

IP tools and patent policy in Europe

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E. Solvay --- Gutenberg

- 1838 - 1922
 - Belgium
 - Inventor of the soda ash process
 - Founder of Solvay S.A.
 - Created the Physics councils and heavy sponsor of ULB
- 1394/1400 - 1468
 - Strasbourg
 - Inventor of movable type printing
 - Honored by archbishop of Mainz in 1465
 - Died poor
 - Recognized 50 years later

Solvay S.A.

- 1861 Ernest Solvay filed his **first patent** on ammonia process for the manufacture of soda.
- E. Solvay **bankrupted twice** before succeeding the scaling up and distribution.
- E. Solvay was **supported financially** by its family and by friends
- The Solvay **Group was founded in 1863** to manage the industrial exploitation of this ammonia process
- In a few years' time, the group expanded **internationally**

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Today's Menu

- **Why patent policy does matter**
- **IP tools**
- **The “Open” dimension of an efficient IP system**
- **The European Patent System**
- **Challenges for the European patent system**
- **Scenarios**

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Intellectual Property Rights

The economic justification of Patent Rights

The main objective of a patent system is to stimulate innovation by providing the inventor with an exclusive right to exploit the invention in exchange for the public disclosure of the invention

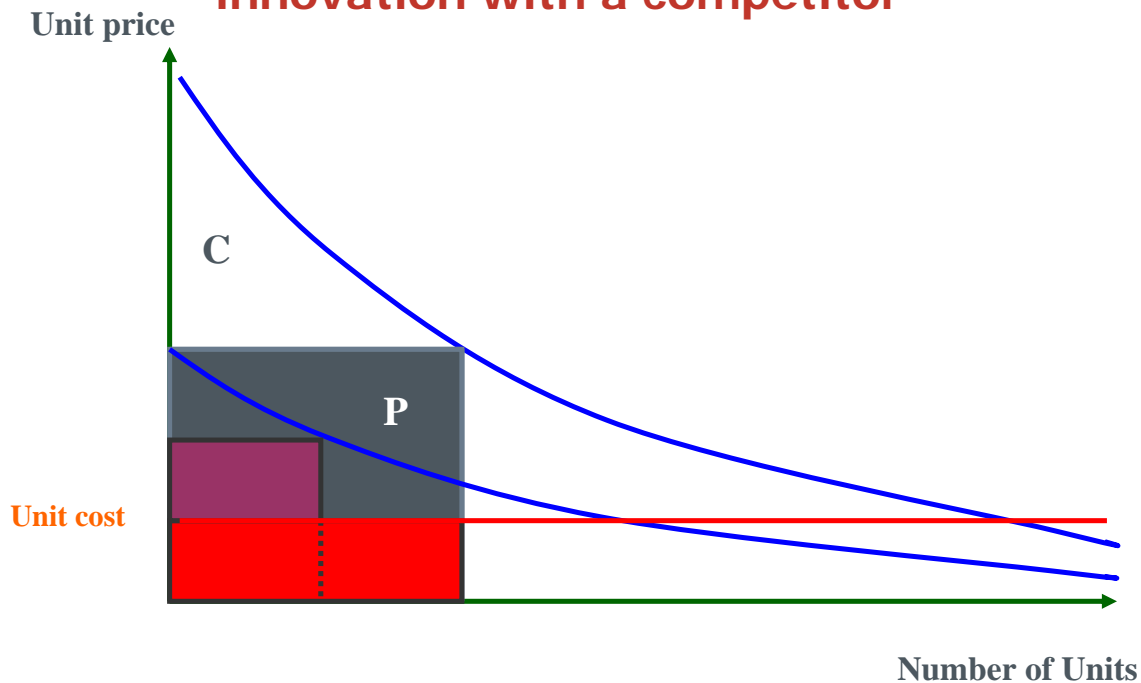
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What is a patent?

