

The Handbook of Service Innovation

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Editors

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 Springer

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Endorsements

Bringing together the wide and diverse field of service innovation into a single, comprehensive and insightful text is a daunting challenge. Yet this is exactly what the Handbook of Service Innovation does. A great and compelling read, which I wholeheartedly recommend.

Professor Andy Neely
Director, Cambridge Service Alliance
University of Cambridge, UK

This is a hugely important topic and this handbook containing chapters from some of the leading academics and practitioner in the field. Service innovation encapsulates much of the work on management practices and productivity. As the modern world increasingly focuses on services long-run growth is going to come from innovation in their delivery, both product and process innovation. This book provides an ideal map for researchers to get up to speed on the latest work and thinking.

Professor Nicholas Bloom
Professor of Economics, Stanford University, California, USA
Senior Associate of the Centre for Economic Performance
London School of Economics, London, UK

The nature of service innovation continues to evolve as service offerings dominate over product offerings in developed economies around the world. Today making sense of service innovation is a top priority in industry, academia, government, and

the social sectors. *The Handbook of Service Innovation* provides a up-to-date set of concepts, examples, and perspectives on this intellectual deep and economic significant area of research, practice, education, and policy.

Dr. James (“Jim”) C. Spohrer
Director, IBM University Programs (IBM UP) and Cognitive Systems Institute
IBM Research—Almaden, San Jose, USA

The mechanisms by which services can innovate seem almost as numerous as the array of services themselves. And, the numbers of each are destined to grow as the percent of the workforce in service jobs continues to increase. The editors of this volume have ranged far and wide to provide us with some of the best current thinking on service innovation—how it happens, where it happens, and how it can be managed most appropriately. These articles illustrate the many ways in which services interact with our lives and the ways our lives interact with services—to change them and to improve them.

Professor Roger W. Schmenner
Professor Emeritus of Operations Management
Kelley School of Business, Indiana University, USA

In this era of unparalleled service innovation, it is more vital than ever that we understand how to innovate and what makes service innovations successful. From high-tech services to hospitality to industrial and mass services, innovation is the key to competitive success, and this book is testimony to its importance and complexity. This collection of interesting new research provides many compelling insights and managerial prescriptions that should help both academic and practitioner audiences better appreciate the design, development, and management of service innovation, and improvement of service businesses and processes.

Professor Craig Froehle
Professor, Operations & Business Analytics
University of Cincinnati, Ohio, USA

In many economies, the service sector accounts for the majority of economic value added today. And while services’ economic importance is growing, the number of settings in which they are delivered is increasing as well. This means that no longer only pure service firms have to think about their capabilities for service innovation, but also government agencies and many industrial firms that are developing explicit service offerings and product service bundles. In addition, services are increasingly created and offered within complex networks and “ecosystems”—often across industry borders and applying advanced information and

communication technology. This adds additional challenges and complexity for today's service managers. A key strength of the 'Handbook of Service Innovation' is its integration of numerous perspectives and backgrounds in the discussion of service innovation. Aspects covered include managerial challenges and capability building, the interplay of service innovation and technology, the roles of design and creativity, and collaborative innovation. This integrative and practice-oriented approach make the handbook an important asset for managers in any kind of service organisation.

Dr. Gerhard Satzger
Director, Karlsruhe Service Research Institute
Karlsruhe Institute of Technology (KIT)
Englerstrasse, Karlsruhe, Germany

This Handbook deals with a most elusive yet real and important issue of innovation in services. It covers a wide array of issues and topical themes, not least open innovation, servitisation, frugal service innovation and co-creation. It looks at a wide variety of sectors in the private sphere but also at the public sector and Universities. It combines theory, practice, prescription, capability requirements and design. Despite its apparent diversity, the volume is coherent and well integrated. Overall this is quite impressive feat, in general and given the importance of services and intangible assets in today's semi-global economy, in particular. A must read for students, scholars and practitioners alike, the editors are to be congratulated for making this happen.

Professor Chris Pitelis
University of Bath, and Queens' College
University of Cambridge, UK

As a product developer, and as an educator of future product developers, I'm truly delighted to learn about the Handbook of Service Innovation. Service design and innovation aspects have become more and more important component of any new product development initiative. Without exception, our partners in manufacturing industry with B2B products are showing strong interest in services. The Handbook of Service Innovation will be warmly welcomed by a wide audience.

