

# Finalists

## TUM-Research Excellence Award 2008

Lee Fleming, Ph.D. (Harvard Business School)

Justin Jansen, Ph.D. (Erasmus University Rotterdam)

Dr. Francesca Mariotti (University of Stirling)

Frank T. Rothaermel, Ph.D. (Georgia Institute of Technology)

Dr. Martin Spann (Universität Passau)

## Finalist for the TUM-Research Excellence Award 2008

**Name:** Prof. Lee Fleming, Ph.D.  
**Faculty:** Technology and Operations Management Unit  
Harvard Business School  
**Title:** Explaining the Source and Tempo of Invention: Recombinant Learning and Exhaustion in Technological Evolution



### Abstract:

My research aims to understand how social networks influence the creativity and emergence of innovative leaders. My co-authors and I have studied leaders and innovation in three contexts: open innovation communities, closed proprietary firms, and hybrid regional networks that span proprietary firms and open universities. At the individual level, I have identified network positions that make individuals more creative and more likely to become leaders. At the network level, I have illustrated the aggregation of regional innovation networks and the subsequent effect of network dynamics on regional success. The analyses have included a combination of field work, archival data, and statistical estimates. One of the most interesting innovation phenomena to emerge recently is the rise of open innovation communities. Such communities typically lack financial or corporate backing, forgo personal ownership rights to their members' work, rely on the collaboration of unpaid volunteers, and eschew formal planning and management structures. Yet despite these apparent handicaps, they now threaten the dominance of industry incumbents in some cases. Leaders are absolutely crucial to such communities, because they keep a purely voluntary open community from "forking" or splitting apart. Consistent with technical networks in firms, our analyses identified the importance of bridging positions to the emergence of leadership ("Brokerage, Boundary Spanning, and Leadership in Open Innovation Communities," *Organization Science*, with David Waguespack).

### Academic Vita:

7/1/08	Professor, Technology and Operations Management Unit, Harvard Business School
7/1/05–6/30/08	Associate Professor, Technology and Operations Management Unit, Harvard Business School
7/1/03–6/30/05	Lumry Family Associate Professor of Business Administration, Technology and Operations Management Unit, Harvard Business School
7/1/98–6/30/03	Assistant Professor, Technology and Operations Management Unit, Harvard Business School

### Recent Publications in the Field / Work in Progress:

"Lone Inventors As Sources of Technological Breakthroughs: Myth or Reality?" invited revision at *Management Science*.

With D. Waguespack, "Startup Strategies for Participating in Open Standards Communities," invited revision at *Management Science*.

With M. Marx and D. Strumsky, "Mobility, Skills, and the Michigan Non-compete Experiment," invited revision at *Management Science*.

With J. Singh and M. Marx, "Noncompetes and Brain Drains." Working paper, Harvard Business School.

With J. Singh and M. Marx, "Regional Disadvantage: Non-competes and Knowledge Dissipation." Working paper, Harvard Business School.

## Finalist for the TUM-Research Excellence Award 2008

**Name:** Justin Jansen, Ph.D.  
**Faculty:** Department of Strategic Management and Business Environment, Erasmus University Rotterdam  
**Title:** Ambidextrous Organizations: A Multiple-level Study on Absorptive Capacity, Exploratory and Exploitative Innovation, and Financial Performance



### Abstract:

Organizations capable of pursuing exploratory and exploitative innovations simultaneously have been suggested to obtain superior performance. Combining both types of innovations resulting in organizational ambidexterity, however, leads to the presence of multiple and often conflicting goals, and poses considerable challenges to senior teams in ambidextrous organizations. The present study explores the role of senior team attributes and leadership behavior in reconciling conflicting interests among senior team members and achieving organizational ambidexterity. Findings indicate that a senior team shared vision and contingency rewards are associated with a firm's ability to combine high levels of exploratory and exploitative innovations. In addition, our study shows that an executive director's transformational leadership increases the effectiveness of senior team attributes in ambidextrous organizations and moderates the effectiveness of senior team social integration and contingency rewards. Hence, our study clarifies how senior executives reconcile conflicting demands and facilitate the balancing of seemingly contradictory forces in ambidextrous organizations. Implications for literatures on senior team attributes, transformational leadership and organizational ambidexterity are discussed.

