

**BEST
INNOVATOR**

***European Best Innovators
– The New Frontiers –
II***

ATKEARNEY

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Introduction

Innovation Management is essential for sustainable success. While predicting global trends and their potential impact on a company and its market seems daunting, Innovation Management is imperative for generating profit and growth. New and improved products, services and business models need to be turned into competitive advantage as fast as possible in today's global environment.

Innovation Management – creating ideas and turning them into products, services and new business models for competitive advantage – relies on creativity and, perhaps to a larger extent, proper execution. In this publication, a number of European organizations illustrate Innovation Management best practices that lead to profit and growth. These European companies – all of them award winners in A.T. Kearney's Best Innovator contest – recently gathered for a two-day Roundtable in London. This group discussed innovation challenges they face today as well as the challenges they see for the near future.

Five selected hot topics emerged from this Roundtable and are covered in this publication.

They are:

- How to map the future?
- How to achieve disruptive innovations?
- How to outperform the competition in time-to-profit?
- How to successfully transition to open innovation ?
- How to successfully offshore R&D?

I hope that you will find the following insights inspiring and valuable for your own company. If you are interested in joining the Best Innovators, please contact me (see contact information at the end of this publication).

Dr. Kai Engel, Vice President and Head of the A.T. Kearney's European Innovation Management Practice

Future Mapping

How to Prepare for the Possibilities That Lie Ahead

Paul Laudicina, Chairman of the Board and Managing Partner, A.T. Kearney

If you're reacting to change, you're too late. You must anticipate change. You must understand change as an opportunity and make it happen. Clearly, the future is full of variables, and the realm of possibility is impossibly wide, but leaders in business, government, and other spheres cannot wait patiently to see how world events will play out.

(Excerpt from World Out of Balance: Navigating Global Risks to Seize Competitive Advantage, by Paul Laudicina.)

During the nineteenth century, a growing number of companies leaped at the opportunity to operate beyond their national borders, thanks to innovations such as the steamship, locomotive and telegraph. Today, the rate of global integration outpaces even the advances made in the Industrial Revolution. But what makes current technologies so unique and exciting is how inexpensive and powerful they are.

The Digital Age and low-cost communication options are allowing individuals and companies to integrate globally at unprecedented speed. The same technologies that erase geographic boundaries and enable just-in-time delivery also empower political or environmental activists.

Technology is also fueling the dramatic demographic shifts that are reshaping societies and altering consumer preferences. New technologies create new business opportunities every day to meet these changing consumer preferences. Effective Innovation Management is vital for serving these customers today and in the future. Next to some "Wildcards" following are five issues driving successful Innovation Management:

1. Globalization: the rapid integration of global capital, customers, goods, services and ideas
2. Demographics: global population trends, including Generation Y, immigration and the aging population
3. The new consumer: customer-driven products, increasingly diverse consumer markets, the myth of the "global consumer" and the rise of consumer activism

4. Natural resources and the environment: oil, natural gas and other natural resource supply; water use and availability; the impact of global warming; innovative and alternative energy resources
5. Regulation and activism: decreased government regulations, the impact of corporate corruption, increased shareholder activism and corporate social responsibility

Companies need to define processes for reading the signs of change. The goal is to sort false signals from meaningful developments so that leaders can be proactive rather than reactive. Based on the five key factors driving change, there are three possible scenarios for a global outlook in the year 2020.

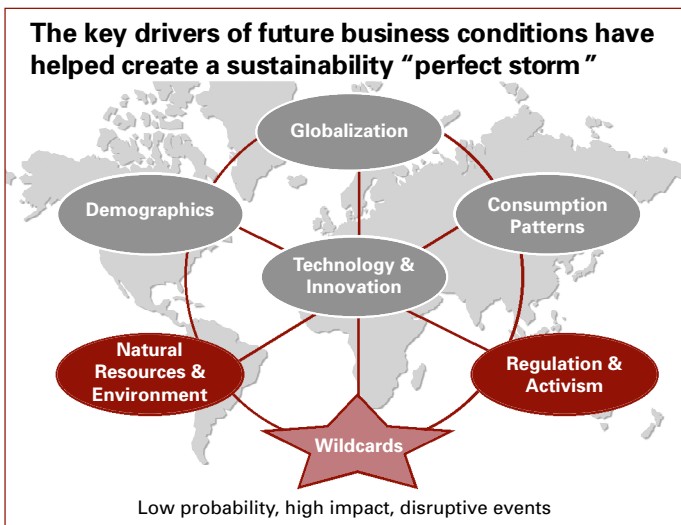
Scenario One: Castles and Moats

In this darkly pessimistic (and probably not the most probable) scenario, the world in 2020 is plagued with instability. Terrorist groups have continued their campaign of well-coordinated attacks against the United States and its institutions abroad. They have succeeded in eroding global confidence in what was once the world's preeminent political and economic superpower.

Although most of al Qaeda's leaders have been caught and killed, many questions are still unresolved. Problems surrounding Palestinian statehood, Central Asia and the Caucasus region, as well as worsening standards of living in Middle Eastern countries still exist.

As a result, national security in western nations trumps all other concerns. Civil liberties have taken an even greater backseat to security concerns, as governments subject their citizens to constant surveillance. With xenophobia on the rise, immigrants, foreign workers and ethnic minorities are viewed with even greater suspicion. Fewer and fewer people are willing to travel, work or live abroad, knowing that they will be subjected to intense scrutiny. As a siege mentality sets in, rising nationalist and populist sentiment is the catalyst for heightened levels of economic protectionism.