Professor Ekman Kalevi
Director, Design Factory and Professor
Aalto University School of Science and Technology
Finland

Services innovation is an important field of study. This Handbook contributes to the growing literature that explains innovation in services, its nature, processes and outcomes.

Professor Mark Dodgson
Director, Technology and Innovation Management Centre
University of Queensland Business School
Brisbane, Australia

This is a comprehensive and stimulating compilation devoted to service innovation. It gives an excellent overview of the current state of underpinning Service Innovation for global economy.

Professor Haluk Demirkan
Professor of Digital Service Innovation & Business Analytics
Founder & Executive Director of Center for Information Based Management
Milgard School of Business
University of Washington—Tacoma, USA

Co-Founder & Board of Director
International Society of Service Innovation Professionals
(www.issip.org);

Track Chair for Analytics
Mobile & Service Science at HICSS
(www.hicss.hawaii.edu/)

The field of service innovation and services sciences is expanding at a rapid rate. The academic work and research is helping bring clarity to the new economic logic of a services based economy. This new logic is proving to be dramatically different from a product and consumption based economy. The Handbook of Service Innovation is an excellent collection of the latest thinking in the field. The diverse and cross-discipline nature of the topics covered in the handbooks reflects the expanding scope and breadth of service innovation.

Greg Oxtton
Executive Director, Consortium for Service Innovation
California, USA

The Australian Services Roundtable (ASR) applauds the creation of the Handbook of Service Innovation which provides a comprehensive update and set of insights around the very important issue of driving higher levels of innovative outcomes in the services economy. ASR notes that service industries account for 70 % of world

gross domestic product (GDP) and employ about 3.2 billion people. The detailed study of innovation in services has historically been lacking and this Handbook is a highly significant resource for private and public sector services professionals alike.

Services is ultimately a “people-to-people” endeavour and this important dimension is explored extensively in the Handbook. ASR is very pleased to endorse this important work and hopes that it provides a springboard for further research developments and improved outcomes.

Ian Birks
CEO, Australian Services Roundtable
Canberra, Australia

The Handbook of Service Innovation is a must read for service managers and senior executives. It provides a comprehensive perspective on the challenge of service innovation. The book carefully addresses each aspect of service innovation. It addresses the true import of service innovation, provides an extensive literature review, identifies the skills and capabilities underpinning service innovation, explores governance and organizational structure that impinge on this challenge, and presents novel thinking on designing and managing service innovation. For the astute reader, this book will also open up new avenues for thinking about the application for service innovation thinking. The book spans organizational settings in both the public and private sectors, while also drawing on international experience.

Professor Aditya Ghose
FIEAust, President, Service Science Society of Australia
Director, Decision Systems Lab
School of Computer Science and Software Engineering
University of Wollongong
Wollongong, Australia

Productivity growth in the service sector has lagged far behind manufacturing despite its growing dominance in terms of GDP and employment in a vast many of the leading national economies. It is well understood that the key to service productivity growth is innovation and new models of designing, implementing, and delivering services. This handbook of service innovation edited by Dr. Agarwal, and Professor Selen, Roos, and Green is put together in this spirit. It addresses a range of important themes that bear strongly on service innovation. These include open innovation and crowdsourcing, servitization, semantic and service web, sustainable and frugal service design, and creativity and community engagement,

among others. The chapters in this volume taken together provide an original perspective on service innovation and offer useful guidelines for promoting greater innovativeness at every stage of the service life cycle.

Professor Joseph G. Davis
Professor of Information Systems and Services
The University of Sydney
Sydney, Australia

In this book, Agarwal, Selen, Roos and Green present a breadth of diverse topics necessary to gain practical insight into designing, managing and growing complex innovative services that benefits businesses and society. Drawing on latest research, and best practices, *The Handbook of Service Innovation* is a must read for those seeking to learn more about skills and capabilities needed to stay competitive in our growing service economy in the 21st century.

Yassi Moghaddam
Executive Director, International Society of Service Innovation Professionals
California, USA

Preface

Service innovation is about more than the technical or mechanical processes that drive the creation of new ways of fulfilling the demands and needs of society as a whole. It incorporates that elusive element that Carl Jung refers to, where “The creation of something new is not accomplished by the intellect, but by the play instinct arising from inner necessity. The creative mind plays with the object it loves”.¹ This, in a succinct manner, encompasses the kernel at work in service innovation—that it is driven by the implicit process to improve, create, and utilize both tactile and intangible processes, services, and products. Aligned with the instinct, passion, and drive to improve what we as human beings come across, service innovation is an inherent part of life. To this end the collection of chapters here explore this in all its dimensions.

