

Univ.-Prof. Dr. Thomas Fischer
Chair of Business Information Science
and Information Management

Activity Report
September 1st 2012 – August 31th 2013

WHU
Otto Beisheim School of Management

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Einleitung

Der Lehrstuhl für Wirtschaftsinformatik und Informationsmanagement hat sich im Berichtsjahr neben seinen Aufgaben in der Lehre vor allem in Projekten der anwendungsorientierten Forschung engagiert. Signifikante Ergebnisse dieser Forschungsaktivitäten im europäischen Maßstab flossen sowohl in die Lehre, hier vor allem die Seminar-Aktivitäten, als auch in die Dissertationsprojekte der wissenschaftlichen Mitarbeiter des Lehrstuhls sowie in diverse Beiträge des Juniorprofessors Dr.-Ing. Sven-Volker Rehm zu Konferenzen und Workshops ein.



Der Lehrstuhl im Weisersburger Weg, Vallendar

Es ist allerdings zunächst meine traurige Pflicht, darüber zu informieren, dass unsere verehrte Stifterin, Frau Irmgard Schneider, zu Beginn dieses Jahres im hohen Alter von fast 95 Jahren – aber trotzdem plötzlich und unerwartet – von uns gegangen ist. Frau Schneiders Wirken als eine Persönlichkeit, die uns über viele Jahre sehr nahestand, ging weit über die Rolle einer Stifterin hinaus: Sie hat insbesondere zu den von ihr geförderten Stipendiaten, den Studierenden ebenso wie den Doktoranden/innen, stets eine enge persönliche Verbindung gepflegt, die dazu beitragen wird, die Erinnerung an sie bei zahlreichen jungen Menschen lebendig zu erhalten. Frau Schneider hat sich um unseren Lehrstuhl in besonderer Weise verdient gemacht, dafür sind wir ihr sehr dankbar! Dankbar sind wir auch dafür, dass im November 2012 mit dem Enkel des Stifterehepaares Schneider, Herrn Axel Schneider, ein weiteres Familienmitglied neben dem Kuratoriumsvorstand Herrn Peter Schneider, dem Kuratorium der Stiftung beigetreten ist und damit die Verbundenheit der Familie Schneider zum Lehrstuhl zum Ausdruck bringt.

Für die Entwicklung unserer Hochschule hat der Lehrstuhl wiederum konkrete Beiträge geleistet. Dazu zählen vor allem die Begleitung der Einführung eines professionellen Campus-Management-Systems sowie die Koordinierung der Arbeitsgruppe, die die stark erwachsenden E-Learning-Aktivitäten der verschiedenen Programme sowohl in administrativer als auch in technischer Hinsicht unterstützt.

In der Lehre war auch diesmal das SAP-Seminar für 79 Studierende der Bachelor Jahrgänge 2013 und 2014 von besonderem Interesse. Die vom Lehrstuhl aufbereiteten und betreuten praktischen Übungen zum unternehmensweiten Informations-Management haben den Studierenden wiederum einen vertieften Einblick in Managementprozesse und praktische Probleme von Unternehmen am Beispiel der SAP ERP Software vermittelt.

Wie bereits im Vorjahr hat ein vom Lehrstuhl angebotenes Seminar, diesmal unter dem Titel „Koopatives Arbeiten in Teams und Netzwerken“, eine große Resonanz gefunden und zu sehr fundierten

Beiträgen der Studierenden geführt. Den Doktoranden des Lehrstuhls bot sich damit auch die Gelegenheit, praktische Erfahrungen aus den erwähnten Projekten der industriellen Gemeinschaftsforschung an theoretischen Konzepten aus dem Schrifttum kritisch zu überprüfen.

Wie eingangs erwähnt, nahm die Projektarbeit in Zusammenarbeit mit kleinen und mittleren Unternehmen sowie Wissensdienstleistern in sogenannten „Smart Networks“ einen wichtigen Teil der wissenschaftlichen Arbeit des Lehrstuhls ein. Der sukzessive Aufbau von organisatorischen Strukturen in und zwischen diesen Unternehmen sowie die informationstechnische Unterstützung der Netzwerk-Aktivitäten stellen die Basis für ein wissensorientiertes Netzwerk-Konzept dar. Kleine und mittlere Unternehmen können dieses netzwerk-Konzept nutzen, um für wissensintensive Innovationsprozesse zukunftsfähige Kollaborationsformen umzusetzen. Die Ergebnisse der jahrelangen Forschungsaktivitäten des Lehrstuhls auf dem Gebiet der Unternehmensnetzwerke wurden hoch bewertet. Dies kommt besonders auch darin zum Ausdruck, dass das EU-Projekt AVALON bei der Ausscheidung zum „Best Project Award“ der Europäischen Union unter 900 Kandidaten als einer von 10 Finalisten im Jahre 2012 in die Endauswahl kam.

Die enge Verbindung des Lehrstuhls zur mittelständischen Wirtschaft wird nach wie vor auch darin deutlich, dass wir auch im Berichtszeitraum die Aktivitäten des Forum Mittelstand an der WHU organisiert haben. Als Ergebnis wurden zwei sehr erfolgreiche Veranstaltungen durchgeführt über die im Weiteren noch näher berichtet wird. Der Aufgabe, in enger Zusammenarbeit mit der IHK Koblenz der mittelständischen Wirtschaft der Region ein Forum zu bieten, in dem wissenschaftliche Ergebnisse und praktische Erfordernisse zusammen geführt werden, fühlt sich der Lehrstuhl auch in Zukunft in besonderer Weise verpflichtet.



