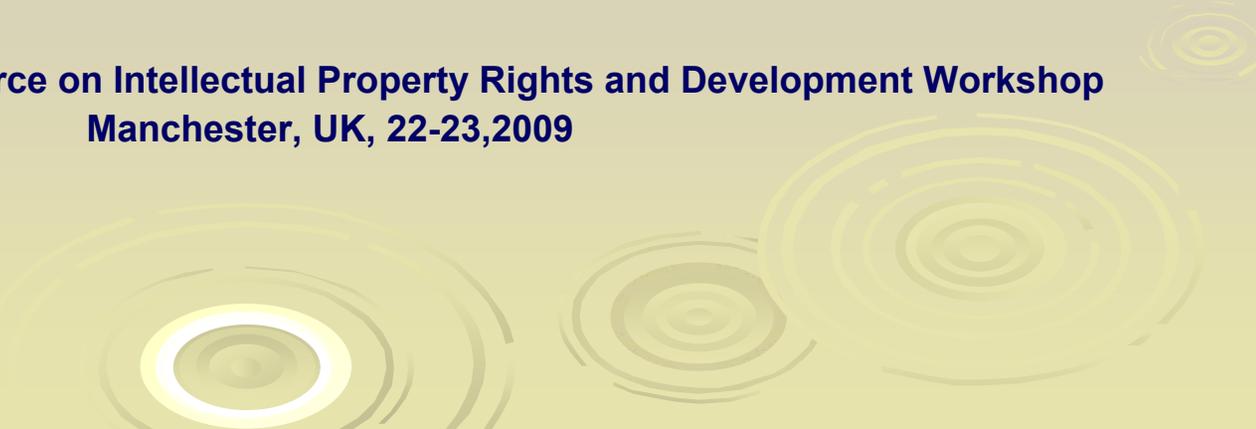


# **FROM INTELLECTUAL PROPERTY TO KNOWLEDGE GOVERNANCE:**

## **AN EVOLUTIONARY PERSPECTIVE AND ITS IMPLICATIONS FOR DEVELOPMENT**

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## THE PAPER'S VISION

***““Public institutions need to be the vehicles by which leaders take public responsibility for the public interest. Otherwise, markets determine the public interest, which manifestly does not work”***

# THE PROBLEM

*“We have now in place a system where the tradition of intellectual property as a thin layer of rights around a carefully preserved public domain **was replaced by a practice where the public domain should be eliminated whenever possible,** and where the benefits of technological progress are being appropriated by a small number of individuals at the expense of those most in need”*

*(J.Boyle:2006).*

# Overview

- IP is a fundamental building block of the *policy-politics* environment today, especially in the domains of innovation and competition. But...
- There is no coherent analytical framework to deal with them *together*.
- That is: there is not a coherent theory integrating IP, innovation and competition.

# Overview

- There is a lot of empirical work on *measuring* and on optimal patent length (Nordhaus, Cohen et alii),
- But very little concerning theoretical integration of IP into a broader economic theory (Nelson, Landes & Posner) ,
- The market failure's approach to CP and IP: **flawed** because *failures* are defined against the **Perfect Competition Model** which is a completely irrelevant blueprint both in its positive and normative dimensions (Schumpeter, 1942)

# Overview

- The present paper although *not* aiming to fill these gaps, intends to contribute in that direction by offering, an **analytical framework** where IP issues would be addressed in a coherent and empirically meaningful way.
- A framework which is rooted in an **institutional perspective** and premised upon a contextual analysis of the characteristics of the interaction between IP, innovation and competition in *real markets*.
- It is based on a **knowledge governance approach** where innovation and competition policies would be the main tools for managing both the dynamic efficiencies and inefficiencies stemming from IPR regimes.

# INTELLECTUAL PROPERTY : *DYNAMIC EFFICIENCIES AND INEFFICIENCIES*

## EFFICIENCIES:

- From a **Schumpeterian competition perspective**, IPRs are strategic weapons in the competitive process and very powerful tools for generating sustained competitive advantages.
- From an **entrepreneurial perspective** corporations can, through patents, trade secrets, confidentiality contracts, copyrights, trademarks and registered brand names, generate both *schumpeterian* and *ricardian* rents.
- From a **public-policy perspective** patents and copyrights act as *signaling mechanisms* that provide information about new inventions and relevant technological applications.

