

*Highlights of the Annual Report 2013*

*BWI Center for Industrial Management  
Logistics, Operations, and Supply Chain Management*

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# People and Organization

Our group at the BWI Center for Industrial Management (BWI Betriebswissenschaftliches Zentrum) is active in research, teaching, and knowledge transfer in the areas of operations, logistics, and supply chain management, global service management, and service innovation. These areas also include information management, configuration and modeling of supply chains with multiple variant products and processes, and TQM and process management. We are pleased to present this report of some of the highlights of our activities in 2013. My chair entered into its final phase. Therefore, with effect from June 2013, I began not to replace researchers who were leaving. Our group currently has 15 members. Last year, Gandolf Finke, Johannes Plehn, Philipp Hertz and Alexander Sproedt completed their dissertations. Furthermore, we are extremely pleased that Dr. Josef Oehmen, who gained his Ph.D. degree in 2009, became Associated Professor for production and service management at DTU, Danish Technical University, with effect of October 1<sup>st</sup>, 2013. We extend our warmest congratulations to them all.



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# Teaching and Continuing Education

In total, 154 students were registered on our courses at ETHZ. In addition, we coached 25 Master or Bachelor theses, or student papers. Furthermore, we again gave a three-day block lecture at the Graduate School of System Design and Management at Keio University, Tokyo. As a consequence of the reduced number of assistants in the team, we will have to considerably reduce our teaching effort during the year 2014.

During 2013, the BWI Management Weiterbildung achieved a good turnover, combined with a good bottom line result. In total, 76 public seminars and 69 company-internal seminars were held. Hence, it was possible to increase investment in the development of courses, especially in the field of project management, where the BWI-MWB is the leading supplier in Switzerland. This solid situation allows the unit to spin off from ETH. Starting from January 1<sup>st</sup>, 2014, it will continue to offer the same services, under the name of "Management Weiterbildung BWI AG", thus as an independent company, maintaining its strong link to the BWI Center for Industrial Management at D-MTEC.



# Research Projects

As indicated in our report of the previous year, as my chair entered into its final phase, active project acquisition as project leader was stopped. Emphasis was placed on the execution of the four projects acquired during the year 2012 and to the completion of projects that began in 2010 and 2011. However, with regard to the succession of the professorship, we participated as followers at various research proposals.

During 2013, Matthias Baldinger launched an ETH-Spin-off that aims to facilitate the buyer-supplier relationship in the domain of additive manufacturing / 3D-printing.

**Platform supporting companies to realise their 3D printing projects**

**Key challenges to realise parts:**

- Selection of the right 3D printing technology to meet the requirements
- Selection of the right service provider to produce the parts

Materials	Technologies	
	Parts built through polymerization	Parts built through melting
Ceramic	BJ	LM, EB
Metal		EB
Sand		
Plastic	SL, PJM	FDM, LS
Wax		MJM

Legend: Durability (Lower to Higher), Surface finish (Smoother to Rougher), Detail (Higher to Lower), Application (Prototypes | Indirect processes to Functional parts).

# Knowledge Transfer

Our BWI service conference in 2013 entitled «Operational Excellence in service as a competitive advantage in the capital goods industry» was a resounding success. About 95 participants followed the eight exciting presentations from industry and science on May 30<sup>th</sup>. With the Erfa group "Production and Information Management", we conducted one evening symposium on the topic «BRICS-Staaten als Zukunftsmärkte für Schweizer KMUs» [BRICS countries as growth markets for Swiss SMEs]. Over 60 participants attended the event. Furthermore, we organized one company seminar. The response, this year on the topic of «Operational excellence in the paper industry» was again strong with 53 participants.



# Publications

Compared to the previous year, the number of scientific publications is now starting to decrease. We are particularly pleased that three papers were published in so-called A journals, while we continued to publish in major important professional business journals.

45 Books  
28 Dissertations  
193 Publications  
Since 2000

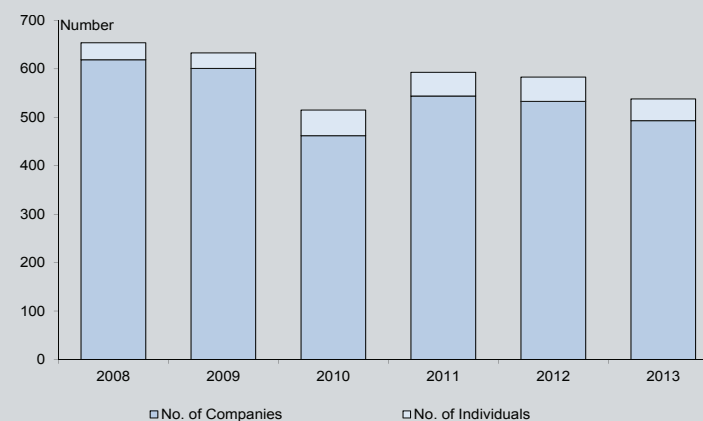
# io management

The print media are still faced with serious difficulties concerning their business model. This was also the case for the journal "io management". As a consequence, the io management journal and the journal "Informationsmanagement" become "IM+io – the journal for innovation, organization and management". IMC, "information multimedia communication AG" in Saarbrücken, owned by Prof. August Wilhelm Scheer, became the new publisher. The professors of D-MTEC play an important role in the advisory committee of "IM+io".



# Impact on the industry

In all of the areas outlined above (research, teaching, and knowledge transfer), we are working effectively in the economy, particularly in companies in industry and services. As in previous years, the bar chart shows the considerable number of companies – most of them Swiss and SME-sized – that have contracted our services to the amount of 200 CHF and more in recent years.



# Perspectives and Acknowledgements

The search for a successor of the Professorship in Operations and Production Management is ongoing. We sincerely hope that the domain of industrial management ("Betriebswissenschaften"), with its accentuated engineering approach and its strong focus on cooperation with industry, will not be replaced by a Professorship that de facto will primarily contribute to ivory-tower research in management.

My sincere thanks go to all of my colleagues at the BWI for their effective and efficient work in the past year. Again, I owe particular gratitude to my two colleagues Markus Baertschi and Hugo Tschirky at the BWI, but also to the whole D-MTEC department. Moreover, I would like to thank the numerous and valued partners from industry and universi-

ties, as well as all of our customers in the economy and sponsors. We are looking forward to an intensive collaboration in the coming year.

I hope you enjoy reading this report. As always, you will find more information on the Internet at [www.lim.ethz.ch](http://www.lim.ethz.ch).

Zurich, March 2014

Prof. Dr. Paul Schönsleben