Epilogue

This Handbook traverses a wide field, starting with what service innovation means within different contexts, exploring governance and structure and providing valuable literature reviews on how to approach and understand both the intrinsic and instrumental nature of service innovation.

Open service innovation has altered the world we inhabit, with blurred boundaries on what constitutes customer engagements and citizenship. The partitions that historically dominated the market place are shifting and disappearing, with customers fully present and engaged in their relationships to purchase products and services. Such 'presence' has altered the customer to no longer being a passive recipient, but one that plays a dominant role in the development, design and improvement of both the service experience and content.

In terms of skills and capability building in service innovation the Handbook offers conceptual frameworks on how organizations can create systematic service innovation processes. Also highlighted is the concept of ideas assessment and newly adopted approaches such as 'serious games' and 'enterprise crowdfunding'. Such methods show that innovations do not always originate from experts and specialized groups, but also emerge from 'non-experts' and their respective communities. The Handbook highlights notions such as creativity in practice and active engagement of community members, where the community group is seen as 'bricoleurs'. These activities strengthen the social ties within the market place, thereby incorporating social capital and how it improves the experiential aspects of living within communities. The Handbook addresses these concerns with chapters covering design issues and how design thinking can improve the social dynamics of human existence. Moreover, the Handbook shows that foresight is the precursor to the innovation process and how service design is entwined with this process in creating vibrant futures. This also includes the movement of manufacturing firms into service providing organizations through servitization.

In terms of technological development, the Handbook focuses specifically on how the growth of data and the development of the 'semantic web' open the door to inspiring applications. In addition, disruptive innovations, exemplified in healthcare delivery, show that technology platforms have the capacity to transform the industry in critical ways that make health care both more efficient and effective.

Another technology example is service-oriented computing which facilitates application and enterprise system integration.

Future trends point to emerging markets addressing service innovation within their unique environment and limited resources in a more sustainable manner. New approaches are being sought to address multi-level concerns about sustainability and depleted global resources. The Handbook provides examples of solutions, such as the one developed by Ariston which offers the consumer access to washing machines for washing on a pay-per-use basis, leading to a new paradigm that embraces sustainability. It is based on a number of pre-paid loads, and includes aside from use, maintenance, upgrades, and electricity, end-of-life collection; and uses recyclable products. Product-Service System (PSS) innovations represent a promising approach to sustainability through the role of design in radical sustainable service innovations. Such new approaches embrace the *circular economy,* where approaches to waste are turned upside-down and *"today's goods are tomorrow's resources".*[1]

In the current political and economic climate, there has been a significant shift in many countries towards public services being rationalized through cost cutting. The Handbook explores Public Service Innovation as a process to renew and invigorate government sectors, presenting models that encompass the valuable resources and services needed for functioning economies. Moreover, managing these processes entails a keen understanding of the global pressures and market forces that continuously change the operating environment. This encourages the twenty-first century manager to have a suite of tools and perspectives, and a well-honed sensitivity to intercultural aspects of service innovation. The Handbook covers some of this domain through its discussion of 'frugal services innovation', service offshoring, location choice, innovative tax policies and managerial practices, transfer pricing and multinational subsidiaries. Cases in India, China and Ireland highlight the complexities of these international dimensions as they influence service innovation.

In conclusion, future trends highlight that service innovation, though connected to dynamic aspects of a global environment, such as the notion of a circular economy, has a common thread of the *human element,* and very much thrives on relational aspects. These include the insight and knowledge brought to the fore through collaboration with regard to both intangible and tangible elements that drive service innovation.

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[1] Trends E-Magazine, Trend #2, September 2012: 11.

Terminology

Below is a list of terms used in The Handbook of Services Innovation. This list is not exhaustive and covers terms as they appear in the relevant chapters. The source of the term can be found at the end of the short definition, where you can turn to for further reading or to explore the term used in its contextualized form with complete references.

absorptive capacity
the ability of network members to access and appropriate new knowledge from their partners Chapter "Service Innovation: A Review of the Literature" (See also Chapters "Open Service Innovation: Literature Review and Directions for Future Research", "Employment and Skill Configurations in KIBS Sectors: A Longitudinal Analysis")

acupunctural planning
a set of synergic self-standing local initiatives that, adopting the metaphor of the practice of the traditional Chinese medicine, aim to generate changes in large and complex systems operating on some of their sensible nodes (Chapter "The Role of Socio-Technical Experiments in Introducing Sustainable Product-Service System Innovations")

alliance network
a firm's set of direct and indirect relationships (Chapter "Open Service Innovation: Literature Review and Directions for Future Research")

alliance portfolio
a firm's set of relationships, all alliances of a focal firm (Chapter "Open Service Innovation: Literature Review and Directions for Future Research")

alliance structure
pertains to the governance form adopted by the partners that provides them with incentives to act consistently with alliance goals, while simultaneously providing them with sufficient rewards and safeguarding them against opportunistic behaviour (Chapter "Open Service Innovation: Literature Review and Directions for Future Research")

bricolage   a process of co-shaping an emerging path where participants offer inputs to generate a virtuous learning circle. The boundaries blur between design and implementation and between rule making and rule following (Chapter "Employees and Users as Resource Integrators in Service Innovation: A Learning Framework")

BPO   business process offshoring/outsourcing (Chapter "Services Offshoring: Location Choice and Sub-national Regional Advantages in China")

Business Model (BM)   business model concept (or BM) is provided by Osteralder, Pigneur and Tucci (2005, p. 5): "A business model is a conceptual tool containing a set of objects, concepts and their relationships with the objective to express the business logic of a specific firm. Therefore we must consider which concepts and relationships allow a simplified description and representation of what value is provided to customers, how this is done and with which financial consequences" (Chapter "Business Model Approach to Public Service Innovation")

Capability Maturity Model Integration for Services (CMMI-SVC)   the Capability Maturity Model Integration for Services (CMMI-SVC)—maintained by the Software Engineering Institute (SEI) of Carnegie Mellon University—belongs to a family of CMMI frameworks that date back to the early 1990s. The overall purpose of CMMI-SRV is said to *be "providing guidance for applying CMMI best practices in a service provider organization" (CMMI Product Team 2010, p. i).* (Chapter "Service Innovation Capabilities for Idea Assessment: An Appraisal of Established and Novel Approaches")

Circular Economy   Is a concept introduced by Boulding (1966). It is a generic term for an industrial economy that is, by design or intention, restorative and in which material flows are of two types, biological nutrients, designed to re-enter the biosphere safely and technical nutrients, which are designed to circulate at high quality without entering the biosphere (Wikipedia 2014a) (Chapter "Services Innovation in a Circular Economy")

co-creative practices   practices where a design practice and one or more communities of practice participate in creating new desired futures. Lave and Wenger (1991) describes similar processes from a situated learning perspective, where professional development typically goes from peripheral participation in a community of practice to full participation (Chapter "Co-creative Practices in Service Innovation")

co-design	co-design recognizes that people have assets such as knowledge, skills, characteristics, experience, friends, family, colleagues and communities, and they use these assets to support their health and well-being (Feeley and Mair 2012, p. 4). Co-design changes the dynamics between individuals and communities, creating more collaborative relationships. Frontline staff is more able, confident and ready (than management) to accept user experience (Needham and Carr 2009; Burns 2012, p. 13) (Chapter "How to Manage a Service Innovation Process in the Public Sector: From Co-Design to Co-Production") (See also Chapters "Service Innovation: A Review of the Literature", "Foresight and Service Design Boosting Dynamic Capabilities in Service Innovation", "Systemic Development of Service Innovation", "Service Innovation Through an Integrative Design Framework", "Co-creative Practices in Service Innovation", "Managing Online User Co-creation in Service Innovation")
collaborative agility	Sambamurthy et al. (2003) define agility as *customer agility*, *partnering agility* and *operational agility*. *Customer agility* forms the basis of a dynamic and adaptive capability provided by service system in response to customer needs and demands. *Partnering agility* is an organization's ability to explore and exploit opportunities through sourcing and staging service delivery processes, or customer interfaces and customer support assets and resources. *Operational agility* in a service system can then be seen as the managerial capability to rapidly adapt and change network structures and organizational cultures, integrate modular processes to rapidly change and redesign existing processes and create new processes for exploiting a dynamic marketplace. These three forms of agility make up the collaborative agility of the service system (Chapter "Dynamic Capabilities for Service Innovation in Service Systems")
collaborative design	collaborative designing means to design together with others. In such explorations, identifying the problem and finding the solution often go hand in hand by making sense of the current systems, experiences, solutions and practices and at the same time seeking insights for future ideas (Chapter "Co-creative Practices in Service Innovation")
collaborative innovative capacity (CIC)	is the ability to come up with innovative ideas, which gives partnering organizations the capacity to introduce