- A patent gives its owner the right to **prevent** others from commercially using his invention for 20 years in exchange **for disclosing the invention**
- An invention is a technical solution to a technical problem which is contributing to the state of the art
- Three **main criteria for patentability**
 - novelty
 - inventive step
 - applicable in industry

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Static and dynamic efficiency: Product innovation with a competitor



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A policy tool to stimulate innovation

- Patents provide **incentives to inventors**, while hampering the use of their inventions
- **Trade-offs** :
 - compensate for the cost of past R&D
 - Allow to exclude others from using the technology
 - WW disclosure of information (zero cost)
 - Natural right for inventors ?
 - Reduce waste of resources, avoids duplications.

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An important leverage for SMEs

- A good patent system makes possible a **fluid market** for goods embodying new technology => facilitates access to inventions.
- The European market is particularly important for SMEs, and patents are the **only way** to secure their market.
- **Licensing** allows a better use and diffusion of knowledge; It benefits first technology-based start-ups
- Patents can be used for **raising capital**: Venture capital, collateral, securities...

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Defining IP Rights

	Applicable to	Procedure	Coverage	Duration
Copyrights	•Original human creations	•No registration •But needs to be published	•World (depending on national laws)	•75 years after the death of the author (More since Sonny Bono Act US)
Patents	•Technical Inventions	•Registration required	•Country	•20 years max.
Designs & Models	•Look (2D/3D) of (a part of) a product visible in regular use of the product	•Registration (stronger protection) •No registration	•Country or EU •Limited to a specific industrial area	•5x5 years max.
Trademarks	•Graphical distinctive sign identifying a product/service	•Registration (stronger protection) •No registration	•Country or EU •Limited to a specific industrial area	•Unlimited until not used for 5 consecutive years

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Defining IP Rights Protecting Technological Innovation

- Multiple ways of protecting inventions:
 - Patents through registration and disclosure
 - Secrecy (know-how, technological edge)
 - Non Disclosure Agreements (NDA) and Employment Terms (Non Competition Agreements = NCA)
 - Copyrights (software, databases, etc.)
- Protection can be combined with other IPR
 - Patent (limited to 20 years) + Trademark (unlimited)
 - ➔ ASPIRIN, BIC (Baron Bich)
 - ➔ The trademark outlives the patent
 - Patents + Designs/Models + Trademarks
 - ➔ VW Golf

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Defining IP Rights Protecting Technological Innovation

- IPR's are not the only way to benefit from an innovation:
 - First mover advantage
 - Market lead
 - Control of distribution channels
 - Copyrights (software, databases, etc.)
 - Marketing
 - Innovative operations management (Zara)
 - Franchising : trademark, suppliers, management, goods...

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Intellectual Property Rights

US ALLOWS PATENTS FOR A MUCH BROADER VARIETY OF INVENTIONS

	U. S.	Europe
• Substance	✓	✓
• Process	✓	✓
• Use	✓	✓
• Method of doing business	✓	X
• Software (algorithm)	✓	X
• Theories	✓	X
• Transgenetic animal	✓	X

Do different standards stem from differing philosophy,
less government lobbying or just different inertia?

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“Open” Licensing

- Licensing allows a better allocation of knowledge; It benefits first SMEs
- Licensing is under-developed in Europe
- Identify and remove regulatory and other barriers to licensing
- Support SMEs: Providing information, templates etc.

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“Open” complementary assets

- Patents can be used for raising capital:
Venture capital, collateral, securities
- Under-developed in Europe
- Identify and remove regulatory and other barriers
- Change the attitude of financial institutions vis-à-vis patents

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“Open” Competition

- Competition and patent policies are currently disconnected in Europe
- Problems regarding market access (patent thickets), standards, compulsory licencing.
- Authorities in charge of the two areas need to coordinate

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“Open” scientific knowledge

- Universities are encouraged to patent their inventions, in view of facilitating commercialisation
- Still under-developed in Europe despite substantial efforts by the European Commission...
- Need to evaluate and measure these policies:

