

BOEHRINGER INGELHEIM: LEADING INNOVATION

R. Chandrasekhar wrote this case under the supervision of Professor J. Robert Mitchell solely to provide material for class discussion. The authors do not intend to illustrate either effective or ineffective handling of a managerial situation. The authors may have disguised certain names and other identifying information to protect confidentiality.

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Version: 2015-02-02

It was March 2012. Stephan Klaschka had just been appointed director of Innovation Management & Strategy at Boehringer Ingelheim (BI), a multinational pharmaceutical company headquartered in Germany. Klaschka was to be based in the United States, BI's single largest geography by revenue.

After a decade of consistent growth that had outpaced the industry, BI was in a state of transition. In 2010, the expiry of patent protection for two of its products — Flomax and Mirapex — had reduced its U.S. revenue by \$1.4 billion¹ in a single year. In a bid to secure a “mid– single-digit increase”² in sales, BI was launching a new phase of organic growth in the United States.

Klaschka had spent more than a decade in different roles at BI. His new role was central to the company's growth rejuvenation strategy, which required the creation of an innovation mindset across all levels of the organization. He had a threefold mandate: to create internal networks (to encourage collaboration toward a larger organizational purpose); to establish internal structures, processes, norms and values (to enable the organization to work together to maintain the pace of innovation) and to leverage employees' suggestions that aligned with the overall goals of the organization (to create enterprise value and culture change).

To accomplish this mandate, Klaschka had a free hand to act, but extensive accountability to deliver. As part of this role, he was also expected to spearhead the launch of BI's School for Intrapreneurs, a project that he had long been championing.

While Klaschka was excited about his new role, he faced challenges that needed to be addressed. As Klaschka described it:

¹ All currency amounts are shown in U.S. dollars unless otherwise indicated.

² Company 2009 Annual Report, www.boehringer-ingelheim.com/corporate_profile/annual_report.html, p. 23, accessed November 20, 2014.

Going forward, there are three key challenges. First, how do I change the DNA of BI? We are a vintage organization. We have an established culture with a mindset of discovering, after years of research, a blockbuster medicine that guarantees revenue for over a decade because of patent protection. How do I counter the general perception at BI that innovation is a one-off event? How do I drive home that innovation is sustainable and for the long haul? Second, there is no dearth of ideas among employees. But ideas are hitting a dead end because there are no consistent follow-through processes in place. How do I develop a framework for innovation and institutionalize it at BI? Third, what are the metrics with which I could assess my own value addition to BI in my new role?³

While this new role represented an exciting new challenge, his job had no precedent at BI. That is, Klaschka had no standards or metrics of performance to follow. No other individuals were in similar positions that he could use as benchmarks. No one could provide him with answers. He was not even sure of the right questions to ask. In essence, Klaschka needed to create his own roadmap, both for this position and for innovation at BI moving forward. He asked himself: how do I best proceed?

STEPHAN KLASCHKA

Klaschka had completed his early schooling during the mid-1970s at the German American School in Berlin. He had spent much of his free time at the computer lab, the first such lab among German schools. In his next school, a boarding school in what was then known as West Germany, he was the student-in-charge of the computer lab. For his college education at the Berlin Institute of Technology, he chose to study computer science. After graduating in 1986, Klaschka spent his summer in Berlin developing process management software for his parents' dermatology clinic. This experience led him to set up his own business called Stephan Klaschka Software & Verlag,⁴ which focused on the emerging business opportunities in personal computing. His offerings included software development, computer programming, software testing, software documentation, computer training and information technology (IT) support.

At the same time as he was growing his own company, he took up a job as a programmer at the Free University of Berlin. His first position was in the Medical Informatics Department. After a year, he transferred to the university's Biometrics Institute. During his six-year period working at the Free University of Berlin, he continued to work on his own business, developing customized commercial software for medical clinics, pharmacies, logistics companies and educational firms. While retaining ownership of the software, he licensed it for a one-time fee to customers and billed them for upgrades. The business model he used was based on that of the newly formed Microsoft Corporation.

In 1994, Klaschka joined Schering AG (Schering), a German pharmaceutical company, as software developer. In this role, he automated clinical trial databases and regulatory compliance reporting systems, helping expedite market approval for such drugs as Yaz and Gadovist. He also introduced new computer programming practices to meet the needs of both international regulations and scalability. In 1999, Klaschka moved from Schering to Boehringer Ingelheim, another major player in the global pharmaceutical industry.

