**Chair for Technology and Innovation Management** 



# Activity Report 2011/2012



WHU – Otto Beisheim School of Management Chair for Technology and Innovation Management



# **Welcome Greetings**



Professor Dr. Holger Ernst

#### Dear Reader,

The WHU – Otto Beisheim School of Management has become a very international institution over the years. The WHU has a global network of 185 partner schools worldwide. In each semester, we have approximately 150 exchange students from 65 countries on our campus. Multiple of the WHU's programs have a significant number of fully enrolled international students. As part of this internationalization process, English has become the dominant language on our campus. The Chair for Technology and Innovation Management (TIM-Chair) has always pro-actively supported the international orientation of the WHU, for example, by offering all of its courses across multiple WHU programs in English since many years. Since the WHU and its audience have become more international, we decided to publish our annual activity report from now on in English.

The TIM-Chair offers courses in all WHU programs, from the Bachelor of Science to the Executive Master of Business Administration and various Customized Executive Education offerings. A core element of all our courses is to highlight the role of innovation and change for achieving sustainable competitive advantage. We take a long-term view and emphasize what leadership traits a manager needs to have in order to identify and to implement new business opportunities even under conditions that do not favor innovation and change.

We could significantly strengthen our academic team for the future. We are very proud that it was possible to establish the position of an Assistant Professor at the TIM-Chair. Dr. Anna Dubiel, who completed her dissertation at the WHU – Otto Beisheim School of Management last year, was appointed Röchling Junior-Professor for International Innovation Management. Junior-Professor Dr. Dubiel's research area is in the field of international new product development with a special focus on emerging markets. We are very grateful to the Röchling Foundation for their generous support.

Junior-Professor Dr. Dubiel, Professor Mohan Subramaniam (Boston College) and I are co-editors of a special issue in the Journal of Product Innovation Management on "Innovation for and from Emerging Markets". The special issue sheds theoretical and empirical light on how established firms innovate for emerging markets. It also looks at how firms from emerging markets innovate and enter established markets.

Multiple research papers were accepted in leading international journals. Two papers (jointly written with Dr. Judith Behrens, research fellow at TU Munich and former doctoral student at the TIM-Chair, and Professor Dean Shepherd, Indiana University) examine what impacts the quality of managers' decisions with regard to the optimal configuration of their new product portfolio. Another paper (jointly written with Dr. Siebdradt, Bosch Siemens Hausgeräte, and Professor Dr. Martin Högl, LMU Munich) looks at the management of geographically dispersed new product development teams.

This activity report provides you with more detailed information about these and other research projects and all the other activities at the TIM-Chair during the last year. We are inviting you to contact us, to give us feedback and to engage in joint projects. We are looking forward to collaborating with you. Please find more information about the TIM-Chair on our homepage at http://www.whu.edu/tim.

Yours Sincerely,

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# About the Chair for Technology and Innovation Management

- TIM-Chair at WHU Otto Beisheim School of Management since 2001
- Member of the Innovation and Entrepreneurship Group at WHU Otto Beisheim School of Management
- Research Focus: Strategy, Innovation, R&D Management, New Product Development, Intellectual Property, Technology Marketing
- 15 Team Members (1 Professor, 1 Junior-Professor, 12 Doctoral Students)
- Strong Research Performance in (e.g. Journal of Marketing, Journal of Product Innovation Management, Research Policy)
- Multiple International Research Collaborations, e.g.
  - Boston College, USA
  - Hosei University, Japan
  - Indiana University, USA
  - Northwestern University, USA
  - University of Texas at Austin, USA
- Excellent Teaching Performance in all WHU Programs
- Active Knowledge Transfer (Conferences, Presentations, Case Studies, Publications, Executive Education, etc.)
- Large Industry Network and Ties (e.g. Innovation Success Panel (ISP®) with more than 300 Participants or Patent Asset Index<sup>™</sup> at PatentSight GmbH)
- Multiple Sponsored Research Projects (from Companies and Research Institutions)
- Winner of multiple Teaching and Research Awards
- Interdisciplinary Initiatives (e.g. Prepare! The Entrepreneurs' Academy with the RWTH Aachen)
- Location: WHU Otto Beisheim School of Management's Z-Building, Hellenstraße 9, 56179 Vallendar, Germany





WHU's Z-Building: Location of the TIM-Chair at Vallendar's pedestrian area

# About WHU – Otto Beisheim School of Management

WHU is an internationally oriented and privately financed business school based in Vallendar and Düsseldorf. Founded in 1984, WHU is now one of the most renowned German Business Schools with an exceptional national and international reputation. WHU stands for Excellence in Management Education and pursues this goal in three core areas: Academic Programs, Research, and Executive Education & Business Engagement.

Quality, internationality, and practical relevance are our principal guidelines in all areas. The results are expressed in our excellent national and international rankings. Furthermore, our business school has more than 185 partner schools worldwide and an outstanding corporate network.

WHU offers top-level academic programs in business administration (BSc, MSc), a Full-time, a Part-time and an Executive MBA, the Bucerius/WHU Master of Law and Business - Joachim Herz program, customized company programs and the possibility to pursue a doctoral degree and the German "Habilitation".

Faculty/Staff:		Students/Participants:			
Full Professors:	29	BSc Program:	540	MSc Program:	180
Assistant Professors/Post Docs:	23	Full-Time MBA Program:	64	Part-Time MBA Program:	80
International Visiting Professors:	~ 20	MLB Program:	51	EMBA Program:	107
Honorary Professors:	13	Doctoral Students:	279	Participants Executive Education:	231
External Lecturers: Staff:	~ 70 120	Exchange Students:	146	Participants European Summer Institute and European Programs:	264
Founders and Benefactors of WH	In Praxi e.V. (WHU Alumn	i Associa	tion): ~ 2.500 Members in ~ 65 Count	ries	