With services creating most of the wealth and employment in most emergent and advanced economies, fostering and managing service innovation exhibits unique challenges. This is particularly true if productivity improvement in services is to keep up with the long-lasting productivity improvement in manufacturing. These challenges pose new and interesting phenomena and call for new perspectives to be brought into focus. Service innovation is not limited to the service innovative process itself, but also involves our subtle responses and unspoken practices that accommodate, facilitate, and accelerate it. This multitude of perspectives and meanings shaping service innovation is what this Handbook explores in greater depth. *The Handbook of Service Innovation* takes the reader into deeper terrain to create insights into how we can explore some of these intricate aspects that define different forms of innovation, from the prosaic and beyond. Inexorably, this entails examining the specific nature of service innovation in order to unravel its complexities. By covering a breadth of topics, the Handbook provides an overview of how to build skills and capabilities to better design innovative services. An important facet of this process includes the

¹ Hillman J (1997) *The myth of analysis*. Northwestern University Press, Evanston, IL, p. 48.

challenges faced by management related to the new ways in which service innovation is undertaken, including its international dimensions.

The Handbook brings together the latest academic research and management practice on innovation in services, with contributions from leading researchers, practitioners, and thought leaders in the field, who provide in depth and practical insights into designing and managing innovation in services. This is achieved through cutting-edge research contributions, practical examples and implementations, and select cases. The Handbook takes the reader into alternative and varied views of innovation, while introducing recent and emerging technological developments, both in private and public service settings.

The Handbook is organized into seven parts that draw together the critical themes, or backbone, of service innovation. These parts cover a range of topics, both emergent and traditional. Our aim is to highlight core issues in service innovation as well as explore the novel approaches, integration, and understanding within specific contextual frameworks. In doing so, the Handbook provides a pragmatic approach to understanding service innovation on many different levels.

The Handbook starts with the theme *Innovation Definitions, Governance Structure, and Literature* in Part I. Before one can effectively and efficiently design and manage service innovations, it is paramount to first get an understanding of different types of innovation and degree of innovativeness.

In “[Innovation: A Critical Assessment of the Concept and Scope of Literature](#)” Baunsgaard and Clegg put forward the argument that service innovation is not taken up in the literature in a consistent manner, and inherent issues with defining innovation results in noncumulative and noncomparable studies that affect how innovation is researched. This is a critical concept in understanding the disparate nature of service innovation studies, and the Handbook takes the reader on a journey to align themes and concepts around the topic through the subsequent chapters.

In “[Service Innovation: A Review of the Literature](#)”, Randhawa and Scerri outline a literature review that takes a significant step into integrating some of the streams of service innovation, showing its multidisciplinary aspects. In “[Open Service Innovation: Literature Review and Directions for Future Research](#)”, Alexiev et al. explore how prospective research can encompass antecedents at the alliance-, alliance portfolio-, and alliance-network levels to enhance our understanding of service innovation. They call for an integrative model to propel future research, and provide a basis for developing such a model.

The Handbook then turns to co-creation and its relationship to service innovation in “[Towards an Understanding of Open Innovation in Services: Beyond the Firm and Towards Relational Co-creation](#)”, with Edwards et al. comparing existing open innovation frameworks, and proposing a co-creation approach to open service innovation.

Highlighting the complexities inherent in service innovation, Janssen et al. discuss a multidimensional approach in “[Exploring a Multidimensional Approach to Service Innovation](#)”. By using survey-data from over 300 firms, the authors operationalize a multidimensional conceptualization of service innovation.

In “[Innovation, Service Types, and Performance in Knowledge Intensive Business Services](#)”, Campagnolo and Cabigiosu explore Knowledge-Intensive Business Services (KIBS), and argue that not only innovation and customization are complementary in KIBS, but also that replication via standard and modular services determines a KIBS firm’s performance. This chapter completes Part I by gathering the strands around the literature and structures providing a firm foundation for the key themes to be explored in the Handbook.

The second theme the Handbook explores relates to *Skills and Capability Building in Service Innovation*, discussed in Part II.

Roth develops a conceptual framework that helps firms to evolve crucial competences for a systematic service innovation process in “[On the Way to a Systematic Service Innovation Competency Framework](#)”. The service-dominant logic and the competence-based perspective are used as theoretical foundations for this competency-based framework.

