Activity Report
2016/2017

Kühne Foundation Endowed Chair of Logistics Management
Kühne Institute of Logistics Management
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FOREWORD

This report covers the period from September 2016 to August 2017. In this period, the chair’s team continued to produce exciting research results which were published in a broad range of high-quality journals, to offer attractive lectures related to logistics and supply chain management and demonstrate impact in practice.

As far as teaching is concerned, the following lectures are offered in the Bachelor of Science Program at the WHU: an introductory lecture to operations management, a real options analysis class and a new seminar on city logistics. In the Master’s program, this is followed by the logistics and supply chain management course and a class on sustainable operations management; the core operations management class has been offered in the MBA curriculum, too. In addition, a new class has been developed, dedicated to big data analytics and machine learning. Groups from prestigious Chinese universities, among them Peking University and Sun Yat Sen Business School were enlightened on the topic of industry 4.0.

Publications in top-ranked journals and a range of working papers indicate the quality of the research carried out at the chair. I would like to mention the joint paper with Elisa Long (UCLA) and Eike Nohdurft on the optimal allocation of Ebola intervention measures such as Ebola treatment units which has been accepted at MSOM, a high caliber journal. The collaboration with the HELP Logistics AG proved very fruitful, a joint project with WFP led to significant cost savings in the operations of Bhutan School Feeding thanks to a supply chain redesign. Based on a simulation tool that was developed for this project, we could also demonstrate the robustness of our findings.

I would like to thank the entire team at the chair for their dedication and energy they bring to their work and for the delightful atmosphere they help to create. This is the basis for the great work that is being done here. Linda Stein does an outstanding job to assure smooth operations at the chair.

The multitude of research and teaching activities would not have been possible without the ongoing and generous support of the Kühne Foundation. My wholehearted thanks go to Prof. Dr. h.c. Klaus-Michael Kühne and to the managing director of the foundation, Mr. Martin Willhaus. Not only is the financial support greatly appreciated, but also the tireless efforts which Mr. Willhaus makes to provide contacts with practitioners within the logistics industry. The Kühne Foundation’s credo to make logistics research relevant to practice is thus supported in an excellent manner.

This report provides an overview of the chair’s activities. We all look forward to new exciting logistics research and teaching.

Vallendar, January 2018
1 TEAM

Professor Dr. Stefan Spinler
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Professor Stefan Spinler holds the Kühne Foundation Endowed Chair of Logistics Management at WHU - Otto Beisheim School of Management. He received a master’s degree in electrical engineering from Friedrich-Alexander University in Erlangen, with research stays at University College London and Bell Labs (USA). In 1997, he was awarded the diploma in electrical engineering. Subsequently, he joined Infineon Technologies with responsibilities in process integration, quality, and supply chain management. From October 1999 to August 2002, Prof. Spinler was a doctoral student in the department of Production Management and taught at WHU and Leipzig Graduate School of Management (HHL).

His research on options on capacity has been presented at international conferences and leading US business schools. Moreover, his research was awarded a number of prizes, most notably the Management Science Strategic Innovation Award (from EURO) as well as the GOR dissertation award. Upon the completion of his doctoral studies, Prof. Spinler spent a year as a lecturer at the Wharton School, where he taught classes in the MBA and PhD programs and developed a real options class for executives. He has been invited to teach the real options class at MIT as a guest professor in their Leaders for Manufacturing Program. He was awarded the best guest lecturer award twice at HHL. His postdoctoral degree (Habilitation) covered aspects of market-based supply chain coordination and was completed in September 2008. In January 2009, Prof. Spinler was appointed to the Chair of Logistics Management at WHU, which is sponsored by the Kühne Foundation.

Linda Stein
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Since the appointment of the Chair of Logistics Management by Professor Spinler in 2009, Linda Stein has been the chair’s secretary.
Anna Achenbach, M.Sc.
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Anna Achenbach (born 1990) is a doctoral student and research assistant at the WHU – Otto Beisheim School of Management (Chair of Logistics Management) since August 2015. Her research is focused on: Advanced analytics in operations, Predictive modelling and Large-scale data mining. Anna Achenbach holds a Master of Science in Global Logistics. She studied at Technische Hochschule Ingolstadt (Germany) and Kühne Logistics University (Hamburg, Germany). During her studies she focused on Operations Research and Supply Chain Management and worked as a research assistant. In her master thesis she analyzed the application of Big Data Analytics in airline operations.

Between 2012 and 2013 Anna Achenbach gained practical experience as a business analyst specialized on supply chain management and business process outsourcing while working for Nokia. Besides that she has worked as an intern for the demand planning department of Colgate-Palmolive and in various humanitarian logistics organizations. As part of her educational and professional career Anna Achenbach had the chance to study and work abroad including India, Jordan and Namibia.

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Maximilian Burkhardt (born 1987) is a doctoral student and research assistant at the Chair of Logistics Management at the WHU – Otto Beisheim School of Management since October 2014. His research is focused on the effect of stress on operational decisions in a humanitarian logistics environment.

Maximilian Burkhardt graduated as a Master of Science equivalent in Business Administration from the University of Cologne in 2012. During his studies, he focused on Supply Chain Management, Corporate Strategy and Business Psychology. In his diploma thesis at the Chair of Supply Chain Management & Management Science, he analyzed the impact of historical and real time traffic information on last mile express delivery operations. Furthermore, he joined the MBA program of the McGill University in Montreal, focusing on Supply Chain Management and Negotiation Tactics.

Between 2012 and 2014 Maximilian Burkhardt worked as a consultant for McKinsey & Company in the Cologne office as a part of the operations practice. He worked on operational topics with clients from the automotive, high tech, logistics transport and consumer goods sector. Former to his consultant work, he gained practical expertise in various internships including IBM Business Consulting, Deutsche Post DHL and Deutsche Telekom.
Novi Dewan (born 1982) is a PhD Student and Research Assistant at the Chair of Logistics Management at WHU - Otto Beisheim School of Management starting February 2017.

Novi did her Bachelor’s of Engineering (IT) at the University of Pune, India. Her final year Engineering project - Training Automation System - automated the training needs of thousands of employees of Tata Consultancy Services (TCS), getting her the Best Engineering Project Award at the Inter-University level. After graduating in 2004, Novi worked with Kanbay (now Capgemini) performing Business Intelligence and Data Mining for the Prime Brokerage practice of Morgan Stanley. In 2006, Novi received a partial merit-based scholarship from British Petroleum to pursue her MBA at WHU - Otto Beisheim School of Management in Germany. During the MBA, she participated in International Modules at Kellogg (US), CEIBS (China) and IIM-Bangalore (India). Her MBA thesis, about the Indian Life and Health Insurance at Simon-Kucher and Partners (SKP), was published into a book by SKP. After graduating in 2007, Novi worked primarily in Supply Chain, Logistics and Transportation and Change Management. Key highlights include: Procurement Operations Streamlining and Material Costs Reduction for LSG Sky Chefs at Navardo GmbH, Germany; Network Capacity Optimization, Customer Service Performance, Global Distribution, Optimization and IT Application Convergence projects for DHL Ocean Freight, Deutsche Post, DHL Express at DPDHL In-house Consulting AG, Germany.

