

Activity Report 2014/2015



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



Welcome Greetings



Professor Dr. Holger Ernst

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Dear Reader,

I welcome you to this year’s edition of the Activity Report of the Chair of Technology and Innovation Management (TIM-Chair) at WHU – Otto Beisheim School of Management (WHU).

This year was marked by intense collaborations with our national and international partners, both from the academic and business worlds. For example, I was invited to present our research on frugal innovation at the Hannover Messe in Hannover, Germany. For a thesis project, the TIM-Chair collaborated with Sanofi-Aventis Deutschland GmbH concerning cross-functional collaboration during new drug development. For our lectures in all WHU programs, we had interesting guest speakers from a variety of industries, firms, and backgrounds who visited us in Vallendar. I would like to thank our partners and speakers for their trust and support and are looking forward to continue the collaborations in the following years.

Moreover, we intensified our collaboration with our international partners. I spent time at the Melbourne Business School in Melbourne, Australia, as a Visiting Professor, where I also taught multiple courses to MBA and Executive MBA students. Assistant Professor Dr. Anna Dubiel was at Nihon University in Tokyo, Japan and visited Prof. Gloria Barczak at D’Amore-McKim School of Business at Northeastern University in Boston, USA. Moreover, Dr. Dubiel also started a research collaboration with Professor Serdar Durmusoglu at the University of Dayton in Dayton, USA. My research assistants Peter Bican and Carsten Guderian spent time with Prof. James G. Conley at the Kellogg School of Management at Northwestern University in Evanston in the USA to work on joint research projects. Carsten also travelled to the US-west coast to meet Assistant Professor Jiyao Chen at College of Business at Oregon State University twice to launch another joint international research initiative.

In 2014, Hanna Nari Kahle completed her PhD studies with her disputation on Innovations in Base of the Pyramid Markets. Dr. Kahle’s research identified that frugal innovations lead to democratizing and state-building effects in base of the pyramid countries. Furthermore, she researched the antecedents and consequences of affordable value innovations for emerging markets. A publication in the Journal of Product Innovation Management resulted from that fine work. Congratulations, Dr. Kahle!

Last but not least, I would also like to draw your attention to what is coming ahead. This October, we will be co-hosting the Singaporean-Conference for the German Mittelstand with the Economic Development Board (EDB) Singapore for the first time. This conference targets top management decision-makers who plan to enter or expand their business in ASEAN countries. Experienced speakers from a variety of backgrounds will share their experience and best practices. There will be ample opportunities to network and to find new business partners.

We hope that you enjoy reading this report and we encourage you to contact us and to provide feedback. We would like to invite you to engage with us in joint projects. We are looking forward to hearing from you and to welcoming you on our campus in Vallendar or in Düsseldorf.

Yours Sincerely,



About WHU – Otto Beisheim School of Management

WHU is a private, state-accredited 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 & Corporate Connections.

Quality, internationalization, and practical relevance are our principal guidelines in all areas. National and international ranking results prove the high quality. Furthermore, our business school has more than 197 partner schools worldwide and an outstanding corporate network.

WHU offers top-level academic programs in general management: a Bachelor program, a Master in Finance and a Master in Management program, a Full-Time MBA, a Part-Time MBA and an Executive MBA, customized company programs, open enrollment programs and the possibility to pursue a doctoral degree and the German „Habilitation“.

| Faculty/Staff: | | Students/Participants: | |
|--------------------------------------|-----|---|-----|
| Full Professors: | 36 | BSc Program: | 622 |
| Assistant/Adjunct Professors: | 16 | Full-Time MBA Program: | 82 |
| Post-Docs: | 2 | Part-Time MBA Program: | 69 |
| Honorary Professors: | 14 | Doctoral Students: | 272 |
| External Lecturers: | 60 | Exchange Students: | 272 |
| Staff: | 167 | Master in Management Program: | 210 |
| Founders and Benefactors of WHU: 120 | | Master in Finance Program: | 63 |
| | | EMBA Program: | 83 |
| | | Participants Executive Education: | 747 |
| | | Participants European Summer Institute and European Programs: | 163 |
| | | In Praxi e.V. (WHU Alumni Association): ~ 3.000 Members in ~ 65 Countries | |

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 at Northwestern University** (Evanston, Illinois, USA) establish a **joint Executive MBA (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 of Science (BSc)** and **Master of Science in Management (MiM) Program**
Start of the Full-Time MBA (FT-MBA) Program
- 2007 **First Assistant Professors** are appointed
- 2010 **Start of the Part-Time MBA (PT-MBA) Program** in Düsseldorf, Germany
WHU is accredited by **AACSB International**
- 2012 WHU achieves the **FIBAA System Accreditation**
WHU opens second Campus in Düsseldorf
- 2013 **Master in Finance (MiF) Program** is launched

About the TIM-Chair

- **TIM-Chair at WHU – Otto Beisheim School of Management since 2001**
- Member of the **Entrepreneurship and Innovation Group**
- **Research Focus**
Strategy, Innovation, R&D Management, New Product Development, Intellectual Property, Technology Marketing
- **12 Team Members**
(1 Professor, 1 Assistant Professor, 10 Personal and Research Assistants)
- **4 Visiting Scholars**
(4 Visiting Professors)
- **Strong Research Performance**
(e.g. Journal of Marketing, Journal of Product Innovation Management, Research Policy)
- **Winner of multiple Research Awards**
- **Multiple Research Collaborations**
 - Centre for European Economic Research (ZEW) (Germany)
 - Nihon University (Japan)
 - Northwestern University (USA)
 - Oregon State University (USA)
 - Politecnico di Bari (Italy)
 - University of Cambridge (United Kingdom)
 - University of Texas at Austin (USA)
 - University of Warwick (United Kingdom)
 - Westfälische-Wilhelms-Universität Münster (Germany)
- **Multiple Sponsored Research Projects**
(with Corporations and Research Institutions)
- **Excellent Teaching Performance in all WHU Programs**
(Winner of multiple Teaching Awards)
- **Active Knowledge Transfer**
(Conferences, Presentations, Case Studies, Publications, Executive Education, etc.)
- **Large Industry Network and Ties**
- **Multiple Spin-offs**
 - Innovation Success Panel® (Bonn)
 - PatentSight GmbH (Bonn)
- **Interdisciplinary Initiatives**
(e.g. Prepare! - The Entrepreneurs' Academy with RWTH Aachen)
- **TIM-Chair Location**
WHU – Otto Beisheim School of Management, Z-Building, Hellenstraße 9, 56179 Vallendar, Germany



WHU Building Z: TIM-Chair Location

Team Members



Left to Right:

Carsten Guderian (Research Assistant and Doctoral Student), Anke Siedenkamp (Personal Assistant), Sebastian Glöckner (External Doctoral Student), Assistant Professor Dr. Anna Dubiel (Röchling Professor of International Innovation Management), Professor Dr. Holger Ernst (Professor of Technology and Innovation Management), Peter M. Bican (Research Assistant and Doctoral Student), Markus Kremmel (Research Assistant and Doctoral Student)



Faculty



Professor Dr.
Holger Ernst

Holger Ernst is Professor of 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, and the Melbourne Business School, University of Melbourne, Australia. Professor Dr. Ernst 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. Professor Dr. Ernst has published in international journals such as *Journal of Marketing*, *Journal of the Academy of Marketing Science*, *Journal of Product Innovation Management*, *California Management Review*, *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). He received Best Teacher Awards for his Innovation Management course in the WHU Full-Time MBA Program in 2006, for the Strategic Intellectual Property Management course in the Bucerius/WHU Master of Law and Business Program in 2008, and for his Innovation Management course in the WHU Part-Time MBA Program in 2012. Furthermore, Professor Dr. Ernst consults and holds presentations at corporations world-wide in the areas of technology, strategy, innovation, new product development and intellectual property.

