



seit 1558

Seminar in Economics of Innovation
Winter term 2011/12

- **Deadline for enrolment:** 7th July 2011.
- **Requirements:** for Diplom students only, at least one of the following course: Vertiefungsmodul Innovationsökonomik, Einführung in Innovationsökonomik, Innovationsökonomik II, P&E Analyse, Forschungs- und Technologiepolitik.
- **Number of participants:** 16
- **Term paper submission:** 21th October 2011.
- **Paper presentation:** January 2012.
- **Grade:** paper (40 %), presentation (30 %), paper discussion (20%), open discussion (10 %).
- **Credits:** 6 ECTS Credits.
- **Language:** English for master students. English or German for Diplom students.
- **Enrolment in the course:** per email by olga.gaessner@uni-jena.de before 7th July 2011. Please specify name, student number, 5 favorite topics, the mark(s) of the required course(s), your course of studies, and for which purpose you want this seminar to be credited (e.g. Master, AWVL, Wirtschaftstheorie, Schwerpunkt Innovationsökonomik)

Topics and literature

1. Absorptive Fähigkeiten und Grundlagenforschung
Absorptive capabilities and basic research
 - a. Cohen, Wesley, M. & Levinthal, Daniel A. *Absorptive Capacity: A New Perspective on Learning and Innovation*, *ASQ*, 35 (1990), 128-152.
 - b. Arrow, Kenneth J. 1962, *Economic welfare and the allocation of resources for invention*. In R. R. Nelson (ed.), *The Rate and Direction of Inventive Activity*: 609-625. Princeton, NJ: Princeton University Press.
2. Innovationsanreize bei unvollständigen Aneignungsbedingungen
Innovative incentives and appropriability
 - a. Nelson, Richard R. 1959, *The simple economics of basic research*, *Journal of Political Economy*, 67: 297-306.
 - b. Anthony Arundel, 2001, *The relative effectiveness of patents and secrecy for appropriation*, *Research Policy*, 30, 4:611-624,

3. Wissensspillover und der Anreiz zur Kooperation
 Knowledge spillovers and the incentives for cooperation
 - a. Bruno Cassiman and Reinhilde Veugelers, (2002) *R&D Cooperation and Spillovers: Some Empirical Evidence from Belgium*, *The American Economic Review*, Vol. 92 (4): 1169-1184
 - b. Nicholas S. Vonortas (1994), *Inter-firm cooperation with imperfectly appropriable research*, *International Journal of Industrial Organization*, Volume 12 (3): 413-435.

4. Intra- vs. Interindustrielle Wissensspillover
 Intra- vs. Interindustries knowledge spillover
 - a. Bernstein J.I., *Costs of Production, Intra- and Interindustry R&D Spillovers: Canadian Evidence*, *Canadian Journal of Economics* 21, 1988, 424-47
 - b. Bernstein J.I., M.I. Nadiri, *Research and Development and Intra-industry Spillovers: An Empirical Application of Dynamic Duality*, *Review of Economic Studies* 56, 1989, 249-69

5. Internationale Wissensspillover und Technologiediffusion
 International knowledge spillover and diffusion of technology
 - a. Fagerberg, J. (2004) *Innovation: a guide to the literature*, in: J. Fagerberg, D. Mowery, R. R. Nelson (eds.), *Oxford Handbook of Innovation*, Oxford: Oxford University Press.
 - b. Narula, R., A. Zanfei (2004) *Globalisation of innovation: the role of multinational enterprises*, in: J. Fagerberg, D. Mowery, R. R. Nelson (eds.), *Oxford Handbook of Innovation*, Oxford: Oxford University Press.

6. Nähe und Innovation
 Proximity and Innovation
 - a. Aharonson, B. S., Baum, J. A. C. & Feldman, M. P. (2007) *Desperately seeking spillovers? Increasing returns, industrial organization and the location of new entrants in geographic and technological space*, *Industrial and Corporate Change*, 16 (1), 89-130.
 - b. Cantwell, J. A. & Santangelo, G. D. (1999) *The frontier of international technology networks: Sourcing abroad the most highly tacit capabilities*, *Information Economics and Policy*, 11 (1), 101-123.
 - c. Le Bas, C. & Sierra, C. (2002) *'Location versus home country advantages' in R&D activities: Some further results on multinationals' locational strategies*, *Research Policy*, 31 (4), 589-609.

7. Spezialisierung, Diversifizierung und Wettbewerb - Wachstumswirkungen auf regionaler Ebene
 Specialization, diversification and competition: the effects on growth at the regional level
 - a. Glaeser, E.L., Kallal, H.D. Scheinkman, J.A., Shleifer, A. (1992), *Growth in Cities*, *Journal of Political Economy*, vol. 100(6), pp. 1126-1152.
 - b. Porter, Michael E. (1990), *The Competitive Advantages of Nations*, Macmillan, London.
 - c. Quigley, J.M. (1998), *Urban diversity and economic growth*, *Journal of Economic Perspectives*, vol. 12(2), pp. 127-138.

8. Externe Beziehungen und regionaler technologischer lock-in
External relations and technological lock-in at the regional level
 - a. Bathelt, H., A. Malmberg, P. Maskell (2004), *Clusters and knowledge: Local buzz, global pipelines and the process of knowledge creation*, *Progress in Human Geography*, vol. 28 (1), pp. 31-56.
 - b. Grabher, G. (1993), *The weakness of strong ties: the lock-in of regional developments in the Ruhr area*, in: Gernot Grabher (eds.): *The embedded firm – On the socioeconomics of industrial networks*, Routledge, London. Pp. 255-277.

