

Prof. Dr. Frank T. Piller

CURRICULUM VITAE

Contact piller@time.rwth-aachen.de
time.rwth-aachen.de/tim | frankpiller.com
Twitter: @masscustom

Academic Positions

- Since 2015 Vice Dean for Strategy & External Relations, RWTH School of Business & Economics, **RWTH Aachen University** (elected, 2015-2018)
- Since 2007 Full Professor of Management (W3, tenured) and Chair in Technology and Innovation Management, **RWTH Aachen University**, School of Business & Economics, Germany (time.rwth-aachen.de/tim)
- Academic Director of the Executive MBA Program, offered by RWTH Aachen in cooperation with the University of St. Gallen and Fraunhofer Academy (since 2012)
- Since 2007 Co-Founder, MIT Smart Customization Group, **Massachusetts Institute of Technology (MIT)**, Cambridge, MA, USA (scg.mit.edu)
- Feb-Mar 2012 Visiting Professor of Technology Management & Leadership, **Hong Kong University of Science and Technology (HKUST)**, Hong Kong (ust.hk)
- Oct 2004 - Feb. 2007 Research Fellow, Massachusetts Institute of Technology (MIT), **MIT Sloan School of Management**, BPS / Innovation & Entrepreneurship Group, Cambridge, MA, USA
- 2000-2004 Position comparable to an "Assistant Professor", Department of Information, Organization & Management (Head: Prof. R. Reichwald), **TUM Business School, Technische Universität München (TUM)**, Munich, Germany
- 1995-1999 Lecturer and Research Associate, Department of Production and Operations Management, **Julius-Maximilians-Universität Würzburg**, Germany

Academic Education

- July-Aug 2009, Jan. 2010 HBS Global Colloquium on Participant Centered Learning. Intensive professional education program for teaching excellence with the case method. **Harvard Business School**, Boston
- 2001-2004 Habilitation with a thesis on "Innovation and Value Co-Creation: Evidence and Implications of Integrating Customers & Users in the Innovation Process", completed in Sept 2004 at **Technische Universität München (TUM)**, Munich, Germany (*Venia legendi in April 2005*)
- 1995-1999 Ph.D. studies (Dr. rer.pol.) in Business Administration (Production and Operations Management) with a thesis on Mass Customization, **Julius-Maximilians-Universität Würzburg**, Germany (*with highest distinction, "summa cum laude"*)
- 1989-1994 Bachelor and Master ("Diplomkaufmann") in Business Administration (majors: Production & Operations Mgmt, Marketing) at **Julius-Maximilians-Universität Würzburg**, Germany (*Top 1% of the graduating class*)

Research

A major stream of Frank Piller's research focuses on **innovation interfaces**: How can organizations increase innovation success by designing and managing better interfaces within their organization and with external actors. This stream of research includes topics like **value co-creation with customers/users**, **responsible innovation** by stakeholder involvement, strategies to increase the productivity of technical problem solving by **tournament-based crowdsourcing**, and new **models for knowledge transfer** between universities and industry. This research on innovation interfaces has three core objectives: (1) *understand the parameters to design and apply methods and tools* bridging an organization with its external periphery, (2) *investigate organizational capabilities* on the level of individuals, structures, and processes to apply these methods, (3) *overcome cultural & individual hurdles* and create incentives to better absorb external input and put them into practice.

In addition, Frank Piller has a long established research tradition in the field of **mass customization and personalization**, with a focus on investigating *strategic capabilities and business model generation* for these strategies. This also includes an upcoming larger research stream on the **economic effects of additive manufacturing technologies** ("3D Printing"). At RWTH Aachen, he is a principle investigator in the National Cluster of Excellence on Integrated Production Technologies, focusing on business models for Additive Manufacturing.

His current research focuses on the need of **established corporations to cope with the challenge of digital transformation and similar disruptive technological innovations**. This includes a growing stream of research on digital business models and the systematic **design of platform-based business ecosystems**, but also research on Leadership for Industrie 4.0 and the establishment of organizational structures and cultures that allow for change. He is the Chairman of a cross-industry group hosted by VDI (Verein Deutsche Ingenieure) to develop standards in the field of platform-based digital business models ("Fachausschuss Geschäftsmodelle für Industrie 4.0").

