Road map for establishing Technology & Innovation Support Centers (TISC)

I. Background

1. **Why:**
    a. To allow users to benefit effectively from increased accessibility offered by internet searches (including search tools such keyword, truncation, classification, etc. tools) through direct personal (face-to-face) assistance;
    b. To strengthen the local technological base (by building up local know-how);
    c. To increase technology transfer (e.g. by investigating the possibilities of licensing, joint ventures, etc.);
    d. To assist local users to create, protect, own and manage their intellectual property rights;

2. **What:**
    a. Technology searches
        i. patent searches;
        ii. non-patent (scientific and technical literature) searches;
    b. A broader range of services to users (not only patent and non-patent information), including:
        i. advice on the whole innovation process, from conception of an idea to the commercialization of the product based on this idea;
        ii. the process of protecting innovation e.g. using patents;

3. **Where:**
    a. Technology and Innovation Support Centers should be strategically located close to users;
    b. The centers should also, if appropriate, be spread out throughout the national territory;

4. **For whom:** Assistance particularly to non-specialist and increasingly broad spectrum of users:
    a. Individual inventors
    b. Small and medium enterprises
    c. Industry
    d. Researchers in technology centers and universities
    e. Academia (ranging from schools to universities),
    f. IP professionals, etc.

II. How: Practical steps

1. Initial Needs Assessments

An institutional and user/stakeholder analysis should be undertaken to analyze patent information services currently available, as well as future requirements. Because TISC services are demand-driven vis-à-vis its users, knowing users' needs is the best way to providing effective and efficient services.

A questionnaire can be prepared so as to give a first idea of:

a. Which kind of information is required by users, e.g. regarding patents, trademarks, copyrights, etc?
b. For what purpose is the IP information necessary (technology information, competitors, etc.)?
c. How is this information to be received (from visiting a company, online information, networking, during training, etc.)?
d. Where is the preferred location users would like to receive information (institution such as university, chamber of commerce, technology center, mobile)?
e. What costs would be acceptable? Free or low-cost?

The user needs' analysis can be carried as follows:

a. Contacting multipliers (government institutions, industry associations, etc.) for addresses and further contacts;
b. Possibly offering an incentive for returned questionnaires;
c. Putting the questionnaire on websites;
d. Holding focus group discussions of associations;
e. Gathering information during training sessions.

Annex I illustrates possible further questions regarding the current and future institutional and user/stakeholder requirements.

Annex II indicates possible tools and services to support the national innovation process. Both annexes can be adapted to specific local or national conditions.

An initial assessment mission from WIPO should be undertaken to initiate discussions, as well as to:

a. determine the current and future Intellectual Property Office (IPO) activities and planning;
b. discuss a concept document (i.e. the current roadmap document) which contains practical and logistical proposals in setting up training and promoting TISC services;

c. emphasize the principal role of the IPO and its decision to establish a single TISC or a network of TISCs;
d. meet with other stakeholders and potential TISC host institutions to explain and promote the TISC project.

2. Service Level Agreement (SLA)

A Service Level Agreement could be drawn up between the Intellectual Property Office (IPO) / Technology and Innovation Support Center (TISC) on the one hand and WIPO on the other, so as to clarify and agree to their respective contributions.

As regards the TISC/IPO, this contribution would include the following:

a. Location (type of institution; see also further below)
b. Facilities (separate room or office)
c. Technical facilities (PC + CD/DVD drive, internet connection (see also last paragraph of this section), etc.)
d. Personnel (a minimum of 2 staff is preferable)
e. Services to be provided (see point 3. below)
f. Opening hours (to be proposed)
g. Fees (e.g. free in general with fees for printing; but also, should additional staff services such as developing IP strategies or using commercial databases be provided on a fee-paying basis and what these and other rates should be)
h. Termination clauses
i. Other

As regards WIPO's contribution, this could include:

a. Provision of training
b. Provision of information materials
c. Provision of technical assistance (the following could be provided, depending on local capabilities and availability of funds: hardware, software, connections, etc.)
d. Assistance in awareness raising events
e. Possible coordination of a newsletter
f. Possible coordination and organization of a national or regional network within which the innovation center participates
g. Possible coordination of a dedicated website for a network of centers
h. Other

A TISC could be located at the national IP office, its regional office or at one of the following types of institution:

a. Industry Associations

b. Universities/Institutions of Higher Education/Specialized Training Schools or Colleges, academia in general
c. Chambers of Commerce
d. Science and Technology Parks
e. Technology, Innovation and/or Business Incubators
f. Other institutions could also be considered.