“[Service Innovation Capabilities for Idea Assessment: An Appraisal of Established and Novel Approaches](#)” provides an overview of the concept of idea assessment in services research. Here, Feldman and Kohler explore a case study of a German financial service provider, and introduce the concepts of serious games and crowdfunding as approaches to tease out issues of assessing service ideas.

Hasu et al. cover the topic of integration of user-based and employee-driven perspectives in innovation in “[Employees and Users as Resource Integrators in Service Innovation: A Learning Framework](#)”. The authors suggest a new integrated approach by analyzing the user–employee interaction in innovation, both theoretically and in two empirical cases.

In “[Foresight and Service Design Boosting Dynamic Capabilities in Service Innovation](#)”, Ojasalo et al. take up the concept of futures thinking and design thinking, and how these facilitate service innovation from the dynamic capabilities point-of-view. This chapter provides a valuable conceptual framework for service innovation that is grounded on concepts of foresight and service design.

The Handbook then returns to the topic of KIBS in “[Employment and Skill Configurations in KIBS Sectors: A Longitudinal Analysis](#)”, where Consoli et al. explore the topic from an alternative angle. This chapter offers a review of scholarly perspectives on the growth trajectory of KIBS, and elaborates on an empirical analysis to explore in detail commonalities and differences across a diverse group of sectors.

In “[Dynamic Capabilities for Service Innovation in Service Systems](#)” Agarwal and Selen explore the significance of the tangible and intangible aspects of service innovation. They demonstrate the relevance of the more implicit motivators of innovation to do with social and human capital, the more elusive aspects that play a dominant role in productivity.

The third major theme encompasses *Technological Developments in Service Innovation*, and is covered in Part III.

Nayar opens this part with a dynamic paper on the role of the emergent technology Web 3.0, or Semantic Web, in service innovation in “[Role of Web 3.0 in Service Innovation](#)”. The semantic characteristic of Web 3.0, coupled in particular

with the ability to harness explosive amounts of data available today, make emerging Web 3.0 a key enabler for service innovation on a scale not seen before.

In “[Service-Oriented Architecture as a Driver of Dynamic Capabilities for Achieving Organizational Agility](#)”, Luthria and Rabhi examine the conduits through which Service-Oriented Architectures (SOAs) may exert influence on dynamic capabilities within firms, and then empirically investigate this relationship in the context of organizations.

The topic of healthcare is critical in economies that deal with more efficient ways of administrating and providing services in this sector. Jung and Padman explore innovative, disruptive models of health care delivery in “[Disruptive Digital Innovation in Healthcare Delivery: The Case for Patient Portals and Online Clinical Consultations](#)”. This framework provides a large departure from previous ways of understanding the health system, and hints at a massively improved system through patient engagement.

In the concluding chapter for this part, “[Technology-Driven Service Innovation in the Banking Industry](#)”, Bajada and Trayler present an overview of the banking industry and examine the landscape of service innovation as shaped through the arrival of new technologies and deregulation of the Australian banking sector in the 1980s. The authors outline a number of changes in the industry that fuelled remarkable transformation in the way consumers and businesses approach banking through innovative services.

The Handbook goes into a fourth major theme with a focus on *Designing Service Innovation*, covered in Part IV.

In “[Systemic Development of Service Innovation](#)”, Hautamäki and Oksanen explore the intrinsic characteristics of services and service systems, and present a systemic approach to produce service innovations. This chapter also provides insights into design thinking and its implications to service development and radical service innovation.

Ceschin demonstrates how Product-Service System (PSS) innovations represent a promising approach to sustainability in “[The Role of Socio-Technical Experiments in Introducing Sustainable Product-Service System Innovations](#)”. Building on insights from transition studies and through an action research project, the chapter investigates the role of design in sustainable radical service innovations.

Roos provides an overview of relevant literature on servitization in “[Servitization as Innovation in Manufacturing—A Review of the Literature](#)”, exploring its dynamic nature. More and more servitization is becoming an essential part of strategy for manufacturing firms. The literature shows that the transformation process into a servitized manufacturing firm is a multifaceted, complex, but fertile terrain.

In “[The Architecture of Service Innovation](#)”, Moustafellos discusses the field of service design through an architectural approach, where the reader is taken through architectural lessons from the classic Greeks and Romans, demonstrating how service design of classic infrastructures provide useful criteria for approaching and assessing services today.