Governments consequently give a high priority to protecting jobs from going overseas. Countries no longer believe in the efficacy of multinational arrangements and instead prefer alliances with small groups of like-minded countries.



Scenario Two: Patchwork World

The patchwork world is a less calamitous view of the world in 2020. Few governments show much leadership or vision – or even have the ability to do so. The corporate sector responds in kind by seeking growth and profits in arbitrary ways. The world is fairly chaotic and turbulent.

Large patches of the globe are mired in poverty and violence. This does not greatly affect North America, Europe and Australasia, though it does stagnate growth in these areas. The United States and the expanded European Union prove to be the most resilient, given their vastness.

However, trade barriers have a damaging impact on key industrial sectors in Japan, China and Southeast Asia’s export markets, curtailing any major economic growth in these areas. Government aid and disaster funds grow more scarce, leaving the developing world to fend for itself.

The world’s wealthiest consumers represent more global spending power than at any other time in modern history. These consumers show a penchant for sophisticated, easy-to-use goods and services that simplify their lifestyles and address personal needs. Meanwhile, middle-income spending shifts to emerging markets such as China, India, Mexico and Brazil. Roughly two billion people – 29 percent of the world’s population in 2020 – make up this growing

middle class. Diminished economic growth rates result in fewer first-home and automobile purchases. Despite the broad convergence in purchasing power, a truly global “middle class” consciousness fails to take hold.

National governments find it increasingly difficult to regulate corporations, partly due to the mass exodus of talented senior policymakers seeking more lucrative careers in the private sector. Confronted with tight budgets and a growing aging population, governments turn to corporations to handle a number of services formerly handled by the public sector. These include technical training programs, law enforcement and health care. As corporations assume a more visible role in the general public, they become increasingly sensitive about how they are perceived. As government oversight declines, broad coalitions of activist groups step in to enforce certain standards of corporate behavior.

Scenario Three: Open Borders, Lingering Fears

In this scenario, the United States and China are the dominant global economic and political players. Their large, robust markets are highly intertwined and their prominent roles sometimes collide. Business and technological innovation thrive, and the rising tide of affluence continues to lift living standards in countries open to the global economy, even as further trade liberalization remains gradual.

Companies tap into the most affluent consumer markets by developing high-end, lifestyle-enhancing products and services. The service industry booms, and secure digital connections allow far-flung, truly global production and distribution networks to emerge.

Consumers are less tolerant of products and services that are cumbersome to use or fail to deliver, which leads to a demand for constant innovation.

Which scenario is likely in the year 2020? Truth be told, none of the above scenarios is likely to unfold in exactly the manner outlined. But by mapping the possibilities, we will be better prepared for the future that does unfold. Such forecasting will enable companies, organizations and individuals to act with confidence in a world chronically “out of balance.”

Disruptive Innovations

Finding Radical Ideas is Daily Business at Johnson & Johnson

Dr. Dieter Engel, Head of R&D, Ethicon Germany,
a Johnson & Johnson company

Disruptive innovations either overturn existing, dominant technologies or create entirely new markets. Any company searching for a model to create disruptive innovations should look no further than Johnson & Johnson. The medical, pharmaceutical and skin care products manufacturer has achieved profitability and growth for 73 consecutive years – double-digit growth for 21 of these years. The major factor behind Johnson & Johnson's success is their ability to continually introduce new, customer-oriented products and generate disruptive innovations.

Disruptive innovations are groundbreaking. They trigger radical change in the form of completely new products and technologies. In extreme cases, these types of innovations fundamentally change entire industries and lifestyles for many people. Examples of disruptive innovations are the launch of the personal computer and the invention of penicillin.

Some of Johnson & Johnson's most well-known disruptive innovations are: disposable contact lenses; stents that help unblock coronary arteries and prevent heart attacks; and endoscopic surgery, which enables certain procedures to be performed without major incisions. Johnson & Johnson also designed the self-administered glucose-monitoring test, making it much easier for diabetes patients to manage their disease.

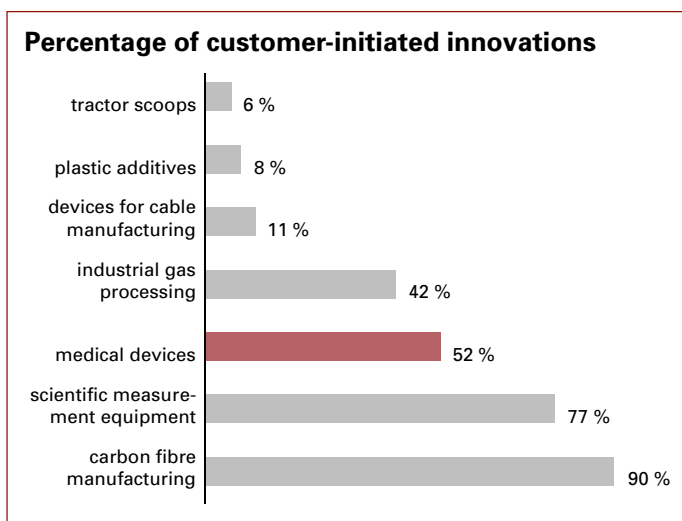
How does Johnson & Johnson create these disruptive innovations? First, the company has always sought disruptive, not just incremental, innovations. They have also developed a strong sense for what the market needs and will need, thanks to their extraordinarily strong customer relationships.