³ Interview with Stephan Klaschka in Connecticut, October 22, 2014.

⁴ Verlag is the German term for publishing company.

GLOBAL PHARMACEUTICAL INDUSTRY

In 2011, the global pharmaceutical industry had sales of \$782 billion (comprising prescription drugs and excluding consumer healthcare and animal healthcare products).⁵ The Americas region was the largest, with 42.2 per cent share of the market. The prescription drugs sector was expected to grow at an average annual rate of 4 per cent to reach \$970 billion by 2016. As Klaschka described:

The industry is in the midst of disruptive innovation. This is evident, in Europe and United States in particular, in the following ways. Hospital care is giving way to home care. Personal care is shifting to technology-based care. Skills are being transferred from highly trained and expensive personnel to affordable healthcare providers. Products are yielding to integrated solutions and services. Payment systems are becoming outcomes-focused and customer-centric. Payers and provider organizations are merging leading to changes in the conventional sales model. Patients are becoming “consumers,” seeking greater access to and higher transparency in medical records.

Several broader trends were also disruptive. For example, the blockbuster drug approach, in which a single discovery under patent protection could yield annual revenues of more than a billion dollars, was giving way to the portfolio approach, comprising over-the-counter (OTC) medications and branded generics. In another example, synthetic drugs used for treating symptoms were giving way to bio-drugs designed to treat genetic causes. Growth based on centralized research and development (R&D) was giving way to growth based on decentralized and autonomous R&D units involving partnerships, often with competitors. Manufacturing, research, product development and clinical trials, once conducted in-house, were now being outsourced to low-cost locations. The pharmaceutical industry, once comprising pharmaceutical companies only, was becoming an ecosystem of non-pharmaceutical companies, such as large retailers, IT firms, data aggregators and financial services companies. Individual pharmaceutical companies were shifting their growth focus from revenues to margins.

BOEHRINGER INGELHEIM: COMPANY BACKGROUND

BI was a privately held multinational enterprise ranked in 2010 as 15th by revenue among pharmaceutical company worldwide (see Exhibit 1). The majority of the company’s stock was held by the Boehringer family of Ingelheim, a town on the banks of Germany’s Rhine River. The company had four business segments: prescription medicines, consumer healthcare, industrial products and veterinary products. The prescription medicines segment was the largest, generating more than 75 per cent of all sales. Its research programs focused on six therapeutic areas: respiratory diseases, cardio-metabolic diseases, cancer, diseases of the central nervous system, immunology and infectious diseases. BI had revenues of €14.5 billion⁶ for the year ending December 2011 (see Exhibit 2).

Employing more than 44,000 people worldwide, and with production facilities in 13 countries, BI viewed its culture as its competitive advantage. As a family-run company, it could adopt a long-term strategic view more easily than a publicly traded company that was under pressure to delivery quarterly earnings results. Its employee turnover was also lower than the industry norm, particularly in Europe, largely due to its talent management initiatives. Klaschka saw these benefits as follows:

⁵ *Market Line Industry Profile 0199-0372*, <http://advantage.marketline.com.proxy1.lib.uwo.ca/Browse?nav=4294854102>, October 2012, accessed November 22, 2014.

⁶ €1.0 = US\$0.757 in March 2012, www.x-rates.com/average/?from=USD&to=EUR&year=2012, accessed November 18, 2014.

BI provides room for experiential learning for employees over the medium and longer term. The company uses short-time assignments outside an employee's home country to support a project or to fill an interim position. The objective is twofold: provide opportunities for employees to deliver results in challenging environments and help them broaden their intra-company networks. The short-term assignments are also meant to create a cadre of global managers to meet ongoing requirements of international expansion.

Diversity and inclusion were also part of BI's culture. The company had integrated diversity into its business processes and functions. Its Gender Diversity group, for example, had set a target of ensuring equal contribution from both genders at all levels. The group was providing, under the leadership of a chief diversity officer (CDO), a globally aligned mentoring framework and was monitoring the firm's hiring, succession planning and staffing processes worldwide.