### Academic Vita:

2001 – 2005 Ph.D. (*Cum Laude*) in Management at the RSM Erasmus University, Erasmus University Rotterdam, The Netherlands  
1995 – 2000 MSc. in Business Administration, Rotterdam School of Management, Erasmus University Rotterdam, Rotterdam, The Netherlands  
Title: Managing the Tacit Part of the Knowledge Cycle

### Recent Publications in the Field / Work in Progress:

Jansen (2007), J.J.P., George, G., Van den Bosch, F.A.J., Volberda, H.W.: Senior Team Attributes and Organizational Ambidexterity: The Role of Transformational Leadership. *Journal of Management Studies*. forthcoming  
Jansen (2006), J.J.P., Van den Bosch, F.A.J., & Volberda, H.W.: Exploratory Innovation, Exploitative Innovation, and Performance: Effects of Organizational Antecedents and Environmental Moderators. *Management Science*, 52: 1661-1674  
Jansen (2005), J.J.P., Van den Bosch, F.A.J., & Volberda, H.W.: Managing Potential and Realized Absorptive Capacity: How do Organizational Antecedents Matter? *Academy of Management Journal*, 48: 999-1015  
Wijk (2008), R.A.J., Jansen, J.J.P., & Lyles, M.A. Organizational Knowledge Transfer: A Meta-analytic Review and Assessment of its Antecedents and Consequences. *Journal of Management Studies*, 45, 4: 815-838  
Jansen (2005), J.J.P., Van den Bosch, F.A.J., & Volberda, H.W.: Exploratory Innovation, Exploitative Innovation, and Ambidexterity: The Impact of Environmental and Organizational Antecedents. *Schmalenbach Business Review*, 57: 351-363

## Finalist for the TUM-Research Excellence Award 2008

**Name:** Dr. Francesca Mariotti

**Faculty:** Department of Management  
University of Stirling

**Title:** Creating Knowledge and Overcoming Redundancy in Inter-Organizational Networks: The Roles of Potential and Latent Ties



### **Abstract:**

This paper builds on Granovetter's distinction between strong and weak ties in order to respond to recent calls for a more dynamic, processual and thus comprehensive understanding of knowledge transfer in networks with regard to both the nature of the ties that link firms to novel sources of knowledge and the ability to mobilize around these new ideas. The concepts of potential and latent tie are deductively identified and their implications for understanding processes of knowledge creation and transfer are explored. An empirical study conducted with companies operating in the British and Italian motor sport industries reveals that firms search for potential ties and reactivate latent ties in order to solve problems, address perceived knowledge deficiencies and create new knowledge. Examples are given and their characteristics are examined in order to provide theoretical elaboration of the relationship between types of tie and knowledge flows. These conceptual and empirical insights move understanding of the managerial challenge of building effective networks beyond static structural contingency models of optimal network forms to highlight the processes and capabilities of dynamic relationship building and network development.

### **Academic Vita:**

2005 – present                      AIM Associate, Advanced Institute of Management Research, London  
2004 – present                      Lecturer in Business and Management, Faculty of Management, University of Stirling.  
2003 – 2004                         Research Fellow, Cardiff Business School, Cardiff University.

### **Recent Publications in the Field / Work in Progress:**

Haider, S. and Mariotti, F. (2008): Filling Knowledge Gaps: Knowledge Sharing across Inter-Firm Boundaries and Occupational Communities. *International Journal of Knowledge Management Studies*. (Forthcoming).

Mariotti, F. (2007): Learning to Share Knowledge in the Italian Motorsport Industry. *Knowledge and Process Management*, 14 (2): 81-94.

Mariotti, F. (2007): Exploring interorganizational learning: A review of the literature and future directions. Submitted for possible publication to the *International Journal of Management Reviews*.

Mariotti, F. and Delbridge, R. (2008): Creating knowledge and overcoming redundancy in inter-organizational networks: The roles of potential and latent ties. To be submitted to *Organization Studies*.

Delbridge, R. and Mariotti, F.: Types of tie, Interorganizational Tie Dynamics and Innovation Networks. To be submitted to the *Academy of Management Review*.

## Finalist for the TUM-Research Excellence Award 2008

**Name:** Frank T. Rothaermel, Ph.D.  
Sloan Industry Studies Fellow, Associate Professor of Strategy

**Faculty:** College of Management  
Georgia Institute of Technology, Atlanta

**Title:** Building Dynamic Capabilities: Innovation Driven by  
Individual-, Firm-, and Network-Level Effects



### Abstract:

Following the dynamic capabilities perspective, we suggest that antecedents to innovation can be found at the individual, firm, and network levels. Thus, we challenge two assumptions common in prior research: (1) that significant variance exists at the focal level of analysis, whereas other levels of analysis are assumed to be homogeneous, and (2) that the focal level of analysis is independent from other levels of analysis. Accordingly, we advance a set of hypotheses to simultaneously assess the direct effects of antecedents at the individual, firm, and network levels on innovation output. We then investigate whether a firm's antecedents to innovation lie across different levels. To accomplish this, we propose two competing interaction hypotheses. We juxtapose the hypothesis that the individual-, firm-, and network-level antecedents to innovation are substitutes versus the proposition that these innovation mechanisms are complements. We test our multilevel theoretical model using an unusually comprehensive and detailed panel data set that documents the innovation attempts of global pharmaceutical companies within biotechnology over a 22-year time period (1980–2001). We find evidence that the antecedents to innovation lie across different levels of analysis and can have compensating or reinforcing effects on firm-level innovative output.

