Chapter 23
Co-innovation and Communication: The Case of SAP's Global Co-innovation Lab Network

Sabine Patsch and Ansgar Zerfass

Abstract This article describes a company case from the ICT industry and illustrates how collaborative innovation involving several actors is realized and why communication plays a crucial role within this process. Taking a social structural perspective on innovation and communication, it becomes clear that meaning and reality, which are the prerequisites of novelties, are constructed in communicative interactions between companies and their internal and external stakeholders. Consequently, communication cannot be considered as an instrument of innovation management that might be used or dropped in different innovation phases like a tool. The theoretical perspective also underlines that innovation-related actions are influenced by structures: rules and resources enable, modify, and limit innovation actions. The Global Co-Innovation Lab Network (COIL) of SAP, analyzed in the case study, can be seen as a corporate, communicative resource due to its role as an interface between internal and external stakeholders of the company. It enables all parties involved to define framework conditions of a shared co-innovation project and to execute it. Structurally, COIL connects stakeholders across the globe, such as certified or potential SAP partners, users or internals, such as existing and potential units. Therefore, collectively shared structures, like co-innovation projects, are created. They are considered as a prerequisite for future innovation and communicative actions. Based on previous expertise and experiences, COIL helps to specify shared structured for each project and thus enables successful co-innovations.

23.1 Introduction

Information and communication technologies (ICT) as cross-sectional technologies drive innovation and growth in many industries (Münchner Kreis et al. 2009, p. 192). It can be argued that they will even "play a more significant role as

S. Patsch (✉)
SAP AG, Walldorf, Germany

A. Zerfass
University of Leipzig, Leipzig, Germany

© Springer International Publishing AG 2017

N. Pfeffermann and J. Gould (eds.), *Strategy and Communication for Innovation*,
DOI 10.1007/978-3-319-49542-2_23

software becomes a larger part of the company and the product" (Sarrazin and Sikes 2013, sidebar, para. 1). Therefore, companies have started to innovate their core business models based on ICT-driven opportunities (Kagermann et al. 2010). For example, ICT-related research and development (R&D) is of rising importance in industries like automotive, logistics, and health care (Dutta and Mia 2009, p. 102). In order to stimulate and realize ICT-based innovation across industries, different actors have to collaborate. Many companies have created structures and fostered actions to enable such collaboration processes with partners and customers in the past years. Concepts like 'open innovation' (Bogers 2012; Chesbrough 2003; Enkel et al. 2009), or 'networked innovation' (Swan and Scarborough 2005; Valkokari et al. 2009) explain how and why in-house R&D is complemented by innovation collaborations with outsiders. This chapter describes a company case study from the ICT industry and illustrates how collaborative innovation involving several actors is realized and why innovation communication (Zerfaß and Möslein 2009) plays a crucial role within this process. Taking a social structural perspective on innovation and communication, it becomes clear that meaning and reality, which are the prerequisites of novelties, are constructed in communicative interactions between companies and their internal and external stakeholders.

23.2 The Software Industry, SAP and Its Ecosystem

In general, the word software is used "to describe the digital instructions and operating information that are contained in *programs* serving to guide machines—especially computers—in implementing desired operations" (Lippoldt and Stryszowski 2009, p. 33). *Software products* are nonphysical and digital goods which can be reproduced at low cost, without any quality loss, and in any quantity desired. Another main aspect to describe software is its degree of standardization. Individual software and standard software can be defined as the two extreme cases, where individual software is tailored to the specific requirements of a user, and standard software is developed based on the lowest common denominator concerning the needs of potential users (Buxmann et al. 2013). The development of software can be described as a cumulative process because the transfer, reuse, and modification of code are possible (Lippoldt and Stryszowski 2009). *Software markets* are international, as software can be developed globally and distributed worldwide at low cost. Software markets include very few dominant players. In many cases, a standard or technology becomes prevalent, as the consumer's benefit of using a good—e.g., the same standard format in software systems—rises, when more consumers use the same good. The software market includes several kinds of actors, especially in the area of complex software solutions. Software companies, in a narrow sense, create software, whereas in a broad sense, they implement and operate software. Accordingly, there are several types of vendors competing on the market offering services such as implementation support, training or operating services (Buxmann et al. 2013). Collaborative approaches are used to foster

software innovation, for example in partnerships between ICT firms, or between ICT companies and partners outside the sector (Lippoldt and Stryszowski 2009).

SAP AG is one of the main players in the software industry worldwide. In 2012, this global leader in enterprise software and software-related services had about 232,000 customers and more than 65,000 employees based in 130 countries in 2012. Table 23.1 summarizes SAP's products and service offerings in five market categories: Applications, Analytics, Cloud, Mobile, as well as, Database and Technology. Products across the five market categories are bundled into end-to-end solutions. These solutions are offered for all corporate functions, like finance, procurement or sales, and specifically for 25 industries such as automotive, banking, and health care (SAP 2013c). A main part of SAP's portfolio includes services ranging from the customized development of software solutions to support services, consultation on planning, implementing and optimizing business solutions, and educational services including IT training.

