

<b>School/Department:</b>	Rotterdam School of Management Department of Strategic Management & Entrepreneurship Burgemeester Oudlaan 50 3062 PA Rotterdam The Netherlands
<b>Project Title:</b>	<b>Incentives for Innovation, Patenting and Disclosure, Appropriation Strategies</b>
<b>Abstract:</b>	<p>New knowledge is a key source of competitive advantage for firms (Grant 1996). Investing to create new knowledge, managing knowledge diffusion, and absorption, and profiting from it are associated with considerable challenges (Nelson 1992, Rosenberg 1990, Cohen and Levinthal 1990, Teece 1986). Knowledge spillovers can undermine the competitive advantage of the creator of knowledge by stimulating follow-on innovations and strategic entrepreneurship (Gambardella and Giarratana 2010, Agarwal et al., 2010, Agarwal et al., 2007). Understanding how firms create incentives for the generation of new knowledge and how they protect and benefit from it remain important questions in the literature on incentives for innovation.</p> <p>This project broadly examines the topic of incentives for innovation. Firms rely on patents to protect their intellectual property and patent systems are widely used both historically and internationally (see, for a review, Williams 2017). Yet studies show that patents are not always the preferred mechanism for intellectual property protection (Lerner 2009, Sakakibara and Branstetter 2001) and that firms use alternative mechanisms such as secrecy, lead time advantage, and complementary capabilities to protect and profit from invention (Cohen et al. 2000).</p> <p>These empirical findings raise an important question: Why do firms not seek patent protection for some potentially patentable inventions? How do inventions that receive patent protection differ from those associated with more open disclosure regimes? What are the consequences of these open disclosure strategies for the firm and the society?</p> <p>Another set of questions relate to the organization of the patent system. Recent studies have examined how the internal functioning of the patent system, such as the allocation of work to patent examiners, timing of disclosure of patent applications, and the cost of applying for patents influence the levels of innovation. The project leverages data from the USPTO, the European Patent Office, and</p>

	<p>data from other jurisdictions such as developing countries (e.g., China) to examine these issues.</p> <p>Below, we describe the evolution of the patent system within the Netherlands and how unique changes to its processes allow for a systematic study of the impact of patent granting process on the number and quality of inventions patented.</p> <p>As Zonneveld (2021) summarizes, between 1869 and 1910, the Netherlands purportedly did not have any patent legislation. The government believed that a lack of patents would stimulate the Dutch economy since entrepreneurs were allowed to use inventions from abroad without costs. Besides, the government expected that other countries would follow and also abolish patent legislation. Both assumptions did not appear to be true. On the contrary, there was a growing number of Dutch inventors applying for patents abroad and the Netherlands experienced pressure from other countries to develop a new patent law (Schippers, 2016). Soon after the Paris and Berne conventions, the Dutch government began working on a patent law. However, the project did not get off the ground quickly. It was 1905 when the second chamber of the government received a proposal and 1910 when the Dutch Patent Act was finally implemented (Schippers, 2016).</p> <p>From this moment on, there would be a Dutch patent office that would judge patent applications on their novelty, inventiveness, and industrial applicability. The process was complicated and required assessors with specific technical knowledge and experience to pass judgment. The duration of protection patents received was initially 15 years.</p> <p>In 1963, the Dutch Patent Office made a time-saving change to their patent granting procedure. A large number of patents lapsed shortly after they were granted, possibly because they were not economically relevant anymore. To avoid spending a lot of time on these patents, the examination of all patent applications on novelty, inventiveness, and industrial applicability was postponed. Applications underwent a smaller examination instead, the novelty report, to investigate whether the chances of the inventor receiving a patent were high enough. After this, inventors had seven years to decide whether the invention was useful enough for protection and extensive examination. To improve transparency for third parties, applications were available for inspection 18 months after the application date. The system was successful and 5% of the applications did not make it to the extensive examination. Almost all industrialized countries now use the 18-month term for inspection (Eskes, Driessen, and Grootenok, 2015).</p>
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The establishment of the European Patent Office had significant consequences for the Dutch Patent Office. After years of success, the number of patent applications filed at the Dutch Patent Office decreased dramatically. In 1975 there were 15.267 applications filed and in 1990 there were 2.991 applications filed. The Dutch Patent Office feared it would not have enough work for the specialized technicians it hired for the judgment of applications if the decrease would continue. A committee that investigated the issue concluded that there must be at least 750 filed applications per year for all office employees to have enough work. The government did not expect the number of applications to stabilize around this level.

