



Europäisches
Patentamt
European
Patent Office
Office européen
des brevets

Open innovation - do we still need patents?

Ciaràn McGinley
Controller, European Patent Office

4th EUROPEAN FUTURISTS
CONFERENCE LUCERNE
LUCERNE, 28 October 2008

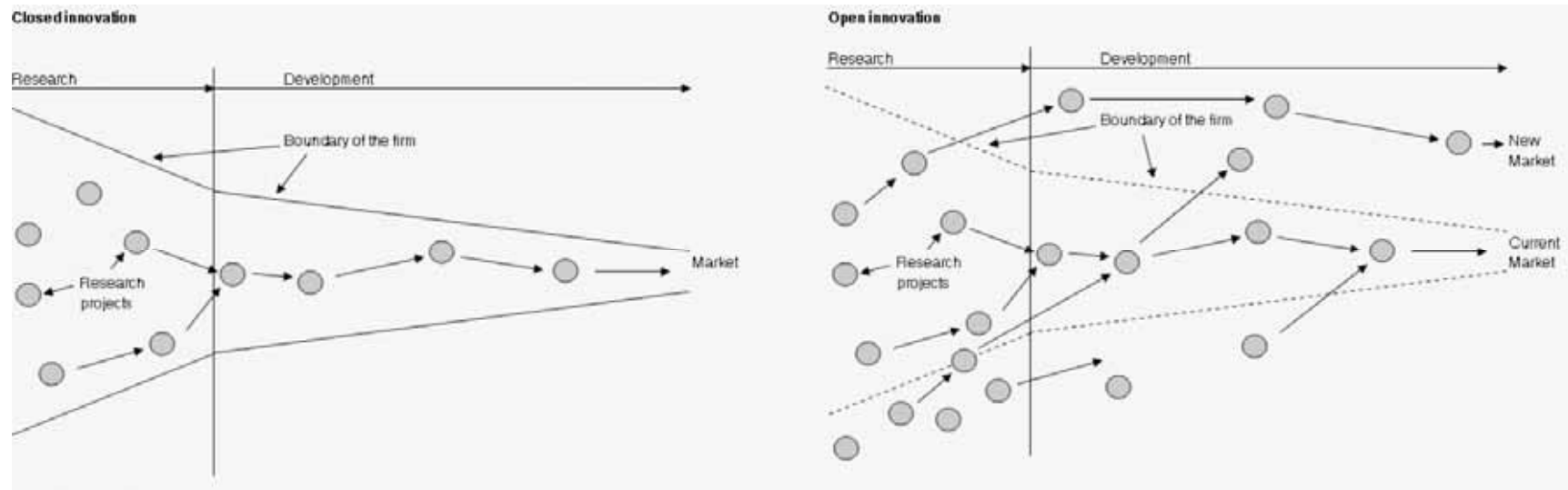


EPO SCENARIOS AS APPLIED TO OPEN INNOVATION



“**Open innovation** is the use of purposive inflows and outflows of knowledge to accelerate internal innovation, and expand the markets for external use of innovation, respectively. [This paradigm] assumes that firms can and should use external ideas as well as internal ideas, and internal and external paths to market, as they look to advance their technology.”

Henry Chesbrough, "Open Innovation: Researching a New Paradigm", 2006

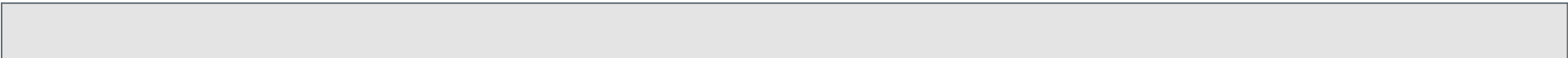


Source: Chesbrough, 2003

APPLYING SCENARIOS TO OPEN INNOVATION

- DRIVERS AND ANTI-DRIVERS FOR OPEN INNOVATION
- MATCHING THESE OPEN INNOVATION DRIVERS WITH THE DIFFERENT SCENARIOS
- IN WHICH SCENARIO COULD OPEN INNOVATION SUCCEED AND HOW?

WHAT COULD DRIVE SUCH A CHANGE? ...



