Making Collaboration a Reality

Insights from the Collaboration Consortium, Year One

COLLABORATION CONSORTIUM

Collaboration Consortium Year One Membership List
November 2009

In order by membership date:

1. Cisco (USA)
2. PepsiCo (USA)
3. Wipro Technologies (India)
4. Statoil (Norway)
5. Treasury Board Secretariat and Canada School of Public Service, Government of Canada
6. Renault Group (France)
7. RAND Corporation (USA)
8. Santander Group (Spain)
9. CEMEX (Mexico)
10. Novartis (Switzerland)
11. Mahindra Group (India)
12. The Wharton School, University of Pennsylvania (USA)
13. Media X, Stanford University (USA)
14. SBT Advisors (USA)

Preface: Our Consortium Experience

When Mike Mitchell asked if I was interested in a new assignment to create a consortium of companies who would build a reference model for how to apply collaboration to business, I thought it was the perfect fit. I had been working on collaboration efforts at Cisco for eight years, starting in Information Technology and then moving to the business side in Corporate Communications, under Mike's leadership. I understood what it took to deploy and use collaboration technologies, and I had spent the last few years developing an understanding of use cases, user adoption, and user behaviors. The technology component of collaboration was easy—the culture and process to embed it in how we work was difficult. . . . I was up to the challenge!

Mike's team in Collaboration Business Services had spent the previous years focusing on how to maximize opportunities from collaboration by applying it in a systematic way to our internal business. Brendon Hynes, a peer and collaboration strategist, in conjunction with Francois Joanette, a business colleague from SBT Advisors, had developed early insights around a Collaboration Framework. We wanted to share this thinking with members of the Consortium, evolve it to a reference model for how to successfully operationalize collaboration, and ensure that our model was applicable to any industry.

Mike, Francois, and I spent the spring of 2008 recruiting organizations to join the Consortium from a cross-section of industries and geographies (see member list on p. ii), and then in July 2008 we launched the first Working Group meeting. The original group included 18 organizations, with Francois as the advisor to the Consortium. Although Cisco took the initiative to create the Consortium, we were also an equal among all the other members—the Consortium was "community owned." To ensure that all members felt comfortable sharing their experiences, a nondisclosure agreement was put in place for all members. We also limited membership so that no direct competitors would be part of the initial group.

A number of face-to-face meetings were originally planned for the year with Working Group members and Executive Sponsors, but we quickly realized that face-to-face meetings for this type of effort were no longer an option. Companies, including Cisco, are reducing and prioritizing their travel budgets, so we needed to enable virtual meetings and collaboration—in other words, to practice what we were preaching.

We put in place a collaboration environment that included a combination of telepresence, conferencing, and team space technologies, which allowed members either to join a larger group via TelePresence from a Cisco office or to participate from anywhere via WebEx. The photo at the top pf the next page was taken at the first Working Group meeting, with North American participants traveling to Minnesota, European participants traveling to London, Indian participants joining from local Cisco offices in Mumbai and Bangalore, and others joining via WebEx. We also launched a collaborative team space using Jive Clearspace so that members could share documents and participate in discussions asynchronously between meet-

First Working Group of the Collaboration Consortium, July 2008: Members participated from TelePresence locations in the United States, the United Kingdom, and India.

ings. I thought the collaboration capabilities shared with the group were sufficient to spur copious amounts of collaborative thinking, but I was mistaken. Creating a collaboration community requires ongoing effort to nurture the community and to build trust and engagement among the members. More on this later. . . .

Prior to holding the first meeting, the members responded to a survey to help prioritize our first-year efforts. Based on the results, we created five subgroups: Vision and Strategy, Culture, Business Models, Adoption, and Metrics. Each subgroup was chaired or co-chaired by one of the members. Francois and I provided the facilitation and support services to keep everyone connected and on track. All agreed that our first deliverable would be this Year One Report, a collection of our thinking and findings from a year of collaborative efforts.

Except for the inaugural meeting, the Working Group met monthly via WebEx, and subgroups met more or less frequently using the same approach. There were two Executive Sponsor meetings—one via TelePresence in October 2008 and the other via WebEx in March 2009. The October meeting involved 14 TelePresence locations across the globe—a logistics challenge for building access and providing meals across a 24-hour clock, but the dollars and time saved were well worth the effort (the photo below was taken at this meeting). It was the use of

First Executive Sponsor Meeting, October 2008: Participants in San Jose, USA, collaborating with members in Philadelphia, USA; Zurich, Switzerland; and Oslo, Norway. (Ten other locations participated in this meeting, including those in Brazil, Canada, India, Singapore, Spain, and the United Kingdom.)

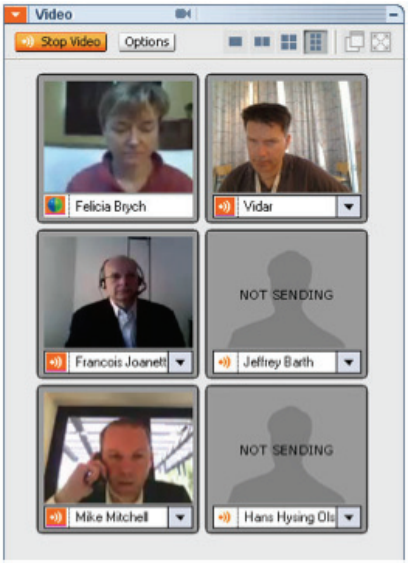
TelePresence and small co-located groups from the July and October meetings that enabled members to build a relationship and trust with each other, although not without challenges.

During this process, I learned several lessons about creating a global community and encouraging participation on a regular basis.

First, facilitating and sustaining participation in a community requires constant effort to keep content current and relevant and to keep participants engaged. Don't expect that participants in a community will always be active and that the community will become self-sustaining. Members from the Canada School of Public Service shared their best practices for managing communities of practice (see Appendix C), and they were absolutely correct. Even though all the members of our Consortium community were subject-matter experts on various aspects of collaboration, an active moderator was still required to keep the community "alive." This was further demonstrated during the fall, when I stopped facilitating the community to focus on this report, and the community became dormant. If a participant does not expect to get something out of the community, then he or she will not participate or invest time in the community.

Second lesson learned: Collaboration behaviors need to evolve to include informal communications with unknown or unfamiliar participants in the community. Although public blogs and tweets are becoming more commonplace, people are still relatively uncomfortable with posting their thoughts or ideas to an open community. Within our team space, there were a limited number of participants who actively shared material, a high number of participants reading this material, and then a very low number again actually responding to the material with comments or opinions. People must be ready to openly communicate their thoughts or reactions when reading shared material, but often this only occurs when there is a level of trust established within the community, such as after one has been introduced to other members through virtual meetings. Openly sharing thoughts and opinions is a necessary behavior for any collaborative Web 2.0 environment.

Third, when it came to participating in a meeting via video, there were some interesting behaviors. For some, sharing their video in WebEx with the other meeting participants became a regular practice, whereas for others, it was an occasional effort, if it happened at all (the image below is a screenshot of a video shared via WebEx during a Working Group meeting).



Video shared in WebEx as part of a monthly Working Group meeting

My observation is that most people are either not comfortable with being seen in a video conference or feel that it is unnecessary, particularly when meeting participants are calling from a non-business location, or it is the middle of the night or the early hours of the morning. Video helps establish context for a meeting participant, but is often not utilized. But this was not the case during the Consortium's TelePresence meetings, during which no one ever raised a concern about being seen on camera—it truly was a face-to-face experience. The video was accepted as normal and natural, even when rooms would mute themselves, knowing they could still be seen even though they were not being heard.

Overall, we ended the first year of the Collaboration Consortium with 14 active member organizations that participated in the creation of this report. The experience of working with fellow members was extremely valuable for me and for other participants. We shared experiences with each other, debated concepts, and came to a consensus that collaboration adds value to our organizations and that the Collaboration Framework is a way to successfully implement it. For year two, we agreed to move to a more open community approach that will not be as structured as the first year. It will continue to include sharing of best practices with guest speakers on collaboration topics of interest, and it will also involve members taking a leadership role for new research efforts.

I hope you find this report useful as you begin to apply collaboration to your own organization. Please contact me at fbrych@cisco.com or Francois Joanette at fjoanette@sbtadvisors.com for any questions about this document or the work of the Collaboration Consortium.

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Introduction: "Unlocking the Code" of How to Leverage the Value of Collaboration

Donny Wise, Program Manager, Collaboration, RAND Corporation

The purpose of this report is to provide a first-of-its-kind, step-by-step framework for companies that want to capture the value of collaboration, regardless of the company's size, mission, market sector, or location. CXOs, business decisionmakers, business process experts, collaboration specialists, and strategic planners from any functional discipline will benefit from the methodology, examples, and insights shared in this text. The cross-industry nature of this report will undoubtedly spark some new thinking on how to apply collaboration to your business.

As technology continues to show promise for connecting experts from around the world, organizations are reviewing their collaboration capabilities and realizing that collaboration is an untapped source for competitive advantage. Historically, companies have focused primarily on management innovations, business process improvement, and the utilization of automated systems to further company objectives. But with the 21st century's globalization, ingenuity, and technology breakthroughs, companies are increasingly seeking to exploit the innovation that comes from the human-to-human exchange of ideas, regardless of whether it occurs within or outside a company's borders. When such human-to-human exchange occurs, the company as a whole enjoys "higher levels of customer satisfaction, faster cycle times, improved product quality, greater corporate agility and enhanced ability to manage globally-dispersed teams."[1]

In this context, the fundamental question that companies are seeking to answer is: *How* does a company become a collaborative enterprise to advance its own top-priority objectives?

On July 8th, 2008, 18 organizations from around the world gathered together to answer this question. Using Cisco TelePresence videoconference capabilities, members of the Collaboration Consortium Working Group, each with very different business objectives, met and agreed on the following points: (1) No one has cracked the code for how to leverage the value of collaboration to advance a company's overall business objectives; (2) No one has created a cross-industry reference model on how to capture the value of collaboration; and (3) Although technology is important, organizations must first address key business capabilities before they can progress on the collaboration evolution curve (discussed in Chapter 1).

This report is the result of 12 months of the Collaboration Consortium organizations working together to create a cross-industry Collaboration Framework. This framework is presented in six chapters:

1. Recognize that in order for your company to become a collaboration enterprise, you must cross the "collaboration chasm" (Chapter 1).
2. Align collaboration with the top priorities of the organization (Chapter 2).
3. Build collaboration process and governance models to sustain collaboration (Chapter 3).

4. Cultivate collaboration practices by promoting a collaborative culture (Chapter 4).
5. Create a technology plan that enables the collaboration vision to be realized (Chapter 5).
6. Take a step-by-step approach to realize the value of collaboration through well-structured initiatives (Chapter 6).

The single most valuable takeaway of this effort was the confirmation of the business value of collaboration from the Consortium members' own experience and that the approach captured in the Collaboration Framework has the ability to drive collaboration at any organization, irrespective of industry. The following chapters provide not only a step-by-step approach for making collaboration a reality, they also include examples from Consortium members describing how they are applying the framework to their businesses. Detailed vignettes are included as appendixes, in which Consortium members describe how they are using collaboration to drive business value and advance their business missions. Overall, this report provides an evolving "handbook" that companies can use to capture the value of collaboration to advance their high-priority business objectives.

Notes

[1] Cisco, *Collaboration: The Next Revolution in Productivity and Innovation*, 2008.

Acknowledgments

The Collaboration Consortium would like to acknowledge the follow people for their assistance in the creation and/or support of our first-year efforts:

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http://www.kinesissurvey.com/

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http://andrewmcafee.org/

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http://www.culturalintelligence.org/

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http://www.rand.org/

CHAPTER 1

The Untapped Business Value of New Collaboration

Francois Joanette, SBT Advisors LLC
Brendon Hynes, Collaboration Business Services, Cisco

On the $3.5 billion Kristin platform in the Norwegian Sea, 150 miles offshore, international energy company Statoil produces, by pressure depletion, condensate gas from a reservoir at a depth of 4,500 meters. The reservoir is operated at elevated pressure and temperature; because of these extreme conditions, the risks of accidents and the costs of downtime are high.

A crew of production, maintenance, electrical, and other workers operates in tight quarters to keep the drills drilling and the gas flowing on a routine basis. For safety reasons, the platform operates with the minimum number of people onboard. Non-routine events, for which a particular engineer or technician skill set is needed, do occur, but it is not feasible to have such personnel in place 24/7. However, a delay in accessing specific expertise when it is needed can be extremely costly and even disastrous.

Statoil has found ways to bring specific expertise to the platform when needed through collaborative processes and technologies. A collaboration team of managers and technical staff onshore "lives with" a collaboration team offshore. Lifelike videoconferencing and instant messaging keep the two teams in constant contact. Both teams have access to the same workspaces and streaming data. This tight onshore-offshore integration ensures that competencies are available on-demand, irrespective of time or location—a small, high-performance team is able to operate offshore, at the "edge" of the company, because it is constantly supported by onshore resources. The combined onshore-offshore awareness of all events on the platform helps to ensure that health, safety, and environmental accidents are averted; that the facility is maintained to the highest technical standards; that operational costs are tightly controlled; and that process uptime and availability are maximized.

With this and other types of collaboration under the umbrella of an initiative called Integrated Operations, Statoil and peer energy companies operating on the Norwegian Continental Shelf estimate that, in 2007, they captured benefits worth a net present value of approximately 150 billion Norwegian kroner, or about 24.9 billion U.S. dollars. The benefits that Statoil has gained from collaboration are concrete, tangible, and capturable: Close to 80 percent of the value came from increased reserves and accelerated production, while the remainder resulted from reductions in drilling and operational costs.[1] (A vignette of Statoil's experience with collaboration is provided in Appendix A of this report.)

The kinds of benefits described in the above example are available to most companies when collaboration is aligned with the organization's vision and strategy, is embedded in key business processes, and is implemented carefully—using new collaboration technologies that connect people and allow them to share expertise and information more easily.

Companies already collaborate extensively: Think about the number of face-to-face, email, and phone interactions that happen daily even in smaller companies. What is new, however, is that communication and Web 2.0 technologies (see text box) make possible new ways of sharing information and deploying expertise to achieve step-function improvements in business performance and to create new business value. Many leaders are aware of these tools and intrigued by their potential, yet unsure how they apply to corporate, public, and nonprofit organizations and how they can drive value. Especially in today's economic environment, executives are reluctant to spend money without the prospect of a strong return on investment. They are looking for a structured approach that will allow them to capture the benefits of new kinds of collaboration while minimizing the risk of investment.

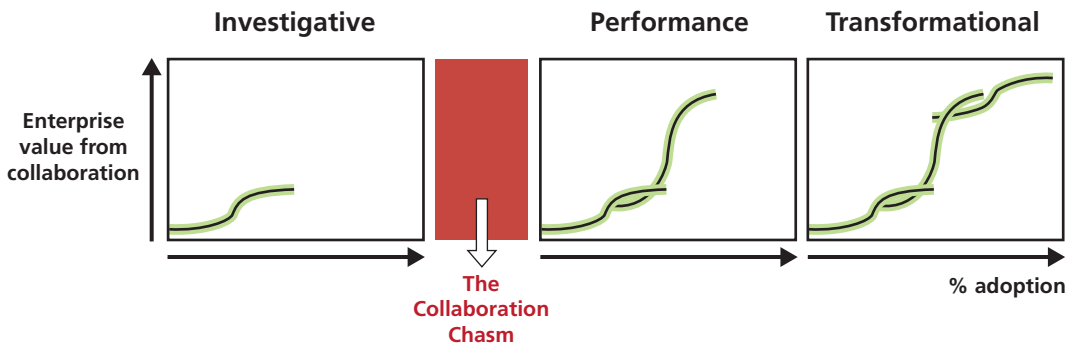
Fortunately, the experiences of organizations that are already leveraging new technologies for collaboration provide a roadmap for success and show that the rewards can be great. The combined experience of the organizations in the Collaboration Consortium shows that organizations can move beyond the small-scale use of selected technologies in enclaves of early adopters to embedding collaboration technologies more broadly into business processes and reaching new levels of performance. Some companies are even using these new technologies to transform their businesses.

And while today's extreme economic pressures might seem to present reasons to postpone moves in this direction, these pressures and the other forces at work in today's environment—globalization, innovation, and partnering across organizations—actually drive an increasing need for performance and make the case for capturing the benefits of new collaboration more compelling.

Adopting an Evolutionary Collaboration Strategy

Experience suggests that even those organizations that have embraced collaboration do not capture its full value overnight. Instead, they progress through three stages, in which the organizations derive increasing business value from collaboration. These three stages are part of the collaboration evolution curve (Figure 1.1).

Figure 1.1
The Collaboration Evolution Curve



What is collaboration? What are communications and Web 2.0 technologies?

In this report, we use the term *collaboration* as shorthand to mean people working together, sharing knowledge and expertise enabled by communication and Web 2.0 technologies to create business outcomes.

Communication technologies refers to both non-real-time communication tools, such as voicemail, email, and fax, and real-time communication services, such as instant messaging, presence information, IP telephony, conferencing (video/audio/web), call control, and speech control. *Unified communications* refers to the integration of all of these communication technologies, old and new. According to Wikipedia, unified communications "is not a single product, but a set of products that provides a consistent user interface and user experience across multiple devices and media types."[2]

Web 2.0 is a set of technologies that facilitate collaboration on the World Wide Web. According to Wikipedia,

> Web 2.0 applications facilitate interactive information sharing, interoperability, user-centered design, and collaboration on the World Wide Web. Examples of Web 2.0 include web-based communities, hosted services, web applications, social-networking sites, video-sharing sites, wikis, blogs, mashups, and folksonomies [collaborative tagging]. A Web 2.0 site allows its users to interact with other users or to change website content, in contrast to non-interactive websites where users are limited to the passive viewing of information that is provided to them.[3]

Web 2.0 technologies facilitate interactions either in real time (live)—as with audio, video, and web conferencing—or asynchronously (sequentially)—as with wikis, blogs, communities, document sharing, and social networking.

The three stages are as follows:

- **Investigative:** Typically, use of collaboration technologies in an organization begins when people who enjoy experimenting with technology identify points in their own work processes where a Web 2.0 tool may add value, and then try out such a tool, with the goal of improving their own productivity or capturing some other value for themselves or a small number of peers. At this "investigative" phase, individuals or small groups are experimenting with "one tool for one task" (a wiki to gather ideas about new products, for example). Adoption of the technology tends to plateau because the majority of people, who are more pragmatic or conservative about technology, don't perceive that the innovation benefits them (i.e., they don't see "what's in it for me.")
- **Performance:** It is when employees say "this is how I'm doing my job; it makes me more productive and successful" that the organization attains the critical mass of usage to add richness and performance to the processes. It is in this phase, which involves multiple collaboration tools for multiple tasks, that collaboration becomes embedded in business processes and drives performance improvements.

  This is the phase of structured collaboration execution—the point in the evolution when a broad range of employees say, "We (not just one or two people but the entire organization) are going to serve our customers differently." It is at this point that the tech-

nology becomes relevant to people's jobs. There is now a compelling reason to adopt the collaboration technology, because it links business priorities, processes, and key metrics for success. It takes commitment, will, and incentives to make this happen, but the payoff can be great.

- **Transformational:** After improving performance in existing business processes, some organizations use collaboration to create new ways of doing business that were not possible before. This phase, combined with the prior one, enables the greatest improvement in business value.

Many organizations, unfortunately, fail to make it from the investigative to the performance level—instead they find themselves facing a "collaboration chasm" (to build on the terms used by Geoffrey Moore in his book *Crossing the Chasm*[4]), without the capabilities to get across and capture the next level of value from collaboration technologies. It is indeed a leap and an organizational challenge to go from use of a limited number of technologies by early adopters to large-scale adoption by mainstream users.

One aspect of the difficulty is that using similar technologies in one's personal life (e.g., social networking or instant messaging) doesn't necessarily transfer to use in the workplace, in part because of the legal, cultural, business, productivity, performance, and deadline constraints of the workplace. In the words of Ray Ozzie, Chief Software Architect at Microsoft,

> When you throw organizational dynamics into the mix, communication tools in organizations are dramatically different, because there is a chilling effect if you say something bad in an organization. There are actually repercussions to saying something bad. Many businesses are regulated. Companies are accountable for the behaviors of their employees. So the nature of the tools is different.[5]

Undoubtedly, there is also a generational aspect to the chasm—newer employees are more comfortable adopting new technologies. For example, online teens (12 to 17 years old) and "Gen Y" users (18 to 32 years old) are more likely to use social networking sites, create a social network site profile, and create blogs compared with older users—usage by age segment in those categories significantly drops with "Gen X" users (33 to 44 years old).[6] Of course, this generational gap will be less of an issue as time goes on, but waiting years to embrace collaboration technologies is a risky strategy, given the forces demanding competitiveness today.

As organizations evolve beyond bottom-up investigations of collaboration technologies and begin to embed them into their business processes, people begin to see the potentially high value they offer. To marshal this energy and ensure that the momentum is maintained along the collaboration evolution curve, organizations must develop clarity about their own use of collaboration to drive business value and implement the appropriate collaboration capabilities and other enablers to sustain the collaboration environment.

Achieving Major Benefits from Collaboration with a Collaboration Framework

The insights from organizations that are achieving major benefits from collaboration are the core of this report and have been codified into the Collaboration Framework to help compa-

nies on the journey to become collaborative enterprises. The Collaboration Framework consists of two components: the Collaboration Vision and Strategy component, and a second component that consists of three organization enablers (Figure 1.2).

Figure 1.2
The Collaboration Framework

First, the framework's Collaboration Vision and Strategy component articulates where collaboration drives business value and how to capture it. It ensures that collaboration efforts are aligned with the business vision and strategy of the organization. The collaboration *vision*, or strategic intent, explains how collaboration helps an organization to achieve its three-to-five-year business vision and, at a high level, how it creates business value. The collaboration *strategy* outlines the sequence and types of collaboration actions that are required to capture the business value of collaboration. Implementation of the strategy is done through a collaboration operational plan, which describes in detail the future state of business processes targeted for performance improvement via collaboration.

The second component is the set of organizational enablers required to foster and sustain the value of collaboration. This set includes three elements:

- **People and culture.** This is the human element of collaboration. It describes the approaches to foster desired collaborative behaviors. Examples of "soft" and "hard" issues to address for this element include management and execution guiding principles, employee workspace policies, the collaboration profile of employees, and individual performance metrics.
- **Process and governance.** This is the set of business systems to implement and manage collaboration. It includes the internal business model to operationalize collaboration—staffing and funding, support services, and the change management approach—and the organizational model that internally governs the evolution of collaboration.
- **Technology.** This element describes what collaboration technologies are required, how they will be evaluated and introduced, and how they will integrate with and be supported by the broader technology architecture.