BI had relied on partnerships and collaborations for growth. For example, it had teamed up with Ashoka, a non-governmental organization, to launch a global social innovation project, "Making More Health." The project was part of the company's corporate social responsibility efforts aimed at identifying new and better ways of improving global health, exploring new and unconventional healthcare business models and supporting social entrepreneurs in the field of healthcare. By 2014, the company aimed to support a worldwide consortium of 50 social entrepreneurs to advance sustainable health solutions through unique concepts. All "Ashoka Fellows," as the social entrepreneurs were called, were provided with living stipends, professional support and access to a global network of peers in 70 countries.

The company had seven R&D sites, where it employed a total of 7,100 researchers. BI invested nearly 20 per cent of its revenue in R&D every year. It had set up a €100 million venture fund to invest in selected bio-technology companies. The fund was committed to an opening investment of up to €2 million per venture and subsequent investments, aligned with specific milestones, of up to €10 million to €15 million per venture. The fund also provided entrepreneurs with leadership support for refining their strategies and reaching the proof-of-concept stage.

INNOVATION AT BI

In February 1994, BI formalized a new vision called "Value through Innovation" (VTI) in an effort to consolidate its global operations and provide a cohesive structure to match its international strategy. Previously, each country operation had been largely autonomous. VTI coincided with the launch of BI's matrix organizational structure. The dual reporting of line managers, both to country heads and regional heads (or sometimes product heads at the head office), was designed to promote a coherent and future-focused corporate culture, to identify specific innovations from different countries and to scale them up globally, and to tailor globally established best practices to local requirements. The launch of VTI had coincided with the rise of the Internet, which had greatly facilitated the process of organizational innovation.⁷

During the next decade, VTI had led BI's progression from a pharmaceuticals company (making products based on chemistry) to a bio-technology company (making products based on biology). But there was a growing recognition that BI should move from organizational innovation to individual innovation, thereby making the individual the focus of the company's innovation initiatives. Thus, in 2004, BI reinvigorated VTI with a new component called "Lead & Learn," which provided a framework of

⁷ *Ibid.*

leadership development for individual employees by offering training to enable them to progress smoothly to the next higher level of responsibility.

BI management had also started examining ways of providing opportunities for employees to become self-starters in terms of generating ideas for new business projects. For example, it watched with interest the progress of “affinity” groups set up for specific subsets of the BI population (e.g., employees with disabilities). Coordinated by the CDO, these groups were meant to make BI an employer of choice among those communities and enhance its standards of corporate governance.

KLASCHKA AS AN INNOVATOR AT BI

Klaschka’s first job at BI was as head of its Europe/Africa regional data centre (RDC) in Biberach, BI’s R&D centre in Germany. Although this job was constrained by the regulatory environment, Klaschka saw opportunities to innovate. He was drawn to the job in 1999 because of the managerial nature of the position. He had 21 computer professionals reporting to him in a role that involved coordinating the flow of data pertaining to clinical trials in the Europe/Africa region. He was tasked with making the Europe/Africa RDC a leader among BI’s data centres. He did so with a focus on continuous improvement in the RDC. During the next three years, he restructured the RDC and grew its operations threefold to meet the needs of new customers and new clinical areas. He developed compliance teams that had competencies in good clinical practices. The RDC led BI’s data centres on several measures.

In 2002, Klaschka transferred to the United States as head of BI’s clinical applications support for the Americas region. There, in his first international role, Klaschka was required to replicate his success at the Europe/Africa RDC. At the time, BI was at the cusp of growth and expansion. The U.S. Food and Drug Administration (FDA), which granted approvals for new drugs in the United States, was beginning to streamline its regulations on clinical trials. For example, it was seeking the electronic submission of documents from pharmaceutical companies.

The high-priority tasks before Klaschka were to comply with the changing FDA norms for drug approvals and to set up a secure central repository and an archival-retrieval system for internal documents that would enable the sharing of best practices. He was also tasked to build a team of eight trainers who could, in turn, support the staff at various units of BI worldwide as they dealt with an increasingly changing environment. Another priority area was to expand the clinical applications support systems for user communities, such as physicians, medical staff and BI’s own employees at clinical trial centres, all of whom were becoming increasingly central to the long-term performance of the company. Klaschka also served as the company’s regulatory compliance officer for clinical development in the Americas region, a role he believed would add value to BI.