Novi hopes that the valuable guidance from Professor Dr. Stefan Spindler, the fellow Research Assistants and her background in Engineering and Supply Chain will help her best learn from and contribute to the Chair.

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Alexander Hess (born 1987) is a Ph.D. student and research assistant at the WHU – Otto Beisheim School of Management (Chair of Logistics Management) since July 2016. His research is focused on Vehicle Routing Problems, Inventory Problems, and Logistics in the Timber Industry.

Alexander studied Business Administration at the WHU – Otto Beisheim School of Management (Vallendar, Germany), the New York University – Leonard N. Stern School of Business (United States), the EBS Universität für Wirtschaft und Recht (Oestrich-Winkel, Germany), and the Copenhagen Business School (Denmark). During his studies, he focused on Finance, Supply Chain Management, and IT Management. In his Master’s and Bachelor’s theses he analyzed the opportunities for optimization in the German timber logistics market.

Between 2014 and 2016, Alexander worked as Chief Technology Officer (CTO) for a New York based and venture capital backed start-up company in the art industry, where he was the lead backend developer and managed the product and software development for various client-side applications. Prior to that, he gained practical experience during several internships in the German start-up scene and the financial industry.
Stefan Schwering (born 1988) is a Ph.D. student and research assistant at the WHU – Otto Beisheim School of Management (Chair of Logistics Management) since October 2016.

His research is focused on Structure and performance measurement of supply networks, Strategy in supply networks and Profit-optimized planning in complex production systems.

Stefan Schwering has the following academic background: M.Sc. in Mechanical Engineering (Energy Technologies) at RWTH Aachen (2012); M.Sc. in Business Administration at RWTH Aachen (2014); Semesters abroad at Imperial College London (2009-2010) and Tsinghua University, Beijing (2013). During his previous studies he worked on topics including optimization of nonlinear energy systems and improvement of electricity tariffs for better integration of Renewables.

In parallel to his PhD, Stefan Schwering has been working as a management consultant since 2014 at McKinsey & Company Inc. His focus is on supply chain projects for companies in the process industry.

Professor Jürgen Ringbeck, former Senior Partner with Booz Allen Hamilton / Booz&Company, is working as an independent strategic investor and consultant since spring 2014. After lecturing at WHU since 2012, he was appointed honorary professor by WHU - Otto-Beisheim-School of Management in 2014. Professor Ringbeck held lectures on various topics of corporate management and currently holds a lecture on Transportation Management in the Master of Science Program.
Vefa Alparslan (born 1987) joined the chair of Logistics Management at WHU as an external Ph.D. student in November 2014. In his research, he analyzes the key drivers for successful and unsuccessful mergers and acquisitions in the logistics and transportation with a geographical focus on Europe and China based on selected and representative case examples. Vefa Alparslan studied in the Master of Arts program in Corporate Management at the Business and Information Technology School from 2010 until 2012. In his Master thesis, he studied the organization of strategic procurement as well as the importance and creation of procurement controlling as sustainable key success factors for international operating companies. Prior to this, Vefa Alparslan graduated as Bachelor of Arts in Aviation Management from Frankfurt University of Applied Sciences with specializations in aviation, logistics and controlling. In his Bachelor thesis, he focused on the interpretation and operationalization of benchmark results using the example of Fraport Infrastructural Facility Management. In the course of his studies Vefa Alparslan spent one semester at École Supérieure du Commerce Exterieur in Paris. After his studies Vefa Alparslan worked as an external consultant for Lufthansa LSG Sky Chefs from 2012 to 2013. Today, he is working as an analyst for McKinsey & Company and he is primarily involved in projects in the aviation and logistics industry in Europe and the Middle East with a primarily focus on topics of network optimization, operations, pricing and ancillary products. Research interests: mergers and acquisitions, geographic footprint strategies of companies, market growth forecast calculations and drivers as well as product portfolio diversification in the aviation and logistics sector.

Andreas Faber (born in 1988) joined the chair of Logistics Management at WHU as an external doctoral student in August 2016. His research focuses on data-driven supply chain planning in e-commerce. In particular, he is seeking to improve demand forecasts based on big data.

Andreas Faber obtained a master’s degree in Industrial Engineering from Karlsruhe Institute of Technology (KIT) in 2013. In his master thesis, he analyzed the product life cycle identification and demand forecasts of spare parts in the automotive aftermarket in cooperation with the Robert Bosch GmbH. During his studies, Andreas Faber spent two semesters at Marmara University in Istanbul (Turkey).

After his graduation, Andreas Faber joined the McKinsey & Company Business Technology Office (BTO) as management consultant. He supported strategy and digitalization projects in the logistics, insurance and energy industry.

Research interests: E-Commerce, Demand prediction, Advanced analytics, Predictive modelling.
Mariam Alvin James Furrer, MBA
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Mariam Alvin James Furrer (born 1987) joined the chair of Logistics Management at WHU – Otto Beisheim School of Management as an external Ph.D. student in July 2017. Her research focuses on Supply Chain Risk Management: Assessing the Vulnerability and Resilience in Modular, Integrated Supply Chains. Mariam graduated with a Master of Business Administration (Academic MBA) degree from the Arab Academy for Science and Technology and Maritime Transport in 2013 as the best student of the year with outstanding GPA of 3.98. In her thesis, she was measuring Supply Chain Management Performance in Service Industry by using Global Supply Chain Forum (GSCF) Framework and the Services Supply Chain Model. In 2009, she earned her Bachelor Degree in Trade Logistics and International Transport Management from the Arab Academy for Science and Technology and Maritime Transport. Her studies entailed the analysis of Liner Shipping, Container Shipping, Ocean Freight Markets, Logistics and Supply Chain Management. Furthermore, she interned from 09.2008 to 09.2009 in G.A. Paper International, where she was able to channel her academic studies into practical skills. Mariam Furrer is currently holding a position as an Assistant Lecturer in the Transport Operations Management Department at the Arab Academy for Science and Technology and Maritime Transport in Cairo, Egypt.

Research interests: Supply Chain Management, Risk Management, Supply Chain Vulnerability and Resilience, Modular & Integrated Supply Chains.