When it comes to the creative process, Johnson & Johnson has developed a comprehensive course of action. This incorporates not only brainstorming, but also motivating and stimulating employees, generating and selecting the right ideas, shaping ideas in a customer-focused process, and bringing innovations to market with proper implementation.

Innovation does not happen in isolation. Before an idea is generated or makes it through the creative process, leaders must provide proper guidance to the organization. This includes clear-cut objectives, defined research fields as well as the relevant time-frame in which the company intends to achieve the innovations strategy objectives. And without a vision that motivates the research staff, long-term, exceptional performance is just not possible. It must be clear to the entire organization that the goal is to search for disruptive, not just incremental, innovations. For example, instead of pursuing innovations that repair tissue, companies should pursue innovations that pave the way toward the regeneration of tissue.

If we follow the words of Clayton Christensen, one of the foremost authorities on disruptive innovation, customers don't always have precise ideas about their needs, nor do they know how to articulate them. It follows that market research is inadequate, as it only uncovers expressed or known customer needs.

However, companies can discover disruptive innovations by simply having their finger on the pulse of society in general. A powerful example is the development of plastic surgery, which was originally performed on trauma victims. Researchers recognized a growing demand for plastic surgery, due to an aging population and its high value placed on youthful looks. Today, plastic surgery – and emerging, related business opportunities – is estimated to be a billion-dollar industry.



The greatest source of creativity is tacit knowledge, or knowledge generated by the interaction of a company's most important customers and users, researchers and suppliers. One way to tap into tacit knowledge is to hold "innovation summits." These summits are meetings held on a regular basis in which hundreds or even thousands of ideas are discussed and fleshed out. This calls for a lot of patience; even though about half of all innovations are ultimately initiated by customers, the lead users (i.e., physicians) are generally the ones who formulate the demand for a product and contribute ideas before a research company can begin developing an idea.

Companies must develop a tight process for gathering and assessing ideas, whether they are created internally or externally. The objective of an innovation summit is to bring these ideas to light, evaluate them and determine whether they are disruptive. This can only be determined if business plans containing a marketing strategy, the pay-back time of all related

investments, and other related issues have been developed. Johnson & Johnson has developed hundreds of ideas into products this way over the years from customers alone, including two surgical implants for gynecological indications that generated more than \$50 million in revenue each.

It is important that management has full support when it comes to disruptive innovations. They need to know how to distinguish disruptive innovations from incremental innovations and how to deal with both. Management also needs the proper resources to create both types of innovations, with separate organizational units for disruptive innovations, if possible. At Johnson & Johnson, discovery teams are deployed to ensure that breakthrough ideas are implemented at a faster pace. These teams form a network that consolidates all the experts from every function.

Johnson & Johnson provides a model for developing disruptive innovations that other companies can emulate. Perhaps the most important aspects that drive Johnson & Johnson's success are: recognizing how important visionary strategic targets are; understanding the tremendous significance of customer relationships; and training management to skillfully handle breakthrough ideas that lead to disruptive innovations. As companies incorporate these strategies into their Innovation Management, the base for profitability and growth is built-in.

Time-to-Profit

TIME-TO-PROFIT

France Telecom Leverages Breakthrough Innovation for Shorter Time-to-Profit

Jacques Guichard, Head of International Research, France Télécom

Four months after France Telecom's Didier Lombard took over Thierry Breton's position as Group CEO, he promoted a strategic plan called NExT – New Experience in Telecom – built on three pillars: innovation, simplicity and financial performance. Along with these objectives, which are sometimes difficult to achieve simultaneously, shorter time-to-profit quickly appeared as an imperative for France Telecom.

Once a monopoly, France Telecom has lost market share to lower-priced competitors (e.g. 9 Telecom). As with other former monopolies, France Telecom could only lose customers after its domestic market was liberalized. The company went from capturing 100 percent of all domestic individual fixed lines to slightly below 70 percent, according to figures from the third quarter of 2006. Even if France Telecom managed to keep an 80 percent market share of classic fixed lines, its market share is only 30 percent of Voice over Internet Protocol (VoIP) lines, despite an impressive 50 percent market share of DSL access. And with complete unbundling driving the VoIP market (there are now 1.6 million completely unbundled lines in France – four times more

than the year before), France Telecom is betting that subscription revenue will play out better than one-off unbundling fees. However, it is clear that neither will result in long-term profits.