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Assistant Professor Dr.
Anna Dubiel

Anna Dubiel is Assistant Professor of 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-Nürnberg, 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.

Assistant Professor Dr. Dubiel’s main research interests lie in the field of international innovation and R&D management. She has published in the *Journal of Product Innovation Management* and co-edited a book on the success factors of German and US-American industrial R&D centers in emerging markets. She also contributed to three edited volumes, with one of them being the “PDMA Handbook of New Product Development” (3rd edition, 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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Personal and Research Assistants

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

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Anke Siedenkamp

Peter M. Bican studied Law and Business Administration at the Friedrich-Alexander-University of Erlangen-Nürnberg, Germany, Julius-Maximilians-University of Würzburg, Germany, and Boston University, USA. After completion of his studies in 2004, he worked for Deloitte Luxembourg and PwC Frankfurt, Germany. Peter joined the TIM-Chair in July 2010 and supports the Heinz-Nixdorf-Lecture: Strategic Intellectual Capital Management in the MSc-program. His dissertation integrates intellectual property for competitive advantage. He is a Visiting Fellow at the Kellogg School of Management at Northwestern University in Evanston, USA.

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Peter M. Bican

Carsten Guderian studied Economics and Business Administration at the Christian-Albrechts-University of Kiel, Germany, specializing in entrepreneurship and innovation management. Carsten joined the TIM-Chair in April 2012 and supports lectures, theses, and seminars in various WHU programs., including Prepare! – The Entrepreneurs' Academy in the MSc-program. His dissertation focuses on the development of new patent indicators for strategic purposes. Since February 2015, he is a Visiting Fellow at the Kellogg School of Management at Northwestern University in Evanston, USA.

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Carsten Guderian

Markus Kremmel studied International Business Administration at the Friedrich-Alexander-University in Erlangen-Nürnberg, 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 and the Innovation Management lecture in the BSc-program. His dissertation refers to co-creation, the involvement of customers in the new product development-process.

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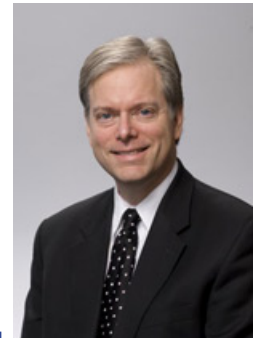
Visiting Scholars



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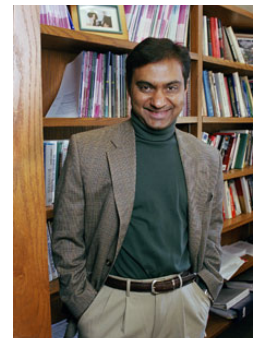
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Professor
 Mohan Subramaniam

Student Assistants



Florentine Gens

Anna Lina Gummersbach



Lukas Gummersbach

Jaqueline Koops



TIM-Chair Activities



Field Trip 2014 to Limburg
Team Lunches and Dinners
Christmas Party



Ahr-Valley Tour 2014



Lectures

| Program | Term | Course |
|--|------------------|--|
| Bachelor of Science (BSc) | Fall Term 2014 | Innovation Management (Group A) <i>(Prof. Dr. Holger Ernst)</i> |
| | Fall Term 2014 | Innovation Management (Group B) <i>(Prof. Dr. Holger Ernst)</i> |
| Master of Science (MSc) | Fall Term 2014 | Heinz-Nixdorf-Lecture: Strategic Intellectual Capital Management <i>(Prof. James G. Conley, Northwestern University)</i> |
| | Fall Term 2014 | New Product Development <i>(Assistant Professor Dr. Anna Dubiel)</i> |
| | Spring Term 2015 | Prepare! – The Entrepreneurs' Academy <i>(Professor Dr. Holger Ernst, together with Prof. Dr. Malte Brettel, RWTH Aachen)</i> |
| | Spring Term 2015 | Strategic Innovation Management <i>(Assistant Professor Dr. Anna Dubiel)</i> |
| WHU Full-Time Master of Business Administration (FT-MBA) | Fall Term 2014 | Innovation Management <i>(Professor Dr. Holger Ernst)</i> |
| | Fall Term 2014 | Kellogg Module: Business Opportunities in US <i>(Professor Dr. Holger Ernst)</i> |
| WHU Part-Time MBA (PT-MBA) | Fall Term 2014 | Innovation Management <i>(Professor Dr. Holger Ernst)</i> |
| Kellogg/WHU Executive MBA (EMBA) | Fall Term 2014 | Strategic Innovation and Corporate Renewal <i>(Professor Dr. Holger Ernst)</i> |
| | Fall Term 2014 | Intellectual Capital Management <i>(Prof. James G. Conley, Northwestern University)</i> |
| PhD/Doctoral Program | Fall Term 2014 | Product Management Seminar <i>(Prof. Anthony Di Benedetto, Temple University)</i> |
| | Fall Term 2014 | WHU Research Seminar in Entrepreneurship and Innovation <i>(Prof. Dr. Holger Ernst)</i> |
| | Spring Term 2015 | WHU Research Seminar in Entrepreneurship and Innovation <i>(Prof. Dr. Holger Ernst)</i> |
| Sun Yat-Sen University | Fall Term 2014 | Innovation Strategies of German Companies <i>(Prof. Dr. Holger Ernst)</i> |
| Millikin University | Spring Term 2015 | Innovation Management in Europe <i>(Prof. Dr. Holger Ernst)</i> |
| Xiamen University | Spring Term 2015 | Innovations Made in Germany and Hidden Champions <i>(Prof. Dr. Holger Ernst)</i> |
| Melbourne Business School Senior Executive MBA | Fall Term 2015 | Innovation Strategies of European Firms <i>(Prof. Dr. Holger Ernst)</i> |

Guest Lectures



Prof. Dr. Ellen Enkel

Zeppelin University Friedrichshafen

Dr. Hanshermann Franke

LTS Lohmann Therapie-Systeme AG

Dr. Sven Greulich

Orrick, Herrington & Sutcliffe LLP

Jürgen Griebisch

Bosch Siemens Hausgeräte GmbH

Valentin Gruber

audibene GmbH

Ludwig Huber

Röchling Automotive SE & Co. KG

Jürgen Kölle

Société Internationale de Télécommunications
 Aéronautiques (SITA)