Christian Haehl, M.Sc.
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Christian Haehl (born 1985) joined the chair of Logistics Management at WHU as an external doctoral student as of October 2014. In his research he works on the valuation of containership investments under uncertainty using the real options approach. Specifically, he analyzes risk management opportunities in shipping companies to optimize risk exposure to high volatilities in shipbuilding prices and charter rates. After completing a vocational training in banking (Bankkaufmann), Christian Haehl has studied in the Bachelor of Arts programs in Business Administration and in Economics at the University of St. Gallen from 2007 until 2010. From 2011 until 2012 he completed the Master of Science in International Finance program at HEC Paris business school. In his master thesis, Christian Haehl focused on analyzing the contemporary market for repurchase agreements, their mechanisms of collateralization and their impact on the world financial crisis in order to deduct implications for future regulation. In between his studies, Christian Haehl has worked 3 years as a consultant for McKinsey & Company. During this time he mainly worked for clients in the banking, telecommunications and consumer goods sectors in Germany, Switzerland, the UK, USA and Japan. In these projects he focused primarily on topics of risk management, investment decisions, overall group strategy and logistics.
Daniel Makowski, Dipl.-Ing. oec.
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Daniel Makowski (born 1985) joined the chair of Logistics Management at WHU as an external doctoral student in July 2015. His research is on the logistics of fast moving consumer goods in the B2C area. In particular, he examines ways in which e-grocers can bridge the last mile. Daniel graduated with a degree in industrial engineering (Dipl.-Ing. oec.) from University Hamburg and TU Hamburg-Harburg in 2012, majoring in logistics, production management, statistics and marketing. His student research project – written in cooperation with BUSS Logistics GmbH (Hamburg) – dealt with workplace health management and his thesis – written in collaboration with Leeb GmbH (Memmingen) – dealt with optimization and adjustment of internal logistics processes. During his studies, Daniel was a member of the German rowing national team and won several medals at World and European Championships. In April of 2013, after a 3-month stay in the US, he joined at Mars GmbH for a management development program working as a production team leader and project manager. Since January 2016 Daniel is working for Porsche Consulting as management consultant.

Silke Malina, MBA
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Silke Malina (born 1972) studied economics at the European-Business-College in Wuerzburg and finished with a Bachelor of Commerce at the Hogeschool van Utrecht (NL). In 2007 she obtained her Master of Business Administration (MBA) from the University of Surrey (UK). Her master thesis treated about “Lean Management and its Effectiveness in Organizations”. During her studies she made several traineeships in the consumer and investment goods industry, e.g. at the subsidiary of Michael Weinig AG in Singapore.

Silke Malina works for Bosch Rexroth AG. After several years of controlling, she worked as project manager on the implementation of logistics standards worldwide. Currently, she works as project director with the responsibility to increase supply chain flexibility. In January 2011, Mrs Malina joined the chair of Logistics Management at the WHU in Vallendar as external doctoral student. Her research topic is the management of supply chain complexity.
Christian Rudolf, MBA
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Christian Rudolf (born 1982) joined the chair of Logistics Management at WHU as external doctoral student in March 2014. His research is focused on Supply Chain Risk Management in large scale projects. Christian graduated as Master of Business Administration from the Graduate School Rhein-Neckar, University of Applied Science Mannheim 2012. In his master thesis, he analyzed methods of Supply Chain Performance Management and provided a holistic Performance Measurement Framework for the Strategic Management of Procurement and Supply Chain Management Organizations. He earned a diploma of Business Administration (DH) from the Baden-Wuerttemberg Cooperative State University with majors in Finance and Supply Chain Management 2007. In his diploma thesis, Christian worked on an approach for Key Supplier Management within a European Supply Chain Management Organization and evaluated the potentials of a harmonized European Sourcing and Logistics Group. During his studies, he spent 2006 an internship in Helsinki, Finland and 2007 in Swansea, Wales. 2011 he attended a summer school at the University of Warwick, UK to study Intercultural Management. Christian works for the Westinghouse Electric Company, a group company of the Toshiba Corporation. He held several positions within the Global Supply Chain Organization, mostly in the areas of Strategic Sourcing, Category Management, Outsourcing and Business Transformation Projects. Currently he is responsible for an international Strategic Sourcing team, supporting large scale projects.

Christian Soyk, M.Sc.
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Christian Soyk (born 1988) is a Ph.D. student at the WHU – Otto Beisheim School of Management (Chair of Logistics Management) since July 2016. He graduated as M.Sc. in Aerospace Engineering from the TU Munich and as well holds an Honors Degree in Technology Management from the Center for Digital Technology and Management, Ludwig-Maximilians-University of Munich. Over the course of his studies he also spent one semester at the UC Berkeley School of Information. During his previous studies Christian Soyk focused on airline network planning and implications on profitability, feasibility and readiness of various alternative aircraft fuels, as well as commercial and environmental viability of alternative aircraft fuel made from microalgae. In parallel, he has been working as a management consultant for Bain & Company since 2014. He has mainly worked on strategic and operational topics with clients from the high tech and industrial goods and services sectors. Prior to his engagement at Bain & Company, he gained experience during various internships at Lufthansa AG, Airbus Group, and BMW AG.
Nicole Stein, M.Sc.
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Nicole Stein (born 1992) has been studying business administration (M.Sc) at WHU – Otto Beisheim School of Management. She gained practical experience in the fashion and advertising industry as well as in the digital sector (i.a. in Paris and New York). She founded onbelle GmbH (myonbelle.de) – Germany’s First fashion flatrate. The business is backed by ProsiebenSat1 and applies principles of circular economy.

Since beginning of 2017 Miss Stein is a doctoral student at the Supply Chain Management Group at WHU Vallendar. Her research is examining Circular economy focusing on a facilitation of implementation on micro level and digitization processes.

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Martin Vu, M.Sc.
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Martin Vu (born 1985) joined the chair of Logistics Management at WHU as an external doctoral student in July 2014. In his research, he is working on effective risk management within product creation and focus on the automotive industry perspective. Martin Vu graduated as Master of Science in International Business and Management from Manchester Business School at The University of Manchester (UK) with specialization in Finance in 2011. In his Master thesis, he assessed value creation from mergers and acquisitions in the European automotive industry under the application of an event study. During his Master studies, Mr. Vu spent one semester abroad at Copenhagen Business School in Denmark. He earned a Bachelor of Arts degree from HFU Business School at Hochschule Furtwangen University in Germany with specialization in Finance in 2010. In his Bachelor thesis in cooperation with the Strategy and Organizational Development department at Volkswagen AG, Mr. Vu worked on the measurement of the internationalization degree and the derivation of an internationalization strategy under the consideration of the strategic goals from the ‘Strategy 2018’. During his Bachelor studies, Mr. Vu spent one semester at the University of California at Santa Barbara in the USA. After his studies, Mr. Vu started working as a consultant at Porsche Consulting in 2011. He works at projects in the automotive industry with focus on product creation and innovation management in the national and international context. During his studies, he gained first work experience through internships in the automotive industry: BMW Group Inhouse Consulting in 2009, International Business Consulting in 2008 and Marquardt Group in 2006.
Jan Philipp (born 1990) joined the chair of Logistics management at WHU as an external PhD candidate in April 2017. In his research he analyses the implementation of Circular Economy and the resulting impacts onto the whole value-chain.