9. Die Rolle multinationaler Unternehmen in regionalen Innovationssystemen
The role of multinational firms in the regional innovation system
 - a. Fagerberg, J. (2004) *Innovation: a guide to the literature*, in: J. Fagerberg, D. Mowery, R. R. Nelson (eds.), *Oxford Handbook of Innovation*, Oxford: Oxford University Press.
 - b. Narula, R., A. Zanfei (2004) *Globalisation of innovation: the role of multinational enterprises*, in: J. Fagerberg, D. Mowery, R. R. Nelson (eds.), *Oxford Handbook of Innovation*, Oxford: Oxford University Press.

10. Die Rolle der Universität in regionalen Innovationssystemen
The role of University in the regional innovation system
 - a. Anselin, L., A. Varga, Z. Acs (2000), *Geographical spillovers and university research: A spatial econometric perspective*, *Growth and Change*, vol. 31 (4), pp. 501-515.
 - b. Huffman, D., J. M. Quigley (2002), *The role of the university in attracting high tech entrepreneurship: A Silicon Valley tale*, *Annals of Regional Science*, vol. 36 (3), pp. 403-419.
 - c. Mowery, D. C., B. N. Sampat (2004) *Universities in national innovation systems*, in: J. Fagerberg, D. Mowery, R. R. Nelson (eds.), *Oxford Handbook of Innovation*, Oxford: Oxford University Press.
 - d. Salter, A.J., Martin, B.R. (2001), *The Economic Benefits of Publicly Funded Basic Research: A Critical Review*, *Research Policy*, vol 30, pp. 509-532.

11. Unternehmensgründungen im regionalen Kontext
Establishment of new firms in a regional context
 - a. Cantwell, J. A., S. Iammarino (2000), *Multinational corporations and the location of technological innovation in the UK regions*, *Regional Studies*, vol. 34 (4), pp. 317-322.
 - b. Cantwell, J. A., S. Iammarino (2001), *EU regions and multinational corporations: Change, stability and strengthening of technological comparative advantages*, *Industrial and Corporate Change*, vol. 10 (4), pp. 1007-1037.
 - c. Cantwell, J. A., S. Iammarino, C. Noonan (2001), *Sticky places in slippery space - the location of innovation by MNCs in the European regions*, in: Pain, N. (eds.), *Inward Investment, Technological Change and Growth*, Basingstoke, Palgrave.
 - d. Narula, R., A. Zanfei (2004) *Globalisation of innovation: the role of multinational enterprises*, in: J. Fagerberg, D. Mowery, R. R. Nelson (eds.), *Oxford Handbook of Innovation*, Oxford: Oxford University Press.

12. Reziprozität und Vertrauen im Wissensaustausch

Reciprocity and Trust in knowledge exchange

- a. Capello, R. (1999), *Spatial Transfer of Knowledge in High Technology Milieux: Learning versus Collective Learning Processes*, *Regional Studies*, 33(4), pp. 353-365
- b. Mora-Valentin, E., 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(1), pp. 17-40.

13. Netzwerkstrukturen und Lernen

Learning and the structure of a network

- a. Cowan, R. and Jonard, N. (2003), *the dynamics of collective invention*, *Journal of Economic Behavior and Organization*, vol. 52 (4), pp. 513-532.
- b. Cowan, R. and Jonard, N. (2004), *Network Structure and the Diffusion of Knowledge*, *Journal of Economic Dynamics and Control*, 28 (8), pp. 1557-1575.
- c. Keeble, D. and F. Wilkinson (1999), *Collective Learning and Knowledge Development in the Evolution of Regional Clusters of High Technology SMEs in Europe*, *Regional Studies*, 33(4), pp. 295-303

14. Innovatorennetzwerke

Networks of innovators

- a. Fagerberg, J. (2004) *Innovation: a guide to the literature*, in: J. Fagerberg, D. Mowery, R. R. Nelson (eds.), *Oxford Handbook of Innovation*, Oxford: Oxford University Press.
- b. Powell, W. W., S. Grodal (2004) *Networks of innovators*, in: J. Fagerberg, D. Mowery, R. R. Nelson (eds.), *Oxford Handbook of Innovation*, Oxford: Oxford University Press.

15. Mobilität von Mitarbeitern und die Diffusion von technologischem Know-how

Workers mobility and the diffusion of technological know how

- a. Almeida, P. and B. Kogut, (1999), *The Localization of Knowledge and the Mobility of Engineers in Regional Networks*, *Management Science*, 45 (7), pp. 905-917.
- b. Zellner, C. (2003), *The economic effects of basic research: Evidence for embodied knowledge transfer via scientists' migration*, *Research Policy*, 32 (10), pp. 1881-1895.
- c. Zucker, L. G., M. R. Darby and J. Armstrong (2002), *Commercializing Knowledge: University Science, Knowledge Capture, and Firm Performance in Biotechnology*, *Management Science*, 48 (1), pp. 138-153.

16. Persistenz von Kooperationsbeziehungen

Persistency of cooperative relations

- a. Gulati, R. (1995), *Does familiarity breed trust? The implications of repeated ties for contractual choice in alliances*, *Academy of Management Journal*, vol. 38 (1), pp. 85-112.
- b. Gulati, R. (1995), *Social structure and alliance formation pattern: A longitudinal analysis*, *Administrative Science Quarterly*, vol. 40 (4), pp. 619-652.