Siemens: Expanding the Knowledge Management System ShareNet to Research & Development

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EXECUTIVE SUMMARY

The case study describes the issues surrounding the expansion of the community-based knowledge management system (KMS) ShareNet to the research and development (R&D) function at Siemens Information and Communication Networks (ICN). It sets the stage for a decision situation that Siemens ICN’s vice president business transformation and knowledge management, Janina Kugel, faced in 2003. While R&D usage rates differed not remarkably from other Siemens ICN functions, a strategic emphasis on innovative products and services — as well as ambitious targets for leveraging offshore development resources — necessitated a stronger penetration of this highly relevant function. Could this extension build on earlier experiences gained with the best practice implementation approach at the sales and marketing function? The case description provides a chronological account of ShareNet’s conceptualization, development, international rollout, and operation. It pays attention to information systems (IS) implementation issues, change management, and current developments in the field of knowledge management (KM).

Keywords: case study; explicit knowledge; information system implementation; IS project teams; knowledge exchange; knowledge sharing; organizational culture; tacit knowledge; user participation; user training

ORGANIZATIONAL BACKGROUND

Siemens, headquartered in Munich, is a German-based multinational corporation with a balanced business portfolio of activities predominantly in the field of electronics and electrical engineering. With sales of EUR 74.2 billion and a net income of EUR 2.4 billion in fiscal 2003, it was Europe’s industry leader with strong positions in the North American and Asian markets (in August 2003, EUR 1.00 was equivalent to about USD 1.13). Approximately 50,000 researchers and developers were employed; research and development (R&D) investments totaled EUR 5.1 billion. Exhibit 1 shows Siemens’ financial performance from 2000 to 2003. Siemens was a conglomerate of six business segments: Information and Communications, Automation and Control, Power, Transportation, Medical, and Lighting. Each business segment was split into several groups with independent profit responsibility and regional sales organizations (local companies) around the globe.
The decentralized matrix structure allowed for entrepreneurial responsibility and the development of close ties to customers. Global, interdivisional cooperation and systematic sharing of best practices enabled the provision of comprehensive and customer-focused solutions. Siemens’ managing board confirmed that the “global network of innovation” — over 400,000 employees in 190 countries — was the firm’s greatest asset. Linked in a global knowledge network, they were key for innovation and finally for offering technologies, tailor-made solutions, and services.

Siemens’ largest business segment, Information and Communications, comprised three groups. Siemens Business Services (SBS) offered single source IT solutions and services. Information and Communication Mobile (ICM) covered all mobile communication requirements with network technology, terminal devices, and mobile applications. The case study focuses on Information and Communication Networks (ICN) that developed, manufactured, and sold public communication systems, private business communication systems, as well as related software and services. Impacted by the telecommunications equipment industry’s continuing difficulties, Siemens ICN’s sales of EUR 7.1 billion resulted in a negative EBIT of EUR 366 million in fiscal 2003 (Siemens, 2003). The 38,000 employees in over 160 countries focused on improving the product base, cost structure, and sales channels.

It was Siemens ICN’s strategy to become a solution provider for other “global networks of innovation”. Its three business units would provide the physical components of a sales project while the local companies were responsible for customizing and integration into the customer network: Enterprise Networks (EN) offered communications solutions for enterprise customers, Carrier Networks (CN) comprised IP-based convergence solutions, circuit-switched networks, optical networks solutions, and a portfolio of broadband access solutions, and Carrier Service (CS) provided local maintenance, system support, and general services for circuit-switched, IP-based, and hybrid networks (Siemens Information and Communication Networks, 2003). Exhibit 2 depicts Siemens ICN’s organizational structure. For the case study, mainly the complementary central functions business transformation (BT) and knowledge management (KM), as well as the local companies, are relevant.

Headed by Janina Kugel, vice president of business transformation and knowledge management, a six-person team drove and supported knowledge sharing initiatives in order to enhance Siemens ICN business processes and global cooperation. Exhibit 3 presents the mission statement of the central function KM. Responsibilities included the mapping of business processes to establish supportive KM platforms, the creation of a common knowledge infrastructure and culture, and fostering the awareness that knowledge sharing generates value. This was supposed to facilitate cooperative global learning, as well as cross-divisional and cross-country reuse of global best practices.

SETTING THE STAGE

The case study illustrates the issues surrounding the implementation of the community-based knowledge management system (KMS) ShareNet at Siemens ICN over the period 1998-2003. It sets the stage for a range of decision options that Kugel must
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