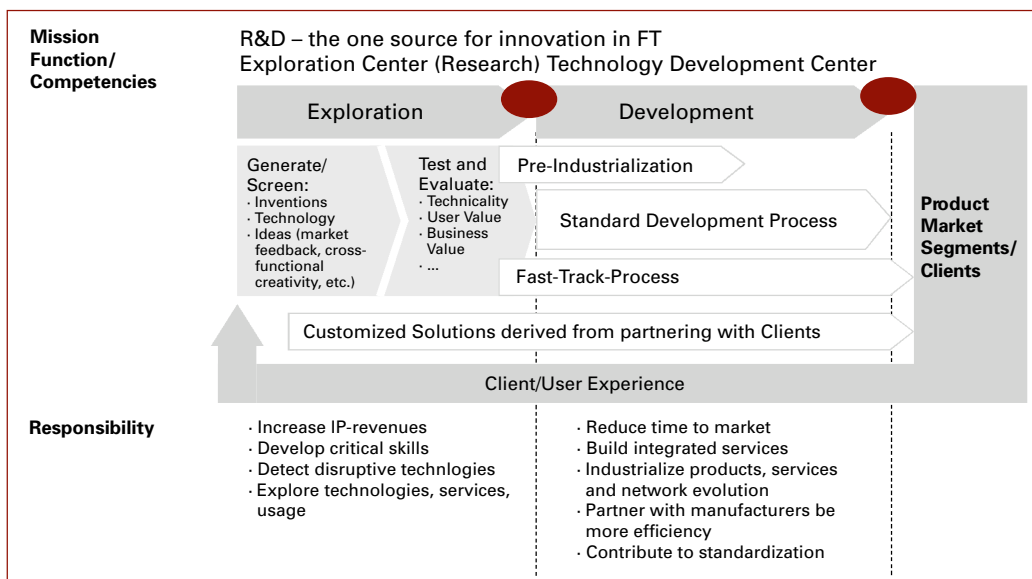
Since 60 percent of its revenue is generated domestically, France Telecom needs to build its global presence. Past acquisitions – Telekomunikacja Polska in Poland, Orange UK and Amena in Spain – proved successful, but large acquisitions are no longer on France Telecom's agenda. The company is now seeking more selective acquisitions in countries experiencing rapid growth, especially those in Eastern Europe and Africa.

To drive future growth, Lombard has clearly made innovation a top priority. As he explained in 2005, "France Telecom is changing. The future lies in value-added services themselves more than the transport of those services. Therefore, we have to invest in innovation."

France Telecom's decision to embark upon a path to better innovation may have been a long time coming, but the company has embraced this initiative with more energy that one could have imagined even a short time ago. One of the best examples of this is Unik, France's first WiFi VoIP/Global System for Mobile

Communications (GSM) phone, which France Telecom launched in October 2006. A rollout across Europe is planned for the fourth quarter of 2006. A single phone (Nokia 6136 or Samsung P200) enables customers to make unlimited calls 24 hours a day from home through VoIP with a WiFi connection and access the GSM network.

The move toward better innovation is not a marketing gimmick for France



Telecom. It requires dedication from every function in the organization, especially R&D. As Lombard emphasizes, “R&D must be marketing pulled, not technology pushed. Our developments aim at fulfilling the expectation of the market, not imposing a technology for the sake of it.”

To support this transformation, France Telecom increased its 2005 R&D budget by 20 percent, or 1.5 percent of its revenues. Its 2008 R&D budget is targeted at 2 percent of revenues.

France Telecom has been an R&D focused company for many years. It has 17 R&D centers, nine of which are in spread over the globe (London, Warsaw, Beijing, Canton, Tokyo, Seoul, New Delhi, San Francisco, Boston), that employ a total of 4,200 researchers. France Telecom also boasts a portfolio of over 8,300 existing patents, with 500 more added every year. These impressive statistics are a reflection of the fact that France Telecom has mastered an innovation process. In this process, everything starts with a strategic plan, then progresses through the pipeline, stopping along the way at filters with steering committees who decide whether to stop or continue development. If an innovation advances through all of the filters, it is ultimately transferred to the business units for an actual market launch.

France Telecom splits this process between what is called the Explocenter – where upstream research is conducted for new product and service concepts – and the Technocenter, which was created in February 2006 and consists of 300 marketing, sales, R&D, IT and network staff members who work on multidisciplinary project teams with the goal of faster time-to-market.

France Telecom also created seven clusters for more efficient innovation and to align R&D to business objectives. These clusters consist of teams who gather across countries and focus on specific topics: mass market services and platforms; services and platforms for content; business, devices and home environment technology; access network; and core network. These new strategies will lead to better resources and enable around-the-clock project management.

One of the bigger limitations of a traditional innovation model is the view that innovation can only happen internally. To overcome this limitation as well as its cost and speed constraints, France Telecom implemented “open R&D” principles. Open R&D is about absorbing ideas and solutions from a number of different sources and including them in the overall development process. There are numerous advantages to this strategy, including reductions in time and investment, which ultimately lead to shorter time-to-profit.

To facilitate open R&D, France Telecom employees built an entire ecosystem that includes clients, suppliers, other operators and subject matter experts. The companies that are part of the Innovacom portfolio (a France Telecom venture capital subsidiary) as well as the numerous startups created by former France Telecom employees also contribute to this pipeline, expanding France Telecom’s capabilities even further. This initiative has already resulted in actual business opportunities. For example, France Telecom launched the first digital eyewear glasses, designed to enhance the display capabilities of mobile devices with one of its clients, Essilor, the worldwide leader in ophthalmic optical products. France Telecom also partners with research laboratories and universities in France (CNRS, INRIA) and around the world (MIT, Stanford, Tsinghua).

Open R&D accounts for a small percentage of France Telecom’s current innovation pipeline. However, this should grow over the next few years, as open R&D has proved to be a very cost-efficient innovation strategy.

One of the best examples of France Telecom’s reenergized initiative for change is a unified branding strategy. Choosing a single brand for all of their products and services shows France Telecom’s strong commitment to convergence and breaks the traditional boundaries between fixed, mobile and data communications. Discontinuing a well-known and long-cherished brand such as Wanadoo must not have been an easy decision for France Telecom, but it is an example of the dramatic transformations this formerly state-owned company has made over the past few years.