# INEFFICIENCIES

## IP AND ITS DISCONTENTS

- **Legal-made exclusive monopolies for products for which there may be no easily obtainable substitute (Plant).**

OR: *too secure monopolies and profits accruing too easily*

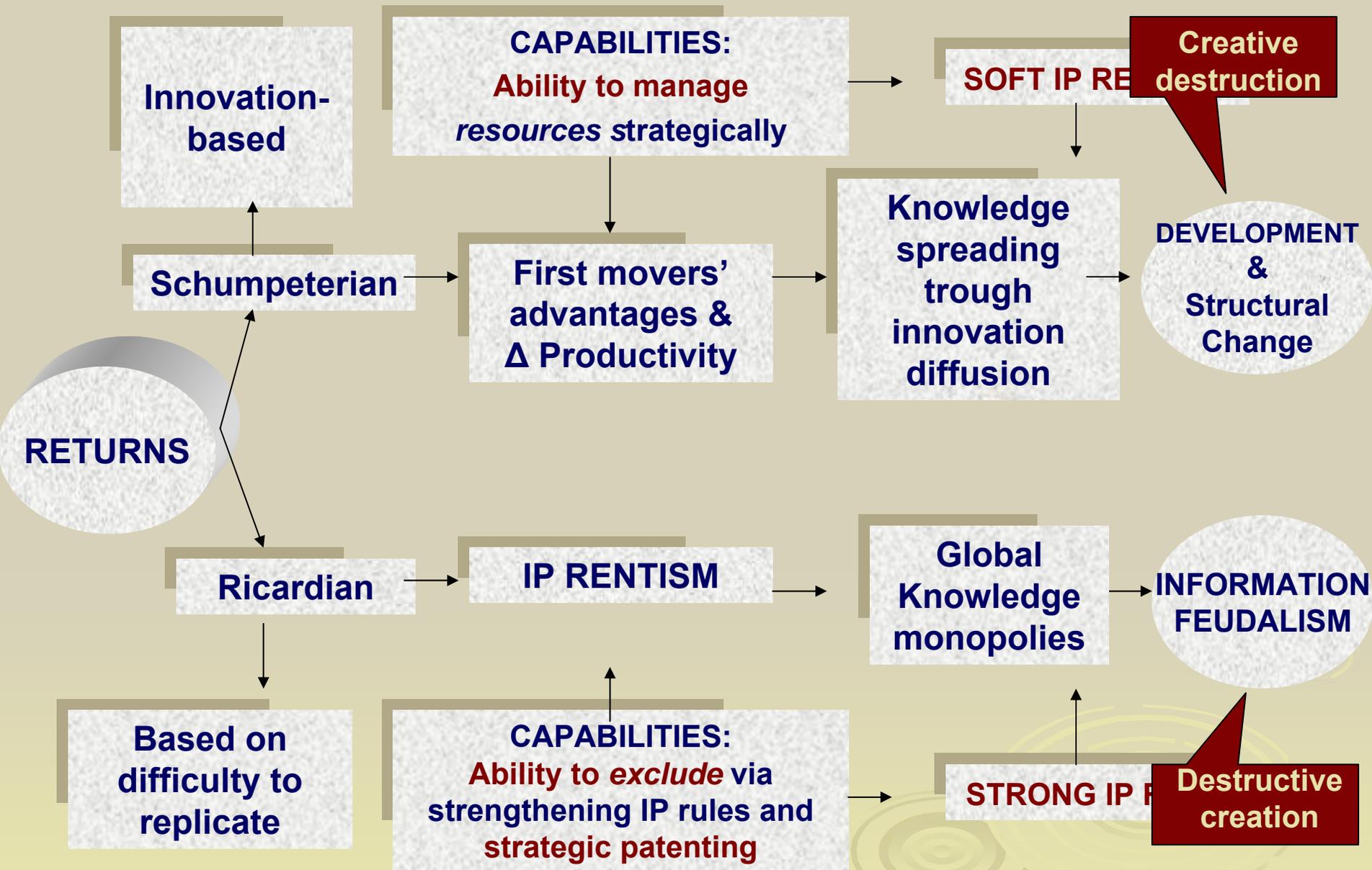
- **Strengthening IPRs vs innovation's diffusion.**
- **Strategic patenting and *unproductive entrepreneurship* (Baumol).**

