BA-Seminar (BA-WW-BS, Volks- oder Betriebswirtschaft)

Aspekte des Wissens- und Technologietransfers (Economics of Knowledge- and Technology-Transfer)

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Wintersemester 2016/17

Zeit und Ort

Freitags, 14-tägig, 2. & 3. DS

Raum: wird noch bekannt gegeben; Max. Teilnehmerzahl: 20 Personen

Anmeldung: Bitte melden Sie sich über den OPAL-Kurs Bachelorseminar „Aspekte des Wissens- und Technologietransfers“ an. Die verbindliche Themenvergabe findet am 14.10. in der Einführungsveranstaltung statt. Beachten Sie auch den Abschnitt „Leistungsnachweis“. Hinsichtlich der Teilnehmerzahl gilt das Prinzip „first come, first serve“.

Überblick

Seit Mitte der 90er Jahre des vergangenen Jahrhunderts rücken Universitäten (und öffentlich finanzierte Forschungseinrichtungen) als „Produzenten“ von Wissen und wichtige Pfeiler einer „Wissensgesellschaft“ zunehmend in den Fokus des öffentlichen Interesses. Zusammengefasst im Konzept der „Triple Helix“ (Etzkowitz, 1993; Etzkowitz & Leydesdorff, 1995) ist die erfolgreiche Wirtschafts- und Gesellschaftsordnung der Moderne geprägt durch eine starke Verzahnung von Wirtschaft, Regierungsinstitutionen, Universitäten und der Gesellschaft im weitesten Sinne. Ein wesentliches Kriterium für das Zusammenspiel dieser teils sehr unterschiedlichen Elemente, ist das Gelingen von Wissens- und Technologietransfer an den Schnittstellen. Dieses Seminar beleuchtet Erkenntnisse und Aspekte des Transfers von Hochschulen in die Wirtschaft und die Gesellschaft. Dabei sollen volkswirtschaftliche Relevanz des Themas und betriebswirtschaftliche Erfolgsfaktoren gleichermaßen beleuchtet werden.

Leistungsnachweis

Für die erfolgreiche Teilnahme werden 5 ECTS-Punkte vergeben. Anforderungen: schriftliche Ausarbeitung (ca. 12-15 Seiten; Abgabe der Endfassung bis 31.03.2017) inkl. Darlegung der Ergebnisse. Aktive Diskussionsteilnahme wird erwartet. Anmeldung und Themenvergabe über die Nachwuchsgruppe Wissens- und Technologietransfer (siehe oben). Themen werden maximal doppelt vergeben, wobei individuelle Schwerpunktsetzungen möglich und erwünscht sind. Die schriftliche Ausarbeitung ist als Individualleistung zu erbringen.

Einstiegsliteratur:

- Etzkowitz, Henry, and Loet Leydesdorff. "The Dynamics of Innovation: From National Systems and 'Mode 2' to a Triple Helix of University–industry–government Relations." Research Policy 29, no. 2 (February 2000): 109–23. doi:10.1016/S0048-7333(99)00055-4.
- Teece, D. J. 1986. "Profiting from technological innovation: Implications for integration, collaboration, licensing and public policy." Research Policy, 15: 285-305.

Themenübersicht

1. Hochschulen als Wissensproduzenten und Innovatoren

- Bush, V. (1945) Science the Endless Frontier, A Report to the President, Washington: US Government Printing Office.
- Arrow, K. (1962) 'Economic Welfare and the Allocation of Resources for Invention', in R. Nelson (ed.) The Rate and Direction of Inventive Activity, Princeton: Princeton University Press.
- Murray, F. and S. Stern. 2007. "Do formal intellectual property rights hinder the free flow of scientific knowledge? An empirical test of the anti-commons hypothesis." *Journal of Economic Behavior and Organization*, 63: 648-687.
- Henderson, Rebecca, Adam B. Jaffe, and Manuel Trajtenberg. "Universities as a Source of Commercial Technology: A Detailed Analysis of University Patenting, 1965–1988." *Review of Economics and Statistics* 80, no. 1 (February 1, 1998): 119–27. doi:10.1162/003465398557221.
- Shane, Scott. "Encouraging University Entrepreneurship? The Effect of the Bayh-Dole Act on University Patenting in the United States." Journal of Business Venturing, Technoentrepreneurship, 19, no. 1 (January 2004): 127–51. doi:10.1016/S0883-9026(02)00114-3.