	new services, new or modified processes, new or modified operating structures, new ways to market products or services, or ideas through the integration of capabilities and resources in an urge to incite innovation (Chapter "Dynamic Capabilities for Service Innovation in Service Systems")
competence-based view	the perspective of competence-based competition integrates concepts of resources (Penrose 1959; Wernerfelt 1984; Barney 1986, 1991; Dierickx and Cool 1989), dynamic capabilities (Amit and Schoemaker 1993; Nelson and Winter 1982; Teece et al. 1997), as well as assumptions of works on core competences (Prahalad and Hamel 1990; Hamel 1991). The competence-based perspective clarifies the link between a firm's performance and its resource endowment. It is argued that a firm needs to possess specific competences in order to exploit its resources in a goal-oriented manner (Freiling 2004) (Chapter "On the Way to a Systematic Service Innovation Competence Framework")
competing values framework	Competing Values Framework (CVF) relates to public sector reform. The Competing Values Framework (CVF) emerged in the 1980s from studies of public sector organisational effectiveness (Chapter "Exposing an Economic Development Policy Clash: Predictability and Control Versus Creativity and Innovation")
complexity theory	involves a diverse array of concepts rather than a coherent 'theory'. Complexity approaches have developed as an interdisciplinary endeavour, moving from biological to social systems and share rejection of positivist frameworks. By relying on a multidimensional conceptualization, theory concerning complex systems can be translated to the domain of service innovation. Although the elements within a system are commonly associated with individual components (Frenken 2006), functions, routines (Nelson and Winter 1982), or activities (Porter and Siggelkow 2008), the complexity principles hold for more abstract dimensions as well. In the case of services, scholars did express the expectation that prompting a change in one dimension is likely to require changes in other dimensions (den Hertog et al. 2010; Van Riel et al. 2013; Cooper et al. 1999; Chae 2012) (Chapters "Exploring a Multidimensional Approach to Service Innovation", "Innovating Universities: Technocratic Reform and Beyond")

configurational approach	An approach based "on the fundamental premise that patterns of attributes will exhibit different features and lead to different outcomes depending on how they are arranged" (Fiss 2007, p. 1181). It assumes complex causality and nonlinear relationships, and that variables that are causally related in one configuration may be differently related or even unrelated in other configurations (Meyer et al. 1993). The configurational approach also places emphasis on the argument of equifinality (Chapter "Innovation, Service Types, and Performance in Knowledge Intensive Business Services")
contextmapping	The *contextmapping* approach, developed by Sleeswijk Visser (2009), is built on the same foundation as probes; on collaborative sense-making in which the insight generation process is believed to be a non-linear process that has both rational and non-rational arguments. The process starts by engaging users to discuss their experiences through assignments. The process continues by discussing insights with the designers in open-ended dialogues that aims to support empathy as well as collaborative creation (Chapter "Co-creative Practices in Service Innovation")
creativity	creativity is the generation of new ideas—either new ways of looking at existing problems, or seeing new opportunities, perhaps by exploiting new technologies or changes in markets (Chapters "Innovation or Resuscitation? A Review of Design Integration Programs in Australia", "Innovating Universities: Technocratic Reform and Beyond") (See also Chapters "Service Innovation: A Review of the Literature", "On the Way to a Systematic Service Innovation Competency Framework", "Employees and Users as Resource Integrators in Service Innovation: A Learning Framework", "Foresight and Service Design Boosting Dynamic Capabilities in Service Innovation")
creative destruction	Schumpeter argued that new ideas rarely come into being because firms innovate and transform themselves; rather, capitalism develops through a process of creative destruction. Schumpeter (1942, p. 83) defined the notion of creative destruction as a "process of industrial mutation that incessantly revolutionizes the economic structure from within, incessantly destroying the old one, incessantly creating a new one." For Schumpeter, extremely significant innovations begin

	with the creative destruction of existing fields (Chapters "Innovation: A Critical Assessment of the Concept and Scope of Literature", "Frugal Services Innovation—Lessons from the Emerging Markets and an Adoption Framework for First-World Corporations and Governments")
crowdfunding	involves "an open call, mostly through the Internet, for the provision of financial resources either in form of donation, or in exchange for some form of reward and/or voting rights". Crowdfunding is driven by advances in ICT and Internet use. It became particularly popular amongst initiators of charity, creativity, or investment related grassroots projects (Ordanini 2011). Crowdfunding builds on the idea of crowdsourcing (Howe 2009), which can be described as sourcing something from a large crowd that would have normally been provided by one self or paid employees (Geiger et al. 2011) (Chapter "Service Innovation Capabilities for Idea Assessment: An Appraisal of Established and Novel Approaches")
crowdsourcing	where a firm's innovative activities are outsourced to a large crowd of people, also an example of a radical service business model innovation. Crowdsourcing involves soliciting ideas or solutions from a wide range of contributors. Generally, firms set a prize amount, provide a remit or problem to solve and select the best solutions generated by the competition, providing a very efficient way for firms to generate possible solutions and ideas to problems (Chapters "Service Innovation: A Review of the Literature", "Towards an Understanding of Open Innovation in Services: Beyond the Firm and Towards Relational Co-creation")
Customer engagement	is the ability of the service system to encourage customers to participate and engage during the service encounter (face-to-face or technology mediated), and through the customer's engaging and learning process, judge and respond to customer's needs and expectations with agility and innovativeness (Agarwal and Selen 2009) (Chapter "Dynamic Capabilities for Service Innovation in Service Systems")
Customer Integrated Business Model (CIBM)	Customer-Integrated Business Model" (CIBM) was based on the RCOV model, with customer as additional resource which enacts a new range of dynamics among other BM components, therefore leading to potential increase of revenues and/or reduction in costs, i.e.

	improved performance through innovations originated from as well as leading towards, customers (Chapter "Business Model Approach to Public Service Innovation")
customized services	are produced to meet particular customer needs and the outputs are fully adapted to them (Chapter "Innovation, Service Types, and Performance in Knowledge Intensive Business Services")
DC	Developed Countries (Chapter "Frugal Services Innovation—Lessons from the Emerging Markets and an Adoption Framework for First-World Corporations and Governments")
design	The simplest definition (Roos 2011) is that design is a system-level optimisation intended to change the behaviour—and, as such, the preferences—of the user. Whereas technology-based innovation tends to take a "component improvement leads to system improvement" view, design-based innovation tends to take a "system optimisation leads to user-behaviour change" view (Chapter "Services Innovation in a Circular Economy")
design integration programs	Design integration programs aim to increase the competitiveness of business through the application of design services and design thinking within the business model. Typically design integration programs provide auditing, mentoring and business modelling with selected companies to plan and implement strategies to utilise professional design services and apply design thinking methods to develop new products, services or processes (Chapter "Innovation or Resuscitation? A Review of Design Integration Programs in Australia")
design probes	self-documenting diaries, where a customer documents his/hers personal context by, for example, taking photos of objects and events over a specified period (Chapters "Co-creative Practices in Service Innovation", "How to Manage a Service Innovation Process in the Public Sector: From Co-Design to Co-Production")
design thinking	Design thinking is described as human-centered discovery process followed by iterative cycles of prototyping, testing and refinement (Brown 2009). Design driven innovators look for new ways to think about the innovation, spend time with all kinds of consumers and capture unexpected insights that more precisely reflect what people want. By taking the human-centred approach, design thinkers can imagine solutions that

are inherently desirable and meet explicit or latent
needs. Both design thinkers and service innovators need
to imagine the world from multiple and often contra-
dictory perspectives—those of colleagues, clients, end
users and future customers. Design thinking aims at
creating *meaningful solutions* (Verganti 2009). Obser-
vations are translated into insights and insights into
products and service solutions (Brown 2009). Accord-
ing to Griesbach (2010, p. 200), design thinking can be
considered as "a special way of problem solving which
creates more value by better satisfying human needs in
the long run than other ways of problem solving might
do" (Chapters "Foresight and Service Design Boosting
Dynamic Capabilities in Service Innovation", "Systemic
Development of Service Innovation") (See also Chap-
ters "Towards an Understanding of Open Innovation in
Services: Beyond the Firm and Towards Relational Co-
creation", "Innovation or Resuscitation? A Review of
Design Integration Programs in Australia")

disembodied
innovations
are intangible and constructed from newly formed
knowledge (Chapter "Disruptive Digital Innovation in
Healthcare Delivery: The Case for Patient Portals and
Online Clinical Consultations")

disruptive innovation
a disruptive innovation is one that affects its domain in
large volume, which creates a new market and value
and eventually replaces existing technologies/processes
(Chapters "Disruptive Digital Innovation in Healthcare
Delivery: The Case for Patient Portals and Online
Clinical Consultations", "Frugal Services Innovation—
Lessons from the Emerging Markets and an Adoption
Framework for First-World Corporations and
Governments")

dynamic capabilities
competencies or capabilities which facilitate the rapid
creation of new products and processes by the agile
coordination of "internal and external organizational
skills, resources, and functional competences" in
response to dynamic market conditions. Dynamic
capabilities can be defined as routines within a
company's managerial and organizational processes
that aim to gain, release, integrate and reconfigure
resources (Teece et al. 1997) (Chapters "Foresight and
Service Design Boosting Dynamic Capabilities in
Service Innovation", "Dynamic Capabilities for
Service Innovation in Service Systems", "Service-
Oriented Architecture as a Driver of Dynamic