This short overview of SAP's portfolio indicates that the corporation collaborates with various partners. Besides partnerships with selling allies, SAP cooperates with service and implementation providers, as well as with development partners. Partners support the market adoption of SAP's solution portfolio by co-innovating on SAP platforms and embedding SAP technology, as well as reselling and/or implementing SAP software. SAP offers qualification and training programs for

Table 23.1 SAP's product and service portfolio

Market category	Description
Applications	Enterprise applications are the core competence of SAP, and SAP Business Suite as a business process platform. These include core software applications, like SAP ERP, which support critical business processes, such as finance and human capital management
Analytics	Analytics solutions enable users, e.g., to interact with business information and get answers to ad hoc questions without deeper knowledge concerning the underlying data sources
Cloud	Cloud applications and suites are provided as software as a service (SaaS) based on a subscription fee. SAP HANA Cloud is a platform as a service (PaaS) enabling SAP's customers, independent software vendors (ISVs), and partners to create software applications rapidly, e.g., for the needs of social and collaborative business networks
Mobile	Mobile solutions enable SAP's customers to deliver secure, real-time, business critical information to their employees, partners, and customers on mobile devices. SAP's mobile development platform also supports partners to develop their own applications for their employees and customers
Database and technology	The database and technology portfolio includes, e.g., the SAP NetWeaver® technology platform which enables the integration of SAP software with heterogeneous system environments, third-party solutions, and external business partners. In addition, the SAP HANA® platform, based on in-memory computing technology, processes huge amounts of data at a high speed

Source SAP (2013a) (adopted)

partners, as well as certifications for third-party offerings to underline the technical alignment with SAP solutions. This means that customers can benefit, for example, from pretested, certified partner offerings which extend the functionalities of SAP solutions or from accelerated integration projects (SAP 2013a, b).

Close relations with partners and the expansion of its partner ecosystem help SAP to increase its market coverage, improve its solution portfolio, and strengthen its innovation activities (SAP 2013a).

As a consequence, *collaborative innovation activities with stakeholder*s are supported by several initiatives at SAP. Examples are *SAP IdeaPlace*, a platform which invites stakeholders to submit, discuss, and rate ideas (SAP 2013d), as well as *SAP InnoJam,* a 30-h event to learn and discuss SAP technologies and finally apply them by creating a prototype (SAP 2013e). Another initiative is the *Global Co-Innovation Lab Network (COIL)* which has been established by SAP since 2007 to support co-innovation processes between SAP and external partners, customers, as well as other stakeholders (SAP 2013f). The COIL concept has been institutionalized for several years and has been adapted continuously. Consequently, a global network of Co-Innovation Labs has emerged, tackling a rising number of co-innovation projects with stakeholders. Therefore, the example of COIL offers an interesting insight in corporate co-innovation activities, its structures, and the role of communication, which is considered as a constituting element of innovation (Zerfaß 2009). To investigate the COIL concept in more detail, the theoretical concept of innovation communication in the era of open innovation is outlined first (Mast et al. 2005; Zerfass and Huck 2007; Zerfaß and Möslein 2009). Second, the best practice case of COIL is illustrated focusing on major aspects of innovation communication, which is understood as symbolic interactions between organizations and their internal and external stakeholders dealing with new products, services, and technologies (Zerfaß 2009).

23.3 Innovation and Communication: A Social Theoretical View

The term ‘co-innovation’ implies that at least two partners collaborate to foster innovation. According to Bogers (2012), *collaborative innovation* is a specific type of open innovation and combines knowledge inflows and outflows. The concept of open innovation is based on “the use of purposive inflows and outflows of knowledge to accelerate internal innovation, and expand the markets for external use of innovation, respectively” (Chesbrough et al. 2006, p. 1). Bogers refers also to the so called “coupled process” of open innovation understood as “co-creation with (mainly) complementary partners through alliances, cooperation, and joint ventures during which give and take are crucial for success” (Enkel et al. 2009, p. 313). Establishing a coupled process implies that the outside-in process to gain external knowledge is combined with the inside-out process to bring ideas to market, which

Table 23.2 Alternative conceptualizations of the core terms innovation and communication

Communication as…	Innovations as…
… *transmission*: Companies transmit objective information via media channels to key stakeholders. This stimulus leads to the transfer of meaning and is intended to evoke desired reactions (e.g., knowledge, attitude change, behavior). *Communication* is a specific form of behavior that is mainly determined by systemic relations and psychological motives	**… *artifacts***: *Innovations* are novel products or processes that are marked as new by a company (or its leaders) and that are established on the market or within the organization. The innovative offer meets the demand of actors on the market and is used by them in different ways
… *construction of reality*: Companies and stakeholders constitute social interactions by messaging and comprehension activities referring to each other, which link to shared symbolic structures (communicative schemes and competencies) and target understanding as a prerequisite for influencing each other. *Communication* is a form of interest-led action, where perceptions and orientations are shaped subjectively, but meaning and reality are socially constructed	**… *social constructs***: *Innovations* are technical, economic, or social novelties that imply a change of social practices and that are considered by the involved actors as new because they reach beyond ongoing adaption of practices. Shared meanings are a prerequisite for novelties; likewise, the meaning of technologies, innovations, markets or added value is only constituted in social interactions

Source Zerfaß (2009, p. 36)

drives the joint development and commercialization of innovation (Enkel et al. 2009). Coupled innovation processes entail interactions between at least two actors. Therefore, the role of communication in collaborative innovation processes is central and is considered in the following in more detail. At first, the two core terms 'innovation' and 'communication' are conceptualized based on different scientific perspectives. Subsequently, the theory of structuration (Giddens 1984) is outlined to reconstruct the role of communication within the innovation process.[1]

Innovation research uses mainly the conceptualization of communication as transmission and innovation as artifacts. More recent research underlines the social construction of technologies, innovations, and markets, but still uses the conceptualization of communication as *information transmission* and conveying of meaning. The same applies to scientific discussions on innovation communication, as they are mainly based on a traditional term of innovation. The different conceptualizations underline several aspects of corporate practice while complementing each other. The conceptualizations in the lower section of Table 23.2 are focused on the *creation and adaption of communication and innovation*, and the traditional concepts in the upper section of Table 23.2 underline the *management of communication or innovation processes* within the conditions of already prestructured social relations.

[1]This section is mainly based on an article previously published in German language (Zerfaß 2009).