Open Innovation

Procter & Gamble Creates External Sources of Innovation to Maintain Success

Sammy A. Haroon, Associate Director of Innovation, Procter & Gamble

Procter & Gamble (P&G) has been a leader in innovation since 1837. Throughout the years, P&G has managed to flourish despite constant changes in the market and increased competition. To stay on top of these changes, P&G has had to revise its understanding of how innovation works, sometimes fundamentally. The current focus for P&G is an Open Innovation model to achieve faster, low-risk innovation.

Founded in 1837, P&G is older than the Union Pacific Railroad and the invention of the light bulb. It is a member of the 2004 Fortune 500 Hall of Fame (one of 71 companies to be on the Fortune 500 for 50 consecutive years). P&G's major assets are its widely known brands; the company owns 250 of the world's best known brands, 22 of which are worth \$1 billion each. Very few people are unfamiliar with Wella or Pampers. P&G stock boasts 50 consecutive years of increased dividend payments. The company employs over 135,000 people in over 80 countries and provides products and services to consumers in 140 countries.

A focus on effective Innovation Management has been one of the key factors in P&G's tremendous success. The strategic guidelines behind their current Open Innovation model provide a glimpse into how a company can create faster, low-risk innovation.

The Outdated Invention Model

Science and technology are advancing at a relentless pace. Globalization is an unquestionable reality. As a result, individuals, companies and countries all must innovate. Competition is driving innovation and challenging companies to create new markets, get to market first, and gain market share.

Most companies are still clinging to the "invention model," which is centered on the idea that R&D and innovation must principally happen within their own four walls. To be fair, these companies are increasingly trying to supplement their overworked R&D departments' efforts with acquisitions, alliances, licensing and selective outsourcing. They're also launching skunkworks-type teams in an effort to improve collaboration between marketing and R&D, tighten the criteria for launching products and strengthen product portfolio management.

By 2000, it was clear to P&G that their Invention Model would not enable the company to sustain high levels of top-line growth. The explosion of new technologies was putting more and more pressure on P&G's innovation budget. R&D productivity had leveled off, and P&G's innovation success rate, or the percentage of new products that met financial objectives, had stagnated at about 35 percent.

The world's innovation landscape had changed, yet P&G hadn't changed its own innovation model since the late 1980s, when the company moved from a centralized approach to a globally networked model. This was referred to as the "transnational model" in the book *Managing Across Borders*.

P&G was aware that most of their best innovations resulted from connecting ideas across internal businesses. But after studying the performance of a small number of products P&G acquired beyond its own labs, the company realized that external connections could produce highly profitable innovations, as well. Newly appointed Chairman and CEO A.G. Lafley realized that external connections were the key to P&G's future growth. Lafley made it the company's goal to acquire 50 percent of all its innovations in this manner. The goal was not to replace any of P&G's 7,500 researchers and support staff, but to provide them with better resources and increase their capabilities. "Half of our new products," said Lafley, "will come from our own labs, and half will come through them."

Therefore, P&G moved away from the invention model and created its own Connect and Develop innovation model. With a clear sense of consumers' needs, P&G could then identify promising ideas throughout the world and apply its own R&D, manufacturing, marketing and purchasing capabilities to create better and cheaper products at a faster rate.

Connect and Develop

Connect and Develop is about finding good ideas externally and enhancing them with internal capabilities focused on the needs of the consumer. To do this, P&G collaborates with organizations and individuals around the world, systematically searching for proven technology, packaging and product ideas they can improve upon or alter for appropriate markets, either on their own or in partnership with other companies.

P&G realizes that, for Connect and Develop to work, it is crucial to know exactly what to look for and where to search. Without carefully defined targets, P&G may be able to generate several ideas, but perhaps none that are useful. Therefore, P&G searches for ideas with successful track records. The goal is to look for working products, prototypes or technologies with evidence of consumer interest. P&G focuses on ideas and products that could benefit specifically from the application of P&G technology, marketing, distribution or other internal capabilities.

P&G then determines the three environments in which to search for these proven ideas

- **Consumer needs.** Once a year, P&G asks the internal businesses which consumer needs will drive the growth of their brands. This may seem like an obvious question, but in most companies, researchers tend to focus on problems they find interesting, rather than those that might contribute to brand growth. Lists of these consumer needs are then developed into science problems to be solved.
- **Adjacencies and Synergies.** P&G identifies adjacencies, or new products or concepts that can help take advantage of existing brand equity.
- **Technology game boards.** P&G uses what are called technology game boards to evaluate how technology acquisitions in one area might affect products in another. Working with this planning tool is similar to playing a sophisticated game of chess.

Open Innovation

P&G's global networks serve as the platform for the Connect and Develop strategy. But these global networks alone do not provide competitive advantage any more than a communications network does; it's how a company builds and utilizes these networks that matters. With the understanding that no source of ideas is off-limits, P&G taps into proprietary networks as well as networks of individuals and organizations available to any company. This includes government settings, private labs, academic and other research institutions, as well as suppliers, retailers, competitors, development and trade partners, venture capital firms and individual entrepreneurs.

There are several core networks that we use to seek out new ideas. Technology entrepreneurs are among the most important ones. They combine aggressive mining of the scientific literature, patent databases, and other data sources with physical prospecting for ideas—say, surveying the shelves of a store in Rome or combing product and technology fairs.