Dr. Patrick Kölzer

AFPT GmbH

Prof. Dr. Jochen Maas

Sanofi-Aventis Deutschland GmbH

Chiara Sommer

High-Tech-Gründerfonds

Nikolaus Starzacher

discovery GmbH



Prepare! – The Entrepreneurs’ Academy 2015

Prepare! – The Entrepreneurs’ Academy is a joint lecture in the Master in Management and Master in Finance program hosted by **Professor Dr. Malte Brettel** (RWTH Aachen), **Professor Dr. Holger Ernst** (WHU), **Carsten Guderian** (WHU), and **Daniela Werthes** (RWTH Aachen). **Founders** of start-ups in **engineering** and the **natural sciences** at RWTH Aachen team up with **management students** from WHU to further develop their existing start-up concepts. This makes **Prepare! – The Entrepreneurs’ Academy** as a novel teaching concept, as it is an **interdisciplinary** and **inter-university lecture** at the same time.

The academy was held in Aachen and Vallendar in January and February 2015. With more than 40 participants in eight entrepreneurial teams in 2015, participants dealt with product concepts from fields such as **measurement technology**, **software development**, and **materials development** for **automotive** and **aviation**, exploring topics such as preparation of market and competitor analyses, financial planning and intellectual property.

The program was topped off with lectures by experienced founders, and with virtual and physical coaching. At the end of the course, on February 13, 2015, a panel of researchers and practitioners presented the best concepts and further developments with the Jury Cup. All of the students and founders involved in the course also selected the recipient of the Winner Award.

Congratulations to the winning teams, and many thanks to all the participants!

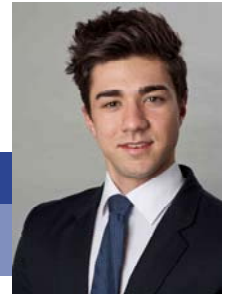
We wish you all great success with your start-up projects!



Theses

Sebastian Griewing (BSc Thesis)

Network Medicine: The Technology- and Innovation-Driven Future of Healthcare



Michael Hinrichs and Eric Sachsenhausen (BSc Thesis)

The Research and Development (R&D) Facilities of German and Japanese Multinationals (MNCs) in China and India: A Comparative Analysis

Marcel Kegelmann (BSc Thesis)

A Market Study of e-Mobility in the Future



Niklas Mallmann (BSc Thesis)

Exploring the Relationship between Tradition and Innovation in Family Firms

Laura Meyer (BSc Thesis)

How does the Growing Importance of Environmental Sustainability Impact the Automotive Industry from the Customers' and Manufacturers' Perspective?



Niklas Mundorf (BSc Thesis)

How Far would You go for a Nespresso? Staying Ahead in the Premium Coffee Market

Theses

Marcel Peppel (BSc Thesis)

The Impact of Intellectual Property on Business Success in the Automotive Industry



Gina Rennings (BSc Thesis)

Opportunities and Risks of Engaging in Social Innovations in Base of the Pyramid Markets from the Viewpoint of Multinational Corporations



Claus Schmitz (BSc Thesis)

Crowdfunding – How to Run a Successful Campaign



Robin Wieczorek (BSc Thesis)

The Success Factors of Corporate Idea Generation: A Cross-Level Analysis



Samuel Allen (MSc Thesis)

Venture Capital for Corporate Innovation: The Allianz Digital Accelerator



Nicola Fink (MSc Thesis)

Empirical Analysis of Product/Service Testing in the Development Phase of the New Product Development Process Using the Example of Startup Companies in the Healthcare Industry



Theses

Marc Heiden (MSc Thesis)

Moving beyond a Crisis: Innovation in Tough Times



Christopher Hohns (MSc Thesis)

The Process of Co-Creation

Marvin Jochem (MSc Thesis)

What distinguishes Innovation Strategies/Innovativeness by State-Owned and Privately Owned EMNCs? Is Government Ownership Enabler or Liability in strengthening NPD Capabilities?

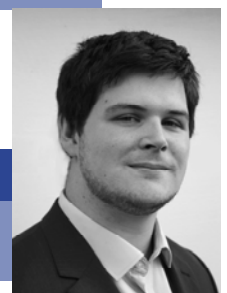


Jan Knaisch

Disruptive Innovations, Alliances, and Strategic Considerations in the Automotive and Its Supplier Industries

Max Püschner (MSc Thesis)

Innovation and Standardization – A Mutually Exclusive Coexistence?



Benjamin Seeger (MSc Thesis)

Case Study: Sales Force Contribution in New Product Development Projects

Theses

Caspar Seibold (MSc Thesis)

Innovation Strategies and Innovation/Firm Performance



Quynh Nhu (Linda) Truong (MSc Thesis)

No Future without a Past? – Conceptualizing a Measurement Scale for Organizational Tradition in Innovative Firms

Bastian Wittmershaus (MSc Thesis)

Improving Cross-Functional Collaboration to become more Innovative: The Case of Sanofi S.A.



Full Time-MBA Theses

Case Studies Platform (*Radu Balanescu and Sergio G. Chávez*)

Disruptive Startups in the Field of Digitalization in Silicon Valley (*Elena Recher-Niederhofer*)

How to Identify Innovation in the Early Idea Stage? (*Pascal Renten*)

Part Time-MBA Theses

Success Factors and Skills for Development and Implementation of Innovations in Established Utilities – Analysis based on Project Examples of Innovative Distributed Energy Solutions for Commercial and Residential Customers of E.ON SE (*Jan Meyer*)

Change Management as a Key Success Factor in Large IT-Implementation Projects (*Ralph Meyndt*)

Morgan Advanced Materials – NBPD Structure and Processes Opportunities across the Different GBUs (*Mirco Pavoni*)

Win with Partners: How Telecom Operators Share the Market with OTT Providers (*Birinder Singh Khurana*)

3D Printing as a Disruptive Technology (*Sven von Puttkamer*)

EMBA Theses

Business Plan for Biotech Startup (*Angela Kerek*)

Business Plan to Establish a Solar Power Solutions Company for Residential and Commercial Customers (*Christopher Nolan*)

Industry 4.0 – Innovation Potential for GEA Group (*Martin Rothfuchs*)

A Patient-Centric Health Platform for India (*Binu Sadanandan*)

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. For example, Professor Dr. Ernst's paper on "Patent Information for Strategic Technology Management" was the most downloaded World Patent Information article in the first six months of 2013. 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.

Publications

Journals



Ernst, H. & Fischer, M. (2014), Integrating the R&D and Patent Functions: Implications for New Product Performance. *Journal of Product Innovation Management*, 31(S1), 118-132.