Social theory (Joas and Knöbl 2004) enables us to understand the duality of acting within given structures and changing those structures at the same time. The *theory of structuration* by sociologist Anthony Giddens (1984) helps to overcome the limitations of both action theory and systems theory, which focus on either side of the process. Giddens' theoretical approach has been applied to various disciplines including corporate communications (Falkheimer 2007; Hahne 1998; Röttger 2005; Zerfaß 2010) and also sporadically in innovation research (Chanal 2004; Coopey et al. 2002; Duschek 2002).

Giddens (1984) points out that social coexistence is determined by both individual *actions* and societal *structures* (rules and resources). These structures enable and influence thinking, as well as acting, and are renewed and also partly adapted during each actualization.

Social interactions can only be successful if those involved can refer to a shared reservoir of rules and resources. This applies both to communication processes as well as to the creation and acceptance of innovations. *Resources* are, on the one hand, material aspects of the environment, a means of production and products (allocative resources), such as a method to create, convey, and understand messages or to build prototypes. On the other hand, resources can be competences (authoritative resources), such as the ability to communicate actively with certain stakeholders, to listen intensively in dialogs with customers and employees, to be able to cooperate, to solve engineering problems, and to create novel combinations of ends and means. *Rules* sanction social acting (legitimization) and constitute meaning (signification) (Giddens 1984).

Collective perceptions and interpretive schemes create cognitive structures that are necessary to enable social activities by various actors and to make them compatible with each other. Rules of communication are modes like articulation or symbolic schemes as well as cultural rooted modes of influence such as manipulations, instructions, or argumentative discourse (Zerfaß 2010, pp. 169–181). Rules of innovation are schematic visions of the novel, possible and valid combinations of materials, process operations, and applications, as well as cognitive associations of certain groups (e.g., farmers, consumers) linked with technologies and societal concepts (e.g., 'nature', 'ecology').

The following illustration shows the process of structuration (Fig. 23.1).

Structuration is a dynamic process. Collectively shared structures between involved actors are a prerequisite for innovation as well as for communication activities. At the same time, the actualization of rules and resources makes actions compatible and likely to be successful. Naturally, recurring actions and their prerequisites can be reflected. Parameters influencing the success of corporate communications or innovation activities can be identified and used in terms of implicit or explicit knowledge. As a consequence, strategies will be developed that help to change structures for the better.

Taking a social structural perspective, social change can be interpreted as a shift of rules and a change of resources over time. Accordingly, innovation management must focus on drivers that influence rules and resources. At this point, the fundamental role of communication becomes obvious: meaning and reality, which are the

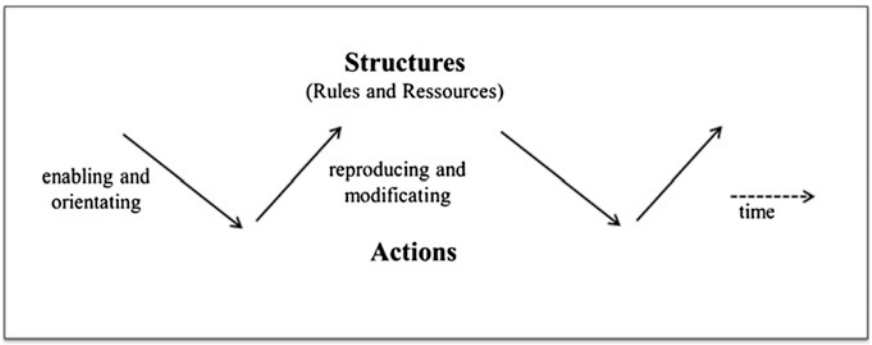

Fig. 23.1 The process of structuration. *Source* By the authors

prerequisites of novelties, are constructed in communicative interactions between companies and their internal and external stakeholders. Likewise, the meaning of technologies, innovations, and markets are created in social interactions between all actors involved. The role of communication within the innovation process can be reconstructed according to the following.

Communication is a constituting element in innovation management, as technical, economic, or social novelties always evolve in the context of interactions that are enabled and restricted by collective rules and resources. Cognitive schemes determine the meaning of new products, services, processes, and technologies, for whom they are beneficial and how they are evaluated. These cognitive structures can be formed, modified, and reproduced by communication processes.

Open innovation processes create social practices and spheres of communication that enlarge the potential for acceptable novelties and minimize the risks of closed reference systems. Traditional innovation concepts focusing on internal R&D departments decouple thought patterns of innovators from the world of potential users, multipliers, and critical stakeholders. In this case, communication departments are called in the final phase of the development process to translate visions of engineers and product managers into the cognitive frames of yet uninvolved stakeholders. This is often condemned to failure. If, by contrast, interfaces between the focal organization and its internal and external stakeholders are created in all phases of the innovation process, the probability of common reality constructions and shared values rises. Obviously, the success of such endeavors is never ensured. If the interests of different stakeholders meet, it is not always a win-win situation. However, early communication helps to recognize discrepancies sooner. Adjustments or cancellations of R&D activities are possible, and misallocations of resources are reduced. Accordingly, concepts of 'open innovation' (Chesbrough 2003; Möslein and Neyer 2009) obtain a new justification beyond economical purposive rationality. From a sociological and communicative perspective, there is much to be said for the inherent evidence of such concepts.

Innovation communication has to be situative, and it can be used both adaptively and by structuring in different contexts and phases. Strategic communications should be aware that it acts in the context of established rules and resources. Insofar, knowing the public opinion (Bentele et al. 2003), its structural conditions as well as drivers of change (Zerfaß 2007) is essential. Based on that knowledge, corporate messages can be positioned, stakeholders can be contacted via relevant media channels and with appropriate topics, and campaigns can be run (Fink 2009; Huck-Sandhu 2009). At the same time, it must be repeatedly reflected whether and how current structures and interpretation schemes can be destructed or modified. Accordingly, communication management must accomplish much more than creating compatible messages. To plan, realize, and evaluate innovation communication refers also—and with increasing frequency—to listening, establishing intelligent routines for monitoring opinions, as well as to identifying relevant publics and stakeholders. Feeding external opinions and interests into the organizational decision process ("inbound") is as important as conveying the corporate point of view to others ("outbound").