3. Training

The organization of training for TISC staff by WIPO would be an important element within the SLA. This training could be defined and provided as a standard package including:

a. WIPO Academy courses
b. E-learning tutorials
c. Local and/or regional training

4. Technology and Innovation Support Center Services

Services provided by the Technology and Innovation Support Center could be launched at a basic level and built up according to local user needs and include some or all of the following:

Basic level services:

a. Access to technical information (data) – access only (without assistance)
b. Assistance in searching for technical information – free and/or commercial databases

Additional (optional) services:

c. Advice on IPRs
d. Training (e.g. for local SMEs)
e. Development of IP Strategies – information on filing patents, trademarks, etc. (when, where, what, how much, etc.)
f. Advice on drafting applications (N.B. care to be taken with respect to national patent attorney association rules and regulations)
g. Advice on IP aspects of product commercialization
h. Advice on licensing
i. Technology and competitor monitoring
j. Assistance in IP valuation
k. Search for business partners and essential know-how
l. Market and competitor analyses
m. Support for raising funds

n. Support for establishing business plans
o. General knowledge of IP laws
p. Other to be specified

5. Technology and Innovation Support Center Networks

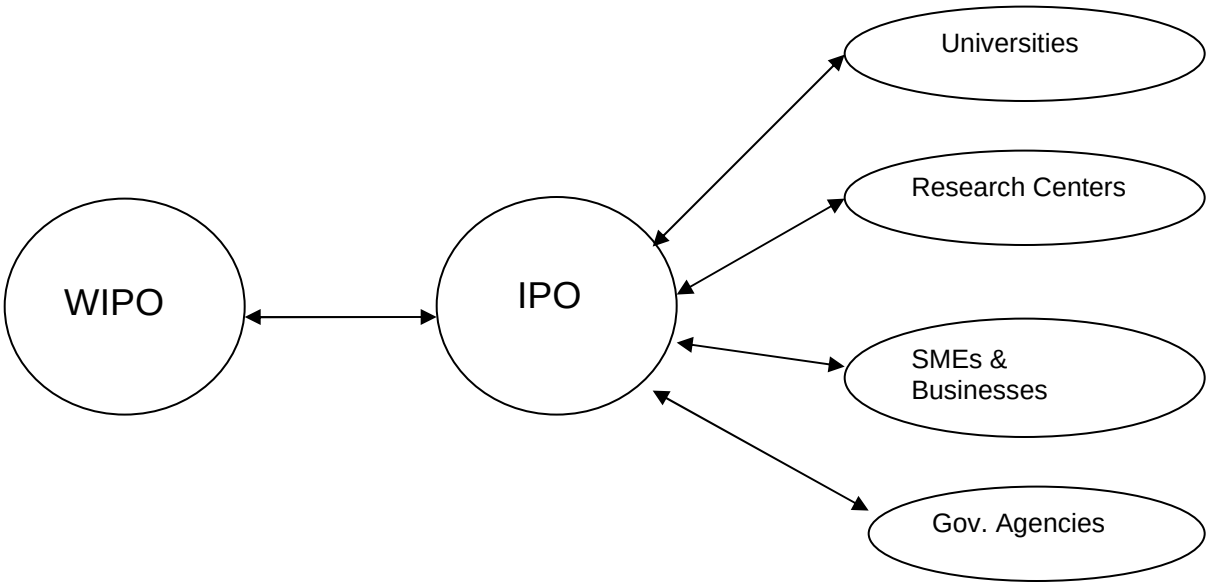
Exchange of experiences and information between institutions involved in innovation is a fundamental key to disseminate knowledge rapidly. Therefore, the establishment of a network of TISCs, comprising national intellectual property offices, research centers, universities, information centers and other partner institutions, is encouraged.

The following indicate practical steps in building a national TISC network:

a. National coordination:
   - Coordination between a specific ministry or between various ministries/agencies which could be involved;
   - Using a “concept paper” to share with ministries/agencies for proposal/discussions;
   - Agreeing on a national approach, i.e. whether:
     - Single TISC at IPO; or
     - IPO (with central TISC) coordinates a national network of TISCs.

b. Identifying possible partner institutions as potential future TISCs i.e. all possible stakeholders in national IP system;
c. Sending out needs analysis to potential stakeholders and potential TISC users;
d. Inviting potential stakeholders to meetings during an assessment mission to agree on a national approach;
e. Assessing and assigning resources available at IPO and at other potential TISCs; taking into account that demand initially may not be very great, therefore starting with limited (part-time) human resources and minimum PC/internet resources;
f. IPO to sign SLA and implement project document with national partners;
g. IPO to invite national partners to a pre-project meeting to discuss national approach;
h. Separate agreement or memo of understanding to be made between the IPO and its national institutions;
i. Sending invitations for training seminars and coordinating national network of TISC partners (minimum “coordination” could simple mean keeping in touch by e-mail; it could also be more active);
j. Evaluation at end of seminar to identify next training subject/s.

The following diagram illustrates the relationship between WIPO, IPO and TISC network institutions.