	Capabilities for Achieving Organizational Agility") (See also Chapters "Service Innovation Capabilities for Idea Assessment: An Appraisal of Established and Novel Approaches", "Service Innovation Through an Integrative Design Framework")
EC	Emerging Countries (Chapter "Frugal Services Innovation—Lessons from the Emerging Markets and an Adoption Framework for First-World Corporations and Governments")
economic geography	research in economic geography has been mainly concerned with spatial distribution and spatial organisation of economic activities at sub-national levels, focusing on key questions such as why certain economic activities occur at certain locations and how the economic activity at one place relates to others at its surrounding areas (Dicken and Lloyd 1990) (Chapter "Services Offshoring: Location Choice and Subnational Regional Advantages in China") (See also Chapter "Employment and Skill Configurations in KIBS Sectors: A Longitudinal Analysis")
elevated service offering (ESO)	Service innovation in such a service system can be seen as a new or modified service offering, where the service offering is "elevated" beyond what is possible by the individual firm through collaborative efforts and/or expertise of the network partners. Hence, the notion of an "elevated service offering" or ESO (Agarwal and Selen 2009, 2011, 2014) is brought about through the deployment of particular dynamic capabilities (Teece 2009) (Chapter "Dynamic Capabilities for Service Innovation in Service Systems")
enculturation	"the process where the culture that is currently established teaches an individual the accepted norms and values of the culture or society where the individual lives. The individual can become an accepted member and fulfill the needed functions and roles of the group. Most importantly the individual knows and establishes a context of boundaries and accepted behaviour that dictates what is acceptable and not acceptable within the framework of that society. It teaches the individual their role within society as well as what is accepted behaviour within that society and lifestyle" (Kottak and Conrad 2010) (Chapter "Exposing an Economic Development Policy Clash: Predictability and Control Versus Creativity and Innovation")

endogenous growth theory (EGT)

since the 1980s, aspects of new growth theory or endogenous growth theory have been woven into neoliberal approaches to macro and micro economic policy. Instead of considering economic growth primarily through transaction cost theories and analysis, importantly, EGT recognises that non-market interactions are also important in fostering and sustaining regional economic development (Chapter "Exposing an Economic Development Policy Clash: Predictability and Control Versus Creativity and Innovation")

effectuation

Effectuation replaces predictive logic with *a means oriented approach*, which begins from available resources and allows the goals to emerge in the courses of action. In line with S-D logic, it highlights that any given resource can be made more or less valuable and capable of producing long-term advantages: thus, what participants do with resources matters. Effectuation and bricolage both emphasize the significance of *individuals' actions and control over resources* (Fisher 2012) (Chapter "Employees and Users as Resource Integrators in Service Innovation: A Learning Framework")

e-health

health services and information delivered via internet and related technology. e-health, characterized as internet enabled medicine, is the latest development in the telemedicine stream of applications and is defined as health services and information delivered via internet and related technologies (Chapter "Disruptive Digital Innovation in Healthcare Delivery: The Case for Patient Portals and Online Clinical Consultations") (see also Chapter "Role of Web 3.0 in Service Innovation")

evidence-based policy making (EBPM)

the EBPM approach breaks down the policy making process into distinct sets of management tasks that in turn can be processed within a mechanistic system. The implication of a mechanised system is that it will provide certainty and stability of outcomes and thus serve to legitimise policy choices and implementation strategies. Added to the managerial tools adopted by EBPM was 'strategic planning' emanating from business theory and management discourse (Chapter "Exposing an Economic Development Policy Clash: Predictability and Control Versus Creativity and Innovation")

eVisit service

provides patients with online consultation through a series of secure message exchanges with a physician, providing an alternative for onsite office visits and

	non-reimbursed phone-based care (Chapter "Disruptive Digital Innovation in Healthcare Delivery: The Case for Patient Portals and Online Clinical Consultations")
embedded services	although commonly assessed as separate product categories, researchers acknowledge that there are numerous service activities that firms 'embed' with products (Bowen et al. 1989; Dunning 1989; Robinson et al. 2002; Ulaga and Reinartz 2011). These can range from services delivered before the production of a good, such as customised design, to post-production services, such as installation and ongoing post-sale service support for a good (Chapter "Leveraging Value Across Borders—Do 'Market Place Interactions' Trump 'Market Space Transactions'?: Evidence from Australian Firms in Industrial Markets")
embodied innovations	are tangible such as medical devices and pharmaceutical products (Chapter "Disruptive Digital Innovation in Healthcare Delivery: The Case for Patient Portals and Online Clinical Consultations")
employee-driven innovation (EDI)	refers to "the generation and implementation of ideas, products, and processes—including the everyday remaking of jobs and organizational practices—originating from interaction of employees, who are not assigned to this task" (Høyrup 2012 p. 8, see also Kesting and Ulhøi 2010) (Chapter "Employees and Users as Resource Integrators in Service Innovation: A Learning Framework")
entrepreneurial alertness	the "dynamic capability of an organization to explore its marketplace, and detect areas of current and future market place threats and opportunities" (Sambamurthy et al. 2003, p. 250) (Chapter "Dynamic Capabilities for Service Innovation in Service Systems")
equifinality	the situation where "a system can reach the same final state (e.g., the same level of organizational effectiveness) from differing initial conditions and by a variety of different paths" (Katz and Kahn 1978, p. 30). (Chapter "Innovation, Service Types, and Performance in Knowledge Intensive Business Services")
expansive learning	expansive learning perspective offers theoretical and analytical means to explore, in a nuanced way, the emergence and development of resource integrator roles and practices in service innovation (Chapter "Employees and Users as Resource Integrators in Service Innovation: A Learning Framework")
external service innovations	the addition of, or changes to, a firm's service offering to a consumer segment (Chapter "Towards an

	Understanding of Open Innovation in Services: Beyond the Firm and Towards Relational Co-creation")
FDI	Foreign Direct Investment (Chapters "Services Offshoring: Location Choice and Subnational Regional Advantages in China", "Innovative Strategies in Servicing International Markets from Ireland")
frugal innovation	is a response to limitations in resources, whether financial, material or institutional and transforms these constraints into an advantage using a range of methods (Bound and Thornton 2012). Frugal innovation results in lowering the costs of products and services through minimizing use of resources or by leveraging them in new ways (Govindarajan and Ramamurti 2011; Bound and Thornton 2012; Radjou, Prabhu et al. 2012) (Chapter "Frugal Services Innovation—Lessons from the Emerging Markets and an Adoption Framework for First-World Corporations and Governments")
futures thinking	the term "futures thinking" is used when speaking about looking into futures as a general approach, and "foresight" when focusing on the concrete forward-looking work aimed at mapping the change and influencing it (see Bishop and Hines 2012). Futures thinking has generated a rich and wide-ranging literature (see e.g. Slaughter 2009), and, as a holistic and synthesizing field, it draws on methods from many disciplines (Popper 2008). Futures studies discover, examine, evaluate and propose possible, probable and preferable futures (Bell 2009) (Chapter "Foresight and Service Design Boosting Dynamic Capabilities in Service Innovation")
fuzzy set qualitative comparative analysis (fs/QCA)	Fs/QCA is an analytic technique that studies how different causal conditions combine to contribute to a certain outcome of interest (Chapter "Innovation, Service Types, and Performance in Knowledge Intensive Business Services")
goods-dominant (G-D) logic	focuses on discrete transactions of primarily tangible units of output. Value is added by producing output throughout the production process. Hereby, the product itself and its competitive features are of interest, rather than value-in-use. The customer is merely seen as a consumer of value, whereas value creation is limited to the firm (Chapters "On the Way to a Systematic Service Innovation Competency Framework", "Foresight and Service Design Boosting Dynamic Capabilities in Service Innovation") (See also Chapters "Innovation: A Critical Assessment of the Concept and Scope of

	Literature", "Towards an Understanding of Open Innovation in Services: Beyond the Firm and Towards Relational Co-creation", "Employees and Users as Resource Integrators in Service Innovation: A Learning Framework" and "Practices for Involving Organizational Customers in Service Innovation")
google wallet	new payment providers to the financial sector such as PayPal and Google Wallet enables payments and online money transfers, a service which once belonged in the domain of financial institutions (Chapter "Technology-Driven Service Innovation in the Banking Industry")
hub-and-spoke systems	structures of firms, whereby central service firms act as service intermediaries that can disseminate various service, technological, or management innovations to periphery firms. Firms on the periphery get access and exposure to knowledge that is often difficult to be developed internally (Chapter "Open Service Innovation: Literature Review and Directions for Future Research")
human-centred approach	Brown describes design thinking as a 'human-centerd approach to innovation that draws from the designer's toolkit to integrate the *needs of people, the possibilities of technology and the requirements for business success'* (http://www.ideo.com/about/) (Chapter "Innovation or Resuscitation? A Review of Design Integration Programs in Australia") (See also Chapters "Service Innovation: A Review of the Literature", "Towards an Understanding of Open Innovation in Services: Beyond the Firm and Towards Relational Co-creation", "Systemic Development of Service Innovation", "Service Innovation Through an Integrative Design Framework", "Co-creative Practices in Service Innovation")
hybrid value chain	revised understanding of value creation through services; shifting value chains from being linear to hybrid (Rabelo et al. 2007; Sabat 2002) comprising of a network of stakeholders such as suppliers, customers, partners and intermediaries (Lusch et al. 2009; Vargo et al. 2008; Normann and Ramirez 1999) (Chapter "Service Innovation: A Review of the Literature") (See also Chapter "Servitization as Innovation in Manufacturing—A Review of the Literature")
idea assessment	*idea assessment* is a very important phase of the innovation process (Schulze et al. 2012, p. 11). Synonyms include decision-making on service ideas, idea screening, idea selection and service proposal