#### Milestones

- **1984** WHU is founded in Koblenz, Germany, as a Private Business School at University Level and the first Diploma class is admitted
- 1988 WHU moves to the Marienburg in Vallendar, Germany
- 1993 WHU receives a generous Donation to its endowment by Otto Beisheim
- 1997 WHU and the Kellogg School of Management (Evanston, Illinois, USA) establish a joint EMBA Program
- 1998 WHU is the first German Business School achieving EQUIS Accreditation
- 2001 WHU becomes the only Private School to join the German Research Foundation (Deutsche Forschungsgemeinschaft (DFG))
- 2005 WHU launches the Bachelor and Master of Science Program; Start of the MBA Program
- 2006 WHU and the Bucerius Law School (Hamburg, Germany) initiate the joint Bucerius/WHU Master of Law and Business - Joachim Herz Program
- 2007 The first Assistant Professors are appointed
- 2010 Start of the Part-Time MBA Program in Duesseldorf, Germany WHU is accredited by AACSB International
- 2012 WHU achieves the FIBAA System Accreditation WHU opens its second Campus in Duesseldorf



# **Team Members**



Left to Right: Anke Siedenkamp (Personal Assistant), Junior-Professor Dr. Anna Dubiel (Röchling Professor for International Innovation Management), Carsten Guderian (Research Assistant and Doctoral Student), Professor Dr. Holger Ernst (Professor for Technology and Innovation Management), Sebastian Glöckner (Research Assistant and Doctoral Student), Markus Kremmel (Research Assistant and Doctoral Student), Peter Bican (Research Assistant and Doctoral Student)

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Professor Dr. Holger Ernst

Holger Ernst is Professor for Technology and Innovation Management at WHU – Otto Beisheim School of Management in Vallendar, Germany, since 2001. He is a regular Visiting Professor at the Kellogg School of Management, Northwestern University, USA. He studied Business Administration at the Christian-Albrechts-University of Kiel, Germany, and at the University of Illinois at Urbana-Champaign, USA. He received a degree in Business Administration (1992), his PhD (1996) and his Habilitation (2001) from the Christian-Albrechts-University of Kiel, Germany.

His main research interests lie in the fields of technology, strategy, innovation, new product development and intellectual property. He has published in leading international journals such as Journal of Marketing, Journal of the Academy of Marketing Science, Journal of Product Innovation Management, MIT Sloan Management Review, Research Policy, and others. He has received multiple best dissertation and best paper awards.

Professor Dr. Ernst teaches regularly in executive programs, e.g. like the Kellogg-WHU Executive MBA Program, the Melbourne Business School Executive MBA Program and in various WHU and Kellogg Executive Customized Programs (e.g. for 3M, Esai Pharmaceuticals, Merck, L'Oreal, Süd-Chemie, Sony, Nissan, DuPont, Sony-Ericsson). In 2006, he received the Best Teacher Award for the Innovation Management course in the WHU Fulltime MBA Program. In 2008, he received the Best Teacher Award for the Strategic Intellectual Property Management course in the Bucerius-WHU Master of Law and Business Program. Furthermore, Professor Dr. Ernst consults and holds presentations at corporations worldwide in the areas of technology, strategy, innovation, new product development and intellectual property.

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Junior-Professor Dr. Anna Dubiel

Anna Dubiel is Junior-Professor for International Innovation Management since January 2012. Her professorship is funded by the Röchling Foundation. She received her MSc degree in Business Administration from the Friedrich-Alexander-University in Erlangen-Nuremberg, Germany, and her PhD degree from WHU – Otto Beisheim School of Management in Vallendar, Germany. During her doctoral studies, she was a visiting researcher at the Carroll School of Management at Boston College, USA. Furthermore, she worked on consulting projects for the Corporate Technology Office of Siemens AG.

Junior-Professor Dr. Dubiel's main research interests lie in the field of international innovation and R&D management. She has co-edited a book on the success factors of German and US-American industrial R&D centers in emerging markets. She also contributed to two edited volumes, with one of them being the "PDMA Handbook of New Product Development" (3<sup>rd</sup> edition, in press, Eds. K. Kahn et al.). She has regularly presented her research at leading international academic conferences. Additionally, she has published two award-winning teaching cases on best practice examples of innovations and R&D facilities in emerging markets.

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Anke Siedenkamp is the Personal Assistant of Professor Dr. Holger Ernst. Anke joined the Chair for Technology and Innovation Management and WHU – Otto Beisheim School of Management in November 2005.

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Anke Siedenkamp

Sebastian Glöckner studied Business Administration at the University of Cologne, Germany, and specialized in marketing. After his studies, he co-founded the GateSecure AG, a company that builds software and services to protect children online, in 2008. Sebastian joined the TIM-Chair in January 2012 and supports the Innovation Management courses in the BSc- and MBA-programs. His dissertation topic relates to the role of the sales force in new product development projects.

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Carsten Guderian studied Business Administration and Economics at the Christian-Albrechts-University of Kiel, Germany. He specialized in entrepreneurship and innovation management, organization, and economic policy. Carsten joined the TIM-Chair in April 2012 and supports the Literature Seminar in the BSc-program. Furthermore, he is involved in Prepare! - The Entrepreneurs' Academy in the MSc-program. His dissertation topic relates to the use of qualitative aspects of patent data in forecasting applications.

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Markus Kremmel studied International Business Administration at the Friedrich-Alexander-University in Erlangen-Nuremberg, Germany, and the University of Technology in Sydney, Australia. He specialized in strategic management, logistics and (corporate) entrepreneurship. Markus joined the TIM-Chair in May 2011 and supports the Strategic Research and Development courses in the MSc- and MBA-programs. His dissertation refers to co-creation, the involvement of customers in the new product developmentprocess.

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Sebastian Glöckner



**Carsten Guderian** 



Markus Kremmel



Peter M. Bican

Peter M. Bican studied Law and Business Administration at the Friedrich-Alexander-University of Erlangen-Nuremberg, Germany, Julius-Maximilians-University of Wuerzburg, Germany, and Boston University, USA. After completion of his studies in 2004, he worked in the Audit Department of Deloitte Luxembourg and the Capital Markets Group of PwC Frankfurt, Germany. Peter joined the TIM-Chair in July 2010 and supports the Strategic Intellectual Capital Management course in the MSc- and the Strategic Intellectual Property Management course in the MLB-program. His dissertation concentrates on the integration of intellectual property as competitive advantage.

