

## Impact case study (REF3)

<b>Institution:</b> University of Essex		
<b>Unit of Assessment:</b> 16 – Economics and Econometrics		
<b>Title of case study:</b> Designing a New Technology Transfer Regulatory Framework for the European Union		
<b>Period when the underpinning research was undertaken:</b> 2000 – 2020		
<b>Details of staff conducting the underpinning research from the submitting unit:</b>		
<b>Name(s):</b> Katherine Rockett	<b>Role(s) (e.g. job title):</b> Professor of Economics	<b>Period(s) employed by submitting HEI:</b> 1999 - present
<b>Period when the claimed impact occurred:</b> May 2014 – December 2020		
<b>Is this case study continued from a case study submitted in 2014?</b> N		
<b>1. Summary of the impact</b> (indicative maximum 100 words)		
<p>Professor Rockett’s research on competition policy issues in licensing and standard setting was pivotal in shaping the European Union’s 2014 revised framework for regulating technology transfer (“Policy”) under EU competition rules, which covers significant technology transfer agreements within the EU, and third country agreements that significantly affect European consumers. Her co-authored study was the first comprehensive welfare analysis of this Policy framework in its history and led directly to the take up of 15 recommendations in the 2014 revision. Stakeholders include EU member states, national and European courts, firms with significant European business or affecting European consumers regardless of location, universities, industry groups, and law practices. Beneficiaries include all European consumers as the framework affects pricing, quality and availability of technology-based products like telephones and pharmaceuticals, plus intellectual property rights intensive industries which generate 26% of European employment (~56m workers) and almost 39% of European economic activity (~5 Trillion Euros) [S1].</p>		
<b>2. Underpinning research</b> (indicative maximum 500 words)		
<u>Designing Competition Policy for High Technology Fields</u>		
<p>The Study was commissioned as contract research, forming part of a wider consultation for this policy revision [R4, “The Study”]. It built on the authors’ record of contributions to the theories of licensing, standard setting, and intellectual property right design beginning in the 1980s. The record includes contributions for law, economics, and policy audiences as the subject matter is interdisciplinary.</p> <p>The Study provided the pathway linking this body of research to policy impact.</p> <p>Reference [R3] assessed that body of work and other contributions honing research that began in The Study [R4]. Contrary to some recent economics literature, the chapter concluded that economic theory supports relatively strong intellectual property protection, complemented by appropriate competition policy intervention in innovative industries. The Study’s conclusions reflected this view.</p> <p>Reference [R6] analysed the interplay between intellectual property rights and competition policy, based on economic theory. That chapter suggested that while competition policy limits the exercise of monopoly power, the reward and diffusion benefits of intellectual property rights can still be balanced against these limits to maximise economic surplus. Further, it drew attention to industry coordination, concentration, and large ex post changes in competition policy as areas where policy toward technology intensive industries faces unique and pressing challenges. These concerns motivated the arguments around licensing policy, patent pools, and mergers found in the Study [R4].</p>		

European Grantback Policy and Improved Patent Pool Guidance

As part of serving as a channel for impact, the Study [R4] included original research contributions on grantbacks (clauses in licensing agreements that allow the licensor access to technology developed by a licensee); literature review that identified areas where policy-ready guidance existed such as patent pools (sets of patents managed and traded as a “bundle”); and identified areas where the literature needed more work to generate guidance clear enough to deviate significantly from the status quo (patent thicket measurement). It also identified and reviewed areas touching upon but not currently covered by the Policy (mergers in innovative industries).

More precisely, the Study included original but preliminary research results evaluating the internationally distinctive European grantback policy, filling a gap in the literature. The full development in reference [R2] confirms an academic argument for the Study’s grantback recommendations [R4].

The Study [R4] also explored the negative influence of patent thickets (dense networks of inter-linked patents) on innovation and the potential for patent pools to resolve this problem. Intellectual property policy may resolve this problem if specific “thicket causing” patents can be identified early. Such a tool was refined and detailed in reference [R1].