THREE POSSIBLE DRIVERS

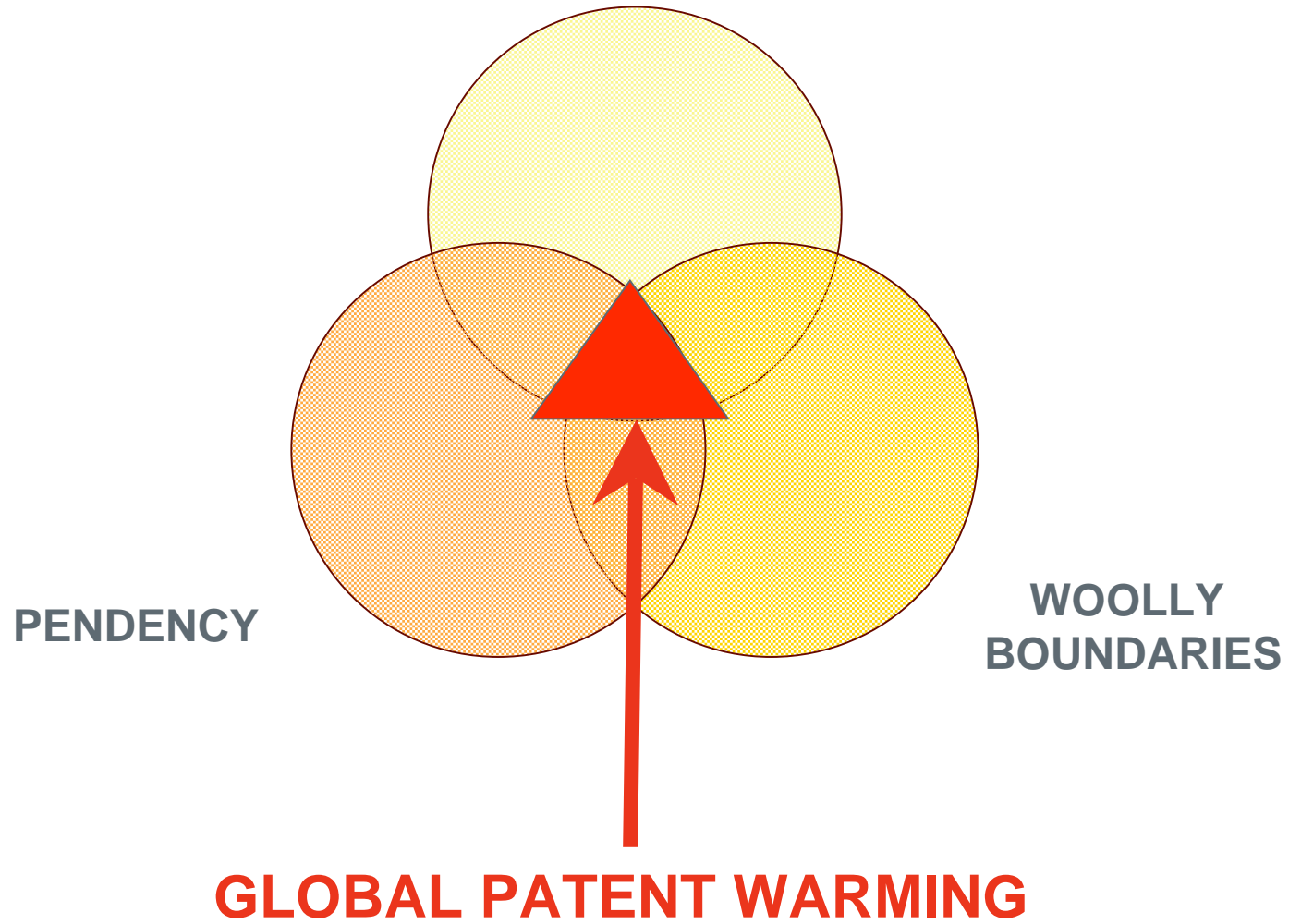
- └ GLOBAL PATENT WARMING
 - └ *AN IP BUBBLE*
 - └ *CONFLICTS WITH COMPETITION LAW*
- └ SCIENTIFIC AND MARKET REALITY
- └ SOCIETAL VALUES