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Three related Challenges for an integrated market for technology

- No community patents
- Costs
- Litigation system

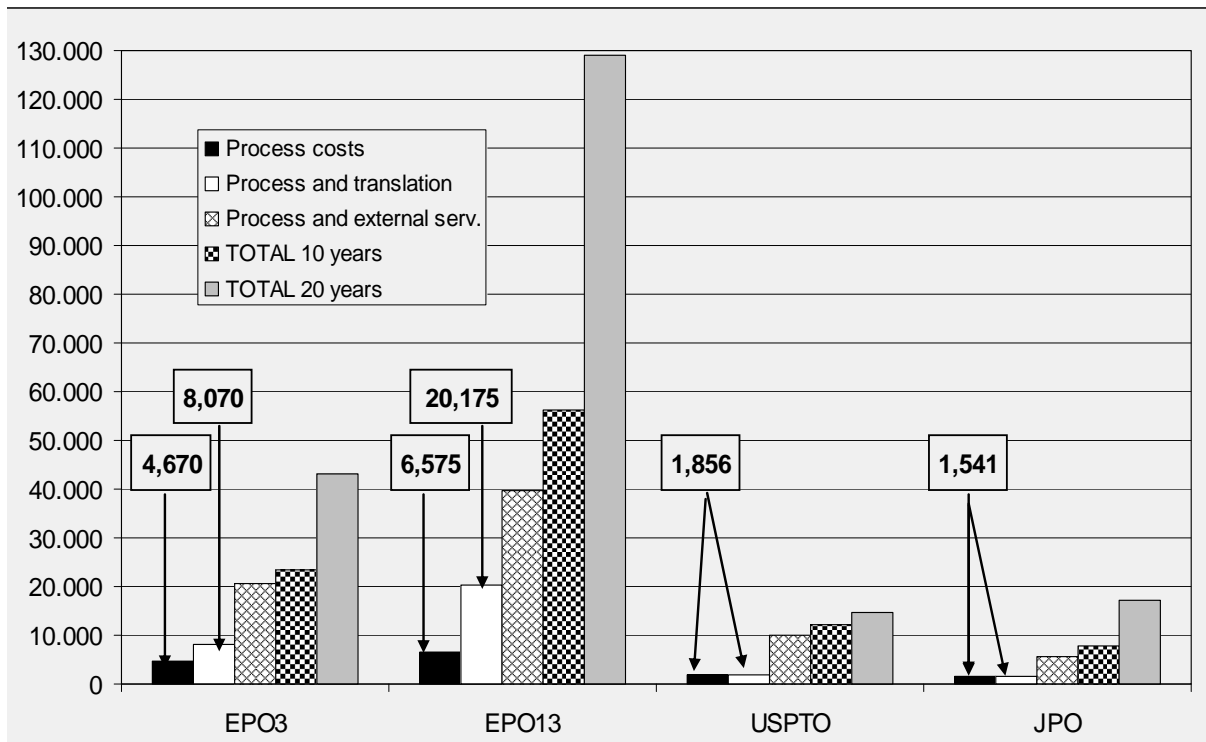
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The EPS - Not integrated

- Different national priority filings fees
- Different national laws
- After grant, different national renewal fees, and translations
- Litigation costs vary substantially across countries
- Litigation outcome vary across countries: interpretation of law
 - Doctrine of equivalents vs. Doctrine of literal interpretation

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The EPS - Cost consequences



The EPS - Quality induced backlog

- A relatively small grant rate (higher rigor)
- Longer time spent on each patent = more in-depth examination
- Less domain of patentability
- Much more expensive (relative to market size)

The EPS - in search of Harmonization

- Reducing cost and complexity...
 - **London Protocol** would reduce the translation costs
 - **EPLA** would reduce uncertainty, litigation costs and complexity over Europe
 - **Community patent** = one gateway, one renewal fee, one single market for technology

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