Additionally, BI had a program that encouraged employees to engage in mid-career training courses. BI paid the tuition fees, and, in return, employees augmented their skills. Klaschka enrolled for the online executive MBA and management dual-degree program at Colorado Technical University. He also took courses in leadership, strategy and innovation at the Massachusetts Institute of Technology in the United States and the Institute for Management Development in Switzerland. He also qualified as a certified project management professional with the Project Management Institute. About these experiences, Klaschka remarked:

There were some important takeaways, at a personal level, from the mid-career training programs. I realized that an effective way of cultivating leadership skills is not to strive for an

ideal of leadership outside of me but try to become the best version of myself. It meant that I would focus on building on my strengths rather than on removing my weaknesses. I also realized that alignment is an important leadership attribute. Alignment covers a wide ground, for example, between what one feels and what one articulates; between what one believes and what the team, of which one is part, believes; and between strategy and execution. I also noticed that alignment is a journey, not a destination. Another takeaway was that innovation was a collaborative, rather than solitary, effort. This was a discovery. I also seemed to be a natural collaborator. That was how moving into innovation at BI at a later stage was seamless for me.

In 2006, Klaschka started to think beyond his immediate job description. The position he held at BI provided access to company-wide information, which sent him occasional signals that the internal processes required fine-tuning if the company were to stay competitive. For example, BI was losing statistical programmers at the U.S. business units because of the long commuting hours. Some statistical programmers were based at suburban New Jersey and were often required to leave home at 5 a.m. to reach the office in Connecticut for a 7 a.m. global teleconference meeting that lasted no more than a few minutes. Although the programmers would have found it more convenient to participate in the calls from their homes, BI had no provision for such an arrangement.

Klaschka knew that such situations needed to be addressed but recognized that getting involved could be risky since the situations were outside his scope of authority. Going beyond what he was employed to do would, technically, violate the formal chain of command and, therefore, was risky from a career point of view. He also knew, however, that two factors would reduce the risks. First, he had already established professional credibility with his peers and superiors through his clinical applications support position. Second, he had developed a team that, even in his absence, would take care of not only standard tasks (e.g., ensuring the flawless transmission of clinical data) but also exigencies (e.g., officials from the FDA showing up, without notice, for inspection). He therefore started to experiment within his department and look around outside it.

One of Klaschka's early experiments related to the trend toward remote working. He saw the demand for remote working in his own department. By allowing this arrangement to happen more frequently, Klaschka also started quantifying both the success factors and the potential drawbacks of remote working. He did so by gathering data from his team members on productivity, quality of work, customer satisfaction, trust and work-life balance. He was able to put together a case for remote working that he could present on short notice if and when others questioned him about his decision to go beyond company policy.

He also started talking informally to the alumni of the company's in-house training programs, particularly the graduates of the Management Development Program (MDP), from which he himself had graduated in September 2007 and the Regional Leadership Development Program, from which he had graduated in 2013. The more than 500 graduates had been well trained but were not connected to one another. From what Klaschka understood, BI had no plans to leverage the alumni resources (which Klaschka saw as a missed opportunity). On his own, Klaschka initiated a chat group for the MDP alumni, using the Yammer micro-blogging platform on the company's social media network. Nearly 400 alumni volunteered to share problems, find solutions and stay connected.

Klaschka also took an interest in the company's affinity groups. The affinity groups were designed to provide a safe environment for employees to discuss issues of common interest and to find mentors to help deal with issues. Klaschka was struck by the "power of these groups to crash right through the vertical and horizontal barriers at BI," as he saw it, "and their ability to drive changes at the grassroots."

Examining the affinity groups from a different perspective, Klaschka sensed an opportunity for aligning them with the strategic needs of BI. He enlisted the help of the company's CDO in setting up two new groups: "Remote Workers," which intended to bring together those preferring to work remotely, and "NxGen," a group to bring together young employees whose workplace expectations varied from those of company veterans. He became an informal advisor to the CDO to assist in identifying and launching new groups at BI. These were known as "Employee Resource Groups" (ERGs) to differentiate them from the corporate governance goals that characterized the affinity groups. ERGs were also open to all company employees, unlike the affinity groups, which were open only to those with affiliations. In this way, Klaschka became an informal agent of change for BI.