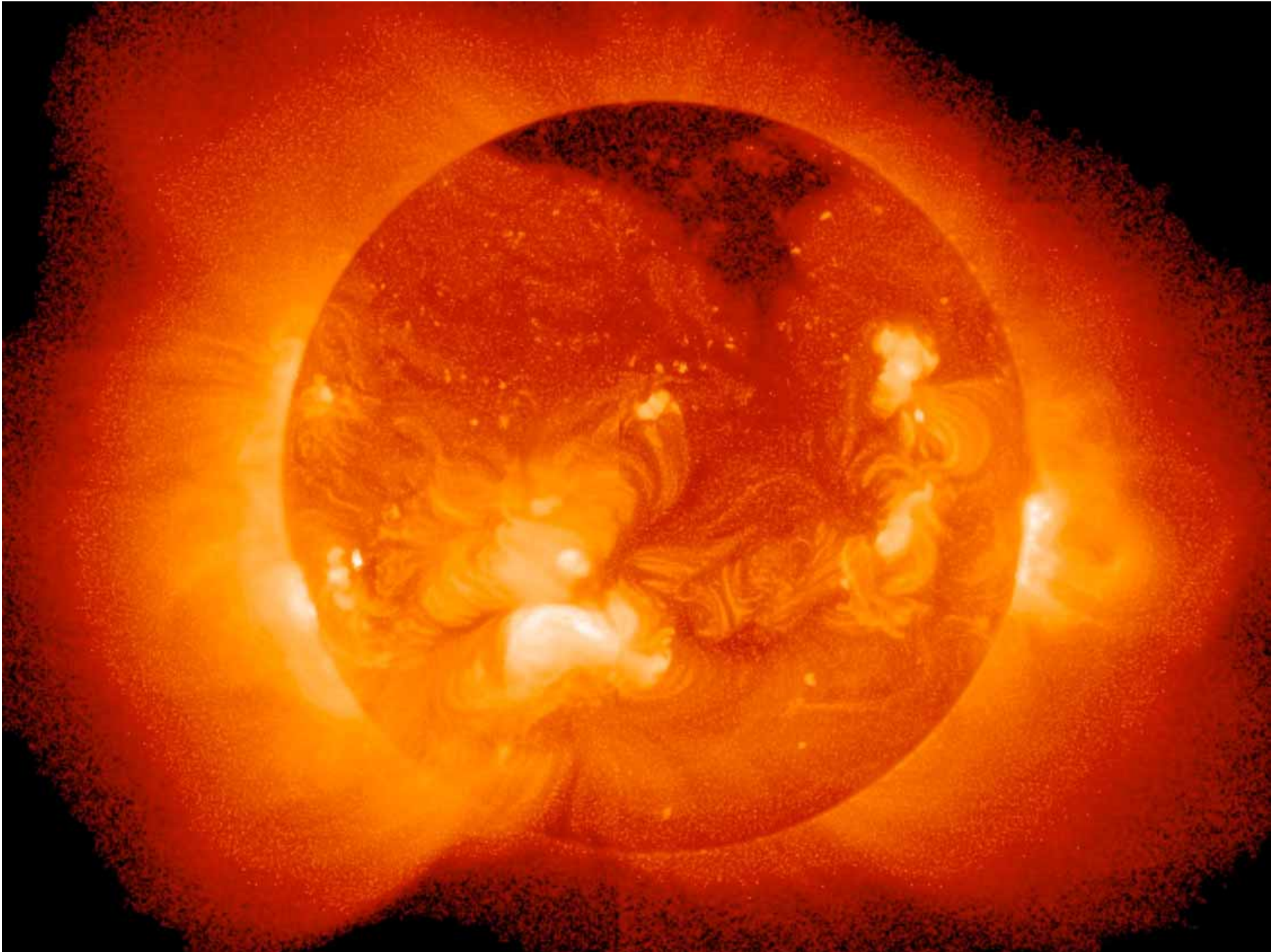
A 1ST POSSIBLE DRIVER

GLOBAL PATENT WARMING ...



GLOBALISATION



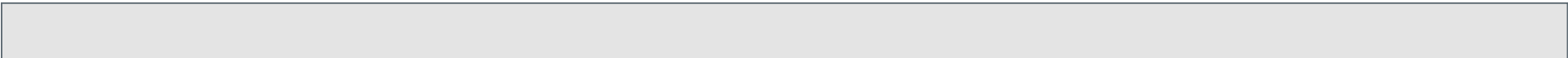






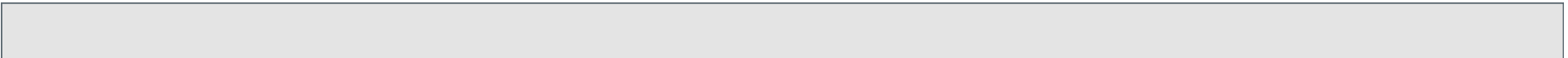
**ONE SYMPTOM OF GLOBAL
PATENT WARMING.**

CRISIS, WHAT CRISIS?