	screening. Given the close relationship of service innovation to open innovation, the documented importance of idea assessment also applies to service innovation (Chapter "Service Innovation Capabilities for Idea Assessment: An Appraisal of Established and Novel Approaches")
incremental innovation	incremental innovation makes small and continuous improvements to an existing product (Chapter "Innovation: A Critical Assessment of the Concept and Scope of Literature") (See also Chapters "Open Service Innovation: Literature Review and Directions for Future Research", "Innovation, Service Types, and Performance in Knowledge Intensive Business Services", "On the Way to a Systematic Service Innovation Competency Framework" and "How to Manage a Service Innovation Process in the Public Sector: From Co-Design to Co-Production")
innovation	the creation of novelty that provides economic value through the creation of new products and services. Less often, given the origins of a great deal of innovation scholarship in a concern with new products and to a lesser extent, services, it may entail a focus on organizational changes, including the establishment of new work practices (Marceau 2008, p. 670). The diversity in innovation definitions is enormous, including factors, elements, theories, and thoughts on technology, process, product, service, organisation, market, consumer, creativity, knowledge, learning, culture, etc. and thereto the categorization of *degrees* of innovation; radical, incremental, or discontinuous innovation, etc. At its broadest, the following definition, drawn from an extensive literature review, is useful: "An innovation can be a new product or service, a new production process technology, a new structure or administrative system, or a new plan or program pertaining to organization members" (Keupp et al. 2012, p. 367) (Chapter "Innovation: A Critical Assessment of the Concept and Scope of Literature") (See also Chapter "Business Model Approach to Public Service Innovation")
Innovation Capability Maturity Model (ICMM)	*Innovation Capability Maturity Model (ICMM)* of Essmann and du Preez (2009), pursues the concept of a maturity model as introduced by CMMI-SVC. In contrast with CMMI-SVC, this framework focusses explicitly on innovation capabilities. Although the framework addresses innovation capabilities more

generically and cannot be thought of as service specific, it was evaluated in an exploratory manner via case studies from the professional services and financial services domains. Therefore, the capability framework provides insights that are arguably relevant to innovation in services (Chapter "Service Innovation Capabilities for Idea Assessment: An Appraisal of Established and Novel Approaches")

inside out-open innovation
in which a company allows some of its own ideas, technologies or processes to be used by other businesses. Openness here means overcoming the "not sold here" syndrome, in which the company monopolizes the use of its innovations, prohibiting use outside of its own business. Opening up the inside means that revenues from external use of a company's ideas are welcomed (Chapter "Towards an Understanding of Open Innovation in Services: Beyond the Firm and Towards Relational Co-creation"). Henry Chesbrough cites two kinds of openness in his concept of open innovation: "outside in," in which an organization incorporates external ideas and technologies in its services; and "inside out," in which an organization allows others to use its ideas, technologies or processes (Chesbrough 2011) (Chapter "The Architecture of Service Innovation")

insight generation
activities that explore the users' and other stakeholders' aims and needs, and seeks alternative ways to approach the design solution space. Insight generation is part of the fuzzy front end of the innovation process and often goes hand in hand with many other activities such as stakeholder inclusion, setting up relations, setting the scope of the innovation project, etc. Many of the tools created for insight generation are open-ended and aim to trigger, inform and inspire the ongoing process. Insight generation is about identifying needs, wants and potentials and, thus, deals with exploring and being curious about what users experience and could experience in the desired future situation (Chapter "Co-creative Practices in Service Innovation")

internal service innovations
new ideas or practices within an organisation (Chapter "Towards an Understanding of Open Innovation in Services: Beyond the Firm and Towards Relational Co-creation")

international design scoreboard
International Design Scoreboard (Moultrie and Livesey 2009) employed seven absolute and relative

	indicators to determine the design capability of twelve nations (Chapter "Innovation or Resuscitation? A Review of Design Integration Programs in Australia")
inseparability	The term 'inseparability of production and consumption' is applied to describe this service process and has emerged as a significant point of difference between services and goods (Berry 1984; Lovelock 1983) (Chapter "Leveraging Value Across Borders—Do 'Market Place Interactions' Trump 'Market Space Transactions'?: Evidence from Australian Firms in Industrial Markets")
ITO	information technology offshoring/outsourcing (ITO) (Chapter "Services Offshoring: Location Choice and Subnational Regional Advantages in China")
KIBS (Knowledge Intensive Business Services) firms	enterprises whose primary value-added activities consist of the accumulation, creation, or dissemination of knowledge for the purpose of developing a customized service (Chapter "Innovation, Service Types, and Performance in Knowledge Intensive Business Services"). KIBS are suppliers of intermediate inputs built from the codification of specialized knowledge related to a specific (technical) discipline or (technical) functional domain (den Hertog 2000; Miles et al. 1995). KIBS firms are problem-solvers with expertise in locating, developing, combining and applying generic knowledge to specific issues (Chapter "Employment and Skill Configurations in KIBS Sectors: A Longitudinal Analysis") (See also Chapters "Service Innovation: A Review of the Literature", "Open Service Innovation: Literature Review and Directions for Future Research")
Knowledge management	pertains to knowledge co-production and to the degree to which partners create new knowledge through mutual interactions (Blazevic and Lievens 2008). Through (informal) knowledge sharing with partners (including customers), new products and service are developed (Gottfridsson 2010; Smedlund 2008; Taminiau et al. 2009; He and Wong 2009) (Chapter "Open Service Innovation: Literature Review and Directions for Future Research") (See also Chapter "Role of Web 3.0 in Service Innovation")
KPO	knowledge process offshoring/outsourcing (Chapter "Services Offshoring: Location Choice and Subnational Regional Advantages in China")
mash-ups	web sites that combine content data from multiple sources. For search-engine spiders to rate the significance of pieces of text they find in HTML documents,

	for creating mash-ups and other hybrids, and for more automated agents when developed, HTML semantic structures need to be widely and uniformly applied to bring out the meaning of published text (Shadbolt et al. 2006; Hendler 2001) (Chapter "Role of Web 3.0 in Service Innovation")
mobile banking	Internet banking. Many of these service process innovations (often coupled with innovation in product services) have given consumers accessibility to their financial account without having to enter a bank branch or contacting a bank officer (Chapter "Technology-Driven Service Innovation in the Banking Industry")
modularization	the breaking down of services into modules (Chapter "Innovation: A Critical Assessment of the Concept and Scope of Literature") (See also Chapter "Innovation, Service Types, and Performance in Knowledge Intensive Business Services")
modular services	represent an alternative pattern that combines standardization and customization as it achieves customization by mixing and matching standard elements, i.e., the modules (Chapter "Innovation, Service Types, and Performance in Knowledge Intensive Business Services")
multi-level perspective on transitions	(Geels 2002) describes the dynamics regulating complex and long-term processes. The multi-level perspective distinguishes three analytical concepts: the *socio-technical regime*, which can be defined as the dominant way of innovating, producing, distributing, consuming; the *niche*, a protected space that is "isolated" from the influence of the dominant regime; the *landscape*, that is, the relatively stable social, economic and political context in which actors interact and regimes and niches evolve (Chapter "The Role of Socio-Technical Experiments in Introducing Sustainable Product-Service System Innovations")
national systems of innovation	systems of innovations that involve the collaboration within the network of institutions in both public and private sectors for development, diffusion and use of innovation (Freeman 1987), and include wider economic, social, political and institutional factors (Edquist 1997) (Chapter "Service Innovation: A Review of the Literature")
NDC	Newly Developed Countries (Chapter "Frugal Services Innovation—Lessons from the Emerging Markets and an Adoption Framework for First-World Corporations and Governments")

network competences   network competences are composed of customer competences, and suppliers or competitors competences. Competences that customers bring to the design phase are creativity and the aptitude to precisely express their ideas. Often customers have just a vague feeling of what they would like to have, or of which service ideas could be promising. For firms this means that they have to find ways as to how to extract customers' ideas, e.g. with tools, or in workshops to be able to manage customers' competences (Chapter "On the Way to a Systematic Service Innovation Competence Framework")

network effect   an important phenomenon guiding the evolution of business ecosystems, i.e. value co-creation systems, is network effect. Network effect makes an offering more valuable when more people use it (Katz and Shapiro 1985). Direct network effects occur through direct physical effects, whereas indirect network effects are mediated by the market, as when there is better availability of complementary goods or services (Katz and Shapiro 1994) (Chapter "Managing Online User Co-creation in Service Innovation")

network management   a firm's ability to extend control beyond its set of direct relationship to indirect relationships (Chapter "Open Service Innovation: Literature Review and Directions for Future Research")

New Public Management   traditional public administration saw public servants acting in the public interest and New Public Management suggested ways in which service providers could be made more responsive to the needs of users and communities, the co-production approach assumes that service users and their communities can be part of service planning and delivery. Bovaird considers this change as a revolutionary concept in public service (Chapter "How to Manage a Service Innovation Process in the Public Sector: From Co-Design to Co-Production") (See also Chapters "Business Model Approach to Public Service Innovation", "Exposing an Economic Development Policy Clash: Predictability and Control Versus Creativity and Innovation")

new service design life cycle   (NSD lifecycle) process, end-to-end from conceptualization of service bundles (to meet customer needs) to design to operations, and eventually service exit or withdrawal (Chapter "Service Innovation Through an Integrative Design Framework") (See also Chapters