Prof. Dr. rer. pol., habil. Ing. Thomas Fischer

Vallendar, im September 2013

Introduction

In the past academic year, the team of the Chair of Business Information Science and Information Management has focused – apart from its teaching activities – on applied research projects. Our research activities have been carried out on a European level, and significant results have been included into teaching seminars, into doctoral projects of the Chair's Research Assistants, and have been included into contributions to conferences and workshops by Assistant Professor Rehm.



[The Chair in Weitebürger Weg, Vallendar](#)

First and foremost, it is however my sad duty to inform you that our respected founder Mrs. Irmgard Schneider has deceased at beginning of the year at the age of nearly 95 years. While in great age, her loss was unexpected in face of her sustained vitality, and has left us in deep regret. Mrs. Schneider's engagement and involvement far exceeded the role of a founder: She had built strong personal relationships with the Schneider scholars, which will assure that she will always remain in our memory, and in the memory of those students supported by Schneider Foundation throughout the years. The Chair team is grateful for the high rewards we have achieved throughout the engagement of Mrs. Schneider, for the Chair, and WHU. We are also grateful that in November 2012, her grandson Mr. Axel Schneider joined the Board of Schneider Foundation. Together, with his father Mr. Peter Schneider, we welcome him as the second family member to the Board, a process that illustrates the strong family commitment to the Foundation, and to the Chair.

The Chair has also contributed in several ways to the school's growth strategy. This involves consulting the Campus Management System implementation project, as well as coordination of a working group on e-learning, an area which is of increasing importance to the diverse programs of the school. Activities in this respect included both administrative and technical support.

In teaching, the SAP Case Study Seminar has attracted 79 students of the Bachelor class of 2013 and 2014. The seminar comprises hands-on exercises in a simulated real-life system environment of the SAP ERP software. The students gain insight into corporate information management, management processes and challenges in this context.

Highly positive resonance was achieved with the literature seminar on "cooperative work in teams and networks". The students provided knowledgeable contributions to the seminar, and the Chair's Research Assistants could scrutinize their field experiences from applied research projects with regard to theories established in scholarly literature.

A considerable part of the Chair's activities has been carried out in context of the SmartNets project, in close cooperation with small and medium sized enterprises (SMEs). Research activities have been conducted in the field together with small businesses, which are part of "Smart Networks" which comprise firms from industry as well as knowledge service providers. Creating organizational structures within and between these firms, and implementing appropriate information and communication technologies (ICT) is a basis for a novel knowledge-oriented networking concept. This concept enables SMEs to engage in new forms of cooperation, and to successfully manage knowledge-intensive innovation projects.

The Chair has conducted research in the area of enterprise networks for many years. Recent achievements have been recognized through a nomination of the AVALON European project as finalist of the "Best Project Award" of the European Commission's Framework Programme in the field of Industrial Technologies. As one of 900 projects, the AVALON project was selected as one of ten finalists in 2012.

The close relationship to small businesses of the Koblenz and Middle-Rhine regions is signified by the continuation of the Forum Mittelstand event series, which is organized by the Chair in close cooperation with the Chamber of Commerce in Koblenz (IHK Koblenz). Two very successful events for entrepreneurs and executives have been carried out. The overall idea is to offer the region's companies a forum for integrating research results and practical challenges, which is a key concern of the Chair.



Prof. Dr. rer. pol., habil. Ing. Thomas Fischer

Vallendar, September 2013

Team



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Teaching

Lectures

In the B.Sc. program, the Chair contributed the compulsory lectures **Business Information Systems I & II**. Purpose of these courses is to give an introduction to the role of information and communication technologies (ICT) in business and management. A core topic is the management of ICT in the context of changing economic boundary conditions and business networks.

Current issues such as Cloud Computing, Software-as-a-Service, or In-Memory-Computing are discussed in the course. Further topics include practical exercises in modeling of business processes, and presentations of professionals regarding the alignment of IT and business strategies.

The choice of topics is strictly aligned to the curricula recommendations of the German Informatics Society (Gesellschaft für Informatik e.V.). A combination of case studies from practice, and introduction of theoretical background enables the students to approach up-to-date subjects. This helps students acquiring basic knowledge in the field of Management Information Systems (MIS) and supports their understanding about the role of Information Systems and appropriate management structures for corporate success.

Experts from industry, telecommunication and ICT sectors illustrated the need of theoretical concepts and the relevance of practical problem solutions in the lectures. (For further information please consider the chapter “Contributions of External Professionals”).

A **literature seminar** entitled “Concepts, Methods and Technologies for cooperative work in teams and networks” was given to BSc class of 2013. 15 students elected the course and presented their thoughts on 7 topics currently discussed in scholarly literature, and practice research. The topics covered issues such as Knowledge Intensive Business Services, Service Science, Collaborative Networked Organizations, the role of actors and artefacts, or technology use in organizations.

Exercises and Tutorials

As a part of BIS II exercises were offered in order to illustrate the practical relevance of **Business Process Modeling (BPM)** in the creation of a corporate IT strategy. Main subject is the Event-driven Process Chain (EPC), which is one of the most widely used methods for BPM. Exercises cover the analysis of representative use cases, and their formulation with help of the standard expression language provided by the ARIS (Architecture of Integrated Information Systems) approach.

As an additional service, the **SAP ERP training environment** was offered to the B.Sc. classes of 2013 & 2014. This hosting service is provided by SAP University Competence Center Magdeburg (SAP UCC) at Otto-von-Guericke-Universität Magdeburg (Fakultät für Informatik). Due to a financing of the **Schneider Foundation**, the Chair is able to introduce interested students to this standard software-based system. 79 students took the chance to register for the course that covers case studies of a multinational company, and tackles issues such as production planning, human resource management, and accounting.

