

THE POLICY CONTEXT

IN OTHER WORDS ...

Why are we talking about

- intellectual property
- innovation
- technology diffusion
- and even the TRIPS Agreement...

... when the issue is climate change?

the climate of intellectual property

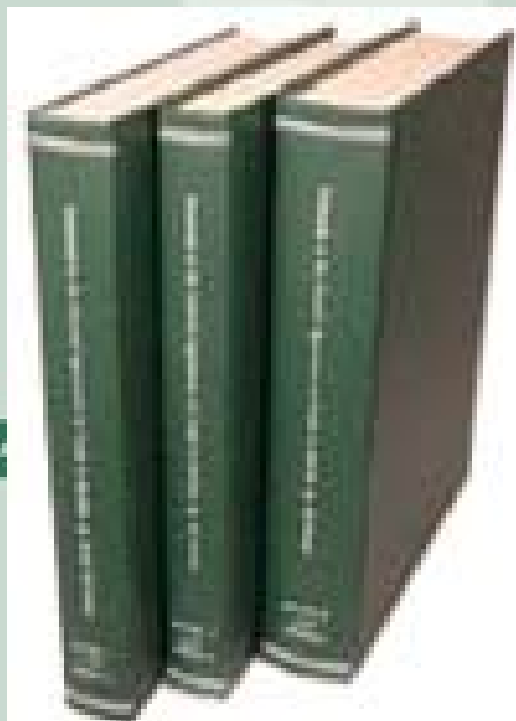
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the intellectual property of climate



The Legal Texts

The Results of the Uruguay Round of Multilateral Trade Negotiations



GENERAL AGREEMENT ON TARIFFS AND TRADE

MIN.DEC
20 September 1986

Multilateral Trade Negotiations
The Uruguay Round

MINISTERIAL DECLARATION ON THE URUGUAY ROUND

Trade-related aspects of intellectual property rights, including trade in counterfeit goods

In order to reduce the distortions and impediments to international trade, and taking into account the need to promote effective and adequate protection of intellectual property rights, and to ensure that measures and procedures to enforce intellectual property rights do not themselves become barriers to legitimate trade, the negotiations shall aim to clarify GATT provisions and elaborate as appropriate new rules and disciplines.

ANNEX 1C

AGREEMENT ON TRADE-RELATED ASPECTS OF INTELLECTUAL PROPERTY RIGHTS

the climate of TRIPS

&

the TRIPS of climate

“THE CLIMATE OF TRIPS” ...

- Uruguay Round trade negotiators build IP (the TRIPS Agreement) into WTO trade law ‘single undertaking’
- First, debate about IP standards within trade law
 - *what is the proper place of TRIPS in the WTO?*
- Then, a broader debate about TRIPS and public health, food security, biodiversity, human rights – and impact on availability of technology
 - *how to implement TRIPS as a public policy tool?*
 - TRIPS emerges at a time of debate about the effectiveness of the patent system, especially, in promoting development and dissemination of needed technology...

THE TRIPS OF CLIMATE

- international climate change discussions have considered the impact of 'IP' on effective climate change responses
 - mitigation technology
 - adaptation technology
- some call for action to deal with this impact
 - ... with potential implications for TRIPS
- suggesting we need to reflect carefully on 'IP'
 - how 'IP' operates as a system
 - what the main legal instruments say

BY THE WAY....

- ‘intellectual property’ ≠ the patent system
- ‘IP’ is a range of rights over the intangible products of the mind; usually considered in three broad clusters:
 - *distinctive signs* - trademarks, geographical indications, certification marks
 - *creative works* – copyright, related rights (performers’ rights, rights of producers and broadcasters)
 - *technologies* – patents of invention, plant variety rights, utility models, integrated circuits, trade secrets
- As well as another category...
 - *unfair competition* – misleading and deceptive practices, confidential information, protection of regulatory data

THE “GLOBAL WARMING” OF IP

- Climate negotiators have considered green innovation and diffusion of green technology
 - mapping out the next phase of multilateral action and legal commitments on climate change
- Discussions have raised profound questions about the nature and impact of existing international ‘IP’ standards
- These discussions have now extended to the work of the WTO
 - especially the TRIPS Council – the main body for discussing IP issues
- How to reconcile law, policy and practice?
 - what policy or legal interventions are needed, if any?
 - what are the needs identified for technology – innovation and dissemination?

