description of the components of the project for approval by the Committee. At **CDIP/8** (November 2011), the Committee approved the Project Paper containing the Terms of Reference for the Technology Transfer project, including the format and model program for five planned regional consultation meetings.

The revised “Project on Intellectual Property and Technology Transfer: Common Challenges – Common Solutions” consisted of the following stages (see project overview and proposed timeline contained in the document **CDIP/9/INF/4 - Revised Project Paper for the Project on Intellectual Property and Technology Transfer: Common Challenges – Common Solutions**):

Stage 1: Project Paper

- Drafted in October 2011 and presented to the CDIP8 for approval by Member States. TOR and other documents were approved by the Committee.

Stage 2:

Five Regional Consultation Meetings in different regions of the world in prior consultation with Member States in Geneva, and involving different stakeholders in the area of technology transfer, including other relevant UN organizations.

- Q3 2012 – Q3 2013

Stage 3:

Development of studies, case studies and papers in the area of IP and technology transfer information.

- Q2 2012 – Q1 2013

Stage 4:

Three-day High-Level Expert Forum

- Concept Paper - Q2 2013
- Submission of the draft Concept Paper for comments by international experts - Q2 2013
- Presentation of the Concept Paper to Permanent Missions in Geneva - Q2 2013
- One day meeting with inter-governmental and non-governmental organizations, professional associations and selected experts - Q2 2013
- High-Level Expert Forum – Q3 2013

Stage 5:

Creation of a Web Forum on TT and IP and updating

- Q1 – Q4 2013

Stage 6:

Incorporation of any outcome resulting from the above activities into the WIPO programs, after consideration by the CDIP and any possible recommendation by the Committee to the General Assembly

- Q4 2013

The **Concept Paper (document CDIP/14/8)** summarized the status of the project to date and was intended to provide the basis for discussion at the High Level International Expert Forum, ultimately held February 16-18, 2015 in Geneva.

1. Five regional meetings on IP and technology transfer were organized:
 - (a) Asian Region (Singapore, July 2012);
 - (b) African and Arab Region (Algiers, January 2013);
 - (c) Transition Region (Istanbul, October 2013);
 - (d) Developed Region (Geneva, November 2013); and
 - (e) Latin American and Caribbean Region (Monterrey, December 2013).

“Thoughts” or recommendations were provided by the participants at the end of each meeting. The Concept paper summarizes these “thoughts.” Most of the “thoughts” related to training, capacity building and technical assistance in the area of technology transfer as well as improving collaboration between TT participants.

2. Peer-reviewed analytical studies completed:
 - (a) Economics of IP and International Technology Transfer (document CDIP/14/INF/7);
 - (b) IP-Related Policies and Initiatives in Developed Countries to Promote TT (document CDIP/14/INF/8);
 - (c) Case Studies on Cooperation and Exchange between R&D Institutions in Developed and Developing Countries (document CDIP/14/INF/9);
 - (d) Policies Fostering the Participation of Businesses in TT (document CDIP/14/INF/10);
 - (e) International TT: An Analysis from the Perspective of Developing Countries (document CDIP/14/INF/11); and
 - (f) Alternatives to the Patent System that are Used to Support R&D Efforts, including both Push and Pull Mechanisms, with a Special Focus on Innovation Inducement Prizes and Open Source Development Models (document CDIP/14/INF/12).
3. High-Level International Expert Forum although tentatively scheduled for January 2015 in Geneva, ultimately held February 16-18, 2015.
 - (a) The Forum was intended to be based on the outcome of the 5 Regional meetings and 6 peer-reviewed studies.
 - (b) The Forum was intended to facilitate a dialogue among experts from both developed and developing countries on access to knowledge and technology and TT-supportive IP policies.
 - (c) Experts for the Forum would be selected in consultation with MS as provided in the project document CDIP/9/INF/4.
4. Materials, Modules, Teaching Tools
 - (a) To be prepared following the outcome of the Forum to be incorporated into the global WIPO capacity building framework.
5. Web Forum
 - (a) To be incorporated within the framework of the portal on Innovation and Technology Transfer Support Structure for National Institutions
6. Incorporation of Outcomes into WIPO Programs
 - (a) Outcome of from the Forum to be considered by CDIP and, possibly, recommended to GA, for streamlining into the work of WIPO.

The Concept Paper was submitted for comment to international experts from the Innovation, Technology and IP Programme at the International Centre for Trade and Sustainable

Development (ICTSD). It was also presented to permanent missions in Geneva and to IGOs, NGOs, professional associations and selected experts during a one-day meeting.