# INEFFICIENCIES (cont)

## IP AND ITS DISCONTENTS

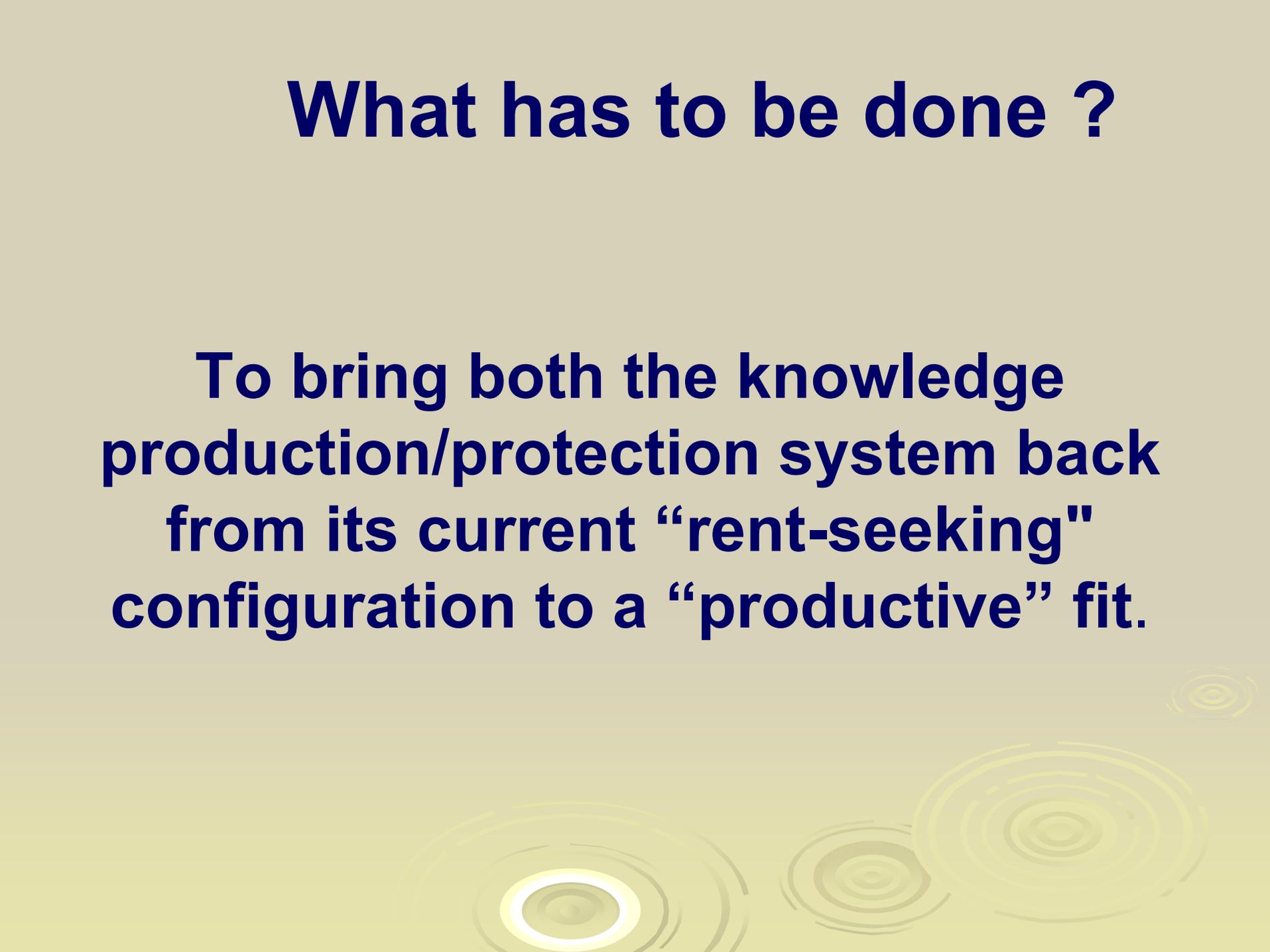
- IPRs and the “new economy”: strong IPRs + crucial proprietary technologies as *winner-takes-all-markets* creators (David, Carlton & Gertner, Landes & Posner)
- International expansion of IPRs as a *second enclosure movement* and a major source for global monopolies (Boyle, Benkler),
- IPRs agencies’ institutional designs and the *windows* for hindering innovation (Jaffe & Lerner)