The next chapters share our detailed insights about the components of the Collaboration Framework. Chapter 2 outlines an approach to set the direction for collaboration, and Chapters 3, 4, and 5 describe the enablers necessary to help ensure that an organization captures the benefits it envisions.

Notes

[1] "Integrated Operations at Kristin," *Digital Energy Journal*, November–December 2007; "Oppdatert verdipotensiale for Integrerte Operasjoner pa norsk sokkel," October 2007; "Integrerte Operasjoner Akselert utvikling pa norsk sokkel," *Oileindustriens Landsforening*, November 2007.

[2] Wikipedia, "Unified Communications," 2009: http://en.wikipedia.org/wiki/Unified_communications

[3] Wikipedia, "Web 2.0," 2009: http://en.wikipedia.org/wiki/Web_2.0

[4] Geoffrey A. Moore, *Crossing the Chasm: Marketing and Selling High-Tech Products to Mainstream Customers*, New York: HarperBusiness, 1991.

[5] Remarks by Ray Ozzie, Chief Software Architect, Microsoft, on the potential of cloud computing, Churchill Club, San Jose, California, June 4, 2009.

[6] From the results of the Pew Internet and American Life Project, January 28, 2009.

CHAPTER 2

Setting the Direction for Collaboration

Francois Joanette, SBT Advisors LLC
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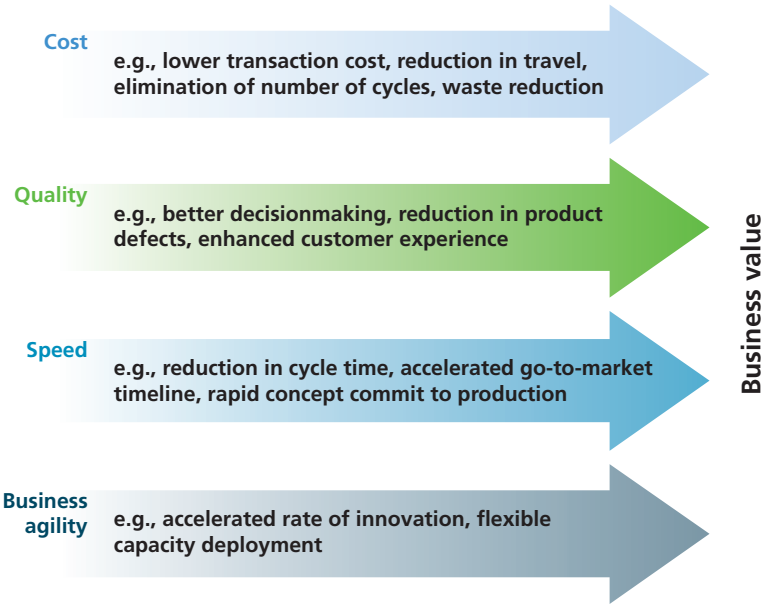
Vidar Hepso, Statoil and BI Norway School of Management

What should collaboration do for an organization to ensure predictable business performance? There is no single answer to this question—other than that collaboration should support the organization's strategy. To capture the value of collaboration, deciding on the intent of collaboration, or the collaboration *vision*, is the first step. Once the vision is defined, the organization can identify its "collaboration impact zones," set its priorities, and develop a collaboration strategy. In addition, organizations that are already in the performance phase must constantly fine-tune their approach to collaboration to capture emerging results.

Aligning Collaboration Vision with Business Vision and Strategy

There are four major benefits to collaboration: reducing costs, enhancing quality, accelerating speed, and creating business agility (Figure 2.1). For a company in survival mode, collaboration can help reduce costs and sustain the business. A company on firmer ground can use col-

Figure 2.1
The Business Value of Collaboration



laboration to increase the speed of product delivery (for example, by reducing decisionmaking time or time to market). Another may focus on enhancing the quality of deliverables (again, decisions or products) or creating a new strategic capability, such as the ability to redirect an organization rapidly in response to market changes. An organization with a strong balance sheet may be able to emphasize all four goals. In fact, in a down market like today's, a strong company that invests in collaboration may be able to redesign business processes and create new ones to differentiate themselves and benefit from the recovery when it comes.

There is no generic collaboration vision; instead, each organization must align its vision with its own goals. Shaping a collaboration vision should be a conscious decision to create a platform to drive business performance.

How does an organization develop its collaboration vision? The examples below, from three different organizations, illustrate the alignment between collaboration and an organization's objectives. Each example illustrates the relationship between the strategy of the organization and collaboration, provides examples of collaboration initiatives, and highlights the business impact of collaboration.

- **Statoil.** The fruits of Statoil's collaboration efforts were described in the opening paragraphs of Chapter 1. To achieve these results, Statoil's top management projected its business 20 years in the future. With oil production from its current assets on the Norwegian continental shelf declining, the company knew it needed more efficient production processes, and leaders at Statoil determined that collaboration would enable them to reach this goal. The company launched its Integrated Operations initiative in 2004, formalizing early initiatives led by a cadre of leaders who had seen the business value potential from collaboration a few years earlier. From the onset, Integrated Operations aimed to redesign business processes involving both onshore and offshore organizations—for example, well planning and preparation—eventually including processes that reach out to the company's partners.[1] Today, cost reduction, improved quality of execution, and acceleration of results are driving Statoil's business value. Its pioneering collaboration effort was the catalyst for these improvements. (Statoil's collaboration efforts are described in more detail in Appendix A.)
- **Wipro.** Wipro is a leading provider of information technology, business process outsourcing, and product engineering services to customers globally. Over the 2005–2009 period, Wipro's top line more than tripled to $5 billion, and it has close to 100,000 employees.[2] The combination of a young and talented workforce, a highly matrixed organization, and a client-driven culture makes collaboration not only pervasive across the company, but also necessary. One of the business competencies Wipro built to support its high growth rate is talent management and transformation, which develops the skills of its employees and ensures an appropriate supply of qualified candidates for employment. For example, Wipro launched its Magnum Opus program to involve high-quality undergraduate students in virtual teams with Wipro architects on Wipro projects, and it launched the Wipro Academy of Software program to create opportunities for bachelor of sciences graduates to work on live projects and receive weekend training leading to graduate degrees.

  The collaboration between Wipro and academic institutions enabled Wipro to grow its skill base in close partnership with India's leading academic institutions. The programs combine traditional face-to-face interactions with video and e-learning technologies to ensure their effectiveness. (A more detailed description of Wipro's programs can be found

in Appendix B of this report.) As a result, collaboration has been a key enabler to support a top business priority core to Wipro's growth.

- **The Government of Canada.** The Government of Canada has 250,000 public service employees to serve the needs of a population distributed over an immense geography—Canada is the world's second largest country. To ensure that its civil servants have the skills and knowledge to do their jobs, the government regularly holds orientation and training programs in training centers located around the country. In 2006, to complement the formal training programs and create opportunities for ongoing professional development, the Canada School of Public Service launched an initiative to promote and implement communities of practice and social learning approaches within the public service. At the beginning of 2009, there were over 55 private communities of practice gathering 2,220 active members, which have posted 25,000 learning objects. Each community of practice—the Canadian Health Agency, Heritage Canada, and Natural Resources Canada, for example—enables its members to discuss with peers and share knowledge through collaboration spaces; search, access, and re-use knowledge objects; identify and use the services of experienced facilitators and experts; and provide a searchable database of expertise. The Government of Canada is exploring how to leverage its internal experience to enable its external mission with the Canadian population. Communities of practice have enabled the Government of Canada to reduce costs while enhancing the skills of its workforce to deliver on its missions. (A more detailed description of these examples can be found in Appendix C of this report.)

The examples show alignment between a top priority of an organization and its use of collaboration: increasing the yield of the exploration and production processes at Statoil to meet future production targets, growing a high-quality workforce in Wipro's service business to sustain its rapid global business growth, and reducing the cost of delivery of Government of Canada services while maintaining and even enhancing service quality. The objectives of collaboration in the examples reflect the difference in organizational priorities. However, these organizations have not accidentally reached a stage at which they derive tangible business value from collaboration; they have made conscious choices to link collaboration with business imperatives.

The process of aligning collaboration with an organization's strategy is an ongoing activity as business priorities evolve with a changing environment. However, the process of alignment is especially important for organizations that are in the investigative phase and are transitioning to the performance stage. By definition, collaboration in the investigative phase is more bottom-up and organic, largely driven by the trailblazing initiatives of early adopters. Carefully shaping a subset of collaboration initiatives in a top-down fashion to align them with business priorities provides the required structure to scale up an organization's efforts into the performance stage. The top-down structure and focus on *structured* initiatives does not preclude deriving learning benefits from *investigative* initiatives. Some initiatives can remain investigative in nature, but others are structured in a top-down fashion for better alignment to either one or more business priorities to deliver organization-wide performance.

Once an organization is clear on its collaboration vision, choices must be made to translate that intent into a collaboration strategy: Where will collaboration have the greatest impact? Where should we invest first? How should we proceed? How will we measure impact? These choices can be made by identifying opportunities and setting priorities (see text box).

How should an organization start aligning collaboration with its business strategy?

The alignment process should start by engaging the senior leadership on the value of collaboration. For some organizations, an informal conversational style might be more appropriate, while in others—those with a geographically dispersed leadership, for example—a few questions in a survey format might be more appropriate. Irrespective of format, consider the following questions to start the alignment process:

- What are the most important business objectives in the next year to three years? In which areas within the organization do you see the need for increased collaboration?
- How would collaboration in these areas further the organization's overall business objectives? Is there a plan in place to leverage the value of collaboration?
- What, if any, are the major barriers to effective collaboration within the organization?
- What processes, programs, or roles are in place to define the collaboration vision and execute the collaboration strategy?
- What should be the top priority for immediate implementation?

Appendixes D and E include a more complete discussion of the alignment conversation as applied at the RAND Corporation and Cisco. An example of an interview guide and survey for executives to help organizations in alignment discussions is included in the toolkit at http://www.sbtadvisors.com/collaborationconsortium.

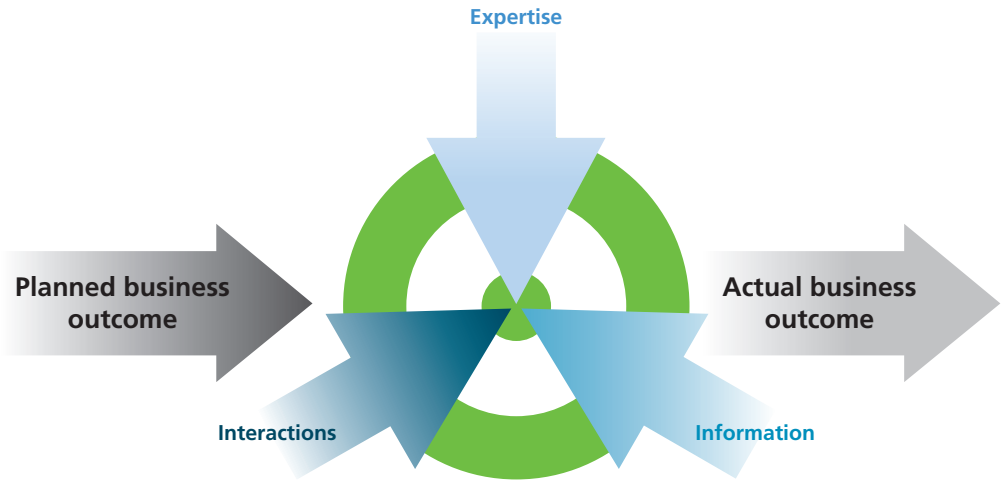
Identifying Collaboration Impact Zones

The greatest payoff from an investment in collaboration comes where people and content intersect, whether in real time, asynchronously, or both. Collaboration drives the greatest value where there is a high concentration of (1) interaction—for example, in-person meetings, phone conversations, or project teams; (2) expertise—an exchange of tacit knowledge or expertise, such as an executive, knowledge worker, or specialist might have; and (3) information—as found in databases, working documents, and archives.

Those junctures where interactions and the exchange of expertise and information are frequent, urgent, and complex are what we call "collaboration impact zones" (Figure 2.2). Collaboration impact zones help an organization focus on the right areas of collaboration to ensure that the financial return of collaboration is greater that the associated opportunity and collaboration costs.[3] Collaboration impact zones can be focused either on internal operations, such as in Statoil's production processes, or on external operations, i.e., processes through which an organization connects externally with customers and through which collaboration can have a positive impact on sales, customer experience, and the value of a brand.

What does a collaboration impact zone look like? Examples from three different organizations will help make this concept more tangible. Each example illustrates the three components of a collaboration impact zone: (1) the part of a business process in which there is a high concentration of expertise, information, and interactions required to deliver the process outputs, (2) the communication and collaboration tools deployed to enable collaboration, and (3) the business impact, as measured through the metrics of the business process impacted by collaboration.

Figure 2.2
Collaboration Impact Zones



- **Cisco.** Cisco used collaboration to enhance customer experience within the sales process of the U.S. and Canadian theater, without having to substantially increase the number of systems engineers in support of its account managers. In a traditional geography-focused sales model, Cisco would have needed more systems engineers at points of interaction where tacit knowledge of its systems engineers and access to product information were needed.

  Instead, the company redesigned the sales support business process by migrating from a geographical to a virtualized service model, allowing systems engineers to provide national in addition to local coverage. This "virtualized" model brings systems engineers to customers via either desktop videoconference or high-definition videoconference sessions in Cisco's network of conference rooms throughout the United States and Canada. The new model encouraged subspecialization among systems engineers, who now can respond according to their expertise rather than being limited by their geographical availability. Cisco also created a rapid-response desk in which systems engineers are located via their presence status for on-demand access—such as through instant messaging and unified communications—complemented by online wikis and discussion boards.

  Cisco's results have been striking: Customer and partner "touch points" have increased substantially, while travel costs have declined and productivity and customer and employee satisfaction have significantly increased. (A more detailed description of these examples can be found in Appendix E of this report.)
- **Renault SA.** Renault SA is a company based in France that designs, manufactures, and markets passenger cars and commercial vehicles under the Renault, Renault Samsung Motors, and Dacia brands. Leveraging its strong presence in the French and European markets, Renault is expanding around the globe and is leveraging talent and expertise in local markets. In recent years, Renault SA has built an international network of engineering centers, including Renault technology centers in Brazil, Romania, Spain, South

Korea (with Samsung), and India, in addition to Renault's Technocentre in France, which remains the company's engineering headquarters.

The expansion of engineering centers on a global basis has spurred the need to use communications and Web 2.0 tools to enable collaboration between employees located in engineering centers and plants around the world to access engineering expertise, share information, and accelerate interactions to reduce development cycles. To capture those collaboration impact zones, Renault launched eRoom and eConf in 2003–2004; eRoom is an online document-sharing tool, and eConf enables online meetings with document- and application-sharing.

The primary and by far the most dominant driver for adoption has been travel cost reduction. All internal departments and organizations interested in deploying Renault's eRoom and eConf must justify deployment on the basis of travel cost reduction—time savings amounting to full-time equivalents are excluded from ROI calculations. As a result, collaboration at Renault enabled its globalization effort while simultaneously yielding substantial travel cost reduction. (A more detailed description of Renault SA's collaboration efforts can be found in Appendix F of this report.)

Both companies identified part of a business process in which a high concentration of interaction, expertise, and information is required to deliver the business process outputs. In the case of Cisco, the interaction of a systems engineer whose tacit knowledge is required on-demand is the collaboration impact zone. For Renault, the interactions between engineers, whose knowledge and expertise are required in either the design or manufacturing processes, are the collaboration impact zones. In both cases, there are immediate business benefits: Renault drove cost reduction, while Cisco enabled a new service model that increased expert productivity and customer satisfaction.

In both examples, the collaboration tools are adapted to the requirements of the collaboration impact zones. Two tools (eRoom and eConf) enable Renault to capture the benefits of its collaboration impact zones, while Cisco deployed a broader suite of collaboration tools, ultimately developing a customized application integrating multiple collaboration tools to create a positive user experience to ensure high adoption. From these examples and others, the good news for organizations is that collaboration impact zones and their associated collaboration tools for one business process are typically applicable to other business processes. Over time, it is no longer about solving one zone at a time—patterns emerge, and tools are re-used.

Other organizations' collaboration impact zones may be similar to these examples, or they may be quite different. An organization can begin the process of identifying its impact zones by developing hypotheses about what parts of the processes need performance improvements, then taking "deeper dives" to validate whether collaboration at those points can drive business value. (See text box.)

As our examples make clear, one of the great benefits of collaboration technologies is that they empower people to solve problems and eliminate the intermediaries of hierarchy and time. These technologies help connect the people who have specific information and expertise with those who need it: People on the front line can access the expertise or information they need instantly, instead of reporting a problem and waiting for it to go up the chain, over to an expert at another location, and back, with delays throughout the process. Human latency in business processes is removed, time is saved, and better decisions are made. Statoil refers to this new state of work processes as *self-synchronization*, defined as the empowerment of front-line

What are your organization's collaboration impact zones?

Business processes associated with top business priorities are the places to start looking for collaboration impact zones. For example, if reducing supplier costs is a business priority, the supply chain process should be the starting point. To find your organization's collaboration impact zones, consider the following questions:

- What are your business priorities, and what processes are closely related?
- What are the outputs of those processes? What are the performance metrics?
- How can the business process's performance be improved? What are the pain points or potential areas of opportunity to improve the performance?
- For those pain points or opportunities, what are the key interactions? Who interacts, how, and how frequently? What expertise is required? Where does it reside? What information is exchanged? How urgently is it required?
- Ask, "What if?"—For example, what if interactions could happen 24/7? What if expertise could be available on-demand? What if information could be readily accessible? What if people from various parts of the business process could openly solve problems together in real time? What if customers could provide input or co-design?
- What is the value of the relevant "what if" scenarios? What is gained in terms of cost, quality, speed, and business agility?

employees to operate as autonomously as possible by giving them the latitude to plan and execute their tasks based on their awareness of a situation.[4] A collaboration impact zone is where self-synchronization drives business value.

Setting Collaboration Priorities

While collaboration leverages knowledge and skills throughout an organization and empowers front-line workers, decisions about which collaboration impact zones to invest in must be made and owned by business leaders and other key stakeholders, in alignment with the business strategy. These are strategic decisions with business-changing results and, for some, big price tags. Thus, they require top management perspectives on business priorities. Key business leaders, in consultation with the CIO, must determine what those processes are, what the potential collaboration impact zones within those processes are, and what their priorities should be.

Traditional approaches to prioritization—such as plotting all potential collaboration impact zones on a prioritization matrix whose axes combine business value and ease of capture—can be useful here. In addition, since collaboration creates shifts in the organizational mindset, it is useful to consider criteria that take into account the human behavioral aspects of collaboration:

- **Reach:** Will collaboration in a given process help you reach the right communities and the right experts from both inside and outside the organization, even those you don't know exist today? Will it help you access the "wisdom of the crowds," your customers or potential customers, who can add to your bottom line? For example, thinking broadly

about knowledge networks can lead to innovative ways to co-design new products or services with customers.

- **Richness:** Will collaboration enable you to bring new ideas to life and help people interpret, understand, learn, and contribute to each deliverable in a business process? Will it tap into existing information or expertise that is not easily available today? For example, querying a large community of practices on a decision may rapidly yield a richness of insights well beyond those provided by a small circle of advisors.
- **Openness:** Will collaboration make it easy to bring the best people into a key business process and to collect the best-quality inputs? Will it take you beyond the organization's real or virtual walls to leverage user-generated content? Can people easily contribute if they so desire? For example, making collaborative interactions visible to a broader community has a viral effect, which encourages others to contribute.
- **Speed:** Will collaboration shorten cycle time to deliver the outputs of a business process? Will it create a moderate boost to performance? Or will it create disruptive innovation for an organization to gain competitive differentiation?[5]

Once the prioritization of the collaboration impact zones is complete, an organization has all of the pieces to assemble the collaboration strategy. The collaboration strategy consists of (1) an intent for collaboration aligned with the business priorities, (2) a set of targeted processes with prioritized collaboration impact zones arrayed in an implementation sequence, and (3) business performance metrics. The collaboration strategy may combine *structured* collaboration initiatives in some parts of the organization and *investigative* initiatives in others. The structured collaboration efforts scale up the benefits of collaboration organization-wide, enabling "collaboration chasm crossing." The approach is replicated across a broader organizational scope for further success. As all readers know, this is simpler to write than to execute—we are intentionally oversimplifying here, to illustrate the overall process of progressing from the left-hand to the right-hand side of the collaboration evolution curve.

For those organizations well down the path toward being a collaborative enterprise, what happens once they cross the collaboration chasm to the performance stage?

Managing Collaboration in the Performance Phase: "Management by Cultivation"

The prior sections describe the process of collaboration business-technology "strategic alignment"—where *alignment* is defined as bringing key elements into proper coordination, agreement, and close cooperation. By focusing collaboration on the areas of highest business value, prioritizing the collaboration impact zones, and shaping a collaboration strategy aligned with the business priorities, the linkages between an organization's competitive environment and collaboration technologies position an organization to drive business performance and even achieve competitive advantage. This means implementing collaborative technology with the aim of integrating and developing business strategies and corporate goals. The process of strategic alignment is critical for an organization to transition from the investigative to the performance stage.

However, managers of organizations that have pioneered the use of collaboration technologies and whose organizations are well into the performance stage advise those who follow

in their footsteps to be prepared to listen to and learn from the organization, to give things time, and to expect a "learning loop" as, for example, the frequency of horizontal interactions increases, often exponentially. Keep in mind that, as interactions are facilitated and expertise and information are accessed more easily and by more people throughout and beyond an organization, there will be changes in the way people behave and relate to each other. Things that managers once controlled will be out of their hands. Classic hierarchical structures, functional silos, and linear models of alignment may need to give way to more horizontal organizational models and information flows. Some Statoil leaders, referring to the Integrated Operations initiative, use a gardening metaphor, describing an evolution from the business technology strategic alignment approach toward "management by cultivation."

In the paragraphs that follow, we describe the experience of Statoil in evolving the strategic alignment approach in the performance phase by incorporating a "management by cultivation" approach; the section concludes with key takeaways.