In “[Innovation or Resuscitation? A Review of Design Integration Programs in Australia](#)”, Cys and Andrew explore how design-integration programs have been established and supported by governments of nations around the world. This chapter reviews four government-supported programs in Australia, aiming to integrate design capabilities to stimulate business innovation and contribute to economic growth.

Chew in his “[Service Innovation Through an Integrative Design Framework](#)” outlines how at its core customer-centric service innovation in an increasingly digital world, is simultaneously technology-enabled, human-centered, and process-oriented. Chew argues that service innovation requires a cross-disciplinary, holistic, and end-to-end approach to New Service Design and Development (NSD).

The emerging concept of circular economy and its relevance to service innovation is a topic covered by Roos and Agarwal in “[Services Innovation in a Circular Economy](#)”. An in depth literature review highlights the significance of the circular economy which shows how revisiting this concept first developed in the 1960s could assist in addressing complex global challenges. This chapter provides a new focus to service innovation as it necessitates the development of an appropriate business model framework for firms engaging in service innovation and delivery within a circular economy framework.

The fifth theme of the Handbook draws together papers on *Management Issues in Service Innovation*, discussed in Part V.

In “[Illuminating the Service Provider’s Strategic Mandate on Realizing Apt Quality and Value Through Service Innovation](#)”, Menor highlights how the pursuit and achievement of success in service innovation constitutes a critical strategic imperative for many organizations. The author takes the reader through empirical findings, obtained through field-based examination of innovative initiatives of North American symphony orchestras.

Holmlid et al. explore the intricate mechanism of co-creative practices that can be used for the purpose of service innovation in “[Co-creative Practices in Service Innovation](#)”. The authors highlight the open-ended exploration practices familiar to designers, in which the practice of identifying problems goes hand in hand with creating solutions. The basis for exploration in this chapter is the engagement of people in reflective and creative dialogs, and to situate activities in order to set frames for reflection.

In “[Managing Online User Co-creation in Service Innovation](#)”, Bengtsson and Ryzhkova present a framework of capabilities and related management practices to the effective management of different types of online service innovation tools. In “[Practices for Involving Organizational Customers in Service Innovation](#)”, Korhonen and Kaarela apply previous research into Service-Dominant (S-D) logic and open innovation in order to study the practices for involving organizational customers in service innovation. The authors look at empirical research, based on case studies on six globally operating technology companies known for their innovativeness and service-oriented business with their organizational customers.

The Handbook turns to the international arena in its sixth theme, with a unique set of papers focussing on the *International Dimensions of Service Innovation*, covered in Part VI.

In “[Services Offshoring: Location Choice and Subnational Regional Advantages in China](#)”, Tan and Chen examine the patterns of distribution of offshoring activities and determinants of the location selection at the city level. The chapter describes an empirical study that confirmed that the location of offshoring of services firms in China is highly influenced by location-specific factors, in particular the presence of a large educated workforce in the city.

“[Innovative Strategies in Servicing International Markets from Ireland](#)” explores the innovative evolution of Ireland’s internationally traded services sector in the context of the increased significance of servicing international markets by foreign companies in Ireland. Grimes and Collins highlight in this chapter how innovative tax policies, together with innovative managerial practices such as transfer pricing, have enabled multinational subsidiaries in Ireland to evolve their operation more globally, as well as remain profitable in a relatively high-cost location.

In “[Leveraging Value Across Borders—Do ‘Market Place Interactions’ Trump ‘Market Space Transactions’?: Evidence from Australian Firms in Industrial Markets](#)”, Jack describes an exploratory case study of four Australian firms, operating in industrial markets, to assess the use of service innovative technologies in the delivery of supplementary services to international clients.

Since the outbreak of the Global Financial Crisis (GFC), businesses and governments in developed economies are more focused on sustainable affordability. In “[Frugal Services Innovation—Lessons from the Emerging Markets and an Adoption Framework for First-World Corporations and Governments](#)”, Sivaprakasam and Srinivasan provide a framework based on lessons in frugal innovations derived from emerging market experiences. Such lessons from emerging countries are important to foster a continuous and sustainable innovation approach, and also help businesses and governments in developed economies stay relevant to their stakeholders.

In the concluding theme, the Handbook focusses on *Service Innovation in the Government Sector*, discussed in Part VII.

