

Reading List

Siemens Best Practices

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Knowledge Management Case Book: Siemens Best Practices edited by Thomas Davenport and Gilbert Probst; 2002 John Wiley/Publicus Corporate Publishing (336 pages)

This knowledge management casebook is one of the best documented studies of knowledge transformation at work in a global business powerhouse. Siemens has been rated as one of the top ten KM-driven companies worldwide, according to Teleos' international benchmarking exercise, [Most Admired Knowledge Enterprise](#), thanks to its comprehensive efforts at fostering, promoting and optimizing knowledge utilization.

The 19 chapters covering Siemens' KM journey have been compiled by a team of 44 writers, including business executives, managers, interns, professors and graduate students. The material is divided into seven sections, covering overall KM strategy, transfer techniques, communities of practice, e-learning and organisational change.

With a diverse group of companies and almost half a million employees globally, Siemens is one of the world's oldest and most successful corporations -- which successfully adapted to the chaotic world of the Information Age to restructure itself around its most valuable assets: its knowledge base and people.

"Companies today live in knowledge ecologies where one company feeds knowledge into another. What counts is a networked approach to KM, involving internal as well as external parties. The logic behind this is as simple as it is compelling: if you cut off the outflow of knowledge, you will also cut off the inflow. We believe, therefore, that the firm's openness to external experts and the sharing of ideas within a broad network will be a key driver for maintaining competitive success at Siemens," begin the editors Thomas Director of the Accenture Institute for Strategic Change and University of Geneva professor Gilbert Probst.

"Increasingly, information is either a part of, or an important facilitator of, Siemens' diverse businesses. Since KM is greatly enhanced by the effective use of IT, it's not surprising that Siemens was a relatively early and enthusiastic adopter of KM. The IT-driven nature of the company's businesses also provides a strong motivation to manage knowledge effectively. One attribute of these technologies is that they change very rapidly; keeping up with various computing and communications technologies is much easier when a company has a system for rapidly circulating new knowledge."

But KM is more than technology, and Siemens has also focused on a culture of sharing, synergy and customer focus, especially in markets and fast-moving technology areas where the customer needs are more for total business solutions and sector intelligence than mere technology components.

KM at Siemens began in a bottom-up manner via various mid-level initiatives in communities of practice and bodies of knowledge. Managers of these initiatives themselves formed a semi-official community of practice. This was then followed by a corporate knowledge function which officially supported and coordinated these various initiatives, via the creation of the Corporate KM (CKM) office in 1999.

The Corporate KM (CKM) office held an international meeting in Munich in May 2000, drawing over 200 managers and KM practitioners to formally reflect on the company's KM strategy via the CKM Council and CKM TaskForce. Moving beyond a loose association of KM followers, the company now has formal support, constancy, transparency and a joint approach for KM practices.

The vision statement, goals and roles at the company now formally emphasise the role of knowledge and sharing. CKM has initiated over a hundred KM projects divided across lines of geography, industry and functions. It has received numerous awards across Europe and the US, such as APQC, MACILS, KVD and Teleos.

InKnowVate is the registered trademark for Siemens Corporate Information and Operations Knowledge Management (CIO KM) activities. As a combination of the verbs innovate and know, it represents the final stage of the CIO KM roadmap: initiate, mobilize, institutionalize and innovate.

The company has developed various knowledge content domains such as best practices, customer knowledge, competitive intelligence, product knowledge and financial knowledge.

A unique aspect of the book (and of KM practices at Siemens) is the contribution by collaborating academic institutes such as the Universities of Munich, Graz, St. Gallen, Geneva and MIT. The academic inputs helped develop the case studies into useful lessons for learning about KM, as well as readable and informative narratives.

"The narrative style is more authentically conducive to portraying the rich experiences and knowledge in the cases than a neutral, 'academic' style," according to the editors.

There can be numerous barriers to sharing knowledge in a company: personal (lack of time or confidence), collective (in-house competition), structural (poor IT infrastructure), or political (lack of openness).