The Study developed specific recommendations on how merger and patent pool policy can be used to address thickets, generalising and updating earlier conclusions reached for the specific case of GM food developed in reference [R7]. The Study’s [R4] analysis was preliminary; however, reference [R3] refined the study’s outline of the ambiguities in the literature and resolved these into an implementable test for a merger’s harm in the presence of innovation and developed a policy algorithm to approach merger policy in innovative industries

**3. References to the research** (indicative maximum of six references)

[R1] Gatkowski, M. and Dietl, M. and Skrok, L., Whalen, R. and Rockett, K. (2020) “Semantically-Based Patent Thicket Identification.” *Research Policy*, 49 (2). ISSN 0048-7333

[R2] Ambashi, M., Régibeau, P and Rockett, K. (2019) “Grant-backs, Territorial Restraints and Innovation”, *International Journal of Industrial Organization*, 67, 102534 <https://doi.org/10.1016/j.ijindorg.2019.102534>

[R3] Régibeau, P and Rockett, K. (2019) “Mergers and Innovation“ *Antitrust Bulletin* 64(1), 31-53. <https://doi.org/10.1177/0003603X18822576>

[R4] Régibeau, P and Rockett, K. (2011) “Assessment of Potential Anticompetitive Conduct in the Field of Intellectual Property Rights and Assessment of the Interplay Between Competition Policy and IPR Protection, November, Competition Reports contract COMP/2010/16, DG Competition (available upon request)

[R5] Rockett, K. (2010) “Property Rights and Invention” Chapter 7 in *Economics of Innovation*, Bronwyn Hall and Nathan Rosenberg, Editors. Amsterdam: North Holland. [https://doi.org/10.1016/S0169-7218\(10\)01007-5](https://doi.org/10.1016/S0169-7218(10)01007-5)

[R6] Régibeau, P and Rockett, K. (2009) “The Relationship between Intellectual Property Law and Competition Law” Chapter 10 in *Intellectual Rights and Competition Policy*, Steve Anderman, Editor. Cambridge: Cambridge University Press. ISBN: 9780521863162

[R7] Harhoff, D., Régibeau, P and Rockett, K. (2001) “Some Economics of GM Food”, *Economic Policy*, October, 16, (33), .265 – 299. <https://www.jstor.org/stable/1344643>

**4. Details of the impact** (indicative maximum 750 words)

The European Commission (EC) commissioned the Study [R4] as part of the wider consultation of the revision of the framework offering a neutral evaluation of the Policy [S1]. The authors' research record demonstrates that they are theorists with a research history that is entirely policy-focussed, relates to areas of work that were pertinent to this revision (competition policy issues in licensing and standard setting), integrates law and economics frameworks, and appeals to a multidisciplinary audience. Commercial confidentiality and the paucity of relevant legal cases reduce related empirical work, making theory the appropriate tool of analysis. This made the authors of the Study [R4] uniquely suited to the task.

**Impact on legal frameworks**

Essex research directly led to amendments to legal frameworks and regulations affecting consumers across the EU and entities doing business in the EU through the take up of recommendations revising the European Commission's (EC) technology transfer guidelines and technology transfer block exemption regulation (TTBER), which came into force on the 1st May 2014. This Policy is revised once every 12 years and remains a legal requirement until 2026 [S1].

**Impact on competition and benefits to consumers**

The remit of this regulation covers any business of a sufficient size conducting activity that affects European consumers. That includes businesses outside Europe that sell into Europe, those located within Europe that sell within Europe or otherwise do business in Europe that involves technology transfer. The TTBER and guidelines ("Policy") ensure that consumers have the quality, affordability, and variety of products needed where those products rely on technology access agreements, and that firms wishing to compete do not face exclusionary or anticompetitive behaviour.

On the revisions of the Policy the EC states: '*The goal of this revision is to verify that the Commission's competition policy as regards technology transfer agreements still reflects the right balance between providing effective incentives for competitors and non-competitors to enter into innovation and welfare increasing technology transfer agreements while ensuring that such agreements do not undermine economic welfare by unnecessarily distorting competition*' [S2].

**Rebalancing the interests of consumers vs other stakeholders**

Stakeholders ("submitters") to the public consultation stated that they considered policy from a private (profit driven) perspective; however, the goal of EC competition policy is improving consumer welfare, including innovation concerns. The authors conducted the Study [R4] to fulfil those needs with the first comprehensive economic welfare analysis of the Policy in its history. Crucially, then, the Study recommendations counter-balanced the submissions by taking a consumer welfare perspective [S3]. Submitters read and reacted to the Study [R4] as part of the consultation, but comparing the EC Submissions Overview ("SO") to the Study coverage and argumentation illustrates a clear distinction in priorities and argumentation between submitters and the Study [S3]. The EC Impact Assessment's three main areas of focus cover two highlighted in the Study (grantbacks and patent pools) [S2] and one highlighted by submissions (termination clauses). Given the divergent recommendations of the Study and submitters, this made the adoption, at least in part, of 15 of the 16 Study recommendations remarkable. [S4, S5]

**Innovative use of economics to evaluate a legal framework in this context**

Evaluating legal frameworks from an economics standpoint is commonplace in North America, but is a more recent development in Europe. Furthermore, a theoretical perspective is not common in itself, as explicitly stated by submitters [S4, S5].