Jappinen addresses the management of the service innovation process in the public sector in “[How to Manage a Service Innovation Process in the Public Sector: From Co-Design to Co-Production](#)”. This chapter explores how the local government sector can use change management to better benefit from user-driven innovation in public sector renewal. Empirical data were drawn from the Finnish Customer-oriented Service Network Project in Helsinki, referred to as the Lauttasaari Project, which is discussed in detail in terms of change management, decision making, and innovation management.

In “[Innovating Universities: Technocratic Reform and Beyond](#)”, Reiger et al. critically examine innovations and ‘reforms’ in university service provision and their management, focusing on Australia as illustrative of broader global trends associated with the integration of higher education into the international market economy. The authors suggest that dominant approaches to university ‘reform’ risk

to diminish the creativity and critical investigation skills required for these institutions to advance service innovation and emerging forms of society, beyond popular beliefs of becoming a ‘knowledge-based’ and ‘service-oriented’ economy.

In “[Business Model Approach to Public Service Innovation](#)” Katsigiannis et al. present a dynamic approach for the public sector to incorporate a new ‘business model’. This chapter creates dialog around the challenges facing public sector decision makers, and allows for a better understanding in how to manage public service innovations.

“[Exposing an Economic Development Policy Clash: Predictability and Control Versus Creativity and Innovation](#)” concludes the Handbook, where Andrew explores the tangle of academic discourse, policy rhetoric, and government programs aimed to support innovation through a case study of South Australia’s strategic plan, and the agencies charged with fostering and supporting innovation in the state.

As discussed above, the Handbook draws from a large tract of information and knowledge on service innovation, and targets many audiences because of its comprehensive coverage of the subject area. Managers, public sector officials, and practitioners may benefit from the many practical examples and case studies, as well as management frameworks based on a well-covered theoretical background, reinforced by empirical results from industry and public sectors.

Researchers and academics may refer to the vast literature exposed on the topic of service innovation, as well as the discussion of numerous areas for further investigation as future research topics. Finally, students can use this Handbook to familiarize themselves about the nature, complexities, and opportunities of well-designed innovations in services, in both private industry and public sector settings.

In an era where technological advances propel the facilitation of improvements and fast absorption of not only the service, but also our inherent beliefs around what service signifies, this Handbook serves as a guide. After all, service in itself encompasses the complexities of the human psyche and its placement in vaster societal backdrops.

In the end of the Handbook, the *Epilog* provides a current status of the latest thinking in service innovation, and sets out a blue print for understanding service innovation to a more attuned level. We wish you a productive journey in your reading through the various themes covered in this text.

Renu Agarwal
Willem Selen
Göran Roos
Roy Green

Acknowledgment

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Authors' Biography

Renu Agarwal is a Senior Lecturer in Innovation and Service Operations Management at UTS Business. Renu has extensive industry experience and in her current faculty position, Renu provides leadership in the disciplinary fields of service innovation, service value networks, supply chain management, dynamic capability building, management practices, management education, and innovation and productivity. She has been instrumental in managing several federal and state government project grants on management practices for both Australia and New Zealand working in collaboration with London School of Economics, McKinsey and Stanford University. Currently, Renu is involved in the Australian Leadership Capability Standard and the Regional High Performance Networks Programs, Centre for Workplace leadership, as well as Service Innovation: developing business models for future Value Chains theme, part of the Wealth from Waste CSIRO Flagship Cluster project. Renu has published in top tier international journals which include the *Decision Sciences*, *International Journal of Production Economics*, *Education + Training Journal*, *International Journal of Operations Management*, and *International Journal of Production Research*.

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Jane Andrew is an educator and researcher working at the University of South Australia's School of Art, Architecture, and Design. Jane's research and practice focus on collaborative practice, implementing trans-disciplinary projects and research in which artists, architects and designers are considered more than aesthetic afterthought in addressing environmental, social, economic and cultural issues faced by individuals communities and governments. It is this philosophy and

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Marc Bahlmann is Assistant Professor at VU University Amsterdam, Faculty of Economics and Business Administration. Dr. Bahlmann received his Ph.D. from the Faculty of Social Sciences (VU University), for a study on knowledge dynamics among IT-entrepreneurs located in the Amsterdam-based IT and new media-cluster. His current research interests include alliance portfolio's, innovation and regional innovation, with a specific interest in ego-centric network configuration.