Siemens' "top+" best practice sharing initiatives try to overcome these by connecting people, incentivisation, designing a topic structure for relevant experience, providing content support for editing and structuring of experiences, and finally via a cascaded communication strategy of divisional workshops, posters, postcards, flyers and even matchboxes with the KM Intranet URL. Siemens also has an Office of Best Practice, like Corporate KM, which plays an active role in implementation of the concept.

The key to successful KM is devising appropriate socio-technical systems in areas like communities of practice. This includes IT infrastructure, content taxonomy and cultural issues like trust, sharing, responsibility and care. The reference architecture at Siemens is able to address specialist knowledge, procedural models and project experience along the entire spectrum of knowledge intensive businesses from consulting to products.

Siemens introduced the Knowledge Strategy Process (KSP) in 2001 as a method for business owners and teams to determine strategy and action plans, in consultation with Dutch KM company CIBIT in Utrecht. This is basically an iterative strategy of identifying clusters of competency and knowledge, and mapping codification status across time, based on current and projected market dynamics.

Transforming from a product seller to a solutions provider, Siemens Information and Communication Networks (ICN) devised a business development KM practice called ShareNet in 1999 to help share

project knowledge across technologies and markets in different stages of maturity. Sales staff now find themselves playing the role of strategy-management consultants who have to be able to interpret trends and design new opportunities together with the customer.

Knowledge areas covered include financing, planning, engineering and operation. This helps sales staff devise customised telecom solutions using existing service packages, business plans and profitability paths. ShareNet helps tap and share local innovation in different parts of the world via project debriefings, manuals, codified databases, structured questionnaires, chat rooms and hot lines. Technically based on OpenText's LiveLink, it is used by 7,000 sales and marketing staff.

Its success is due to leadership support (from the ShareNet Committee which includes local and global representatives), organisational support (global editor, regional contributors, training bootcamps), motivation system (via ShareNet "shares" for contributions which can be exchanged for equipment or conference fees), organisational culture (promoting sharing via messages like "Unlike in school, copying is not only allowed -- it is required"), and quantifiable benefits (eg. cost saving by re-use of tenders, increased revenues by competing faster, and alignment with customer needs by spotting worldwide trends).

Another innovative KM practice comes from Siemens ICN VD (German sales unit), called Knowledge Networking Service. The objective of knowledge networking at ICN VD is to "create a living network of knowledge amongst all employees." Key requisites for this are a mix of high tech and high touch networking, encouraging voluntary participation, and creating a mix of interdisciplinary backgrounds.

An editorial team helps manage a "Knowledge & More" personal account statement for employees. Employees receive points for submitting business tips used by call centres and other service staff; these points can be tallied and converted into prizes. All staff are trained on how to use the KM Intranet, via an "Intranet Driving License." They are also sensitized to use it regularly.

Siemens Industrial Services, with 22,000 people in over 70 countries, uses a knowledge-sharing tool called Know-How Exchange to connect experts, employees and their diverse project experiences. Areas of expertise here include engineering layouts, project structures, plant building and contract negotiation for automotive and textile plants.

Employees were encouraged to take part in this Exchange and develop a sense of personal responsibility for their participation, so as to create a win-win situation for all. The Exchange has a growing number of entries of references, tools, products, customers, industry sectors and technologies. Know-how Transfer has been integrated into standard business processes such that at any point an employee can learn from others' experiences.

KM also extends successfully to Siemens' subsidiaries, such as semiconductor unit Infineon Technologies, established in 1999. With production sites in five countries, it initiated the Knowledge Exchange Networking (KECnetworking) to serve the competitive semiconductor segment where knowledge has a relatively short "half-life."

Knowledge is shared internally and with IBM, Toshiba, Motorola, NEC, Nokia and Sony. The primary aim for such cooperation and network formation are sharing of risk and development costs, and reducing time to market. The KM initiative uses Communities of Practice (including NetMeeting and face-to-face get-togethers) to interconnect experts across restructured divisions and different locations, swiftly integrate new employees and reduce redundancies at different sites.