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# **Visiting Faculty**



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Professor Anthony Di Benedetto



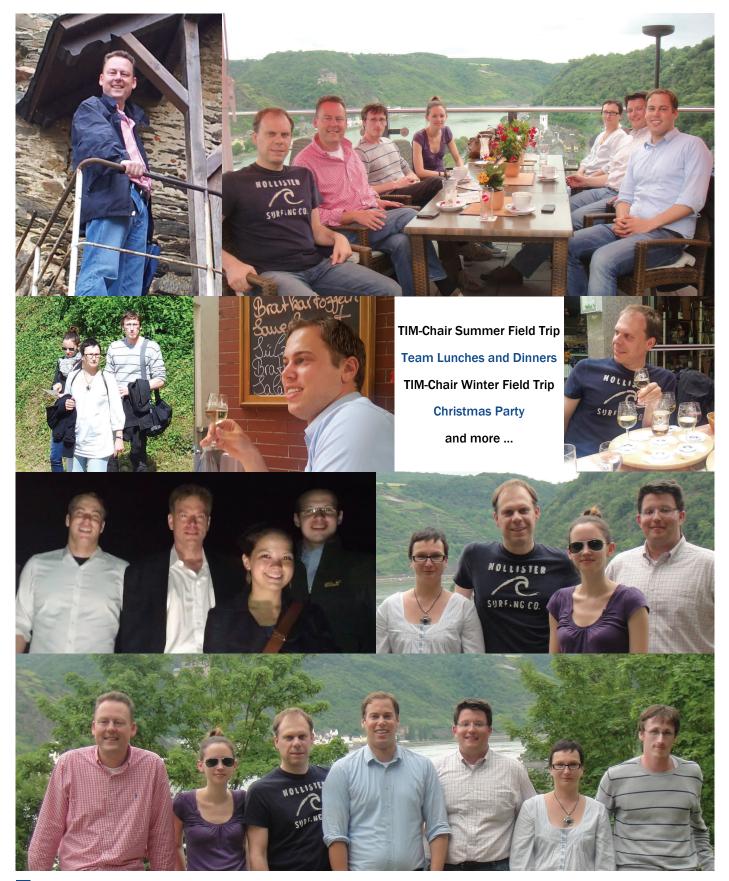
Professor Wayne D. Hoyer

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Professor Mohan Subramaniam

# **Team Activities**



# Teaching

## Lectures

Program	Term	Course
Bachelor of Science (BSc)	Fall Term 2011	Innovation Management (Group A & Group B)
	Fall Term 2011	Literature Seminar: Current Trends in NPD and Innovation Management
Master of Science	Fall Term 2011	Strategic R&D Management
(MSc)	Fall Term 2011	Heinz-Nixdorf-Lecture: Strategic Intellectual Capital Management (Prof. James G. Conley, Northwestern University, USA)
	Spring Term 2012	Prepare! – The Entrepreneurs' Academy
	Spring Term 2012	New Product Development (Junior-Professor Dr. Anna Dubiel)
Master of	Fall Term 2011	Kellogg Module: Business Opportunities in US
Business Administration (MBA)	Fall Term 2011	Strategic R&D Management
	Spring Term 2011	Innovation Management
Bucerius/WHU Master of Law and Business (MLB)	Spring Term 2012	Strategic Intellectual Property Management
European Management Study Program, Drexel University	Fall Term 2011	Innovation Challenges in the Pharmaceutical Industry (including Company Visit to Johnson & Johnson)
European Management Study Program, Drexel University	Spring Term 2012	Innovation Strategies of European Companies (including Company Visit to Rhodius)
3M Key Account Leadership Program	Spring Term 2012	Innovation
Deutsche Börse Management Education Program	Spring Term 2012	Innovation Management
Melbourne University Business School Executive MBA	Spring Term 2012	Innovation Strategies of European Companies (including Company Visit to Sebapharma GmbH & Co. KG)
Kellogg WHU Executive MBA	Fall Term 2011	Innovation Management
(EMBA)	Spring Term 2011	Innovation Management
PhD/Doctoral Program	Fall Term 2011	Product Management Seminar (Professor Anthony Di Benedetto, Temple University, USA)
	Spring Term 2012	Literature Seminar: Research and Publishing in Empirical Management Studies
	Spring Term 2012	Linking Theory with Empirical Data Analyses (Professor Mohan Subramaniam, Boston College, USA)

WHU

Lectures



## **Guest Lectures**



#### Prepare! - The Entrepreneurs' Academy 2012

The chairs of Professor Dr. Holger Ernst (WHU - Otto Beisheim School of Management) and Professor Dr. Malte Brettel (WHU - Otto Beisheim School of Management/RWTH Aachen) have jointly organized the workshop "Prepare! - The Entrepreneurs' Academy 2012", together with the Gründerkolleg of the RWTH Aachen and with the support of the Stiftung Industrieforschung. Natural scientists and engineers from the RWTH Aachen teamed with WHU students to further develop their existing product concepts and entrepreneurial spirit. Altogether, 30 students and university members participated in the workshop, which was held in Vallendar and Aachen. The teams addressed product concepts from a variety of disciplines like medical equipment, online platforms, biotechnology and mobile telephony. The program was enhanced by lectures from experienced entrepreneurs and team coaching sessions. On February 29, 2012, the product concepts were presented before a jury consisting of academic scholars and practitioners. In a close decision, the three best concepts were chosen. Later, the winning team successfully competed in a business plan competition at the University of Texas at Austin, USA. **Congratulations to all participants!** 