From a methodological standpoint, Frank Piller's research includes conceptual, qualitative theory-building and quantitative theory-testing publications. Building on his academic background in large institutes of technology (TUM, MIT, RWTH), his research often follows the **design science paradigm**, striving to combine relevance for practice with academic rigor. During his tenure at RWTH Aachen, he has established one of Germany's largest research groups in technology and innovation management (TIM) with **about 15 (FTE) research positions**. The group is supported by **competitive research grants** from the European Community, the Deutsche Forschungsgemeinschaft (DFG), German Federal Ministry of Research (BMBF), and other institutions.

As indicated by a **H-Score of >44**, **>10000 citations** of his publications, a **Klout score of >60**, and more than 250 general press reports about his studies, Frank Piller's research has attracted broad attention and reception in academia and the management community. Harvard Business Review and McKinsey nominated him as a finalist in their **"Innovating Innovation MIX Challenge"** for his work on internal firm structures for successful open innovation.

Numerous research contracts and consulting assignments have transferred Frank Piller's research into real business impact for the management practice. He has been invited to provide more than 100 keynotes at conferences or business meetings and many research seminars for the faculty of leading business schools around the world.

Research & Publication Impact

- **List of Publications and Google Scholar Citation Impact:** <http://tinyurl.com/piller-pub>
- **Researchgate Page:** https://www.researchgate.net/profile/Frank_Piller
- **Handelsblatt Scholar Ranking:** *Participation declined due to ethical & professional concerns*
- **Press Reports about Frank Piller's Research:** <http://tinyurl.com/julqlu4>

Academic Honors and Research Awards

- 2014,2015 Inclusion into **Best Paper Proceedings of AOM 2015 Meeting**
- 2015 **FAMOS Award** of the President of RWTH Aachen for creating a research group with the "most family friendly work environment" at RWTH (on nomination by the RWTH TIM Group staff)
- 2013 Winner of the **Global 2012 PDMA-JPIM Research Competition** and the **2012 Wilemon Award** for the paper project "Managers' attitudes and reactions towards deviant consumer behavior in idea contests" (*jointly with Alexandra Gatzweiler & Vera Blazevic*)
- 2013 **"Best Paper Award 2012"** for the best paper published in 2012 in the journal 'Die Unternehmung - Swiss Journal of Business Research and Practice', awarded for the paper "From Social Media to Social Product Development: The Impact of Social Media on Co-Creation of Innovation", *co-authored by Christoph Ihl and Alexander Vossen*
- 2008 Invited Member to an **Expert Panel on Innovation advising President Horst Köhler** (President of the Federal Republic of Germany)
- 2008 Appointed **RWTH Representative of the German Scholarship Foundation** (Studienstiftung des Dt. Volkes)

- 2006 Paper "Reducing the Risk of New Product Development" (MIT Sloan Management Review) elected into the "Top 20 of Articles Chosen by Business School Faculty" (with S. Ogawa)
- 2000 **Poco-Handels-Preis of the University Witten-Herdecke** for the book "Mass Customization"
- 2000 **First Price of the Stiftung Industrieforschung** for the Ph.D. thesis
- 1999 **Wolfgang-Ritter-Preis for Scientific Contributions in Management Research** for the Ph.D. thesis
- 1991 Fellow of the **German Scholarship Foundation** (Studienstiftung des deutschen Volkes)

Research Grants and Contracts

Under Frank Piller directorship, the RWTH-TIM Group has been receiving **competitive (peer-reviewed) research grants of about \$0.5 to 1 million annually** since 2007. A special focus of the group are high profile **interdisciplinary projects**, including the role of a Primary Investigator in a **Cluster of Excellence ("Exzellenzcluster")** within the German Exzellenzinitiative; a co-directorship of a **DFG Graduate School ("Graduiertenkolleg")**, the coordinator role of a **DFG Research Cluster** on Technology Transfer, and the scientific leadership of several large-scale projects in the **European Framework Program**. Funding organizations include the European Community, the Deutsche Forschungsgemeinschaft (DFG), the BMBF, BMWi, AIF, VDMA-FVA, NRW Ziel.2 Program within the ESF, and the Stiftung Industrieforschung.