GLOBAL PATENT WARMING

- DODGY APPLICATIONS
- UNCERTAINTY ABOUT VALUE
- BUNDLING IN LICENSING ETC.
- FAILURE OF VALUATION
- IP BUBBLE
- ?



LOOK FAMILIAR?

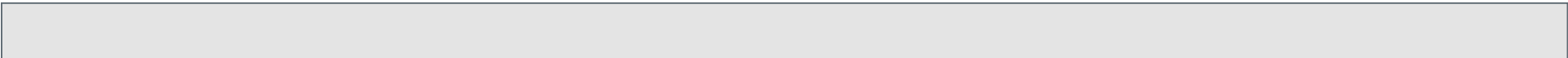


GLOBAL PATENT WARMING

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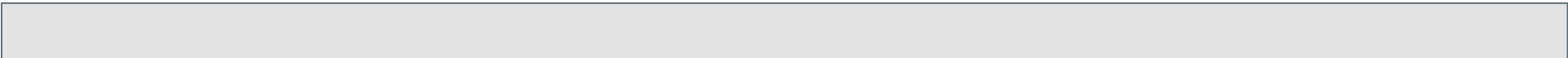
CREDIT CRISIS

- DODGY LOANS
- UNCERTAINTY ABOUT VALUE
- BUNDLING IN SUB-PRIME VEHICLES
- FAILURE OF CREDIT AGENCIES
- CREDIT BUBBLE
- BOOM....



A SECOND SYMPTOM OF GLOBAL PATENT WARMING

POSSIBLE CONFLICTS WITH COMPETITION LAW ...



COMPETITION LAW, POSSIBLE CONFLICTS

- EVER-GREENING IN PHARMA
- STANDARDS - PATENT AMBUSH TYPE BEHAVIOURS
- PATENT POOLS - PAYING FOR SOMETHING YOU DO NOT WANT. (*ABUSE OF A DOMINANT POSITION*)
- LICENSING POOLS - HIGH ENTRY BARRIERS TO THE CLUB . (*OLIGOPOLY/MONOPOLY TYPE BEHAVIOUR*)

A 2ND POSSIBLE DRIVER

**SCIENTIFIC AND MARKET
REALITY ...**



THE MODERN INTERDEPENDENT REALITY OF SCIENCE...!

"The Nobel Prize in an Age of Collaboration

Controversies over the Nobel prize and credit are nothing new, but they are bound to get much, much worse. Nobel-calibre discoveries being made today **frequently involve a lot more than three principal scientists**, which means that in the future, a **Nobel Prize** limited to three people will seriously distort how credit is allocated and **possibly sink into irrelevance.**"

Scientific blogging, October 2008



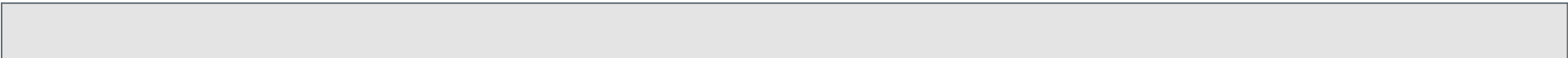
SPEED TO MARKET. THE ACCELERATION OF INNOVATION

"For one thing, **patents are becoming much less important nowadays than brands and the speed at which products can be got to market.** It is true that some of the rising stars in developing economies are beginning to take out more patents, but many of their innovations are still kept quiet as trade secrets. So fluid are their markets, and so weak the historical patent-protection in them, that bosses often prefer to keep things in the dark - and come up with the next innovation as necessary to stay ahead of the competition. Even in developed markets, the **acceleration of innovation is making patents less relevant.**"

The Economist, October 13th-19th 2007

A 3RD POSSIBLE DRIVER

SOCIETAL VALUES ...