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VENTURELABS

THE UNIVERSITY OF TEXAS AT AUSTIN

WHU



Theses at the Chair for Technology	and Innovation Ma	inagement
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Topic of Thesis	Program	Candidate
Entering the Market of Copolyester Elastomers – A Market Potential Analysis for BASF - The Chemical Company	BSc	Suzan Erbil
How to Successfully Reverse Innovation	BSc	Katharina Neuhaus
Kodak vs. Fujifilm – How to Successfully Manage Disruptive Innovation	BSc	Hannah Holzki & Tonia Schneider
Open Services Innovation in Online Markets	BSc	Robin Zellmann
Open versus Closed Innovation – A Sustainable Development towards a New Innovation Paradigm	BSc	Tobias Blasberg
R&D of German MNCs in India – A Descriptive Analysis of Drivers, Challenges and the Status Quo	BSc	Mukul Agrawal
Russia's National Innovation System: Analysis and Recent Government Efforts	BSc	Natalya Sak
The Importance for Businesses to Offer Customer Experiences	BSc	Frederik Brüger
Case Study: ARM vs. Intel – Who's Winning the Future?	MSc	Michael Brönner
Social Innovation / Information and Communication Technology for Development (ICTD) – A Case Study	MSc	Stefan Mader
The Influence of Physical Proximity on Venture Capital Investments – An Inter-Country Analysis	MSc	Jonathan Ludwig
A Comprehensive Study on Kickstarter and its Prospects in India	MBA	Kashyap Karnala
Corporate Social Responsibility and Ethics for Small and Medium Size Companies in Germany	MBA	Anamaika Saini
Item Level Dynamics in Retail	MBA	Jean Paul Baharet
The Value of Combining Peer Support, Gaming, and Social Media Elements, as New Business Models for the Healthcare Industry to help Improve People's Lives when Generating Revenues – The Example of Blue Orange as an Innovation Solution	MBA	May Morshedy
Managing the Innovation Portfolio – An Example from the Power Products Industry	PTMBA	Hans Helmut Bockshammer
Success Factors of Innovations in the Launch	РТМВА	Yelena Grigoreva
Business Plan Concept for the Creation of a Bid Based Collaborative Project Portal	EMBA	Dan Ravick Fiala
Business plan for a Home Energy Management System	EMBA	Mohideen Azeez Jan
Connected Home: Analysis of Market Environment and Business Models as Represented in Pilot Project "Zukunft Wohnen"	EMBA	Klaus Dechet
Innovation Management – Analysis of the Status Quo and Recommendations for Improvement	EMBA	Carsten Oliver Knoll
Innovation Management Leadership – About Key Success Factors of Leadership and Appraising the Maturity Thereof	EMBA	Daniel Joisten
Supply Chain Integration: A Proposal for a Pharmaceutical Clinical Supply Chain	EMBA	Ketan Amin



## AESE Case Study Writing Competition in Lisbon (Portugal): Chair for Technology and Innovation Management became Runner-Up

On December 14, 2011, Amit Kukreja (MBA Class of 2009) and Junior-Professor Dr. Anna Dubiel received the Runner-Up Award and 500 Euro in the AESE Case Study Writing Competition. This was the second time that the Chair for Technology and Innovation Management successfully competed in the competition. The hosting business school AESE is one of the most renown Portuguese business schools, specializing on executive education programs and case studies as their method of teaching.

The theme of this year's competition was "Strategies for Change". Amit Kukreja and Junior-Professor Dr. Anna Dubiel's case, titled "Paris-Piteşti – How the Dacia Logan is changing the innovation rules in the automotive industry" deals with the development of a low cost car by one of Renault's companies, Dacia. Dacia is not only successful in emerging markets, but also in industrialized countries such as France or Germany.





## "Paris-Piteşti – How the Dacia Logan is changing the innovation rules in the automotive industry"

Amit Kukreja and Junior-Professor Dr. Anna Dubiel

WHU

# Research

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### **Research Objectives and Areas of Interest**

With our research, we focus on topics that are highly relevant for scientific scholars as well as managerial decision makers. We conduct empirical research with state-of-the-art methods and cover the following areas of interest: strategy, innovation, research and development, new product development, Intellectual Property, and technology marketing. Therein, we do not limit our research to certain specific industries.

We aim to publish in the internationally leading academic journals of our areas of interest. Besides scientific actuality and accuracy, our work shall provide decision makers with precise and solid recommendations to facilitate the potential and influence of their innovations in reaching their strategic and financial objectives. To foster the transfer of knowledge, we furthermore publish our results in leading practitioner journals and the business press. In addition, we focus on current management trends in case studies.

### **Research Collaborations**

The Chair for Technology and Innovation Management at WHU – Otto Beisheim School of Management engages in several research collaborations with national and international partners. Our current international research projects are:

Professor Dr. Holger Ernst (WHU), Professor James G. Conley (Center for Research in Technology and Innovation, Kellogg School of Management, Northwestern University, USA) and Dipl.-Ing. Martin Fischer (WHU) jointly research the inclusion of patent departments in the new product development and additionally potential success implications on individual research projects. The research project is funded by the Transcoopprogram of the Alexander von Humboldt-Foundation and the Kellogg Center for Research in Technology and Innovation. We would like to thank both institutions.

Professor Dr. Holger Ernst, Professor James G. Conley and Peter M. Bican (WHU) empirically research how long-term strategic competitive advantages my be achieved through the integrative management of different IP regimes.

Professor Dr. Holger Ernst, Professor Gregory Carpenter (Center for Market Leadership, Kellogg School of Management, Northwestern University, USA) and Michael Baur (WHU) jointly research how firm-specific aspects affect the market orientation of innovation processes and thereby influence the innovation success.

Several research collaborations are currently conducted together with Professor Wayne D. Hoyer (McCombs School of Business, University of Austin at Texas, USA). The researched topics include the following topics: integration of R&D, marketing and sales departments in innovation processes; strategic orientations, open innovation and absorptive capacity; innovation and co-creation (with Professor Dr. Manfred Krafft, WWU Münster, Germany).

Professor Dr. Holger Ernst, Professor Mohan Subramaniam (Carroll School of Management, Boston College, USA) and Junior-Professor Dr. Anna Dubiel (WHU) jointly research the influence of international market information in different phases of the innovation process on the success of new products in foreign markets. Furthermore, they are guest editors of a special issue of the Journal of Product Innovation Management on "Innovations For and From Emerging Markets".