At **CDIP/14**, the Concept Paper (document **CDIP/14/8**) was discussed in detail. A number of delegations commented on the Project Paper, requested clarification of the timeline for the remaining deliverables of the project, including the preparation of materials, modules and teaching tools and creation of a Web forum, suggested limiting the definition of “technology transfer” set out in the concept paper solely to this project, and inquired about the process for the selection of the experts for the High Level Expert Forum. The Secretariat revised the Concept paper to incorporate some of the suggestions made by Member States. After a discussion at CDIP/14, the Concept Paper was approved with an understanding that the High Level Expert Forum recommendations would be sent to the Committee for “consideration and adoption” only if all of the experts on any given panel agree upon such recommendations.

Document **CDIP/15/5** contains a factual report of the discussion that took place during the High Level Expert Forum, February 16-18, 2015.

The keynote presentations delivered by Sherry Knowles (US) and McLean Sibanda (South Africa) were followed by three main sessions. During Session 1, the six analytical studies produced during the previous stage of the project (see above) were presented by the authors and reviewers and discussed by the participants. During Session 2, a panel of six international technology transfer experts and a moderator discussed measures for promoting international technology transfer. The following experts participated in the panel discussion:

- Mr. Jaroslav Burčík, Director, Technology and Innovation Center, Czech Technical University, Prague, Czech Republic;
- Mr. Francisco Rafael Cano Betancourt, Director, Planning, Evaluation and Development, National Council for Science and Technology, Guatemala City, Guatemala;
- Ms. Sherry Knowles, Principal, Knowles Intellectual Property Strategies, LLC, Atlanta, Georgia, USA;
- Mr. Sifeddine Labeled, Director, Formation, Research, Innovation and Technology Transfer, Ministry of Information and Communication Technologies (ICTs), Algiers, Algeria;
- Ms. Allison Mages, Senior Counsel, IP Procurement and Policy, General Electric Company, Representative from the Intellectual Property Owners Association, Washington, D.C., USA;
- Mr. McLean Sibanda, Chief Executive Officer (CEO), Innovation Hub, Pretoria, South Africa;
- Mr. Wenhuan Xia, Director, Business Development, Transpacific IP Group Limited, Beijing, China; and
- Ms. Audrey Yap, Founding Partner and Head, IP Department, Yusarn Audrey, Singapore.
- Ms. Alison Brimelow, Chairman, Centre for Copyright and New Business Models in the Creative Economy (CREATe), Programme Advisory Council of the UK Research Councils, University of Glasgow, Glasgow, UK, acted as the Moderator for all panel discussions during Session 2.

Session 2 was broken into 6 sub-sessions: (a) Capacity Building; (b) Global Cooperation; (c) Institutional Framework; (d) Regulatory Framework; (e) Innovation Infrastructure; and (f) Funding/Evaluation Mechanisms. For each sub-session, each expert briefly discussed challenges and proposed solutions. During Session 3, the Moderator summarized the “considerations” and “thoughts” agreed upon by all panel members, which were submitted to the CDIP for its consideration.

Based on the following considerations:

- (i) that the perception was that international technology transfer was effective but was yet at a low level; and
- (ii) that, in terms of the human capital, there was a deficit, as people were at the center of ideas and were the enablers of international technology transfer.

The Expert panel has agreed on the following “thoughts”:

- (a) Design a technology transfer platform that would provide information on technologies that are available (“the gives”) and those that are needed (“the needs”). This could then evolve into a technology transfer matchmaking platform.
- (b) Disseminate best practice illustrating effective cases of international technology transfer, using, inter alia, existing WIPO platforms and success stories from the Global Innovation Index, through periodic regional events.
- (c) Set up a WIPO Technology Transfer Helpdesk, servicing the needs of Member States, to promote information exchange on technology transfer opportunities and failures, eventually evolving into a “clearing-house” for information and technologies.
- (d) Conduct empirical work on science parks, incubators and accelerators and their effective use of intellectual property for technology transfer.
- (e) Develop training materials that are case study-based to enable more effective technology transfer.
- (f) Raise awareness on the importance of an IP framework, including the accession to PCT, Madrid and Hague systems, which is a necessary but not sufficient condition for effective technology transfer.
- (g) Identify ways to use IPR from publicly-funded research for socio-economic development and implement them with local specific needs, given that ‘one size does not fit all’.
- (h) Continue work on international technology transfer, which was useful and should be endorsed by the CDIP.

This document was first discussed at **CDIP/15**. There was no agreement reached, and the discussions were continued at CDIP/16 session.

At **CDIP/16**, the Committee discussed the ***Evaluation Report of the Project on IP and Technology Transfer: Common Challenges – Building Solutions (document CDIP/16/3)***. The Report was prepared by two external evaluators and provides some concrete recommendations, including mapping WIPO’s existing TT activities.