A search interface called "Knowledge Spider" has been developed, searching across people, teams, events and activities. The KM initiative is actively promoted via in-house magazines and public relations campaigns, and hopes to win the key European Quality Award.

KM capacity building at Siemens is promoted by yet another initiative, the Knowledge Community Support (KCS) project, founded in 1999 with support from units like Corporate Technology, Siemens Business Services and Siemens Qualification and Training. It promotes the use of knowledge communities within Siemens, via coaching, hotlines, resources, newsletters and its own Web site. It maintains an employee portal and a directory of all knowledge communities in the company. KCS expects that in future, community management will be as common as project management.

Courses on KM ("Knowledge Master") are also offered as a joint partnership between Siemens Qualification and Training (SQT) and University of Munich, blending live case studies with academic trainers and business tutors. The Knowledge Web learning portal includes abstracts of relevant literature and a Web board for discussion.

Siemens' Management Learning Programs, founded in 1997, has different offerings for managers, executives and leaders as well.

Siemens also blends KM and e-learning at its Siemens Learning Valley (SLV) initiative, founded in 2001 in Belgium and Luxembourg (branded as "Where Knowledge Shapes (Y)our Future"). Online courses can be taken via HorizonLive. A newsletter called SLV Gazette spreads awareness about this program and the associated Knowledge and Learning Index (KLIX).

BRIDGING KNOWLEDGE ISLANDS

Another unit at the global giant is Siemens Business Services, focusing on IT services, systems integration, consulting and outsourcing. It has over 33,500 employees in more than 80 countries. As the group's first exclusively services business, it faced challenges in areas like uniting over 40 separate "knowledge islands" with different KM architectures. It created a unified KM framework called knowledgemotion.

Motivation principles used were intrinsic (as in assignments) and extrinsic (via gifts). Incentives were also used negatively -- poor adopters of KM were denied senior positions. Communities of practice are nurtured by knowledge brokers, who facilitate the addition of "knowledge asset candidates" and trade assets on the knowledge market such as checklists, case studies, templates, architectures, business frameworks and practice guides.

The Knowledge Maturity Level of the organization and KM ROI are tracked along with the lifecycle of knowledge assets. Other KM focus areas here include knowledge maps, subject matter experts, project debriefings, knowledge portals and translation of knowledge asset summaries into English for use globally.

The KM practice at Siemens Medical Solutions, KnowledgeSharing@MED, involves Practice Area Leaders, high-impact initiatives, balanced scorecard, the KnowledgeSquare know-how database, expert pages, and mobile solutions for sales representatives to access key information on handheld devices.

Another area at Siemens where KM has helped is via Business Communities for mergers and acquisitions, called MAKE (M&A Knowledge Exchange), applied during M&A activity with Mobisphere, Fujitsu Siemens, Siemens Nixdorf and Robert Bosch. Target knowledge areas include integration, knowledge "packaging," new templates, ensuring employee buy-in and project debriefing.

Yet another area of KM focus at Siemens is the use of e-business methodology. It formed the Centre for e-Excellence in May 2000 to analyse business transformation via the Internet. A quarter of the sales of Siemens itself is expected to be eventually transacted via the Internet -- 50 per cent or more of its consumer products. Knowledge communities have therefore been formed around key areas like supply chain management, e-readiness and IT infrastructure.

Challenges faced by Siemens on the KM front include balancing energies, resources and rewards for local versus global KM initiatives on a daily basis, managing the knowledge-sharing tension between different business units, and nourishing KM during hard economic times.

"Only a maximum of 50 to 100 people can be helped to network daily. Knowledge networking for thousands at a time will not work," the authors advise. "Only when we have made up our minds that sharing knowledge is important, not only for efficiency's sake, but also to increase the essential humanization of the business and social environments in which we work, will we be prepared for the tasks confronting us."

"When established procedures are not conducive to the sharing of knowledge, the company must be ready to restructure itself into an organization more amenable to knowledge sharing. Over time, the intrinsic benefits of sharing knowledge should become apparent and the system then becomes self-perpetuating, thereby rendering incentive systems obsolete," they add.

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