Christopher Bajada is an Associate Professor of Economics and Associate Dean (Teaching and Learning). He started his teaching career at the University of New South Wales, from which he holds a Ph.D. He has taught economics in a variety of undergraduate and postgraduate courses, with his most recent teaching experience being in applied microeconomics. In recognition of his teaching, Chris was awarded the University of Technology Teaching Excellence Award and Team Teaching Award as well as the Carrick Institute (now the Office of Learning and Teaching) *Teaching Award for Outstanding Contributions to Student Learning in Higher Education*. Chris's research is primarily in applied macroeconomics, with a special interest in tax compliance. He has worked with the Australian Taxation Office as a member of the Cash Economy Task Force, as a member of the Economics Society of Australia and more recently on the expert advisory panel on the development of the Economics Learning Standards for Australian Higher Education.

Vibeke Vad Baunsgaard is an Honorary Research Associate at the Centre for Management and Organisation Studies, University of Technology Sydney. She holds a Ph.D. from Copenhagen Business School and a Master of Science in Sociology from the University of Copenhagen. She has formerly done research in the area of political sociology. In recent years she has researched social practice in innovation and management processes and developed a theory of Dominant Ideological Modes of Rationality-concerning power relations, professional identities and rationalities. She has published on these issues in *Organization Studies* and in *Research in the Sociology of Organizations* with co-author Stewart Clegg.

Lars Bengtsson is a Professor of Industrial Engineering and Management at Lund University and at the Blekinge Institute of Technology, Sweden. He holds a Ph.D. from the School of Economics and Management, Lund University, Sweden. He has published some 70 books, book chapters and journal articles on innovation, academic entrepreneurship, internationalization and strategic management issues. Journal articles have been published in journals such as *European Management Journal*, *International Journal of Information Management*, *Journal of Technology Transfer*, *International Studies of Management and Organization*, *Organization Science*, and *Scandinavian Journal of Management*.

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Stephen Chen is Professor of International Business at the University of Newcastle. He obtained his MBA from Cranfield School of Management and his Ph.D. in Management from Imperial College, London. He previously has taught at City University Business School (now Cass Business School), Manchester Business School, Henley Management College, Open University (UK), UCLA, Australian National University and Macquarie University. His research interests include the

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Davide Consoli holds a Ph.D. in Economics of Innovation from the Centre for Research on Innovation and Competition (CRIC), University of Manchester (United Kingdom). Before joining the Spanish National Research Council (CSIC) Davide Consoli was Senior Lecturer and Senior Research Fellow at the Manchester Business School. He was also Visiting Fellow at the Universities of Turin (Italy), Tampere (Finland) and Columbia (United States). His research agenda focuses on the economics and management of innovation, and encompasses both qualitative and quantitative research methods. For further information please visit his personal webpage <https://sites.google.com/site/dfconsoli/>

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Ard-Pieter de Man is professor of Management Studies at the VU University Amsterdam and dean at Sioo, centre for change management and organization design. His work focuses on alliances and open innovation across a wide variety of sectors. He published over 50 articles and ten books in these areas. His latest book 'Alliances: An executive guide to designing effective strategic partnerships' appeared in 2013.

Pim den Hertog is a senior researcher and founding partner of Dialogic Innovation & Interaction (now 25 persons) a research based consultancy in Utrecht, the Netherlands. Over the years he was involved in numerous national and international research and consultancy projects on (service) innovation and (service) innovation policies. In 2008-2012 he was also a research coordinator of the Amsterdam Centre for Service Innovation (AMSI) at the Amsterdam Business School. In 2010 he finalized his Ph.D. thesis *Managing Service Innovation. Firm-level Dynamic Capabilities and Policy Options*.

Melissa Edwards is a Senior Lecturer and early career researcher at the UTS Business School. Her work is transdisciplinary and directed towards understanding how people organize, learn and adapt to enact social change. She has co-developed and managed two innovative undergraduate programs, one is a cross-disciplinary program that challenges students to address contemporary wicked problems and to design sustainable entrepreneurial solutions. As a founding member of u.lab she co-edited and contributed to two books on design-led innovation processes and ran applied courses, including one with the City of Sydney, to develop innovative community projects. She conducts research that draws together sustainability, complexity, social capital and network theories with a focus on social impact, open innovation and new business models.