Jan Philipp has been awarded a Master of Letters (MLitt) at the end of his studies of International Management at the University of St Andrews (Scotland) from 2013 to 2014. In his master thesis he studied the potential of Bitcoin to be a disruptive innovation. Prior to this, Jan Philipp has graduated as a Bachelor of Arts (BA) in International Management from the International School of Management (ISM) in Frankfurt (Germany). In his bachelor thesis he developed a KPI framework to minimize systematic delays at IATA Level 3 airports. The KPI framework was validated with movement data from one of the biggest airports in the world. During his undergrad Jan Philipp has studied one semester abroad at the Universitat Ramon Llull in Barcelona (Spain).

In 2015 Jan Philipp joined OakTree Partners where he is working as a Senior Associate. During his time at the consultancy specialised towards the Travel, Transport and Logistics industry Jan Philipp was able to work closely with clients from the Rail and Parcel industry on strategic and implementation-oriented projects.

Research interests: Circular Economy, Value Chain-Management, Business Model-Design

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Director, MIT Megacity Logistics Lab, Center for Transportation & Logistics, Massachusetts Institute of Technology (MIT)
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Logistics has become a key enabler in today’s global trade. And while today’s value creation networks exploit to the extent possible local business advantages, the challenges that come with these dispersed structures have grown substantially over the last ten years. Recognizing this trend, the WHU – Otto Beisheim School of Management founded the Kuehne Institute for Logistics Management, which comprises two endowed Chairs (Prof. Dr. Stefan Spinler and Prof. Dr. Carl Marcus Wallenburg) and currently about 20 PhD students. The institute was inaugurated in March 2012.

Our objectives are to generate new insights for the management of logistics and to disseminate this state-of-the-art knowledge into the research and business community.

To this end, we conduct high quality and internationally visible research, which is analytical, conceptual, or empirical in nature. Further, we provide specialized courses and lectures at various educational levels (BSc, MSc, MBA, Executive Education) and organize conferences for the business community and students in the area of logistics and supply chain management.

Current research projects are dedicated to the following areas:

- Management of logistics services
- Management of vertical and horizontal cooperation
- Logistics and supply chain controlling
- Sustainability in supply chains
- Risk management in supply chains
- Big data and machine learning in logistics and supply chain management
3 TEACHING

3.1 BACHELOR OF SCIENCE PROGRAM

Seminar Smart Cities
This seminar deals with various aspects of smart cities: deployment of sensor technology, policy design, city logistics concepts. Students analyze benchmark studies such as Singapore and examine to what extent the smart city concept can contribute to the benefits of the ongoing urbanization.

Real Options
This course deals with investment decisions as they arise in the context of international production and logistics networks, R&D projects and raw materials exploitation. The traditional discounted cash flow method is unable to account for the value of managerial flexibility. Real options, which aims at translating much of the methodology established for financial options valuation to real investment projects, allows to properly capture the value of flexibility. Several case studies exemplify the steps that need to be undertaken to perform a full-fledged real options valuation. In the MBA program this type of course is particularly meaningful as most participants have already project management experience and thus have been exposed to the shortcomings of traditional NPV analysis.

Introduction to Business Administration (Course A + B + C)
This class introduces first year students to the key components of a value chain, i.e., procurement, production and distribution. On a basic level, these activities are illustrated via case examples and mathematical models.

3.2 MASTER OF SCIENCE PROGRAM

Designing and managing the global supply chain
Logistics has grown from a purely functional orientation to become a key enabler of global supply chains. To achieve this, logistics needs to be integrated within the firm as well as across boundaries from suppliers to manufacturers to customers. As companies tend to focus on their core competencies, deverticalization of the value chain entails which necessitates coordination of logistics activities. Logistics is not only concerned with flows of goods and cash, but also – to an ever increasing degree – with the flow of information. Hence it is natural that IT systems play a crucial role to achieve what has been called the 4Rs – that is, the right product at the right place and the right time at the right price.

Transportation Management – held by Honorary Professor Jürgen Ringbeck
Transportation is one of the fastest growing global industries. Travel and logistics are the major backbone of our global business and a core element of private life. The objective of this course is to give a comprehensive introduction into the challenges and best-practices of management and principles of global industry players like passenger airlines or logistics companies. Such management best-practice includes a deeper understanding of the underlying industry dynamics, and the outline of superior strategies as well as commercial and operational management methods of selected industry
segments. The course will also highlight some specific management approaches which illustrate a way to a long-term sustainable industry.

**Sustainable Operations Management (Course A + B)**

Sustainability is emerging as a key concern for businesses, not least because of the agreement which was reached in the COP21 meeting in Paris in 2015. Thus, it is imperative that students are familiar with sustainability assessment tools. Case studies on successful sustainable companies highlight key challenges and solution concepts.

**The Analytics Edge**

Through analytics companies can improve their competitive positioning. With big data emerging in many areas, new tools based on statistics and machine learning become a necessity. In this course, we will use R to employ these tools and discuss the respective benefits.

### 3.3 FULL-TIME MBA PROGRAM

**Operations Management**

Operations management is about designing, managing, and improving the activities involved in creating products and services and delivering them to customers. A great workshop offered by Porsche Consulting introduced the students to the importance of quality management in a very hands-on fashion: the process of assembling a pocket lamp was improved step-by-step along the lines of the Toyota Production System principles. Gregory Bryan, Director Operations at Amazon, illustrated why Amazon is so successful and how that relates to operations and supply chain management.

**The Analytics Edge**

Through analytics companies can improve their competitive positioning. With big data emerging in many areas, new tools based on statistics and machine learning become a necessity. In this course, we will use R to employ these tools and discuss the respective benefits.

### 3.4 EXECUTIVE MBA PROGRAM

**The Analytics Edge**

Through analytics companies can improve their competitive positioning. With big data emerging in many areas, new tools based on statistics and machine learning become a necessity. In this course, we will use R to employ these tools and discuss the respective benefits.