PATENTS, TECHNOLOGY & CLIMATE...

- Our technology is the essential source of human-caused ('anthropogenic') climate change
 - through the production of greenhouse gases – such as CO₂
- But technology is equally part of the solution
 - both mitigation & adaptation
 - So: it's not (just) what you've got, it's how you use it
 - The same applies to IP – it's not (just) what is protected as IP, but *how* it is deployed
- The patent system intrinsically associated with the generation, dissemination and publication of new technologies
 - How best to deploy it in structuring technological responses for mitigation and adaptation?

MITIGATION



ADAPTATION

PATENT COOPERATION TREATY

PCT

REQUEST FOR INDICATION OF AVAILABILITY FOR LICENSING PURPOSES

Applicant's or agent's file reference	International filing date <i>(day/month/year)</i>
International application No.	Priority date <i>(day/month/year)</i>
Applicant	

1. The applicant hereby requests the International Bureau to indicate the availability for licensing purposes of the invention(s) claimed in this international application on the PATENTSCOPE website.

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AND	International Class	=	
AND	Inventor Name	=	
AND	Office Code	=	
AND	English Description	=	
AND	English Claims	=	
AND	Licensing availability	=	<input type="checkbox"/>
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TWO THEMES

1. Back to basics:

- unearthing and reviewing the essential principles of patent law and policy
 - What is the system for?
 - How to make it work to achieve those goals?

2. Better information:

- *Who* is patenting *what*, and *where*?
- What does it suggest about
 - Emerging patterns of innovation?
 - How to encourage diffusion and transfer of technology?

CLIMATE CHANGE AND TECHNOLOGY: WHAT ROLE FOR PATENTS?

- Patent law & policy in essence : innovation & dissemination
 - Innovation: garnering and focussing the needed resources, tangible and intangible, to generate needed technologies:
 - Breakthrough, disruptive, new platform technologies
 - Cumulative innovation, fine tuning, adapting
 - Dissemination: ensuring the public gains access to technologies in practical form within an equitable framework
 - Defining, promoting and constructing pathways and partnerships - from scientific insight to practical delivery

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ANNEX 1C

AGREEMENT ON TRADE-RELATED ASPECTS OF INTELLECTUAL PROPERTY RIGHTS

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Article 7

Objectives

The protection and enforcement of intellectual property rights should contribute to the promotion of technological innovation and to the transfer and dissemination of technology, to the mutual advantage of producers and users of technological knowledge and in a manner conducive to social and economic welfare, and to a balance of rights and obligations.

■ and to a **balance** of rights and obligations.

THE 'BALANCE' IN TRIPS

- patents available for inventions
... in all fields of technology
- exclusive rights available to the patent holder
- available for at least 20 years
- enforcement to be effective, expeditious remedies and deterrent
 - avoid barriers to legitimate trade, provide safeguards against abuse
 - procedures fair and equitable.
- some licensing practices or conditions pertaining to IP rights which restrain competition may have adverse effects on trade and may impede the transfer and dissemination of technology
- provided they are new, inventive and useful
- certain policy-based exceptions possible
- exceptions and limitations to those rights
- disclose the invention sufficient to enable it to be carried out