Professor Dr. Holger Ernst, Professor Dean Shepherd (Kelley School of Business, Indiana University, USA) and Dr. Judith Behrens (TU Munich) analyze the decision making processes of managers during the portfolio management for new products.









## Hosei University Tokyo: Research Trip to Japan in February 2012

During the last week of February 2012, Professor Dr. Holger Ernst and Junior-Professor Dr. Anna Dubiel travelled to Hosei University Tokyo (Japan). With great pleasure, they accepted the invitation of Professor Haruo H. Horaguchi for a followup visit after a group of Japanese researchers came to Vallendar and Germany in 2011.

The current research trip comprised university and company visits (Denso, Mitsubishi, Nabtesco, Toyota) as well as a twoday research colloquium. Professor Dr. Ernst and Junior-Professor Dr. Dubiel had the opportunity to visit automotive firms and OEMs on the island of Honshu. The research workshop held in Matsumoto, Nagano Prefecture, was devoted to the topic "Collective Intelligence and Innovation: International Comparison of Japanese and German Manufacturing Companies". It encompassed the presentation of several papers. Likewise, a very interesting cultural program in the Nagano Prefecture accompanied the trip.



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## Current Dissertation Projects Team Members

#### Integration of Intellectual Property as Competitive Advantage Peter M. Bican

Organizations use, protect and exploit their intellectual property (IP) more efficiently and broadly than ever before. But as wide-ranging as IP is, as broad do regimes of IP protection exist. There is neither the single IP nor a single IP protection scheme, since IP varies, among others, in their origin of rights, criteria for protection, scope of protection and, most importantly, its useable life span. In academia, the interaction, integration and correlation (appropriation) of the differing IP regimes within an organization is seen as a vital success factor for a firm's performance and competitiveness. This research project will extend the existing knowledge about value transference from definite life assets (i.e. patents) to indefinite life assets (i.e. trademarks) through quantitative methods and introduce the value articulation framework to empirically prove the correlation and causation between integration of IP, a company's (long-term) financial performance and competitive advantage in the market.

## Leveraging the Sales Force in New Product Development Projects Sebastian Glöckner

The sales force is the closest link to the customer a firm can have. Every day, pertaining the voice of the customer, sales people learn about customer needs, market developments and competitor actions. For years, only the role of the sales force in new product launches was of interest to scholars, neglecting the knowledge and the valuable relationships the sales force has for new product development projects. While earlier research at our TIM-Chair has shown that collaboration with the sales force in NPD projects has a positive and significant influence on the NPD success, the current work analyses the drivers behind that influence. In addition, antecedents of these drivers with regard to organizational and personal aspects are identified. As managerial implications are concerned, the research project shall help companies to create an environment so that the sales people can contribute to NPD projects in the best way possible. Furthermore, it shall help project managements to select and hire the best-suited sales persons.

#### Patent Data in Forecasting Carsten Guderian

Traditionally, patent counts were used to forecast, e.g. upcoming technological changes. Nevertheless, detriments such as differences in patent law, for example concerning criteria and scope of protection, are not incorporated into patent count-based forecasting. Using a large cross-national data-set, the current research project quantitatively integrates qualitative measures of patent data in forecasting processes. Individual strategic aspects such as, e.g., differences between intellectual property protection in emerging and established markets or new product technological disruptiveness will be computed and assessed. The results shall help firm managements to improve the implementation and application of forecasting techniques as well as the development of recommendations to react to detected changes.

### Co-Creation in the New Product Development Process Markus Kremmel

Technological innovations in the ICT/telecommunication sector such as smart phones or the high-speed internet depicted a change in the new product development (NPD) process over the past years. Whilst customers have traditionally been passive consumers, they are now becoming active co-producers. The current research project focusses on selected aspects of this new role of the customer during the NPD processes. By means of case studies, the impact of consumers and modes of interaction will be analyzed and evaluated with respect to the different steps of the NPD process. The core topics will be an assessment of the consumer-firm interaction as well as the question whether the customer is really part of the NPD process.

## Current Dissertation Projects External Doctoral Students

Торіс	Candidate
Driving Market Orientation in New Product Development – What really matters	Michael Baur
Portfolio Orientation in New Product Development – A Paper Series	Marcel Coulon
Chief Technology Officer: Antecedents and Performance Implications	Alexander Götz
Innovations in Base of the Pyramid Markets - A Paper Series	Hanna Nari Kahle
Configuration and Governance of Formal and Informal Organizational Structures in IP Management	Nguen-Truong Le
The Value of Patented Technologies	Nils Omland
The Service Component in New Product Development and its Influence on Performance	Michael Schramm
Customer Integration in New Product Development	David Somhegyi

## **Completed Dissertation Projects 2011**

Торіс	Scholar
Decision Making in Innovation Portfolio Management – An Experimental Paper Series	Dr. Judith Behrens
Successful New Product Development for International Mar	kets Junior-Professor Dr. Anna Dubiel
Patent Management in New Product Development	Dr. Martin Fischer



## Dissertation Projects Professor Dr. Holger Ernst as Second Dissertation Supervisor

Торіс	Candidate
Open Social Entrepreneurship First Dissertation Supervisor: Professor Dr. Dietmar Grichnik	Florian Forster
Innovator Resilience Potential: Individual Resilience after Innovation Project Terminations First Dissertation Supervisor: Professor Dr. Martin Högl	Gisa Mönkemeyer
Uncertainty and Stress in Innovation First Dissertation Supervisor: Professor Dr. Martin Högl	Stefan Razinskas
Resource Management of Nascent Entrepreneurs – Paper Series First Dissertation Supervisor: Professor Dr. Dietmar Grichnik	Luv Singh
Price Differentiation from the Customer's Point of View: A Behavioral Investigation of the Perceived Complexity of Price Differentiation (Preisdifferenzierung aus Kundensicht: Eine verhaltenswissenschaftliche Untersuchung wahrgenommener Komplexität von Preisdifferenzierung) First Dissertation Supervisor: Professor Dr. Martin Fassnacht	Rebecca Winkelmann

## **Professional Development and Training**

## Course/Event/Workshop

Siedenkamp, A., Secretary Course, WHU Training, Vallendar, Germany, September 22, 2011.