SOCIETAL VALUES

- FREE LUNCH, INTERNET GENERATION
- IP LOOSING LEGITIMACY
- PERCEIVED DISPROPORTIONATE REWARDS
- GLOBAL CRISIS (CLIMATE CHANGE), SHARE IS VALUE



SOCIETAL VALUES. AN EXAMPLE, CLIMATE CHANGE

The IP system appeals to the human spirit of:

- Curiosity
- Fascination with technology
- Ambition
- Recognition
- Success over peers

The current design of the IP system encourages:

- Exploitation of market prospects

The IP system rewards:

- Self or groups of self

Saving the planet is driven by the human spirit of:

- Moral imperative
- Fear of survival – legacy
- Idealism
- Love of nature
- Conscience and guilt

The mission to save the planet encourages:

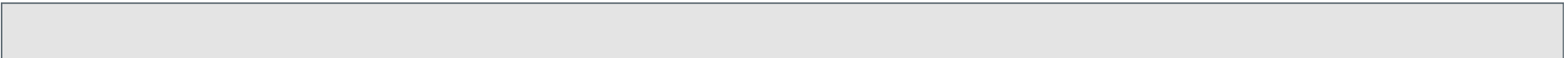
- Idealism before profit

Saving the planet rewards:

- The commons

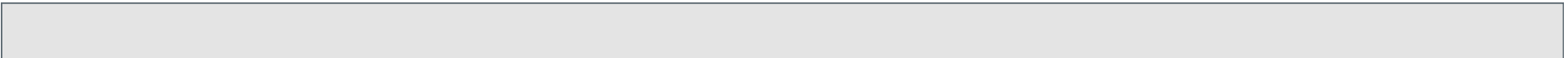
POSSIBLE ANTI-DRIVERS

- TRANSACTION COSTS + SECURITY
- THE MARKET IN IP WORKS ... LOOK!
- ECONOMIC SUSTAINABILITY OF OPEN INNOVATION



A 1ST POSSIBLE ANTI-DRIVER

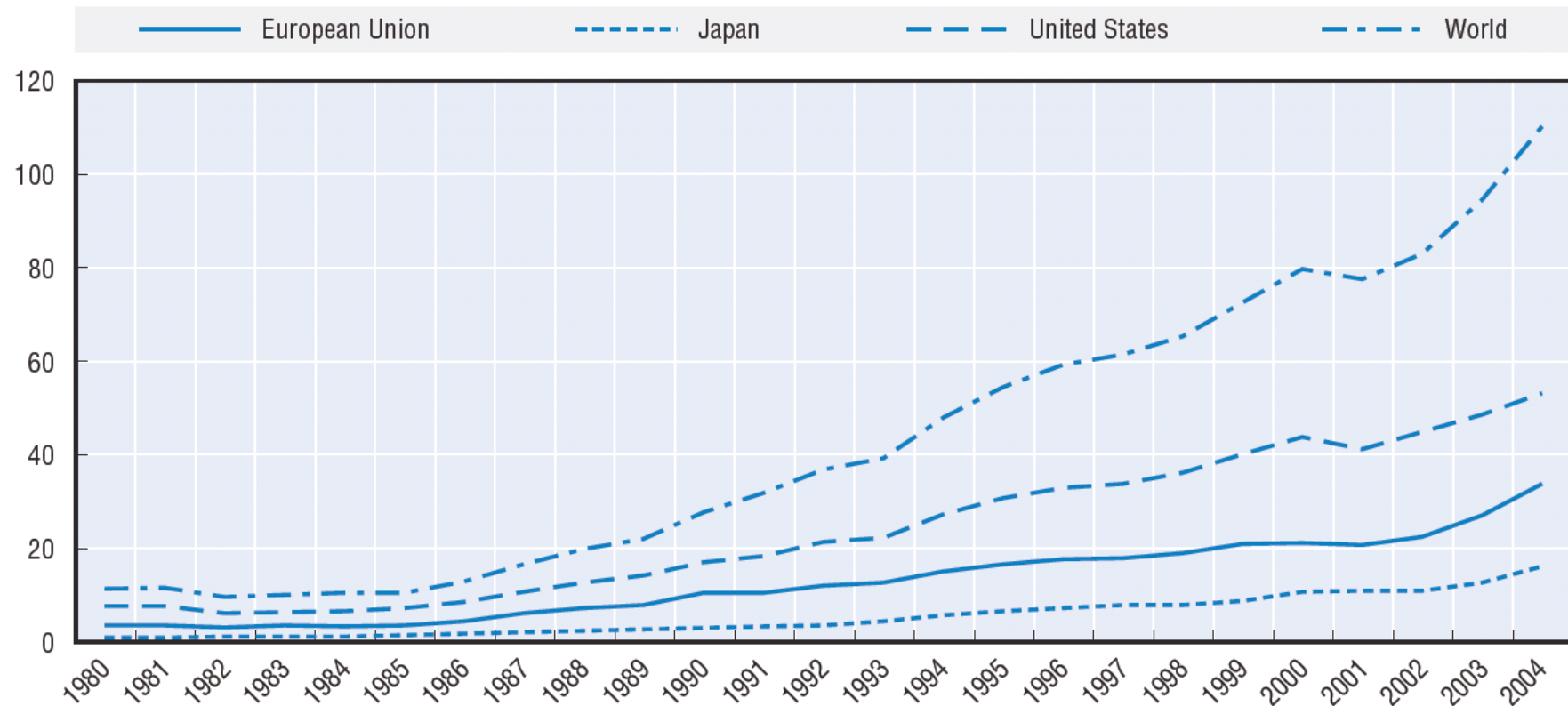
TRANSACTION COSTS AND SECURITY ...