At **CDIP/16**, the Committee agreed that, as the first step, the Secretariat will produce the mapping document for consideration at the next session of the Committee. After the mapping document is discussed, Member States will be able to submit proposals, in a timely manner, on additional technology transfer-related activities for consideration at CDIP/18.

Document **CDIP/17/9 - Mapping of Activities Related to Technology Transfer**, presented at **CDIP/17**, contained information on existing technology transfer-related services and activities undertaken by WIPO during the 2014/2015 biennium.

The services/activities are listed by the following topics:

- (a) Advisory Services and Programs Related to Creation of Enabling Legal Framework for Knowledge / Technology Transfer;
- (b) Establishment of Knowledge / Technology Transfer Organizational Structures;
- (c) Development of Human Capital – Capacity Building Programs;
- (d) Creation of Tools, Manuals and Training Materials;
- (e) WIPO Standing Committees Addressing Technology Transfer Issues;
- (f) WIPO Facilitated Collaborations in Specific Areas of Knowledge / Technology Transfer;
- (g) WIPO Participation in Relevant Knowledge Transfer Forums; and
- (h) Economic Research and Studies on Policies and Outcomes of Technology Transfer.

The document demonstrated that WIPO is actively involved in a wide range of technology transfer related activities that benefit least developed and developing countries as well as countries with economies in transition.

[Annex II follows]

PROPOSAL FROM THE DELEGATION OF SOUTH AFRICA
PROPOSED WIPO ACTIVITIES IN THE AREA OF TECHNOLOGY TRANSFER

RELEVANT DEVELOPMENT AGENDA RECOMMENDATIONS:
1, 10, 12, 23, 25, 31 and 40

1. SUMMARY	
<u>Title</u>	<i>Intellectual Property Management and Transfer of Technology: Promoting the Effective Use of Intellectual Property in Developing Countries</i>
<u>Development Agenda Recommendations</u>	<p><i>Recommendation 1:</i> WIPO technical assistance shall be, inter alia, development-oriented, demand-driven and transparent, taking into account the priorities and the special needs of developing countries, especially LDCs, as well as the different levels of development of Member States and activities should include time frames for completion. In this regard, design, delivery mechanisms and evaluation processes of technical assistance programs should be country specific.</p> <p><i>Recommendation 10:</i> To assist Member States to develop and improve national intellectual property institutional capacity through further development of infrastructure and other facilities with a view to making national intellectual property institutions more efficient and promote fair balance between intellectual property protection and the public interest. This technical assistance should also be extended to sub-regional and regional organizations dealing with intellectual property.</p> <p><i>Recommendation 12:</i> To further mainstream development considerations into WIPO's substantive and technical assistance activities and debates, in accordance with its mandate.</p> <p><i>Recommendation 23:</i> To consider how to better promote pro-competitive intellectual property licensing practices, particularly with a view to fostering creativity, innovation and the transfer and dissemination of technology to interested countries, in particular developing countries and LDCs.</p> <p><i>Recommendation 25:</i> To explore intellectual property -related policies and initiatives necessary to promote the transfer and dissemination of technology, to the benefit of developing countries and to take appropriate measures to enable developing countries to fully understand and benefit from different provisions, pertaining to flexibilities provided for in international agreements, as appropriate.</p> <p><i>Recommendation 31:</i> To undertake initiatives agreed by Member States, which contribute to transfer of technology to developing countries, such as requesting WIPO to facilitate better access to publicly available patent information.</p>

	<p><i>Recommendation 40:</i> To request WIPO to intensify its cooperation on IP related issues with United Nations agencies, according to Member States' orientation, in particular UNCTAD, UNEP, WHO, UNIDO, UNESCO and other relevant international organizations, in order to strengthen the coordination for maximum efficiency in undertaking development programs.</p>
<p><u>Brief Description of Project</u></p>	<p>Many countries around the world have enacted legislation to ensure greater socio-economic returns from public investment in research and/or development. This top-down approach mandates a bottom up response in terms of awareness, training and skills development in the field of IP management and transfer of technology for:</p> <ul style="list-style-type: none"> (a) funders of research (including employees within government funding agencies); (b) developers of the IP (including researchers); (c) managers of the IP (including individuals within technology transfer offices); and (d) users of the IP (including SMMEs). <p>There are many factors that stifle innovation, one of which is the shortage in the required skills in IP management and transfer of technologies for funders, developers, managers and users in the innovation value chain. This project is thus aimed at providing focused training opportunities, guides and best practices documents (both academic and practical in nature) for a range of players along the innovation value.</p> <p>The project will be implemented in selected pilot countries, including South Africa, where it will aim at building capacities of key stakeholders (ranging from funders, developers, to managers and ultimately users).</p> <p>The best practices documented and the tools and guides developed in the course of the project will also contribute to guiding policy decisions and raise public awareness on the use of IP, the importance of effective IP management and strategies for effective transfer of technology. The ultimate aim is to demonstrate that IP is an effective tool for enhancing socio-economic development in developed, emerging and developing economies.</p>
<p><u>Implementing Program</u></p>	<p>TBD</p>
<p><u>Links to other related Program(s)/ DA Project(s)</u></p>	<p>TBD</p>