Siedenkamp, A., MS Office Course, WHU Training, Vallendar, Germany, January 24-25, 2012.

Dubiel, A., Journal of International Business Studies Paper Development Workshop, AIB Annual Meeting, Washington D.C., USA, June 30, 2012.

Bican, P. M., Research Trip to Kellogg School of Management, Northwestern University, USA, July-September, 2012.

Dubiel, A., Session Chair of the Competitive Paper Session "Reconfiguring the Value Chain: Offshoring", AIB Annual Meeting, Washington D.C., USA, July 01, 2012.

Kremmel, M., Website Development Course, WHU Training, Vallendar, Germany, August 02, 2012.

Siedenkamp, A., Website Development Course, WHU Training, Vallendar, Germany, August 02, 2012.

Dubiel, A., Junior Faculty Consortium, TIM Division, AoM Annual Meeting, Boston, USA, August 03-04, 2012.

## **Publications**

Peer-Reviewed Journals
Behrens, J. & Ernst, H., What Keeps Managers Away from a Losing Course of Action? Go/Stop Decisions in New Product Development, Journal of Product Innovation Management (forthcoming).
Behrens, J., Ernst, H. & Shepherd, D., The decision to exploit an R&D project: Divergent thinking across middle and senior managers, Journal of Product Innovation Management (forthcoming).
Ernst, H., Corporate Culture and Innovative Performance – The Moderating Effect of Technological Turbulence, Journal of Product Innovation Management <i>(forthcoming)</i> .
Siebdrat, F. Högl, M., Ernst, H., Subjective Distance and Team Collaboration in Distributed Teams, Journal of Product Innovation Management (forthcoming).
Books and Book Chapters
Dubiel, A., & Ernst, H. (2012), Success Factors of Building and Managing Industrial R&D Centers in Emerg- ing Markets. In: T. Pedersen, L. Bals, P. Ø. Jensen, & M. M. Larsen (Eds.), The Offshoring Challenge: Strategic Design and Innovation for Tomorrow's Organization. Springer: London, in press.
Dubiel, A., & Ernst, H. (2012), Success Factors of New Product Development for Emerging Markets. In: K. Kahn, S. E. Kay, G. Gibson, & S. Urban (Eds.), PDMA Handbook on New Product Development, 3 <sup>rd</sup> Edition, Hoboken, New Jersey: John Wiley & Sons, in press.
Discussion Papers and Case Studies
Kahle, H. N. & Ernst, H., (2012), The Firm Value of Social Innovations in Base of the Pyramid Markets – A Qualitative Approach, CSI Discussion Paper, 21.

Kahle, H. N. & Ernst, H. (2012), A Typology of Social Innovations, Discussion Paper.

Dubiel, A. (2012): Gateway to Successful Global New Product Development – The Case of SAP Labs India.

### Presentations

Kahle, H. N., "The Firm Value of Social Innovations in Base of the Pyramid Markets – A Qualitative Approach", Challenge Social Innovation, Vienna, Austria, September 19-21, 2011.

Ernst, H. & Götz, A., "Existence and Performance Implications: A Contingency View on the Chief Technology Officer", TIE-Conference, Berlin, Germany, November 11, 2011.

Kahle, H. N., "Inclusive Innovations in Base of the Pyramid Markets", Presentation at Cambridge Judge Business School, Cambridge, United Kingdom, November 28, 2011.



Professor Dr. Holger Ernst: Presentation to Family Business Managers

Ernst, H., "Innovation Challenges in the Pharmaceutical Industry", Strategic Thinking Program, Janssen-Cilag GmbH, December 02, 2011.

Ernst, H., "Wachstumspotenziale und –dimensionen bei Produktinnovationen", **1**. MMM-Denkfabrik, Fulda, Germany, December 09, 2011.

Ernst, H., "Integration of R&D and Patent Management and its Impact on New Product Performance", Workshop Erfolg durch Schutzrechte, WTSH, Kiel, Germany, February 15, 2012.

Ernst, H., "Innovationen entwickeln, umsetzten und schützen – worauf es ankommt", ZIRP, Koblenz, Germany, March 15, 2012.

Dubiel, A. "Erfolgsfaktoren der Neuproduktentwicklung", Konferenz Familienunternehmen, WHU, Vallendar, Germany, April 27, 2012.

Ernst, H., Conley, J. G. & Bican, P. M., "Value Articulation - A Framework for the Strategic Management of Intellectual Property", Workshop "Intellectual Property Management: In search of New Practices Strategies and Business Models", European Patent Office, Munich, Germany, June 04-05, 2012.

Dubiel, A., "F&E-Standorte Multinationaler Unternehmen aus Emerging Markets in Deutschland – Partner oder Herausforderer?", Förderkongress "Junge Wissenschaft und Praxis" Hans Martin Schleyer Stiftung und Robert Bosch Stiftung, Leipzig, Germany, June 14, 2012.

Dubiel, A. & Grimpe, C., "Deep Sea versus Inshore Fishing – The Impact of Market Information Internationalization on New Product Development Performance", AIB Annual Meeting, Washington D.C., USA, July 02, 2012.

Dubiel, A. & Grimpe, C., "Deep Sea versus Inshore Fishing – The Impact of Market Information Internationalization on New Product Development Performance", AoM Annual Meeting, Boston, USA, August, 07, 2012. WHU - Otto Beisheim School of Management, Chair for Technology and Innovation Management

#### **Other Scientific Activities**

#### Advisor (Professor Dr. Holger Ernst)

Member of the Scientific Advisory Council for the Innovation Survey by the Centre for European Economic Research (Mannheim, Germany), funded by the German Federal Ministry of Education and Research

President of Technology, Innovation and Entrepreneurship Division of the German Academic Association for Business Research (Verband der Hochschullehrer für Betriebswirtschaftslehre e.V.)