Dioni Elche is Lecturer at the University of Castilla-La Mancha (Spain) where she gained a Ph.D. in Business Administration in 2005. She was Visiting Researcher at Centre of Service Studies at the University of Roskilde (Denmark), Manchester Institute of Innovation Research (United Kingdom) and Columbia University (United States). Her main research is in the area of innovation management, with a strong interest in Service sectors, innovation and growth of knowledge in KIBS sectors, and industrial cluster and systems of regional innovation.

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Roy Green is Dean of the UTS Business School at the University of Technology Sydney. His doctorate is from the University of Cambridge, where he was also a Research Fellow, and he has worked in universities, business and government in Australia and overseas. He was previously Dean at the National University of Ireland and Macquarie Graduate School of Management. Roy has published widely in the areas of innovation policy and management and has undertaken multi-country projects with the OECD and European Commission. Roy chaired the Australian Government's Innovative Regions Centre, CSIRO Manufacturing Sector Advisory Council and NSW Manufacturing Council, and served on the Prime Minister's Manufacturing Taskforce, Enterprise Connect Advisory Committee and ABS Innovation Reference Group. He conducted the Government's review of the Textile, Clothing and Footwear industries, led Australian participation in a global study of management and productivity, coordinated an Australian Business Deans Council initiative on the future of management education and has co-authored recent reports on productivity, skills and innovation. Currently, Roy is involved in the Australian Design Integration Network, the Work Integrated Learning taskforce of Universities Australia and a project on future prospects for the car components sector.

Seamus Grimes is a graduate of University College Dublin, University of Ulster and the University of New South Wales, where he completed his Ph.D. in geography. He returned to NUI, Galway in 1980 and has been teaching in the geography department. Since the early 1990s Professor Grimes has published widely on topics related to information technology and regional/rural development. More recently his research has focused on the technology sector in Ireland and the emergence of internationally traded services. Among the journals in which his papers have appeared are: *Regional Studies*, *Environment and Planning A*, *Geoforum*, *European Planning Studies* and *Entrepreneurship and Regional Development*. In addition to his work on technology-related development issues, he has also developed a deep interest in the philosophy of the social sciences.

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Tuula Jäppinen works as a Senior Adviser for service innovations at the Association of Finnish Local and Regional Authorities. Her doctoral thesis in 2011 dealt with user-driven innovation as an interaction between a local authority and a citizen in decision-making on services and service restructuring. Her research areas are public services, service innovation, service design and citizen participation in local governance. For several years she has been collaborating with the service designers and the national pioneers of service reform both at the national and at the local level in Finnish municipalities.

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Ilari Kaarela M.Sc. (Tech.), M.Sc. (Econ.), has worked for five years as a Research Scientist at VTT Technical Research Centre of Finland. At VTT his work has included research projects on open innovation, service innovation, and business development in close contact with multiple domestic and international companies. Kaarela also previously coordinated a multidisciplinary network of service researchers within VTT, and participated actively in founding the Finnish Service Alliance, a new collaborative community for service scholars and practitioners in Finland.

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Angela Roth graduated in business administration. Subsequent to her studies she has been working at the Fraunhofer Institute for Supply Chain Services for five years – two years of which as head of the department for Decision Support Systems. During this period she finished her dissertation on “Modelling Warehouses in Logistics Networks”. After that she had been research assistant at the Nuremberg Chair of Logistics. In 2010 she finished her habilitation on “Education in Logistics – Crucial competences for the future logistics industry”. Since 2011 she is associate professor at the Chair for Information Systems – Innovation and Value Creation at the University of Erlangen-Nuremberg and doing research on service innovation and competences in service innovation.

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Moira Scerri has over 30 years industry experience in travel and tourism, information technology, education and payment systems before coming to academia. Moira has worked on a number of strategic technology and large scale industry and cross industry change management projects. Moira developed and operationalised the Service Enterprise Productivity in Action (SEPIA) and Networked Enterprise Productivity in Action (NEPIA) which provide a generalised approach to measuring service productivity. Moira's research interests are service innovation, service operations management, and service productivity and performance management. She uses a range of methods using Data Envelopment Analysis (DEA) and Social Network Analysis (SNA) and Simulation.

Toni Schofield Associate Professor she researches and teaches in sociology and public policy. Her work in organisational studies has generated publications in a variety of areas including gender equity and public policy making, prosecution and deterrence in workplace health and safety, workforce shortages in health care, and barriers to postgraduate study among Indigenous people. She is the author of *A Sociological Approach to Health Determinants*, published by Cambridge University Press (2015).

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