Guided by the case studies, participants become acquainted with the SAP ERP system environment. Instructors Waldemar Kraus and Prof. Rehm accompany the course with additional information on the systems, and by giving practical advice with appearing problems. Participant feedback from recent years indicates that the self-guided course provides deep insights into the system in a realistic environment. Being held since 2009, the seminar has been rated with an average of 1,8 (on a scale of 1..5) by the participating students.

Since many years, the Chair's well-known **Microsoft Office Tutorials** prepare students – and giving them tips and tricks – for writing of assignments, for preparation of presentations and for doing calculations. For past year's courses, the tutorials have been completely revised and adapted to the latest functionalities offered by the several software tools. All of the tutorials are financed through the **Schneider Foundation**. They have been conducted by qualified students, and regularly receive high attention and participation rates. Special thanks go to all tutors of the past academic year!

Overview

<i>Business Information Systems I</i>	<ul style="list-style-type: none"> • Lecture, 3ECTS, B.Sc.-Program, BSc2014 	HS 2012, 185 students
<i>Business Information Systems II</i>	<ul style="list-style-type: none"> • Lecture, 3ECTS, B.Sc.-Program, BSc2013 	HS 2012, 80 students
	<ul style="list-style-type: none"> • Lecture, 3ECTS, B.Sc.-Program, BSc2014 	FS 2013, 95 students
<i>Concepts, Methods and Technologies for cooperative work in teams and networks</i>	<ul style="list-style-type: none"> • Seminar, 3ECTS, B.Sc.-Program, BSc2014 	FS 2013, 15 students
<i>SAP ERP Case Studies</i>	<ul style="list-style-type: none"> • Seminar, 1ECTS, B.Sc.-Program, BSc2013 	HS 2012, 24 students
	<ul style="list-style-type: none"> • Seminar, 1ECTS, B.Sc.-Program, BSc2014 	FS 2013, 55 students

Contributions of External Professionals

As in previous years the Chair succeeded in integrating outstanding professional speakers who presented their thoughts on special topics as part of the lecture Business Information Systems. The speakers shared their insights from multiple years of practice and consulting in the ICT and communication businesses with the students.

The Chair team wants to express particular thanks to all former doctoral students who regularly come back home to WHU. They are an essential ingredient to the success of our lectures through their speeches and presentations. Regularly the guest lectures are a source of inspiration for all, students, speakers and the Chair members!



Dr. Axel Emunds
T-Systems GEI GmbH

Service Management based on ITIL
November 15, 2012 and March 21, 2013



Dr. Christian Coppeneur-Gülz
WWM System Service GmbH

Application Service Providing
November 22, 2012 and April 4, 2013

Examinations

The number of examinees is slightly growing.

Bachelor Program		
Lectures	HS 2012: 184	BIS I
	HS 2012: 80	BIS II
	FS 2013: 95	BIS II
Theses	1	
Oral Examinations	1	

PhD Program	
First Supervision	4 (Prof. Fischer)
Second Supervision	3 (Prof. Fischer)
	1 (Prof. Rehm)
Disputation	0
Deputy Head of Doctoral Committee	5 (Prof. Fischer)

Guest Lectures at other Schools and Universities

In summer term 2013, Prof. Rehm held a lecture on **Advanced Methods of Organizational Cybernetics** at Universität Stuttgart, Germany. He followed an invitation of Prof. Dr. Meike Tilebein, who is Director of the Institute for Diversity Studies in Engineering (IDS) at the Faculty of Engineering Design, Production Engineering and Automotive Engineering. The lecture presented methods and concepts from the area of cybernetics in Business, Management and Society, such as System Dynamics, the theory of hierarchical multi-level Systems, Viable Systems Model, approaches to the analysis and modeling of large-scale systems, methods for analysis of socio-technical systems, Complex Adaptive Systems, Systems Thinking, cybernetic constructivism, and others. Also given in 2012, the lecture was rated 1,3 (on a scale of 1..5) by the participating students.

The area of Organizational Cybernetics is dealing with the description of information processing structures in organizations. It takes a systems theoretical perspective, and provides a broad set of theories, methods and approaches to design management interventions for shaping organizations within complex environments. Information Systems play an important role in this effort, and the BIS Chair has regularly been using approaches from Organizational Cybernetics in recent years.

Activities at WHU

- Member of Commission for Securing proper Behavior in Research (until March 2013) (Prof. Fischer)
- Deputy Head of Doctoral Committee (Prof. Fischer)
- Academic Organizer of Forum Mittelstand at WHU (platform for the dialogue between science and industry) (Prof. Fischer)
- Associated member of Forum Mittelstand at WHU (Prof. Rehm)
- Member of the Advisory Board of the Campus Management System (CMS) (Prof. Fischer)
- Chairman of the working group “E-Learning and Blended Learning” (Prof. Fischer)
- Member of the working group „E-Learning and Blended Learning” (Prof. Rehm)
- Member of the Senate of WHU (Prof. Rehm, 10/2007-09/2013)
- Member of the Senate Working Group Business Engagement of WHU (Prof. Rehm, 12/2012-06/2013)
- Engagement in the selection processes for the Part-time MBA Program of WHU (Prof. Rehm)
- Engagement as “academic buddy” for exchange students at WHU (Prof. Rehm)
- Recommendations for „Studienstiftung des deutschen Volkes“, London School of Economics, Imperial College, London (Prof. Rehm)

Referee for the CIO Foundation Young Talent Award

Prof. Rehm has acted as referee for the CIO Foundation Young Talent Award. The final assessment round with the two finalist candidates took place at the new Campus of WHU in Düsseldorf, Germany, on June 17, 2013. The winner is awarded with a scholarship for the WHU Part-Time MBA program.