<u>Links to Expected Results in the Program and Budget</u>	<i>TBD.</i>
<u>Project Duration</u>	<i>36 months</i>
<u>Project Budget</u>	Total non-personnel costs: TBD

2. PROJECT DESCRIPTION

2.1. Introduction to the issue

It is universally acknowledged that *“Developments in science and technology are fundamentally altering the way people live, connect, communicate and transact, with profound effects on economic development”* with innovation as the primary driver of technological growth capable of driving higher standards of living”. Intellectual property (“IP”) and the associated rights are a critical aspect to innovation and economic growth and this is summed up aptly as follows: *“IP rights include patents, copyrights, trademarks, (designs) and trade secrets, each of which is subject to separate laws in every country. IP laws evolved over centuries as a tool to derive public benefits from the innovation cycle. Because it is so tightly linked to innovation, intellectual property (and in many instances the associated rights) holds a key to our future”*³.

However, IP and the associated rights remains a poorly understood instrument, let alone the ability to ensure that the IP finds application within an innovation value chain to ensure that the products, processes and services that embody the IP end up in the hands of end users. This statement is true for all contexts developed, emerging and developing but especially so in a developing country.

There a number of players along the innovation value chain required to take a product to market, and these players include:

- (a) *funders* of research (including employees within government funding agencies);
- (b) *developers* of the IP (including researchers);
- (c) *managers* of the IP (including individuals within technology transfer offices); and
- (d) *users of the IP* (including SMMEs).

These various players all require a clear understanding of:

- Intellectual property and associated intellectual property protection strategies, relevant for different technology types;
- Effective active intellectual property management including infringement monitoring with a particular emphasis to empower developing countries to ensure no third party is abusing their exclusionary right granted;

³ <http://iipdigital.usembassy.gov/st/english/publication/2009/11/20091106141914ebyessedo0.5504833.html#axzz36yvEklZ9>

- IP marketing and how to engage with industry partners;
- Conclusion of transactions for commercialization including negotiation strategies and pitfalls to avoid, as well as how to set up a start-up and ultimately spin it out; and
- An understanding of commercialization in the global market.
- Usage of IP tools, including flexibilities to access technologies relevant to the technological needs of their countries.

The project will therefore focus on capacity building in the holistic area of IP management and the transfer of technologies and will be articulated in the following phases:

1. Identification of existing or potential IP tools for capacity development for IP management and transfer of technologies including relevant case studies across a range of technologies;
2. Capacity building of key role players in the categories of funders, developers, manager and users of IP; and
3. Local case study analysis to develop strategic guides and local documentation for opportunities of how IP and IPR may promote socio-economic development.

The project is particularly relevant in the context of the Development Agenda, where it seeks to demonstrate how developing countries can benefit from capacity development in IP management and transfer of technologies. Focusing on experiences in selected pilot countries including South Africa, the project will showcase how the strategic use of IP tools can create opportunities for socio-economic development.

2.2. Objectives

Addressing Development Agenda Recommendations 1, 10, 12, 23, 25, 31 and 40, the project aims to achieve the following general objective and more specific objectives:

General objective:

To promote the effective use of intellectual property and any associated intellectual property rights as a tool for socio-economic development in Developing Countries, in particular, the use of intellectual property developed following public investment in research and/or development.

Specific Objectives:

1. Create capacity in IP management and transfer of technologies amongst the key role players in the categories of funders, developers, manager and users of IP; and
2. Raise awareness through development of local case studies that IP may be used effectively as a tool for socio-economic development.

2.3. Delivery Strategy

The project objectives will be achieved through a combination of: (i) Identification of existing or potential IP tools for capacity development for IP management and transfer of technologies including relevant case studies across a range of technologies (ii) Capacity building of key role players in the categories of funders, developers, manager and users of IP; and (iii) Local case study analysis to develop strategic guides and local documentation for opportunities of how IP and IPR may promote socio-economic development.

[End of Annex II and of document]