"Servitization as Innovation in Manufacturing—A Review of the Literature", "Services Innovation in a Circular Economy")

new service development (NSD)

Service innovation is delivered through the process of new service development (NSD) that encompasses stages from idea generation to market launch of new service offerings (Goldstein et al. 2002). In developing a new service, attention needs to be paid not only to designing the core service features and attributes, but also to the service delivery processes that augment the value for its consumers (Papastathopoulou et al. 2001; Trott 2012) (Chapter "Service Innovation: A Review of the Literature") (See also Chapters "Open Service Innovation: Literature Review and Directions for Future Research", "On the Way to a Systematic Service Innovation Competence Framework", "Foresight and Service Design Boosting Dynamic Capabilities in Service Innovation", "Service Innovation Through an Integrative Design Framework", "Illuminating the Service Provider's Strategic Mandate on Realizing Apt Quality and Value Through Service Innovation"). Although the two terms "service innovation" and "new service development" are often used synonymously, some authors see a difference between the terms: according to Bettencourt, Cooper and Edgett service innovation is the "process of devising a new or improved service concept…" and "service development refers to all the activities involved in bringing that concept to market" (Bettencourt 2010, p. XIX, Cooper; Edgett 1999, p. 72). It can therefore be interpreted as a subsequent process to service innovation (Chapter "On the Way to a Systematic Service Innovation Competence Framework")

Occupational Information Network (O*NET)

The Occupational Information Network (O*NET) is an electronic database of the US Department of Labour (DOL). The O*NET classification uses the Standard Occupational Classification (SOC) system and is therefore aligned with other sources of occupational information such as the US Bureau of Labor Statistics (BLS) (Chapter "Employment and Skill Configurations in KIBS Sectors: A Longitudinal Analysis")

online innovations tools

online innovation tools can be used to involve users and customers into sharing experiences, spawning ideas, test products or design products (Gangi et al. 2010; Prandelli et al. 2006). However, empowering users with tools and technologies have significant effects on the

firm's capabilities as firms' have to adapt to a new way of dealing with users and user knowledge (Ogawa and Piller 2006; Prahalad and Ramaswamy 2004). Interactive features of the online service innovation tools stimulate the development of proactive user attitudes. Users are then more prone to involve themselves in co-creation of new offerings (Ryzhkova 2012) (Chapter "Managing Online User Co-creation in Service Innovation")

online service exploitation capability exploitation capability is about transferring, integrating and combining the service concepts and service prototypes into the firm's own service portfolio, systems or other firms' portfolios and systems. It includes finding marketing and distributing channels in the firm, combining new service concepts with other current services, reconfiguring current services, or combining them with other firms' current or newly developed service concepts (Chapter "Managing Online User Co-creation in Service Innovation")

online service innovation online service innovation exploration process gives the firm the opportunity to understand the user in more detail and the usage environment of the service. For instance, by engaging in dialogue with users and their complaints about services might not only give information about the complaint itself but also the nature, the causes, the consequences and possibly the remedies of the complaint (Chapter "Managing Online User Co-creation in Service Innovation")

open governance open governance is a government which provides citizens with information on decisions (transparency), on how to obtain their legitimate service (accessibility) and on how to be heard (consultation and participation) (Chapter "How to Manage a Service Innovation Process in the Public Sector: From Co-Design to Co-Production")

OpenIDEO an online platform created and managed by the design firm, IDEO, to address social problems and issues (Chapter "Towards an Understanding of Open Innovation in Services: Beyond the Firm and Towards Relational Co-creation")

open innovation innovation that occurs as outside-in and inside-out processes, whereby inflows integrate external information into the firm, and outflows where the firm makes information available for the expansion of markets (Chapter "Towards an Understanding of Open

	Innovation in Services: Beyond the Firm and Towards Relational Co-creation") (See also Chapters "Service Innovation: A Review of the Literature", "Open Service Innovation: Literature Review and Directions for Future Research", "Service Innovation Capabilities for Idea Assessment: An Appraisal of Established and Novel Approaches", "Practices for Involving Organizational Customers in Service Innovation")
open innovation model	in the open innovation model, there are *two complementary kinds of openness*. One is "*outside in*", where a company makes greater use of external ideas and technologies in its own business. Openness in this context means overcoming the "not invented here" syndrome, where the company monopolizes the source of its innovations, and instead welcomes new external contributions. The other kind of openness is "*inside out*", in which a company allows some of its own ideas, technologies or processes to be used by other businesses. Huizingh (2011) further distinguishes between openness as outcome, and openness as process. This schema enables us to understand three different framings of openness defined as: 'Private Open Innovation', where the process is open, but the outcome is closed; 'Public innovation', where the outcome is open, but the innovation process is closed; and, 'Open source innovation' where both the outcome and process are open. Whilst Huizingh (2011) was primarily concerned with open innovation broadly defined, this categorisation enables us to understand when the service innovation is considered 'open' (Chapters "Towards an Understanding of Open Innovation in Services: Beyond the Firm and Towards Relational Co-creation")
open service innovation	Chesbrough (2011) refers to two types of openness in the open service innovation model: 'outside in', where firms incorporate external ideas and technologies within their business, and 'inside out', where firms open their ideas and technologies for other business to use. The collaborative and distributed processes of open service innovation that combine ideas, knowledge and resources among a network of actors can be challenging as it calls for a balance between multiple aspects such as: 1. identification of the rationale for co-innovation; 2. coordination of the processes and mechanisms of co-innovation; 3. maintenance of policies to deal with conflicts between collaborating entities; and

4. maintenance of service quality and consistency (Bughin et al. 2008). Chesbrough (2011) suggests that placing customers as the core of the value network, and working closely with all stakeholders to develop new solutions that focus on utility rather than product features are core strategies to foster open service innovation within organizations (Chapter "Service Innovation: A Review of the Literature") (See also Chapters "Open Service Innovation: Literature Review and Directions for Future Research", "Towards an Understanding of Open Innovation in Services: Beyond the Firm and Towards Relational Co-creation")

open source co-innovation
the 'ideal type' of co-created value-in-use. Here, the service is created by the users for the users. It is both open in the process of the creation of the service, and open in the outcome (Chapter "Towards an Understanding of Open Innovation in Services: Beyond the Firm and Towards Relational Co-creation")

open source innovation
where both the outcome and process are open (Chapter "Towards an Understanding of Open Innovation in Services: Beyond the Firm and Towards Relational Co-creation")

operant resource
a dynamic proactive resource that is capable of acting on other resources to create value for itself (Vargo and Lusch 2008). A customer is regarded as an *operant resource* (Chapter "Service Innovation Through an Integrative Design Framework") (See also Chapters "On the Way to a Systematic Service Innovation Competence Framework", "Foresight and Service Design Boosting Dynamic Capabilities in Service Innovation")

organizational agility
organizations that are agile and adaptable to not only survive, but thrive amid disorder and emerge stronger than before (Chapter "Service-Oriented Architecture as a Driver of Dynamic Capabilities for Achieving Organizational Agility")

organizational relationship capital (ORC)
the combination of *relational capital, employee capital* and *prior relationship*. *Relational capital* refers to the wealth in the form of mutual trust, respect, friendship and high reciprocity among individuals at the personal level between partner organizations. *Employee capital* refers to inter-organizational product, service and process knowledge present in their employees' minds, whereas the management-driven reward systems relates to recognition mechanisms prevailing across partnerships as a means for personal motivation. *Prior*

	relationship is based on trust, defined as "the extent to which a firm believes that its exchange partner is honest and/or benevolent" (Geyskens et al. 1998) and inter-action, which is believed to generate a high degree of learning and information or know-how exchange between partners (Ring and Van de Ven 1992; Gulati 1995) (Chapter "Dynamic Capabilities for Service Innovation in Service Systems")
outside in-open innovation	creative thinking where a company makes greater use of external ideas and technologies in its own business. Openness in this context means overcoming the "not invented here" syndrome, where the company monop-olizes the source of its innovations and instead wel-comes new external contributions (Chapter "Towards an Understanding of Open Innovation in Services: Beyond the Firm and Towards Relational Co-creation")
patient portals	technology where users have the ability to self-service and research their own health information and health issues. Requests for prescription refills, appointments, medical advices—appropriate medication use and fol-low-up questions/updates after discharge—and other related information can be received electronically, automatically routed to the correct resource and man-aged in a timely fashion that integrates into workflow with minimal disruption to the patient or staff (Chap-ter "Disruptive Digital Innovation in Healthcare Delivery: The Case for Patient Portals and Online Clinical Consultations")
PEST Analysis	is one specific technique for a structured way to analyze factors in the environment. In this context, change in the environment is analyzed from a political (P = political), economical (E = economical), social (S = social) and technological (T = technological) perspective (Chap-ter "How to Manage a Service Innovation Process in the Public Sector: From Co-Design to Co-Production")
portfolio configuration	the structural characteristics of a focal firm's set of partnerships and may pertain to partner diversity and tie strength (Chapter "Open Service Innovation: Literature Review and Directions for Future Research")
portfolio management	dynamic decision process, whereby a business's list of active new product projects is constantly updated and revised (Chapter "Service Innovation Capabilities for Idea Assessment: An Appraisal of Established and Novel Approaches")

