



Stock-taking of the international debates on development, transfer and dissemination of clean and environmentally sound technologies

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# Options and ongoing efforts for strengthening technology facilitation at the international level

- The International IP System
  - Introduction to WIPO
- Partnerships for technology transfer
- Promoting knowledge transfer
- The need for innovation capacity

# WIPO a specialized agency of the UN

Mission: to promote innovation and creativity for the economic, social and cultural development of all countries, through a balanced and effective international intellectual property system

- Facilitating use of IP system for development
- Registration systems (PCT, Madrid ..)
- Norm-setting (patents, copyright, trademarks, designs)



- Development of international IP Law
  - Promote progressive development of IP laws, standards, practices among Member States
  - Extensive consultation with States and interest groups to encourage international common principles and rules governing IP
  - Forum for States for balanced evolution of international IP system to serve its fundamental purpose of encouraging innovation and creativity
    - adapting to needs/interests of countries at different stages of development
    - building awareness of flexibilities within international IP agreements
    - balance between
      - (i) rights of creators/ IP owners and rights of users/ public
      - (ii) encouragement of innovation / creativity and diffusion of social benefit of innovation and creativity



WIPO – UN Agreement (1974)

Article 10 Transfer of Technology

"The Organization agrees to co-operate within the field of its competence with the United Nations and its organs, particularly the United Nations Conference on Trade and Development, the United Nations Development Programme and the United Nations Industrial Development Organization, as well as the agencies within the United Nations system, in promoting and facilitating the transfer of technology to developing countries in such a manner as to assist these countries in attaining their objectives in the fields of science and technology and trade and development."



# Facilitating use of IP system for development

- WIPO Development Agenda aims to ensure that development considerations are integral to WIPO's work
- Facilitating access to technology information
  - WIPO's global technology databases, infrastructure and services
- Promoting evidence-based decision-making through provision of wide range of statistical information and economic analysis
- Creation of practical platforms to support technology transfer
- Innovation capacity building
- South-South Cooperation programs
- IP dispute resolution services



#### PARTNERSHIPS FOR TECHNOLOGY & KNOWLEDGE TRANSFER

# Patents main type of IP in context

- Purpose of the patent system
- Disclosure function
- At time of patent filing/grant, still not commercially proven technology many fall by the wayside
- No global protection
- Absence of a patent may or may not promote technology transfer
  - range of other factors
  - studies indicate that an effective IPR system may be necessary for companies to enter into technology transfer agreements
- Range of factors influence technology transfer and diffusion
- Majority of technologies rest with private sector



#### PARTNERSHIPS FOR TECHNOLOGY & KNOWLEDGE TRANSFER

Public/private partnerships key to technology transfer

- WIPO GREEN
- WIPO Re:Search

Need to facilitate access to technology information

- WIPO's global technology databases, infrastructure and services
  - Patentscope
  - Patent Landscape Reports
  - ARDI
  - ASPI
  - TISCs



#### PLATFORMS TO SUPPORT TECHNOLOGY TRANSFER

#### **WIPO GREEN**



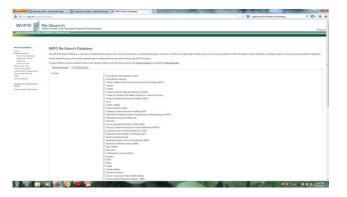


- Matchmaking platform to accelerate development /dissemination of green technologies to address environmental challenges
- Partners (over 40 to date), creating linkages: UNEP, UN Global Compact, UNIDO, ADB, INPI, League of Arab States...
- Users make available their green technologies for licensing / partnership
  - enter technology needs, search for technologies
- Users access WIPO GREEN Network to obtain advice and services
  - assist transactions
  - connect with experts worldwide from industry, universities, governments, IGOs and NGOs



# PLATFORMS TO SUPPORT TECHNOLOGY TRANSFER

WIPO Re:Search



- Partnership to help find cures/treatments for neglected tropical diseases, malaria, tuberculosis
- Provides access to IP, know-how and data for pharmaceutical compounds, technologies
- Access to know-how and data available for R&D for neglected tropical diseases, tuberculosis, and malaria
- Searchable, public database of available IP assets/resources
- Facilitates new partnerships to support organizations that conduct research on treatments for neglected tropical diseases



#### TRANSFER OF KNOWLEDGE

#### WIPO PATENTSCOPE



- free search service provides access to over 32.5 million international patent documents
- multilingual, user-friendly
- new technologies often first disclosed as patent
- tracking new technological developments in a field of particular interest
   e.g. fuel cells or hydrogen technologies
- monitoring activities of particular actors, such as firms, inventors or institutes
- negotiating partnerships with developers of complementary technologies



# Transfer of knowledge

- Patent Landscape Reports
  - describe patent situation visually for a specific technology in a given country, region or globally
  - support policy/strategic discussions
  - improve patent quality and technology transfer
- ARDI Access to Research for Development and Innovation program
  - access to scientific/technical knowledge
  - free online access to major scientific /technical journals to local, non-profit LDC institutions
  - low-cost access to industrial property offices in developing countries
  - Partners: American Association for the Advancement of Science, Elsevier, Institute of Physics, John Wiley & Sons, Oxford University Press, National Academy of Sciences, American Institute of Physics, Nature Publishing Group, Royal Society of Chemistry etc
- ASPI Access to Specialized Patent Information
  - support to developing countries to fully exploit innovative potential
  - leveraging valuable information in patent documents to develop new solutions to technical problems faced at local/ international levels