Technology Transfer: Spin-off Companies & Board Position

Frank Piller has always strived to connect his academic research with strong interactions with practice. Hence, he has consulted and delivered executive workshops for many DAX30 and Fortune 500 corporations, including Adidas, Audi, Bank of America, Bertelsmann, BMW, Daimler, Dell, ExxonMobil, General Electric, Infineon, J&J, Lego, Mars, Sears, Siemens, and Unilever.

He also transfers his research into practice as a co-founder, investor, member of the Board of Directors ("Aufsichtsrat"), or scientific adviser of several technology companies. At the same time, these corporate engagements provide a unique input for his research, giving access to original data and relevant management questions.

His company engagements include positions at **Carpus & Partner AG**, Aachen (Architecture and engineering firm with a focus on large scale R&D infrastructures); **Doob AG**, Düsseldorf (3D Printing and 3D Modelling); **Competivation Education & Consulting UG & Co. KG**, Düsseldorf (boutique consultancy in technology and innovation management); **Dialego AG**, Aachen (provider of advanced market research techniques for new product development in FMCG); **Hyve AG**, München (German market leader for co-creation and open innovation), **corpus.e AG**, Stuttgart (manufacturer of 3D scanning solutions and mass customization toolkits); and **Think Consult**, München (process management and late-stage testing of Apps and similar applications for TelCos, automotive, and media companies).

Scientific and Industry Boards ("Fachbeiräte")

In addition, Frank Piller serves (by invitation or as an elected member) on several scientific and industry boards of Industry Associations, steering the research landscape in these domains.

- Since 2015 **IMP³rove – European Innovation Management Academy EWIV**: Member Academic representative for the advisory board of Improve Academy, an initiative by the European Commission to improve innovation performance of European SMEs
- Since 2014 **Verein Deutscher Ingenieure (VDI)**: Head of the Fachausschuss "Business Model Innovation for Industrie 4.0"
- Since 2014 Member of the **RWTH Innovation Board**, providing strategic advice to the president of the RWTH on technology transfer, IP contracts, strategic innovation management
- 2014 **German Ministry for Research (BMBF)**: Head of the Academic Review Committee of the Research Framework Program "Kompetenzentwicklung und Innovative Arbeitsgestaltung"
- Since 2012 **Aachener Innovationspreis**: Member of the selection committee of one of the largest innovation awards for German industry
- Since 2010 Permanent member of the evaluation board for Ph.D. scholarships of the **Studienstiftung des Deutschen Volkes**
- 2011-2014 **ACATECH – Akademie der Technikwissenschaften**: Mitglied des Fachbeirats Produktentstehung

Top10 Journal Publications (self-selection)

1. *Alexandra Gatzweiler, Vera Blazevic, and Frank Piller*: Dark Side or Bright Light: Managing Deviant Content in Consumer Ideation Contests. **Journal of Product Innovation Management**. *Published OnlineFirst on 31Jan2017. (Winner of the 2013 PDMA Research award)*
2. *Sebastian Kortmann & Frank Piller*: Open Business Models and Closed-Loop Value Chains: Redefining the Firm-Consumer Relationship. **California Management Review (CMR)**. *Accepted for publication (July 2015); in editing process for publication in 2016.*
3. *Deborah Roberts, Dirk Lüttgens and Frank Piller*: Mapping the Impact of Social Media for Innovation: The Role of Social Media in Explaining Innovation Performance in the PDMA Comparative Performance Assessment Study. **Journal of Product Innovation Management** (JPIM). 33 (2016) S1: 117-135.
4. *David Antons and Frank Piller*: Opening the Black Box of "Not Invented Here": Attitudes, Decision Biases, and Behavioral Consequences. **Academy of Management Perspectives**. 29 (2015) 2: 193-217.
5. *Sebastian Kortmann, Carsten Gelhard, Carsten Zimmermann and Frank Piller*: Linking Strategic Flexibility and Operational Efficiency: The Mediating Role of Ambidextrous Operational Capabilities. **Journal of Operations Management (JOM)**, 32 (2014) 5: 475-490.
6. *Christian Weller, Robin Kleer and Frank T Piller*: Economic Implications of 3D Printing: Market Structure Models in Light of Additive Manufacturing Revisited. **International Journal of Production Economics**. Vol. 164 (June 2015): 43–56.
7. *Fabrizio Salvador, Martin de Holan and Frank Piller*: Cracking the Code of Mass Customization. **MIT Sloan Management Review**, 50 (2009) 3 (Spring 2009): 70-79.
8. *Frank T. Piller*: Observations on the present and future of mass customization. **Flexible Services and Manufacturing Journal** (Formerly: The International Journal of Flexible Manufacturing Systems), 19 (2007) 4 (December 2007): 630-636.
9. *Frank T. Piller and Dominik Walcher*: Toolkits for idea competitions: A novel method to integrate users in new product development, **R&D Management**, 36 (2006) 3: 307-318.
10. *Nikolaus Franke and Frank Piller*: Value Creation by Toolkits for User Innovation and Design: The Case of the Watch Market, **Journal of Product Innovation Management**, 21 (2004) 6 (November): 401-415.