2. Triple-Helix, Quadruple-Helix und die „dritte Mission" von Universitäten

- Etzkowitz, Henry. "Research Groups as 'quasi-Firms': The Invention of the Entrepreneurial University." Research Policy 32, no. 1 (January 2003): 109–21. doi:10.1016/S0048-7333(02)00009-4.
- Bercovitz, J., & Feldman, M. (2006). Entprepreneriial universities and technology transfer: A conceptual framework for understanding knowledge-based economic development. The Journal of Technology Transfer, 31(1), 175-188.
- Leydesdorff, Loet. "The Triple Helix, Quadruple Helix, …, and an N-Tuple of Helices: Explanatory Models for Analyzing the Knowledge-Based Economy?" Journal of the Knowledge Economy 3, no. 1 (June 18, 2011): 25–35. doi:10.1007/s13132-011-0049-4.
- Trencher, Gregory, Masaru Yarime, Kes B. McCormick, Christopher N. H. Doll, and Steven B. Kraines. "Beyond the Third Mission: Exploring the Emerging University Function of Co-Creation for Sustainability." Science and Public Policy 41, no. 2 (April 1, 2014): 151–79. doi:10.1093/scipol/sct044.

3. Universitäten und regionale Entwicklung

- Feldman, M., & Desrochers, P. (2003). Research universities and local economic development: Lessons from the history of the Johns Hopkins University. Industry and Innovation, 10(1), 5-24.
- Graf, H., und T. Henning (2009). Public research in regional networks of innovators: a comparative study of four East German regions, Regional Studies, 43(10): 1349-1368.
- Golob, E. (2006). Capturing the Regional Economic Benefits of University Technology Transfer: A Case Study. Journal of Technology Transfer, 31(6), 685–695.

4. Transferkanäle 1: Absolventen- und Job-Migration

- Faggian, A. und P. McCann (2009): Human capital, graduate migration and innovation in British regions, Cambridge Journal of Economics, 33(2): 317-333.
- Bünstorf, G.; M. Geissler und S. Krabel (2016): Locations of labor market entry by German university graduates: is (regional) beauty in the eye of the beholder?. Review of Regional Research, 36(1), 29-49.
- Agrawal, A., Cockburn, I., & McHale, J. (2006). Gone but Not Forgotten: Knowledge Flows, Labor Mobility, and Enduring Social Relationships. Journal of Economic Geography, 6(5), 571–591.
- Zellner, C. 2003. "The Economic Effects of Basic Research: Evidence for Embodied Knowledge Transfer via Scientists' Migration." *Research Policy*, 32: 1881-1895.
- Qin, F. (2015). Global Talent, Local Careers: Circular Migration of Top Indian Engineers and Professionals. Research Policy, 44(2), 405–420.
- Li, F., Miao, Y., & Yang, C. (2015). How Do Alumni Faculty Behave in Research Collaboration? An Analysis of Chang Jiang Scholars in China. Research Policy, 44(2), 438–450.

5. Transferkanäle 2: F&E Kooperationen

- Becker, W., & Dietz, J. (2004). R&D cooperation and innovation activities of firms—evidence for the German manufacturing industry. Research policy, 33(2), 209-223.
- Mora-Valentin, E. M., A. Montoro-Sanchez and L. Guerras-Martin. 2004. "Determining factors in the success of R&D cooperative agreements between firms and research organizations." *Research Policy*, 33: 17-40.
- Beers, C., & Zand, F. (2014). R&D cooperation, partner diversity, and innovation performance: an empirical analysis. Journal of Product Innovation Management, 31(2), 292-312.
- Li, D., Eden, L., Hitt, M. A., & Ireland, R. D. (2008). Friends, acquaintances, or strangers? Partner selection in R&D alliances. Academy of Management Journal, 51(2), 315-334.
- Rappert, B., Webster, A. & Charles D. (1999). Making sense of diversity and reluctance: academic-industrial relations and intellectual property. Research Policy, 28, 873-890

6. Transferkanäle 3: Lizenzierungen

- Lowe, R. A. 2006. "Who Develops a University Invention? The Impact of Tacit Knowledge and Licensing Policies." *Journal of Technology Transfer*, 31: 415-429. Agrawal, A. (2006). Engaging the inventor. Exploring licensing strategies for university inventions and the role of latent knowledge. Strategic Management Journal, 27, 63-79.
- Jensen, R., & Thursby, M. (2001). Proofs and Prototypes for Sale: The Licensing of University Inventions. The American Economic Review, 91(1), 240–259.