Prof. Rehm and referee Zeeshan Sultan, MBA, Research Assistant at the Institute for Industrial Organization of WHU, in an interview at the CIO Foundation Young Talent Award 2013

Research Projects

Research Fields

During the academic year 2012 – 2013 the Chair's research activities focused on the following core areas:

One focus was on **knowledge-oriented management**, especially the design and implementation of **Knowledge-Intensive Business Services (KIBS)** in dynamically networked enterprises. A particular research question is the development of ontology-based "Smart Services" that support knowledge exchange between cooperating companies. Research activities in this context follow the Design Science methodology that provides guidelines for analyzing practically highly relevant problems, and for elaborating solution concepts and (software) artifacts which base on the existing knowledge of scholarly research.

The Chair's research also comprises **action-research** approaches, which attempt implementing solutions directly in practice, in close cooperation with companies. The following project descriptions outline activities in this context, in particular in the areas of information systems (IS) for inter-organizational cooperation.

Also the research activities of Assistant Professor Sven-V. Rehm mainly focus on the field of **Information and Knowledge Management for networked enterprises**. In the SmartNets project, he studies the interplay between information systems and organizations within settings of inter-organizational innovation. He conducts qualitative studies on how coordination and decision-making of actors can be influenced by information system design. This involves approaches from System Sciences, Sociology and from Information Systems Research. Further research activities include case studies on organizational transformation towards value co-creation, following the service science paradigm.

Research Partnerships

The Chair continued its long-term partnership with the Center for Management Research of DITF Denkendorf (DITF-MR). Until 2011, Prof. Fischer had been Director of this internationally networked institution in the field of cooperative industrial research (Industrielle Gemeinschaftsforschung). This partnership results in a persistent exchange of knowledge. In the past year, the research project SmartNets, which is supported by the European Commission in its 7th Framework Program, and which will continue until March 2014, benefited from this close collaboration. The Chair holds responsible for important parts of this project. Furthermore, the Chair continues cooperations with other Chairs and Professorships of WHU to work on interdisciplinary topics and to share knowledge and research practices.

Link <http://www.ditf-denkendorf.de/mr/>

Project Overview

The table below represents projects of cooperative industrial research within Europe, which had been carried out by the Center for Management Research of DITF Denkendorf (DITF-MR). Since 2011, Prof. Fischer has acted as internal consultant of DITF-MR for various international projects. The Chair team participated in these projects through regular exchanges of experiences and ideas.

Name	Description	Identification	Term
TexWIN	Textile Work Intelligence by closed-loop control of product and process quality in the Textile Industry	EU FP7-NMP-2009-SE-3 CP-FP 246193-1	03.2010 – 03.2013
CoReNet	Customer-Oriented and Eco-friendly Networks for health fashionable goods	FoF.NMP.2010-2	06.2010 – 05.2013
SmartNets	The Transformation from Collaborative Knowledge Exploration Networks into Cross Sectoral and Service Oriented Integrated Value Systems	FP7-NMP-2010-SMALL-4	04.2011 – 03.2014

Finalist of EC Industrial Technologies Best Project Award 2012

The European community research project AVALON, which had been conducted by Prof. Fischer as Coordinator and Prof. Rehm as Scientific-technical Coordinator has been considered as finalist of the Best Project Award 2012 in the field of Industrial Technologies awarded by the **European Commission's Enterprise and Industry Information and Communication Technologies High-Level Expert Group on Key Enabling Technologies**. The price recognizes projects with the greatest economic and societal impact on European competitiveness by creating new products and processes.

Over 900 projects had been launched in the field of Industrial Technologies under the Framework Programmes 5, 6 & 7, and 63 were considered in the award. The AVALON project was one of ten finalists.

The AVALON project was created by a consortium of 31 partners from 10 European countries, 20 of them being SMEs, in scope of the European Framework Programme. Running between March 2005 and February 2009, with a budget of more than 12 Mio. EUR, it enabled the creation of various cross-sectorial innovation networks and led to the development of 7 new products and more than 14 new industrial services. The participating industrial companies learned to enhance their value creation through new forms of cooperation, and by adoption of new materials, processes, and technologies.



Dr. Armin Lau, Senior Researcher at DITF Denkkendorf, Germany, explains the AVALON project in a video prepared for the Award ceremony.

Links www.avalon-eu.org
www.industrialtechnologies2012.eu/best-project-award.html

SmartNets

Since April 2011, the Chair is a partner of the EU research project SmartNets that is funded by 7th Framework Program of the European Commission until March 2014. Beside the WHU, 14 industrial and research partners from five countries are participating in the project. The overall project is coordinated by the Center for Management Research of DITF Denkendorf.



SmartNets will provide network members with the necessary concepts, methods and tools to guide them through organization-, ICT- and knowledge-related network adaptations, which are typically required in value adding processes from idea generation to exploitation of **knowledge-intensive products and services**:

- Providing appropriate **organizational** structure of network actors,
- guaranteeing efficient and confidential **exchange of knowledge** within the network and
- implementing interoperability by adequate application of **information and communication technology (ICT)**.

By and within several **value-adding SME networks**, the concept of the industrial model “Smart Networks” will be established and evaluated. Within their collaborative development and production processes, new and sophisticated materials like Shape Memory Alloys or Sol-gel will be used to develop and to produce sustainably and efficiently knowledge-intensive products and services. The project targets development of a new design for medical devices, an innovative motorbike helmet, or novel coating solutions for interior textiles.

The Chair’s tasks involve a significant contribution to the transformation of partnerships, enabling firms to become valuable members of Smart Networks. SME-suitable guidelines, called the **SmartNets Guide**, with comprehensive and easy-to-implement instructions how industrial partnerships can become Smart Networks are elaborated. Besides checklists to identify their 'as-is' status and step-by-step instructions, the guidelines should support firms in reaching a desired final state. Thus, the guidelines explain the SmartNets Framework and support SMEs to invest systematically into the various elements of it. Along this evolution path the Chair cares for SMEs in order to develop appropriate Smart Network capabilities.