Top5 Other Publications (self-selection)

1. *Frank Piller and Joel West*: Firms, Users, and Innovation: An Interactive Model of Coupled Open Innovation. In: **New Frontiers in Open Innovation**, edited by Henry Chesbrough, Wim Vanhaverbeke & J. West, Oxford University Press, Oxford, 2014: 29-49.
2. *Kathleen Diener and Frank Piller*: **The Market for Open Innovation**. The 2013 Open Innovation Accelerator Survey. 2nd, totally revised edition, Raleigh, NC: Lulu Inc. 2013 [ISBN 978-1-4716-2985-3].
3. *Frank Piller, Kathrin Möslein, Christoph Ihl und Ralf Reichwald*: **Interaktive Wertschöpfung: Open Innovation, Individualisierung und neue Formen der Arbeitsteilung**, 3. Auflage: Wiesbaden: Gabler 2017 (first edition: 2006).
4. *Frank Piller*: Mass Customization, in: Charles Wankel (ed.): **The Handbook of 21st Century Management**, Thousand Oaks, CA: Sage Publications 2008: 420-430,
5. *Frank Piller*: **Mass Customization**, 4., überarbeitete und ergänzte Auflage, Wiesbaden: Gabler DUV 2006.

Teaching & Academic Scholarship Development

Frank Piller has been teaching since 1997 to very different audiences, including undergraduates, graduate students, postgraduates, managers, and top executives, both in-class and in-company. He has been consistently delivering a highly satisfactory learning experience to his students, achieving **teaching evaluations in the top 15% percentile of the evaluation scheme**. Students regularly evaluate his lectures as *"demanding"* and *"leading-edge"*, but *"joyful to participate"*, *"very interactive and participate-centered"*, and *"a great experience"*.

He has co-initiated and developed different elective courses to disseminate the findings of his research for graduate and MBA students. Especially his class modules on open innovation and mass customization have been adopted by many leading international business schools, making him a successful visiting professor in top executive education programs around the world. Since April 2012, Frank Piller has been appointed as the **Academic Director of the RWTH Executive MBA (EMBA)** in General Management, a program offered since 2004 in cooperation with *St. Gallen University* and the *Fraunhofer Gesellschaft*.

Frank Piller has been co-advising numerous M.Sc./diploma theses and has been the advisor of more than 25 Ph.D. students. He is an acclaimed speaker at management conferences and in **Executive Education programs** around the world. He has been elected "MBA Teacher of the Year" at TUM Business School in 2001 and 2006, and is the only professor at RWTH Aachen who has received RWTH's highest price of teaching excellence two times (2010 and 2015).

Since 2011 he is an active advocate of introducing **Massive Open Online Classes (MOOC)** and **Serious Gaming** at RWTH Aachen to provide a better and more scalable teaching experience for large-scale undergraduate classes for interdisciplinary audiences. He has been **the first European professor** offering external participants the opportunity to gain **ECTS teaching credits** in an online MOOC program (in partnership with iversity.org).