**THE PROBLEM RESTATED: GOVERNANCE FAILURE :  
REGULATION BY PRIVATE BODIES AND *RENT SEEKING IN KNOWLEDGE***



# **What has to be done ?**

**To bring both the knowledge production/protection system back from its current “rent-seeking” configuration to a “productive” fit.**

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# HOW ?

**Trough a cluster of creative-  
destruction management policies  
embedded in an knowledge  
governance institutional framework.**

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# ADDRESSING THE INNEFICIENCIES: KNOWLEDGE GOVERNANCE AND THE *MARKET FEATURES APPROACH*

- The **knowledge governance approach**: a broad framework which embraces different forms of governance mechanisms influencing the production, appropriability and dissemination knowledge.
- As an analytical perspective, it encompasses intellectual property rules and regulations but supersedes it by drawing on publicly funded R&D, innovation and competition policies.
- Its main goal is to identify and *govern* the contours of the new knowledge ecology, and to support alternative governance mechanisms for a more open, developmental and public domain oriented knowledge production and dissemination system.

# KNOWLEDGE GOVERNANCE AND THE *MARKET FEATURES* APPROACH

- The *market features*' approach : an analytical perspective towards policy-making concerned with and taking into account ...
  - institutional diversity,
  - sector specificities,
  - distinctive dynamics both in their technological and industrial dimension,
  - distinctive regulatory and legal features (*in line* with Institutional and Evolutionary Economics).

# KNOWLEDGE GOVERNANCE AND THE *MARKET FEATURES APPROACH*

- That is: an approach concerned with...
  - how actually existing markets work,
  - the dynamics linking innovation, competition, institutions and (intellectual) property rights in a sector-analysis' methodology (Carlton & Gertner),
  - the need to establish a taxonomy of contemporary markets for knowledge ( Cimoli and Primi)

# KNOWLEDGE GOVERNANCE AND THE *MARKET FEATURES* APPROACH

## Propositions:

- **mapping market features** should be a core element for exercising knowledge governance,
  - mapping market features enables a ***market-shaping*** policy perspective,
  - market-shaping is a useful ***governing device*** for building a competition- enhancing environment and to steer corporation's behaviour into pro-competitive – but also cooperative - productivity augmenting strategies.
- 

# KNOWLEDGE GOVERNANCE AND THE *MARKET FEATURES APPROACH*

## ➤ Mapping market features' tools:

- concentration measures and market leaderships ,
- degree of technological complexity (measured, for instance, by the ratio of R&D to sales),
- rate of innovation (measured by number of patent and copyrights granted versus new products actually being marketed),
- patenting strategies (patents earned versus patents actually used – or effectively licensed plus degree of litigation involving patent claims),

# KNOWLEDGE GOVERNANCE AND THE *MARKET FEATURES APPROACH*

## ➤ Mapping market features' tools (cont):

- price behaviour (price's movement *over time*. Decreasing, increasing, stable?),
- profits made by the leading firms and their evolution (too secure monopolies ?),
- regulatory apparatus embedding the market or sector under, concern ( standards, requirements, bureaucratic expertise...),
- legal characteristics (enforcement mechanisms at hand, type of contracts used, penalties..)