For analysis of the ‘as-is’-status of companies, Research Assistant S. Gross conducted audit interviews with each of the industrial partners. Based on results from these interviews, the transformation of the companies’ activities and strategies towards becoming members of Smart Networks has been initiated, a process which is based on implementation of customized methods for innovation and networking.

Prof. Rehm has been following the development of partnerships in the industrial networks, focusing on the adoption processes concerning methodologies and information systems. Objective of these studies is to provide empiric evidence leading to better design of information systems supporting collaborative innovation.

Consortium of the SmartNets project



Deutsche Institute fuer Textil- und Faserforschung
Denkendorf (DITF), Germany



ELLA-CS, s.r.o., Czech Republic



W. Zimmermann GmbH & Co. KG, Germany



ITV Produktservice GmbH (ITVP), Germany



Institute of Physics of the ASCR, v.v.i. (IoP), Czech Republic



MAGEBA Textilmaschinen GmbH & Co. KG, Germany



Grado Zero Espace S.r.l. (GZE), Italy



Thurckon S.r.l., Italy



Tryonic, United Kingdom



Devan Chemicals, Belgium



Lampe Textiles NV, Belgium



Wetenschappelijk en technologisch onderzoekscentrum
voor de Belgische tesxtielnijverheid (Centexbel), Belgium



D'Appolonia S.p.A., Italy



infoAsset AG

InfoAsset AG, Germany



WHU – Otto Beisheim School of Management, Germany



Link www.smart-nets.eu

Presentations and Meetings

In the past year, Professor T. Fischer, Assistant Professor Sven-V. Rehm and the doctoral assistants participated in various events and research meetings throughout Europe, and held various guest lectures, seminars and presentations. The following list gives an overview of the activities.

Professor T. Fischer

Event	Function	Place	Date
SmartNets Preparation for 18-month Review Meeting	Coordinator, WP-Leader	Sestri Levante, Italy	25 – 26/10/2012
SmartNets 18-month Review Meeting	Coordinator, WP-Leader	Brussels, Belgium	13 – 14/11/2012
Forum Mittelstand an der WHU „Innovationsfreudigkeit versus langfristige Stabilität mittelständischer Unternehmen - Widerspruch oder kombiniertes Erfolgsrezept?“	Organizer	Vallendar, Germany	22/11/2012
Workshop on Virtual Product Development on Campus Heimtextil	Speaker	Frankfurt a. M., Germany	09/01/2013
INTOP	Workshop-Coach	Sonnenbühl, Germany	26 – 27/01/2013
TexWIN Preparation for Final Review Meeting	Coordinator	Biella, Italy	19 – 20/02/2013
SmartNets General Assembly	Coordinator, WP-Leader	Denkendorf, Germany	09 – 10/04/2013
Forum Mittelstand an der WHU „Geschäftsführung, Familie, Nachfolge und Ruhestand – Handlungsbedarf 2013 bei Finanzen, Recht und Steuern“	Organizer	Vallendar, Germany	04/06/2013
INFORMATIK 2013, Tutorial: “Smart Networking für kleine und mittlere Unternehmen”	Organizer	Koblenz, Germany	16/09/2013

Assistant Professor Sven-V. Rehm

Event	Function	Place	Date
Collective Awareness Platforms for Sustainability and Social Innovation (CAPS) initiative Information Day	Speaker	Pisa, Italy	19/09/2012
World Manufacturing Forum: Smart Policies for Global Manufacturing Innovation	Participant	Stuttgart, Germany	16 – 17/10/2012
12. Juniorprofessoren- und Habilitanden-Workshop der Wirtschaftsinformatik	Participant	Frankfurt a. M., Germany	02 – 03/11/2012
Forum Mittelstand an der WHU	Participant	Vallendar, Germany	22/11/2012
13th Annual Int. Business Research Conference	Speaker	Jacksonville, USA	08 – 09/02/2013
Guest Lecture at Stuttgart University	Speaker	Stuttgart, Germany	08/05/2013
Int. PDW in Organizational Communication and Information Systems (OCIS)	Participant	Passau, Germany	30 – 31/05/2013
21st European Conference on Information Systems (ECIS) 2013	Speaker	Utrecht, Netherlands	05 – 07/06/2013
CIO/WHU Young Talent Award	Referee	Düsseldorf, Germany	17/06/2013
Konferenz für Wirtschafts- und Sozialkybernetik 2013 (KyWi)	Moderator	Berne, Switzerland	04 – 05/07/2013
Board meeting of the German Society for Cybernetics in Economy & Society (GWS e.V.)	Board Member	Berne, Switzerland	05/07/2013
OCIS Junior Faculty Consortium	Participant	Orlando, FL, USA	09/08/2013
Professional Development Workshop on Simulation in Information Systems Research	Participant	Orlando, FL, USA	10/08/2013
Academy of Management 2013 Annual Meeting	Speaker	Orlando, FL, USA	11 – 13/08/2013
43. Jahrestagung der Gesellschaft für Informatik, INFORMATIK'13 conference	Speaker	Koblenz, Germany	16/09/2013