The strategic-alignment model was very influential when Statoil developed its collaboration strategy and infrastructure in the late 1990s. It allowed the company to align the business impact of collaboration with its needs for more efficient exploration and production processes, and to capture significant business value through its Integrated Operations initiative. However, several years into its performance stage, Statoil found out that relying exclusively on a strategic alignment model had shortcomings. The strategic alignment model did not capture the full real-life experience in the company. Several studies from Statoil in concert with other organizations on the practice of IT-business strategy and collaboration technology yielded new insights in managing the performance stage.

Statoil started to encounter the types of situations described in the following quote:

> If we listen to the everyday conversations of managers we do hear the familiar terms of strategy, product/markets, and even alignment of systems and administrative structures. They can be interviewed on such topics, and some of their statements even lead to measures on a Likert scale [Note: the level of agreement to a statement used in questionnaire]. But, beyond their espoused views, we can observe phenomena such as: plans keep being diverted, surprises arise constantly, opportunistic adjustments must be carried out on the spur of the moment, so that planning is espoused while circumstances compel managers to improvise.[6]

Those situations initiated a process in which Statoil's Integrated Operations leaders became more critical of an ideal world of "how things should be" and started to shape their effort on "what was observed." Surprises or unforeseen consequences during implementation of collaboration technologies were the standard, not the exception. The combination of Statoil's extensive experience with Lotus Notes—of which the company was one of the world's largest users—and lessons learned with collaboration technologies yielded the following observations:

- **Measurement challenges:** Statoil found that it lacked a way to measure whether strategic alignment existed, the strength of its alignment, and how the various parts of the strategic alignment model influenced each other. Also, it realized that, with successful adoption, collaboration technologies increasingly became integrated into other social arrangements, institutions, and other key infrastructure technologies, such as Enterprise Resource Planning (ERP) and intranets. This network of human and technical components became very complex and was not measurable.

- **Successful adoption, lack of visibility:** With increasing adoption in the performance stage, the collaboration platform became increasingly invisible and transparent, and the more it was able to support the business, the more invisible it became. Success of widespread adoption meant that the collaboration technology became increasingly embedded in daily practices and conventions, and collaboration tools became integral to these practices. However, the collaboration platform's lack of visibility made it difficult to control its deployment; increasingly, collaboration technology only became visible during breakdowns, a dynamic well known to CIOs managing widely adopted technologies.
- **Installed base momentum:** Successful adoption leads to the collaboration infrastructure maturing from an "emergent technology" to an "installed base," and installed bases tend to have lives of their own. Large collaboration technology/infrastructure investments, such as Lotus Notes and SAP, created path dependency—a growing installed base of collaborative tools that made it difficult to change direction. In a similar fashion, large-scale deployments of the collaboration infrastructure have an almost irreversible effect—as an anecdote, for example, while Statoil decided to remove Lotus Notes/Domino in 2003, it is still an important backbone of its intranet infrastructure even though it is no longer an officially supported platform.
- **Shared ownership:** Several stakeholders were involved in development of the collaborative platform, and no single stakeholder group controlled it. Competing priorities during the planning process and the implementation became more evident as the platform grew in use.

For these reasons, Statoil embraced the notion of cultivation,[7] which takes into account the dynamic interaction between current strategy and future technology. Statoil works under the assumption that collaboration technology is deployed for business reasons, but often in unplanned ways and with much greater functionalities than necessary to meet immediate needs. Cultivation is based on frequent misalignment and misfit, since the potential for the deployed collaboration technology is greater and, in most cases, is something different than originally foreseen or planned in the internal or external needs analysis during the strategic alignment. This also brought forward a different concept of collaboration technology at Statoil: Collaboration technology cannot be instrumentally controlled; it acts more like an organism with a life of its own.

Statoil's cultivation approach builds on an understanding that a change in a system can only be undertaken indirectly, since human systems are complex and do not respond in a linear and simple cause-and-effect way. The cultivator as a manager is like the gardener who does not control the growth of the flowers or vegetables—since the mechanism for growth is embedded in the flower or vegetable in itself. The gardener facilitates the growth process indirectly by providing sun and nutrition and removing weeds. Likewise, for management, many of the collaboration processes associated with collaboration impact zones are of a complex nature. A company accumulates various unutilized resources, often unintentionally, as it grows, and these resources represent potential for further growth through new, usually unplanned, recombination.

Statoil's insights have been gathered from business leaders, technologists, and social scientists working together for more than a decade. Their combined efforts yield the following advice for all organizations.

First, organizations should consider the cultivation approach as a natural extension of the business-IT collaboration alignment. As a change leader, you should be mindful of the cultivation approach from the onset. However, an organization cultivating while investigating will not cross the collaboration chasm, as it needs to first define what the garden looks like prior to cultivating. If your organization is either in the investigative or the early performance stage, the business-collaboration alignment provides the necessary structure and focus for your organization to create the internal momentum for change, create the compelling business cases for adoption, and capture significant business value. Cultivation is more relevant when an organization is in the performance stage. As collaboration practices and tools are embedded in employees' daily lives and business processes—as they should be in the performance phase—you should be cultivating to sustain ongoing adoption and set the conditions for your users to discover new ways of driving business value beyond what was originally planned.

Second, the cultivation approach requires close collaboration between business and technology leaders. In the performance phase, collaboration tools evolve in a business performance platform. This platform is not only a set of capabilities creating immediate business value from current business process performance; it should also create option value through its flexibility to support future business directions, including network effects from leveraging business partners. Future business innovation and the network effects are "known unknowns": They will impact an organization, but their exact nature and timing cannot be predicted. For this reason, business and technology leaders must "cultivate" together. Business leaders must understand the high-level functionality of the tools and their potential for business innovation, while technology leaders must introduce capabilities that not only are operationally scalable, but also are flexible enough to support future business innovation.

As more and more organizations proceed down the path toward collaborative enterprises, new patterns of evolution are likely to emerge. Their future codification will help leaders choose the right path for their organizations.

Summary

This chapter has provided an approach for business and technology leaders to develop a mental map of where they are and what collaboration will accomplish. The next chapters outline how organizations can plan to put in place the organizational capabilities that will ensure that the value of collaboration is captured.

Notes

[1] Norwegian Oil Industry Association, "Integrated Work Processes: Future Work Processes on the Norwegian Continental Shelf," October 2005.

[2] Wipro, *2008–2009 Annual Report*.

[3] This notion of collaboration premium—defined as the difference between the projected financial return of collaboration and its costs—is discussed in Morten T. Hansen, "When Internal Collaboration Is Bad for Your Company," *Harvard Business Review*, April 2009.

[4] Dr. Vidar Hepso of Statoil and his colleagues discuss this notion in P. Naesje, Kari Skarholt, Vidar Hepso, and Arne S. Bye, "Empowering Operations and Maintenance: Safe Operations with the 'One Directed Team' Organizational Model at the Kristin Asset," in Sebastián Martorell, Carlos Guedes Soares, and Julie Barnett, eds., *Safety, Reliability and Risk Analysis: Theory, Methods and Applications*, London: Taylor & Francis Group, 2009, pp. 1407–1414.

[5] The authors thank Cisco's Internet Business Solutions Group for identifying these four prioritization criteria.

[6] C. Ciborra, "De Profundis? Deconstructing the Concept of Strategic Alignment," *Scandinavian Journal of Information Systems*, Vol. 9, No. 1, 1997, p. 72.

[7] Ciborra, 1997.

CHAPTER 3

Selecting the Right Collaboration Framework: Process and Governance

Felicia Brych, Collaboration Business Services, Cisco

The Collaboration Consortium Working Groups were focused on several priorities through the first year, one of them being new business models for collaboration. This chapter is a consolidation of the thinking and work from the Business Model subgroup (see Appendix H for membership list). The subgroup produced a Collaboration Checklist of questions that any organization can use to assess its readiness for collaboration and its relative position on the collaboration evolution curve. The checklist is broken down into the Process and Governance, People and Culture, and Technology components of the framework. The content of the checklist does not represent the views from all consortium members, but it is representative of the subgroup's views. This chapter outlines the process and governance components of the checklist, which are necessary to operationalize collaboration and ensure that the value of collaboration is fully captured. The Collaboration Checklist is available in the toolkit folder at http://www.sbtadvisors.com/collaborationconsortium.

When thinking about collaboration strategies and how to implement them, organizations must consider the process, business models, and governance attributes that should be in place to ensure a scalable and successful service offering. Figure 3.1 lists these attributes.

Figure 3.1
Process and Governance Attributes from the Collaboration Framework

As with all components of the Collaboration Framework, a limited number of these process and governance capabilities may be required in the investigative stage of a collaboration strategy. However, as organizations evolve toward the performance and transformational stages, a complete set of capabilities is required to ensure success. This chapter discusses the complete set of process and governance capabilities, keeping in mind that all of them are only required when an organization aspires to move its collaboration strategy into the later stages of the collaboration evolution curve.

Business Planning Methodology

While all organizations have formal business planning processes that identify priorities and allocate resources, a key question to address when developing the Collaboration Framework for an organization is whether collaboration capabilities are leveraged in the course of the planning processes. If the answer is no, the company is in the investigative phase and there is an opportunity to initiate a dialogue on the value that collaboration can generate and its relevance to business process performance.

The initial impetus for introducing collaboration in the business planning process varies. For one Consortium member, a group of line executives took the initiative of driving value from collaboration, and their successes were rolled out company-wide by the top leadership team of the company. For another member, the CEO played a key role in placing collaboration at the heart of the company's new organizational model.

Independent of the starting point, making collaboration an integral input in the business planning process is part of the evolution from the investigative to the transformation phase. In the performance phase, collaboration is included in the planning process for parts of the organization; for organizations that are in or moving toward the transformational phase, collaboration becomes a component in the organization-wide planning process.

Leveraging collaboration as part of the planning process leads to formulating a collaboration strategy and a collaboration framework to operationalize it. These two ingredients are critical for any organization seeking to take full advantage of collaboration capabilities and cross the collaboration chasm.

Organizational Model

When a business planning methodology centered around collaboration is combined with an organizational model that fosters and supports collaboration, an organization is better able to maximize the business value that can be obtained. As collaboration becomes more pervasive throughout an enterprise, successful companies utilize a cross-functional body or other coordinating mechanisms to evolve their collaboration strategy across the company. The implementation and accountability of initiatives, though, should remain with business stakeholders. Two examples come to mind that demonstrate how collaboration has been embedded within an organizational model and its planning functions.

- **Cisco.** Over the past eight years, Cisco has evolved from a command-and-control leadership model to a cross-functional collaborative model that uses councils, boards, and

working groups for executive decisionmaking, cross-functional alignment, and oversight of business initiatives. This collaborative model is based on three pillars: (1) an organizational structure of councils and boards; (2) an approach to drive business model decisions through vision, strategy, and execution (VSE); and (3) defined market adjacencies to grow new markets and solutions. The cross-functional collaboration model includes an approach, known as C-Change, to document the process and best practices from lessons learned while evolving to this new leadership model. C-Change greatly increases the speed with which cross-functional groups can form, accomplish goals, and then disband when their mission is complete. It provides an effective approach for making decisions, coordinating resources, and tracking accountability. Cisco credits this new model with enabling the company to take on 28 business priorities during the 2009 fiscal year, compared with only two priorities just two years earlier. More information about the Cisco experience is available in Appendix E.

- **Wipro.** Wipro has a matrixed organization, with industry verticals and lines of service as go-to-market axes. The industry verticals are market–facing, and the service lines provide the functional competencies enabling the verticals. Both organizational axes are critical to meet the demands of customers and their businesses. Collaboration strategies are extensively used to enable Wipro's matrixed model. Collaboration initiatives are central to how Wipro does business, and they are linked to overall business goals. Collaboration initiatives and business processes are not parallel activities; instead, collaboration initiatives allow Wipro to drive business efficiencies in serving customers. As a result, collaboration is embedded in Wipro's corporate culture and in its day-to-day work. More information about the Wipro experience is available in Appendix B.

Establishing the right organizational model for collaboration requires an executive sponsor, who will champion collaboration among the executive team to support the proposed strategy. Several Consortium members had at least one executive sponsor, frequently a CXO level executive, who championed the collaboration efforts. Often the champion is from IT. However, Consortium members found it most effective when the executive sponsor was from a business function or partnered with IT. For example, Statoil's Integrated Operations (IO) program is led by an IO Council and has a Head of IO Program to ensure executive support and alignment across business functions. These roles are described in more detail in Appendix A. In another example, the Treasury Board Secretariat of Canada's GCPEDIA program used an Interdepartmental Executive Steering Committee to manage the overall governance of the service. The group meets regularly to oversee project development, provide support, and ensure that the benefits of GCPEDIA are disseminated across the Government of Canada. More detail about GCPEDIA is available in Appendix C.

Process Improvement

To ensure success, Consortium members concluded that dedicated resources are required to leverage collaboration in business processes, projects, and programs. For example, members recommend addressing the following two questions: (1) Has the organization made internal services available, such as planning and consulting resources, to provide strategic and tactical assistance to departments and executives? and (2) Is there a client engagement methodology,

consulting resources, and a change management methodology to drive business value? The ability to achieve greater business value or to evolve collaboration across an organization is very limited without the resources to assist internal departments or functions. The following examples demonstrate the role played by support resources.

- **Renault.** Renault's transition to global engineering centers spurred the need to use Web 2.0 and new media tools to enable collaboration between employees located in engineering centers and plants around the world. eRoom (an online document-sharing solution) and eConf (a virtual meeting solution) are two key collaboration tools, first launched in 2003–2004, to address this need for globalizing operations. Part of Renault's collaboration methodology includes an approach to encourage collaboration practices—such as how to manage documents, how to establish communities of practice, and how to share information. The support also includes a consultative group that helps potential users analyze how they currently work together and recommends new work practices enabled by collaboration through eRoom and eConf to improve team effectiveness. With these governance components, the IS team is well positioned to jointly work with business management to formulate an approach to collaboration. While a department's interest in collaboration often initially starts with a request for eRoom, the consultative group ensures that users get the maximum benefits of collaboration and that the tools are tailored to their business needs. More information about Renault's collaboration efforts is included in Appendix F.
- **Canada School of Public Service (CSPS).** The Centre of Expertise in Communities of Practice (CECP) uses a cost-recovery model to provide the consulting services required to ensure successful community implementations. The consulting services cover the Community of Practice (CoP) Process Model, project management, tools, and approaches. The core components of the CoP Process Model define how to create a community, grow the community, and then expand it to ensure that it has the greatest opportunity to succeed. The CECP team also developed a comprehensive evaluation strategy with standard and customized packages to help government organizations assess the value of their communities and identify areas for improvement. Based on the CECP team's experience, it could take as little as four weeks to get a virtual community up and running but as long as 12–18 months to build a community that will add value to the business. The results achieved by the CECP team earned them a prestigious gold medal at the 2009 GTEC Distinction Awards for a national effort in the human dimension category. (GTEC is Canada's Government Technology Event, which brings together public and private sector experts to collaborate on serving citizens better through innovation and technology.) More information about the CECP effort is included in Appendix C.

In the investigative phase, an organization does not need to dedicate resources to collaboration efforts; in fact, the required business process redesign skill set might not even be internally available. Consortium members used a combination of dedicated internal resources and specialized external consultants on early efforts. Those efforts provided a learning ground in which to train internal resources to lead future efforts and scale collaboration organization-wide. The ideal resource team in the transformational stage is a virtual, 24/7 collaboration planning and services resource model, staffed with internal and external experts to ensure the maximum level of business impact for the organization.

Communications

The successful deployment of collaboration strategies requires communication support and services, such as communication planning, creating appropriate awareness and training content, and gathering and responding to feedback. Often this support requires both tactical and strategic elements and requires the use of tools to capture information, such as that from web analytics and surveys.

The communication activities must address how to increase awareness and adoption of the collaboration strategy. Given the social networking aspect of collaboration, these support services include community components to take advantage of early adopters and provide a means to reach a broader audience and increase relevancy.

Consortium members have identified five key questions to address to ensure that an organization has the right communications capabilities in place:

1. Is there a well-defined and published communications strategy and plan, with the necessary services and processes to support that plan?
2. What strategic and tactical communication components are required?
3. Is the organization leveraging early adopters and communities of interest as part of the communication strategy?
4. Are the communication tools most appropriate to deliver the messages, to collect feedback, and to evaluate whether metrics are effectively leveraged?
5. How will internal best practices and success stories be captured and shared?

In member companies such as Cisco and Novartis, the collaboration efforts are actually led out of the Corporate Communications functions in partnership with IT, which helps to ensure that the right communication support capabilities are in place. For example, within Cisco, a Communication Center of Excellence (CCOE) was created several years ago to bring together employees who have a common interest in and commitment to accelerating success in communications and collaboration for the company. The CCOE is described as a town hall for connecting, communicating, collaborating, and learning about how best to employ Web 2.0 technologies, coupled with process and culture, to drive productivity, growth, and innovation at Cisco. More information about Cisco collaboration efforts is included in Appendix E.

Funding and Resource Models

At the onset of collaboration efforts, project teams very frequently face the challenge of developing the business case and creating an appropriate funding model. These teams, often from IT, are usually required to develop a formal business case, with a documented return on investment, as part of securing required resources to deploy a new technology or enable a new service offering.

However, in today's world of Web 2.0 technologies, the process of getting started is slightly easier, as experimentation can begin prior to requiring a formal business case. Members of the Consortium generally agree that experimentation with new technology is the right approach to gather some early feedback through test-and-learn activities. Then, from these efforts, the greatest business opportunities and challenges can be identified, and a formal busi-

ness case with recommended funding and resource models can be proposed to scale the effort across the organization.

- **Treasury Board of Canada Secretariat (TBS).** Over the last several years, the TBS within the Government of Canada (GC) has investigated how to apply Web 2.0 capabilities within a government context to take advantage of the business value that can be realized. One such experiment was a GC-wide wiki in early 2008, now known as GCPEDIA. From a funding and resource perspective, the early experimentation was limited to a smaller group of participants, requiring very little investment to quickly get an environment up and running. Even when the scope was initially expanded to invite broader government communities to participate, GCPEDIA did not require a large formal organization to operate it. It was deployed as an open environment with a limited number of rules, in which communities can form, develop, and share open knowledge. This enabled the environment to scale quickly in the early phases. As further expansion was planned, several operational items were considered. In particular, TBS developed options for a GC-wide hosted wiki/blog service, with a business model that included funding options for participating organizations. There is now work in progress with other levels of government in Canada and abroad to see how GCPEDIA can be leveraged. More information about the TBS experience is available in Appendix C.
- **Canada School of Public Service (CSPS).** Another funding example from the Government of Canada is the Centre of Expertise in Communities of Practice (CECP), mentioned earlier in this chapter. The CECP works on a cost-recovery basis to fund the technology platform and support services, using a subscription fee that is paid by individual departments or organizations wanting to create a community. Once an organization subscribes, it can create any number of subcommunities in the space. The subscription fee covers the resources required to provide and maintain the base service and allows the team to scale as new subcommunities are requested.

Consortium members have identified key questions to consider regarding funding, fixed versus operating requirements, development resources, and ongoing support resources:

- Should the funding model be centralized or decentralized by function, or will a pay-per-use model be more appropriate?
- How will funding need to increase to support scalability?
- What permanent and temporary resource commitments will be required?
- Is there a community model that can help support the effort?

Each of these questions should at least be considered. Each funding and resource situation may be unique, depending on the corporate-level priorities, the business value expected, and even the feedback from early adopters.

Policies and Guidelines

An organizational model for collaboration efforts should revisit existing policies and guidelines to ensure that the old rules are still appropriate in the new Web 2.0 world. For example, policies that pertain to employees' behavior when they are using new technologies internally with other employees, and externally with customers, partners, and resellers, should be put in place.

Encouraging the right collaborative behaviors is important and should be supported through performance reviews and reward systems—for example, appropriately sharing best practices and knowledge with others outside of formal teams.

Other policy examples that should be reviewed include confidentiality policies, particularly for intellectual property, and codes of ethics or conduct to guide public collaboration. Employees must remember to differentiate between social interactions and business interactions. Often, policies are required to help establish the boundaries.

Overall, an organization should determine what policies and guidelines must be in place or considered. One option to address areas of uncertainty is through the creation of a social networking guide, which combines policies and guidelines impacted by social networking into one easy-to-reference document. An example of an Internet Postings Policy created by Cisco for its employees is available at http://blogs.cisco.com/news/comments/ciscos_internet_postings_policy/.

Training and Adoption

The final area of process and governance to be addressed involves the training and effective adoption of new collaboration technologies and services. This can include the use of local champions to become role models for desired behaviors, or it can include the use of incentives and reward systems to motivate employees toward a desired outcome. When considering training and adoption, it is also important to address how best practices are shared across an organization.

Training can be as formal or informal as an organization cares to invest, but should utilize many mediums to provide employees with choices based on their learning preferences. Each organization needs to assess what support services will be required for training, facilitation, and consulting, and whether these services should be available in-house or from an external partner. The following examples demonstrate how organizations are addressing training requirements with current and future employees.

- **Canada School of Public Service (CSPS).** The CECP was cited earlier in this chapter for its approach to process improvement and well-defined funding model. An additional objective of CSPS is to promote and implement social learning approaches within the Public Service of Canada. The school is moving to a blended environment that includes conferences and events, e-learning, webcasts, and collaborative tools to complement the classroom courses already offered to public servants. The Communities of Practice (CoP) program was added as an opportunity for employees to network, collaborate, learn from others, and share their knowledge. The CoP team offers a number of training and support services for new community owners and participants. The presentation and training services include technical training, online CoP facilitation, presentations on concepts and theories, and training on other related collaboration tools. Various tool and support services are also offered for CoP implementation projects. More information about the CECP effort is included in Appendix C.
- **Wipro.** Wipro is recognized for its partnerships with higher education to prepare graduates for future employment and to enable new employees to continue to grow academically. One example is Magnum Opus, which is a mega initiative to train college students in the third year of their engineering degrees using real-life projects with hands-on pro-

gramming and industry experience. The program involves the creation of a big-vision theme to tackle a problem or opportunity, and a Wipro Senior Architect is assigned to define an architecture. Work is divided into manageable projects in each phase of implementation, and students are assigned to a project with a Wipro mentor. The teams are enabled with a combination of technology and processes to enable distributed work. Students learn collaboration practices, tools, and behaviors as part of a real project. Overall, they complete the project and semester with a better understanding of how to apply their academic knowledge and their new collaboration skills in a real business environment.