6. Awareness Raising

Awareness raising should be organized at national and regional levels and include:

a. Dedicated conferences for promoting, as well as sharing best practices between TISCs.

b. A dedicated website for the Technology and Innovation Support Network to promote patent information services, e-learning modules, as well as a secure area for TISCs allowing access to more specific information, fora, etc.

c. Printed information materials regarding IPRs, searching technology, licensing, enforcement, etc. from WIPO and other sources (e.g. NPOs) to be posted to TISCs.

7. Project-based Approach

All Technology and Innovation Support Centers should be established following a project-based approach. In particular, each new TISC will be established according to a project within the following framework:

a. Objectives and expected results would be agreed with each Member State early in each project. The objectives could include references to reducing the knowledge gap, and improved access to scientific and technological literature in developing countries, as well as more specific results such as improved quality of local patenting activity.

b. specific activities would be planned according to an agreed timetable – such as the logistics of setting up the center, training, awareness events, etc.;

c. monitoring – regular reports over a specific period (to be determined);

d. evaluation – with a view to validating that the expected results have been achieved, improving further actions, promoting best practices and providing sustainability of the project.

The above points would be included in a Project Document which is annexed to the Service Level Agreement.

To follow through all the above, a Logical Framework Matrix (see Annex III) could be used, which will include indicating outcomes (results), outputs, objectively verifiable indicators and possible sources of verification.

Annex I: Patent information needs analysis

1. General Overview

	2005	2006	2007	2008	2009
GDP					
GDP as % regarding: Services Industry Agriculture					
Foreign Direct Investment (FDI)					
Population					
Literacy rates					
Secondary / tertiary graduation rates					
Number of scientists / engineers					
R&D Expenditure					
Industry specialization					
Technology Transfer indices (if available)					

2. National Industrial Property Activity

	2004	2005	2006	2007	2008
A. 1 Number of national patent applications by - Residents - Non-Residents					
A. 2 National patent grants/registrations by - Residents - Non-Residents					
A. 3 Number of PCT applications filed by resident applicants					

A. 4 Number of patents entering the national phase via the PCT					
B. 1 Number of national (non-Madrid) Trademark Applications by - Residents - Non-Residents					
B. 2 Number of national Trademark Registrations by - Residents - Non-Residents					
C. 1 Number of national (non-Hague) Industrial Design Applications by - Residents - Non-Residents					
C. 2 Number of national (non-Hague) Industrial Design Registrations by - Residents - Non-Residents					
D. 1 Number of national Utility Models and/or Petty Patent Applications by - Residents - Non-Residents					
D. 2 Number of national Utility Models and/or Petty Patent Registrations by - Residents - Non-Residents					

3. IP Office Infrastructure

	Answer
Prior Art Search Examination (if yes, since which year?)	
Substantive Examination (if yes, since which year?)	
Documentation maintained in which form: • paper • electronic • both/other	
Electronic patent application administration (what system?)	

Which search system is used for prior art searches at your IPO?	
What databases are available on this system or used via the internet?	
No. of patent examiners / No. of IPO staff	
IPO web-site use in general (no. of hits)	
National collections of patents accessible via internet	
No. of external physical users coming to the IPO for advice	
Is patent information available today from • National Patent Office • Regional Office • Other	
If yes, what are the services offered?	

4. User / Stakeholder Information

	Answer
Number of national patent agents/attorneys	
Is there a specialized IP court and/or judges specialized in IP cases?	
Which agency is responsible for enforcing IPRs?	
List of most likely users of patent information services (approximate	

numbers) by:
• Private inventors
• Academia
  o universities
  o teaching institutions
  o etc.
• R&D centers
• SMEs
• Industry
• Specialized IP courts/judges
• IP enforcement agencies
• Policy makers (government)	

Are users likely to need specialized search services for patents and non-patent literature?	
If yes, what are these services, e.g. patent databases such CAS	

Annex II: Use of patent information tools and services at each stage of the national innovation process *(examples indicated in italics)*

National Innovation Process Steps	Patent information tools and services <u>required</u>
1. Creation and evaluation of inventions	*1. Awareness raising through public events, e.g. seminars and conferences, or promotion e.g. through association with known Internet portals* *2. Tools and services training for using both free and commercial databases by IP office examiners and public* *3. Prior art analysis:* • *Free-of-charge patent database, e.g. PATENTSCOPE®* • *Commercial patent databases* • *Access to NPL databases e.g. IEEE articles*
2. Development of products	*Finding partners using:* • *Free-of-charge database, e.g. PATENTSCOPE®* • *Access to commercial database* • *Database of local companies with necessary know-how*
3. Protection of inventions	*1. Information for filing strategies:* • *using patents* • *using other IPRs* *2. Assistance in drafting patent applications:* • *locating a patent agent/attorney* • *review of first basic steps in drafting an application*
4. Product commercialization	*1. Find partners for:* • *licensing* • *mergers* • *acquisition* *2. Use IP valuation tools to assist in negotiations with potential partners*
5. Patent enforcement and litigation	*1. Information on legal case studies, e.g. through access to commercial legal databases* *2. Locating a patent agent/attorney*