Ernst, H., Kahle, H. N., Dubiel, A., Prabhu, J., & Subramaniam, M. (2015), The Antecedents and Consequences of Affordable Value Innovations for Emerging Markets. *Journal of Product Innovation Management*, 32(1), 65-79.

Subramaniam, M., Ernst, H., & Dubiel, A. (2015), From the Special Issue Editors: Innovations for and From Emerging Markets. *Journal of Product Innovation Management*, 32(1), 5-11.

Book Chapters



Dubiel, A., Brexendorf, T. O., & Glöckner, S. (2014), Keeping up with the Virtual Voice of the Customer – Social Media Applications in Product Innovation. In: Griffin, A., Durmusoglu, S., & Noble, C. (Eds.), *New Product Development Essentials: Tools for Open Innovation*. John Wiley & Sons, Hoboken, 57-79.

Ernst, H. (2014), Die Patentabteilung als Motor des Technologiemanagements: Bestandsaufnahme und Ausblick, in: Schultz, C., Hölzle, K. (eds.), *Motoren der Innovation Zukunftsperspektiven der Innovationsforschung*. Festschrift zum 65. Geburtstag von Prof. Dr. Hans Georg Gemünden, 39-55.

Research Collaborations

The Chair of Technology and Innovation Management at WHU – Otto Beisheim School of Management engages in multiple [research collaborations](#) with national and international partners. Currently, our partners and partner institutions 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 Peter M. Bican (WHU) empirically research how [long-term strategic competitive advantages](#) may be achieved through the [integrative management](#) of [different IP regimes](#). The research project is funded by the WHU and the Kellogg Center for Research in Technology and Innovation. We would like to thank both institutions for their support.

Professor Dr. Holger Ernst, Professor James G. Conley and Carsten Guderian (WHU) empirically research how [patent data](#) can be used for [predictive analytics](#) and other [strategic applications](#). The research project is funded by the WHU and the Kellogg Center for Research in Technology and Innovation. We would like to thank both institutions for their support.

THE UNIVERSITY OF TEXAS AT AUSTIN



WESTFÄLISCHE
WILHELMS-UNIVERSITÄT
MÜNSTER

Several research collaborations are currently conducted together with Professor Wayne D. Hoyer (McCombs School of Business, University of Austin at Texas, USA). The research includes the following topics: [innovation and co-creation](#) (with Professor Dr. Manfred Krafft, Westfälische-Wilhelms-Universität of Münster, Germany) and the role of [sales and marketing in new product development](#) projects (together with Michael Baur, WHU).



Professor Dr. Holger Ernst, Assistant Professor Jiyao Chen (College of Business, Oregon State University, USA), Assistant Professor Jiexun Li (College of Business, Oregon State University, USA) and Carsten Guderian empirically research the [market valuation of disruptive technologies](#).



Professor Dr. Holger Ernst, Antonio Messeni Petruzzelli (Politecnico di Bari, Italy) and Lorenzo Ardito (Politecnico di Bari, Italy) jointly research the [success factors of technology commercialization](#).



Zentrum für Europäische
Wirtschaftsforschung GmbH

Professor Dr. Holger Ernst, Dr. Christian Rammer (Centre for European Economic Research (ZEW)) and Martin Hud (Centre for European Economic Research GmbH (ZEW)) work together to examine [innovation strategies](#) and their [impact on performance during times of a crisis](#).

Research Collaborations

Professor Nobuko Nishiwaki (Nihon University College of Economics, Japan) and Assistant Professor Dr. Anna Dubiel (WHU) conduct a comparative analysis of **success factors of globalization of German and Japanese multinationals**. Particularly, they are interested in how firms from both countries internationalize their R&D facilities and NPD activities aiming at so-called emerging markets.

Professor Jaideep Prabhu (Cambridge Judge Business School, University of Cambridge, UK), Prof. Sourindra Banerjee (Warwick Business School, University of Warwick, UK) and Assistant Professor Dr. Anna Dubiel investigate how **product positioning** (aspirational vs. functional) **differs in different economies** (market-oriented vs. closed). Particularly, they are interested in how this positioning changes as an economy makes the transition from less to more market-oriented and use a unique historical setting of economic transition (West vs. East Berlin) as a natural laboratory to test their hypotheses.

Professor Christoph Grimpe (Copenhagen Business School, Denmark), Professor Gloria Barczak (D'Amore-McKim School of Business, Northeastern University, USA) and Assistant Professor Dr. Anna Dubiel (WHU) investigate the **mediating role of domestic and international collaborations** (e.g., customers, suppliers, service providers) on the **R&D offshoring-innovation performance relationship**. To test their hypotheses, they use data from the German Community Innovation Survey (CIS).

Prof. Serdar Durmusoglu (University of Dayton, USA) and Assistant Professor Dr. Anna Dubiel (WHU) examine **antecedents and innovation consequences of a globally managed fuzzy front end of new product development**. To test their hypotheses, they use a sample of multinational firms surveyed during the 2012 PDMA Comparative Performance Assessment Study (CPAS).

Research Trips



Carsten Guderian and Professor James G. Conley at Lake Michigan's Shore on Evanston Campus, Northwestern University, USA



Professor Serdar Durmusoglu and Assistant Professor Anna Dubiel on Campus, University of Dayton, USA

Dissertation Projects: Research Assistants

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 (e.g. patents) to indefinite life assets (e.g. trademarks) through qualitative and quantitative methods and introduce the value articulation framework to empirically prove the correlation and causation between integration of IP, a firm's (long-term) financial performance and competitive advantage in the market.

Publication:

Conley, J. G., Bican, P. M., & Ernst, H. (2013), Value Articulation: A Framework For The Strategic Management of Intellectual Property, California Management Review, 55(4): 102-120.

Patents in Technology Analytics and Strategy Formation

Carsten Guderian

The dissertation project focusses on the strategic view on intellectual property management, i.e. the application of qualitative information from patent data in quantitative strategy formation. The project is planned as a cumulative set of interconnected, quantitative-empirical investigations. In one investigation, patent-based measures for technological change are applied to the market performance of firms in multiple industries to more clearly illustrate the pattern of change. Another investigation revisits intellectual property valuation to expand a new technique into diverging endowments. The third investigation dwells on the strategic dimension of patents, which are a traditional information source used to predict the emergence of new technologies. However, current predictive analytics and strategy formation are subject to decisive limitations, e.g. unconsidered relative patent importance. To contribute to improving the state of the art in patent-based predictive analytics and strategy formation, new qualitative indicators are developed from patent data information and integrated in quantitative patent assessment applications. The results shall support firm managements' strategy formations via the implementation of more fine-grained – and thus more reliable – patent indicators.

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.