Adoption efforts should question whether project champions have been identified and supported with the right resources. In the early stages of collaboration, local champions will emerge as a result of their successful experimentation. In later stages, key leaders will emerge who are recognized by peers for their efforts, and they will help establish a new direction. These leaders are role models for others in the organization and will influence their adoption of new behaviors and technologies.

Reward systems are another component that will optimize any adoption effort if employee contributions to a collaborative environment can be more formally recognized. An organization's reward and incentive systems should be designed to promote and support the vision for a collaborative enterprise at the executive, manager, and individual contributor levels. Early adopters and their successes and best practices should be captured and recognized through existing organizational communications vehicles, such as published success stories. In the performance phase of collaboration, adoptions of an organization's collaboration efforts are required elements of an employee performance review cycle, and they are heavily weighted in compensation calculations. In the transformational phase, promotions and bonuses, especially at senior levels, should heavily favor those who leverage collaboration most strategically and effectively.

The final component to ensure effective adoption and training is providing formal mechanisms or forums to ensure that best practices are captured and shared within and across business processes.

This can be accomplished through periodic seminars, knowledge-sharing sites (wikis, blogs), and forums that are widely adopted. This practice should be fully embedded in the corporate culture and also rewarded as part of the performance measurement system. Many of the Consortium member organizations have such mechanisms in place to allow employees to share their experiences.

Summary

The process and governance components of the Collaboration Framework cover the business, organizational, and process models necessary to ensure the successful implementation of your collaboration strategies. These models should consider the planning, organization, process improvement, communication, funding, policy, and training support functions. All functions are not required from the onset of the evolution curve; however, they all need to be in place to enable transition to later phases.

This chapter covers the questions that need to be considered to assess an organization's process and governance readiness. The Collaboration Checklist, which can be found at http://www.sbtadvisors.com/collaborationconsortium, provides a useful tool for conducting this assessment.

CHAPTER 4

Selecting the Right Collaboration Framework: People and Culture

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This chapter summarizes the insights and work from the subgroups tasked with researching the culture, metrics, new collaboration business models, and adoption dimensions of effective collaboration (see Appendix H for membership list). Deliverables produced by the subgroups include a Collaboration Readiness Assessment Survey, from the Culture subgroup; a Readiness Interpretation Guide, from the Metrics subgroup; and a Collaboration Checklist, from the Business Model subgroup. The deliverables from each subgroup do not necessarily represent the views of all Consortium members, but they are representative of the subgroup's view. This chapter covers the thinking and experience with each deliverable. All tools are accessible at http://www.sbtadvisors.com/collaborationconsortium.

The people and culture component of collaboration tends to be perceived as the softest aspect of change and may be the easiest to overlook. However, Consortium members agree that tackling the people and culture component is key to capturing the business value of collaboration. The challenge for most organizations is to evolve from vertical hierarchies of command and control to more horizontal organizations and self-directed teams in which people interact laterally. Rather quickly, this causes organizations to have a combination of vertically organized business units and functions and de facto horizontal collaboration and integration.

For example, employees in one department may end up helping those in another department, perhaps unrelated to their own immediate work but absolutely critical for the organization. The employees offering this help may spend several hours per day in activities that are beyond their organizational unit but have substantive impact on the organization's goals and objectives. The employees may even ask to be partially freed from their usual responsibilities to assist with cross-functional priorities.

Since collaboration enables employees to cut across vertical silos, people practices and cultural values have to reflect a different way of working together. For example, it may be necessary to increase communication to convey the collaboration vision and actions to reinforce it; re-align individual performance metrics, redesign business processes, and review recruiting processes to incorporate collaborative contributions; and deploy programs and tools for employees to assess and grow their collaborative skills. Over time, the organizational structure should be reviewed to formalize emerging reporting lines.

Consortium members identified collaborative behaviors; human resources processes; metrics and measurement systems; and benchmarking as the most important attributes (see Figure 4.1) of the Collaboration Framework to address people and culture, which we discuss in the following paragraphs. Later in this chapter, we describe the Collaboration Readiness Assessment Survey and its Interpretation Guide—tools to help support the required shift in people and culture practices.

Figure 4.1
People and Culture Attributes from the Collaboration Framework

Collaborative Behaviors

When Consortium members discussed the collaborative behaviors and practices necessary for success, they agreed that it is very difficult to confirm whether those behaviors and practices actually exist within an organization and are embedded in its culture. For example, reward systems often create incentives for individual as opposed to collaborative efforts; in another example, subject-matter experts may be reluctant to share information for fear of losing control, and thus the free movement of ideas among them may be limited.

Consortium members generally agree that collaborative practices and organizational values require change or adaptation at all levels—senior leadership, middle management, and the front line. As a starting point, a few Consortium members found it very useful to codify and implement collaboration practices and behaviors at the project team level to facilitate collaboration both within the team and outside the team with stakeholder groups. Once these organization-wide collaboration guidelines and models are documented and implemented, they enable teams to apply them within either existing or new workflows, enabling greater team performance and generating initial change momentum. The following example from Statoil is a good illustration of the pivotal role of collaboration at the team level, which helped in changing the company culture.

Statoil is a leader in the application of collaboration through its Integrated Operations (IO) initiative, which uses real-time communication to improve the efficiency of interaction between disciplines and decisionmakers, regardless of geographical location. For example, the operating model on one of the smaller offshore platforms has two management teams—one onshore and one offshore, each located in a collaboration room with continuous video links between them so the two management teams can see each other at all times. This model enables the platform to operate very close to the minimum number of staff required by law. One central aspect of the safe and effective execution observed onboard the platform is the concept of a "one-directed team," in which the operations crew is empowered and synchronizes

tasks between functions. This model uses empowerment of separate functions and work areas for problem solving and enables shared situational awareness as a means to achieving the operational goals of health and safety, facility uptime, cost control, and awareness of the technical condition of the platform. More information about Statoil's self-synchronization approach is described in Appendix A.

However, while very effective, empowering teams with collaboration creates a new dynamic that should be addressed. When collaboration tools make the activities of front-line employees more transparent to senior leaders, middle managers may feel threatened and may become a stumbling block to change. Middle managers are likely to be the most affected by increased collaboration, and their role of coordinating and aggregating information and options to enable decisionmaking may be greatly reduced by front-line self-synchronization. To address this situation, a manager's role should evolve to be more of a coach and facilitator to ensure that the right resources can be applied to the right priorities at the right time, regardless of functional organization. Talented managers should be given new responsibilities and opportunities to contribute in new ways.

Consortium members also recommend reviewing current policies, incentives, and reward systems to ensure that they are reinforcing the desired behaviors and that misaligned incentives are eliminated. This includes ensuring that employees who contribute to cross-functional priorities managed outside of their home organizational units are recognized and rewarded for their contributions. Employee performance review systems should also capture and recognize collaborative behaviors as part of a core set of organizational capabilities. A Consortium example of a reward system to recognize team collaboration is Cisco's quarterly award for "Collaboration Across Cisco," which recognizes teams who implement Web 2.0 technologies for collaboration with employees, customers, or partners. Employees nominate teams and then vote for the selected finalists.

A final area that Consortium members identified as important to support collaborative behaviors involves change management. An organization's change management process and messaging should include and leverage the collaboration vision established for that organization. They should also scale to address existing processes and to develop new concepts, products, and services.

Human Resource Processes

A second attribute of the people and culture component of the Collaboration Framework is the set of human resource processes that must be enabled or modified to support collaboration readiness at both the individual and organizational level. These processes include recruiting, performance management, training and development, resource allocation, and the physical work environment.

Consortium members that have experience with adapting human resources processes recommend addressing the following questions to help assess whether an organization is leveraging human resources processes to further its collaboration objectives.

Is collaborative behavior a criterion during the recruiting and performance management processes? Some organizations are starting to probe personal collaboration experience during the interview process to understand an individual's predisposition toward contributing in a collaborative environment. It also could involve formal testing of collaborative skills in the context

of projects or business processes to which a future employee might be assigned. Extending the logic, collaborative skills and experience are prerequisites to recruiting, and teams are assembled in ways to optimize collaboration. Performance management processes should document existing collaboration and communication skills and help employees plan how these skills might be enhanced with the relevant job experience and training.

Are programs in place to help employees assess and develop their communication and collaboration skills? In the early stages of the collaboration evolution curve, individual training and development of collaboration and communication skills are often sporadic, uncoordinated efforts taking place in different parts of the organization. As the focus on collaboration matures, systematic approaches should be implemented to help employees develop the necessary skills, and collaboration assessment tools should be made available as part of an annual assessment process. The Collaboration Readiness Assessment Survey described in the last section of this chapter is a tool tested by Consortium members to assist in that endeavor.

Are "collaboration profiles" being used to track employee communication and collaboration skills for resource allocation? A gap analysis between the current and required skills can identify where individual employee training and overall recruiting efforts are required. The end result is the development of a collaboration profile that can be leveraged by both the employees and the organization.

Does the physical work environment need to be modified to reflect the requirements of a collaborative environment? This usually involves a facilities or workplace management function in the planning and implementation effort. Early attempts may involve experimental changes to the physical workspace to tinker with the best ways to enable face-to-face and/or virtual collaboration. With time, the physical work environment should be designed to improve collaboration, and the resulting best practices should be documented and shared throughout the organization. The physical work environment is eventually designed to support both existing and new work processes, with emphasis on flexible group environments and the appropriate technology support.

For example, as part of Statoil's IO program described earlier in this chapter, the company conducted an in-depth investigation of the work processes to identify the activities and functions to be performed on the platform and those that could be executed remotely from an onshore operations center. The management teams now operate out of a virtual collaboration room, with continuous video links between onshore and offshore rooms, so that both teams can see each other at all times. This is an innovative work environment that did not exist at Statoil prior to its IO initiative. (More information about Statoil's IO program is available in Appendix A.)

Consortium members were also interested in exploring tools that would help diagnose the culture of their organizations. While Consortium members ran out of time on this topic and further investigation is much required, one tool investigated by the Culture subgroup was the Cultural Intelligence (CI) model by Elisabeth Plum,which enables teams to bridge and benefit from the cultural complexity of people from different nationalities, work areas, professional backgrounds, personalities, and organizational cultures.[1] CI combines the emotional, cognitive, and practical dimensions of cross-cultural encounters and allows more effective and fulfilling cross-cultural collaboration. More information about CI is available at http://www.culturalintelligence.org/.

Metrics and Measurement Systems

As part of implementing collaboration, members shared how they are grappling with the challenges of measuring the value of collaboration, tracking the return on investment, and linking results to how people are evaluated and rewarded. Early Consortium member insights suggest three areas to explore for those interested in implementing metrics to measure the value of collaboration:

1. Can the organization measure and track collaboration technology awareness, usage, and adoption?
2. Does the organization have the ability to measure the impact of collaboration on business process indicators (BPIs) and business operational metrics, such as cycle time, quality, productivity, customer satisfaction, and innovation rate?
3. Does the organization quantify the impact of collaboration on business value and operational goals?

The measures of awareness, usage, and adoption, such as counts, hits, and coverage, track how broadly the tools are being rolled out and how often they are being used. Specific metrics may include the numbers of communities and of individuals participating in communities, the number of videos recorded or blog posts, and the number of tool downloads. They provide the most immediate and direct way to gauge adoption and should be implemented from the onset in the investigative stage.

For example, the Government of Canada's Treasury Board Secretariat (GOC's TBS) is extensively using usage and adoption metrics to track progress of its major collaboration initiatives. Starting with the early proof of concept (POC) for a government-wide wiki, GOC's TBS captured usage and adoption metrics to gauge adoption and shape its program. The POC evolved into GCPEDIA, the adoption of which was hugely successful, with more than 9,400 registered users as of October 30, 2009, and growth at the rate of more than 300 new users per week. It included hundreds of communities of interest, some 28,000 total pages, and about 1.5 million page views. The ever-increasing level of uptake demonstrates that public servants recognized the value of this tool to their work: extending the influence of individual employees beyond departmental borders to all of government, and enabling greater communities of interest and innovation. (Additional information about GCPEDIA metrics is available in Appendix C.)

Organizations that have deployed and are using adoption and usage metrics have found them very useful; they are "must-have" metrics for anybody going down the path of collaboration. However, the emerging perspective is that, while they provide circumstantial evidence of the value of collaboration, these metrics fall short of providing a direct measure of business impact. In early but promising efforts, some organizations are tracking qualitative indicators of collaboration through surveys and focus groups. For example, Consortium members have explored the use of the Collaboration Readiness Assessment Survey to track progress and develop internal benchmarks against key organizational attributes of collaboration. Others are starting to establish cause-and-effect linkages with business metrics, and these organizations see those linkages as absolutely essential for business and IT leaders to make investment decisions and to understand whether the expected benefits of collaboration translate into business value. Collaboration is linked to the relevant business metrics of the underlying business

processes before, during, and after implementation of collaboration. Two member examples of tracking cause and effect include Cisco hard metrics for sales and customer touch points and Statoil tracking of oil production and operational costs.

More challenging to measure but equally important is the evolution of the organization toward a collaborative enterprise. The goal is to assess whether barriers to collaboration are falling, individual collaboration skills are being built, and misaligned rewards are being eliminated. One Consortium member raised the issue that, while progress within an organization should be tracked, managers should be aware that comparing absolute measures across organizations could be misleading. One organization may be "less collaborative" than another because of industry structure, internal style and values, or other aspects of its business system. Organizations that conduct more confidential or proprietary work than others may measure as "less collaborative" than others. That being said, it is important for all organizations to track progress toward a more collaborative enterprise, with the goal of deploying a structured and integrated framework for developing business cases in relation to process improvements for existing and new business processes.

Benchmarking

The final attribute of the people and culture component of the Collaboration Framework involves internal and external operational benchmarks to establish a collaboration baseline and measure progress—in addition to usage and value metrics just discussed. Consortium members identified the following questions to consider in addressing this topic:

- Does the organization regularly survey internal management and employees on the value of collaboration and alignment between collaboration and business strategies?
- Does the organization regularly survey all internal employees about their readiness and their organization's readiness to execute and sustain collaboration?
- Does the organization know where it stands in comparison to external peer groups (e.g., external benchmarks)?

Consortium members agree that the collaboration vision and strategy for an organization should be well communicated and understood by all levels of management and employees within an organization. The use of surveys, polling, and related tools enables an organization to capture this internal benchmark information to verify the value of collaboration and to ensure alignment between collaboration strategies and business strategies. During the early phases of collaboration, sporadic benchmarking occurs and collaboration surveys are executed in parts of the organization. In later phases, surveys to gauge awareness of collaboration value and alignment to existing and emerging business processes should be conducted regularly.

To execute and sustain collaboration at both the individual and organizational levels, a measure of collaboration readiness should be captured to establish a baseline. Once this baseline is created, organizational gaps can be identified when compared against the attributes of the Collaboration Framework. To cross the collaboration chasm and advance into the performance phase and beyond, a systematic collaboration readiness assessment may be used to identify collaboration opportunities and challenges across the organization. Gaps identified through a more thorough analysis can be documented and a plan developed to address them.

Finally, ad hoc benchmarking with external peers/competitors should be executed in parts of the organization as an initial first step to get a reading on how an organization is doing in comparison with competitors in the industry. In later phases, a systematic benchmarking approach with external peer groups can be used within an organization to further develop the collaboration framework and collaboration ambitions.

The Collaboration Readiness Assessment Survey

We have referred to the Collaboration Readiness Assessment Survey several times in this chapter. In this section, we provide a detailed review of the survey and its applications.

The original idea for a readiness survey comes from Cisco, which created such a survey for its own use. The company needed to capture collaboration information from an individual employee and a work environment perspective. The objective was to assess collaboration readiness at the individual, team, and departmental levels. A draft of Cisco's version of the survey was shared with the Culture subgroup, who provided feedback on the tool and tailored it to the broader needs of Consortium members. Although Consortium members recognized that more work is required to enhance its effectiveness, all felt that the survey was a good starting point for creating a collaboration baseline. The complete set of survey questions, along with an Interpretation Guide, can be found in the Consortium Toolkit at http://www.sbtadvisors.com/collaborationconsortium.

The objective of the survey is to support the implementation of the Collaboration Framework. Specifically, an organization might use the survey as a tool to diagnostic readiness at either the departmental or company level; create overall indicators for the organization's readiness for collaboration; and act as an external benchmark database and baseline to measure progress of the Consortium members in the achievement of their collaboration strategies.

The survey has 30 questions: 22 are categorized as core/mandatory for creating the Consortium benchmark, and 8 are optional based on member interest in collecting additional data. There is also flexibility for members to add other member-defined questions. The survey breaks down into the following sections:

- Individual Demographics (Questions 1 to 5)
- Individual Work Environment (Questions 6 to 12)
- Collaboration Environment (Questions 13 to 20)
- Collaboration Execution:
  - Technology Impact (Questions 21 to 23)
  - Skills and Culture (Questions 24 to 27)
  - Technology Usage (Questions 28 to 30).

As part of the Consortium methodology to create a benchmark for collaboration, Media X at Stanford University, in partnership with Kinesis Survey Technologies, created a template of the survey and arranged information sessions for those members interested in testing the survey within their organizations and contributing to the benchmark. Consortium members are at various stages of leveraging the survey; some have completed it, and others are still considering its implementation. Cisco completed an early version and shared its results with Consortium members, as described in the following paragraph.

A subset of questions from the Collaboration Readiness Assessment Survey was distributed in January 2008 at the request of Cisco's Communication and Collaboration Board (C&C Board) to over 10 percent of its global employee population. The response rate was a very favorable 31 percent. Results validated that employees understood the greatest opportunities for improved collaboration and identified the greatest challenges to collaboration (see Figure 4.2). The results identified an opportunity to drive additional productivity improvements and revenue through greater collaboration, as well as the need to improve alignment on cross-functional priorities. Based on the results, Cisco's C&C Board requested that a cross-functional subcommittee be formed to accelerate internal collaboration efforts and drive additional levels of process improvement and business transformation using the following approach: a delivery model that included self-service, light touch, and full service options to provide the internal services necessary to support business functions; a prioritized set of awareness and adoption initiatives to focus on closing readiness gaps for key strategic initiatives; and a renewed focus on change management.

As Consortium members experimented with the survey, they started to codify how results should be interpreted and how responses from specific sections should be triangulated with others to yield more insights. Ideally, the survey would lend itself to test hypotheses, but this was not achieved during the first year. The Metrics subgroup developed an Interpretation Guide for the Collaboration Readiness Assessment Survey. The guide is posted with the survey questions in the toolkit at http://www.sbtadvisors.com/collaborationconsortium.

Although there was insufficient member sample size to develop a collaboration benchmark in year one, it is expected that improvements in the survey in year two could result in a broad enough sample to develop an interesting base of comparison.

Summary

Consortium members believe that addressing the people and culture component is critical to capturing the business value of collaboration. The topic generated very interesting exchanges, and even some heated debates. Consortium members made significant progress in furthering their understanding of the role of people and culture, and their work yielded valuable approaches and tools. While progress was significant, much remains to be done, and many Consortium members felt that our effort barely scratched the surface on this very important set of issues.

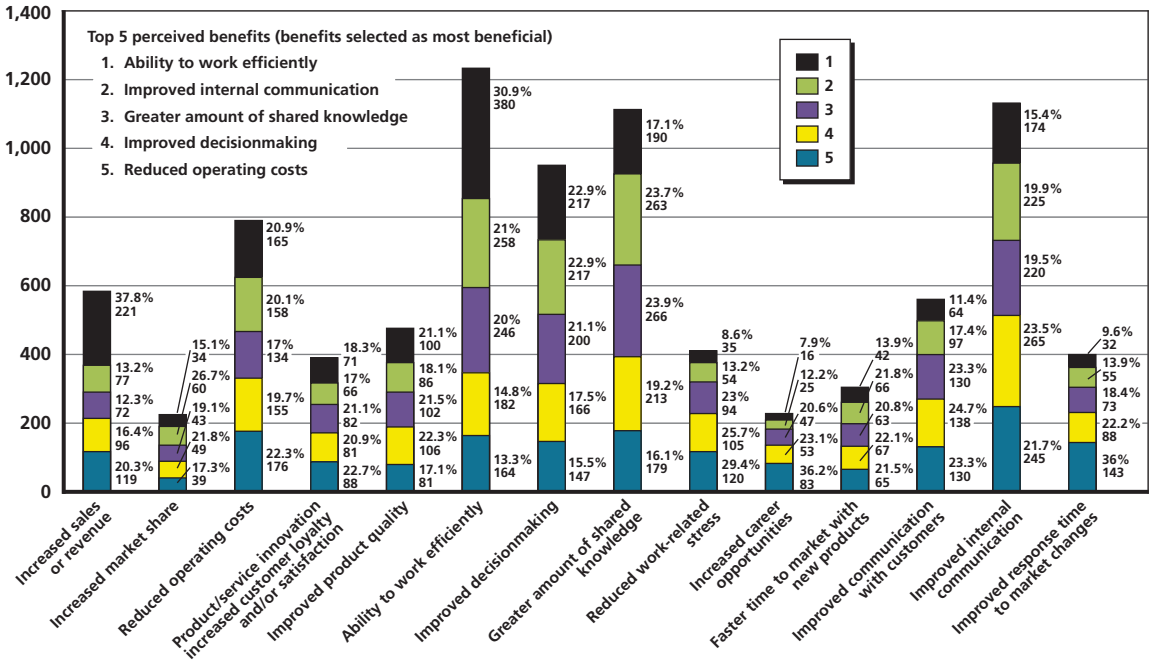
Notes

[1] Elisabeth Plum in collaboration with Benedikte Achen, Inger Dræby, and Iben Jensen, *Cultural Intelligence: The Art of Leading Cultural Complexity*, Middlesex, UK: Middlesex University Press, 2008.

Figure 4.2
Cisco Survey Results on Benefits and Challenges of Collaboration

Benefits of Effective Collaboration

Employees clearly understand the benefits of collaboration.



Challenges to Collaboration

Not communicating clear, aligned priorities and goals can impede communication.

Different schedules and leadership that does not model/reward collaboration are also possible detractors.

CHAPTER 5

Selecting the Right Collaboration Framework: Technology

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The Collaboration Consortium did not focus on the technology component of the Collaboration Framework in the first year; instead, the priority was to focus on the business value that can be gained from collaboration and how to address the culture and process components of the framework. That being said, members informally shared the technologies that their organizations were using or experimenting with, as well as best practices and lessons learned from their experiences with technology deployment. This chapter summarizes Consortium members' general discussions of the technology element of the Collaboration Framework, based on the Collaboration Checklist work of the Business Model subgroup (see Appendix H for membership list). The content of the checklist does not represent the views from all Consortium members, but it is representative of the subgroup views. This chapter covers the technology component of the checklist, which is available at http://www.sbtadvisors.com/collaborationconsortium.