Annex III: Logical framework matrix

Objective:	**Increase national innovation and development in the [...]**
Immediate objective:	**Strengthen the innovation base in the [...]**

Outcomes	**Objectively verifiable indicators**	**Sources of verification**
Outcome 1: Strengthened local institutional capacities		
Output: Capacities of local staff are developed	Number of staff able to pass general and specialized tests on IP subjects	
- Local administrative and management staff is hired	Number of administrative and management staff working full-time Number of administrative and management staff working part-time	
- Local technical staff is hired	Number of technical staff working full-time Number of technical staff working part-time	
- Local staff is trained	Average number of IP training courses successfully completed by technical staff Average number of IP training seminars attended by technical staff	
Output: Technical infrastructure is improved		
- Offices are leased/made available	Number of hours open to the public per month	
- PC workstations are acquired	Number of PC workstations available	
- Reliable internet connections are established	Number of hours of Internet uptime per month	
Outcome 2: Financial sustainability is achieved	Expenditure per year Income per year Grants per year	
Output: Fees are collected	Total fees per month	
- Fees for products are charged on a cost-recovery basis	Fees for products per month	
- Fees for value-added services are charged	Fees for services per month	
Output: Grants are procured	Total grants per year	
- Partnerships with donor	Grants provided by donors	

organizations are arranged		
Outcome 3: Improved awareness of local users of the intellectual property system	Percentage of basic questions on IP answered correctly by local individuals	Public surveys
Output: Foundational knowledge of IP is promoted	Percentage of basic questions on IP answered correctly by users	Surveys distributed to users of the patent information center and visitors attending events
- Basic materials on different IPRs are provided	Number of publications distributed	
- Basic materials on different IPRs - adapted to local user needs and capacities - are published	Number of new publications in print	
- Awareness-raising events are held (e.g., World IP Day)	Number of visitors to events	
Outcome 4: Increased technology transfer	Number of licensing agreements concluded	Chamber of Commerce reports
Output: More effective use of patent information is promoted		
- Assistance in searching patent databases is provided	Number of visitors requesting advice	
- Materials on searching patent databases are provided	Number of publications distributed	
- Advice and materials on monitoring and evaluating competitors' research and development activities are provided	Number of visitors requesting advice Number of publications distributed	
- Advice and materials on licensing patented technologies are provided	Number of visitors requesting advice Number of publications distributed	
Output: Access to and use of scientific and technical literature is increased	Number of pages viewed in databases Number of documents downloaded from journal publishers	
- Subscriptions to online scientific and technical journals are concluded	Number of journals available Cumulative Impact Factor of journals available	
Outcome 5: Improved capacity of local users to create, protect, and manage their intellectual property rights	Number of patent, trademark, etc. applications filed at the national IP office Number of licensing agreements concluded with local patent holders	WIPO Statistical Database Chamber of Commerce reports
Output: User knowledge of local and international IP laws is increased	Percentage of questions on topics in IP law answered correctly by users	Surveys distributed to attendees at training events
- Seminars on IP law are held	Number of participants attending seminars	
- Local and international IP law texts are distributed	Number of IP law texts distributed	
Output: User knowledge of commercial aspects of IP is	Percentage of questions on topics in IP management answered	Surveys distributed to attendees at training events

increased	correctly by users	
- Advice and materials on filing applications for IPRs are provided	Number of visitors requesting advice Number of publications distributed	
- Advice and materials on commercialization of IPRs are provided	Number of visitors requesting advice Number of publications distributed	
- Advice and materials on IP valuation are provided	Number of visitors requesting advice Number of publications distributed	
- Seminars on filing applications for IPRs are held	Number of participants at seminars	
- Seminars on product commercialization are held	Number of participants at seminars	
- Seminars on IP valuation are held	Number of participants at seminars	
Outcome 6: Lessons learned are incorporated into the activities of local and foreign patent information centers		
Output: Knowledge of best practices is transmitted to the local patent information center from patent information centers abroad	Description of activities of the local patent centers	
- Staff participates in events organized with patent centers abroad	Number of events attended by at least one staff member	
Output: Knowledge of best practices is transmitted to patent centers abroad from the local patent information center	Description of activities of patent centers abroad	
- Up-to-date contact information is provided to a TISC network website	Date of last modification of contact information	TISC network site statistics
- Staff participates in events organized with patent centers abroad	Number of events attended by at least one staff member	