#### **BUILDING INNOVATION CAPACITY**

All forms of technology transfer depend on innovative capacity of recipient country - building innovation capacity is a critical success factor to facilitate technology transfer

#### Global Innovation Index

#### WIPO Office of the Chief Economist

- assisting discussions on interface between IP system & global public policy
- evidence-based decision-making
- statistical information and economic analysis
  - World IP Report, Economics Seminar Series
  - Global Innovation Index

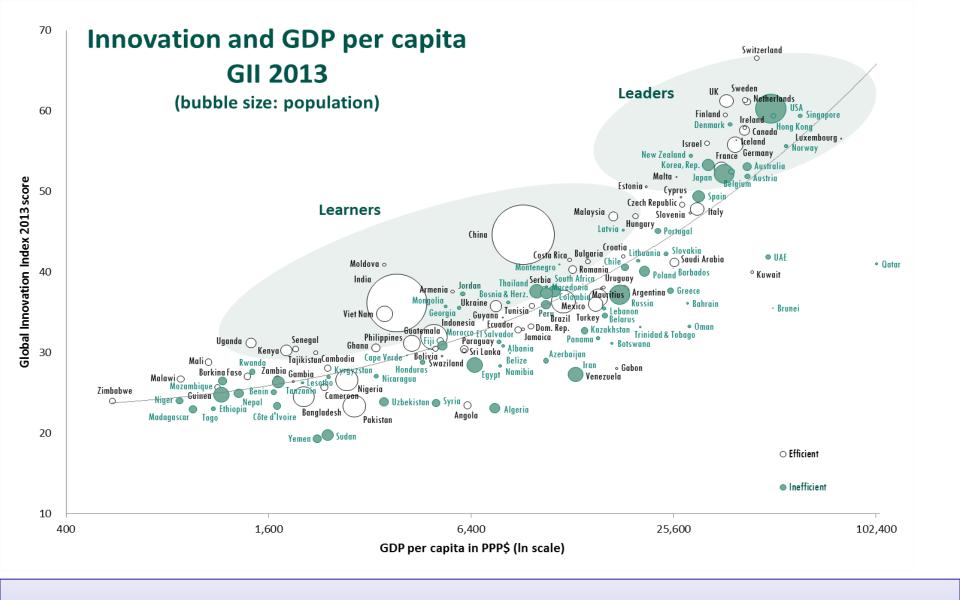




# GII 2013 rankings – Top 10

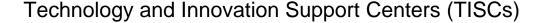
Input Sub-Index	Output Sub-Index	Efficiency Ratio	GII
<ol> <li>Singapore</li> <li>Hong Kong (China)</li> <li>United States of America</li> <li>United Kingdom</li> <li>Sweden</li> <li>Finland</li> <li>Switzerland</li> <li>Denmark</li> <li>Canada</li> <li>Netherlands</li> </ol>	<ol> <li>Switzerland</li> <li>Netherlands</li> <li>Sweden</li> <li>United Kingdom</li> <li>Malta</li> <li>Luxembourg</li> <li>Iceland</li> <li>Finland</li> <li>Israel</li> <li>Germany</li> </ol>	<ol> <li>Costa Rica</li> <li>Mali</li> <li>Moldova, Rep.</li> <li>Guinea</li> <li>Malta</li> <li>Swaziland</li> <li>Indonesia</li> <li>Nigeria</li> <li>Kuwait</li> <li>Venezuela,         Bolivarian Rep.</li> </ol>	<ol> <li>Switzerland</li> <li>Sweden</li> <li>United Kingdom</li> <li>Netherlands</li> <li>United States of America</li> <li>Finland</li> <li>Hong Kong (China)</li> <li>Singapore</li> <li>Denmark</li> <li>Ireland</li> </ol>





# Learners are 18 countries out-performing their peers relative to GDP per capita Moldova, China, India, Uganda, Armenia, Viet Nam, Malaysia, Jordan, Mongolia, Mali, Kenya, Senegal, Hungary, Georgia, Montenegro, Costa Rica, Tajikistan, and Latvia

#### **BUILDING INNOVATION CAPACITY**





- Development Agenda project in cooperation with national/ regional IP Offices
- provide innovators in developing countries access to locally-based, high-quality technology information and services
- maximize their innovative potential by creating, protecting, and managing IP rights
- over 320 TISCs in developing countries, including 38 TISCS in LDCs
- TISC Services
  - access to online patent and non-patent (scientific/technical) resources
  - assistance in searching /retrieving technology information
  - training in database search
  - on-demand searches (novelty, state-of-the-art and infringement)
  - monitoring technology and competitors
  - information on industrial property laws, management/strategy, and technology commercialization/marketing

ORGANIZACIÓN MUNDIAL DE LA **PROPIEDAD** 

#### IP AND INNOVATION CAPACITY BUILDING

- National IP/innovation strategies
  - information and resources for Member States on development/implementation of national IP strategies
  - technical assistance for design, development, implementation of national IP and innovation strategies
- Technical cooperation for development activities
  - legislative advice
  - workshops on successful technology licensing
  - training on negotiation technology licensing agreements
- WIPO University Initiative
  - establishment of IP and technology management infrastructure in universities
  - development of human capital skilled in IP and technology management
  - promotion of effective use of IP, management, transfer & commercialization
  - creation of a national/regional/global university IP forum
  - over 250 universities to date



# THANK YOU

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