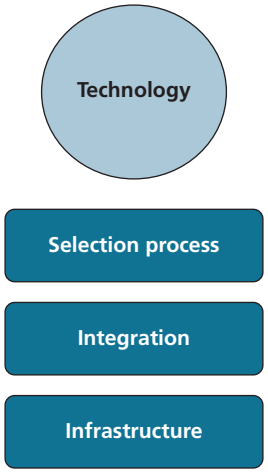
Members commented on the wide scope of technology decisions they must make for their organizations to embrace collaboration along the collaboration evolution curve, such as what specific collaboration tools will be used; how they will be introduced, sequenced, scaled, and evaluated; and how they will integrate with an organization's legacy systems—i.e., supply chain or ERP. For example, one senior IT executive expressed the challenge of scaling up globally a set of technologies for groups of 40,000 to 50,000 employees. Such decisions impact the full "technology stack," from the network layer to the application layer, including the development process from top-level strategy to foundational infrastructure design, to prototyping, and so on. Decisions also must take into account both user and IT requirements, such as mobility, security, personalization, document management, and retention and archive policies, to mention only a few.

IT executives mentioned that much of the benefit expected from "new collaboration" rests on technology and the assumption that technology will be available when and where it is needed. Business leaders should be aware that this is a nontrivial assumption in a more open and distributed organization, especially in a global enterprise. Placing all the necessary tools, solutions, and services where they will be needed globally can be a major challenge. Collaboration may allow or require employees to work from home on flexible schedules or while in transit, requiring access to technologies both within and external to the traditional workplace. This access also covers partners, suppliers, and customers who share information and/or collaborate on a regular basis.

Depending on an organization's place on the collaboration evolution curve, implementing collaboration technologies can be as fast as installing a server in a sandbox environment to test and learn from the technology use, or as challenging as scaling up an integrated commu-

nication solution across the globe. Although it is not rocket science, in most cases, implementing collaboration technologies requires significant effort and resources. The good news is that other organizations have blazed a trail and have best practices and lessons learned to share. The remainder of this chapter summarizes Consortium member lessons learned on the selection, integration, and deployment of collaboration technologies (see Figure 5.1).

Figure 5.1
Technology Attributes of the Collaboration Framework



Selection Process

When defining a collaboration technology strategy, members stressed the importance of having a well-defined approach to the following set of questions about the technology selection process:

- Is there a plan that outlines the sequence of collaboration technologies to deploy?
- What is the selection process the organization will use?
- How will the organization scale the technology across the organization?

In the investigative phase of collaboration, an organization may have developed a limited, local plan to deploy a technology on a small scale, but may not address how it should scale for organization-wide use. In later phases, a systematic approach and plan is required to deploy and scale individual technologies or solutions for use within existing or new business processes. Part of the selection effort requires verification that the individual technologies will actually scale to meet enterprise-wide requirements. The initial testing and experimentation, as well as other vendor and reference resources, help to identify any limitations. Providing a separate sandbox environment to allow IT and business functions to experiment with new technologies, without production constraints and regulations, has proven extremely useful to members that have used this approach.

As noted in Chapter 2, after collaboration priorities are identified and impact zones have been analyzed, an organization must then consider what technologies to apply to the business process to capture business value. Technology decisions should be aligned with the prioriti-

zation and outcomes from the collaboration impact zone analysis to ensure that technology investments are being applied to the areas having the greatest impact.

Integration

Another key issue raised by members is whether the technology strategy addresses the integration required between the collaboration tools and legacy systems, specifically: (1) Have the key touch points to integrate collaboration with key business applications been identified (e.g., linkages with ERP and other application databases)? and (2) Are open standards being used to create future options for integration?

The early experimentation conducted by the majority of members rarely involved integrated solutions; more often than not, it consisted of single-technology deployments, used for a single task to boost individual productivity. However, most members identified the mashup of collaboration and other technologies—ones that are easy to use and can be applied to workflows to address a business problem to create higher business value—as a very complex challenge in the future. That level of integration is required and pursued by several IT organizations to ensure that the right information is at the right place and at the right time—resulting in reduced cycle time and increased employee productivity. Although members did not go into great detail, many felt that open standards are required to achieve this objective.

The following examples describe how two member organizations created integrated solutions and applied them to business processes as part of their evolution to the performance phase.

- **RAND Corporation.** As part of a structured approach to defining a collaboration vision and strategy, the role of the Information Services and Technology (IST) department at RAND is to identify how collaboration enables RAND's business priorities. RAND felt that its top priority for collaboration was its research business process; RAND's collaboration vision was to deliver the best quality research by connecting people with expertise across the organization. Two technology components were deemed critical for RAND to realize this vision: (1) integrate collaboration and legacy technologies so that researchers can access the necessary information from a common gateway to save time and money; and (2) develop an expertise locator through a mashup of technologies. RAND is just beginning this collaboration effort, which will first be tested with smaller research teams and then scaled throughout the organization. More detail about this program is available under Appendix D.
- **Cisco.** Within the sales organization of Cisco's U.S. and Canada theater, the company faced the challenge that specialists in advanced technologies were unable to scale their expertise to meet account team and customer demands, resulting in either a longer sales cycle or missed sales opportunities. To address this business problem, the Specialist, Optimization, Access, and Results (SOAR) program was established to optimize the deployment of specialists by leveraging virtual tools and Web 2.0 technologies in their day-to-day sales process. The solution included self-help tools, including a reference database and a WebEx Connect Community to answer the simpler questions; video to effectively deliver virtual product demos on a regular basis; and an expertise locator with remote collaboration capabilities to enable high-value interactions between the specialists, account

teams, and customers. The result was a 45 percent increase in specialist interactions with customers, a 9–14 percent specialist productivity increase, and an increased margin of US$50 million from reducing the sales cycle. More detail about this program is available in Appendix E.

Infrastructure

The last aspect of the technology element of the framework is the requirement for a solid technical foundation to support scalability, mobility, security, and other requirements for new collaboration and rich media technologies. Members stressed that having a well-documented technology architecture is definitely required to ensure the organization's collaboration technical readiness. They also stressed the importance of being ready to assess whether infrastructure upgrades are necessary to support new or expanding collaboration capabilities (e.g., increase in bandwidth/storage, expanded extranet connectivity, network intelligence) and of working well ahead of demand by having a plan in place to address any gaps, given lag time of deployment, especially on a global scale.

To achieve the transformational phase, a collaboration technical architecture should support both existing and new innovative business processes. If any gaps exist, a plan to address these gaps for both existing and emerging innovative business processes must be documented and incorporated into the collaboration strategy. These infrastructure dependencies can become critical priorities to enabling new business opportunities.

Summary

The consensus among members is that the technology component of the Collaboration Framework—including the architecture, selection process, integration capability, and infrastructure—must be in place to ensure the successful implementation of an organization's collaboration strategy. Not every component is required during early experimentation, but they all must eventually be addressed to support a scalable, secure evolution to later phases.

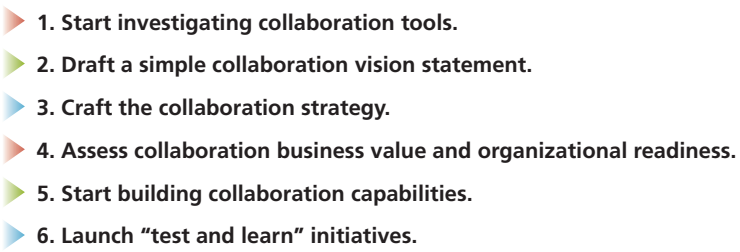
CHAPTER 6

Getting Started

Francois Joanette, SBT Advisors LLC

Becoming a collaborative enterprise is a complex and multiyear endeavor. However, based on our experience, the following six steps will help any organization begin the journey toward driving business value with collaboration (Figure 6.1). They combine several of the concepts, methodologies, and tools reviewed in the prior chapters of this report.

Figure 6.1
Getting Started in Six Steps



1. **Start investigating collaboration tools.** The investigative phase is very valuable. Encouraging early adopters to experiment with "single tools for single tasks" provides insight on the tools themselves, on which ones may prove most popular, and on how people collaborate. Experimentation also gives IT an opportunity to learn from an adoption and support perspective. Managers should evaluate the outcomes of the initiatives in the investigative phase, as there are likely valuable lessons on which to build collaboration capabilities. Several collaboration strategies started this way, with the early investigation yielding proof-points and early wins to build the business case for broader use of collaboration technologies.

   Part of the investigative phase also involves learning what is currently being used within the organization. Quite often, there are existing "stealth" implementations of collaboration tools within a particular business function or community. Taking inventory of these existing efforts and extracting lessons learned provides insights into the organization's early adoption of collaboration.
2. **Draft a simple collaboration vision statement** to clarify, in a general way, how collaboration will support the business vision, whether the company is in a survival, transition, or attack mode. This is not the time for painstaking wordsmithing and endless soul-searching visioning sessions; the goal is to signal the overall intent of the collabo-

ration strategy and set the tone. See Chapter 2 for more information on establishing a collaboration vision.

3. **Bring business and IT leaders together to craft the collaboration strategy.** This is best accomplished by running a series of workshops to help teams of managers identify those business processes with high concentrations of expertise, information, and interactions, and then prioritizing them. Chapter 2 describes how to identify these collaboration impact zones. Based on this analysis, the priorities can then be sequenced into a collaboration strategy.

   Doing a thorough job in identifying the collaboration impact zones really helps in the planning of the technology architecture. When looking at a cross-section of collaboration impact zones, useful patterns of technology tools emerge: common technologies in several zones, common bundles of tools for several business processes. This helps IT identify the bundles of collaboration tools that could be most frequently used and matched to collaboration impact zones. Rather than customizing a very large number of permutations of tools to the collaboration impact zones, IT can develop a menu of collaboration capabilities based on a recurring set of technologies and integrate new tools with existing ones. For example, when people-to-people interactions are needed, virtual-expert access and virtual-teaming technologies are logical choices; when people-to-information interactions are needed, virtual teaming and shared repositories make sense.

4. **Assess the value of collaboration and the readiness of the organization**, the individuals, and the technology for collaboration. To determine where to start in building collaboration capabilities, we recommend that organizations run a readiness assessment survey. As discussed in Chapter 4, the survey assesses multiple dimensions of readiness, such as employee perception of the value of collaboration, the current collaborative style of their immediate department and leadership, barriers to collaboration, their own collaborative skills and knowledge, and the availability of collaboration tools. It also creates internal benchmarks to track progress toward a collaborative enterprise. Results can also be used for comparison with other organizations, taking into account their similarities and adjusting for their differences.

5. **Start building the collaboration capabilities.** Each organization needs a tailor-made plan to build the collaboration capabilities it needs. The plan should address internal organizational models, support services, people and cultural practices, measures and metrics, and technology-deployment scenarios. The readiness assessment survey, the prioritized collaboration impact zones, and the collaboration strategy are essential inputs to the capabilities plan. For example, a collaboration strategy that relies heavily on sharing expertise peer-to-peer across multiple functions or business units will require extensive change to the organization's people and cultural practices, whereas a strategy that targets the co-design of product development with customers would require more attention to the governance to make joint decisions with customers. Completing the Collaboration Checklist—as described in Chapter 3—helps identify gaps in organizational readiness prior to operationalizing the collaboration strategy, thereby enabling further movement along the collaboration evolution curve.

6. **Launch collaboration "test and learn" initiatives** to generate early change momentum. Strive for visible, unambiguous, and transformational "early wins" to provide evidence of the benefits of change, help fine-tune the vision, undermine critics, and turn neutrals into supporters.

Media and Web 2.0 technologies make possible new ways of sharing information and deploying expertise to achieve superior business performance and create new business value. Given the forces at work demanding competitiveness today, the rewards can be great for those organizations that effectively and judiciously leverage internal and external collaboration, if these efforts are carefully aligned with the organization's vision and strategy, embedded in key business processes, and carefully implemented. Although capturing the value may be a major undertaking, several organizations have already been very successful, and best practices and lessons learned are available for those embarking on the journey.

APPENDIX A

The Integrated Operations Initiative Transforms Exploration and Production at Statoil[1]

The objective of this case example is to illustrate how collaboration drives business value at Statoil.

Introduction

Statoil ASA (Statoil) is an integrated oil and gas company based in Norway, with locations in approximately 40 other countries worldwide. As of December 31, 2008, Statoil had proved reserves of 5,584 million barrels of oil equivalent. Statoil operates in four business segments: Exploration and Production Norway, International Exploration and Production, Natural Gas and Manufacturing, and Marketing.[2]

Statoil is an industry leader in the application of collaboration in its Exploration and Production business segment through its Integrated Operations (IO) initiative. The aim of IO is to use real-time communication to improve the efficiency of interaction between disciplines and decisionmakers, regardless of geographical location. Collaboration is regarded as a key issue to deliver business value. Fiber-optic cables and solutions for high-speed communication connect platforms, people, computers, and continents in a new way and open avenues for improved collaboration. "Real-time competence sharing is necessary in a complex and demanding industry. It is all about integrated operations and people in a seamless collaboration, independent of organization, time, and place," Helge Lund, CEO of Statoil, said in connection with a panel discussion in which major participants in the industry presented their visions for unrestrained interaction and intelligent energy in Amsterdam (February 2008). "Our future success is dependent on our ability to draw on our experience from the Norwegian continental shelf (NCS) when we go global. New work processes and interaction by means of IO will facilitate

[1] We are grateful to Vidar Hepso and Hans Hysing Olsen from Statoil for sharing their thoughts and experiences with collaboration at Statoil.

Felicia Brych from Cisco and Francois Joanette from SBT Advisors have written this case example in collaboration with Vidar Hepso and Hans Hysing Olsen.

This case example provides a very limited window into Statoil's extensive experience with collaboration. Readers interested in additional perspectives should consult the video-on-demand segments on Integrated Operations on Statoil's Web site and numerous other articles available online. Also, there are excellent cases of collaboration at Statoil described in Vidar Hepso's most recent book—*Leading Research in Technoscience, Insider Social Science in Social-Technological Change*, VDM Verlag, 2009. The book describes three comprehensive cases and draws key insights from the human, organizational, business, and IT perspectives.

[2] Source: Reuters.com, January 14, 2010.

the sharing of knowledge between Norwegian experts, suppliers, and local operators in other countries," Lund said.[3]

Statoil's and the Norwegian oil industry's pioneering efforts started the era of the application of digital technologies in the energy sector generically known as Digital Oil Field of the Future (DOFF). DOFF is a suite of interactive and complementary technologies that enable real-time monitoring, model updating, and optimal control of oil and gas fields leading to improved reservoir recovery, lowering of costs, and increased productivity. The need to achieve total asset awareness and operational efficiency, collaboration among all business processes across the value chain, and advancements in reservoir technology and telecommunications are key factors driving greater use of DOFF. Other drivers include a shortage of skilled labor and the "graying" of the workforce; a need to expand productivity and improve recovery from current fields due to rising demand for oil and intense competition; and more-stringent health, safety, and environmental (HSE) regulations. As a result, every major private-sector oil company and national oil company has invested in a DOFF initiative, including Shell's Smart Fields, BP's Field of the Future, Chevron's iFields, Saudi Aramco, Petrobras, and Kuwait Oil Company. However Statoil's DOFF Integrated Operations program is regarded by many in the industry as a leading DOFF deployment.[4]

Evolution of Integrated Operations (IO)

In 2004–2005, IO was formally launched as a Statoil initiative. It incorporated and built on the learning from an earlier effort: In 2001–2002, a group of forward-thinking executives who were tasked with the design and launch of the Kristin oil platform had done pioneering work on the operational benefit of collaboration.

The Kristin platform is a relatively new production asset; it lies 240 kilometers offshore from Trondheim, Norway, and is a condensate gas field with 12 wells in water depths between 240 and 320 meters. Production started in November 2005.

In the design phase, a group of operators developed and experimented with a new operational model for the Kristin platform. Little did they know that, many years later, their model would become the core of the IO program. The operators approached the design of the Kristin platform from a blank-sheet perspective. They assessed that, given the size of the platform and scale of the operations, a minimum of 27 individuals would be required on the platform to maintain an emergency preparedness level—i.e., 27 was the minimum number of workers needed to deal with an operational emergency. They "zero-based" the new operating model by starting with 27 and asking how many more people above that number would be absolutely necessary on-site. They conducted an in-depth investigation of the work processes to identify which activities and functions needed to be performed on the platform and which could be executed remotely from an onshore operations center. Through a cultivation approach—described in Chapter 2 of this report—they expanded the model by learning from its initial adoption in the environment. In its current format, the Kristin operating model has two management teams, one onshore and one offshore, each located in a collaboration room, and there are con-

[3] Lund spoke at the SPE Intelligent Energy Conference, Amsterdam, February 2008.

[4] Examples mentioned in Ted Moon, "Intelligent Energy 2008 Addresses Value of Innovation, Collaboration," *JPT Online*, May 2008.

tinuous video links from one room to another so that both management teams can see each other at all times. Today, this collaboration across time and space allows 31 people to operate the platform at any one time, very close to the minimum number of staff initially identified.

One central aspect of the safe and effective execution observed onboard the Kristin platform is the concept of "one-directed team," in which the operations crew is empowered and synchronizes tasks between functions. This model uses empowerment of separate functions and work areas for problem solving and enables shared situational awareness as a means to achieving the operational goals of HSE reduction, facility uptime, cost control, and awareness of the technical condition of the platform.[5]

Statoil estimates that NOK200 million (approximately US$31.1 million at the June 30, 2009, exchange rate) has been saved in operating costs over the first year from IO, according to the asset/platform manager at Kristin: "Half the savings was due to the way we work. The other half was due to having a better quality plant."[6]

The significant business and organizational benefits of the operational concept developed for and implemented at Kristin caught the attention of the senior Exploration and Production leadership. They adopted the approach and codified its principles, which were used as the foundation for the deployment of IO. Accelerated since the merger of the Statoil and Norsk organizations, IO has evolved to such an extent that it is now a set of practices and principles embodied in Statoil's standard operating model in the Exploration and Production segment.

Today, most smaller platform operations have benefited from the organizational model originally developed for the Kristin platform through their participation in IO. Statoil is currently deploying the model in larger operations. However, large existing operations—with their legacy of installed bases of technologies, infrastructure, people, work practices, and skills—present unique challenges to the adoption of IO. While the "one-directed team" organization concept worked well in smaller environments, Statoil is adopting its approach so that large platforms can derive similar benefits. Integrated Operations set the standard for the new offshore/onshore operational model after the integration with Hydro in 2008 and 2009.

Building on the momentum generated by IO's success and business benefits in the Exploration and Production segment, Statoil is deploying the IO methodology and approaches in the Natural Gas and International segments.

IO Organization Enablers

Statoil has created a set of central capabilities to enable the deployment of IO. The size of those capabilities is moderate in comparison to the scale and scope of IO and the business benefits it has generated.

Central implementation team. The central team includes approximately ten people and focuses on developing best practices on new work practices and workflows and problem-solving with the Exploration and Production business management. The size of the central

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[5] Source: P. Naesje, Kari Skarholt, Vidar Hepso, and Arne S. Bye, "Empowering Operations and Maintenance: Safe Operations with the 'One Directed Team' Organizational Model at the Kristin Asset," in Sebastián Martorell, Carlos Guedes Soares, and Julie Barnett, eds., *Safety, Reliability and Risk Analysis: Theory, Methods and Applications*, London: Taylor & Francis Group, 2009, pp. 1407–1414.

[6] *Digital Energy Journal*, 2007

team is intentionally kept small, as the operators of the production assets own the responsibility for changing the work practices and implementing IO.

Training and facilitation capabilities. All requirements for training employees and facilitating workshops in IO practices and new workflows are the responsibility of the existing training departments in the Exploration and Production division—the central team "trains the trainers."

IO Compliance Document. The IO core methodology is codified in the IO Compliance Document, which includes a checklist of questions about the issues that must be addressed when adopting IO in an area of the division. It provides guidance on the full range of IO implementation issues, such as guidance on IT and collaborative technologies, work and decisionmaking processes, and management-union collaboration. This core methodology acts as the "common glue" for ensuring a consistent IO approach throughout the Exploration and Production division.

IO Council. Senior leaders from each of the four business divisions, the IO program lead, and a selected number of additional executives meet once a week to discuss and agree on action items for IO. While IO is one of the top three corporate programs for Statoil, as prioritized by the CEO, its adoption is voluntary, and it is left to this council to decide where IO should be deployed next. The voluntary approach reinforces the accountability of the heads of the divisions for any benefits and investments related to IO. Since its inception, the Exploration and Production division has been IO's early adopter group. As mentioned previously, IO's deployment is slated for deployment next in the Natural Gas and International segments.

Head of IO program. There is a full-time head of IO who is responsible for keeping track of the program (including tracking adoption, documenting costs and business benefits, and formally reporting the status of the program to the CEO) and setting the agenda for the IO Council discussions.

Key Takeaways

Statoil is a pioneer in leveraging collaboration to drive business value. Its Integrated Operations program has broken new grounds in terms of workflows and business practices in the energy industry while creating significant business value for the company. It also innovated approaches to address the critical organizational dynamics related to the adoption of collaboration and the change management required to capture the benefits of collaboration.

APPENDIX B

The Collaborative Culture of Wipro[1]

The objective of this case example is to illustrate how a collaborative culture and business model supports successful partnerships and adds business value.

Introduction

Wipro Technologies is a US$5 billion global services provider delivering technology-driven business solutions. The company uses a matrix organizational structure, with industry verticals and service lines forming the two axes. The industry verticals are market-facing in nature, and the service lines form the competencies. With close to 100,000 associates from 57 nationalities and a presence in 54 countries, Wipro has a geographically diverse global presence.

The culture within Wipro is to be the best at what it delivers. "People, Practice, and Processes" are the three cornerstones of Wipro's pursuit of excellence. Wipro promotes an open culture, encouraging feedback and actively responding to it to take action. Employees believe that excellence is not a destination but a journey of continuous improvement. This level of competence is demonstrated by CMMI (Capability Maturity Model Integration) Level 5 certification; Wipro is the first software services company to achieve this certification, and Wipro is the first company outside the United States to receive the Institute of Electrical and Electronics Engineers (IEEE) Software Process Award. These achievements validate the competence of Wipro's more than 55 Centers of Excellence that create customized solutions, no matter the domain involved.