The ERGs caught on. The number of ERGs grew, as did their members. The members came from all levels of hierarchy, across diverse functions and business units at BI's operations. They took advantage of tools and technologies, such as micro-blogging, to open up channels of communication with one another. Their visibility enabled them to gain access to senior executives. Connecting one-on-one with the decision-makers high up, the ERGs quickly graduated into sounding boards for sharing information with C-level executives at BI.

The bottom-up initiative of talent identification ran into conflict with the company's human resources (HR) department, which had a formal mandate for talent identification — and was enforcing it, typically, in a top-down manner. HR saw the growth of ERGs as an invasion of its turf. HR began to see merits in his initiative only after Klaschka developed, in consultation with the CDO, a framework for ERGs with clearly identifiable goals linked to BI's growth strategy (see Exhibit 3). In tune with their new framework, the ERGs were designated as Business Resource Groups (BRGs).

By 2009, the BRGs had evolved into an ecosystem of not only idea generation but also a source of managerial talent. Almost everyone who had led a BRG had shown the potential to take on positions of higher responsibilities in their regular jobs. Klaschka observed:

There were several things that I wanted to do at each role in my professional career but could not do. For example, at Schering AG, I wanted to implement clinical trial database software which we had developed in-house. The company preferred to buy an off-the-shelf system instead, in spite of additional costs on customization. At BI Germany, I was keen on mapping the clinical development landscape to identify redundancies but the supervisor put a hold on it because it would have proved some departments obsolete. In the United States, I wanted to implement an IT downtime calendar so that end-users could plan their business around scheduled outages. It did not take off because it meant loss of a sense of "being needed" on the part of IT. I wanted to link ERG goals with annual performance goals but just could not get around it. At the same time, I was able to do things in each role which were considered impossible. For example, at Schering, I implemented a seven-step validation procedure for clinical development in the light of strong reservations among peers. It has since become a work standard. I allowed the staff at Clinical Applications Support to work from home three days a week against heavy peer disapproval. Remote working is today part of the work routine at BI. It was considered impossible for grassroots employees to interface with C-suite executives. With BRGs, they do just that.

Once HR realized that BRGs could complement its own talent management efforts, HR began seeing Klaschka as an ally. When Klaschka proposed the idea of building on the launch platform provided by BRGs to set up a school for intrapreneurs, HR accordingly supported this effort. The long-term goal was to identify in-house entrepreneurs, provide them with training, support them with funding, commercialize their projects and thereby create value for BI. The projects would be in the areas of health, technology and

wellness. Klaschka believed that the intrapreneurial classroom could potentially be virtual and the students could be global. They would volunteer to spend three to five hours weekly *outside* of their work on learning and experiencing to become intrapreneurs.

ISSUES BEFORE KLASCHKA IN MARCH 2012

In his new role as innovation leader, Klaschka would be functioning independently, although reporting formally to the chief information officer, whose broad mandate was to support BI in new, and even unknown, directions.⁸

As he became busy dealing with the challenges before him, Klaschka recognized that BI's DNA was a study in contrasts. First, as a family-owned organization, in which employee turnover was low (in the home ground of Europe in particular), collegial culture was an integral part of its DNA. However, as was typical of a large multinational, barriers across the organization were rooted in products, business units, functions and geographies.

Second, BI was reinforcing its R&D with third-party alliances along the drug discovery and development value chain. More than 50 per cent of its early to mid-stage pipeline was filled with products derived from external partnerships. But, internally, collaborations had, paradoxically, not taken root.

Third, BI had a track record in prescription drugs, which contributed more than 75 per cent of the company's annual revenues. This segment was characterized by the blockbuster model, wherein a single discovery not only generated millions of dollars of revenue annually but also rendered the discovery competition-proof for more than a decade due to patent protection. By the time the patent expired, the R&D pipeline would have developed another blockbuster or two. But the model was losing ground. BI needed to focus on launching new products in consumer healthcare, which was currently generating about 10 per cent of annual revenues. This change required new approaches to the distribution, delivery, customer focus and deployment of technology. For example, these consumer products needed to be targeted at retail stores rather than hospitals and at end users rather than doctors. Here, the need for innovation — and a change in the company's DNA — was evident.