Dissertation Projects: External Doctoral Students

| Topic | Candidate |
|---|--------------------|
| Driving Market Orientation in New Product Development – What really matters | Michael Baur |
| Leveraging the Sales Force in New Product Development Projects | Sebastian Glöckner |
| The Value of Patented Technologies | Nils Omland |
| The Service Component in New Product Development and its Influence on Performance | Michael Schramm |
| The Best-In-Class Intellectual Property Department | Kolin Schunck |
| Customer Integration in New Product Development | David Somhegyi |

Completed Dissertation Projects 2014

| Topic | Scholar |
|---|------------------|
| Innovations in Base of the Pyramid Markets - A Paper Series | Hanna Nari Kahle |



Professional Development and Conferences

Bican, P. M., Research Trip to Center for Research in Technology and Innovation, Kellogg School of Management, Northwestern University, Evanston, USA, August – September, 2014.

Dubiel, A., Research Trip to Nihon University, Tokyo, Japan, August – September, 2014.

Guderian, C., Pirate Camp, Pirate Summit Entrepreneurship Conference, Köln, Germany, September 03, 2014.

Ernst, H., 8. WHU Campus for Controlling, WHU, Vallendar, Germany, September 12, 2015.

Guderian, C., Aachen Technology and Entrepreneurship Conference (ATEC) 2014, Aachen, Germany, October 22, 2014.

Guderian, C., Gründer- und Innovationstag 2014, Jena, October 23, 2014.

Bican, P. M., Martin Bauer Group GmbH & Co. KG and SpVgg Greuther Fürth GmbH & Co. KgaA, Vestenbergsgreuth/Fürth, Germany, November 09, 2014.

Guderian, C., Martin Bauer Group GmbH & Co. KG and SpVgg Greuther Fürth GmbH & Co. KgaA, Vestenbergsgreuth/Fürth, Germany, November 09, 2014.

Siedenkamp, A., Secretary Course “Mindfulness”, WHU Training, Vallendar, Germany, November 10, 2015

Dubiel, A., Röchling Automotive SE & Co. KG, Worms, Germany, November 12, 2014.

Ernst, H. & Guderian, C., Prepare! – The Entrepreneurs’ Academy, RWTH Aachen & WHU, Aachen/Vallendar, Germany, January – February, 2015.

Ernst, H., Henkel Beauty Care, Düsseldorf, Germany, January 14, 2015.

Wittmershaus, B., Ernst, H., & Guderian, C, Kick-off MSc Thesis Bastian Wittmershaus, Sanofi-Aventis Deutschland GmbH, Industriepark Höchst, Germany, January 20, 2015.

Dubiel A., Research Trip to D’Amore-McKim School of Business, Northeastern University, Boston, USA, February – March, 2015.

Guderian, C., Research Trip to Center for Research in Technology and Innovation, Kellogg School of Management, Northwestern University, Evanston, USA, February – April, 2015.

Guderian, C., Research Trip to College of Business, Oregon State University, Corvallis, USA, March, 2015.

Professional Development and Conferences

Ernst, H., 12. Niedersächsischer Außenwirtschaftstag, Hannover Messe, Hannover, Germany, April 15, 2015.

Guderian, C., Forum Mittelstand, WHU, Vallendar, Germany, April 23, 2015.

Bican, P. M., Ernst, H., & Guderian, C., 4th Singapore-Conference for the German Mittelstand Organizational Meetings, Frankfurt, Germany, May 05-06, 2015.

Bican, P. M., 11. Petersberger Industriedialog 2015, Bonn/Königswinter, Germany, June 09, 2015.

Guderian, C., 11. Petersberger Industriedialog 2015, Bonn/Königswinter, Germany, June 09, 2015.

Dubiel, A., International Product Development and Management Conference, Copenhagen, Denmark, June 14-16, 2015.

Guderian, C., International Product Development and Management Conference, Copenhagen, Denmark, June 14-16, 2015.

Dubiel, A. INFORMS Marketing Science Conference, Baltimore, USA, June 18-20, 2015.

Bican, P. M., Research Trip to Center for Research in Technology and Innovation, Kellogg School of Management, Northwestern University, Evanston, USA, July, 2015.

Guderian, C., Research Trip to College of Business, Oregon State University, Corvallis, USA, August, 2015.

Guderian, C., Portland International Center for Management of Engineering and Technology Conference (PICMET), Portland, USA, August 02-06, 2015.

Guderian, C., TIM PhD Consortium and Academy of Management Annual Meeting (AoM), Vancouver, Canada, August 07-11, 2015.

Guderian, C. & Siedenkamp, A., First Aid Training, WHU, Vallendar, Germany, August 25, 2015.

Wittmershaus, B., Ernst, H., & Guderian, C., Final Presentation MSc Thesis Bastian Wittmershaus, Sanofi-Aventis Deutschland GmbH, Industriepark Höchst, Germany, August 31, 2015.

Bican, P. M. & Guderian, C., 4th Singapore-Conference for the German Mittelstand Organizational Meetings, Frankfurt, Germany, September 09, 2015.

Presentations

Dubiel, A., Innovation Management in the Context of Emerging/International Markets, Röchling Automotive SE & Co. KG, Worms, Germany, November 12, 2014.

Ernst, H., Erfolgsfaktor Innovation – Auf was es beim Management von Innovationen ankommt, 8. WHU Campus for Controlling, WHU, Vallendar, Germany, September 12, 2015.



Ernst, H., Erfolgsfaktoren in der Ideenphase, Henkel Beauty Care, Düsseldorf, Germany, January 14, 2015.

Glöckner, S., Ernst, H., & *Dubiel, A.*, Sales Force NPD Contribution, its Antecedents and Outcome for Project Performance, Northeastern University, Boston, USA, February 25, 2015.



Ernst, H., Frugal Innovation – Auf was es bei der Umsetzung ankommt!, 12. Niedersächsischer Außenwirtschaftstag, NORD/LB Forum, Hannover Messe, Hannover, Germany, April 15, 2015.

Bican, P. M., *Guderian, C.*, & Ringbeck, A. K. "Intellectual Property: Tension on Open Innovation?", International Product Development and Management Conference, Copenhagen, Denmark, June 15, 2015.

Coulon, M., *Dubiel, A.*, Ernst, H., & di Benedetto, A., Portfolio Orientation in New Product Development, International Product Development and Management Conference, Copenhagen, Denmark, June 16, 2015.

Dubiel, A., Banerjee, S., & Prabhu, J., Affordability versus Aspiration in Product Positioning in Emerging Markets: Evidence from a Historical Study of East Versus West Berlin, INFORMS Marketing Science Conference, Baltimore, USA, June 18, 2015.

Bican, P. M., *Guderian, C.*, & Ringbeck, A. K. "Intellectual Property: Tension on Open Innovation?", Portland International Center for Management of Engineering and Technology Conference (PICMET), Portland, USA, August 03, 2015.