#### The Dutch 1995 patent reform

Despite the decrease of incoming applications, the Dutch government concluded that there still was a demand for a national patent office. A national patent office was expected to have benefits for small and medium-sized enterprises that did not need patents in multiple countries. Besides, all other countries that were a member of the European Patent Organization had a national patent office. This led to the development of a new law, the Dutch Patent Act 1995, that introduced a new patent granting procedure. The granting procedure was inspired by the Belgian procedure and adopted to be more accessible for applicants (Snethlage, 2016).

Applicants that applied for a patent after 1995 always received a patent as long as they met the formal requirements. There was no longer an extensive examination of the applications on inventiveness and industrial applicability. Patents were available that granted six years of protection and patents that granted 20 years of protection. Applications for the latter option required an examination of the novelty of the invention. Possible infringement cases were handled by the court. Monitoring possible infringements was the responsibility of inventors (Rijksoctrooiwet 1995, 2020).

After the 1995 patent reform, there was a period of uncertainty for the employees of the Dutch Patent Office. Applications that were filed before the implementation of the new law were still handled using the procedure of the Dutch Patent Act from 1910. It was unsure how much time it would take to finish these applications and how long there would be work for the employees of the council that did the extensive examination. In 2004, the last patent was granted that had undergone extensive examination. After this, the council that had once received so much praise was abolished (Eskes, Driessen, and Grootoonk, 2015). However, after the 1995 patent reform, the number of patent applications stabilized. There were 2.651 patent applications applied for at the Dutch Patent Office in 1995. In 2008 the Dutch Patent Act was altered. The patent of six years protection

	<p>was abolished and applications in English were allowed since the alteration (Snethlage, 2016).</p> <p>The 1995 patent reform is a relevant topic of study since the reform drastically changed the patent granting process. The patent granting process before the reform included obligatory extensive examination and therefore was quite a strict procedure. The abolishment of this examination led to a simplification of the granting process, which has made filing for a patent more accessible. Inventors might have been more willing to apply for patents after 1995, knowing that the requirements are easier to fulfill. If this is the case, inventors might have filed for patents on inventions that they would not have applied for if the old patent granting process was still used. This would imply that the quality of patent applications may have changed after the patent reform. The goal of the patent reform was to make the patent granting process at the Dutch Patent Office more economically viable. This result has been accomplished. However, if the new granting process has lowered the quality of patents, this may be an unwanted side effect of the reform. If the new granting process has not impacted the quality of patents or even improved the quality of patents, then the conclusion can be made that in the Netherlands extensive examination has not been necessary to ensure that the patents granted are of sufficient quality for a functioning patent granting system. The effects of this reform on patent quality can be relevant for other governments including China that consider adjusting their patent granting procedure as well. Especially for national patent offices that include extensive examination in the patent granting process, it is useful to study the effects of the reform.</p>
<b>Requirements of candidate:</b>	<p>Background: <b>Economics, Management, Strategic Management</b></p> <p>Master's degree: Yes</p> <p>EUR requirement: See Table Information about English requirements</p> <p>(If the faculty does not have special English requirements, general requirement from Admission Office is applied)</p>
<b>Supervisor information:</b>	<p>Promoter: <b>Prof. dr. Justin Jansen</b></p> <p>Email address: <a href="mailto:jjansen@rsm.nl">jjansen@rsm.nl</a></p> <p>Personal website: <a href="https://www.rsm.nl/people/justin-jansen/">https://www.rsm.nl/people/justin-jansen/</a></p> <p>Recent publication list:</p> <ul style="list-style-type: none"> <li>• T.S. Tarba, J.J.P. Jansen, T.J.M. Mom, S. Raisch, &amp; T. Lawton (2020). Microfoundational Perspective of Organizational Ambidexterity: Critical Review and Research</li> </ul>