Member of Advisory Council of Technology Center Koblenz

#### Editor (Professor Dr. Holger Ernst)

Zeitschrift für Betriebswirtschaft: Editor and Departmental Editor for Technology and Innovation Management

Schriftenreihe Betriebswirtschaftslehre für Technologie und Innovation, Deutscher Universitäts-Verlag: Editor

Creativity and Innovation Management: Associate Editor

Journal of Product Innovation Management, Special Issue "Innovation For and From Emerging Markets": Guest Editor (with Junior-Professor Dr. Anna Dubiel and Professor Mohan Subramaniam)

#### Reviewer (Professor Dr. Holger Ernst and Junior-Professor Dr. Anna Dubiel)

Academy of International Business Conference

Academy of Management Conference (TIM Division and BPS Division)

**Creativity and Innovation Management** 

European Doctoral Summer School on Management and Technology

Journal of Business Venturing

Journal of International Business Studies

Journal of Marketing

Journal of Product Innovation Management

**Management International Review** 

Product Development and Management Association Conference

**R&D** Management

**Research Policy** 

TIE Division Conference of the German Academic Association for Business Research (Verband der Hochschullehrer für Betriebswirtschaftslehre e.V.)

Zeitschrift für Betriebswirtschaft



# **Röchling Assistant Professorship** for International Innovation Management

The Assistant Professorship for International Innovation Management was established at the Chair for Technology and Innovation Management in January 2012. The Professorship is funded by the Röchling Foundation, which is located in Mannheim, Germany. The current professorship holder, Junior-Professor Dr. Anna Dubiel is interested in the interface of innovation and international management. She is devoting her activities mainly to the following three areas:



#### 1) Research

- Papers in progress and research collaborations:
  - Two papers resulting from her dissertation thesis together with Professor Dr. Holger Ernst and Professor Mohan Subramanian
- (Boston College), of which one of them is

currently under review in Journal of Product Innovation Management

- A paper together with Professor Dr. Christoph Grimpe (Copenhagen Business School, Denmark)
- Invited paper for the Journal of Indian Business Research together with Professor Jaideep Prabhu (University of Cambridge, United Kingdom), Professor Dr. Holger Ernst and Hanna Nari Kahle
- Management of 2<sup>nd</sup> review round as co-guest editor of a special issue of Journal of Product Innovation Management
- Active planning of next research trip to Boston College in spring 2013
- · Regular reviews for journals and conferences and active participation in (international) research conferences

#### 2) Teaching

- Lecture "New Product Development" in the WHU Otto Beisheim School of Management's MSc Program
- Completion of two teaching case studies on global new product development (NPD) teams and NPD for emerging markets together with Bosch GmbH and SAP AG. One of them is submitted for two ongoing case study writing competitions
- Supervision of several theses in the programs at WHU Otto Beisheim School of Management



#### 3) Community Outreach

- · Speeches at practice-oriented conferences
- Managers invited for guest lectures on NPD practices in their companies
- Depiction of current management trends with the help of case studies written jointly with companies
- Ad-hoc member of the jury for the assessment of potential new students for the WHU – Otto Beisheim School of Management's BSc program

# **Business Engagement**



The InnovationsuccessPanel®, developed and supervised by the Chair for Technology and Innovation Management at WHU – Otto Beisheim School of Management, provides the opportunity for firms to validate their Innovation Management and find areas for improvement using a solid, data-based approach. Over 300 firms are included in the panel data set. For further information, please refer to the slides below or the IsP® website http://www.innovationserfolgspanel.de.

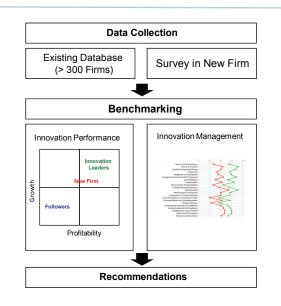
## Key Elements of the IsP®

# IsP® allows for Comparison to Leading Firms regarding Key Drivers of Innovation Performance:

#### Characteristics

#### Procedure

- The IsP<sup>®</sup> offers an easy and actionable way to check your innovation management against best practices.
- The IsP<sup>®</sup> is based on scientifically proven success factors of innovations.
- Through **benchmarking**, we directly compare your firm's innovation management with innovation leaders.
- The IsP<sup>®</sup> follows a holistic approach and considers a broad spectrum of factors that influence innovation success (e.g. process, culture, portfolio management, strategy, project management, cross-functional collaboration, organization, incentives, etc.).



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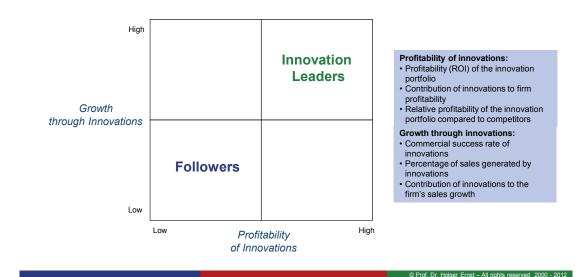


## The Innovation Success Matrix



# The Success of Innovation Management is measured by various Variables, representing a Mixture of Objective Data and Subjective Judgments.

The success is measured in two dimensions; growth and profitability through innovations.



## Results of the Benchmarking Analysis

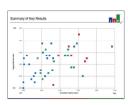


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# Various Benchmarking Analyses provide a Detailed View on the Quality of your Innovation Management:



#### Prioritization of Areas of Improvement and Derivation of Actionable Recommendations

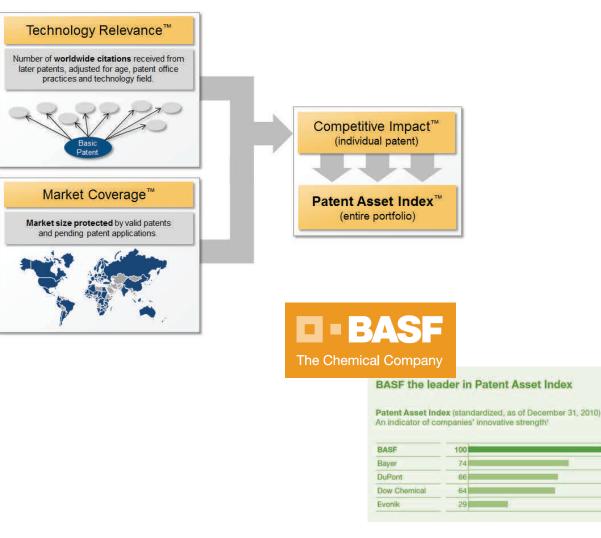




The PatentSight GmbH, co-founded as an academic spin-off by Professor Dr. Holger Ernst and Diplom-Kaufmann Nils Omland, provides new insights into innovations, technologies and patents. Its Patent Asset Index<sup>™</sup> reveals the technological strength of firms in terms of quantity and quality in all technical areas of interest by means of objective comparisons. Therein, the Patent Asset Index<sup>™</sup> is a new method to benchmark patent portfolios that overcomes the limitations of prior approaches. It globally compares the entire current patent portfolio of firms and stands for a transparent calculation of the indicators as well as a reliable measurement of the competitive impact of the patents.