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

Member of Advisory Council of Technology Center Koblenz

Editorships (Professor Dr. Holger Ernst)

Journal of Product Innovation Management:
 Member of the Editorial Board

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 Assistant Professor Dr. Anna Dubiel and Professor Mohan Subramaniam)

Reviewer (Professor Dr. Holger Ernst and Assistant Professor Dr. Anna Dubiel)

Business Research

Creativity and Innovation Management

Journal of Business Venturing

Journal of International Consumer Marketing

Journal of Marketing

Journal of Product Innovation Management

R&D Management

Technological Forecasting and Social Change

Technovation

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

Zeitschrift für Betriebswirtschaft

Zeitschrift für betriebswirtschaftliche Forschung

Visiting Pre-Doctoral Fellows / Research Scholars (Peter M. Bican and Carsten Guderian)

Center for Research in Technology and Innovation, Kellogg School of Management, Northwestern University

Röchling Assistant Professorship for International Innovation Management

The Assistant Professorship for International Innovation Management was established at the Chair of 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, Assistant 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 (Carroll School of Management, Boston College, USA), one of them currently under review in *International Marketing Review*
 - A paper together with Professor Dr. Serdar Durmusoglu (University of Dayton, USA) and Sebastian Glöckner (WHU – Otto Beisheim School of Management), currently under review in the *Journal of Product Innovation Management*
 - A research project on the evolution of marketplaces in emerging and developed markets as well as product positioning, together with Professor Sourindra Banerjee (University of Warwick, UK) and Professor Jaideep Prabhu (University of Cambridge, UK)
 - 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
- Lecture “Strategic Innovation Management” in the WHU – Otto Beisheim School of Management’s MSc Program
- 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

Singapur-Konferenz für den deutschen Mittelstand



Wir laden herzlich zur **4. Singapur-Konferenz für den deutschen Mittelstand** ein, die vom **Economic Development Board Singapore (EDB)** und der **WHU – Otto Beisheim School of Management (Lehrstuhl für Technologie- und Innovationsmanagement)** organisiert wird und dieses Jahr am **27. Oktober** in Frankfurt am Main stattfindet.

Unter dem Motto **“Erfolgsrezepte für Asien: neue Märkte gewinnen, in ASEAN wachsen”** richtet sich die Konferenz an Führungskräfte deutscher Mittelständler und Weltmarktführer, die bereits in Asien aktiv sind oder ihre nächsten Schritte für eine erfolgreiche Expansion planen.

- **Datum:** 27. Oktober 2015
- **Ort:** Westhafen Pier 1, Rottfeder-Ring 1, 60327 Frankfurt am Main
- **Keynote:** Karl Gernandt, Präsident des Verwaltungsrates, Kühne + Nagel International AG
- **Anmeldung:** per E-Mail an singapur-konferent@whu.edu
- **Ansprechpartner:** Peter M. Bican (Tel. 0261/6509248) und Carsten Guderian (Tel. 0261/6509242)

Es erwarten Sie **hochkarätige Referenten**, die ihre **Erfahrungen in ASEAN** mit Ihnen teilen. Nutzen Sie die Konferenz, um **neue Einblicke** zu gewinnen und wertvolle **Kontakte** für Ihr Unternehmen zu **knüpfen** und lernen Sie von zukünftigen Partnern aus Deutschland und ASEAN. Im Rahmen von zwei Workshops und durch fundierte Praxisvorträge und Paneldiskussionen bietet Ihnen die 4. Singapur-Konferenz die Möglichkeit, sich mit anderen Entscheidern **über Wachstumspotenziale und -strategien auszutauschen** und Ihr **Wissen zu erweitern**.

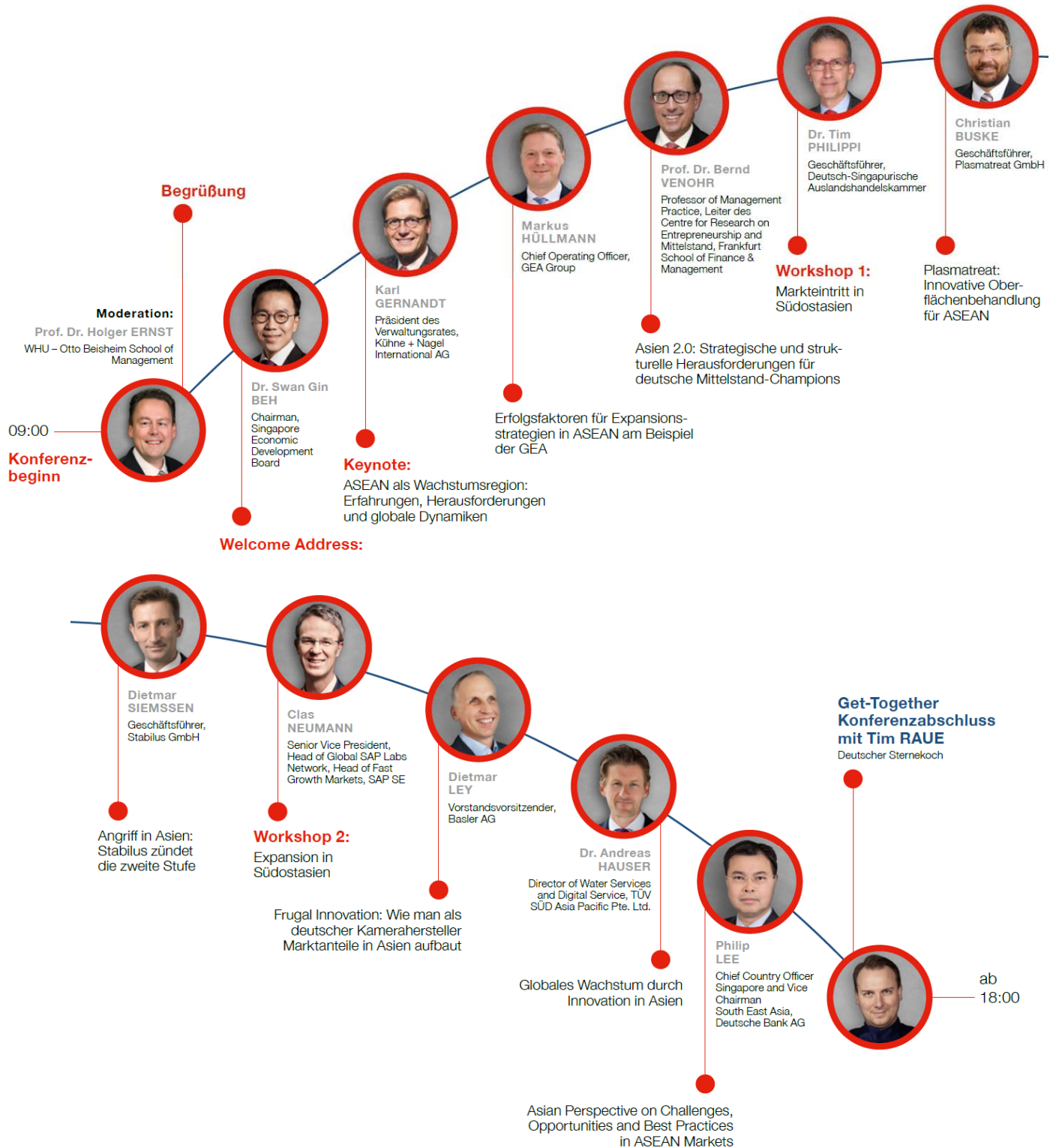
Dr. Swan Gin Beh
 Chairman, Singapore Economic Development Board

Prof. Dr. Holger Ernst
 WHU – Otto Beisheim School of Management



PERSÖNLICHE EINLADUNG ZUR SINGAPUR-KONFERENZ FÜR DEN DEUTSCHEN MITTELSTAND
 27.10.2015, Westhafen Pier 1, Rottfeder-Ring 1, 60327 Frankfurt a. M. | www.singaporebusiness.de/konferenz2015

Singapur-Konferenz für den deutschen Mittelstand



Business Engagement



The **InnovationsuccessPanel®**, developed and supervised by the Chair of 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**. For further information, please contact Professor Dr. Holger Ernst (holger.ernst@whu.edu).