Other research, project and business meetings of Prof. Rehm

Research Meeting	<i>Participant</i>	Sestri Levante, Italy	24/10/2012
SmartNets Project Meeting	<i>Moderator</i>	Sestri Levante, Italy	25 – 26/10/2012
SmartNets General Assembly	<i>Moderator</i>	Denkendorf, Germany	09 – 10/04/2013
SmartNets Project Meeting	<i>Organizer</i>	Vallendar, Germany	11/04/2013
SmartNets Project Meeting	<i>Participant</i>	Denkendorf, Germany	23/04/2013
SmartNets Project Meeting	<i>Participant</i>	Denkendorf, Germany	15/05/2013
Research Meeting	<i>Participant</i>	Paris, France	17/05/2013
Research Meeting	<i>Participant</i>	Neuwied, Germany	27/05/2013
Research Meeting	<i>Organizer</i>	Vallendar, Germany	27/05/2013
Research Meeting	<i>Organizer</i>	Vallendar, Germany	11/06/2013
Faculty meeting of WHU	<i>Participant</i>	Düsseldorf, Germany	19 – 21/06/2013
Research Meeting	<i>Participant</i>	Jacksonville, FL, USA	07 – 08/08/2013
Research Meeting	<i>Participant</i>	Orlando, FL, USA	09/08/2013
SmartNets Project Meeting	<i>Participant</i>	Denkendorf, Germany	09/09/2013

Research Visit of Prof. Rehm to Coggin College of Business at UNF

A guest visit for elaborating empirical data and findings was conducted by Prof. Rehm on invitation by Associate Professor Lakshmi Goel, Ph.D., at Coggin College of Business of the University of North Florida (UNF), USA, in January/February 2013. The visit included also a presentation of Prof. Rehm at the 13th Annual International Business Conference on Research, Teaching and Practice of UNF. The research paper developed there together with Prof. Goel was accepted for presentation at the annual meeting of the Academy of Management later the year.



Coggin College of Business on the Campus of UNF in Jacksonville, FL, USA

Publications

Jeschke, S.; Hauck, E.; Tilebein, M.; Fischer, T.; Schwaninger, M. (Hrsg.) (2013): Interdisziplinarität und Komplexität. Berlin: Duncker & Humblot

This conference proceeding is published in the series “business cybernetics and systems analysis” (“Wirtschaftskybernetik und Systemanalyse”) and is the cumulated outcome of the scientific conference for cybernetics in economy and society 2012 (Konferenz für Wirtschafts- und Sozialkybernetik 2012 – KyWi 2012) The title “Inter-disciplinarity and Complexity” seize the two significant challenges of current cybernetic research. Due to the fact, that the analysis of complex problems by decomposition in sub problems does often no longer cope with the solution of the overall problem, new approaches for coping with complexity are required.



Lau, A.; Matheis, H.; Fischer, T. (2013) Entwicklung wissensintensiver Produkte und Dienstleistungen in „smarten“ Innovationsnetzwerken. In: Spath, D.; Bertsche, B.; Binz, H. (Hrsg.): Stuttgarter Symposium für Produktentwicklung 2013. Fraunhofer Verlag, Stuttgart, 2013. ISBN: 978-3-8396-0573-8

Rehm, S.-V. (2013). An integrative concept for artifacts and boundary effects in innovation activities. AIMS International Journal of Management, in press.

Rehm, S.-V.; Goel, L. (2013). Composite Boundary Objects In Inter-Organizational Innovation Activities. ECIS 2013 Completed Research Paper 7. http://aisel.aisnet.org/ecis2013_cr/7

Rehm, S.-V. (2013). Kann die Kybernetik zum Entwurf von Designtheorien beitragen? Ein Versuch im Kontext der Information Science. (Can cybernetics contribute to the development of design theories? An experiment in the context of Information Science). To appear in: Meike Tilebein, Wissenschaftliche Jahrestagung der Gesellschaft für Wirtschafts- und Sozialkybernetik 2011 in Stuttgart. Berlin: Duncker & Humblot.

Organized Events

Forum Mittelstand



The “**Forum Mittelstand an der WHU**” has been established as a platform for fostering dialogue between science and industry. Based at WHU in Vallendar, it informs medium-sized companies – in particular from the Middle and Upper Rhine regions – competently and regularly about new scientific findings which are relevant in practice. Hence, our mission is to:

**Prepare and communicate
highly qualified research results
for industrial practice.**

The Forum intends to provide a significant contribution to the economic and innovative power of companies in close cooperation with the **City of Koblenz Chamber of Commerce (IHK Koblenz)**: Within “Forum Mittelstand” events, representatives of regional economy meet each other in order to learn more about new management concepts and technological developments which will shape future innovations and markets.

Our 2012 event “**Innovation activities versus long-term stability in medium-sized companies – contradiction or combined recipe for success**” (*Innovationsfreudigkeit versus langfristige Stabilität mittelständischer Unternehmen – Widerspruch oder kombiniertes Erfolgsrezept*) on November 22nd, 2012, highlighted results of an extensive representative survey as well as concrete success stories how innovation radically transformed medium-sized companies. A lively discussion between speakers and participants followed.

In recent years, the Chair had received requests from various medium-sized companies to organize an event answering questions regarding increasingly complicated legal problems in the fields of taxation, company law directives and means of inheritance. This demand was met with an event on June 4th, 2013, entitled with “**Management, family, succession and retirement – areas for immediate action in finance, law and taxation**” (*Geschäftsführung, Familie, Nachfolge und Ruhestand – Handlungsbedarf 2013 bei Finanzen, Recht und Steuern*). The series of speakers included lawyers, tax consultants as well as Prof. Dr. Sabine Rau from the INTES Institute of Family Businesses of WHU.

Link forum-mittelstand.whu.edu

Smart Networking Tutorial

A **tutorial on Smart Networking** was held at INFORMATIK'13 conference in Koblenz by Prof. Rehm and Research Assistant S. Gross on September 16th, 2013. The tutorial based on findings and developments of the SmartNets project, and covered an introduction to innovation management in small and medium enterprises (SMEs) and to the Smart Networking concept. The “SmartNets Guide” was



introduced as a method for auditing SMEs with respect to their capabilities to enter into networking partnerships with other firms. The tutorial also covered a case study, and various lessons learned from the project pointed at the use of particular information and communication tools in particular phases of a networking project.