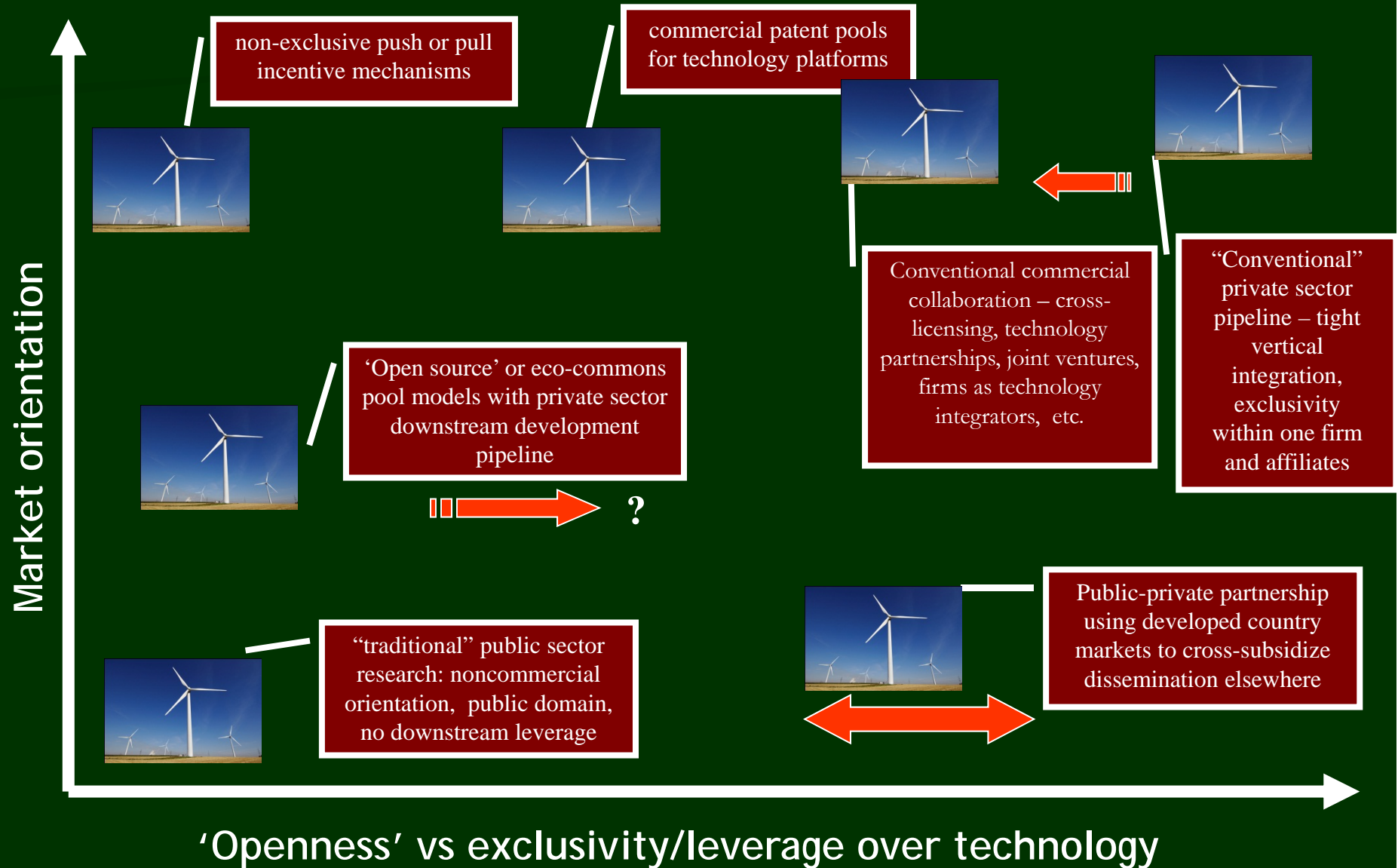
Achieving the objectives of the “IP system” requires effective action at distinct levels:

- The practice of IP management and negotiations with technology partners
- Institutional/firm level policies and strategies for IP management
- National innovation policy and legal settings, including IP laws and related regulations (competition, publicly-funded research)
- International cooperation, standard-setting and legal framework

PUBLIC/PRIVATE, EXCLUSIVITY/OPENNESS IN THE PRACTICE OF INNOVATION



PUBLIC/PRIVATE, EXCLUSIVITY/OPENNESS IN THE PRACTICE OF INNOVATION



PATENTS AND CLIMATE CHANGE ...

- A long-running debate over technology transfer and the patent system
 - Access to medicines debate
 - Implementation of TRIPS 66.2 – tech transfer to least developed countries
 - Convention on Biological Diversity
 - Technology transfer commitments under other MEAs
 - IP in the trade and environment debate
 - UNCTAD Code of Conduct
 - Technology transfer in the New International Economic Order and the Havana Charter
- Is this ‘just another’ IP & technology transfer debate?
- Or do climate change mitigation and adaptation present **distinctive challenges** for IP law, policy and administration?
- How to define and thus to meet such challenges?