Awards for Teaching Excellence

- 2015 **RWTH Award of Teaching Excellence 2015** (Nomination by the RWTH Vice President for Academic Affairs) together with Malte Brettel for teaching innovation by blended and game-based learning
- 2012 **RWTH Exploratory Teaching Space Award for Innovation in Teaching** in form of an **ETS grant** for the project **"Flipping the ABWL Classroom"** to turn a core bachelor course into a MOOC.
- 2010 **RWTH Award of Teaching Excellence 2010** (Nomination by the Student Bodies ("Fachschaft") of the Schools of Business and Engineering), central award for teaching excellence by the President of RWTH Aachen University.
- 2006 **Elected "Best Lecturer"** in the TUM Executive MBA program (out of 80 lecturers)
- 2002 **Best Lectureship Award** of the TUM MBA Class of 2001

Corporate Workshops and Corporate Executive Education

Frank Piller has developed several **executive class modules** in the fields of digital transformation, leadership for the factory of the future, open innovation, and mass customization which have been adopted by many leading international business schools, making him a demanded visiting professor in top executive education programs around the world. He has delivered customized **executive workshops** delivered for many Dax30 and Global 500 companies on topics like technology and innovation, general management, managing disruptive change, business model innovation and customer-centric value creation. In addition, he has coached and mentored entrepreneurs in high-tech start-up companies in Germany and North America.

Academic Community Services

Affiliation with Scholarly Associations: Academy of Management (AOM); Erich-Gutenberg-Arbeitsgemeinschaft Köln e.V.; European Academy of Management (EURAM); ISPIIM (International Society for Professional Innovation Management); Verband der Hochschullehrer für BWL (VHB); Product Development Management Association (PDMA)

Division Head (elected): **VHB TIE:** German Association of Professors of Management, Division Technology, Innovation, Entrepreneurship (TIE), 2015-2017

Conference Chair

- **World Open Innovation Conference (WOIC):** Founding Co-Chair (2014)
- **European Academy of Management (EURAM):** Founding Member; Chair & Head of the Conference Committee (2005); Track chair (2006-2008)
- **Mass Customization & Personalization Conference (MCPC),** Founding Co-Chair (2001), Co-Chair and Head of Program Committee (2001-2011), Honorary Program Chair (since 2013).
- **VHB TIE:** Annual Meeting of the German Association of Professors of Technology, Innovation, Entrepreneurship (2009), Conference Chair

Referee / Evaluator for Grant Institutions: American Marketing Association (AMA), Deutsche Forschungsgemeinschaft (DFG); European Commission; Engineering and Physical Sciences Research Council (EPSRC); IEE Manufacturing Professional Network; British Engineering and Physical Sciences Research Council; ManuFuture; National Science Foundation (NSF); Peter-Pribilla-Foundation; Schweizer Nationalfond; Stiftung Industrieforschung; Studienstiftung des Deutschen Volkes; Tekes, the Finnish Funding Agency; Volkswagenstiftung

Faculty Services at RWTH Aachen

Leadership positions in the School of Business & Economics

- Serving as the **Associate Dean of Strategy & External Affairs**, RWTH School of Business & Economics, RWTH Aachen (elected, 2015-2018)
- **Academic Director of the Executive Master Program in Business Administration (EMBA)**, offered by RWTH Aachen in cooperation with University of St. Gallen and Fraunhofer Academy (since 2012)
- **Co-Founder and Co-Director**, Research Area Technology, Innovation, Marketing & Entrepreneurship (TIME) (since 2013)
- **Institute Head**, RWTH Technology & Innovation Management Group (since 2007)

Board and leadership positions on the University Level

- Member of the **IMP-Board for fostering interdisciplinary research** as part of the Excellence Initiative at RWTH Aachen (appointed by the president of the RWTH) (since 2008)
- **RWTH Representative of the German Scholarship Foundation** (Vertrauensdozent der Studienstiftung des Dt. Volkes)
- **Member of the President's Innovation Board** of RWTH Aachen University, providing advice on RWTH's IP policy, technology transfer programs, licensing fee policies, and open innovation

Professional service for the School of Business & Economics

- **Member or Vice-Head of four Examination committee** ("Prüfungsausschüsse") for joint programs with other schools of RWTH Aachen (e.g., "Wirtschaftsingenieurwesen")
- Head / member of several faculty **recruitment committees**
- Head of the "Interdisciplinary Management Factory (IMF)" and Representative of the RWTH School of Business & Economics for the **German Research Excellence Initiative**, 2nd Funding period (2012-2018) (appointed by the president of the RWTH)
- Member of the **Working Group "AACSB Accreditation"** to secure the continuous positive evaluation of RWTH's teaching programs with *The Association to Advance Collegiate Schools of Business*
- Elected Member of the **Faculty Board of the School of Business & Economics** ("Fakultätsrat")