Enabling Collaboration Through the Right Business Model, Culture, and Technology

As with most knowledge-based companies, collaboration and knowledge management are key to Wipro's success. However, the vision and strategy for collaboration are not specifically defined, and no one in particular owns them; rather, the collaboration strategies are embedded in business deliverables and their operations. Due to the matrix nature of Wipro's business model and their operating structure, collaboration is embedded in Wipro's corporate culture and its day-to-day work. Collaboration initiatives are central to how Wipro does business—

[1] We are grateful to Rahul Koul from Wipro for sharing his thoughts and experience with the Collaboration Consortium. Rahul Koul from Wipro and Felicia Brych from Cisco have written this case example.

they are not parallel activities. Collaboration enables Wipro to drive business efficiencies in service, and the collaboration initiatives are linked to Wipro's overall business goals.

From a people/culture perspective, it is easier for Wipro to address change-management and training issues because its workforce is, on average, relatively young and very eager to learn. Training and development of employees are important activities, especially when preparing onshore and offshore project teams. For example, Wipro uses a systematic process to prepare teams for cross-cultural collaboration. It also leverages local on-site teams that interact with clients directly to minimize local language, culture, and time-zone challenges; these local teams relay information to the offshore team, becoming cultural intermediaries.

The structural efficiencies of the organization are further enhanced through collaboration technologies, platforms, and systems. Wipro's organization-wide knowledge management system, K-Net, is one of the most valuable examples. K-Net is a searchable knowledge-management platform that helps consultants to leverage information across multiple engagements being completed by Wipro. K-Net is a part of the business process itself and helps consultants to file project information, which then becomes searchable. Queries can be made on K-Net by any consultant. For example, if a consultant in one part of the organization wants to know about capability on the subject of teradata, he or she can post a query on the system. K-Net can then also send an email to interested subscribers, who in turn reply to the stated query with their latest experiences on the topic.

Another highly successful collaboration initiative is ChannelW, an internal portal for employee collaboration and communication. ChannelW was originally implemented many years ago, but it has since been enhanced with some of the latest social media capabilities, and now includes executive-oriented blogs by top management at Wipro, as well as employee blogs that focus on topics concerning employees. There are even classifieds and a matrimonial section. The top management blog, which was started in 2009, received over 400,000 hits in its first year, becoming an effective medium for executives to communicate their message. Not only has ChannelW been successful internally, it has also become a model that customers have used to improve their internal communications with employees.

From a Web 2.0 perspective, Wipro is also experimenting with the use of wiki technology for internal collaboration. This wiki initiative is in the investigative stage of the collaboration curve; it is run on a small scale by different teams and is based on Microsoft SharePoint. Wipro has also experimented with the use of internal discussion forums and has found that they are more effective when used with smaller teams and communities. From a rich media and conferencing perspective, Wipro is using a combination of telepresence, voice/video/Web conferencing, instant messaging, and other voice-over-IP services. Given the growing experimentation and use of social networking and communication technologies, Wipro instituted data security and blogging policies to govern their use. The policies are strictly enforced to ensure that any governance issues that arise can be quickly addressed.

Collaboration with Partners to Innovate and Educate

As a high-tech services provider, another aspect of Wipro culture is to partner with key customers, solution providers, and academic institutions to offer new and enhanced services to its clientele and to help train its ever-growing workforce.

One area where Wipro actively partners is on co-innovation (co-development) initiatives and on joint go-to-market initiatives. In particular, Wipro has established key co-innovation

labs with SAP, Oracle, and others as partners. Wipro and Oracle launched their first joint innovative solutions lab in 2008 to focus on industry-specific business needs. They demonstrated end-to-end industry-specific processes and solutions, while showcasing innovations that were co-developed by both companies.

Another example is Wipro's partnership with Lockheed Martin to create the Open Network Centric Operations Centre in India. This center, known as Ambar Jyoti, enables high-fidelity, global experiments and demonstrations using emerging network-enabled capabilities and applications, for potential civilian and military application.

Overall, these partnerships demonstrate how important collaboration with partners is to enable new innovations and service offerings.

Another collaborative forum created by Wipro is its Applied Innovation Council, which brings together customers (CXOs), industry experts, analysts, and thought leaders. The forum enables exchanges among subject-matter experts to predict the future business environment, analyze technology trends, and work on collaborative solutions to address new consumers, markets, and business challenges. The council also discusses innovation best practices and potential business solutions that can be practically applied.

From a research and education perspective, the CTO office manages a research agenda with universities to drive collaborative industry-academia research. Wipro collaborates with prestigious universities across the globe to develop case studies and define areas for further study. Topics studied to date include sustainability, cloud computing, and mobility.

Two notable partnerships with higher education include the Wipro Academy of Software Excellence (WASE) and Magnum Opus. The WASE program started in 1995 with the motto "Earn while you learn." The WASE program accepts graduates from leading universities and offers postgraduate training toward a master's degree in computer science from BITS Pilani, one of India's premier technical institutes. Students work on live Wipro projects during the week and study toward their master's degree during weekends. Another major training example is Magnum Opus, a mega-initiative to train college students in the third year of their engineering degrees using real-life projects with hands-on programming and industry experience. A big-vision theme is created to tackle a problem or opportunity, and a Wipro Senior Architect defines an architecture. The work is divided into manageable projects in each phase of implementation. Students are assigned to a project with a Wipro mentor, and teams are enabled with a combination of technology and processes to enable distributed work. Ultimately, the students complete the project and semester with a better understanding of how to apply their knowledge in a real business environment.

Summary

In summary, Wipro has done a phenomenal job of embedding attributes of collaboration in everything it delivers, enabling strong partnerships and creating new business opportunities. Collaboration is a core aspect of Wipro's culture and is supported through its business model and processes. The Wipro focus on education and the relationship with academic institutions has added tremendous value by enabling new graduates to begin working on customer engagements fresh out of school. It also enables employees to pursue advanced degrees while continuing to work. When thinking about the collaboration framework, Wipro is a great example of how a focus on culture, process, and technology leads to success.

APPENDIX C

Renewing the Canadian Public Sector Through Web 2.0 Capabilities[1]

The purpose of this vignette is to illustrate how collaboration can be applied in a government context to enable sharing of knowledge and expertise and to improve communication and outreach across the public sector.

Background and Context

Canada is the second-largest country in the world, spanning almost 10 million square kilometers, with 13 provinces/territories and 34 million citizens. The Government of Canada is recognized as a global leader in delivering public services to citizens and is particularly known for its approach to modernizing government.

Within the government structure, the mandate of the Treasury Board of Canada Secretariat (TBS) is to provide advice and support to Ministers, ensuring value for money and providing financial oversight for federal departments and agencies. In summary, TBS makes recommendations and provides advice on policies, regulations, and program expenditure proposals for the management of the government's resources.

Over the past several years, TBS has investigated how to apply Web 2.0 capabilities within a government context to take advantage of the business value that can be realized, particularly for reducing operating costs, increasing access to cross-department expertise, and improving customer service.

Web 2.0 in a Government Services Context

Canada is not alone in thinking about how governments can take advantage of Web 2.0 and collaboration. It is part of a five-nation Chief Information Officers (CIO) Council that shares experiences and best practices in the use of Web 2.0 technologies. Council members are beginning to test these technologies as part of the investigative phase of collaboration, but Web 2.0 is still not yet a mainstream way of delivering public services.

Experimentation shared with the CIO Council includes use of YouTube for recruiting, advertising, and awareness campaigns; wikis for internal functional communities and consultations; and blogs for government experts to share information. All members believe that use

[1] We are grateful to Jeff Braybrook and Thomas Kearney (Treasury Board Secretariat) and Bev Mitelman and Hope Seidman (Canada School of Public Service) for sharing their thoughts and experiences from the Government of Canada.

Felicia Brych from Cisco and Francois Joanette from SBT Advisors have written this vignette in collaboration with Jeff, Thom, Bev, and Hope.

of Web 2.0 capabilities will help modernize the workplace in government. It is also expected to help engage younger employees, who expect the same personal collaboration tools they have at home to be available in their workplace.

With technological change comes the requirement for new policies, rules, and codes of conduct. The public sector often requires a higher degree of governance in this area, and all nations are establishing acceptable use guidelines for social networking to address employee and public use. The Council also agreed that public engagement should be part of an agenda for policy formulation and designing future public services. A Canadian study helped to validate where to begin.

Public Perception About the Use of Web 2.0 Technologies

TBS understood that other countries and other levels of government within Canada had started to use new Web 2.0 technologies in their interactions with their citizens. In early 2007, Public Works and Government Services Canada contracted for a public study[2] with the following research objective:

> Conduct baseline research related to Canadians' awareness, attitudes and behaviors vis-à-vis new technologies, social media, and emerging applications—and assess their potential use in Government of Canada (GC) communications.

Canadians identified numerous reasons why governments should use Web 2.0, including being more responsive, being less remote, and keeping up to date. The following excerpts from the TBS report summarize its key findings:

- Governments can proceed with confidence in using Web 2.0 applications in [their] interactions with Canadians due to widespread support (87 percent) that cuts across all groups regardless of level of Internet use.
- Web 2.0 awareness and use varied across country and segments; therefore, governments may want to focus early efforts on applications that enjoy the greatest take-up, where it makes sense to improve communications and service delivery. The top-ranked proposed uses of Web 2.0 included sites where experts can answer questions, sites where feedback can be posted, audio tours of natural/historic sites, and webcasts about programs and services.
- Governments will still need to "push" content to Canadians and provide outreach/education to increase awareness of Web 2.0–based services, as well as continuing to build awareness of current Web offerings.
- Current policies, directives, and guidelines must be examined to address gaps and to ensure governments' Web 2.0 usage is "governed" appropriately, particularly privacy and security concerns, ease of use and accessibility, and enabling internal access to social media applications.
- The use of Web 2.0 applications will not necessarily be an opportunity for cost savings; rather, the focus should be on improved communications and outreach. Overall, new

[2] Study results can be found at
http://epe.lac-bac.gc.ca/100/200/301/pwgsc-tpsgc/por-ef/agriculture_agri-food/2008/130-07/index.html and
http://epe.lac-bac.gc.ca/100/200/301/pwgsc-tpsgc/por-ef/public_works/2008/300-07/index.html

applications should complement and supplement traditional communications and service delivery channels, not replace them.
- Finally, Internet-based applications represent an opportunity for creativity in governments' interactions with [their] citizens. However, it requires governments to walk a fine line between information and recreation. The Government presence on the Internet is trusted, much more than other industries or institutions, but there is still a need to be careful so that Web 2.0 applications don't harm the existing Internet reputation.

The Introduction of Web 2.0 Technologies Within the Government of Canada

Use of Web 2.0 technologies in the Canadian Public Sector is very much in the investigative stage of the collaboration evolution curve. A number of departments/agencies were experimenting with the application of Web 2.0 tools, both internally with employees and externally with the public. Examples from these early adopters include:

- Natural Resources Canada started using a departmental internal wiki for employees to share information.
- The Department of National Defense started using podcasts for recruiting.
- The Department of Foreign Affairs and International Trade was using YouTube and Facebook for communicating foreign policy and recruiting.
- The Privacy Commissioner started blogging about privacy issues.
- Library and Archives Canada was experimenting with a national library in Second Life.

Within TBS, two major initiatives were undertaken: GCPEDIA and Communities of Practice. The remainder of this vignette will focus on these two cross-departmental internal efforts. Both initiatives were test-and-learn examples from the investigative stage of collaboration that took a more informal approach to start and then formalized and scaled implementation over time.

Sharing Knowledge Through a Government-Wide Wiki

The first Proof of Concept (POC) for a government wiki was launched in early 2008 and was originally named the TBSwiki (see Figure C.1 below). It was an initiative from the Chief Information Officer Branch of TBS, and it was used as a tool to collaborate and share federal government content and knowledge within and across federal departments. In October 2008, there were 1,000 registered users from 100 departments participating in this POC, and early results were considered successful, with positive feedback and many requests for new community areas.

In late 2008, a decision was made to expand the POC and rename it GCPEDIA in anticipation of the creation of an Enterprise Service (see Figure C.2 below). It is only accessible via the Government of Canada network, so contributors must be on a computer on a government network (.gc.ca) in order to access it. It is used exclusively for and provides information about the GC, as exemplified by its slogan, "People & Knowledge." GCPEDIA is open to about 250,000 people from over 150 departments and agencies, who may read the content anonymously. Users are required to be registered if they wish to add or modify content, which ensures that all contributions are attributable.

Figure C.1
TBSwiki Proof of Concept

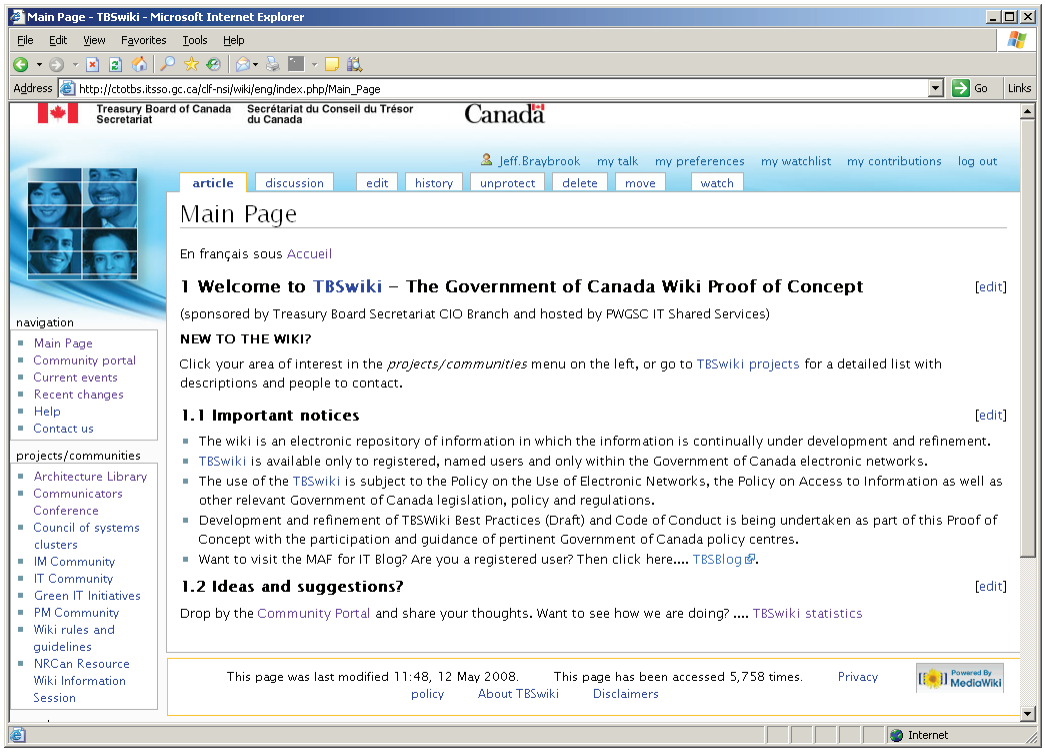
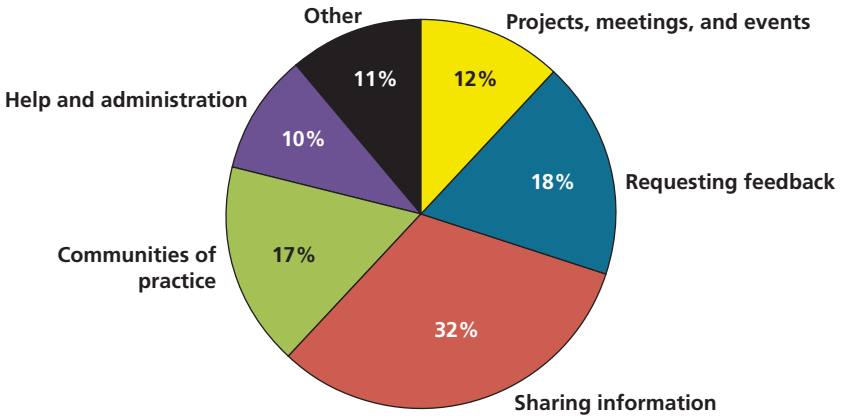


Figure C.2
GCPEDIA Main Page, November 2009

The adoption of GCPEDIA was hugely successful, and as of October 30, 2009, there were more than 9,400 registered users, with more than 300 new users registering per week. GCPEDIA includes hundreds of communities of interest, which cover a wide range of topics, projects, and groups of people. It also contains some 28,000 total pages and has recorded about 1.5 million page views. This high and ever-increasing level of uptake is clear proof that public servants recognize the value of this tool to their work. As quoted by TBS, "GCPEDIA extends the power of an individual employee beyond departmental borders to all of government—to build communities of interest, to innovate, to maximize the value of government for the benefit of all Canadians." Besides the traditional Wikipedia-like knowledge sharing, a range of uses provide value to users. Some of these are reflected in Figure C.3, which depicts the purpose of pages reviewed in an August 2009 content review.

Figure C.3
GCPEDIA August 2009 Content Review



From a governance perspective, GCPEDIA did not require a large formal organization to operate it, even when the scope of GCPEDIA was initially expanded to invite broader government communities to participate. GCPEDIA was deployed as an open environment in which communities can form, develop, and share open knowledge, with a limited number of rules. This enabled the environment to scale quickly in the early phases. As further expansion was planned, several operational items were underway:

- TBS developed options for a GC-wide hosted wiki/blog service, with a business model that includes funding options.
- A policy for using web-based social networking tools was developed by the government-wide wiki community.
- Publishing guidelines for acceptable use and lessons learned were being developed, as well as more extensive guidance on business value, metrics, and culture.
- The overall governance of the service is managed through an Interdepartmental Executive Steering Committee, which meets regularly to oversee project development, provide support, and ensure that the benefits of GCPEDIA are disseminated across the Government of Canada.

Overall, the TBS team found the best practices used by Intellipedia (an online system for collaborative data sharing used by the U.S. intelligence community) to be excellent and generally applicable. Some specific observations include:

- For a broad and dispersed enterprise such as the Government of Canada, GCPEDIA provided a unique meeting place for "acting as one." It was particularly useful to engage internal communities early and often in consultations around policy and strategy issues.
- Making the tool easy for everyone to access was important for encouraging adoption and allowing ad hoc collaborations to occur.
- There is an expectation of professional and courteous behavior, which is not new or different from other Web 2.0 tools. Fears of irresponsible behavior have proven to be unfounded.
- Resources are required to facilitate active participation in the community and to moderate content creation.
- GCPEDIA is more about good people communications than about the technology. The value of collaborative tools like GCPEDIA is not in the technology, but in how they enable community and re-use.
- There is a need to better understand the operational and governance models that would be most effective for a horizontal platform of this nature.

What's Next

The longer-term direction of GCPEDIA is expected to include professional networking directories of people and groups, blogs for specialized news sharing, and other functionality as the tool fully matures. There is also work in progress between TBS and other levels of government to see how GCPEDIA can be leveraged by provincial, territorial, and municipal governments across Canada; by national, regional, and state governments in countries around the world; and by international organizations.

Developing Communities of Practice Through Web 2.0

Introduction

The Canada School of Public Service (CSPS) is responsible for training approximately 250,000 Canadian federal public servants to ensure that employees have the right skills and knowledge to do their jobs well. The main headquarters of CSPS are located in Ottawa, with campuses across the country. From a learning perspective, CSPS is moving to a blended environment that includes conferences and events, e-learning, webcasts, and collaborative tools to complement the classroom courses already offered to public servants. During the past few years, CSPS has added Communities of Practice (CoPs) as an approach for employees to network, collaborate, learn from others, and share their knowledge.

As part of CSPS, a national Centre of Expertise in Communities of Practice (CECP) was founded in 2006 in Montreal, with the mandate to "promote and implement communities of practice and social learning approaches within the Public Service." There are 10 staff currently assigned to this function of providing services to enable successful communities within the public service.

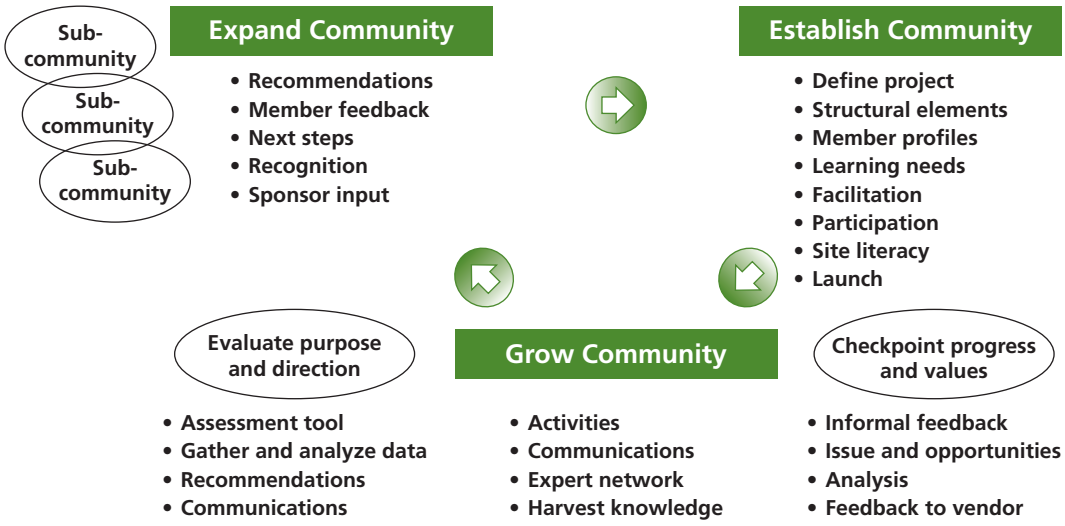
The CoP portal currently has 2,400 members, 55 communities, and about 32,000 learning objects that include announcements, discussions, best practices, blogs, documents, events, learning activities, multimedia files, and websites. The largest communities consist of 400–500 members. There is a mix of homogeneous and heterogeneous communities in operation that bring groups of experts together who have a common interest or objective. These communities are typically closed to outside members—one needs permission to participate. Based on Canadian federal laws, federal employees have the right to work in the language of their choice. Content can be posted and discussed in the member's chosen language.

The National Learning Community is open to all members of the portal and focuses on topics related to learning and professional development. Like all communities in the portal, it includes a "business card" function to document expertise, education, interests, and community memberships. Members are also encouraged to post their picture in order to personalize their profile. These fields are searchable across all communities and enable community members to find expertise across different communities and departments. This search function is an example of breaking down departmental silos, enabling employees to access required expertise from across the public sector.