A self-assessment of the participants was prepared. The audit procedure and smart networking concept can also be of interest to new businesses, i.e. founders and their particular requirements for finding the right strategic partners during the founding phase.

INFORMATIK conference is the major annual event of the German Informatics Society (Gesellschaft für Informatik e.V.). Picture: Universität Koblenz and Gesellschaft für Informatik e.V.

Smart Networking: How can small and medium sized enterprises cooperate to innovate?

In recent years, SMEs have had to face increasing challenges with regard to the innovation climate. In order to stay competitive, in many cases it is necessary to enter into new strategic partnerships. One aspect in this endeavor is to engage in networks of reliable clusters of partners. The active shaping of a respective networking strategy and the creation of lasting and working partnerships are core elements in this respect. SMEs need not only to deploy current information and communication technology (ICT) they also need to develop “networking capabilities” for connecting their knowledge and expertise with those of partners. This covers the development of organizational as well as technical and managerial competences.

The **tutorial on Smart Networking** is directed to the needs of SMEs that want to improve their networking skills and expertise. Based on findings and experiences from several SME networks of various industrial sectors, it presents an approach to develop a systematic networking strategy. Starting with an analysis of the as-is status of a firm’s resources and expertise, step-by-step problems and potentials for networking are developed. A maturity model allows re-shaping and developing resources and competences, in order to develop a viable networking capability. The tutorial is intended for executives with management or process responsibility as well as for experts in business areas or professionals in technical areas with team management responsibility.



Link www.wtu.edu/fakultaet-forschung/innovation-and-entrepreneurship-group/wirtschaftsinformatik-und-informationsmanagement/projekt-smartnets

World Café on the Future of Cybernetics in Economy & Society

Co-located to KyWi 2013 conference of the German Society for Cybernetics in Economy & Society (GWS e.V.) in Berne, Switzerland, Prof. Rehm organized a World Café on the future of cybernetics in these areas. The core questions of the event that involved about 45 participants asked for ways to reach a sustained future attractiveness of cybernetics and systems research. Through the dialogues, various topics and challenges were collected which will inform and stimulate future discussions in the community, and ways to bring research practice closer together were outlined.

A big thank you goes to all the participants and especially the moderators and the event organizers who have taken an active role in this event!

The “World Café” method is a structured conversational process to facilitate discussions in larger groups. People discuss a topic stimulated by a few basic questions at several tables throughout various rounds. After each round, individuals switch tables to form new groups. On each table, a table host introduces to the previous discussion.



Participants to the World Café discuss in front of their flipchart memos at KyWi 2013 in Berne, Switzerland

Link www.gws-kybernetik.org

Service to the Scientific Community

Prof. Fischer and Prof. Rehm serve as Members of the Board of the Gesellschaft für Wirtschafts- und Sozialkybernetik e.V. (GWS e.V.) / German Society for Cybernetics in Economy & Society (GWS e.V.). Prof. Fischer has been its Chair since 1999.

Associate editor and reviewer activities were conducted by Prof. Rehm for various conferences, among them the European Conference on Information Systems (ECIS), the Americas Conference on Information Systems (AMCIS), Int. Conference on Wirtschaftsinformatik, Academy of Management Annual Meeting, and DoCEIS – Doctoral Conference on Computing, Electrical and Industrial Systems.

Prof. Rehm is a member of the following organizations:

- Association for Information Systems (AIS), Special Interest Group (SIG) on Enterprise Systems (SIGEntSys)
- Academy of Management, Organizational Communication & Information Systems (OCIS) division
- Gesellschaft für Informatik e.V. (GI) / German Informatics Society, SIGs Enterprise Modelling and Information Systems Architectures (WI-MobIS), and Computer Supported Cooperative Work (WI-CSCW)
- Verband der Hochschullehrer für Betriebswirtschaft e.V. (VHB), Wissenschaftliche Kommission Wirtschaftsinformatik (WK WI)/ German Academic Association for Business Research, SIG on Business Information Systems Engineering
- Deutscher Hochschulverband (DHV) / German Association of University Professors and Lecturers

Dissertation Projects

Following dissertations projects are currently supervised at the Chair of Business Information Science and Information Management:

W. Kraus

New technology and new production processes are critical factors for organizational success. In a highly dynamic environment companies are reliant on finding and integrating specialized competences for individualized knowledge-intensive value chains. Here ICT is the major enabler not only of new business models but also is the major driver for organizational transformation. Thus, innovative service products need effective and efficient networks with the focus on specialized knowledge whereas production networks need to find appropriate co-manufactures and production capacity. In this context, the research of **Dipl.-Ing. Waldemar Kraus** focuses on new concepts and tools to:

- design appropriate knowledge-intensive business services

- enhance productivity in a service-oriented environment the reuse and integration of service products in various value chains
- establish appropriate interorganizational workflows
- evaluate business ecosystems and knowledge-intensive business services
- support dynamic service processes with a cloud-based Enterprise Resource Planning-Systems

Co-adviser is Prof. Dr. Peter-J. Jost, Chair of Organization Theory of WHU

M. C. Kühl

The dissertation of Mr. **Dipl.-Kfm. Morten C. Kühl** focuses on computer-aided knowledge management for example in due diligence processes. The contribution of the work aims to be in the improvement of the collaboration of heterogenous teams in complex, knowledge-oriented projects by the usage of semantic and ontology-centric technologies. Existing tools do not fulfil the requirements of real-world use cases, leading to interesting opportunities of scientific exploration especially by applying the design science method. Dynamic and complex projects with short duration appear to provide useful insights such as those merger and acquisition projects in a fast-growing US start-up that were actively participated in during 2012.