### 3.5 DOCTORAL PROGRAM

**Quantitative Supply Chain Models**

The purpose of this seminar is to expose students to the most recent advances in management science and operations research. The methods presented are key building blocks of the participants’ dissertations.
4 THESES

4.1 BSC PROGRAM

- **Baumgarth, C.**
  Singapore as a smart city

- **Benninger, S.**
  Industry 4.0

- **Diemath, H.**
  Uberization of logistics

- **Hodak, F.**
  Supply risks in the petrochemical industry from plant disruptions

- **Käfer, J.**
  Implementing digital learning at WHU

- **Kayser, L.**
  Managing indirect suppliers

- **Kemmner, F.**
  Uberization of logistics

- **Klingen, M.**
  Machine learning models in food delivery forecasting

- **Knaup, H.**
  Impact of regional disruptions on the global supply of petrochemicals

- **Kugland, F.**
  The Digitalization of the German healthcare system

- **Lienau, J.**
  Bullwhip effect for suppliers acting at different positions of the supply chain

- **Meyer, L.**
  Product flow optimization in the health care industry

- **Naunin, P.**
  Innovation and digitalization in the shipping industry
• Raaymann, S.
  Solving present problems of passenger traffic in urban areas

• Schneider, G.
  Development of predictive maintenance

• Torres-Linke, M.
  Product flow optimization in the health care industry

4.2 MSC PROGRAM

• Berger, N.
  Revenue management in the semiconductor industry

• Hadtstein, L.
  Energy storage

• Knörrer, L.
  Outline of the K+N document wizard

• Peppel, M.
  Accelerating the development and adoption of sustainable vehicle technologies

• Pruksanusak, A.
  Precision agriculture

• Stein, N.
  What goes around, comes around

• Wolfewicz, A.
  Development of a lead-time based dynamic pricing system

4.3 DOCTORAL PROGRAM

• Georg, J. (2nd advisor)
  Struggles for legitimacy

• König, A.
  Supply chain risk management by LSPs

• Nohdurft, E.
  Three essays on decision making in health care operations

• Rau, P.
  Investments into ocean freight capacity

• Röllecke, F. (2nd advisor)
  Return chain management
• **Schöne, M.**  
  Operational and financial risk management

• **Steuber, M.** *(2nd advisor)*  
  Global production sourcing

• **Süsser, T.** *(2nd advisor)*  
  Company – customer interaction in mass customization

### 4.4 FULL-TIME MBA PROGRAM

• **Abbas, U.**  
  Supply chain finance

• **Acharya, A.**  
  Internet of energy

• **Aguirre, G.**  
  Digitalization of wealth management

• **Charvolin, C.**  
  A risk based country analysis for sourcing

• **Pesciallo, E.**  
  Business Plan: MEDZOLL concept

• **Popovic, G.**  
  Using open data sources in automotive industry

• **Zhu, K.**  
  Supplier management in automotive industry

### 4.5 PART-TIME MBA PROGRAM

• **Dr. Skorianz, M.**  
  Sustainable steel production
5 TEACHING INNOVATION

5.1 GUEST LECTURES

- **Dr. Stanislav Schmal**, Consultant Lufthansa AG, Operations Efficiency & Strategy, FRA LI
  “Big Data @ Lufthansa”
  October 25, 2016 as part of the FT MBA lecture “The Analytics Edge”

- **Dr. Sebastian Kerkhoff**, McKinsey & Company, Inc.
  “The age of analytics: industry examples and a discussion on what it takes to be successful”
  January 27, 2017 as part of the MSc lecture “The Analytics Edge”

- **Udo Kießlich**, Managing Director, All you need GmbH (allyouneedfresh)
  “How same day delivery disrupts e-grocery business and potentially other retail segments”
  February 7, 2017 as part of the MSc lecture “Designing and Managing the Global Supply Chain”

- **Dr. Michael Lierow**, Partner at OliverWyman
  “Optimizing the spare parts network for an aircraft manufacturer”
  February 14, 2017, as part of the MSc lecture “Designing and Managing the Global Supply Chain”

5.2 NETLOP-SEMINAR OF THE KÜHNE-FOUNDATION

For the NetloP-Seminar, which is very successfully run by Mr. Martin Willhaus, we provide content for the introductory week in Schindellegi and the final part of this seminar in Vallendar.
6 RESEARCH

6.1 DISSERTATION PROJECTS

Achenbach, Anna (from 08-2015, ongoing)

“Prescriptive Analytics in Airline Operations”

With the historic low margins in the airline industry and the ongoing fierce competition, airlines struggle to increase the productivity of their operations to ensure profitability. The application of machine learning and predictive analytics has shown to hold great potential in many industries. So far there are only few examples of its application in airline operations.

The aim of this dissertation project is to improve an airline’s decision making capabilities through applying machine learning to historic flight and fuel data. Through the improvement in information quality airlines can ensure economical and punctual operations.

In her first Paper, Anna Achenbach develops a predictive algorithm based on aircraft, weather and traffic data to forecast a continental flight’s arrival time. The model is further extended by adding a speed optimization, which determines the optimal cost index for an aircraft considering fuel versus personnel and maintenance costs. The model builds on machine learning and aircraft performance data to generate accurate predictions and a robust optimization. In the second paper a predictive algorithm for intercontinental flights is developed. The work also assesses the accuracy of en-route weather data of the operational flight plan. The inclusion of en-route weather data as meta-features and the arrival time prediction of intercontinental flights is a completely new development in this research area. The prediction accuracy increases by more than 30% compared to the airlines model. The third paper focuses on fuel prediction. Here the aim is to quantify the optimal fuel load for an aircraft on a specific route. Considering that weight and therefore initial fuel load are one of the main factors in fuel consumption, the weight dependency is incorporated in the predictive model. The aim is to predict the optimal fuel amount that will include the necessary safety fuel load at arrival.

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Alparslan, Vefa (from 11‐2014, ongoing)

“Mergers and acquisitions in the transportation and logistics sector: A sustainable value creation or aware value destruction? A case study based analyses”

Mergers and acquisitions are strategic tools for companies to expand their activities in today’s highly competitive business environment. Compared to organic growth and other types of cooperation’s such as bilateral partnerships or joint ventures, mergers and acquisitions require thorough pre-analyses and the success basically depends on different factors. Even transportation and logistics companies defer to vertical and horizontal mergers and acquisitions to extend their market shares or to secure their competitiveness. However, a couple of large cases in recent years such as the acquisition of Exel through DHL in 2005 were not fully successful due to various reasons. While already existing academic explanatory approaches provide potential causes determining the success or failure of mergers and acquisitions, there are today no detailed investigations specifically in terms of transportation and logistics related cases available. In his dissertation, Vefa aims at identifying the main drivers for the success or failure of mergers and acquisitions in the transportation and logistics industry based on selected cases. He applies the case study research method to figure out why mergers and acquisitions in the transportation and logistics industry fail or succeed. In this context, cases from Europe and China are analyzed to see whether local or geographic circumstances have a significant influence on mergers and acquisitions. Furthermore, he aims at showing significant factors how transportation and logistics relevant mergers and acquisitions can be more promising in the future.
Burkhardt, Maximilian (from 10-2014, ongoing)

„Decision behavior in humanitarian logistics – The effect of stress on operational decisions“

Managing the supply of food, medicine and other relevant non-food items (e.g., shelter) is a major challenge for humanitarian organizations during a crisis. Speed and the most efficient use of the available budget are important factors for the alleviation of suffering and a successful humanitarian operation. Regional procurement managers from humanitarian organizations are facing the challenge of helping people in need, while spending the available budget most efficiently. Overestimating the demand may result in supply shortages for other relevant relief items, due to a lack of budget. Underestimating the demand may result in suffering people, due to a lack of supply. In addition, procurement managers are facing severe time restrictions and have to deal with local, burdensome circumstances, while making order decisions.