private open Innovation	where the process is open, but the outcome is closed (Chapter "Towards an Understanding of Open Innovation in Services: Beyond the Firm and Towards Relational Co-creation")
probes method	the *probes* method, was originally developed by Bill Gaver and his colleagues (Gaver et al. 1999; Gaver and Dunne 1999) under the label Cultural Probes, and was used to inspire and inform designers about the contextual issues and personal opinions and lifestyles of people involved. The probes method is based on self-documentation, i.e. the probes are open-ended and often ambiguous assignment kits given to the users to document and reflect, by themselves, about their experiences in the context they happen. Probes are descriptive and predictive, in other words they try to capture the current experiences and trigger the people involved to reconsider possible expectations and solutions (Chapter "Co-creative Practices in Service Innovation")
process based	a process-based definition of service highlights the important role customers play in the service production process, where the customer themselves are an input to the service delivery process (Chapter "Dynamic Capabilities for Service Innovation in Service Systems")
process innovations	introduce changes only at the production and delivery procedure levels (not at the service level) (Chapter "Innovation, Service Types, and Performance in Knowledge Intensive Business Services") (See also Chapters "Services Innovation in a Circular Economy", "Practices for Involving Organizational Customers in Service Innovation")
product innovation	alters both the service content and the procedures involved in its production and delivery (Chapter "Innovation, Service Types, and Performance in Knowledge Intensive Business Services") (See also Chapters "Innovation: A Critical Assessment of the Concept and Scope of Literature", "Open Service Innovation: Literature Review and Directions for Future Research", "Exploring a Multidimensional Approach to Service Innovation", "On the Way to a Systematic Service Innovation Competence Framework", "Service Innovation Capabilities for Idea Assessment: An Appraisal of Established and Novel Approaches", "Systemic Development of Service Innovation", "Services Innovation in a Circular Economy", "Exposing an

	Economic Development Policy Clash: Predictability and Control Versus Creativity and Innovation")
product and process innovation	Porter (1996) differentiates between product and process innovation: product innovation means doing new things while process innovation is about doing things differently. Further, product and process innovations may be radical or incremental (Chapters "Innovation: A Critical Assessment of the Concept and Scope of Literature", "Services Innovation in a Circular Economy")
Product-Service System (PSS)	PSSs can be described as specific types of value proposition that shift the business focus from selling products to offering a combination of products and services jointly capable to achieve a final user satisfaction (Goedkoop et al. 1999; Mont 2002). In other words a PSS is oriented to satisfy customers through the delivery of functions (e.g. mobility, having clean clothes, thermal comfort, etc.) rather than the selling of products (e.g. cars, washing machines and powder, boilers and methane, etc.). PSS innovations represent a promising approach to sustainability, but their implementation and diffusion is hindered by several cultural, corporate and regulative barriers (Chapters "The Role of Socio-Technical Experiments in Introducing Sustainable Product-Service System Innovations", "Services Innovation in a Circular Economy")
public innovation	where the outcome is open, but the innovation process is closed (Chapter "Towards an Understanding of Open Innovation in Services: Beyond the Firm and Towards Relational Co-creation")
pubic private partnership	describes a business venture which is funded and operated through a partnership of government and one or more private sector companies (Chapter "Business Model Approach to Public Service Innovation")
radical innovation	radical innovation fundamentally changes the products offered (Chapter "Innovation: A Critical Assessment of the Concept and Scope of Literature"). Totally new products (such as the automobile or the airplane) or technological revolution are radical discontinuous innovations ("How to Manage a Service Innovation Process in the Public Sector: From Co-Design to Co-Production"). Further, Mulgan (2007, p. 6) defines radical innovations in public sector as a systemic change, such as the creation of a national health service or a move to a low-carbon economy. (Chapter "How to Manage a Service Innovation Process in the Public Sector: From Co-Design to

	Co-Production") (See also Chapters "Open Service Innovation: Literature Review and Directions for Future Research", "On the Way to a Systematic Service Innovation Competence Framework", "Systemic Development of Service Innovation", "The Role of Socio-Technical Experiments in Introducing Sustainable Product-Service System Innovations", "Frugal Services Innovation—Lessons from the Emerging Markets and an Adoption Framework for First-World Corporations and Governments")
RCOV	Resources, Competencies, the internal and external Organisation, and the Value Proposition. RCOV stands for the resource-based view of the firm, as a theoretical framework in management literature, has been influential in deriving competitive advantage (Barney 1991; Kraaijenbrink, Spender and Groen 2010; Penrose 1955; Wernerfelt 1984), as such the Resource-based view can particularly be useful for explaining the rise of collaborative relationship between public and private sectors as an attempt to facilitate resource sharing and joint value creation. The dynamic nature of the model is also a powerful feature in explaining the interactions between core organisational concepts and their ability and adaptation to change (Chapter "Business Model Approach to Public Service Innovation")
resource based view (RBV)	a resource based view (RBV) of the firm, conceives of the firm as a unique bundle of asymmetric resources to be stewarded wisely towards competitive advantage by management (Wernerfelt 1984), seen by Vargo and Lusch as the backbone to their framework (2008). The RBV has more recently begun to stress the importance of having dynamic capabilities that focus on innovation, (Helfat et al. 2007; Menguc and Auh 2006; Teece et al. 1997) (Chapters "Innovation: A Critical Assessment of the Concept and Scope of Literature", "Dynamic Capabilities for Service Innovation in Service Systems") (See also Chapter "On the Way to a Systematic Service Innovation Competence Framework"). Service innovation in a service ecosystem is centered on the *resource-based* definition, where services are treated as an application of competencies, making use of knowledge, skills and experience of all stakeholders (Chapter "Dynamic Capabilities for Service Innovation in Service Systems") (See also Chapter "Business Model Approach to Public Service Innovation")

reverse innovation	the origin of innovation is the EC, and the target segment ultimately includes customers from DCs. The scholars who coined the phrase suggested, "When a multinational corporation learns to generate successful innovations in emerging markets and then exports that knowledge and those innovations to the developed world, new business possibilities suddenly burst forth. The limits imposed by its traditional operations become surmountable, and the company can rethink all its products and attack new markets in search of growth" (Immelt, Govindarajan et al. 2009; Govindarajan 2012) (Chapter "Frugal Services Innovation—Lessons from the Emerging Markets and an Adoption Framework for First-World Corporations and Governments")
Saas (software as a service)	Google heralded the *software as a service* ('SaaS') concept. Arguably, the SaaS concept became an enabler of innovation, making IT computational power more ubiquitous, as well as analytics readily accessible with little investment (Chapter "Role of Web 3.0 in Service Innovation")
Semantic web or Web 3.0	manifests itself as a web of data rather than a web of documents—is a quantum change on the method of linking data by a method of ontology of meaning. Functionally, it overcomes limitations of the conventional Web (now also known as Web 1.0) and Web 2.0 which encompasses social networks, blogs, microblogs and 'wikis'. The new Web tools aggregate the 'Wisdom of Crowds' for superior decision making and focus collective effort on prioritized outcomes (Cake 2011) (Chapter "Role of Web 3.0 in Service Innovation")
serious games	are "games for purposes other than entertainment", incorporating elements of strategic thinking, communication, collaboration, negotiation, planning and also strengthening related skills (Chapter "Service Innovation Capabilities for Idea Assessment: An Appraisal of Established and Novel Approaches")
services	The traditional view of services holds that four attributes of services distinguish them from goods, namely *intangibility, simultaneity, heterogeneity and perishability* (see Lovelock and Gummesson 2004). Among those attributes, the attributes of *simultaneity and perishability* imply that services have to be produced and consumed at the same place and time; and services are 'non-tradable', meaning that it is difficult to establish and transfer ownership in services