Utilizing Networks

Once products and ideas are identified by P&G's global networks, they are screened internally. All of the screening methods are driven by a common understanding known throughout the entire organization of what P&G is looking for. An example of how P&G would screen a new product – in this case, discovered by a technology entrepreneur – is demonstrated below.

When the technology entrepreneurs meet with R&D department heads, or scan patents, or select products off store shelves, they're conducting an initial screening in real time. They are trying to determine which products, technologies or ideas meet P&G's criteria. For example, a technology entrepreneur finds a promising product on a store shelf that passes this initial screening. His next step will be to log the product into P&G's online "eureka catalog," using a template that compiles certain facts about the product, such as answers to: What is it? How does it meet P&G's business needs? Are its patents available? What are its current sales? The catalog's descriptions and pictures are distributed to certain general managers, brand managers, R&D teams and others throughout the company – worldwide-for – evaluation.

During this evaluation, the technology entrepreneur may actively promote the product or idea to specific managers in relevant lines of business. If an item captures the attention of, for example, the director of P&G's child care business, that director will assess its alignment with current business goals and subject the idea to a battery of questions, such as: Does P&G have the technical infrastructure necessary to develop the product? This assessment is meant to identify any major impediments to development. The director will also gauge the product's business potential. If the item continues to look promising, it may be tested in consumer panels and, if the response is positive, moved into P&G's product development portfolio. P&G would then engage its external business development group, who would contact the product's manufacturer and begin negotiating licensing, collaboration or any other issues.

The process, of course, is more complex and rigorous than this thumbnail sketch suggests. However, the process in which an externally generated idea enters the development pipeline is in many ways similar to that of an internally generated idea. For every 100 ideas found externally, only one finds its way to the market.

Culture Shift

Despite all of its benefits, generating ideas externally will not pay off if an organization does not support this initiative internally. Once an idea reaches the development pipeline, it needs support from R&D, manufacturing, market research, marketing and other functions. Until very recently, P&G was deeply centralized and internally focused. For Connect and Develop to work, P&G had to nurture an internal culture change while developing systems for making these connections. This has involved not only opening the company's floodgates to external ideas, but actively promoting internal idea exchanges as well.

Before developing any idea, P&G's R&D staff must find out whether related work is being done elsewhere in the company. Then, they should determine whether an external source such as a partner or supplier can provide a similar idea. If – and only if – these two avenues yield nothing, should R&D consider inventing a product from scratch.

If a product is successful on the marketplace, the employee rewards are the same, whether the product idea was initially generated internally or externally. Employees do receive recognition for the speed in which products are developed, however, and since innovations from external sources, such as Pringles Prints, are often developed more quickly, it could be said that P&G's reward systems favors innovations developed from outside ideas.

P&G has two broad goals for this reward structure. One is to ensure that the best ideas, wherever they come from, rise to the surface. The other is to continue to shift the culture away from the Invention Model. At first, employees were anxious that Connect and Develop might lead to lost jobs or internal capabilities. These fears were understandable, since an increased demand for external ideas could perceptibly result in decreased internal capabilities. But with P&G's growth objectives, there is no limit to the need for solid business-building ideas. Connect and Develop has not eliminated R&D jobs. It has actually provided employees with new skills. There are still pockets within P&G that have not embraced Connect and Develop, but most employees have accepted this new approach. Some are even championing Connect and Develop, as people start to see its benefits and realize that it reinforces – not replaces – their own work.

We believe that connect and develop will become the dominant innovation model in the twenty-first century. For most companies, as we've argued, the alternative invent-it-ourselves model is a sure path to diminishing returns.

To succeed, connect and develop must be driven by the top leaders in the organization. It is destined to fail if it is seen as solely an R&D strategy or isolated as an experiment in some other corner of the company. The CEO of any organization must make it an explicit company strategy and priority to capture a certain amount of innovation externally. In our case, the target is a demanding-even radical-50%, but we're well on our way to achieving it.

Don't postpone crafting a connect-and-develop strategy, and don't approach the process incrementally. Companies that fail to adapt to this model won't survive the competition.

Offshoring R&D

Is Offshoring R&D Crucial to Sustainable, Successful Innovation Management?

Kai Engel, Joshua Hubbert, Bernhard Raschke,
A.T. Kearney

A new global Innovation Management paradigm is emerging that balances local demands with the benefits of global scale. The result of successfully transitioning to this new paradigm is not just more efficient R&D, but improved innovation ability overall.

As part of a new paradigm for global Innovation Management, offshoring R&D, or establishing R&D centers in emerging market locations, is becoming increasingly commonplace. However, unlike offshoring manufacturing or call centers, the primary motivator for “offshoring R&D” is not cost savings. Instead, the trend toward offshoring R&D is being driven by the opportunities that have emerged as a result of globalization: access to global customers, new markets, additional talent and required technologies. To pursue these opportunities, leading innovators have already established significant R&D facilities in China, India, Eastern Europe, and other locations.

This and other insights were shared in a survey conducted during A.T. Kearney’s 2006 European Best Innovator Roundtable. In this survey, A.T. Kearney asked leading European innovators from a wide spectrum of industries about the relationship between offshoring R&D and innovation. Of the participants who had offshored R&D, more than half indicated a significant improvement in their innovation ability. More dramatically, almost all participants agreed that R&D offshoring must be discussed in the context of enhancing global Innovation Management.