Thus, *innovation communication* can be defined (Zerfaß 2009, p. 42) as a strategic stimulation of communication processes with internal and external stakeholders to promote technological, economic or social novelties, (a) by creating, revising, or destructing socially shared patterns of meanings and communicative resources, and (b) by giving impulses for the development of novelties, and by promoting them professionally.

In summary, communication should not be considered as an instrument of innovation management that can be used or dropped in different innovation phases and situations like a tool. Communication has to be understood as symbolic interaction and reality construction. This perspective is also used in elaborated concepts of organizational communication, corporate communications, and public relations (PR) (Botan and Hazleton 2006; Zerfass 2008; Zerfaß 2010).

In the following section, the social theoretical perspective of innovation and communication is used to analyze a company case study. Central aspects of the innovation communication approach described above are outlined to demonstrate how corporations try to deal with the challenges of collaborative innovation by communicative means.

23.4 Innovation and Communication in SAP's Global Co-innovation Lab Network (COIL)

The social theoretical view on innovation as a social construct underlines that innovation-related actions are influenced by structures: rules and resources enable, modify, and limit innovation actions. One of SAP's key instruments to foster collaborative innovation between the company, customers, and partners can be described along this line.

The *Global Co-Innovation Lab Network (COIL)* consists of several teams and lab facilities spread globally. It is intended to be a platform of services enabling co-innovation projects between SAP product and field teams as well as other entities, like current or potential SAP partners and customers (Fig. 23.2).

The main aspects of the *working model* of SAP's Co-Innovation Lab Network are:

- COIL can be described as an *interface between internal and external stakeholders* enabling all involved parties to define framework conditions of a co-innovation project and to execute the project. Accordingly, COIL facilitates the extension of SAP's solution coverage as well as the acceleration of technology adoption and enablement by executing joint technical co-innovation projects and initiatives between SAP, its partners and selected customers. COIL focuses on how different parties can be connected successfully to a co-innovation topic within a dedicated project set up, whereas the topic ownership is not with COIL, but with SAP's respective product and R&D units.
- Throughout the years of its existence, COIL evolved to create structures and to enable actions in order to tackle the main challenges of collaborative innovation. Consequently, major *co-innovation enablement elements* have been identified to realize project-based co-innovation successfully, like *IP framework, IT infrastructure, subject matter expertise* in the co-innovation team, and *knowledge brokering* to determine experts out of the team, as well as *operations and project management* (Cruickshank 2010).

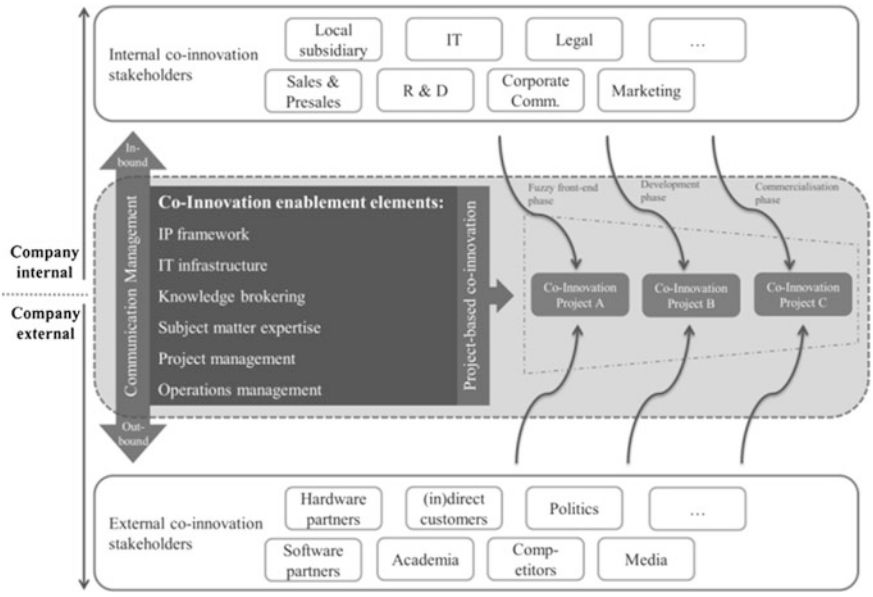

Fig. 23.2 Working model of SAP's Global Co-Innovation Lab Network. *Source* By the authors

- As COIL is intended as an interface platform between the SAP-internal and external world, *inbound and outbound communication* and *project-bound communication* need to be managed systematically.
- From SAP's point of view, co-innovation projects in COIL can be attributed to each *phase of the innovation process*. A co-innovation project can be an undertaking of SAP's 'fuzzy front-end phase', including a strong research focus, such as developing a proof of concept paper. A co-innovation project could also be assigned to SAP's development phase or the commercialization phase, such as providing a newly developed SAP technology to early testing and adopting partners and customers to foster a common innovation project. COIL projects are of mid-term length and typically last six months.
- The Co-Innovation Lab Network benefits from its global presence at currently nine locations *close to local and regional markets* in North and South America, Asia, as well as Middle and Eastern Europe. All nine locations include a project facility to work collaboratively, and a showroom to demonstrate ideas or prototypes. In four out of the nine locations, computing centers have been established. This set up ensures that local COIL employees with certain engineering competences, can act as intermediaries between local, external stakeholders and internal experts, e.g. from other locations of the Co-Innovation Lab Network or from product and sales teams. The onsite colleagues are able to liaise as they master the local language and know national as well as organizational cultures. These aspects help to ensure the necessary dialog between partners within successful co-innovation projects. Due to the local facilities, the respective managing director of the SAP subsidiary is a major stakeholder, fostering co-innovation projects with local and regional partners.