- Buenstorf, Guido, and Matthias Geissler. "Not Invented Here: Technology Licensing, Knowledge Transfer and Innovation Based on Public Research." *Journal of Evolutionary Economics* 22, no. 3 (July 1, 2012): 481–511. doi:10.1007/s00191-011-0261-1.

7. Transferkanäle 4: Spin-Offs

- Shane, S. and T. Stuart. 2002. "Organizational Endowments and the Performance of University Start-Ups." *Management Science*, 48: 154-170.
- Phan, P. H. and D. S. Siegel. 2006. "The Effectiveness of University Technology Transfer." *Foundations and Trends in Entrepreneurship*, 2: 77-144.
- Shane, S. (2004). Academic Entrepreneurship: University Spinoffs and Wealth Creation. Prometheus, 22(4), 471–474.
- Zucker, L. G., Darby, M. R., & Armstrong, J. S. (2002). Commercializing Knowledge: University Science, Knowledge Capture, and Firm Performance in Biotechnology. *Management Science*, *48*(1), 138–153.

8. Transferstrukturen: Technology Transfer Offices, Inkubatoren, Maker Spaces, etc.

- Bozeman, Barry. "Technology Transfer and Public Policy: A Review of Research and Theory." Research Policy 29, no. 4–5 (April 2000): 627–55. doi:10.1016/S0048-7333(99)00093-1.
- Guston, David H. "Stabilizing the Boundary between US Politics and Science: The Rôle of the Office of Technology Transfer as a Boundary Organization." Social Studies of Science 29, no. 1 (February 1, 1999): 87–111. doi:10.1177/030631299029001004.
- Macho-Stadler, Inés, David Pérez-Castrillo, and Reinhilde Veugelers. "Licensing of University Inventions: The Role of a Technology Transfer Office." International Journal of Industrial Organization 25, no. 3 (June 2007): 483–510. doi:10.1016/j.ijindorg.2006.06.001.
- Phillips, Rhonda G. "Technology Business Incubators: How Effective as Technology Transfer Mechanisms?" Technology in Society 24, no. 3 (August 2002): 299–316. doi:10.1016/S0160-791X(02)00010-6.

9. Unternehmenssicht 1: Patente und Unternehmensperformanz

- McGahan, A. M., & Silverman, B. S. (2006). Profiting from technological innovation by others: The effect of competitor patenting on firm value. Research Policy, 35(8), 1222-1242.
- Andries, P., & Faems, D. (2013). Patenting activities and firm performance: Does firm size matter?. Journal of Product Innovation Management, 30(6), 1089-1098.
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- Cohen, W. M., R. R. Nelson and J. P. Walsh. 2002. "Links and Impacts: The Influence of Public Research on Industrial R&D." *Management Science*, 48: 1-23.

10. Unternehmenssicht 2: Interne Strukturen und Absorptionsfähigkeit

- Foss, N. J., Lyngsie, J., & Zahra, S. A. (2013). The role of external knowledge sources and organizational design in the process of opportunity exploitation. Strategic Management Journal, 34(12), 1453–1471.
- Foss, N. J., Lyngsie, J., & Zahra, S. A. (2014). Organizational design correlates of entrepreneurship: The roles of decentralization and formalization for opportunity discovery and realization. Strategic Organization, 1476127014561944.

- Laursen, K., & Foss, N. J. (2003). New human resource management practices, complementarities and the impact on innovation performance. Cambridge Journal of economics, 27(2), 243–263.
- Bierly, P. E., Damanpour, F., & Santoro, M. D. (2009). The Application of External Knowledge: Organizational Conditions for Exploration and Exploitation. Journal of Management Studies, 46(3), 481–509.
- Laursen, K., Moreira, S., & Markus, A. (2015). Knowledge Diversity, Transfer and effective Coordination: the Effect of intrafirm inventor networks on the speed of external knowledge recombination. DRUID 15, Rome, Working Paper Version