Transitioning to global innovation management is a great challenge for almost any company. However, the survey revealed three basic strategies for a successful transition:

- Define the global Innovation Management model
- Identify the optimal global R&D location footprint
- Establish global innovation collaboration

Define the Global Innovation Management Model

In the past, companies typically regarded R&D activities as an internal, centralized, corporate function. However, this led to long development times, lack of market focus and low productivity. To overcome these problems, many organizations adopted a decentralized model. Under this model, 10 percent to 30 percent of all R&D funding is allocated to the general corporation for high-risk, long-term projects, and 70 percent to 90 percent of funding is delegated to strategic business units (SBUs) for short- to medium-term, lower risk, and mostly internal product development. However, this decentralized approach, too, has become increasingly out of date. It often results in poor communication and collaboration among SBUs, and synergies go unrealized. Most importantly, this decentralized structure does not enable a company to realize the benefits of global scale.

Leading innovators instead are adopting a global Innovation Management model that embraces four principles:

- Focus on local needs, but leverage global scale.
- Concentrate the competencies needed to research and develop advanced technologies in global centers.
- Implement global high-speed information sharing and close collaboration between the corporate center and business units.
- Utilize external collaborations with partners, customers, suppliers and universities to increase innovation efficiency, speed, and quality (i.e., “open innovation”).

An example of a leading innovator that focuses on local needs and leverages global scale is Toyota. Toyota does this by concentrating their core technology and product platform development in Japan, while maintaining R&D centers in China, Europe and the United States to customize its vehicles to the needs of local markets. Toyota has truly transitioned to global Innovation Management. The company successfully customizes its products for local markets while retaining high-quality standards and a low cost structure.

Identify the Optimal Global R&D Location footprint

After defining the right global Innovation Management model, leading innovators then define an optimal global R&D location footprint, which increasingly includes R&D locations in emerging market locations. Roundtable participants indicated that the addition of emerging market locations to their global R&D footprint has helped them take advantage of the following opportunities:

- Moving R&D closer to manufacturing resources
- Moving R&D closer to the needs of local markets
- Decreasing time-to-market
- Increasing innovation ability
- Supporting a customer’s global location
- Accessing skills and capabilities

Although 75 percent of participants who had offshored R&D reported lowered R&D costs, cost savings was rarely mentioned as a reason to offshore R&D.

Leading innovators carefully examine each of these opportunities to determine whether it aligns with their business goals and strategies. Opportunities that are aligned with business goals and strategies then become explicitly stated objectives within the global Innovation Management strategy. Locations can then be assessed for their compatibility with these objectives. For example, in A.T. Kearney’s annual Global Services Location Index, countries are rated in terms of their desirability in three areas: financial fitness/cost, people skills and availability, and business environment. In this survey, India ranked higher than China for people skills and availability. If a company’s primary objective is to gain access to additional talent, then this suggests that India might be a logical choice for an offshore R&D location. However, if the primary objectives in the global Innovation Management strategy are to move R&D closer to the needs of Chinese consumers and closer to existing manufacturing plants in China, then China would be an obvious choice for an additional R&D location.

When determining the ideal global R&D location, companies cannot ignore the crucial issue of risk, including the risk of losing intellectual property (IP). However, risk should not stop companies from taking advantage of global opportunities. Risk can be managed. For example, leading innovators keep crucial intellectual property (IP) at R&D locations in countries with strong legal IP protection, and create firewalls to prevent transfer of crucial IP to R&D locations in countries with less stringent legal IP protection. Each company must individually weigh the opportunities from R&D offshoring against its risks. In the end, every company is unique, and the right global R&D location footprint should be tailored to a company’s unique strategies and situation.

Establish Global Innovation Collaboration

To fully take advantage of today’s global opportunities, establishing the right global Innovation Management model and the optimal global R&D location footprint are not sufficient. Leading innovators also establish successful global innovation collaboration, which prevents problems and ensures that the sum is greater than its parts. This is not an easy task. For example, half of the Roundtable participants reported a temporary increase in development time after offshoring some of their R&D. Participants attributed this to the challenges they faced in collaborating globally. These challenges included cultural issues, language barriers, physical distance and time zone differences. IT and work flow integration across locations was also cited as a problem.

However, over time, leading innovators have overcome these challenges. Increased use of technologies such as videoconferencing is certainly part of the solution. Global implementation of Product Lifecycle Management software as well as shared databases and work flow systems are also required.