Prof. Dr. Christian Koziol, Chair of risk management and derivatives, Universität Tübingen is the co-advisor of this dissertation proposal.

Mr. Kühl has been supported by a scholarship of the state of Rhineland-Palatinate until he changed to an external PhD candidate status.

S. Gross

Dipl.-Ing. Sven Gross investigates in his dissertation service-oriented structures for the collaboration of stakeholders in a dynamic environment analyzing the development of innovation networks in three dimensions: Knowledge Management, Organizational Structure and ICT Support. He develops a method that supports the introduction of service-oriented structures in corporate networks as well as the dynamic adjustment of enterprise architectures to dynamically changing requirements. The investigation is carried out methodically following Design Science approach. The EU research project SmartNets allows him a practical application and the validation of the concepts developed.

T. S. Witte

As a part of his dissertation, **Dipl.-Kfm. (FH) Tobias Sebastian Witte**, deals with the research area "organization of business intelligence", by creating a design science based approach for a process-oriented business intelligence specific organization model. One input for this model is a worldwide study in cooperation with the Business Application Research Center (BARC) in Würzburg which investigates the impact of a special organizational unit and important factors for an enterprise-wide integration of business intelligence. This model is designed to deliver advice for companies to change the today's often very technical IT-driven implementation of business intelligence towards a solution focusing more on business requirements.

Irmgard und Erich Schneider-Stiftung

The **Irmgard und Erich Schneider-Stiftung** (Schneider Foundation) is a longtime sponsor of WHU, in particular of the Chair of Business Information Science and Information Management. In 2012 and 2013, the Foundation again supported students with scholarships, research projects, numerous public and research activities of the school, and financed equipment of the IT laboratory **IT-Lab** at the Chair.



IT-Lab of the Irmgard und Erich Schneider Foundation

A central goal of Schneider Foundation is the financial support of students by awarding **scholarships** to qualified and committed candidates of Bachelor and Master of Science programs. The team of the Chair of Business Information Science and Information Management is excited about the high number of scholarship fellows and the sustained close cooperation.

Another item of Schneider Foundation, the successful concept of **tutorials** within the first semester of the Bachelor of Science program was offered again. It provides students with the opportunity to acquire comprehensive knowledge of the Microsoft Office package in its current version, in particular:

- Microsoft Word, for text processing,
- Microsoft Excel, for calculations, and
- Microsoft PowerPoint, for preparing presentations.

For preparing and giving the tutorials, student volunteers were engaged as tutors. The need for a familiarity with the described Microsoft products – not only for the individual future career, but

also for the successful completion of academic studies – has once again led to a high level of participation in the tutorials offered.

One major issue of the Irmgard and Erich Schneider Foundation is the practical preparation of students for their work as professionals. For this reason the Foundation sponsors the training system **SAP ERP IDES**, for interested students of the Bachelor and Master of Science as well as for the PhD program. SAP ERP IDES is an Enterprise Resource Planning (ERP) software which allows students to work with realistic company data, and gather experience with core processes in organizations. The simulated business processes allow to use particular modules of SAP, and to experience production planning (PP), controlling (CO) and logistics (LO) contexts in realistic scenarios.



IT-Lab



The IT-Lab's interactive whiteboard in summer 2013

An interactive whiteboard is a large interactive display in form of a classical white board. A projector projects a computer screen on the board's surface where users can interactively control software functionalities using a pen, finger, stylus, or other device.

In the past years, by help of Schneider Foundation, the IT-Lab has been equipped with high-level systems for communication, remote interaction and distributed cooperative work in order to simulate future work environments in management. The implemented devices and software systems enable telework also in the context of student seminars and collaborative research projects.

Use of the IT-Lab

Type	Topic
WHU projects	Working Group „Campus Management“
	Working Group „E-Learning“
	SAP ERP case study seminar
Further projects	Meetings of „Forum Mittelstand an der WHU“ in cooperation with the chamber of commerce Koblenz
	Virtual meetings within the EU research project SmartNets

In dankbarem Gedenken / In Grateful Memory

Am 12. Januar 2013 verstarb unsere verehrte Stifterin Frau Irmgard Schneider im Alter von nahezu 95 Jahren. Der unerwartete und plötzliche Tod von Frau Schneider hat uns sehr betroffen gemacht. Im Namen der Stiftung WHU und der Hochschule möchten wir der Familie Schneider unser aufrichtiges Beileid aussprechen.

Frau Schneider war uns allen über viele Jahre nicht nur eine geschätzte Stifterin, die ihren und den langfristigen Zielen ihres Mannes immer treu geblieben ist, sondern auch eine kluge Ratgeberin und Freundin. Die Stiftung WHU und die von ihr getragene Hochschule haben ihr sehr viel zu verdanken. Auch alle bisherigen Stipendiaten, Studenten und Doktoranden werden sich mit großer Dankbarkeit und Hochachtung an Frau Schneider und deren stetiges Interesse für ihr wissenschaftliches und persönliches Fortkommen erinnern.



Frau Schneider war uns ein Vorbild, das uns gezeigt hat, was unternehmerischer Geist und Engagement - selbst bis in ein hohes und gesegnetes Alter - bewirken kann. Ihre außerordentliche Persönlichkeit, ihr erfrischender, feinsinniger Humor, ihre Menschlichkeit und ihr Optimismus werden uns allen sehr fehlen. Wir werden Frau Schneider immer als besonderen Menschen in Erinnerung behalten und Ihr Wirken stets würdigen.