	<p>Directions. Long Range Planning, 53(6), [10248].</p> <ul style="list-style-type: none"> <li>• R.R. Blagoeva, K. Kavusan, &amp; J.J.P. Jansen (2020). Who Violates Expectations When? How Firms' Growth and Dividend Reputations affect Investors' Reactions to Acquisitions. <i>Strategic Management Journal</i>, 41(9): 1712-1742. doi.org/10.1002/smj.3155.</li> <li>• A.S. Alexiev, J.J.P. Jansen, H.W. Volberda &amp; Frans, A.J. Van Den Bosch (2020). Contextualizing Senior Executive Advice Seeking: The Role of Decision Process Comprehensiveness and Empowerment Climate. <i>Organization Studies</i>, 41(4): 471-497. doi.org/10.1177/0170840619830128.</li> <li>• R.R. Blagoeva, T.J.M. Mom, J.J.P. Jansen &amp; G. George (2020). Problem-solving or Self-Enhancement? A Power Perspective on how CEOs affect R&amp;D search in the face of inconsistent feedback. <i>Academy of Management Journal</i>, 63(2): 332-355. doi.org/10.5465/amj.2017.0999.</li> <li>• S.P.L. Fourne, N. Rosenbusch, M.L.M. Heyden &amp; J.J.P. Jansen (2019). Structural and Contextual Approaches to Ambidexterity: A Meta-Analysis of Organizational and Environmental Contingencies. <i>European Management Journal</i>, 37(5): 564-576. doi.org/10.1016/j.emj.2019.04.002.</li> <li>• T.J.M. Mom, Y.Y. Chang, M.N. Cholakova &amp; J.J.P. Jansen (2019). A Multilevel Integrated Framework of Firm HR Practices, Individual Ambidexterity and Organizational Ambidexterity. <i>Journal of Management</i>, 45(7): 3009-3034. doi.org/10.1177/0149206318776775.</li> <li>• H. Fasaei, M.P. Tempelaar &amp; J.J.P. Jansen (2018). Firm Reputation and investment decisions: The contingency role of securities analysts' recommendations. <i>Long Range Planning</i>, 51(5): 680-692. doi: 10.1016/j.lrp.2017.07.010.</li> <li>• Garcia-Granero, A. Fernandez-Mesa &amp; J.J.P. Jansen (2018). Top Management Team Diversity and Ambidexterity: The Contingent Role of Shared Responsibility and CEO Cognitive Trust. <i>Long Range Planning</i>, 51(6): 881-893. doi.org/10.1016/j.lrp.2017.11.001.</li> <li>• P. Wang, V.J.A. van de Vrande &amp; J.J.P. Jansen (2017). Balancing Exploration and Exploitation in Inventions: Quality of Inventions and Team Composition. <i>Research Policy</i>, 46(10): 1836-1850. doi: 10.1016/j.respol.2017.09.002.</li> <li>• S. Ahmadi, S. Khanagha, L. Berchicci &amp; J.J.P. Jansen (2017). Are Managers Motivated to Explore in the Face of a New Technological Change? The Role of Regulatory Focus, Fit, and Complexity of Decision-Making. <i>Journal of Management Studies</i>, 54(2): 209-237. doi: 10.1111/joms.12257.</li> <li>• J.J.P. Jansen, K. Kostopoulos, O. Mihalache &amp; A. Papalexandris (2016). A Socio-Psychological Perspective on Team Ambidexterity. <i>Journal of Management Studies</i>, 53(6): 939-965. doi: 10.1111/joms.12183.</li> </ul>
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	<p>Co-Promoter: Dr. Mirko Benischke          Email address: <a href="mailto:benischke@rsm.nl">benischke@rsm.nl</a>          Personal website: <a href="https://www.rsm.nl/people/mirko-benischke/">https://www.rsm.nl/people/mirko-benischke/</a>          Recent publication list, preferably last 3-5 years (1-2 pages):</p> <ul style="list-style-type: none"> <li>• M.H. Benischke, O. Guldiken, J.P. Doh, G.P. Martin &amp; Y. Zhang (2021). Political Risk, Uncertainty, And Behavioral Agency in Multinational Establishment Mode: The Role of CEO Equity Wealth at Risk. <i>Journal of World Business</i>, accepted.</li> <li>• M. Mallon, O. Guldiken, M.H. Benischke, D. Feng &amp; T. Nguyen (2021). Is there an Advantage of Emergingness? A Politico-Regulatory Perspective. <i>International Business Review</i>, accepted.</li> <li>• G. Ljubownikow, M.H. Benischke &amp; A. Nadolska (2021). Multimarket Contact and Target Size: The Moderating Effect of Market Concentration and Location. <i>Strategic Organization</i>, in press. doi: <a href="https://doi.org/10.1177/14761270211009745">https://doi.org/10.1177/14761270211009745</a>.