Process Model

The CoP team uses a process model (see Figure C.4) to design, develop, and implement communities; the model is based on a community model originally developed by Hubert Saint-Onge and Debra Wallace.[3] This process model is used to help ensure that the communities created have the greatest opportunity to succeed. The core components involve creating the

Figure C.4
Community of Practice Process Model



SOURCE: Saint-Onge, H., and D. Wallace, *Leveraging Communities of Practice for Strategic Advantage*, Burlington, MA: Butterworth-Heinemann, 2003.

[3] Saint-Onge, Hubert, and Debra Wallace, *Leveraging Communities of Practice for Strategic Advantage. Burlington, Mass.*: Butterworth-Heinemann, 2003.

community, growing the community, and then expanding it. See Figure C.4 for more detail about the model. The team also developed a comprehensive evaluation strategy, with standard and customized packages to help government organizations assess the value of their communities and identify areas for improvement. It could take as little as 4 weeks to get a virtual community up and running but as long as 12–18 months to build a community that will add value to the business.

Services

To reiterate, the CoP portal is being used as an internal tool for public servants. The CECP works on a cost recovery basis, which means that the platform and support services are funded by a subscription fee that is paid by individual departments or organizations wanting to create a community. Once an organization is subscribed, it can create any number of subcommunities in the space. The subscription fee covers the resources required to provide and maintain the base service and allows the team to scale as new subcommunities are requested. The services offered by the CoP team include:

- Consulting services covering the process model (e.g., needs assessment, setting up a governance structure), project management, tools, and approaches.
- Presentations and training options, including technical training, online CoP facilitation, presentations on concepts and theories, and training on other collaboration tools.
- Evaluation services, including both standard and customized packages based on project goals and requirements.
- Tools and support services, including a 1-888 helpline, ongoing support for facilitators, and various resources and support tools for CoP implementation projects.

Lessons Learned

The CECP team has defined an extensive list of best practices for creating a CoP that covers areas such as facilitation, support and recognition, roles and responsibilities, a governance structure, and support services. One of the most important lessons learned is that facilitation is key, and community coordinators are necessary to engage and motivate members, monitor content and activity, and also play an informal cross-pollination role across communities. The overall role of facilitator varies across communities, but the CECP team has created an outline of key common tasks to set expectations with potential facilitators.

In addition to facilitation, the following list includes a number of key factors that seem to have an impact on participation and adoption of a community environment:

- Perceived value: Members must be aware of the benefits, and there should be a genuine need to exchange information, access expertise and work-related tools, collaborate, and so on.
- Give people time to participate and formal recognition for their participation.
- Be patient: Give the community time to grow.
- Useful content: Give members a reason to visit the community on a regular basis (e.g, resources, timely responses to questions or comments).
- Provide easy-to-find information.
- Conduct face-to-face activities (if possible); this helps to build trust.

- Workload: CoP activities should not be additional work, but rather complement what people are already doing. Integrate CoPs into work activities.
- Provide training on how to use the tool.
- Ensure that the tool is user-friendly.
- Technology that supports community activities: Make sure that the tool meets users' needs
- Technical support.
- User guide.
- Presence of a facilitator.
- Support from manager.

What's Next?

CSPS is migrating to a new Learning Management System—CoPs will migrate to this system, which will integrate collaborative tools with other system features, such as e-learning tools, reporting, online registration of all classroom courses, and events. Licenses have been purchased for all public servants, which means that the number of CoPs and members is likely to increase significantly in the coming years.

Conclusion

Overall, the Government of Canada has made significant progress on the internal use of Web 2.0 capabilities to share knowledge and expertise across departments. In particular, with the momentum building around GCPEDIA and the professional networking platform, the stage is set for further integration of Web 2.0 into the operations of the enterprise. The Government of Canada is beginning to apply these tools to its business processes to achieve a higher level of business value from the investment. The external use of Web 2.0 capabilities is still in the investigative stage, and future efforts are expected to focus on understanding how to use external Web 2.0 tools in an appropriate and policy-compliant way. In the end, the Government of Canada expects to transform the way employees interact with each other and with their clients, achieving the TBS mandate to increase the value-for-money in the operation of government.

APPENDIX D

Developing RAND's Collaboration Vision and Strategy[1]

Improved collaboration within a company (and among its partner institutions) not only translates to new levels of productivity among staff members, it also has the potential for solving the most challenging international issues that people in the 21st century face. Public policy decisionmakers around the world are looking for answers to complex issues, and increasingly the answer to these issues can only be acquired through the collaboration of experts from around the world. RAND's mission is to deliver high-quality research and analysis to tackle such complex issues.

Technological advances have been critical in allowing RAND staff to collaborate in real time from any location, at any time of day, and within the context of any project. But technology alone does not enable RAND to achieve its highest-priority objectives. Technology must be guided by a clear vision and strategy that links the technology initiative to business goals. The purpose of this case example is to illustrate how RAND formulated a clear, well-focused collaboration vision and strategy for capturing the value of collaboration to advance the quality of its research. Defining a succinct collaboration vision and strategy statement helps to not only inform technology investments, but also to direct the utilization of these technologies toward an objective that translates into tangibles that benefit the corporation as a whole.

Introduction

Collaboration is at the heart of how RAND delivers quality research to clients around the world. The following vision and strategy statements summarize how RAND plans to leverage the value of collaboration to further its mission:

- **RAND's Collaboration Vision:** By connecting people with expertise across the organization, collaboration will enable RAND to mobilize its full capabilities in order to deliver the best-quality research to clients.
- **RAND's Collaboration Strategy:** Solutions will be provided to (1) locate experts around the organization, (2) enable rich collaboration among distributed teams, and (3) provide a common gateway through which collaboration services are easily viewed and accessed.

After a brief description of the RAND Corporation as a research institution, a step-by-step approach is described that explains how RAND crafted its own collaboration vision and strategy statements. Research institutions can benefit from this approach as they work to leverage the value of collaboration to further their high-priority objectives.

[1] Donny Wise of RAND has written this case study in coordination with Pat Horrigan, Ed Balkovich, Woody Stoeger, Beth Apillanes, Wally Brechtelsbauer, and Steve Pomush.

What Is the RAND Corporation?

RAND is a not-for-profit institution whose mission is to help improve policy and decisionmaking through research and analysis. RAND employs approximately 1,500 people and pursues its mission by conducting research on topics faced by policymakers around the world, including national security, healthcare, criminal and civil justice, public safety and homeland security, intelligence and counterterrorism, education, labor and population, and science and technology. Tackling some of the most challenging international issues of today, RAND depends on a staff of expert researchers working in various locations around the world.

Why Is Collaboration Important at RAND?

Research at RAND is characterized not only by technical depth and methodological rigor, but also by an analytical approach that is collaborative. Multidisciplinary teams work together to deliver research and analysis that bear the key characteristics of *quality* and *objectivity*.

As a result, collaboration at RAND means *multidisciplinary teams working together on complex issues to deliver high-quality research and analysis for policy and decisionmaking.*

Developing a RAND Collaboration Vision Statement

A *collaboration vision statement* is a succinct statement that defines how collaboration creates specific value for that organization. In order to define how collaboration could add value at RAND, a face-to-face interview was held with a vice president who had visibility into the company's current priorities and responsibility for all of RAND's support departments. The interview began by describing how collaboration can generally benefit a company. This benefit is encapsulated in four words: *reach*, *richness*, *openness*, and *speed*. We tailored the definition of these words within the context of what is important to RAND:

- **Reach:** Collaboration enables researchers to reach other experts across the organization, helping ensure that research projects are staffed with the right people, regardless of location and time zone.
- **Richness:** Collaboration connects people and brings new ideas to life.
- **Openness:** Collaboration bridges gaps between groups and creates a culture in which researchers benefit from peer experience and information sharing.
- **Speed:** Collaboration accelerates a person's ability to deliver quality output.

Below are the follow-on questions that were asked and the answers that the vice president gave:

Question: How do you see collaboration furthering RAND's business objectives?

Answer: Collaboration will enable us to mobilize RAND's full capabilities in order to deliver the best-quality research to our clients. Our clients choose RAND over other institutions because of the *quality* of our research. It is therefore important to enable staff at RAND to have rich collaborative interactions to ensure that research projects are properly staffed and

that activities during the research lifecycle deliver high-quality solutions within the client-specified time and budget constraints.

Question: What are the key areas within RAND where you see the need for increased collaboration?

Answer: The question is, "How do I find out who and what I don't know?" If I don't know there is a new researcher at RAND who has expertise in a problem I am trying to solve, I don't gain the benefit of that expertise. What is needed is not merely *more* collaboration, but *optimal* collaboration. I need a way to find the best sources of information inside and outside the corporation. And I need a way to see whether a particular researcher meets the requirements of the project that I am executing. Partnering with our clients is important, so we need to provide primary investigators (who act as the face of RAND to the customer) with a way to connect with staff around the organization.

Question: Do you have collaboration initiatives planned for this year?

Answer: Yes, but we need to get additional feedback from researchers in order to ensure that our initiatives align with their high-priority needs. We also need to provide them with information on what tools we already have, as well as information on how these tools can be useful to their research efforts.

After this interview, several focus groups and one-on-one discussions were held with individual researchers to form a holistic view of how collaboration can benefit RAND. Subsequently, the following collaboration vision was crafted:

> **RAND's Collaboration Vision:** By connecting people with expertise across the organization, collaboration will enable RAND to mobilize its full capabilities in order to deliver the best-quality research to clients.

Developing a RAND Collaboration Strategy Statement

While the vision describes how collaboration creates value for RAND, the *collaboration strategy statement* outlines a systematic plan of action, explaining how to execute on the vision. Based on the executive interview, RAND's Information Services and Technology (IST) collaboration program worked to identify three key goals that will achieve RAND's collaboration vision. Each of the goals below is the result of extensive discussions with both researchers and executive management:

1. *Deliver solutions that locate experts around the organization* so that all of RAND's intellectual capabilities can be brought to bear on the complex issues brought to us by our clients.
2. *Improve the quality and relevance of existing technology offerings* by (a) upgrading the quality of collaboration tools so that distributed teams can have rich interactions with each other and with experts and (b) educating users on best practices in applying tools to their research activity.
3. *Integrate technologies* so that people can access information from a common gateway, saving time and money.

This strategy lays the groundwork for follow-on projects that will first be tested with smaller research teams and then expanded throughout the organization.

Collaboration Vision and Strategy Guidelines for Research Institutions

For research institutions working to develop their own collaboration vision and strategy, the following three points provide guidelines that can help deliver value to end users.

1. Shift from focusing merely on *technology* to focusing on *partnering with the research community*. This shift has allowed RAND's IST department to have discussions with research teams in a way that positions IST as an *enabler* rather than merely a *utility provider*.
2. Identify and interview individuals who are interested in aligning information technology with the research process.
3. Conduct focus groups with researchers at your company to identify barriers to collaboration and gather requirements for technology initiatives.

In summary, RAND's collaboration vision and strategy will help integrate the RAND offices around the world, strengthen collaboration among distributed teams, and ensure that top expertise is brought to bear on the complex issues that RAND's clients face.

APPENDIX E

Cisco: Creating the Next-Generation Collaborative Enterprise[1]

The objective of this case example is to illustrate how collaboration has evolved at Cisco, resulting in support for a new business model and in creating business value. Cisco is crossing the collaboration chasm to achieve even higher levels of performance.

Introduction

Cisco Systems, Inc., is known as the worldwide leader in networking for the Internet. Founded in 1984 in San Jose, California, Cisco now employs more than 65,000 employees globally. As a multinational corporation, it recorded annual revenue in its 2009 fiscal year of over US$36 billion. Cisco hardware, software, and service offerings are used to create solutions that enable individuals, companies, and nations to increase productivity, improve customer satisfaction, and strengthen competitive advantage.

At Cisco, the vision is to change the way people work, live, play, and learn. Collaboration and Web 2.0 have played a foundation role in achieving this vision. Collaboration and Web 2.0 have enabled growth and innovation strategies that include over 130 acquisitions, a tremendous number of partnerships, and support of globally distributed product development and manufacturing processes. Cisco uses a structured approach to define the vision, strategy, and execution for all internal organizations to ensure that departments are aligned with the broader corporate vision, and collaboration is key to ensuring success. Cisco has focused on collaboration from a technology, process, and culture perspective for almost ten years, and it has evolved from early investigative efforts to now applying collaboration to transform business processes—creating what it calls the *next-generation collaborative enterprise*. This case study provides a few examples of that evolution, but, first, a glimpse of Cisco's latest results.

Capturing the Value of Collaboration

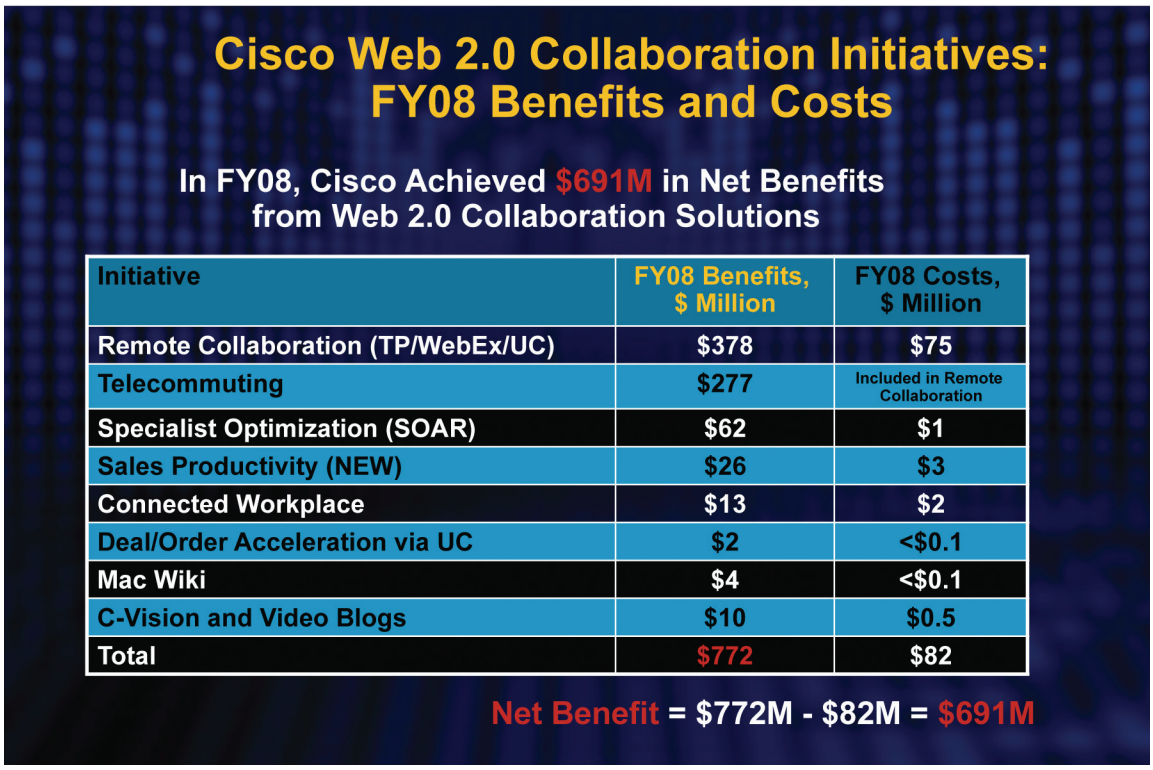
Cisco is in the next phase of the Internet, where Web 2.0 and social networking technologies are enabling collaboration between employees, customers, and partners in entirely new ways. As a company, Cisco has evolved from work based on traditional transaction-based systems to work based on interactions and collaboration, in which effective collaboration enables the

[1] We are very grateful to Brendon Hynes, Al Slamecka, Mike Mitchell, and Michael LaManna for sharing their thoughts and experiences from Cisco. Felicia Brych from Cisco has written this case example in collaboration with Brendon, Al, Mike, and Michael.

exchange of information and expertise, resulting in increased business agility and unprecedented levels of productivity.

Investment in a collaborative business model, culture, and technologies proved worthwhile recently, due to the research completed by the Internet Business Solutions Group (IBSG), the Cisco strategic consulting arm. IBSG demonstrated that, during the Cisco 2008 fiscal year, the company's Web 2.0 benefits had accrued in three areas: cost reduction, increased margin through revenue acceleration, and time savings, resulting in an overall net savings of US$691 million. The results were broken down into several key initiatives, with remote collaboration and telecommuting providing the greatest benefits. The total cost to achieve the full benefit was just $82 million. See Figure E.1 for a more detailed breakdown of these results.

Figure E.1
Cisco FY2008 Benefits of Web 2.0



SOURCE: "The Economics of Collaboration at Cisco," April 2009, available at http://www.cisco.com/web/about/ac79/docs/pov/Economics_Collaboration_POV_FINAL_041009.pdf

The Investigative Phase: Collaboration to Communicate and Reduce Expenses

In the past decade, there are numerous examples of Web 2.0 and collaboration technologies being investigated and deployed within Cisco to deliver a business outcome and provide a level of productivity improvement. Whether the tools were video blogs, telepresence, discussion forums, or wiki-based, they all address a particular task. Most of these tools have led to

improved communications and reduced travel and other operating expenses. The financial benefit from many of these efforts is documented in Figure E.1.

One particular tool that has made a significant impact on internal communications is video blogging. John Chambers, Cisco CEO and Chairman, posts a video regularly to communicate to employees what's on his mind and to make special announcements. The impact is significant because employees now watch him creating these short messages from his desk, versus reading the message in an email or announcement posted on the Web. The richness of video ensures that what's on John's mind remains on the minds of employees longer than would be the case with traditional text-based announcements. The net benefit in fiscal year 2008 from the use of video blogs and Cisco's internal video sharing portal was calculated to be US$9.5 million.

Another example of a Web 2.0 technology that reduced operating costs is the Mac wiki. With more Cisco employees using Macintosh computers as their platform for work, the need to address support for them escalated. Macs are a nonstandard platform, and IT was not in a financial position to begin supporting them in addition to the other standard platforms. The model that evolved was "self-support" through a community environment, in which the community of users pooled their knowledge to support each other. A wiki was initially used to post and share information, and then, with very minimal resources, a full self-support process was documented. The resulting benefit was approximately US$4 million. Users were more satisfied that they could now officially purchase their preferred work platform, and IT was pleased that it was able to provide a support model that did not cause major budget challenges.

We'll now take a look at how the fundamentals of Cisco's leadership and management processes have evolved.

Implementing a New Business Model and Process to Accelerate Collaboration

Over the past eight years, Cisco has evolved from a command-and-control leadership model to a cross-functional collaborative model that uses councils, boards, and working groups to facilitate executive decisionmaking, create cross-functional alignment, and guide business initiatives. There are more than 750 company executives now involved in this management structure. The Cisco Collaborative Model is based on three pillars: an organizational structure of councils and boards; an approach to drive business model decisions through vision, strategy, and execution (VSE); and defined market adjacencies to grow new markets and solutions. The long-term results of this model are demonstrated by company growth from FY2001 to FY2009: Revenue increased by 64 percent in this period, and market share expanded—Cisco went from being a leader in two categories to 12 categories.

Part of the new collaborative model was an approach to document the process, including best practices and lessons learned while evolving to this new leadership model. The Cisco Corporate Positioning team documented these learnings over the past several years to create C-Change: an approach to greatly increase the speed with which cross-functional groups form, accomplish goals, and disband. C-Change provides a more effective approach for making decisions, coordinating resources, and tracking accountability—enabling corporate speed, scale, and flexibility. Cisco credits C-Change with enabling the company to take on 28 business priorities this past fiscal year, compared with only two priorities just two years earlier. C-Change

includes a toolkit that provides resources for creating key planning and management documents, such as a VSE, a team charter, and a ten-point plan. The approach includes links to numerous training videos and eLearning modules to help with effective adoption of the approach. Figure E.2 provides a summary of the Cisco evolution from command-and-control leadership to collaboration.

Figure E.2
Evolution of Collaboration at Cisco

Cisco has recently restructured its council structure into five customer-segment councils (Enterprise, Commercial, Service Provider, Small Business, and Consumer) and four cross-segment councils that will focus on innovation and operational excellence (Connected Architecture, Emerging Solutions, Emerging Countries, and Connected Business Operations). The restructuring will create tighter alignment and clearer accountability, encourage more cross-functional engagement, eliminate organizational overlaps, and ensure that resources are prioritized and aligned for execution and growth. This strategic planning process is a core component of becoming a next-generation collaborative enterprise.

The Performance Phase: Applying Collaboration to Business Processes

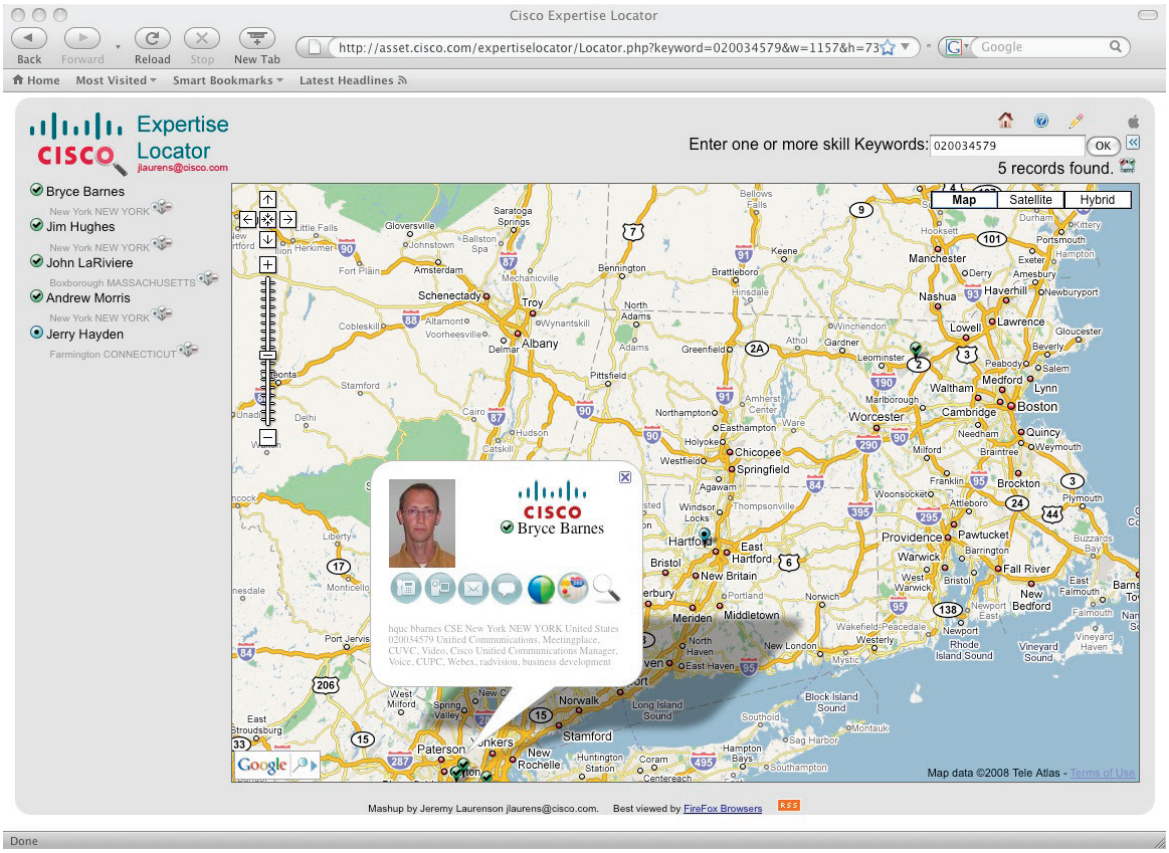
As we move from the investigative phase of collaboration to the performance phase, we start to enable existing business processes with collaboration solutions and to more formally address the people and culture requirements. One particular example of this enablement is the Specialist, Optimization, Access, and Results (SOAR) program. Within the Sales function of the U.S.

and Canadian theater, specialists in advanced technologies were often called on short notice to provide their subject-matter expertise and help with closing a deal. However, the availability of these specialist teams to support account teams was constrained and could not scale to meet demand. As a result, their limited availability was leading to a longer sales cycle.