As indicated, COIL uses a project-based approach and has defined a co-innovation process containing seven individual steps (see Fig. 23.3). The elaboration of each process step depends on the individual project undertaking.

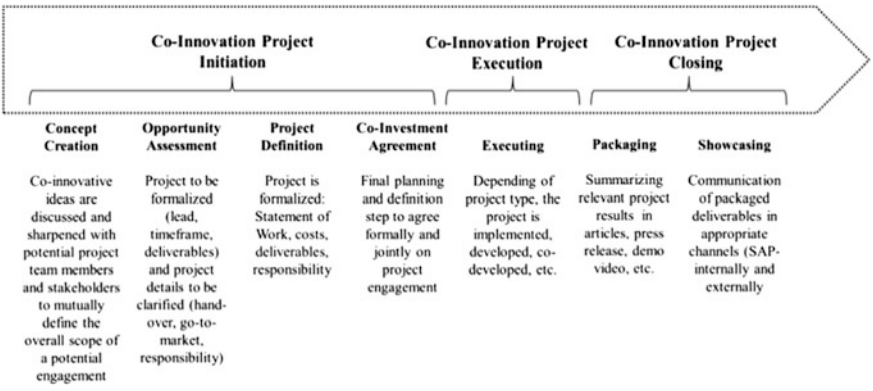

Fig. 23.3 Generic co-innovation process at SAP's Global COIL Network. *Source* SAP (2013f) (modified)

The process view of co-innovation projects at COIL underlines that *communication activities* play an important role:

- The *pre-project phase* and the *project initiation phase* are determined by monitoring internal and external project ideas and topics. Moreover, it is important to stimulate dialog between stakeholders, to evaluate ideas, and to attain appropriate project partners and promoters for a COIL project ensuring resources (e.g., budget, subject matter experts, infrastructure, portfolio integration, campaign integration, etc.). To prepare a COIL project, communication-related activities are discussed and planned with relevant internal and external stakeholders (e.g., the global or local marketing and communications teams).
- In the *project execution phase,* internal project communication between the COIL project partners and sponsors is focused. Interim or final project results are framed and communicated, for example, by writing a whitepaper or preparing a demo video.
- The *project closing phase* is characterized by showcasing results through the appropriate channels, for example, to foster the market launch of a (partner) solution or to prepare follow-up projects by stimulating dialog for further ideas.

Figure 23.4 summarizes the main communication-related activities associated with each project phase. In addition, the main *communication instruments* addressing company internal or external stakeholders are outlined.

Due to its working model and global set up, COIL uses *two main communicational pillars*:

- *Online Communication*, meaning all web-based communication activities, enables COIL to address its partners and customers independent of time and space on a *global scale*. The SAP Community Network (SCN)[2] is used especially to build a global co-innovation community. Dialogs within the SAP ecosystem are stimulated by sharing project ideas and project outcomes, for example with articles or podcasts. The partner program SAP PartnerEdge[3] includes a web-based platform and serves as another channel to attain new COIL projects and partners. To ensure internal project communication, online communication channels such as SAP Jam[4] or wikis as well as online conferencing tools are used to exchange knowledge or document project results and challenges. Within the SAP organization, one main communication instrument available on the intranet are the *internal communities* which are especially used

[2]SAP Community Network (http://scn.sap.com) is the social network for both internal and external SAP professionals, such as software users, developers, or consultants, with more than two million members globally.

[3]SAP PartnerEdge (www.sappartneredge.com) is SAP's partner program, offering business enablement resources and benefits to support implementing, selling, marketing, developing, and delivering SAP products.

[4]SAP Jam (www.sap.com/jam) is an enterprise social network solution.

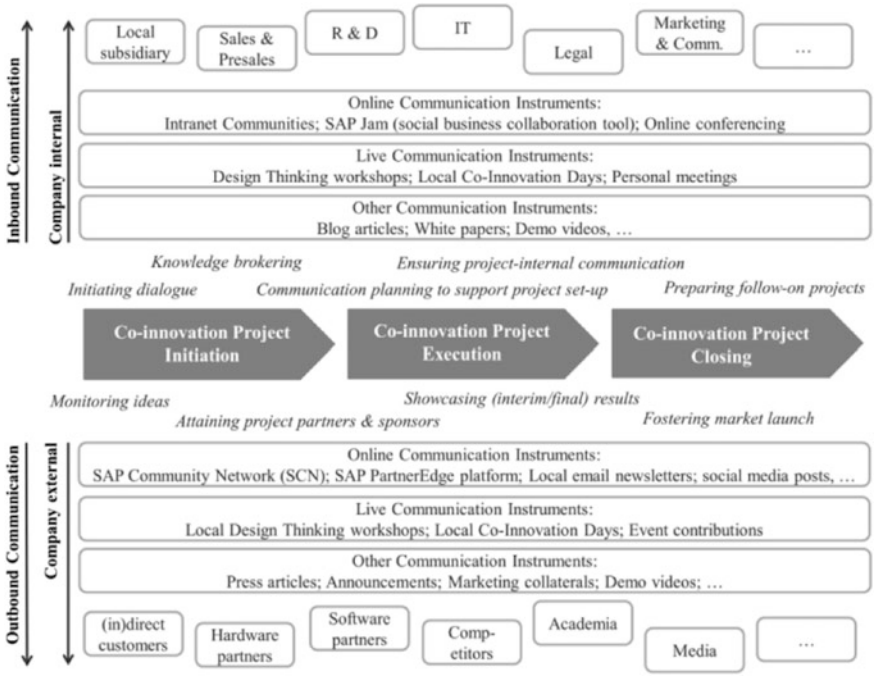

Fig. 23.4 Sample communication activities and instruments during the co-innovation process involving various co-innovation stakeholders. *Source* By the authors

to determine subject matter experts for COIL projects or share results, e.g., by posting blog articles, white papers, or demo videos. Online Communication is also used on a *local or regional* level, e.g., by creating local COIL newsletters or using other communication channels offered by subsidiaries or regional representatives.

