The European patent system: What role for patents in times of Artificial Intelligence, climate change and other global challenges?

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Agenda

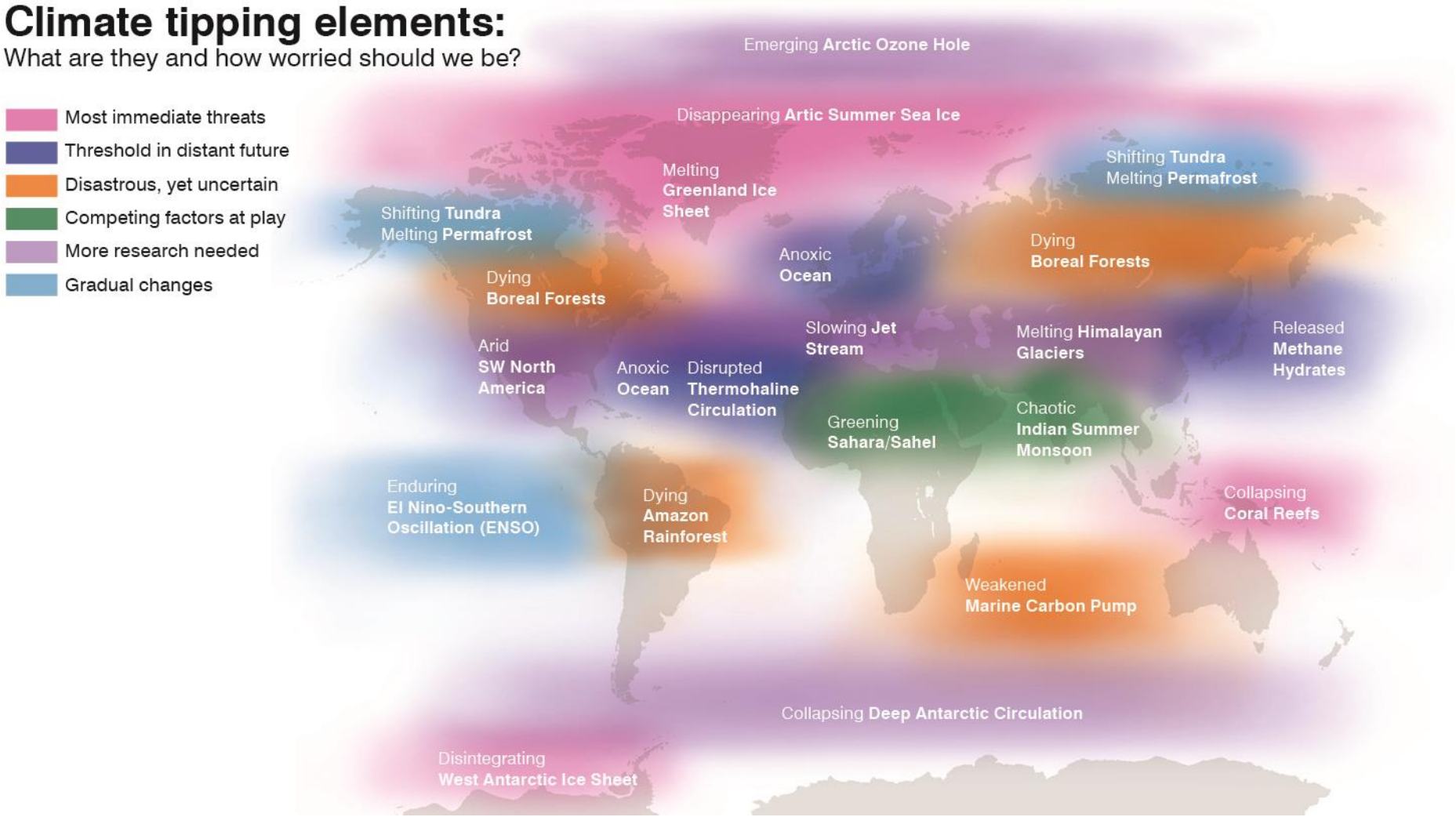
Patent law & AI

- See presentation by Lea Tochtermann

Patent law & climate change

Three unresolved institutional problems in European patent law

Climate change and its consequences



- http://blogs.edf.org/climate411/files/2017/10/Climate_tipping_map_01.jpg

Patent law & climate change

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Technology

- Is the main reason for anthropogenic climate change.
- But may also contribute to a solution.
- „Climate-relevant“ technologies highly diverse: Reduction of emissions, but also mitigating/adapting to climate changes.
  - Difficult to define where law should intervene.

Patent law

- Is one – not the most important – element influencing generation, dissemination and publication of new technologies.
- Despite debate, Kyoto and Paris Agreements do not address IP.
  - Only financial support (Art 9) and technology transfer (Art 10 Paris Agreement).
- Other IP and competition laws are (at least equally) relevant:
  - Labelling requirements and certification marks,
  - Public procurement and transparency of government.