To address this business problem, the SOAR program was established to optimize the Cisco specialist sales process by leveraging virtual tools and Web 2.0 technology, a perfect example of crossing the collaboration chasm and moving to the performance phase of collaboration. The objectives of SOAR were to improve access to subject-matter experts, to accelerate technology growth, to improve employee productivity, and to leverage advanced expertise through a virtual model. The solution included offloading routine support tasks and providing more self-help tools that account teams could use to answer simpler questions. This was accomplished through a reference database and a WebEx Connect community. Video was also used to effectively deliver virtual product demos on a regular basis, which helped to shorten the sales cycle. In addition, an expertise locator with remote collaboration capabilities was developed to enable high-value interactions between these Cisco specialists, account teams, and customers (see Figure E.3).

The results of SOAR were phenomenal: a 45 percent increase in specialist interactions with customers, a 9–14 percent specialist productivity increase, and an increased margin of US$50 million from reducing the sales cycle. Overall, SOAR improved market coverage,

Figure E.3
The Expertise Locator Function of SOAR



scaled expertise, and increased customer face time. From an individual perspective, specialists significantly reduced their amount of travel and were very happy to cover a broader geographic area while staying close to home.

Another example of Cisco crossing the chasm to the performance phase is focused on the process of improving innovation. In June 2006, the Emerging Technology Group (ETG) launched an internal Web 2.0 wiki named I-Zone, to which employees could contribute ideas to help shape new product and business opportunities. I-Zone was a way to capture new ideas about products, sales models, markets, and ways to integrate existing Cisco products into solutions. It was also an opportunity for employees whose ideas were of interest to potentially join the ETG development team to bring the idea to market.

The result was highly successful; this early, investigative use of wiki technology was later enhanced and applied to a detailed technology evaluation process in which thousands of ideas could be screened down to a list of feasible ideas, which would be analyzed and documented into business cases, with a final result being several new business units for new technologies. The process also involves the Action Learning Forum (ALF), which is part of an executive development program teaching high-potential employees how to evaluate new technology opportunities.

The Performance Phase: Measuring the Business Impact

When developing a strategy to measure the impact of collaboration efforts, organizations too often turn to capturing usage metrics of collaboration tools, and rarely are able to correlate them to business outcomes. The Sales organization responsible for markets in developing countries, known as the Emerging Markets Theatre, is overcoming this challenge as part of the Emerging Markets Virtual Theatre (EMVT) initiative. EMVT is an environment in which the selling community rapidly connects to the information and expertise necessary for driving sales growth within the theatre. It is a Web 2.0 solution, integrating various technologies that allow for easy capture and reuse of content, real-time connection to theatre expertise, and encapsulation of daily experiences into knowledge assets, all of which can be rated and ranked by the various recipients.

The benefits of these EMVT capabilities are tangible in the acceleration, efficiency, and accuracy of the activities involved in the sales cycle. Besides traditional operational benefits, the metrics framework for EMVT also provides a view of the overall effect on sales success and can be a valuable calibration tool with which to align the environment, creating the greatest impact on the sales cycle. This is especially valuable for driving performance in such high-growth areas as strategic accounts, where EMVT provides private collaboration spaces for each strategic account, and activities within the space are related to established sales benchmarks (e.g., Cisco's Integrated Selling Process).

The metrics framework for EMVT provides theatre management with various views of collaboration activities—from theatre-wide, to community-specific, to role-specific. These various views provide valuable insight on theatre collaboration—activity levels, formal (document) versus informal (discussion thread) sharing, strategic account collaboration, cross organization dialog, and so on. Beyond platform-centric metrics, significantly greater business visibility and insight are possible when collaboration is correlated to sales performance goals, especially for communities in which processes guide activities. In these cases, team performance goals and/

or individual performance goals can be closely aligned with and measured against collaboration activity.

Initially, the Emerging Markets Theatre can use the resulting analysis to better calibrate the features and functions of the platform. The accuracy of process-related activity analysis will improve as the volume of collaboration activities increases, providing a significant opportunity for the theatre to establish truly competitive differentiation through its sales execution. The strategic account collaboration spaces mentioned will be the first area where this benefit will be realized. It is important to note that the benefits from this EMVT environment can only be obtained if participants adopt and incorporate the platform into their daily activities. The change-management effort to promote the platform is underway, with the anticipation that metrics in the coming quarters will clearly show the benefits of the environment.

Next Steps: The Transformational Phase

The internal I-Zone idea described above was expanded externally in October 2007 to create I-Prize, Cisco's first attempt with an open innovation concept. A global innovation contest was later launched during the opening of the Cisco Globalization Center in Bangalore, India. Within the first three months, it attracted more than 2,500 entrepreneurs from 104 countries, who submitted more than 800 ideas for a chance to win the US$250,000 cash prize. Entrepreneurs were provided with access to Cisco collaborative technologies: They joined online forums to brainstorm and comment on ideas, they formed teams, and they drafted business plans for a chance to join Cisco and help take their idea to market.

The Cisco I-Prize is an example of how new Web 2.0 and collaboration technologies were combined into solutions to enable entrepreneurs to virtually come together and create a world forum for exchanging new ideas and innovating. The application of these technologies to a new internal technology evaluation process enabled Cisco to take full advantage of this approach to open innovation—a great example of the borderless enterprise. The winning team consisted of brother-and-sister computer science students from two German Universities and a systems engineer from Russia. They collaborated to propose a way to use the network as the platform to manage energy-consuming systems—a very important world problem to solve.

As Cisco continues to drive business value through collaboration, it will review business priorities and determine where collaboration will have the greatest impact to connect people, information, and expertise (Collaboration Impact Zones) and to begin to transform additional business processes. The end goal is to create a collaborative workforce, a next-generation business architecture, and the right technology environment to enable the transformation. Cisco has already started on this journey through its development of an Integrated Workforce Experience (IWE). Through a continued focus on people/culture, process, and technology, Cisco is expecting to enable the greatest opportunities for productivity improvement and revenue growth—creating the next-generation collaborative enterprise.

The Cisco view of the collaborative enterprise and how to accelerate business value is documented in the executive guide, "Creating a Collaborative Enterprise." More examples about the Cisco collaboration experience can be found in this guide at http://www.cisco.com/web/about/ciscoitatwork/downloads/ciscoitatwork/pdf/CollaborativeExecutiveGuide.pdf.

APPENDIX F

Collaboration Enables Renault's Globalization Initiatives[1]

The objective of this case example is to illustrate how collaboration drives business value at Renault.

Introduction

Renault SA is a France-based company primarily engaged in the manufacture of automobiles and related services. Renault has two main areas of business activity: the Automobile division, which handles the design, manufacture, and marketing of passenger cars and commercial vehicles, under the Renault, Renault Samsung Motors, and Dacia brands, and the Sales Financing division, which provides financial and commercial services related to the company's sales activities and is comprised of RCI Banque and its subsidiaries. Renault operates worldwide via a group of subsidiaries and dependent companies, including Renault SAS (wholly owned), Dacia (99.43 percent owned), Nissan Motor (44.3 percent owned), and AB Volvo (20.7 percent owned), among others. For 2008, total revenues are US$37.8 billion, and the number of employees worldwide totals 129,070. Established in March 1999, the Renault-Nissan partnership is referred to as the Alliance in this document.

Leveraging its strong presence in the French and European markets, Renault is expanding around the globe and is leveraging talent and expertise in local markets. For example, the Engineering Center in France has historically been the center of competence for the company. In recent years, Renault SA has built an international network of engineering centers, including Renault technology centers in the Americas (Brazil and Argentina), Romania, Spain, South Korea (with Samsung), and India, in addition to the Technocentre in France, which remains the company's engineering headquarters. This reflects an internationalization of the Renault corporate culture and a broadening of its operating environment away from a historically dominant French-speaking corporate culture.

The expansion of engineering centers on a global basis has spurred the need to use Web 2.0 and new-media tools to enable collaboration between employees located in engineering centers and plants around the world. Initially, collaboration was applied internally; it has been extended to suppliers in the perspective of enabling an extended enterprise. Renault Information Systems (IS) has been instrumental in extending the Renault collaboration approach to the Alliance and the Renault suppliers.

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[1] We are grateful to Jean-Marc David from Renault SA for sharing his thoughts and experience with collaboration at Renault. Felicia Brych from Cisco and Francois Joanette from SBT Advisors have written this case example in collaboration with Jean-Marc David.

Approach to Collaboration

Several collaboration tools have strengthened collaboration at Renault.

eRoom and eConf are two key collaboration tools launched in 2003–2004 that were, again, spurred by the need to globalize operations. Although at that time the economics of the automotive sector started to deteriorate, this was not the dominant factor behind adoption. These two tools are defined by Renault as business-to-employees (B2E) and business-to-business (B2B) collaboration tools.

eRoom is an online document-sharing tool, which has been chosen jointly by Renault and Nissan to improve the quality, cost, and speed of performance through exchange of content. Employees and partners share documents, such as text files, Excel files, slides, and planning documents; update contents; exchange alerts and notifications; consult regularly updated files, databases, and schedules; and carry out project management tasks. It is free of charge for a partner or suppliers to work in an eRoom hosted by Renault.

eConf is a tool that allows remote real-time meetings (conferences) with a document or application to be shared, presented, or worked on with participants all around the world, with each participant using his or her own computer. eConf has a wide variety of functionalities—chat, whiteboard, shared consultation and finalization of documents, slides, and compatibility with numerous documents and applications. In addition, the conferences take place on a platform that encrypts the entire session and enables secure document exchanges.

Renault is also a founding member of Covisint, an online purchasing consortium representing Ford, General Motors, DaimlerChrysler AG, Nissan, and Renault. Renault and its partners expect to realize material cost reductions from their adoption of Covisint-based procurement methods, leveraging Covisint's negotiating power over an estimated 50,000 suppliers. However, Covisint did not offer collaboration services in 2003, leading to the need for Renault to offer B2B collaboration tools. This situation created the opportunity for Renault to launch a joint B2E/B2B project to offer the same tools for Renault employees for internal and external collaboration.

Adoption of Collaboration

More than 45,000 people are registered users of eRoom, including 10,000 users outside France located in over 40 countries. eRoom has been very rapidly adopted by users and departments. It has become "the way people work, and very important for the company," according to Jean-Marc David.

A driver of the rapid and widespread adoption of eRoom is Renault's past adoption and success with Lotus Domino, which was very widely used at the end of the 1990s. Adoption of Domino had already started to foster collaboration and prepared the ground for the successful adoption of eRoom/eConf.

Benefits of and Business Case for Collaboration

The primary and by far the dominant driver of the business case for collaboration has been travel cost reduction. Each department and organization has internally estimated the benefits

of collaboration and has continued to justify the deployment of eRoom and eConf on the basis of travel cost reduction (time savings amounting to fractional full-time equivalents, or FTEs, are not included in the business cases and ROI calculations). The focus on travel cost reduction is ongoing, especially given the conditions in the automotive sector. Forecast travel cost reductions have been achieved and captured.

Over time, however, users have observed and benefited from collaboration beyond travel cost reduction. For example, eRoom and eConf have saved weeks and months in the development process. Also, suppliers have saved significant cost and time because eRoom and eConf have ensured that they are always working on the most recent version of engineering blueprints and documents, avoiding the costly mistakes associated with working on outdated versions. Users were not initially aware of those benefits when considering eRoom/eConf, but many internal and external departments and organizations are now realizing cycle time benefits from collaboration. In the language of the collaboration evolution curve, Renault is transitioning from the investigativephase to the performance phase.

Governance Around Collaboration

Renault's IS department and the B2E and B2B programs are responsible for governance for collaboration. They support the adoption of eRoom/eConf with methodology and a consultative group.

Renault's collaboration methodology describes "the way you should work as teams." It includes an approach to collaboration—such as how to manage documents and how to establish communities of practice—and generic templates—such as how to use documents and how to share information.

Renault support also includes a consultative group, which helps potential users analyze how they currently work together and recommends new work practices enabled by collaboration—eRoom and eConf—to improve team effectiveness.

With those two support components, the IS team is well positioned to jointly work with business management to formulate an approach to collaboration. While a department's interest in collaboration often initially starts with a request for eRoom, the consultative group ensures that users get the maximum benefits of collaboration and the tools tailored to their requirements.

Future Evolution of Collaboration at Renault

The continued evolution of collaboration at Renault will help to address four challenges: (1) the multilingual environment, (2) employee mobility needs, (3) travel costs, and (4) the ability to find experts.

First, collaboration will have positive impacts on Renault's multilingual environment. While collaborating in French was the norm when most of Renault's talent was located in France, Renault's current globalized operations involve multiple cultures collaborating in multiple languages. Automatic translation tools and terminology databases have been rolled out since 2001 to enable multilingual translation. For example, in 2008 more than 6 million documents were translated using these tools.

Collaboration initiatives will also improve mobility. Renault IS is facing the challenge of enabling collaboration for an increasingly mobile workforce—one that works at home and on the road in addition to in the office.

Improved collaboration will also aid in reducing travel costs. Although much progress has been achieved in reducing travel costs, this is an ongoing focus given the global recession and its impact on the automotive sector.

Finally, improved collaboration will result in being able to find key experts. With Renault's increased size, global operations, and complexity, finding expertise on a timely basis is increasingly challenging. For instance, there are more than 12,000 employees in the Guyancourt technical center interacting with the remainder of the centers in the network.

Key Takeaways

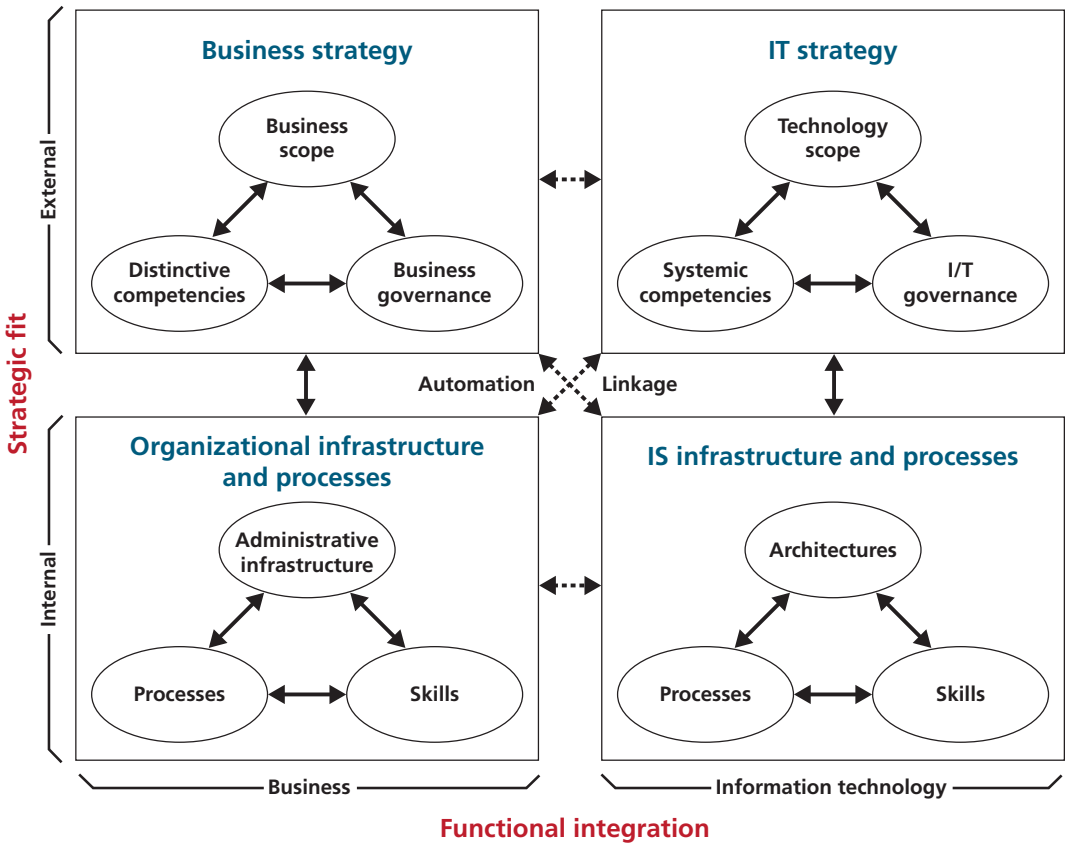
Collaboration at Renault SA has been very successful and demonstrated tangible impact on cost reduction, acceleration of cycle time, and quality metrics of key business processes. Renault IS plays a key role in the governance of collaboration and works closely with business leaders.

APPENDIX G

Business-IT Alignment

A strategic alignment model explores the relationship between business and IT during the corporate strategy processes. Finding the right fit between external positioning and internal arrangements enhances economic performance. Figure G.1 illustrates a connecting line between strategy and IT master plans, usually formulated as an internal response to business strategy. Achieving the best fit between strategy and the other main business variables is a dynamic exercise.

Figure G.1
Business-IT Alignment



SOURCE: John C. Henderson and N. Venkatraman, "Strategic Alignment: Leveraging Information Technology for Transforming Organizations," IBM Systems Journal, Vol. 32, No. 1, 2003, pp. 4–16. Used with permission.

Strategic fit is the vertical linkage associated with the integration of the external environment (business scope, partnerships, alliances, and core competencies) in which the firm competes and the internal environment (organizational structure, human resources, and business processes) in which the firm performs. The strategic and functional fit and vertical and horizontal linkages determine the relationships between IT and business.

The two vertical and horizontal linkages translate into four quadrants: business strategy, IT strategy, organizational infrastructure and processes, and IT infrastructure and processes. Each quadrant is interrelated, and how they relate represents the company's perspective or alignment orientation. A change in one quadrant creates the needs for changes in the other quadrants to maintain both strategic fit and functional integration.

APPENDIX H

Collaboration Consortium Subgroup Membership List, October 2009

Francois Joanette, Managing Director, SBT Advisors, and Felicia Brych, Communications Manager, Cisco, facilitated and participated in all subgroups. The titles listed here were current as of October 2009.

Subgroup	Members
Vision and Strategy	Donny Wise (Chair) *Program Manager, Collaboration, RAND Corporation* Ana Borrego *Team Leader, Corporate Strategies and Sourcing, Santander Group* Brendon Hynes *Customer Solutions Manager, Collaboration Business Services, Cisco* Miguel Angel Lozano *Chief Technology Officer, CEMEX*
Business Models	Hans Hysing Olsen (Chair) *Corporate Resources and Information Manager, Statoil* Catharine Findiesen Hays *Project Director, The Future of Advertising, SEI Center for Advanced Studies in Management, the Wharton School, University of Pennsylvania* Vidar Hepsø, Ph.D. *Principal Researcher/Project Manager, Integrated Operations and Process Control, Statoil* Brendon Hynes *Customer Solutions Manager, Collaboration Business Services, Cisco* Abhay Prasad *Senior Manager, Customer Business Transformation, Cisco* Brian Suckow *Director, Internet Business Solutions Group, Cisco*
Adoption	Jeff Braybrook (Chair) *Senior Director, Community Engagement and Oversight, Treasury Board Secretariat, Government of Canada* Jeff Barth *Director, MyPepsiCo, PepsiCo* Rich Doody *Manager, Knowledge Management, PepsiCo* Renate Fruchter, Ph.D. *Director, Project-Based Learning Lab, Stanford University* Thom Kearney *Senior Director, Applied Architecture, Treasury Board Secretariat, Government of Canada*

Subgroup	Members
Adoption (continued)	Bev Mitelman *Manager, National Center of Expertise in Communities of Practice, Canada School of Public Service* Mike Mitchell *Director, Collaboration Business Services, Cisco* Hope Seidman, Ph.D. *Supervisor, Research and Development, Canada School of Public Service*
Culture	Michael Engel (Chair) *Global Head IT Architecture, Novartis* Girish Hadkar *Manager Corporate IT, Mahindra Group* Kristen Mains *Director, Corporate Communications Strategy and Integration, Cisco* Martha Russell, Ph.D. *Associate Director, Media X, Stanford University* Mandar Vartak *Dy. General Manager Corporate IT, Mahindra Group*
Metrics	Ed Balkovich (Co-chair) *Senior Information Scientist, RAND Corporation* Rahul Koul (Co-chair) *Manager Strategic Marketing, Wipro Technologies* Chris Beveridge *Senior Manager, Corporate Positioning, Cisco* Jean-Marc David *Advanced Studies and Projects, IS Division, Renault* Chuck House *Executive Director, Media X, Stanford University* *Mukundh Thirumalai* *Manager, Customer Business Transformation, Cisco*

NOTE: Carolyn Crews, Director, Internet Business Solutions Group, Cisco, contributed to the final development of the Collaboration Readiness Assessment Interpretation Guide.