Key Elements of the IsP®

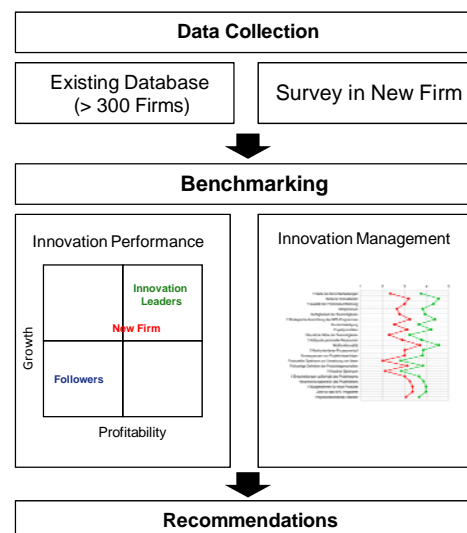


IsP® allows for Comparison to Leading Firms regarding Key Drivers of Innovation Performance:

Characteristics

- The IsP® offers an **easy and actionable** way to check your innovation management against **best practices**.
- The IsP® is based on **scientifically proven** success factors of innovations.
- Through **benchmarking**, we directly compare your firm's innovation management with innovation leaders.
- The IsP® 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.).

Procedure



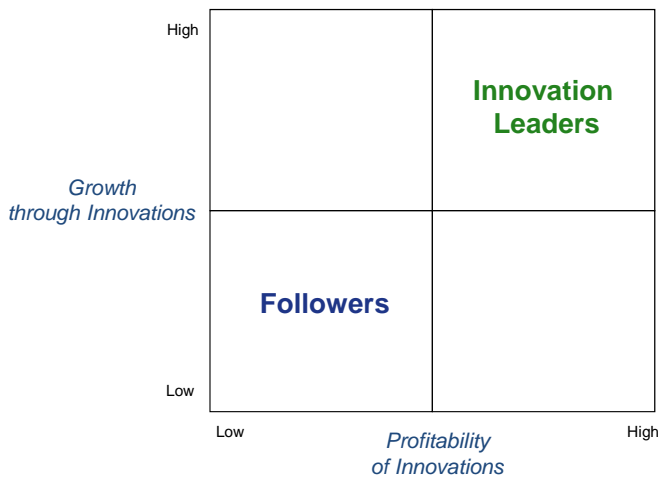
Business Engagement

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.



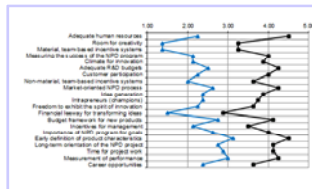
- Profitability of innovations:**
- Profitability (ROI) of the innovation portfolio
 - Contribution of innovations to firm profitability
 - Relative profitability of the innovation portfolio compared to competitors
- Growth through innovations:**
- Commercial success rate of innovations
 - Percentage of sales generated by innovations
 - Contribution of innovations to the firm's sales growth

Results of the Benchmarking Analysis

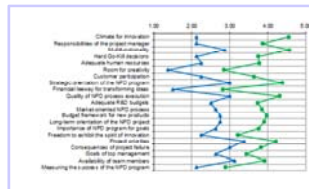


Various Benchmarking Analyses provide a Detailed View on the Quality of your Innovation Management:

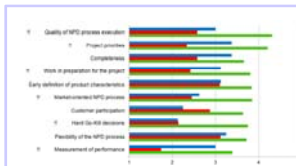
Internally perceived Need for Action



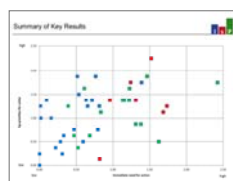
Need for Action: Comparison to Innovation Leaders



Relative Positions: Comparison to Innovation Leaders and Followers



Prioritization of Areas of Improvement and Derivation of Actionable Recommendations