THE EXCHANGE OF IP RIGHTS IS INCREASING ...

Receipts from international licensing in major OECD regions

Billions of USD



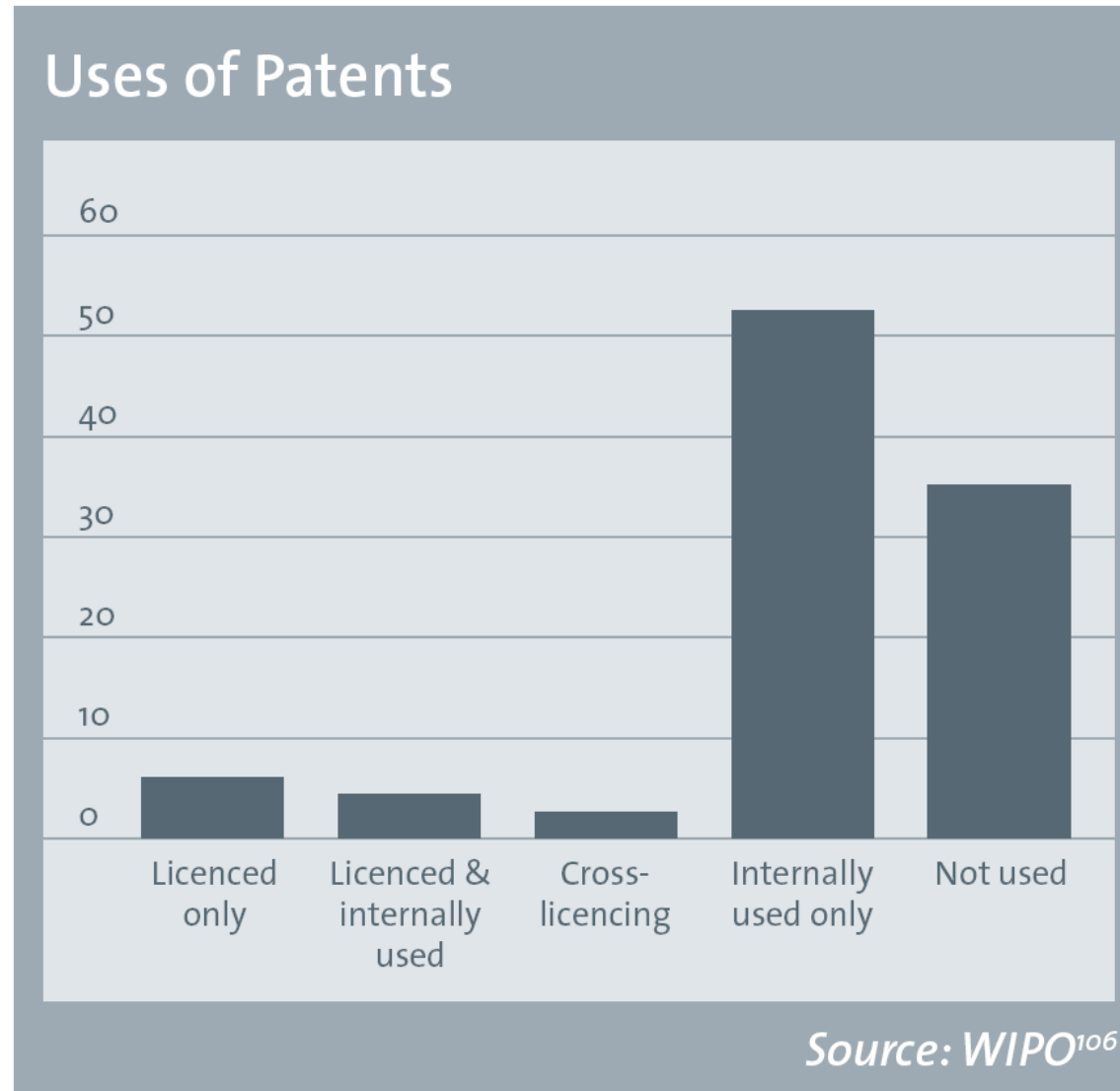
Source: OECD based on World Bank, World Development Indicators Database, June 2006.