In order to gain a better understanding of decision making in the potentially stressful humanitarian context, this dissertation focuses on three aspects: First, we investigate the effect of perceived stress on overall newsvendor performance in the newsvendor game and related biases in a humanitarian operations setting. Furthermore we distinguish the effect of different stressors on different biases. We therefore apply cognitive, psychological and emotional stressors, such as time pressure and the combination of noise and affective unpleasant pictures to the subjects. Second, we develop and test de-biasing techniques which help to improve newsvendor related decision making performance under stress. These techniques are intended to be useful tools for humanitarian organizations, managing on-site operations after a crisis in order to alleviate suffering more effective and efficient. All findings are based on laboratory experiments. Third, we seek to support real life humanitarian operations in cooperation with Kühne Foundation against the backdrop of our research.

Dewan, Novi (from 02-2017, ongoing)

“Health and Humanitarian Logistics, Rural Logistics, Food Logistics”

Tele-Ophthalmology in India: India currently has 12,000 ophthalmologists (eye doctors). This implies an average of 1 eye doctor for every 110,000 citizens. This average is far worse for rural areas that have limited access to decent health care facilities and low awareness of the kind of symptomatic and asymptomatic diseases. Congestion due to traffic and poor infrastructure in cities, semi-urban and sub-urban areas further reduces the tendency to travel to an eye doctor unless if there is an emergency (trauma, severe pain) or obvious blindness. Currently cataract and glaucoma are amongst the leading reasons of blindness in India, with diabetic retinopathy as a growing cause of severe visual impairment, blindness in both urban and rural India. Most eye diseases (except cataract) require a Fundus Examination by the equipment called ‘Direct Ophthalmoscope’, which means an examination of the retina of the eye. The direct ophthalmoscope is an expensive, heavy piece of hand-held equipment and requires specialized and a steady hand for using. D-Eye is an Italian based company that has come up with a portable eye and retinal image system (the size of a finger) that can be attached on the iPhone, and detect up to 8 eye diseases including glaucoma, retinopathy, age related macular degeneration and cataract with accuracy. It can also be used for pediatric cases and bed-ridden individuals. Together with Dr Mrs. Ranjna Dewan, a leading Ophthalmologist and Cataract Surgeon (MD, All India Institute of Medical Sciences, New Delhi), winner of the Rashtriya Gaurav Award (National Pride Award) for her Professional and Community services, we plan to test (on field) the efficacy of the D-Eye device in early detection of diseases that cause blindness, and its suitability for tele-ophthalmology purposes. It must be kept in mind that glaucoma is an irreversible disease, which can be cured only with early/timely detection. It is also an asymptomatic diseases, implying a lack of symptoms making detection by the patient harder until he/she reaches a stage of severe visual impairment. Furthermore, diabetic retinopathy is curable if detected on time.
Faber, Andreas (from 08-2016, ongoing)

“Supply Chain Planning based on Machine Learning methodology”

The concepts of predictive analytics and big data are commonly used these days, but there is limited empirical research regarding its application and benefits. In addition, many companies still struggle to find relevant and useful applications of data analytics. Given these challenges, the doctoral thesis provides new insights in quantifying the benefits of new data-driven analytical methods in supply chains. Application areas in focus are demand predictions as well as customer related questions such as churn and sales prediction. The results reveal under which conditions machine-learning methods outperform traditional methods and how combinations of different methods lead to superior results. Additional improvements come from new meta-learning approaches that help to select the most accurate forecasting method for individual products or customers.

The research is based on collaborations with different industry partners that provide the underlying research data. Results of the research are therefore relevant for both business and science.

Furrer, Mariam Alvin James (from 04-2017, ongoing)

“The Impact of Climate Related Events on Supply Chain Management: Assessing the Vulnerability of Supply Chains and Developing Mitigation Strategies for Egyptian and German Firms”

Over the last decade, nearly all industries have faced increased competitive pressure in the business environment and globalization of the markets. Serious and costly disruptions, either from internal and or external risk events, such as, material shortages and natural disasters related to climate change and disasters made modern supply more vulnerable than ever. This research will contribute to the field of climate change and supply chain risk management. Can supply chains be climate smart? is an emergent field of study in an era of increased frequency and severity of extreme weather events. The research adds to the immature of climate change effects on supply chain networks for companies located in Egypt as well as globally operating companies, such as Henkel Germany. Moreover, it will be the first to use the Acclimate model in accordance with a discrete simulation model in order to reduce the potential for climate abnormalities to affect the resilience of the supply chain networks, either national or global.

Both models will help decision makers to be more informative while choosing the appropriate cost-effective adaptation concepts and strategies to reduce the severe impacts of weather extremes on supply chain networks. An analysis of future supply chain risk will be conducted. In addition, the impacts of the case firms’ adaptation measures on the vulnerability and resilience of the local and global supply networks will be analyzed and modified if needed. The information provided by this research is essential for further research in the areas supply chain risk management and climate change and gives a starting point for a further investigation.

Haehl, Christian (from 10-2014, ongoing)

"Investments into container shipping capacity under market and regulatory uncertainty - A real options approach."

In this dissertation the research focused on the valuation of containership investments under different sources of uncertainty. Using real options approaches, the dissertation proposes a model for ship investment taking into account demand uncertainty and management’s strategic options such as divestment and chartering. The dissertation further assesses how uncertainty about future environmental regulation affects the overall optimal capacity choice as well as the specific technology choice for regulatory compliance in container shipping. This research helps market participants make better investment decisions and regulators to understand the effects of regulatory uncertainty and various regulatory regimes on overall market outcomes.
Hess, Alexander (from 07-2016, ongoing)

**Keywords: Machine Learning, Urban Logistics, Vehicle Routing, Combinatorial Optimization**

Food delivery services and other urban logistics service providers have employed various methods of optimizing the flow of their vehicles in recent years. However, with more and more real-time data (e.g., weather, traffic, ...) available, the overall performance of such optimization systems and thus the customer experience can be improved with more accurate predictions of future demands, traffic jams, and total delivery times. The goal of the research project is to promote the usage of machine learning algorithms in the field of urban logistics. In addition to plain forecasting, machine learning methods are also applied to fine-tuning the optimization (meta-)heuristics’ parameters, an approach called hyper-heuristics.