TECHNOLOGY TRANSFER TO ADDRESS CLIMATE CHANGE

- Specific legal obligations between States
- A growing sense of urgency – increase transparency, reduce transaction costs
- Emerging ethical/human rights context
 - Adaptation technologies linked to right to health, shelter, food...
- National self-interest in wide diffusion elsewhere of clean technology
- Technologies highly diverse in character:
unlike essential medicines
 - Adaptation or mitigation technologies?
 - Emphasis on diffusion, assimilation, adaptation?

PATENT QUESTIONS IN CONTEXT

Analysis of patent questions informed by climate change policymakers:
What technology clusters count? How to prioritize? What innovation and diffusion take place now?
What gaps are there? For developing countries, diffusion, indigenous innovation, or adaptation?

what's going on
out there?

what can be patented,
what is patented,
where and where not,
and who is patenting it?

patentability issues;
transparency;
analysis of
patenting trends

what does it
amount to?

what is the impact on
technology diffusion *now*
- in developing world

- what is the impact for
future innovation &
dissemination
- emerging or
unproven technologies

and what
to do about it?

what options for

- practical IP
management

- regulatory intervention

to deliver the
required benefits
in the required way

consider
the development and
refinement over time,
(over years) of an
actual technology



multiple inputs:

- technological,
- financial,
- infrastructure

REFLECTIONS ON TECHNOLOGY TRANSFER

- The simple existence of a patent on a particular technology is not a barrier in itself to the transfer of that technology:
 - the patent is in principle in place in order to facilitate dissemination and use of the technology, not to block it;
 - equally, however, the existence of a patent alone does not guarantee that the technology will be fully exploited in all possibly beneficial ways.
 - Much depends on how the exclusive rights that come with a patent are deployed; where they are in force and where they are not; and how they can be used as components in constructing suitable vehicles for technology transfer.

REFLECTIONS ON TECHNOLOGY TRANSFER

- Equally, the absence of an enforceable patent right in a certain country does not in itself provide any guarantee of technology transfer.
 - most inventions are protected in a small minority of countries worldwide, without concomitant transfer of that technology in practice to those countries
 - it leaves open the prospect of using the technology disclosed in the patent document, but often without the partnership or involvement of the technology originator, and the transfer of valuable knowhow and other background technology that may be useful for the effective exploitation of the technology.

REFLECTIONS ON TECHNOLOGY TRANSFER

- Taking out a patent is not a stand-alone technology transfer mechanism, any more than foregoing the option of a patent is a single form of knowledge management.
- Rather, patents are used in a host of different ways to transfer technology, depending on whether effective transfer of the technology concerned requires
 - market-based incentives core technologies to be developed/disseminated,
 - leveraging access to other related technologies from diverse sources
 - public institutions to maintain an interest and a degree of leverage over technology developed through public investment
 - the creation of new enterprises as tailor-made vehicles for development of a new technology
 - a broad-based open licensing structure to promote dissemination of a platform or enabling technology
 - cross-licensing structures or pool arrangements that allow diverse technology players to build on the benefits of each others' technologies
 - packaging patented technology with non-patented material, such as knowhow, commercial information, or regulatory approval dossiers.

OPTIMAL OUTCOMES WITHIN THE POLICY SPACE

- What's the best interface between public and private inputs in research, development and technology diffusion?
- Interface is shaped in part by IP laws, standards and management strategies. The IP system conventionally analysed as a legally-determined 'balance' of public and private interests
 - framed in legislation, influenced by international standards
 - strong calls for flexibility to allow this balance to be set
- Debate focusses on how IP standards relate to broader public policy objectives and international law principles.
- Yet the balance is always dynamic. Actual beneficial impact achieved through the concretion over time of many distinct acts in the practical exercise of rights, interests and legal safeguards.

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SOME PREVAILING IDEAS:

- A critical view: the existence of a patent can pose barriers
- A legal view: legislate or direct access to patented technology, through compulsory licensing or government use orders – backed by international legal/political action
- An administrative view: construct mechanisms to facilitate pooling and access to technology – voluntary, but sufficiently attractive to work
- An information view: improve the flow of information about technologies and licensing interests and opportunities
- A market view: work on market incentives for innovation and technology diffusion

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Analysis of patent questions informed by climate change policymakers:

- What technology clusters count?
- How to prioritize?
- What innovation and diffusion take place now?
What gaps are there?
- What are the needs of developing countries?
- What vehicles for deploying technology?
 - diffusion, indigenous innovation, adaptation?