### Reach of recommendations within and beyond the EU

The recommendations from the Study [R4] focussed on technology transfer agreements, agreements by which one party (licensor) authorises another (licensee) to use its technology for the production of goods and services. The recommendations of the Study [R4] relate to specific changes in the regulation of technology transfer agreements that allow consumer products to be manufactured and sold, affecting the design and market of such products. The impact comprised both implementing policy change with wide scope and influencing the debate leading to those modifications. The EU-wide and global scope is described in the EC's own Impact Assessment as affecting, conservatively, 56,000,000 workers, which was about a quarter of those in employment in the EU, and €4.7trillion, which was almost 40% of the total GDP of the EU in 2014 [S2]. These figures do not consider indirect or international effects, which are evidenced in the international nature and comments of submitters to the consultation as well as the international scope of the regulation.

### Impact on grantbacks

The starkest impact to policy is the tightening of the regulation of grantbacks, now removing all exclusive grantbacks from the regulation's exemptions, and instead requiring individual assessment by the companies [S2 IA at 1.3]. Consistent with recommendations C12 and C13 of the Study [R4], the distinction between the treatment of severable and non-severable technologies was abolished, leading to an overall stricter approach [S2 IA at 1.2.3].

The Submissions Overview [S3 SO points 13 and 14] shows that this change was overwhelmingly opposed by stakeholders [S3]. The need to counter-balance these arguments and evaluate policy based on the EC's stated consumer welfare criteria is clear. In contrast, the SO showed [S3 SO at 15 and 16] submitters' full support for the recommended changes in patent pool treatment. The submitters' views are consistent with the recommended non-inclusion of pass-through [S3]. Market share thresholds [S3 SO at 6-8] were a prominent concern for submitters but were not considered an issue for the Study, and subsequently were not addressed in the revision.

The 2014 Policy's patent pool and grantback changes were consistent with the authors' recommendations [S4, S5]. The dearth of work on mergers for innovative industries, clear in the Study [R4], pointed to this becoming a main research area for the EC, with two subsequent publications by the Chief Economist (DGComp) focussing on merger policy for innovation. The improved treatment of Termination Clauses in the updated guidelines had the effect of tightening cross licensing treatment, as recommended by the authors in the Study.

### Influencing debate

The balanced arguments for change in the EC Impact Assessment draw on both the Study [R4] and consultation responses, illustrating that the Study influenced debate. The Study also broadened debate to issues that stakeholders would not otherwise have addressed, such as the unification of grantback treatment for different technology types. Submitters only discussed pass through and merger control where prompted to respond to the Study [R4].

The Deputy Chief Economist of Directorate-General for Competition in the EC receiving the report commented, "*The report [R4] had a significant impact on the revisions that were instituted, perhaps most visible with respect to so-called "grant-back" obligations. Here the report, based on original work developed for the report, argued that a specific distinction made in the previous rules between "severable" and "non-severable" improvements might be misplaced...[It] was a pleasure receiving a report containing original work that ended up influencing policy. In my humble opinion, many reports produced for the Commission do not really move the debate and are, perhaps, not the best use of taxpayers' money. This was clearly not the case here. This report [R4] made a difference.*" [S6]

**5. Sources to corroborate the impact** (indicative maximum of 10 references)

[S1] European Commission Memo March 2014: Commission adopts revised competition regime for technology transfer agreements FAQs

[S2] European Commission Impact Assessment (IA) Essex research cited 7 times (pages 10,15, 50, 54, 55, 56)

[S3] European Commission Submissions Overview (SO) (points 6, 8, 13, 14, 15, 16)

[S4] EU Technology Transfer Guidelines, 2014 (in effect to 2026)

[S5] EU Technology Transfer Block Exemption Regulation, 2014 (in effect to 2026)

[S6] Testimonial from the Deputy Chief Economist of Directorate-General for Competition in the European Commission