Although BI had set on the path of changing its "organizational DNA" when it introduced the matrix structure in 1994 and also when reinforced the matrix with its "Lead and Learn" initiative in 2004, this next wave required BI to take a new approach. Commenting on the way forward, Klaschka remarked:

We have to move away from the traditional stance at BI that innovation is a breakthrough occurring in the mind of one person or of one department like R&D. We have to move towards a position that innovation is what happens in the space between two or more people and two or more departments. We need to connect those spaces. That is the role of an innovation leader in an organization. It happens when you deploy technologies. What are those technologies? How do we deploy them? These are the dilemmas I face in changing BI's organizational DNA to be even more innovative.

At a fundamental level, Klaschka needed to ensure that innovation would be institutionalized. He also needed to factor in several disparities. First, ideation at BI was currently limited to very basic tools such as the Suggestion Box, which asked employees to voluntarily come forward with ideas. However, the

⁸ "Boehringer Ingelheim: Technology Is the Driving Force," *Diversity/Careers in Engineering and Information Technology*, February/March 2009, www.diversitycareers.com/articles/pro/09-febmar/dia_boehringer.html, accessed October 2, 2014.

company had no clear process, timelines or follow-up with the idea providers. And the process to vet ideas was convoluted, bureaucratic and not being used, which was a problem. Second, employees' résumés stored in HR records had been formatted to meet highly structured roles. They were not helpful in unearthing the “sparks” of innovation — those employees who could push boundaries in each domain or business unit within BI. The result was an underutilization of existing opportunities and resources. Finally, institutionalizing innovation meant addressing the question “What is in it for me?” at each individual level. How would innovative ideas be linked to rewards? A linkage to some kind of incentives was, thus far, not clear.

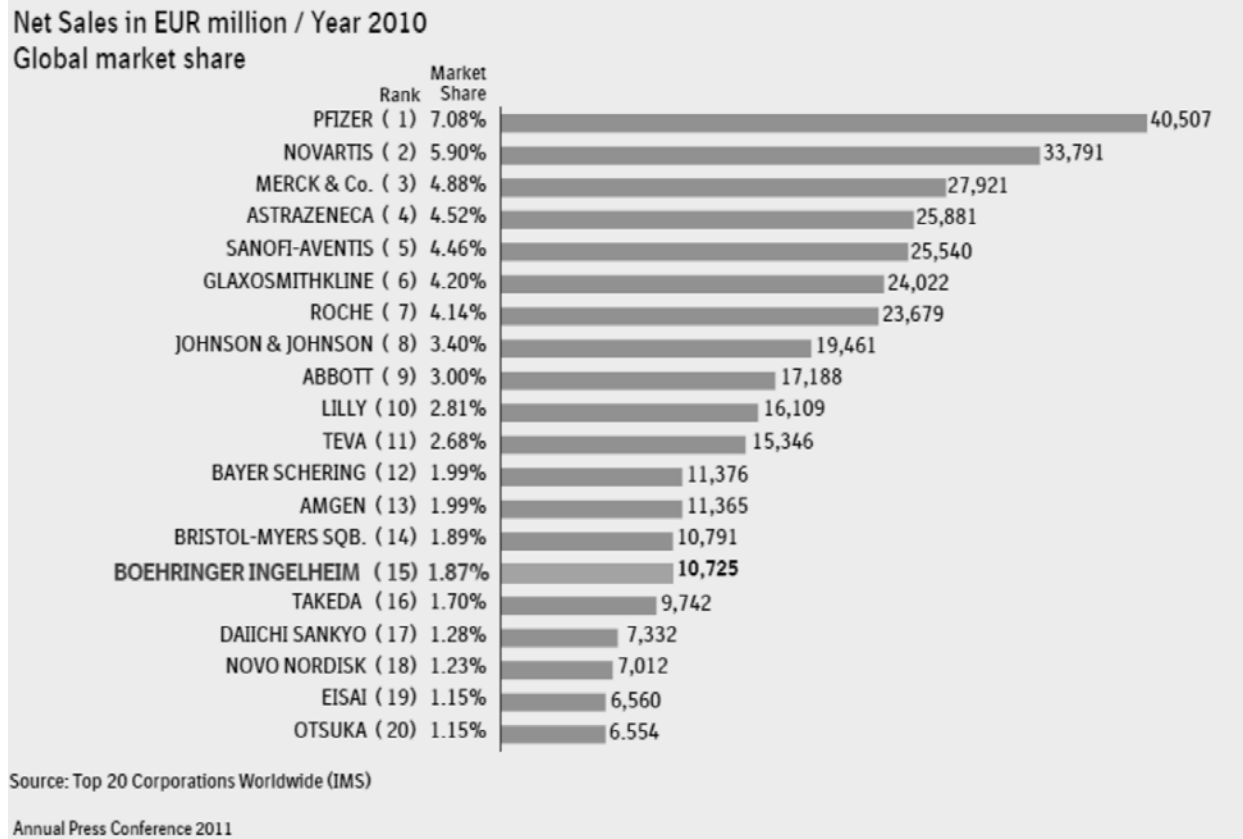
Of the alternatives before him, Klaschka thought that the company might identify people with generic skills who could be deployed to any situation irrespective of the context. For example, employees might be given opportunities to develop an expertise in coaching and training (valuable in mentoring potential innovators) and project management (valuable in helping innovators execute their ideas). BI might also try to scour out HR records or use social media (e.g., LinkedIn or Facebook) to identify potential innovators. BI could then potentially create a novel and engaging gamification approach to innovation, which might generate excitement about new ideas and thereby lead to many more idea submissions. For vetting ideas, the company could use a Lean program, similar to the venture capital model. And if the ideas were successful, Klaschka needed to address the issue of whether rewards for innovative ideas should be monetary or in-kind. Would peer recognition be a greater motivator than cash incentives?