- *Live Communication*, understood as communication activities in copresence, is used to strengthen COIL's activities on a *local and regional level.* Strategic decisions to establish a new co-innovation lab as part of the global Co-Innovation Lab Network are always made to benefit from the proximity to respective customers and partners in local or regional markets. Besides project facilities that execute co-innovation projects with externals, each lab location has a showroom to demonstrate interim and final results to stakeholders or to discuss new project ideas. Personal meetings, local events, and workshops are hosted, and design thinking techniques are increasingly applied as an iterative innovation approach to support teams during co-innovation processes (Plattner et al. 2011). On a global scale, live communication is especially used at industry

events, e.g,. SAP's global annual events SAPPHIRE NOW[5] and SAP TechEd.[6] In most cases, co-innovation prototypes and demos are shown in strong alignment with the respective marketing and communications teams at SAP and other project stakeholders, enabling potential customers and future partners to experience co-innovation first hand.

A manufacturing project (Odlozinski 2013) can be used to illustrate a typical co-innovation project at COIL. After discussing rough project ideas with stakeholders, COIL connected with internal development and product teams at SAP with a manufacturing hardware firm and an industry standards organization to develop a co-innovation project. Besides knowledge brokering to identify appropriate project members and sponsors, COIL provided the IT infrastructure and project management enabling the co-innovation partners to use existing manufacturing solutions from SAP and its integration capabilities. Besides ensuring shared project structures, COIL fostered a joint, transportable demo board to showcase aspects of a real-world manufacturing process. In addition, communication activities with internal marketing and communications teams were executed, such as press activities, collaterals, videos, and SCN posts, as well as contributions to industry fairs and SAP sales events. SAP-internal stakeholders from sales and development especially valued the prototype showcasing how potential customers from the manufacturing industry can implement SAP solutions combined with the partners' extensions. The partners contributing to the project valued the co-innovation outcome, as a novel, market-ready solution that was created by bringing together the partners' capabilities.

In the light of the social theoretical view described above, COIL can be considered as an interface with specific expertise to facilitate co-innovation projects. Furthermore, COIL enables access to existing resources, and promotes the creation of new resources, as well as fosters the understanding and change of rules necessary to realize collaborative innovation. Figure 23.5 illustrates the structures and actions in SAP's Co-Innovation Lab Network to enable co-innovation between internal and external stakeholders.

COIL is able to give project partners access to resources like *IT infrastructure* based on the latest engineering and system landscapes provided by SAP and key partners, as well as to an *IP framework* adaptable to specific project requirements. COIL enables stakeholders to access existing resources and to create new ones because it identifies and mobilizes internal and external *subject matter experts* as well as *potential project sponsors or promoters*, such as product and field teams or

[5]SAPPHIRE NOW (www.sapphirenow.com) is a customer-facing event where SAP generally has announced major product changes and strategic direction.

[6]SAP TechEd (www.sapteched.com) is an annual conference hosted by SAP, aimed at the company's ecosystem of consultants and software development partners. It is a technical education conference for IT architects, administrators, and developers.

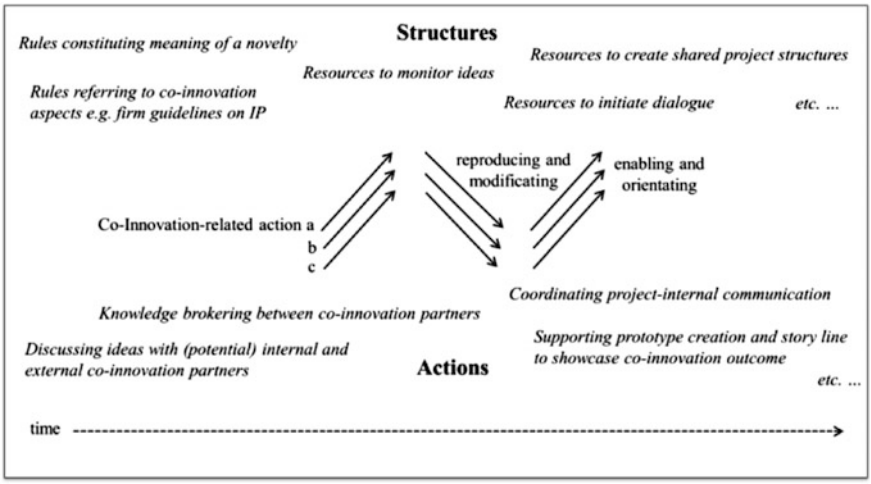

Fig. 23.5 Examples of structures and actions in SAP's Co-Innovation Lab Network enabling co-innovation. *Source* By the authors

marketing and communications teams driving COIL project topics within their areas of responsibility. Furthermore, COIL's ability to prepare and support projects with *operations and project management* activities can be considered an important resource. Based on COIL's experiences from former undertakings, the establishment of a new co-innovation project is constantly streamlined. Therefore, involved actors can focus on the core process of innovation.

Project-based co-innovation facilitated by COIL supports joint thought patterns that bind involved actors to each other. Common constructions of reality and shared values among internal or external partners, potential users, multipliers, or critics become more probable. Acting as an interface between the internal and external world of the corporation, COIL is a vehicle for inbound and outbound communication. On the one hand, COIL enables SAP to scout the external environment. The network benefits from its local labs functioning as points of contact especially for local stakeholders interested in co-innovating with SAP. Bringing in external project ideas and facilitating project planning and execution involves managing *inbound communication* by addressing suitable internal project sponsors, promoters and potential team members. On the other hand, COIL fosters *outbound communication* by stimulating dialogs with (potential) co-innovation partners on topics where SAP searches for allies or by supporting market launch activities. Communication processes help to influence cognitive schemes that determine what novelties mean.