Patent law & climate change

Two possible issues:

- The incentive side:
  - Does patent law give the right incentives to develop „climate-friendly“ technology?
  - Should patent law reduce incentives to develop non-climate-friendly technologies?
- The dissemination side:
  - Does patent law foster or hinder technology dissemination, in particular to less-developed countries?
- Issues are not new:
  - Earlier debate about market vs non-market incentives and that market demand may not reflect social value.
  - Earlier debate about IP & technology transfer (access to medicines), see Doha declaration; Art 31bis, 66(2) TRIPS; earlier chapter 34 of Agenda 21 (Earth Summit 1992); Montreal Protocol on Ozone Layer (1987).

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The incentive (grant) side – general scepticism

- Claim: Despite increased patent applications, patent system underperforms in fostering environmental innovation.
  - Reason: patent system relies on market (demand) incentives, fails to reward basic research or social value of invention.
    - Change to system of prizes (eg H-Prize)?
    - More drastically: “We must begin taking aggressive action to break patents that hinder a just transition away from fossil fuels, whether nationally or internationally”.
- Answer: True, but not a climate-change specific issue.
  - Market demand still important to convey information about needs.
  - Market demand can be supported by emissions trading and other instrument (internalisation of environmental harm).
  - Patent law is not the only instrument to foster innovation; government research funding at least equally important.

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The incentive (grant) side – some options (AIPPI Q 198, May 14)

- Option 1: Accelerate granting process for green inventions.
  - Problem: what is a „green invention“? Sufficient to declare ecological benefit? Already accelerated procedure at EPO.
- Option 2: Lower the patentability conditions so that obvious inventions could be patented?
  - Unclear what is rewarded here. Weak patents are a problem for innovation, competition and the general public.
- Option 3: Extending or reducing patent term?
  - Reduction: Art. 33 TRIPS. Extension: Not clear why.
- Option 4: Exclude polluting inventions under ordre public?
  - Difficult to define, often dual use.
  - Other regulation (environmental law) more appropriate.
  - Vice versa, exclude climate-friendly tech (geoengineering)?

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The dissemination (scope and licensing) side

- Facilitate green technology voluntary licensing (AIPPI).
  - Fiscal incentives, export credit, R&D cooperation, cp Art 66(2) TRIPS.
  - Int'l initiatives (WIPO Green, UNFCCC Climate Tech Centre and Network).
  - Special duty to license if public R&D funds (Bayh-Dole „March-in rights")?
- Extended compulsory licensing for green technologies?
  - Contra: Limited effect, no patents in developing countries.
- Gap where technology is built in EU and then exported?
  - Art 31(f) TRIPS: „such use shall be authorized predominantly for the supply of the domestic market of the Member authorizing such use".
  - Art 31bis TRIPS: "obligations (…) under Article 31(f) shall not apply with respect to the grant (…) of a compulsory licence to the extent necessary for the purposes of production of a pharmaceutical product(s) and its export to an eligible importing Member(s) (…)."
  - Extension of manufacturing waiver (Art 5 Reg 2019/933)? Art. 28,30 TRIPS?
- Extension of exhaustion world-wide? Robust experimental use? FRAND-type license requirement for „green" technology?

Three unresolved institutional issues

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Relationship between EPC and EU law, esp. Dir 98/44/EC

- Debate on patentability of plants or animals exclusively obtained by means of an essentially biological process continues.
  - COM Notice (OJ C 411, 8.11.2016, p. 3) and Council conclusions (OJ C 65, 1.3.2017, p. 2): EU legislator‘s intention (…) was to exclude from patentability products obtained through essentially biological processes.
  - Rule 28(2) EPC: Under Article 53(b), European patents shall not be granted in respect of plants or animals exclusively obtained by means of an essentially biological process.
  - EPO 5.12.2018 Case T-1063/18: Rule 28(2) in conflict with Art 53(b) EPC as interpreted by Enlarged Board of Appeal in G 2/12 (Tomato II) and G 2/13 (Broccolo II)?
- EU has to decide whether to follow EPO or lead in Biotech matters.
- If reform of Dir 98/44 is politically not possible, why not adopt informal notices as „soft guidance“ if new technology appears?
- Next possible issue: application of Dir 98/44/EC on synthetic biology.

Three unresolved institutional issues

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Patent law and constitutional guarantees

- Judicial control of EPO decisions in independent court is needed.
  - NL: trade union cases; D: constitutional complaint.
  - UPC will not solve the problem: Not all EU/EPO Member States participate, and UPC has not – at least for transition phase – jurisdiction for all EPC patents.

Art 24(4) Brussels Ibis Reg makes patent litigation too expensive

- Allowing courts to make inter partes decisions on validity of foreign registered IP rights could significantly reduce litigation costs.
- UPC will not solve the problem because not all EU Member States take part and because national patents are outside of UPC system.