(Doh, Bunyaratavej and Hahn 2009). However, these notions of services have been greatly challenged by emerging trends in service offshoring. Services are nowadays not only provided from globally dispersed locations to distant customers, but also are outsourced to external partners and 'traded' among different economic units (Chapter "Services Offshoring: Location Choice and Subnational Regional Advantages in China"). Grönroos (2000:46) defines a service as: A process consisting of a series of more or less intangible activities that normally, but not necessarily, take place in interactions between the customer and service employees and/or physical resources or goods and/or systems of the service provider, which are provided as solutions to customer problems (Chapter "Frugal Services Innovation—Lessons from the Emerging Markets and an Adoption Framework for First-World Corporations and Governments") (See also Chapters "Innovation: A Critical Assessment of the Concept and Scope of Literature", "Exposing an Economic Development Policy Clash: Predictability and Control Versus Creativity and Innovation")

service architecture
service architecture is conceptualized to systematize service design and innovation. Leveraging concepts from product architecture, service architecture aims to create a common language (comprised of nodes and linkages) across different views on service design and a systematic way to operationalize and measure the degree of service architecture modularity.Service architecture is constituted in accordance with the principle of *modularity*, which in turn is characterized by five dimensions: *components* and systems as the basic modular units, the *interfaces*, *degree of coupling*, and *commonality sharing* between components, and *platform* as the overarching configuration of components and interfaces that make up the service architecture (Fixson 2005) (Chapter "Service Innovation Through an Integrative Design Framework") (See also Chapter "Innovation, Service Types, and Performance in Knowledge Intensive Business Services", "Systemic Development of Service Innovation", "The Architecture of Service Innovation")

service co-design process
can be implemented through user-driven innovation and service design. The different phases of the innovation process are *discovery*, *creation*, *reality check*,

and *implementation* (Mager 2009; Miettinen 2009, p. 13). Moritz (2005, p. 123) groups these phases into six categories: understanding, thinking, generating, filtering, explaining and realizing. This more detailed classification by Moritz emphasizes the basic idea of service design as to gain an understanding of what clients and users of the service need, before generating ideas and testing these ideas in the early stage of planning (Koivisto 2007, p. 7). In these different phases of the innovation process, different participatory design methods are used (Chapter "How to Manage a Service Innovation Process in the Public Sector: From Co-Design to Co-Production")

service design
service design (Moritz 2005, p. 5) integrates management, marketing, research and design. It also acts as an interface and connects organizations and customers in a new way (Chapter "How to Manage a Service Innovation Process in the Public Sector: From Co-Design to Co-Production") (See also Chapters "Technology-Driven Service Innovation in the Banking Industry", "Systemic Development of Service Innovation", "The Architecture of Service Innovation", "Service Innovation Through an Integrative Design Framework", "Services Innovation in a Circular Economy", "Illuminating the Service Provider's Strategic Mandate on Realizing Apt Quality and Value Through Service Innovation", "Co-creative Practices in Service Innovation")

service-dominant (S-D) logic
S-D logic provides an integrated understanding of the purpose and nature of organizations, markets and society, where the basic assumption is that organizations, markets and society are primarily concerned with exchange of service—that is, the use of capabilities like, for example, the knowledge of operating a machine (like a drill), or the skill of selling. In S-D logic the service becomes the common denominator of exchange. Hence, all firms are service providers and service receivers, and in taking this perspective managers should then follow a service-based logic that embraces the ideas of the value-in-use and co-creation of value, rather than the value-in-exchange and embedded-value concepts of traditional G-D logic. Co-created value is relational and prioritizes our understanding of innovation as processes embedded in networks (Hsueha et. al 2009). (Chapter "Towards an Understanding of Open Innovation in Services: Beyond the Firm and Towards Relational Co-creation") (See also Chapters "Innovation:

A Critical Assessment of the Concept and Scope of Literature", "On the Way to a Systematic Service Innovation Competence Framework", "Employees and Users as Resource Integrators in Service Innovation: A Learning Framework", "Foresight and Service Design Boosting Dynamic Capabilities in Service Innovation", "Practices for Involving Organizational Customers in Service Innovation")

service system design   service system design, broadly, must address *four* variables: *physical setting*; *process design*—the service blueprinting or mapping which designs 'quality' into the service delivery system; *job design*—the social technical job design which include addressing the employee motivational requirements; and *people*—the staff (competence) selection (Goldstein et al. 2002) (Chapter "Service Innovation Through an Integrative Design Framework") (See also Chapter "The Role of Socio-Technical Experiments in Introducing Sustainable Product-Service System Innovations")

service innovation   a service innovation is considered to be a new or significantly improved service concept that is effectively taken into practice. Aiming to give a comprehensive account of the forms a service offering can take, a wide range of service typologies has been proposed over the past decennia (Cook et al. 1999). These typologies, however, tend to focus entirely on the proposition that is finally offered. Just like in the case of physical goods, it is possible that the functional properties of a product (i.e. the service experiences it renders) remain equal while aspects of the delivery or cost-structure are largely improved. Scholars of service innovation search for conceptualizations that embrace not only the 'pure' service aspects of an innovation, such as the final offering (the solution or experience) or how it is delivered, but also give room to the technology it involves (Gallouj and Savona 2009; Windrum and Garcia-Goñi 2008) (Chapter "Exploring a Multidimensional Approach to Service Innovation") (See also Chapters "Innovation: A Critical Assessment of the Concept and Scope of Literature", "Exposing an Economic Development Policy Clash: Predictability and Control Versus Creativity and Innovation") a new or considerably change service concept, client interaction channel, service delivery system or technological concept that individually, but most likely in

combination, leads to one or more (re)new(ed) service functions that are new to the firm and do change the service/good offered on the market, and do require structurally new technological, human or organizational capabilities of the service organisation (Chapter "Services Offshoring: Location Choice and Subnational Regional Advantages in China") Agarwal and Selen (2011) conceptualise service innovation as an "elevated service offering" that is made up of "new client interface/customer encounter; new service delivery system; new organizational architecture or marketing proposition; and/or improvements in productivity and performance through human resource management", further highlighting its multi-dimensional aspects (Chapter "Service Innovation: A Review of the Literature") (See also Chapters "Innovation: A Critical Assessment of the Concept and Scope of Literature", "Exploring a Multidimensional Approach to Service Innovation", "On the Way to a Systematic Service Innovation Competence Framework", "Systemic Development of Service Innovation", "Services Innovation in a Circular Economy", "Illuminating the Service Provider's Strategic Mandate on Realizing Apt Quality and Value Through Service Innovation", "Managing Online User Co-creation in Service Innovation", "Practices for Involving Organizational Customers in Service Innovation")

service innovation capabilities
a stream has emerged in service innovation research, focusing on the concept of organizational capabilities that enable continuous service innovation, termed service innovation capabilities, as part of a firm's sustained competitive advantage. Several frameworks of such service innovation capabilities were developed based on this research (Essmann and du Preez 2009; den Hertog et al. 2010; CMMI Product Team 2010). These capabilities are represented by a number of firm-specific resources, such as processes, competences, tools, knowledge (Kohler et al. 2013). As a whole, they contribute to all major phases of an innovation process (Chapter "Service Innovation Capabilities for Idea Assessment: An Appraisal of Established and Novel Approaches") (See also Chapters "On the Way to a Systematic Service Innovation Competence Framework", "Service Innovation Capabilities for Idea Assessment: An

	Appraisal of Established and Novel Approaches", "Managing Online User Co-creation in Service Innovation")
service innovation competence	On the macro level, service innovation competence refers to a firm's ability to purposively combine assets enabling new combinations of tangible and/or intangible service elements resulting in a new service offering, whereas on the micro level it refers to an employee's knowledge, skills and aptitudes to serve these changes (Chapter "On the Way to a Systematic Service Innovation Competence Framework") (See also Chapter "Illuminating the Service Provider's Strategic Mandate on Realizing Apt Quality and Value Through Service Innovation")
service offshoring	defined as "the transnational relocation or dispersion of services activities" (Doh et al. 2009, p. 927). Service offshoring activities could be in-house (captive), which are performed by the company itself; or be outsourced by the company to an external service provider. Offshore services are broadly categorized into those primarily involving information technology offshoring / outsourcing (ITO), business process offshoring/outsourcing (BPO), or knowledge process offshoring/ outsourcing (KPO). The phenomenal growth of service offshoring activities is a result of advances in technology and innovation in organization and management practices (Chapter "Services Offshoring: Location Choice and Subnational Regional Advantages in China")
service-oriented architecture (SOA)	a framework that, independently of the underlying technologies, requires service providers to advertise their services with associated service-level agreements (SLAs) in registries that can be discovered, accessed and used by clientsThe associated Service Oriented Architecture (SOA) establishes a defined relationship between such services offering discrete business functions and the consumers of these services, independent of the underlying technology implementation of the service and its location. SOA is essentially an interconnected set of services which in its basic form is a message-based interaction between software components, each accessible through standard interfaces and messaging protocols. These components can be service providers or service requesters (clients) interacting with service discovery agencies to access the service

	providers (Chapter "Service-Oriented Architecture as a Driver of Dynamic Capabilities for Achieving Organizational Agility")
service operations management (SOM) logic	service operations management logic is built upon the belief that operations strategy and operational systems and their respective capabilities and functionalities constitute important managerial determinants as to whether mutual value creation is realized for both customers and the firm (Chapter "Illuminating the Service Provider's Strategic Mandate on Realizing Apt Quality and Value Through Service Innovation")
service-oriented computing (SOC)	service-oriented computing (SOC) has emerged as an architectural approach to flexibility and agility, not just in systems development, but also in business process management. There is, however, a lack of critical research assessing the practical usage of SOA as a technology and business infrastructure and its efficacy in achieving organizational agility (Chapter "Service-Oriented Architecture as a Driver of Dynamic Capabilities for Achieving Organizational Agility")
service process innovation	how it is produced delivered and consumed (Chapter "Service Innovation: A Review of the Literature")
service product innovation	what is produced delivered and consumed (Chapter "Service Innovation: A Review of the Literature")
service strategy	service strategy fits what the customer will value with what the company can deliver. This means aligning the *service concept* (what it would take to deliver on the customer value propositions), and hence the service architecture, with firm's capabilities, resources, culture and strategy (Chapter "Service Innovation Through an Integrative Design Framework") (See also Chapter "Systemic Development of Service Innovation")
service value networks	system of entities which include suppliers, intermediaries, customers and partners that combine core capabilities to co-create service offerings for the consumer (Chapter "Service Innovation: A Review of the Literature") (See also Chapter "Exploring a Multidimensional Approach to Service Innovation")
service voucher	allows service users to use private services as an alternative, or a complement, to the services provided by the municipality. The municipality determines the services that can be purchased using the voucher, as well as the value of the voucher. Further, it accepts those private companies whose services can be paid for