</li> <li>• M.H. Benischke, G.P. Martin, L.R. Gomez-Mejia &amp; G. Ljubownikow (2020). The Effect of CEO Incentives on Deviations from Institutional Norms in Foreign Market Expansion Decisions: Behavioral Agency and Cross-Border Acquisitions. <i>Human Resource Management</i>, 59(5): 463-482. doi.org/10.1002/hrm.22006.</li> <li>• J.P. Doh, P. Tashman &amp; M.H. Benischke (2019). Adapting to Grand Environmental Challenges through Collective Entrepreneurship. <i>Academy of Management Perspectives</i>, 33(4): 450–468. doi: 10.5465/amp.2017.0056.</li> <li>• M.H. Benischke, G.P. Martin &amp; L. Glaser (2019). CEO Equity Risk Bearing and Strategic Risk Taking: The Moderating Effect of CEO Personality. <i>Strategic Management Journal</i>, 40(1): 153-177. doi: 10.1002/smj.2974.</li> <li>• C. Tupper, O. Guldiken &amp; M.H. Benischke (2018). Capital Market Liability of Foreignness of IPO Firms. <i>Journal of World Business</i>, 53(4): 555-567. doi: 10.1016/j.jwb.2018.03.001.</li> <li>• S.H. Ang, M.H. Benischke &amp; A.W.L. Hooi (2018). Frequency of International Expansion through High Control Expansion Modes and Interlocked Directorships. <i>Journal of World Business</i>, 53(4): 493-503. doi: 10.1016/j.jwb.2018.02.003.</li> <li>• P.J. Buckley, J.P. Doh &amp; M.H. Benischke (2017). Towards a Renaissance in International Business Research? Big Questions, Grand Challenges, and the Future of IB Scholarship. <i>Journal of International Business Studies</i>, 48(9): 1045-1064. doi: 10.1057/s41267-017-0102-z.</li> <li>• S.H. Ang, M.H. Benischke &amp; J.P. Doh (2015). The Interactions of Institutions on Foreign Market Entry Mode. <i>Strategic Management Journal</i>, 36(10): 1536-1553. doi:</li> </ul>
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	<p>10.1002/smj.2295.</p> <p>Co-Promoter: Dr. Ajay Bhaskarabhatla (Erasmus School of Economics, Department of Applied Economics)          Email address: <a href="mailto:bhaskarabhatla@ese.eur.nl">bhaskarabhatla@ese.eur.nl</a>          Personal website: <a href="https://www.erim.eur.nl/people/ajay-bhaskarabhatla/">https://www.erim.eur.nl/people/ajay-bhaskarabhatla/</a>          Recent publication list, preferably last 3-5 years (1-2 pages):</p> <ul style="list-style-type: none"> <li>• Bhaskarabhatla, A., Anurag, P., Chatterjee, C., &amp; Pennings, E. (2021). How Does Regulation Impact Strategic Repositioning by Firms Across Submarkets? Evidence from the Indian Pharmaceutical Industry. <i>Strategy Science</i>, in press.</li> <li>• Bhaskarabhatla, A., Cabral, L., Hegde, D., &amp; Peeters, T. (2021). Are Inventors or Firms the Engines of Innovation?. <i>Management Science</i>, 67(6), 3899-3920.</li> <li>• Adbi, A., Bhaskarabhatla, A., &amp; Chatterjee, C. (2020). Stakeholder orientation and market impact: Evidence from India. <i>Journal of Business Ethics</i>, 161(2), 479-496.</li> <li>• Bhaskarabhatla, A. (2020). Maximum Resale Price Maintenance and Retailer Cartel Profits: Evidence from the Indian Pharmaceutical Industry. <i>Antitrust Law Journal</i>, 83(1), 41-73.</li> <li>• Bhaskarabhatla, A. (2018). <i>Regulating Pharmaceutical Prices in India</i>. Springer.</li> <li>• Bhaskarabhatla, A., Chatterjee, C., Anurag, P., &amp; Pennings, E. (2017). Mitigating regulatory impact: the case of partial price controls on metformin in India. <i>Health Policy and Planning</i>, 32(2), 194-204.</li> <li>• Bhaskarabhatla, A. (2016). The moderating role of submarket dynamics on the product customization–firm survival relationship. <i>Organization Science</i>, 27(4), 1049-1064.</li> </ul>
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**English requirements:** Please refer to Erasmus University China Center official website for your information [www.eur.nl/eucc](http://www.eur.nl/eucc)

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