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Makowski, Daniel (from 07-2015, ongoing)

**“Decision Criteria for Optimal Home Delivery Strategies in the E-Grocery Sector”**

Order groceries from the internet and have them delivered directly to the front door is an emerging trend. Both, academic and non-academic interest rose in recent years, but despite the increasing interest online food retailing still is a niche market. In 2015 the market share of online ordered groceries was below 1% in Germany. Nevertheless in some regions, mostly bigger cities like Berlin with relatively high customer density, online groceries are a viable alternative to traditional supermarkets, the market share of online groceries is already between 3% and 5% and experts predict an accelerated growth for the German market in the next couple of years.

In the first paper the current situation of e-groceries in Germany was examined by expert interviews. The hypothesis that the last mile is the most challenging part of the entire supply chain was confirmed. High costs for last mile logistics connected with low market share of online groceries and therefore low customer density makes an economic last mile delivery difficult. Also an optimal delivery method for last mile delivery, the use of either company owned delivery vehicles, courier, parcel or crowd delivery services or a combination of these methods was not yet found. The use of hybrid delivery strategies, which is not yet followed by any of the interviewed retailers could strongly increase the delivery performance. Overall, compared to other countries the development of the German online grocery market lags behind other European countries. The interviewed experts quote that special requirements in Germany are the reason for the current situation. Without a big conglomeration area like Paris or London, the already complex logistics becomes even more difficult in areas with lower customer density. Additionally, because of the high number of discounters and supermarkets the gain in convenience due to home delivery of groceries is minor and the willingness to pay additional costs for home deliveries is low in Germany.

In addition to the actual delivery and the delivery strategy the interviewed experts identified the highest potential for optimization in order fulfillment, the second major pool of costs in last mile delivery. Storage strategies, taking into account the special requirements for food storage are not yet investigated in depth. Therefore we decided to focus on two topics for further research: on the one hand the development of hybrid delivery strategies and on the other hand research on optimal storage strategies.

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Malina, Silke (from 01-2011, ongoing)

**“Supply Chain Complexity in the Drive and Control Industry”**

Supply chains are more and more challenged by increasing complexity caused through product variety, processes and structures. This raises the question how firms manage supply chain complexity and remain competitive. To answer this question it is essential to research the drivers of complexity and to develop a framework of how to control and manage structural as well as dynamic impacts. Firms may use complexity to differentiate from others, if they apply appropriate measures to control the supply chain. Companies have also to adapt to market requirements and thus being agile.
In the next step requirements and qualities of a supply chain are explored and how key performance indicators (KPIs) are affected. Finally, a discrete event simulation is conducted in order to show quantitative effects in a supply chain. A case study with empirical data from interviews is conducted in order to enable the analysis qualitatively and quantitatively. The contribution to academic literature is the limited research of supply chain complexity to date. Based on the results practical recommendations for managerial decisions are developed.

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Rau, Philipp (from 09-2013, ongoing)

"Investment into ocean freight capacity - Development of a real options investment model in oligopolistic competition to evaluate investment decisions in shipping"

Philipp Rau's dissertation project is about investment into ocean freight capacity. Even though fundamental supply-demand data would project otherwise, global container shipping capacity has steadily increased over time - both in size per vessel and in total installed capacity. This, in part, is caused to highly cyclical industry development and somewhat irrational ordering behavior of players. Since there is a lack of perfect competition and complex factors (fuel efficiency, network constraints, financing, regulation, vessel size dynamics and asset prices) influencing investment, Philipp Rau develops an industry-specific investment model with use of real options theory and game-theoretic oligopoly in his first paper. In his second paper, Philipp Rau evaluates alliance behavior in the shipping market and especially its potential impact on investment decisions as well as its effect on optimal capacity. A simulation model that extends the coalition structure value concept finds that a real options trigger approach performs better than traditional discounted cash flow approaches. In his third paper, Philipp Rau develops an empirical characterization of the container freight rate. He conducts an industry back testing and finds that - had shipping players applied real options models from 2012-2016 – capacity would have significantly declined.

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Rudolf, Christian (from 03-2014, ongoing)

“Supply Chain Risk Management in Large Scale Projects”

Large scale projects became a typical delivery model in the infrastructure construction industry. Even so this delivery model is well established, only one in one thousand projects can be defined as success. Ineffective Risk Management (RM), especially in the Supply Chain Management area was repeatedly identified as one of the key drivers for past project failure. Yet the Risk- and Supply Chain Risk Management (SCRM) body of knowledge seems well established, a lack of SCRM tailored to the specific requirements of LSCP can still be observed. The proposed research project shall close this gap by developing a model for SCRM in the specific context of LSCP. This shall be based on an explorative case study, conducted at company operating in the Nuclear Power Plant new build & major refit project business. The LSCP executed in this field show a historical track record for significant delays, claims, cost overruns and investor disappointment. Therefore they offer an ideal field of research and a key case with a high potential for broader generalization. The expected results shall contribute to a higher success-rate of LSCP thru enhanced and more effective SCRM, leading ultimately to lower cost of infrastructure projects. Moreover they shall contribute to an emergent literature on SCRM and project management practice based on an inductive empirical perspective.

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Schulze-Schwering, Stefan (from 10-2016, ongoing)

“Supply network management”

Driven by increasing outsourcing and globalization, supply networks have become more complex in recent years. However, only limited research has been conducted on how to manage supply networks and especially indirect suppliers. In this dissertation, we aim to answer the following questions: Which suppliers are critical for a supply network from a structural perspective? What do the demand dynamics in a supply network look like and how can they be managed? What is a management framework that can be used to determine how to manage indirect suppliers? Our research will combine different methodologies: First, we will use social network analysis (SNA) to identify critical nodes in real supply networks from the semiconductor industry. Second, we will analytically assess the
bullwhip effect in supply networks. Third, we will develop a conceptual framework on indirect supplier management that extends existing work on direct supplier management. Overall, the thesis explores an area of supply chain management that has become more important in practice over the past years and has, as we believe, not yet experienced an adequate scientific attention.

Soyk, Christian (from 07-2016, ongoing)

“The economic viability of long-haul point-to-point airline business models and their competition to full-service network carriers”

This dissertation focuses on identifying opportunities and challenges of different long-haul airline business models. Over the past decades, short- and medium-haul airline business models have been undergoing fundamental changes, particularly driven by the rise of low cost airlines. Since a few years, new intercontinental (i.e., long-haul) low cost airlines have emerged. Characteristics, economic potential and challenges of these airlines are widely discussed in academia and management, without consensus. This study aims at identifying the defining characteristics and evaluating the economic viability of these long-haul low cost airlines. In case their economic viability proves to be sustainable, it could have fundamental impact to the airline industry overall, including the surrounding infrastructure.