	with a service voucher (Chapter "How to Manage a Service Innovation Process in the Public Sector: From Co-Design to Co-Production")
servitization	a change process wherein manufacturing firms embrace service orientation and/or develop more and better services, with the aim to satisfy customer needs, achieve competitive advantages and enhance firm performance. "servitization is the generic term that has come to mean any strategy that seeks to change the way in which product functionality is delivered to its markets" (Slack 2005, p. 326). Baines et al. (2007, 2009), on the other hand, emphasize the concept of Product Service-Systems (PSS). There servitization is understood as the innovation of an organization's capabilities and processes to better create mutual value through a shift from selling products to selling integrated product and services offerings that deliver value-in-use (Baines et al. 2009) (Chapter "On the Way to a Systematic Service Innovation Competence Framework") (See also Chapters "Service Innovation: A Review of the Literature", "Service Innovation Capabilities for Idea Assessment: An Appraisal of Established and Novel Approaches"). Servitization describes the growing trend for manufacturing firms to use their physical product as a vehicle for service provision. The term was first used by Vandemerwe and Rada (1988, p. 314) who defined servitization as "the increased offering of fuller market packages or "bundles" of customer focussed combinations of goods, services, support, self-service and knowledge in order to add value to core product offerings". More recently servitization has been defined by Baines et al. (2009a) as "the innovation of an organization's capabilities and processes to shift from selling products to selling integrated products and services that deliver value in use". (Chapter "Servitization as Innovation in Manufacturing—A Review of the Literature")
Servitization business model	The business models of Roos (2013) and Salkari et al. (2007) can be combined to provide a good basis for a servitization business model. By combining product and service offerings (and sometimes newly developed service offerings) a complete offering can be provided. (Chapter "Servitization as Innovation in Manufacturing—A Review of the Literature")

Servitized manufacturing	servitization means all service concepts, systems service, processes and related service activities offered and carried out by, or on behalf of, a manufacturing firm linked to the products produced by this firm. In the twenty first century, this means that servitization has become an integral part of manufacturing (Chapter "Servitization as Innovation in Manufacturing—A Review of the Literature")
Servuction	the focus on the interactivity between suppliers and customers in service innovation as opposed to the innovation of the actual product or process (Chapter "Service Innovation: A Review of the Literature")
social benefit bond	A Social Benefit Bond is a financial instrument that provides access to private capital to pay for public services (The Centre for Social Impact 2012, p. 1). A return on investment is paid based on the achievement of agreed social outcomes. Part of the government savings is used to repay the investors' principal and yield (conditioned on the outcome) (Chapter "Business Model Approach to Public Service Innovation")
socio-technical experiment	can be described as a partially protected environment where a broad network of actors can learn and explore how to incubate and improve radical innovations and how to contribute to their societal embedding (Chapter "The Role of Socio-Technical Experiments in Introducing Sustainable Product-Service System Innovations")
standard services	are undifferentiated between customers and are thus provided without any customer-specific change (Chapter "Innovation, Service Types, and Performance in Knowledge Intensive Business Services") (See also (Chapter "Systemic Development of Service Innovation")
Standard service with minor customizations	allows for the inclusion of some customer-specific changes that usually do not change the attributes of the standard service (Chapter "Innovation, Service Types, and Performance in Knowledge Intensive Business Services")
supply chain view	deploys a network rationale which enables collaborating organisations in the network to cope with uncertainty, complexity and risk management through fostering skills and appropriate resource allocations (Cravens and Shipp 1993) (Chapter "Dynamic Capabilities for Service Innovation in Service Systems")

synthesis approach   tries to analyse innovation in highly different sectors with the same tools and frameworks (Chapter "Exploring a Multidimensional Approach to Service Innovation")

system innovations   are complex and long-term processes that require changes in the social, economic, technological and policy domains (Chapter "The Role of Socio-Technical Experiments in Introducing Sustainable Product-Service System Innovations")

systemic innovation   systemic innovations such as new healthcare systems or new transportation systems cause changes e.g. in the market, in the consumer behaviour, in politics and in culture. These changes in general are difficult to predict and this notion challenges leaders at national, regional and organizational levels to evaluate the impact of innovation systematically (Chapter "Systemic Development of Service Innovation")

systems of innovation   where firms such as suppliers, customers, competitors; and non-firm entities consisting of universities, schools and government institutions collaborate to create and sustain innovation (Chapter "Service Innovation: A Review of the Literature") (See also Chapter "Innovating Universities: Technocratic Reform and Beyond")

system-theory   applying system-theory is a popular way for understanding how new products come about (Kauffman 1993; Levinthal 1997; Porter and Siggelkow 2008). Essential is that a product, be it a good or service, is conceived as a system of elements that are to a certain extent related to each other (Chapter "Exploring a Multidimensional Approach to Service Innovation") (See also Chapters "Innovation, Service Types, and Performance in Knowledge Intensive Business Services", "Systemic Development of Service Innovation")

systems thinking   each entity is seen as a system that consists of parts within a larger system. Every system and their parts are interconnected to other systems, interacting in ways that can produce surprising results. (Chapter "Foresight and Service Design Boosting Dynamic Capabilities in Service Innovation") (See also Chapter "Exposing an Economic Development Policy Clash: Predictability and Control Versus Creativity and Innovation")

technovation   Agarwal and Selen (2005) have further developed the matrix approach by introducing the degree of techno-vation (technology, channels and organizational

structures) and collaboration as a third dimension in the matrix (Chapter "Systemic Development of Service Innovation")

theory of complementarities according to the theory, two practices are complementary when the advantage of one is greater if both of the practices are present. Basically it means that organization benefits more from adopting complementary practices than solitary best practices (Chapter "Systemic Development of Service Innovation")

uni-dimensional innovation concerns the relation between services and goods, both of them forming the extremes of a continuum between tangible and intangible products (Chapter "Exploring a Multidimensional Approach to Service Innovation")

user-driven innovation (UDI) users act in several roles, ranging from the suggestion of ideas to acting as sole innovators (e.g., Edvardsson et al. 2010; Nordlund 2009). Recent literature suggests a growing range of methods that enable users' participation in a controlled manner in different phases of an innovation process (e.g., Alam 2006). Users also innovate without service providers' guidance by creating new solutions for their own use (e.g., von Hippel 1978) and by re-inventing and modifying an innovation after its launch (Tuomi 2002; Sundbo 2008) (Chapter "Employees and Users as Resource Integrators in Service Innovation: A Learning Framework") (See also Chapters "Managing Online User Co-creation in Service Innovation", "Frugal Services Innovation—Lessons from the Emerging Markets and an Adoption Framework for First-World Corporations and Governments")

value co-creation value co-creation refers to the interactional and contextual nature of the process, where value is extracted from the service. All social and economic actors integrate resources to create value for themselves and for others (Vargo and Lusch 2008). This way value is co-created in a network of interacting and resource integrating actors (Chapters "Services Innovation in a Circular Economy", "Practices for Involving Organizational Customers in Service Innovation") (See also Chapters "Service Innovation: A Review of the Literature", "Employees and Users as Resource Integrators in Service Innovation: A Learning Framework", "Systemic Development of Service Innovation", "Service Innovation Through an Integrative Design Framework")

value-in-action	firms may be able to create and capture value by engaging in relational approaches where value is created 'in action' (Chapter "Towards an Understanding of Open Innovation in Services: Beyond the Firm and Towards Relational Co-creation")
value-in-use	Vargo and Lusch (2004) make a distinction between product and service by defining a service as an interactive process of "doing something for someone" that is valued. They also suggest that goods ultimately provide service and hold, what they call, a "value-in-use". The rationale is that customers often do not value the product itself, but rather want what the product produces (Chapter "Towards an Understanding of Open Innovation in Services: Beyond the Firm and Towards Relational Co-creation") (See also Chapters "Innovation: A Critical Assessment of the Concept and Scope of Literature", "On the Way to a Systematic Service Innovation Competence Framework", "Practices for Involving Organizational Customers in Service Innovation")
virtual currency	creation of currency in a virtual world (e.g. gaming) for closed-loop payments and align to real world currency. Examples: MintChip by the Royal Canadian Mint, Other emerging digital currency/Social currency, Bitcoin (Chapter "Technology-Driven Service Innovation in the Banking Industry")
wicked problems	a class of social system problems, which are ill-formulated; where the information is confusing; where there are many clients and decision makers with conflicting values; and where the ramifications in the whole system are thoroughly confusing (Chapter "Towards an Understanding of Open Innovation in Services: Beyond the Firm and Towards Relational Co-creation")
wikis	web sites (developed collaboratively by a community participation) that allow any user to add or modify content. It allows rapid sharing and growth of information on a particular topic and builds a shared knowledge usually within communities of practice. Such communities or teams use the wiki as a central place to collaborate on a subject (Chapter "Role of Web 3.0 in Service Innovation").