23.5 Conclusion

Collaborative innovation between several actors is a complex undertaking and offers challenges in both theory and practice. Taking a social theoretical view on innovation and communication, the case of SAP's Global Co-Innovation Lab Network (COIL) indicates that structures are created to enable co-innovation actions in organizational practice. A global player like SAP uses several instruments to foster innovation, and opens up organizational boundaries to gain access to internal and external knowledge necessary for innovation (Chesbrough 2003). This case study shows that an appropriate mix of internal and external infrastructure, domain expertise, and processes is needed to capitalize on novelties.

Furthermore, the case underlines the theoretical argument that communication is a constituting element of innovation (Zerfaß 2009): The Co-Innovation Lab Network can be conceptualized as a corporate communicative resource due to its mission to act as an interface between internal and external stakeholders, enabling all involved parties to define structural frameworks for a shared co-innovation project and to execute it. As innovations are created in social interactions, collaborative innovation is based on communication processes. Structurally, COIL as network of currently nine co-innovation labs connects stakeholders across the globe, such as certified or potential SAP partners, users or internals, such as existing and potential business units. Therefore, collectively shared structures are created and are considered as a prerequisite for innovation and communicative actions to take place. Co-innovation projects are a form of collectively shared structures, and the expertise and experience of the global Co-Innovation Lab Network helps to specify shared structures per project to enable successful co-innovation actions. Accordingly, actions within co-innovation projects facilitated by COIL refer to existing structures, e.g., meaning of novelties, internal topic responsibilities, or IP guidelines, and influence the modification of existing structures.

In conclusion, different perspectives in theory and practice should be taken into account when investigating collaborative innovation processes. The practice of corporate innovation management and communication may benefit from these considerations by deriving best practices, including other industries, to implement and adjust appropriate structures that successfully enable collaborative innovation actions. From a theoretical point of view, the concept of collaborative innovation and the role of communication in innovations should be researched further, both theoretically and empirically, to enlarge the body of knowledge (Bogers 2012; Ernst and Zerfaß 2009; Lee et al. 2012; Pfeffermann 2011). An interdisciplinary view combining communication science, social theory, and management theory helps to reflect on the communicative dimension of actions and structures constituting today's organizations and their collaborative efforts to innovate.

Bibliography

Bentele, G., Brosius, B., Jarren, O. (eds.): Öffentliche Kommunikation. Westdeutscher Verlag, Wiesbaden (2003)

Bogers, M.: Knowledge sharing in open innovation: an overview of theoretical perspectives on collaborative innovation. In: de Pablos Heredero, C., López, D. (eds.) Open Innovation in Firms and Public Administrations: Technologies for Value Creation, pp. 1–14. IGI Global, Hershey (2012)

Botan, C., Hazleton, C. (eds.): Public Relations Theory II. Lawrence Erlbaum, Mahwah (2006)

Buxmann, P., Diefenbach, H., Hess, T.: The Software Industry. Economic Principles, Strategies, Perspectives. Springer, Heidelberg (2013)

Chanal, V.: Innovation management and organizational learning: a discursive approach. Eur. J. Innov. Manag. **7**, 56–64 (2004)

Chesbrough, H.W.: Open innovation. The new imperative for creating and profiting from technology. Harvard Business School Press, Boston (2003)

Chesbrough, H.W., West, J., Vanhaverbeke, W. (eds.): Open innovation: researching a new paradigm. Oxford University Press, Oxford (2006)

Coopey, K., Keegan, O., Emler, N.: Managers' innovations and the structuration of organizations. J. Manag. Stud. **35**, 263–284 (2002)

Cruickshank, D.: Open innovation and co-innovation—enablement platform processes to align innovation to the right business model. Retrieved from http://scn.sap.com/docs/DOC-16932 (2010)

Duschek, S.: Innovation in Netzwerken. Renten - Relationen – Regeln. Deutscher Universitäts-Verlag, Wiesbaden (2002)

Dutta, S., Mia, I.: The global information technology report 2008–2009. Mobility in a networked world. Retrieved from http://www3.weforum.org/docs/WEF_GITR_Report_2009.pdf (2009)

Enkel, E., Gassmann, O., Chesbrough, H.W.: Open R&D and open innovation: exploring the phenomenon. R&D Manag. **39**(4), 311–316 (2009)

Ernst, N., Zerfaß, A.: Kommunikation und Innovation in deutschen Unternehmen. In: Zerfaß, A., Möslein, K.M. (eds.) Kommunikation als Erfolgsfaktor im Innovationsmanagement. Strategien im Zeitalter der Open Innovation, pp. 57–81. Gabler, Wiesbaden (2009)

Falkheimer, J.: Anthony Giddens and public relations: a third way perspective. Pub. Relat. Rev. **33**, 287–293 (2007)

Fink, S.: Strategische Kommunikation für Technologie und Innovationen. Konzeption und Umsetzung. In: Zerfaß, A., Möslein, K.M. (eds.) Kommunikation als Erfolgsfaktor im Innovationsmanagement. Strategien im Zeitalter der Open Innovation, pp. 207–223. Gabler, Wiesbaden (2009)

Giddens, A.: The constitution of society. Outline of the theory of structuration. University of California Press, Berkeley (1984)

Hahne, A.: Kommunikation in der Organisation. Westdeutscher Verlag, Opladen/Wiesbaden (1998)