Stein, Nicole (from 02-2017, ongoing)

“Neoteric Operations and Digitization Measures in the Context of Circular Economy”

This dissertation focuses on identifying drivers for participation and revenue increase in Circular Economy on a micro level, studying offline as well as online opportunities in operations. Current research largely focuses on barriers for implementation at macro and meso level, hence, largely neglecting the crucial role of the consumer for a transition to a Circular Economy. This study closes this knowledge gap by addressing the role of consumers and their respective needs in Circular Economy operations. It aims to identify (a) personality traits affecting participation in Circular Economy and opportunities to leverage participation (b) offline and (c) online. The findings are expected to serve an initial impetus for research on the consumer in Circular Economy and be of particular relevance for practitioners facing challenges in/questioning adapting their business models to circular principles.

Vu, Martin (from 07-2014, ongoing)

"Managing Risk in Product Creation Projects: The Automotive Manufacturer Perspective"

The automotive industry is under pressure to face multiple challenges at the same time. The dynamics of the external market conditions has picked up pace. Fierce competition and disruptive industry trends as well as increasing market requirements and external value creation are at the core of this development. This reflects upon established internal processes and structures in the automotive industry – the result is a high risk environment. In this risk-intense environment, automotive manufacturers are forced to increase their efforts to not fall behind. This leads to ambitious growth targets and the introduction of increasingly more new products, derivatives and features under given time constraints. The framework that allows automotive manufacturers to address this development is a mixture of more efficient functional area processes and the ability to plan, conduct, steer and control these processes to design, develop and ramp-up new products quickly for the market. This ability is illustrated in product creation projects (PCP). Here, the project management function is challenged by the uncertainty and complexity that these cross-functional projects unveil. In this regard, the meaning of risk management increases. The purpose of this proposed research work is to improve risk management in PCP in the automotive industry by considering issues from the field. The focus will lie on automotive manufacturers and their target achievement in the context of PCP conduction. First of all, this research work will deal with the improvement of the risk assessment quality in PCP by using the analytic hierarchy process (AHP) method for an exemplary PCP. Th
Werning, Jan Philipp (from 04-2017, ongoing)

„The Transition from Linear to Circular Economy Business Models: Theoretical and Empirical Study of Boundary Conditions and other Effects on the Value Chain“

This dissertation focuses on identifying boundary conditions on business not system level, hindering companies to pursue the transition from linear to circular business models. In addition the effects of the identified boundary conditions shall be quantified through value chain simulations. This study is highly relevant for academics and practitioners, since in both areas a collectively exhaustive list of boundary conditions is not available and understood completely. In the last years the idea of a circular economy, keeping products, at their highest value, as long alive as possible, and using the at their end-of-life as input for new products, emerged and spread quickly. Marco-economic developments, like population and global middle-class growth, are also supporting the need for circular business models. In order to not leave this field to newly emerging start-ups, this dissertation closes the existing research gap on the transition from linear to circular business models.
7 PUBLICATIONS

7.1 JOURNAL ARTICLES


7.2 WORKING PAPERS


7.3 PAPER PRESENTATION AT CONFERENCES

INFORMS Annual Meeting 2016, Nashville/USA; November 2016
Anna Achenbach

POMS, Seattle/USA, May 2017
Maximilian Burkhardt

9th Annual Conference on Health & Humanitarian Logistics, Copenhagen/Denmark, June 2017
Stefan Spinler and Elias Long
8 EXECUTIVE EDUCATION & CORPORATE CONNECTIONS

8.1 TEACHING

- EMBA Sun Yat Sen – Industry 4.0 in Germany, field trips, Intro to Germany
- SEMBA Melbourne – Digitalization and Industry 4.0
- Movoya – Industry 4.0 and smart manufacturing

8.2 CORPORATE CONNECTION ACTIVITIES

- Host for NetloP-Seminar (for Logistics Managers) at WHU
- Guest Speakers for Campus for Supply Chain Management
- Co-organization of Kühne Logistics Day in Düsseldorf, Speaker acquisition
- Talk on Digitalization for BAMAKA AG Hauptversammlung
9 SERVICES PROVIDED TO THE SCHOOL

9.1 GROUP SPEAKER OF THE SUPPLY CHAIN MANAGEMENT-GROUP

The group includes professors Arnd Huchzermeier, Lutz Kaufmann, Liji Shen, Carl Marcus Wallenburg, Stefan Spinler and Assistant Professors Nicole Glanemann and Lima Zhao. The Speaker of the Group has a coordinating role with respect to teaching.

9.2 CAMPUS FOR SUPPLY CHAIN MANAGEMENT

The 14th Campus for Supply Chain Management took place in March 2017. It was dedicated to the topic of “connectivity” where logistics is a key enabler. A range of high profile speakers, including Jean Debus of Thomas Cook and Ferry Heilemann of Freighthub, sparked interesting discussions. A special thanks goes to Mr. Tim Schmütsch who led the student team that organized the event and to Mr. Martin Willhaus who played a key role in suggesting speakers, making contacts to senior managers and gave very helpful feedback on the program development.

9.3 MEMBER OF THE SENATE

The school’s senate is comprised of eleven faculty members who are elected by the faculty. Prof. Spinler is one of them, with Prof. Wallenburg being the replacement.
10 COMMUNITY OUTREACH

10.1 RESPONSIBILITY AND SUSTAINABILITY

Since sustainability should (and eventually will) be engrained holistically in business activities, all teaching as well as research endeavours at our chair show a strong relationship to the topic of sustainability. Some of the lectures are explicitly dedicated to sustainability, others touch on it. Research mostly explores the “planet” dimension of sustainability, for instance the reduction of CO₂ emissions.

10.2 MEMBERSHIPS

- BVL, Bundesverband für Logistik (German Logistics Association)
- DHV, Deutscher Hochschulverband (Association of German Universities)
- GOR, Gesellschaft für Operations Research (German Operational Research Society)
- INFORMS, Institute for Operations Research and Management Science (USA)
- POMS, Production and Operations Management Society
- VHB, Verband der Hochschullehrer für Betriebswirtschaft (German Association of Business Professors)

10.3 REFEREE ACTIVITIES

Professor Spinler is Senior editor for focused issue of Decision Sciences Journal (Modularity and Supply Chain Management)

He regularly acts as a reviewer for the following journals:

- Decision Sciences
- European Journal of Operational Research (EJOR)
- Management Science
- Operations Research (OR)
- Production and Operations Management Journal