The Patent Asset Index<sup>™</sup> depicts the Competitive Impact<sup>™</sup> of a patent, which is a relative measure comparing the contribution of a patent to the competitive advantage with an average patent. The measure of comprises Competitive Impact<sup>™</sup> of the Technology Relevance<sup>™</sup> and the Market Coverage<sup>™</sup>. Herein, the former reflects the importance of the covered invention, whilst the latter represents the extent of patent protection in global markets.

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Information adapted from PatentSight GmbH website (2012) and BASF – The Chemical Company (2011), BASF Report 2011 – Economic, Environmental and Social Performance.

WHU🜌

# WHU-Activities/Community Outreach

Activities	Team Member
Chairman of the Technology, Innovation and Entrepreneurship Division of German Academic Association for Business Research (Verband der Hochschullehrer für Betriebswirtschaftslehre e.V.)	Professor Dr. Holger Ernst
Speaker of the Innovation & Entrepreneurship Group at WHU – Otto Beisheim School of Management	Professor Dr. Holger Ernst
Head of the Biopharma Management Center at WHU – Otto Beisheim School of Management	Professor Dr. Holger Ernst
Head of Third-Party-Funded Projects at WHU – Otto Beisheim School of Management	Professor Dr. Holger Ernst
Academic Director of Drexel Pharma Program	Professor Dr. Holger Ernst
Academic Director of Melbourne Business School Program at WHU – Otto Beisheim School of Management	Professor Dr. Holger Ernst
Vice Chairman of the PhD Council at WHU – Otto Beisheim School of Management	Professor Dr. Holger Ernst
Member of various Councils, Committees and Workgroups at WHU – Otto Beisheim School of Management (Appointment Committees, Professorium)	Professor Dr. Holger Ernst
Organization of WHU Research Colloquium of Innovation & Entrepreneurship Group at WHU – Otto Beisheim School of Management	Professor Dr. Holger Ernst
Contact Person for Partner Universities, e.g. Northwestern University, University of Texas at Austin, Boston University, Melbourne Business School	Professor Dr. Holger Ernst
Contact Person for Firms, especially via Presentations	Professor Dr. Holger Ernst
Contact Person for Press (e.g. Financial Times, Handelsblatt)	Professor Dr. Holger Ernst
Executive Education for Customized Executive Education Programs for Firms, Universities and other Institutions (in addition to WHU Executive Education Programs)	Professor Dr. Holger Ernst
Workshops, Presentations and Advisory for Firms	Professor Dr. Holger Ernst
Presentations at Scientific Conferences	Professor Dr. Holger Ernst
Presentations at Scientific Conferences	Junior-Professor Dr. Anna Dubiel
Member of the Jury for the Assessment of Potential BSc Students in Admission Process to WHU – Otto Beisheim School of Management	Junior-Professor Dr. Anna Dubiel
Interviews for the Assessment of Potential BSc Students in Admission Process to WHU – Otto Beisheim School of Management	Carsten Guderian
First Aid – Responsible for Z-Building of WHU – Otto Beisheim School of Management	Markus Kremmel
First Aid Training by German Red Cross and WHU – Otto Beisheim School of Management, July 2 and August 21, 2012	Markus Kremmel
First Aid – Responsible for Z-Building of WHU – Otto Beisheim School of Management	Anke Siedenkamp
First Aid Training by German Red Cross and WHU – Otto Beisheim School of Management, July 2 and August 21, 2012	Anke Siedenkamp

# **Sustainability Report**

With our research, teaching and business engagement, we strive to work towards stable and sustainable solutions concerning all aspects of technology and innovation management. Therein, we interpret sustainability in a twofold way; firstly, in a developmental sense, covering social as well as ethical aspects and, secondly, as a long-term orientation guiding or thoughts, actions and recommendations. The following depicts a selected overview of the incorporation of sustainability at the TIM-Chair:

#### Teaching

A) Theses topics dealing with developmental, sustainable, social and BRIC issues, e.g. theses of Ms. Saini (Corporate Social Responsibility and Ethics), Mr. Mader (Social Innovation), Ms. Sak (BRIC countries), Mr. Agrawal (BRIC countries) and Mr. Blasberg (Sustainable Development)

B) Long-term orientation of course content concerning student development in accordance with WHU Mission Statement and WHU Objectives in all WHU programs, e.g. concerning character development, precise action recommendations and strategic thinking, to highlight the role of innovation and change for achieving sustainable competitive advantage

#### **Research & Business Engagement**

A) Research topics dealing with developmental issues, international markets or BRIC countries e.g. dissertation of Ms. Kahle (Social Innovation) and dissertation of Junior-Professor Dr. Dubiel (International Markets)

B) Recommendations for precise actions or methods to increase R&D, New Product Development and Innovation (Management) Impact as well as the Identification of New Business Opportunities are long-term- and stakeholderoriented, aiming at increasing firm's potentials and revenues and augmenting the impact of (technological) innovations, even under unfavorable conditions for innovation and change

# Thank you...

We would like to thank the donors and sponsors of the Chair for Technology and Innovation Management at WHU – Otto Beisheim School of Management:

Alexander von Humboldt-Stiftung

Heinz-Nixdorf-Stiftung

Prof. Otto Beisheim Stiftung

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