StatLink: <http://dx.doi.org/10.1787/324047030044>

AND THIS IS ONLY THE TIP OF...



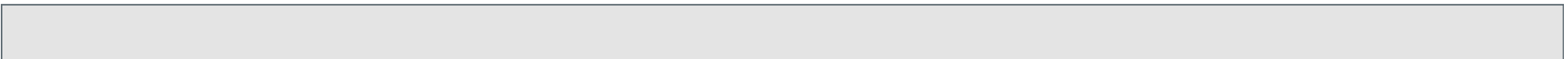
... THE ICEBERG



EPO Scenarios for the Future

A 2ND POSSIBLE ANTI-DRIVER

**THE MARKET IN IP WORKS.
THERE IS STILL PROFIT TO BE
MADE HERE ...**



PATENT SHARKS - OR A FACET OF OPEN INNOVATION?

" We conceive and patent our own inventions in-house... through a renowned staff of internal and external scientists and engineers.

By funding invention, we provide a new outlet and opportunity for the inventive geniuses of our generation.

We also acquire and license patented inventions from other inventors around the world."

– Intellectual Ventures



A 3RD POSSIBLE ANTI-DRIVER

ECONOMIC SUSTAINABILITY OF OPEN INNOVATION ...



A FREE LUNCH...?

The current internet generation considers intellectual property as something to be downloaded, free of charge. Open source software is considered to be a public good shared by all. But who pays for this? Is it sustainable to imagine that society will continue to subsidize this behaviour in the long term? Is there a free lunch or will new business models be developed to sustain economic rents?

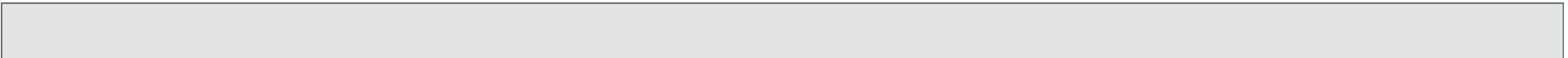


POSSIBLE DRIVERS

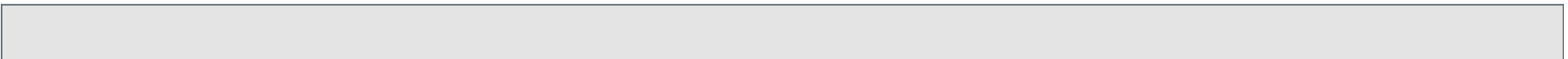
- GLOBAL PATENT WARMING
- SCIENTIFIC AND MARKET REALITY
- SOCIETAL VALUES

BUT POSSIBLE ANTI-DRIVERS

- TRANSACTION COSTS + SECURITY
- MARKET IN IP WORKS!
- ECONOMIC SUSTAINABILITY OF OPEN INNOVATION



AND THE EMERGING MODELS ARE ...