Huck-Sandhu, S.: Innovationskommunikation in den Arenen der Medien. Campaigning, framing und storytelling. In: Zerfaß, A., Möslein, K.M. (eds.) Kommunikation als Erfolgsfaktor im Innovationsmanagement. Strategien im Zeitalter der Open Innovation, pp. 195–208. Gabler, Wiesbaden (2009)

Joas, H., Knöbl, W.: Sozialtheorie. Suhrkamp, Frankfurt am Main (2004)

Kagermann, H., Osterle, H., Jordan, J.M.: IT-Driven Business Models: Global Case Studies in Transformation. Wiley, Hoboken (2010)

Lee, S.M., Olson, D.L., Trimi, S.: Co-innovation: convergenomics, collaboration, and co-creation for organizational values. Manag. Decis. **50**(5), 817–831 (2012)

Lippoldt, D., Stryszowski, P.: Innovation in the Software Sector. OECD Publishing, Paris (2009)

Mast, C., Zerfaß, A. (eds.): Neue Ideen erfolgreich durchsetzen. Das Handbuch der Innovationskommunikation. Frankfurter Allgemeine Buch, Frankfurt am Main (2005)

Mast, C., Huck, S., Zerfass, A.: Innovation communication—outline of the concept and empirical findings from Germany. Innov. Journalism **2**(7), 1–14 (2005)

Möslein, K.M., Neyer, A.K.: Open innovation. Grundlagen, Herausforderungen, Spannungsfelder. In: Zerfaß, A., Möslein, K.M. (eds.) Kommunikation als Erfolgsfaktor im Innovationsmanagement. Strategien im Zeitalter der Open Innovation, pp. 85–103. Gabler, Wiesbaden (2009)

Münchner Kreis, e.V., European Center for Information and Communication Technologies (EICT), Deutsche Telekom, TNS Infratest (eds.): Prospects and opportunities of information and communication (ICT) and media. International Delphi study 2030. Retrieved from http://www.zukunft-ikt.de/wp-content/uploads/2_Prospects_and_Opportunities_of_ICT_and_Media.pdf (2009)

Odlozinski, H.-J.: Manufacturing COIL. Retrieved from http://scn.sap.com/docs/DOC-23561 (2013)

Pfeffermann, N.: Innovation communication as a cross-functional dynamic capability: strategies for organizations and networks. In: Hülsmann, M., Pfeffermann, N. (eds.) Strategies and communications for innovations, pp. 257–289. Springer, Berlin (2011)

Plattner, H., Meinel, C., Leifer, L. (eds.): Design Thinking. Understand, Improve, Apply. Springer, Berlin (2011)

Röttger, U.: Kommunikationsmanagement in der Dualität von Struktur. Medienwissenschaft Schweiz/Science des mass média suisse **15**(1–2), 12–19 (2005)

Sarrazin, H., Sikes, J.: Competing in a digital world: four lessons from the software industry. Retrieved from http://www.mckinsey.com/insights/business_technology/competing_in_a_digital_world_four_lessons_from_the_software_industry (2013)

SAP: 2012 Annual Report. Retrieved from http://www.sapintegratedreport.com/2012/fileadmin/user_upload/2012_SAPintegratedreport/downloadcenter/13_03_27/SAP_AR2012_en.pdf (2013a)

SAP: Benefits of SAP certified integration. Retrieved from http://scn.sap.com/docs/DOC-25281 (2013b)

SAP: Explore SAP solutions. Retrieved from http://www54.sap.com/solution.html (2013c)

SAP: SAP idea place. Retrieved from https://ideas.sap.com/ (2013d)

SAP: SAP InnoJam. Retrieved from http://scn.sap.com/community/events/innojam (2013e)

SAP: Introducing the Global SAP Co-Innovation Lab Network. Retrieved from http://scn.sap.com/docs/DOC-8660 (2013f)

Swan, J., Scarborough, H.: The politics of networked innovation. Hum. Relat. **58**(7), 913–943 (2005)

Valkokari, K., Paasi, J., Luoma, T., Lee, N.: Beyond open innovation. The concept of networked innovation. Paper presented at 2nd ISPIM innovation symposium: stimulating recovery—the role of innovation management, New York, 6–9 Dec 2009

Zerfaß, A.: Von der Einkanal-Kommunikation zum Dialog – wenn Empfänger zu Akteuren werden. In: Ellerbeck, T., Siebenhaar, K. (eds.) Vernetzte Welt –Veränderungen der Kommunikation durch Neue Medien und Mobilfunk, pp. 31–48. B&S Siebenhaar, Berlin (2007)

Zerfaß, A.: Kommunikation als konstitutives Element im Innovationsmanagement. Soziologische und kommunikationswissenschaftliche Grundlagen der Open Innovation. In: Zerfaß, A., Möslein, K.M. (eds.) Kommunikation als Erfolgsfaktor im Innovationsmanagement. Strategien im Zeitalter der Open Innovation, pp. 23–55. Gabler, Wiesbaden (2009)

Zerfaß, A.: Unternehmensführung und Öffentlichkeitsarbeit. Grundlegung einer Theorie der Unternehmenskommunikation und Public Relations, 3rd edn. VS Verlag für Sozialwissenschaften, Wiesbaden (2010)

Zerfaß, A., Möslein, K.M. (eds.): Kommunikation als Erfolgsfaktor im Innovationsmanagement. Strategien im Zeitalter der Open Innovation. Gabler, Wiesbaden (2009)

Zerfass, A.: Corporate communication revisited: integrating business strategy and strategic communication. In: Zerfass, A., Van Ruler, B., Srira-mesh, K. (eds.) Public Relations Research. European and International Perspectives and Innovations, pp. 65–96. VS Verlag für Sozialwissenschaften, Wiesbaden (2008)

Zerfass, A., Huck, S.: Innovation, communication, and leadership: new developments in strategic communication. Int. J. Strateg. Commun. **1**(2), 107–122 (2007)