Horizontal and Vertical Structures: The Supranational Double Pillar Structure of the European Patent Office (EPO), the European Union (EU) and the National Level

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1. Introduction

- Contemporary disenchantment with Europe
- Doubts whether stronger European integration is a blessing or a curse
- Preference for delegation of powers to supranational institutions or for subsidiarity principle and intergovernmental cooperation?
- European patent system as a test case: What are the structures and prospects of the patent reforms (Unitary patent package) set in place?
- Lenses of political theory and integration theory
2. Political Theory: Supranationalism vs. Intergovernmentalism

- The **neo-functionalist supranationalist** school of European integration (Haas) explains **cooperation** between patent offices and the EU as triggered by **external** factors (globalization of patent applications, international applicants, economic integration and trade liberalization) → spill-over effects → supranational integration and supremacy of supranational organisations.

- The **liberal intergovernmental** school (Moravcsik) points to **competition** between patent offices and state organs as a result of **national self-interest**. States would act as guardians of national industrial policy interests or "techno nationalism" (Gilpin). Therefore, nation states would act as veto players to supranational delegation.

- Tensions not only in theoretical approaches but also in political practice.
The European patent system has already anticipated many constellations and struggles with which the European integration project currently has to deal.

Analysis could be an eye-opener for other areas.
3. The European patent system

- komplex („byzantine“ v. Pottelsberghe 2010)
- **Parallel structures national & supranational:** Patent grant by
  - **national patent** offices and
  - **European Patent Office**
  - Patent law harmonized by EPC and EPO Case Law

- **Supranational:** Co-existence of a double Structure. European Patent Organisation and EU as **two pillars** of European Patent-Governance:

- Governance = complex multilevel architecture
  (Schneider 2010)
EU und European Patent Organisation

- Two fully independent supranational bodies
- European Patent Organisation and Office are not subjected to the EU and to CJEU jurisdiction

Source: http://www.stilaffaire.de
EU und European Patent Organisation

- rivalry
- soft co-evolution
  - EU Biopatent Directive (98/44) „implemented“ in EPC;
  - CJEU Brüstle „adopted“ by EPO Board of Appeal T 2221/10
  - Common European Inventor Award
  - exchange of high-level staff
  - Unitary Patent Package (?)
  - (Supplementary Protection Certificates)
Unitary patent package: The hope

☐ A bridge to join the 2 pillars and to accomplish the unification of the European patent system?
Pol. theory: Historic institutionalism and path dependence (North 1990; Pierson 2004)

- Antecedent conditions allow contingent choices → critical juncture → set of a specific trajectory of institutional development and consolidation that is difficult to reverse.

- EPO in its present state is product of the „birth failure“ of EU Community patent.

Source: voteview.com
EPOrg vs EU Member states 2014

European Patent Organisation

- Additional 10 EPO Contracting States
  - Albanien
  - Island
  - Serbien
  - Liechtenstein
  - Mazedonien
  - Monaco
  - Norwegen
  - San Marino
  - Schweiz
  - Türkei

European Union 28 Member states

- Belgien
- Bulgarien
- Dänemark
- Deutschland
- Estland
- Finnland
- Frankreich
- Griechenland
- Irland
- Italien
- Lettland
- Litauen
- Luxemburg
- Malta
- Niederlande
- Österreich
- Polen
- Portugal
- Republik Zypern
- Rumänien
- Schweden
- Slowakei
- Slowenien
- Spanien
- Tschechien
- Ungarn
- Vereinigtes Königreich
- Kroatien

Schneider 2010
EPOrg Contracting States 2014: 38 (plus 2 extension states, patent validation agreement with Tunisia)

Source: EPO
EPOrg - EU

- EPOrg is „running ahead“ in European integration
  - difficult for EU to „catch up“
  - EPOrg is ever widening: barrier for transition of EPOrg into EU
- 10 Non-EU-EPOrg Members – could potentially form veto block within EPOrg (if they were organised)
- EU has only observer status in EPO’s Admin. Council
- European Patent office is a **hybrid** between intergovernmental and supranational organisation
  - Administration Council: contracting states (heads of NPOs, majority principle)
  - Strong EPO Office and President: self funded by fees, own quasi-judiciary (Artelsmair 2003:226)
  - EPC almost „unrevisable“ (Bossung)
  - high degree of autonomy of EPOffice, deficiency in separation of powers (GD3 and EBoA; AR 2435/13, 2 BvR 421/13 und 2 BvR 2480/10 German Constitutional Court, and UK and NL)
4. „Differentiated integration“ in Europe