Offshoring R&D

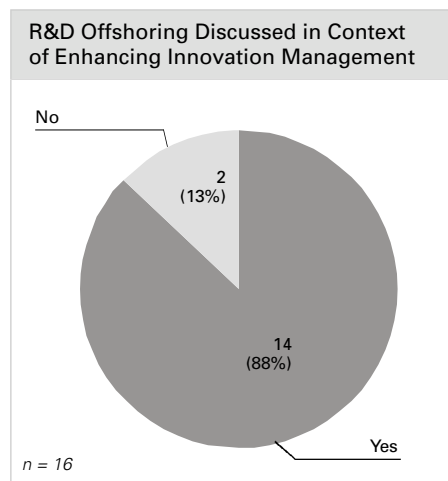
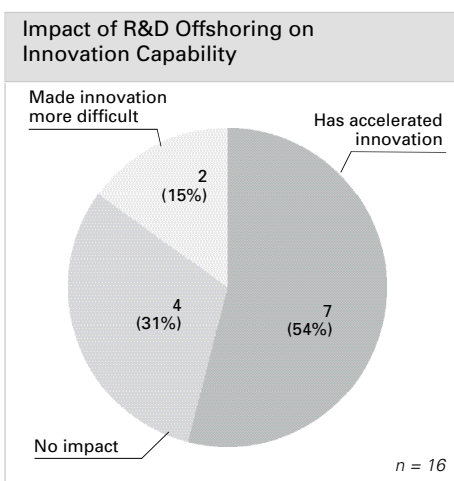
Leading innovators go beyond these technical solutions to examine how R&D is organized in terms of processes and activities. Often, collaboration can be optimized by reducing the need for collaboration. This can be achieved by clearly defining local responsibilities and product technology interfaces between locations. Optimal global collaboration is therefore not about what time of day to schedule a conference call. Instead, innovation leaders consider collaboration holistically as part of the design for their organizations, technology interfaces, work flows and software systems.

The transition to global Innovation Management is not easy. Offshoring R&D offers a host of challenges, from cultural differences to IP risks. Collaborating across a truly global innovation network is a challenge all by itself. However, leading innovators are embracing these challenges, because the opportunities outweigh the risks.

The same forces driving the globalization of manufacturing operations, supply chains and consumer markets are also driving the globalization of innovation and R&D. A.T. Kearney's European Best Innovator Roundtable participants agree that global innovation and offshoring R&D are not only here to stay, they will grow over the next 5-10 years. Innovation leaders are realistic about the risks involved but optimistic about the opportunities that this trend represents. For them, globalization is not a threat to innovation, but rather an opportunity to offer more, better and faster innovations in the face of global competition.

R&D Offshoring generally had a positive impact on Roundtable participant ability to innovate

Innovation Management & R&D Offshoring



Conclusion

Conclusion

The European Best Innovator Roundtable in London demonstrated impressive thought leadership by representatives from some of the leading European companies in Innovation Management.

The discussions surrounding the hot topics made it clear: Innovation Management is both an art and a science. The right processes for generating ideas allow for creativity and freedom and apply solid business principles. Innovation Management capabilities help the Best Innovators to:

- Identify and successfully market more, better innovations
- Outperform the competition in time-to-profit
- Collaborate better with their supply network, which boosts the overall innovation power of the value network
- Manage the innovation process in a globalized environment

In particular, the open innovation model presented implies that cooperation and competition are not mutually exclusive. The best way to respond to customer demand is to strengthen external networks of collaboration, despite the risk of IP exposure.

With the open innovation model, it is important to understand that sustainable competitive advantage will be determined by the collaboration of competitive capabilities. Today, for most complex products, research and development capabilities are globally distributed. The challenge is to identify the right capabilities and link them to the corporate value generating network.

There is one thing the Best Innovators have in common – a culture that is completely capable of and receptive to breakthrough innovation. While some of the Best Innovators can attribute this culture to an established corporate DNA, others have achieved this culture shift rather recently through dramatic change management programs. These programs address all aspects of the innovation principles embraced by A.T. Kearney. For these companies, this represents a complete turnaround in the way they do business, since innovation is evident in every product or service. However, these efforts are deemed worthy. The discussions during the European Best Innovator Roundtable clearly emphasized that effective Innovation Management is the key to long-term competitive advantage.

All participants agreed that the presentations and discussion were both insightful and inspiring. Therefore, A.T. Kearney plans to organize the 2007 European Best Innovator Roundtable with the winners of the 2006 Best Innovator contest.

European Best Innovator Roundtable

2006 Participants

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Group Vice President

Davide Ciciliato, Enel Energia S.p.A.
Marketing Manager

Pascal Colombani, European Commission
Senior Advisor

Donato Daniele, ASL 16 Padova
Director

Massimo Debenedetti, Centro Ricerche FIAT
Director of Business Development

Peter Delwing, Villeroy & Boch AG
Head of Innovation Management

Gerhard Drexler, Mondi Business Paper Services AG
Director, Innovation

Dieter Engel, Ethicon Germany
Head of Research & Development, Germany

J. Rod Franklin, Kühne & Nagel Management AG
Vice President, Product Development

Jacques Guichard, France Télécom
Head of International Research

Sammy A. Haroon, Procter & Gamble
Associate Director of Innovation

Thierry Kneissler, "PostFinance, Swiss Post"
Head of Corporate Development

Joachim Mathes, Valeo GmbH
Director Research and Development

Thomas Müller-Kirschbaum, Henkel KGaA
Corporate Vice President

Horst Reichl, BMW AG
Head of Innovation and Transfer Management

Georg Schneider, Hirschmann Automation and Control GmbH
Managing Director

Mark Sinclair, Quickheart
Chief Executive Officer

Jean-Luc Tonneau, Danone Research
Head of Planning and Strategy

Piero Valentini, Ferrari S.p.A.
Director, Performance Development

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A.T. Kearney Facilitators

Kai Engel, A.T. Kearney (G)
Vice President and Head of European Innovation Management Practice

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Managing Director and Chairman of the Board

Daniel Mahler, A.T. Kearney (USA)
Vice President

Bernhard Raschke, A.T. Kearney (UK)
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European Best Innovator

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