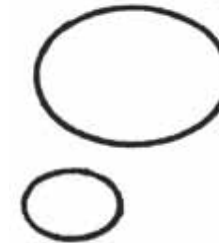
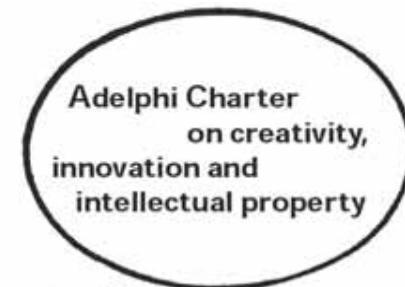
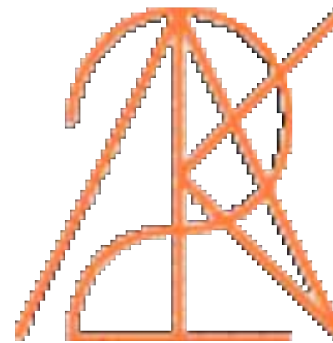




iCommons
share the past, create the future.



openinventionnetwork



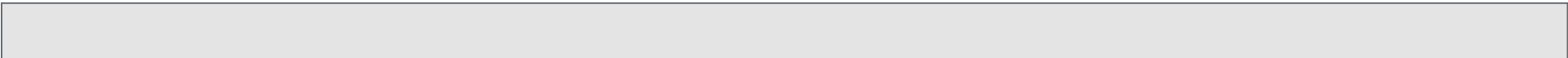
DIFFERENT IP MODELS FOR "OPEN INNOVATION"

- **InnoCentive** (Innovation-broker, connect solvers and seekers): IPR negotiated between solvers and seekers, secrecy to external parties
- **Eclipse** foundation (software development platform): open source based on copyright
- **Open Invention Network** (Linux development): patents as defence for Linux
- **LEGO** Mindstorms (software/robotics): open source based on copyright, strong reliance on trademark
- **BIOS** initiative (Biotechnology Open Source): open source based on patents and/or MTAs
- **P&G** Open Innovation Challenge (idea/design generation): IP remains with innovator (e.g. design rights), secrecy/independent reviewer in early steps
- **BMW** Customer Innovation Lab (service idea generation): all rights transferred to BMW



SCENARIOS FOR THE FUTURE

How might IP regimes evolve by 2025?
What global legitimacy might such regimes have?



IP WORLD IN 2025

Market Rules

Rationalised in the face of ever-increasing numbers

Trees of Knowledge

Societal pressures shrink patent system

Whose Game?

IP becomes a pawn as geopolitical stresses rise

Blue Skies

Patent system split as technology requirements diverge

KEY DRIVERS INFLUENCING OPEN INNOVATION

Market Rules

- Boundary difficulties - security
- Market interdependence
- Transaction costs
- Market in IP works
- Economic sustainability

Trees of Knowledge

- Loss of IP legitimacy
- Free lunch society
- Global patent warming
- Transparency + fairness

Whose Game?

- Geopolitics of resources
- Disproportionate rewards
- Crisis in health, climate...

Blue Skies

- Climate change
- Global patent warming
- Boundary difficulties
- Transparency
- Technical interdependency
- Economic sustainability

SHADES OF OPEN INNOVATION ACROSS THE SCENARIOS

Market Rules

Strong IP

- "opt-in/opt-out" collaboration
- "open access" if you sign the deal

Trees of Knowledge

No IP

- collaboration becomes "rule of the game"
- open for all

Whose Game?

Fragmented IP

- "ad hoc" collaboration per industry or region
- "open innovation" defined by government in strategic fields

Blue Skies

Open IP

- interdisciplinary, task orientated collaboration
- "open innovation" if you pay the license fee (FRAND)

STILL NO FREE LUNCH.....

Market Rules

- patent blockage/thickets limit collaboration
- danger of patent trolls/sharks
- little flexibility/slow adaptation
- numbers game and lock-in block newcomer entrance

Trees of Knowledge

- secrecy in some areas limits collaboration
- lack of incentives results in innovation gap in some sensitive fields (e.g. pharma)

Whose Game?

- trade barriers and state control limit collaboration
- innovation gap
- duplication/redundancy due to secrecy

Blue Skies

- boundary problems and complex legal framework
- battles over fair license conditions
- technology focus tends to ignore users/consumers

FINALLY, WILL STRATEGIES FROM INSIDE THE PATENT SYSTEM CHANGE THE DYNAMIC?

- MERGE THE ISLANDS
- RAISE THE BAR
- SHINE A LIGHT
- INVENT A BETTER MOUSETRAP

