Appropriation Advantage: the relevance of IP for Open Innovation Strategies

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Building from:

JRC SCIENCE FOR POLICY REPORT

Case Studies on Open Innovation in ICT
Aim of the CMR Special Issue

• TEACHERS: have available a set of case studies that can complement the theoretical in-class discussion, provide examples and very updated application settings.
• SCHOLARS: have available a rich set of cases written by scholars that could guide future research in the area of IP Management
• PRACTITIONERS: learn from examples, through an overview of fundamental open issues on IP Management and Strategy
• EPO: provide a core for the development of a working paper series dedicated to cases and applications, on the hot topics of IP Management and Strategy. Complement the IP Manual.
Aim of the JRC Study

How does ICT innovation work?
What is ICT innovation performance in the EU?
What is the impact of ICT innovation, policy and instruments in Europe?
How policy makers can make ICT innovation work better in Europe?
Open innovation is about involving far more actors in the innovation process, from researchers, to entrepreneurs, to users, to governments and civil society.
This means creating the right ecosystems, increasing investment, and bringing more companies and regions into the knowledge economy.
Let's dare to make Europe open to innovation, open to science and open to the world.

Carlos Moedas
Commissioner for Research, Science and Innovation
WEST COAST vs. EAST COAST

APPROPRIATION

USER-LED INNOVATION
Core Idea: Appropriation Strategy Matters for Open Innovation!

IP management can contribute to appropriation advantage
firms’ ability to outperform competitors in terms of
taking possession of and extracting value from
knowledge and technology for productive activities
In Short...

- To realize appropriation advantage, different challenges need to be addressed
  - managing tensions between technological integration and IP fragmentation
  - increasing return on IP investment
  - organizing IP implementation
- Our research issue provide a wide variety of mechanisms, strategies, and business models that might help firms to address these challenges
- **Key Message: Integration** as the key ingredient to realize appropriation advantage
Towards Integrative IP Management Perspective
Di Minin and Faems

• Strategic Integration
  – Need to integrate Technology, Business Model and IP strategies

• Organizational Integration
  – Need for integration of various functional competences (technical, legal, and managerial)

• Integration of IP Assets
  – Need for smart combinations of different IP mechanisms
MOVING FROM THEORY TO PRACTICE
THREE CHALLENGES
Challenge 1: Combining Technological Integration and IP Fragmentation

- High need for technological integration
  - New product development asks for the integration of many different technologies from different domains
  - Increased need to adopt open innovation model, triggering need to integrate technologies from different partners

- Increased IP fragmentation
  - Increased number of patent applications and patent holders
  - Emergence of patent thickets

- Potential solutions
  - Creation of patent pools with different partners (Den Uijl et al.)
  - Smart combinations of exclusive and generic IP arrangement in innovation ecosystems (Leten et al.)
  - Implementing IP modularity (Henkel et al.)
Challenge 2: Increasing Return on IP Investment

- IP increases ability to appropriate value from inventions, but also triggers substantial costs (i.e. application, maintenance, and enforcement costs)
- IP as ‘Rembrandts in the attic, waiting to be exploited for profit and competitive advantage’
- Potential solutions:
  - Licensing out abandoned IP (Chesbrough and Chen)
  - Smart combinations of different IP mechanisms throughout the life-cycle of innovations (Conley et al.)
  - Combining patenting and strategic disclosure activities (Peters et al.)
Challenge 3: Organizing IP Implementation

- Need to bring together different business functions (technical, legal, and managerial) in order to be on top of IP-related opportunities or to neutralize potential threats.

- Need for consolidated guidelines regarding the positioning of IP responsibilities within firms’ corporate structure in order to increase accountability.

- Potential solutions:
  - Pro-active involvement of IP specialists in R&D projects (Cesaroni and Piccaluga)
  - Disassembling IP in case of corporate restructuring (Holgersson and Granstrand)
MOVING FROM THEORY TO PRACTICE
THREE OPPORTUNITIES
Open Innovation Activities

THE CENTRAL ROLE OF USERS

An increasing convergence between open innovation and user-led innovation
Opportunities for SMEs implementing Open Innovation Strategies

1. Opening up through business model innovation

2. Participating in large R&D networks and/or engagement in innovation ecosystems

3. Balancing openness & appropriation
Be aware of the complexities of IP management and develop effective appropriation strategies.

Zappar, STM, Celoxica, Supponor, g.tec, Graphenea, Primo1D, Philips

Formal IP protection mechanisms are tools that facilitate collaboration.

Entranet, Celoxica

Patents, trademarks and copyrights provide protection perceived as imperfect.
Importance of acknowledging the limits of formal IP protection, and encourage definition of good rules

Enhancement of IP intermediaries professionalization, and monitoring or assistance to IP marketplace creation

Support to SMEs trying to secure proper IP access to external technology

Design alternative means to enforce IP protection when formal IP tools are not suitable
Conclusion:

Policymakers should acknowledge that **exponential growth** is not the **only** form of business development that leads to new jobs and wealth.

Remaining **open** to new forms of OI and emerging growth models.

Policymakers should not discard slow changes as **invaluable** and consider direct support for the **reinvestment of profit** into innovative activities or in definition of OISs.
And for more information...
Appropriation Advantage: the relevance of IP for Open Innovation Strategies

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Thank you for your attention