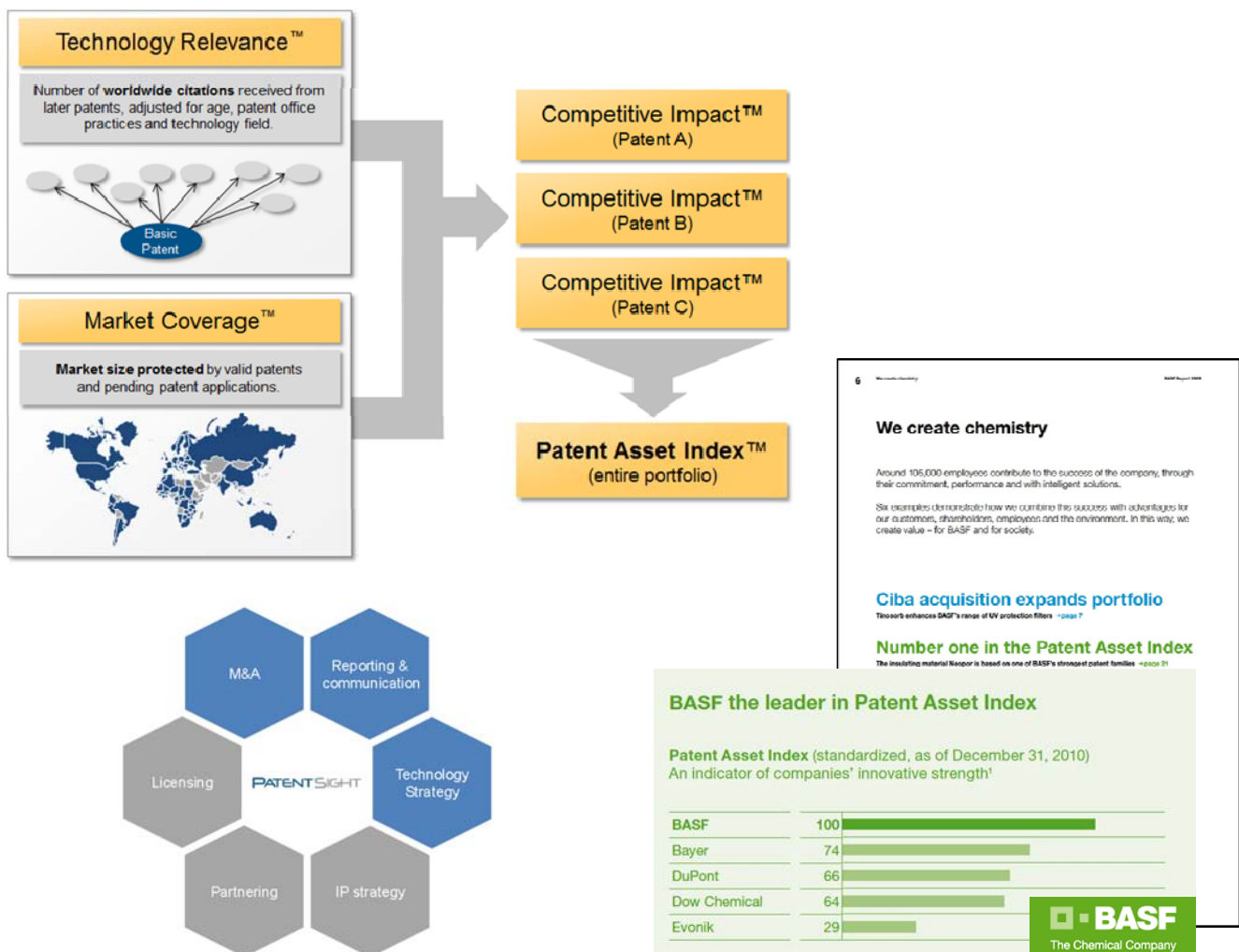
Business Engagement



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™** 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™ 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™ depicts sum of the **Competitive Impact™** of a patent portfolio, where the **Competitive Impact™** is a relative measure comparing the contribution of a patent to the competitive advantage with an average patent. The measure of comprises of the **Technology Relevance™** and the **Market Coverage™**. Herein, the former reflects the importance of the covered invention, whilst the latter represents the extent of patent protection in global markets.

Solutions developed by PatentSight GmbH may be used for **investor relations, public relations, internal patent portfolio management, M&A related topics, in strategy development or patent portfolio evaluations**. For further information, please contact Professor Dr. Holger Ernst (holger.ernst@whu.edu) or PatentSight GmbH (<http://www.patentsight.com>).



WHU-Activities/Community Outreach

| Activities | Team Member |
|---|----------------------------|
| Head of Biopharma Management Center at WHU | Professor Dr. Holger Ernst |
| Head of Third-Party-Funded Projects at WHU | Professor Dr. Holger Ernst |
| Academic Director of Melbourne Business School Program at WHU | Professor Dr. Holger Ernst |
| Academic Director of Arizona State University EMBA Program at WHU | Professor Dr. Holger Ernst |
| Member of various Councils, Committees and Workgroups at WHU (e.g. Appointment Committees, Professorium) | Professor Dr. Holger Ernst |
| Co-Host of 4th Singapore-Conference for the German Mittelstand, WHU and EDB Singapore, Frankfurt, October 27, 2015. | Professor Dr. Holger Ernst |
| Organization of WHU Research Colloquium of Entrepreneurship & Innovation Group at WHU | Professor Dr. Holger Ernst |
| Contact Person for Firms, Partner Universities, and Press | Professor Dr. Holger Ernst |
| Workshops, Presentations and Advisory for Firms | Professor Dr. Holger Ernst |
| Presentations at Scientific Conferences | Professor Dr. Holger Ernst |
| Co-Organizer of Professional Development Workshop “The Japanese Firm System in Evolution: New Directions, Breaks and Emerging Practices in the Nutshell”, AoM Annual Meeting, Vancouver, Canada, August 08, 2015. | Jun.-Prof. Dr. Anna Dubiel |
| Presentations at Scientific Conferences | Jun.-Prof. Dr. Anna Dubiel |
| First Aid – Responsible for Z-Building of WHU | Anke Siedenkamp |
| Elected Doctoral Member of the Appointment Committee for Professorships and Assistant Professorships at WHU | Peter M. Bican |
| Senior Project Manager for 4th Singapore-Conference for the German Mittelstand, WHU and EDB Singapore, Frankfurt, Germany, October 27, 2015. | Peter M. Bican |
| Interviews and Jury Member for the Assessment of Potential BSc & MSc Students in Admission Process to WHU | Peter M. Bican |
| Presentations at Scientific Conferences | Peter M. Bican |
| Conference/Trade Fair Attendance and Company Visits | Peter M. Bican |
| Academic Tutor for Exchange Students at WHU | Peter M. Bican |
| Elected Doctoral Member of the Appointment Committee for Professorships and Assistant Professorships at WHU | Carsten Guderian |
| Senior Project Manager for 4th Singapore-Conference for the German Mittelstand, WHU and EDB Singapore, Frankfurt, Germany, October 27, 2015. | Carsten Guderian |
| Interviews and Jury Member for the Assessment of Potential BSc & MSc Students in Admission Process to WHU | Carsten Guderian |
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| Academic Tutor for Exchange Students at WHU | Carsten Guderian |
| First Aid – Responsible for Z-Building of WHU | Carsten Guderian |
| Conference/Trade Fair Attendance and Company Visits | Markus Kremmel |

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 our 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. BSc theses by Michael Hinrichs and Eric Sachsenhausen (R&D Facilities of German and Japanese Multinationals in China and India), Marcel Kegelmann (Market Study of e-Mobility), Laura Meyer (Environmental Sustainability in Automotive Industry), and Gina Rennings (Opportunities and Risks of Social Innovations in Base of the Pyramid Markets), MSc thesis by Marvin Jochem (Innovation Strategies/Innovativeness by State-Owned and Privately Owned EMNCs?), and EMBA thesis of Binu Sadanandan (Patient-Centric Health Platform for India).
- B) **Long-term orientation** of course content concerning **student development** in accordance with WHU Mission Statement and WHU Objectives in all programs, e.g. concerning personal development, leadership skills and strategic thinking, to **highlight the role of innovation and change** to achieve **sustainable competitive advantage** and create **long-term value**.

Research & Business Engagement

- A) **Research** topics dealing with **developmental issues**, **international markets** or **BRIC countries**, e.g. research area of Assistant Professor Dr. Anna Dubiel (International/Emerging Markets). Further, in her dissertation, Hanna Nari Kahle researched different aspects of Base of the Pyramid (BoP) innovations in low-income economies.. Moreover, Peter Bican and Carsten Guderian develop a case study together with Martin Bauer Group and EinDollarBrille e.V. to analyze motivations for German medium-sized family firms in promoting frugal innovations in Sudan.
- 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 stakeholder-oriented**, 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 of Technology and Innovation Management
at WHU – Otto Beisheim School of Management:

Heinz-Nixdorf-Stiftung

Prof. Otto Beisheim Stiftung

Röchling Stiftung



WHU – Otto Beisheim School of Management
Chair of Technology and Innovation Management
Professor Dr. Holger Ernst

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