# KNOWLEDGE GOVERNANCE, MARKET FEATURES, AND INTELLECTUAL PROPERTY

- **General rule:** *to promote the production and dissemination knowledge* by means of market shaping initiatives and trough *creative destruction management policies*,
- **Scope:** the whole economic system, but especially knowledge intensive, technologically complex & productivity enhancing activities,
- **Main goal:** the creation of a **more inclusive and more development-oriented knowledge ecology.**

# MARKET FEATURES, COMPETITION POLICIES AND INTELLECTUAL PROPERTY RIGHTS

Forging KC for IP via market shaping initiatives:

**Fact: The US Defence Advanced Research Projects Agency ( DARPA) has triggered more than one-third of all developments in information technology, according to Mr Tether, Darpa's director. "In microelectronics, I would say that 75-90 per cent started at Darpa," he adds ( T. Tether: Interview with FT, October 20, 2008)**

(to prevent “technological monopolies” or locking competitors out)

**Fact: A century ago, copyrights lasted for 14 years and could be extended another 14 if the copyright holder petitioned for an extension. Today, corporate copyrights last for 95 years, while individuals retain copyrights for 70 years after their deaths.**

**There was nothing “scientific” to back these changes, but rather the powerful lobby of the entertainment industry**

# KNOWLEDGE GOVERNANCE, MARKET FEATURES, AND INTELLECTUAL PROPERTY

## ➤ Forging KG for IP *via* market-shaping initiatives:

**Fact :** *Starting in the late 1990s, publicly traded companies saw patent litigation costs outstrip patent profits.*

*Specifically, estimates are that about \$8.4 billion in global profits came directly from patents held by publicly traded United States companies in 1997, rising to about \$9.3 billion in 1999, with two-thirds of the profits going to chemical and pharmaceutical companies.*

*Domestic litigation costs alone, meanwhile, soared to \$16 billion in 1999 from \$8 billion in 1997.  
(Bessen and Meurer: Patent Failure; 2008)*

- Public incentives of standards development, cooperative standard's setting, stimulus to (instead

**Fact:** *Things have become worse since then. For instance, patent litigation is up: there were 2,318 patent-related suits in 1999, and 2,830 in fiscal 2006.*

**Worse:** *companies doing the most research and development are sued the most.*

**“Our finding is that the risk of patent litigation is creating a disincentive for R&D, especially for information technology companies, and that the system urgently needs change”  
(Bessen and Meurer: Patent Failure; 2008)**

features of new economy's sectors )

# KNOWLEDGE GOVERNANCE, MARKET FEATURES AND INTELLECTUAL PROPERTY

- In fact, this is already in the EU Competition Commission's radar. Its chief, Neelie Kroes, has recently argued in a speech that ...
- “ *industry standards for technology could be based on either proprietary or non-proprietary technologies, but when a market developed so that a proprietary technology became a de facto standard and the owner of that technology exploited that market power, competition authorities might have to intervene...*”
- ....One remedy would be to *require to disclose of information at “fair rates”* so that other companies could design compatible products and systems” ( FT: June, 11, 2008).

# KNOWLEDGE GOVERNANCE, MARKET FEATURES AND INTELLECTUAL PROPERTY

- Knowledge governance initiatives and institutional *redesign* :
  - The management of intellectual property in general should be addressed **in coordination with innovation and competition policies**, as well as with **publicly funded R&D**
  - A knowledge governance coordinating body should be created, to act as a *transversal regulatory agency working in coordination with existing ones*, where *field experts from sectoral agencies would work in sync with patent examiners, competition authorities and “innovation policy-makers”*,
  - The reinstatement of *weberian state structures* in order to regain public management effectiveness (e.g.; to put *on hold new public management oriented reforms*).

# CONCLUSION

The policy-institutions framework resulting from the framework outlined above should:

- Be flexible and pragmatic,
  - Understand knowledge as a **global public good**
  - Have the **governance of knowledge shaped by the public interest as its main goal.**
- 

# CONCLUSION

- Be not anti-bigness but **anti unproductive entrepreneurship**.
- Be **pro-efficiency** but not libertarian (in the “Chicago Scholl” sense of letting the market, almost always, take care of its own problems).
- Be **pro-cooperation**, leaving room for business networks to thrive and for state sponsored administrative guidance’s to *supervise* them .

# CONCLUSION

- Take into account the asymmetries in the distance to the “development frontier” among countries and regions in order to make room for **distinctive IPR systems** (Stiglitz).
- Finally, policy makers and international negotiators should be aware that none of these policy prescriptions will be achieved without a huge dose of “**strategic state action**” and most of them will require a high degree of **international cooperation** (especially among the “South”).

Uneasy tasks ...

- **But... What's the alternative ?**

**THANK YOU.**