- Tensions between the „widening and deepening of European integration“
- Between „two speeds“ of integration
- „Variable geometry“ within Europe
- Split between states willing for stronger cooperation and others → different mosaics

Source: https://upload.wikimedia.org/wikipedia/commons/thumb/1/1a/Supranational_European_Bodies-en.svg/400px-Supranational_European_Bodies-en.svg.png
Differentiated integration in Europe

- EPO bundle patent = à la carte system, applicant can choose the menu: in how many states validation of patent
- Unitary patent and Unified patent court: EU 25, based on Enhanced Cooperation Procedure
- Patent system as test case for “differentiated integration” in Europe
European bundle patent: pick and choose

Photo: EPO
Enhanced Cooperation for European unitary patent and Unified patent court: EU 25 (without Spain and Italy): UP in “one basket” (w/o Poland)

Source: EPO
3 ways of acquiring a “European” Patent

- National patent
- European bundle Patent (EPC 38 EPO member states)
- European Unitary Patent (EU25)

Parallel existence or interaction?
5. Latent assumptions in “differentiated integration”: 5.1. “optimistic” perspective

- „Core“ with concentric circles
- Core = deepening integration, others will follow, once they are capable and willing
- Cui bono?
- To the best of all
- Perfect balance between integration and subsidiarity
- ever more integration in the long run
- **Unitary patent package:** administrative simplification, potential cost savings
5.2. A more pessimistic perspective

- **Gap** between center and periphery, drifting apart
- Discrepancies, wider gap: marginalisation of the periphery
- → fragmentation of the system, desintegration, new lines of conflict
- Cui bono? Those in the core set the rules
  - „first mover advantage“
  - latecomers cannot change the rules
- Example: Spain and Italy: Language regime UPP
- Non-EU members of EPOrg: UPCourt regime
5.3. Variant: Internal differentiation

- “Winners and losers” in and on both sides, new cleavages
- Innovative states with high patent propensity and strong patent culture will be strengthened
- States with weak patent culture and low economic performance will be “flooded with foreign patents” possibly to the detriment of national economy and innovation capacity (Poland’s concern)
- Most pronounced in EPOrg extension states: No say about the rules, neither in EU nor EPO, “vassal states”
6. Possible impact of the **unitary patent** as third tier of the European patent system

- Many empirical uncertainties: **Who** will choose unitary patent instead of EPC bundle patent? Probably big corporations from abroad from pharma and other industries

- **How often** will it be sought for?
  - Demand for unitary patent will inter alia depend on costs for unitary patent and qualified legal certainty at UPCourt
  - Distribution key for Unitary Patent between the EU25 countries and between EPO and NPO may become a source of conflicts and may change over time

- If unitary patent succeeds, filing in small and medium sized NPOs may decline and some NPOs may ultimately become extinct
(Re-)distribution of fee income?

- Distribution key for unitary patent (UP)? As yet undecided
- Promise: “Get EU25 at the price of 6 (to 8)” and “no state will lose fee revenue”
- = Squaring the circle?
- Dilemma:
  - Fees too high: no incentive to use Unitary Patent
  - Fees too low: threat to EPO’s financial sustainability and incentive for further “patent bubble”
- Fixed distribution key among the countries?
EPC Patents Granted by Designated State

EPC patent: state chosen for validation = fee paid

Unitary patent: all in the same basket

Source: WIPO 2007
European patent filings 2013

- A third (35%) of the total filings in 2013 came from the EPO member states and two-thirds (65%) from outside Europe.
- The top five countries of origin were the US, Japan, Germany, China and South Korea.

Source: EPO 2014
The EPO granted 66,700 patents in 2013.

Most patents went to US companies, followed by applicants from Germany, Japan, France and Switzerland.

The share of grants to European companies was just over 50%, led by growing numbers of grants to the Netherlands, Sweden and Italy.

The number of patents granted to Chinese companies is growing rapidly, albeit from a low number.

(Source: EPO 2014)
## EPO granted patents 2012/13

<table>
<thead>
<tr>
<th>Country of residence of the patentee</th>
<th>Granted patents published</th>
<th>Change</th>
<th>Designations as contracting states</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>2013</td>
<td>2012</td>
<td>%</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>66772</td>
<td>65657</td>
<td>1.6%</td>
</tr>
<tr>
<td><strong>Sub-total EPO member states</strong></td>
<td>33608</td>
<td>32626</td>
<td>3.0%</td>
</tr>
<tr>
<td><strong>Non-EPO member states</strong></td>
<td>33104</td>
<td>33031</td>
<td>0.2%</td>
</tr>
</tbody>
</table>

### Analysis

Analysis based on granted patents published in 2012/2013. Patents have been allocated to the country of residence of the first-named patentee.