### Academic Vita:

2006-present	Georgia Institute of Technology, College of Management Associate Professor
Ph.D.	University of Washington
MBA	Brigham Young University
Diplom-Volkswirt	Universität Duisburg, Germany

### Recent Publications in the Field:

- Rothaermel, F.T., Boeker, W. 2008. Old technology meets new technology: Complementarities, similarities, and alliance formation. *Strategic Management Journal*, 29 (1): 47-77.
- Rothaermel, F.T., Ku, D. 2008. Intercluster innovation differentials: The role of research universities. *IEEE Transactions on Engineering Management*, 55 (1): *in press*.
- Rothaermel, F.T., Hess, A.M. 2007. Building dynamic capabilities: Innovation driven by individual-, firm-, and network-level effects. *Organization Science*, 18 (6): 898-921.  
*Sloan Industry Studies Best Paper Award, 2008.*
- Rothaermel, F.T., Agung, S., Jiang, L. 2007. University entrepreneurship: A taxonomy of the literature. *Industrial and Corporate Change*, 16 (4): 691-791. *National Press Release by Kauffman Foundation: "Academic Research into University Entrepreneurship Picks Up Steam"*
- Rothaermel, F.T., Deeds, D.L. 2004. Exploration and exploitation alliances in biotechnology: A system of new product development. *Strategic Management Journal*, 25 (3): 201-221. *Highly cited paper in ISI Web of Science and Scopus. Most cited paper published in SMJ since 2004.*

## Finalist for the TUM-Research Excellence Award 2008

**Name:** Prof. Dr. Martin Spann  
**Faculty:** Department of Business Administration and Economics  
University of Passau  
**Title:** Creating and Evaluating New Product Ideas with  
Ideas Markets



### Abstract:

The creation and evaluation of new product ideas are crucial initial tasks in the new product development process. Three factors influence the quality of the output of these two tasks positively: (1) a large number of ideas and idea creators involved, (2) group decisions instead of individual decisions, and (3) methods that combine these three factors. They use virtual stocks to represent new product ideas, let participants trade those stocks in a virtual marketplace, and use the efficiency of market-based aggregation and the resulting stock prices as indicators for the likely success of various new product ideas. Therefore, we propose the concept of idea markets as a new method to create and evaluate new product ideas. We describe the methodology of idea markets and discuss their scope for designs. We present the results of a real-world intranet-based idea market in a large, high-tech B2B company. We empirically assess the feasibility of idea markets for creating and evaluating new product ideas, compare the evaluations of an idea market with those of experts, and outline the participant's as well as the top-management's evaluations of the overall performance of the idea market. Our results indicate that idea markets are a promising new method to support the new product development process.

### Academic Vita:

04/2005 – Present Associate Professor of Marketing and Innovation  
School of Business and Economics, University of Passau  
07/2002 – 03/2005 Assistant Professor of Marketing and Electronic Commerce  
School of Business and Economics, Johann Wolfgang University Frankfurt/M  
04/1999 – 06/2002 Research Associate for Marketing and Electronic Commerce  
School of Business and Economics, Johann Wolfgang University Frankfurt/M

### Recent Publications in the Field / Work in Progress:

Hinz, O., Spann, M. (2008): "Impact of Information Diffusion on Bidding Behavior in Secret Reserve Price Auctions", *Information Systems Research*, forthcoming.  
Spann, M., Ernst, H., Skiera, B., Soll, J.H. (2007): "Identification of Lead Users for Consumer Products via Virtual Stock Markets", *Journal of Product Innovation Management*, forthcoming.  
Dahan, E., Soukhoroukova, A., Spann, M. (2007): "Preference Markets: Organizing Securities Markets for Opinion Surveys with Infinite Scalability", Proceedings of the 2007 Product Development and Management Association (PDMA) Conference, Orlando, FL.  
*Winner of Outstanding Paper Award.*  
Spann, M., Tellis, G.J. (2006): "Does the Internet Promote Better Consumer Decisions? The Case of Name-Your-Own-Price Auctions", *Journal of Marketing*, 70(1), 65-78.  
Spann, M., Skiera, B. (2003): "Internet-Based Virtual Stock Markets for Business Forecasting", *Management Science*, 49(10), 1310-1326.