Klaschka also wondered whether employees at BI would sign on and follow through with the School for Intrapreneurs. Was it the best way of institutionalizing innovation? If so, Klaschka needed to select a vendor who could provide an online learning experience for participants worldwide. To ensure both strategic alignment and continued funding of the school, approval of the program was also needed from the heads of functions, product lines and business units.

As innovation leader at BI, Klaschka was on new ground. Even defining success was a challenge. Thus, while Klaschka had many ideas, his real challenge was selecting which of these approaches to pursue first. Although he had organizational support, he could still accomplish only so much with his time. He also did not want to attempt to do too much at once, such that none of the initiatives were successful (in whatever way he decided to define success). His situation was one of excitement, but uncertainty. He had been successful in the past, but the question he faced currently was: What do I do now?

The Ivey Business School gratefully acknowledges the generous support of the John M. Thompson Case Studies and Curriculum Development Fund in the development of this case.

EXHIBIT 1: GLOBAL PHARMACEUTICAL MARKET SHARES, 2010



Source: Company files.

**EXHIBIT 2: BOEHRINGER INGELHEIM CONSOLIDATED INCOME STATEMENTS,
2008 TO 2011**

Year ending December (in € millions)	2011	2010	2009	2008
Net sales	13,171	12,586	12,721	11,595
Other income	1,357	1,494	940	753
Total revenue	14,528	14,080	13,661	12,348
Less:				
Materials	1,679	1,803	1,913	1,642
Personnel	3,664	3,358	3,221	3,004
Amortization/Depreciation	637	598	555	524
Research and Development	2,516	2,453	–	–
Other expenses	3,760	3,972	5,733	5,198
Operating income	2,272	1,896	2,239	1,980
Income before tax	2,043	1,708	2,251	1,933
Income after tax	1,476	888	1,764	1,428
Net sales by Geography				
• USA	4,820	4,511	5,756	5,107
• Rest of Americas	1,267	1,213	501	453
• Europe	4,037	4,089	3,980	3,877
• Asia/Australasia/Africa	3,047	2,773	2,484	2,158
Total Net Sales	13,171	12,586	12,721	11,595
Net sales by Business segment				
• Prescription medicines	10,096	9,702	10,058	9,111
• Consumer healthcare products	1,396	1,318	1,261	1,190
• Industrial customers	697	638	786	819
• Other sales	6	7	6	8
• Animal health products	976	921	610	467
Total Net Sales	13,171	12,586	12,721	11,595

Source: Company annual reports.

EXHIBIT 3: BOEHRINGER INGELHEIM'S BUSINESS RESOURCE GROUP FRAMEWORK



Source: Stephan Klaschka, "Build ERGs as an Innovative Business Resource," blog post, October 13, 2010, <http://orgchanger.com/2010/10/13/build-ergs-as-an-innovative-business-resource/>, accessed October 1, 2014.