Source: EPO 2014
Fee re-distribution from center to periphery?

- Fixed distribution key among the countries set at current distributional pattern will not be acceptable for Unitary Patent contracting states.
- If Unitary Patent fees are not to be set higher, large countries, in particular Germany, will have to dispense of a share of its present fee income which were to be redistributed to the national patent offices (or state budgets).
- In addition: High costs for Unitary Patent Court system, to be borne by the states!
8. Patent infringement cases in Europe

Figure 3. Infringement cases in Europe

>90% of all cases in six countries (2009)

Source: IAM 2014
Enhanced Cooperation: Unified patent court – CJEU?

Structure of UPC

1. Instance
- Local divisions
- Regional divisions (Optional)
- Central divisions

2. Instance
- Court of Appeal (Luxembourg)

Legally qualified judge

Technically qualified judge
Unified Patent Court: expectations

☐ Hope: avoidance of multiple litigation, highly qualified judges at single patent court, harmonisation of patent law by judge-made case law (ESAB 2013)

☐ Fear: Analogous development to CAFC in the US: Expansion of patentability, lowering the bar, pro patent bias

☐ In the US: Supreme Court stepped in as counterweight (Bagley, Burk): Checks and balances

☐ CJEU as corrective mechanism for UPC is almost not available
8. The dilemmas of Enhanced Cooperation

- prevented Unitary patent package from failure, but:
- self-disempowerment of European Commission and European Parliament
- intergovernmental procedure excludes European institutions
- exacerbates the democratic deficit in the EU
Risks associated with Unitary Patent Package

- risk: epistemic community of the patent system will prevail, segregation of patent system as autopoietic functional system
- risk: hermetic system, only semi-permeable for interests of patentees, disregard of countervailing public interests and human rights
- self-governance of the system by technocratic experts: EPO, patent attorneys, large firms, and patent judges
- no parliamentary democratic control by democratic representatives
9. Temporality of the transition process

- Unified Patent Court will take 10-20 years until final ratification and visible effects, acceptance uncertain
- Unified Patent Court will have to prove whether trust and credibility is justified
- Industry reluctant, diverse strategies: complete shift towards Unitary Patent or “crown jewels” with national patent offices’ patent
- Some see long transition period as favorable, others suspect too much room for gaming strategies and forum shopping
- If ratified, Unitary Patent and Unified Court are irreversible
- Responsibility and accountability for adverse effects?
10. Supranationalism or Intergovernmentalism?

- Supranationalism or Intergovernmentalism are both drivers
- Prognosis: Unitary Patent Package will even strengthen the supranational elements in the European Patent Office and will probably benefit strong member states within EU25
- Role of the Commission? At most indirect coordinating role, but role in international negotiations (FTAs)
- If the Commission won’t – in the long run - represent the EU in the EPOrg’s Admin Council, the EU as political system will remain marginalized in the patent system
- Coordination and cooperation among EU25 will be difficult
- Parliaments, both national and EP – who proved to be more responsive to civil society perspectives - will be put out of action
Which rationales and tendencies will prevail: supranationalism or intergovernmentalism?

- Hard to predict
- Thesis: Driving forces for both cooperation and rivalry are strong, therefore oscillation will remain
- However, in the past, neo-functionalist integration triggered by external pressures and by (supranational) technical experts has gained the upper hand over interests of national administrative bureaucracies, and over political strategies of national governments
- Europeanization is irreversible, a one-way street
Conclusion

- UPP won’t build a unified patent system, no “cure” for the double pillar structure
- Judicial review yes – judicial activism in UPC?
- Little checks and balances
- Executive overweight (ministries of national member states EU25)
- Supranational EPOOffice strengthened
- Whether UPC will be an effective corrective mechanism for EPO or “pull in the same direction” must be seen
- Supranational, technocratic governance by experts and functional elites
- Democratic elements even weakened

Source: https://upload.wikimedia.org/wikipedia/commons/8/8c/Temple_Of_Olimpian_Zeus_retouched.jpg
Thanks for your attention!

Further reading:


- Schneider, I: Governing the patent system in Europe: The EPO's supranational autonomy in need for a regulatory perspective, in: Science and Public Policy, Vol. 36 (8) 2009, pp. 619-628

