Stephan Danner, Aleksandar Ruzicic, Patrick Biecheler

Study

Pharma at the crossroads

Choosing directions in a transforming healthcare world

Roland Berger
Strategy Consultants

Stephan Danner, Aleksandar Ruzicic, Patrick Biecheler Study

Pharma at the crossroads

Choosing directions in a transforming healthcare world

Table of contents

Letter from the authors

For the pharmaceutical industry, the challenge is far from over.

While financial pressures, regulatory changes and increasingly active stakeholders have already forced many companies to rethink their business models, it seems that the most demanding times are yet to come. "For the first time in history, it is evident that this industry will have winners and losers", says one executive.

Nevertheless, the corporations still lack a clear blueprint for the future.

Conducted for the third year in a row, this study by Roland Berger Strategy Consultants once again provides a unique snapshot of the industry's current thinking. It follows on from our study "Commercial excellence in the pharmaceutical industry – Delivering superior value to your customers in challenging times" which was published in 2007 and generated a lot of interest. However, given the obstacles the corporations and their managers are currently grappling with, this year's study poses a more fundamental question: Is the industry's operating model sustainable and which areas will be subject to the biggest changes?

In order to provide a global scenario, this study presents findings from the US, Europe, Japan, as well as from emerging markets exemplified by the "BRIC" countries (Brazil, Russia, India and China). Once again, our main take is on the markets and companies dealing with patent protected prescription drugs. It should be noted that we did not research potential diversification strategies into generics, over-the-counter (OTC) drugs, vaccines, medical devices or other medical products.

This study is based upon two sources: In a first round, a great number of managers – who represent companies which account for more than half of global pharmaceutical revenues – participated in a questionnaire-based survey. This provided us with valuable quantitative information. In addition, we generated qualitative insights from 50 face-to-face interviews with top executives, such as Chief Executive Officers, Chief Financial Officers, Heads of Europe and Heads of Marketing.

A general report will never be able to create specific directions for individual companies. But we trust that this study can give a detailed overview of an ever-changing healthcare world and map out its most relevant risks and opportunities.

We would like to express our gratitude to everyone who contributed to this study. By filling in our questionnaires and taking the time for the interviews, you alone made it possible.

Stephan Danner   Aleksandar Ruzicic   Patrick Biecheler

Executive Summary

For some time now, pharmaceutical managers have been preparing for the "perfect storm". While some have re-evaluated their business models, others have implemented new market access programs or reduced costs. Although all of these measures can be considered important and necessary, this study shows that these efforts are by no means sufficient to successfully address the fundamental obstacles which lay ahead.

In order to feature among the winners of the ongoing challenges, corporations need to step up. Two types of trends are testing them: Some have arisen because the world is questioning the way healthcare is delivered. Other issues, such as the expiration of patents or empty pipelines, are specific to the industry.

In terms of healthcare opportunities, a number of executives is considering the **expansion of product companies through services**. However, although players such as Fresenius Medical Care have shown that this model can be successful, this strategy is not undisputed. Many argue that such services have to either leverage the company's core business – or become profitable in themselves. Managers are also examining the possibility of **novel forms of cooperation within and across the value chain**, since corporations will have to partner with the best institutions in the future. Although an increasing part of the population is **willing to pay for healthcare service**, the industry is as yet too conservative to reap the significant potential which the out-of-pocket sector provides.

Within the industry, new stakeholders, such as payors and patients, have gained influence, increasing the need for **novel commercial models**. In addition, **emerging markets** are guaranteed to be among the key growth drivers in the years to come. However, this development will have to be actively managed by the industry – in part, because many of these countries are still working on stumbling blocks, such as the protection of intellectual property or liberalization. At the same time, increasingly difficult **market access and issues related to reimbursement** have resulted in significant **pricing pressure** across most markets. Traditional hurdles have been heightened and new ones put into place. In combination with the discounts which are granted to payors, the trend not to launch products in certain markets can therefore be expected to accelerate. Another issue of ongoing concern is **R&D productivity**. Undoubtedly one of the key challenges for corporations, many executives are even convinced that this is the underlying issue for all of the industry's problems: While costs remain on a steady rise, the number of approvals is lagging behind – due to poor clinical trial results and higher regulatory hurdles.

It should be noted that although these trends affect the entire industry, **regional differences** are adding to the challenges. This is true not only for individual profit pools, but also for the relative importance of market access hurdles. For instance, although the largest part of the global profit pool of USD 210-280 billion can still be allotted to the US, emerging markets are expected to play a crucial role beyond the 5-year time-horizon. Moreover, whilst registration is considered the biggest hurdle in the US, reimbursement and pricing are the most pressing issues for corporations in Europe. Hence, stringent and (cost-) effective programs tailored to individual markets are called for.

In the years to come, commercial topics will remain high on the agenda of industry executives. Pharmaceutical companies will have to adapt to new realities, by implementing **new commercial business models**. Since future growth will depend upon innovation and clear clinical differentiation, Roland Berger Strategy Consultants has further developed its holistic consulting approach, the proven **Business Model Mixer©**. Based on six key dimensions, each company has to determine its position and define its goals, depending on its products, customers and competitive situation. Each choice has a formative influence on the company's sales approach and offerings, and thereby on the business model that is ultimately adopted.

However, the challenge for the industry is even greater. Not only is market access difficult; in fact, many **product portfolios** and thus a large proportion of the industry's revenues are already at risk. In the past, the majority of corporations concentrated on individual products, particularly blockbusters. Yet many of these patents are set to expire, opening up the markets to generic products. Hence, companies need to react through timely business and product innovation – in this context, external sources will become key.

Just how intense the pressure on companies has become, is reflected by the increase of **cost-saving announcements across the industry**. Looking ahead, managers still feel that reducing costs provides the highest, short-term potential to relieve the pressure on the bottom line. However, such measures only reassure analysts and buy time. With margins continuing to erode, corporations will need to take a close look at their **value chains**. Which areas are still considered to be core competencies? Would it be sensible to outsource? How lucrative are services for third-party customers? The answers to these questions will determine the future success of pharmaceutical companies – and differentiate between winners and losers.

1. A world of risks and opportunities

A number of developments continue to challenge the pharmaceutical industry. Some are brought on by a world which is changing fast and fundamentally questioning the way healthcare is delivered. Others are specific to the industry, such as the expiration of patents or empty pipelines.

In the following, we will outline these trends, and present the opportunities and risks they are associated with. Moreover, we will analyze which of the resulting regional profit pools the industry can hope to tap into.

Trends in the healthcare market

As illustrated in our 2007 study "Trends in European healthcare: How to create value in a dynamic environment", nine drivers have emerged in the healthcare market.

> **Patients accepting to pay for healthcare service:** A growing part of the population is willing to pay for healthcare out of their own pocket

> **From institution to brand:** Healthcare players are developing "brands" to distinguish themselves from competitors

> **Moving beyond boundaries:** In search of better treatments or job opportunities, patients, healthcare employees and healthcare providers are growing increasingly mobile

> **Product companies expanding through services:** By offering more integrated services, companies no longer function as pure product suppliers but offer value added to patients

> **Higher focus on quality besides pure cost indicators:** Performance is no longer measured by cost indicators alone. Instead, companies should balance quality and costs

> **Rising specialization in healthcare provision:** Due to increasing scientific complexities in the healthcare industry, specialization is needed to enable the right balance between quality and costs

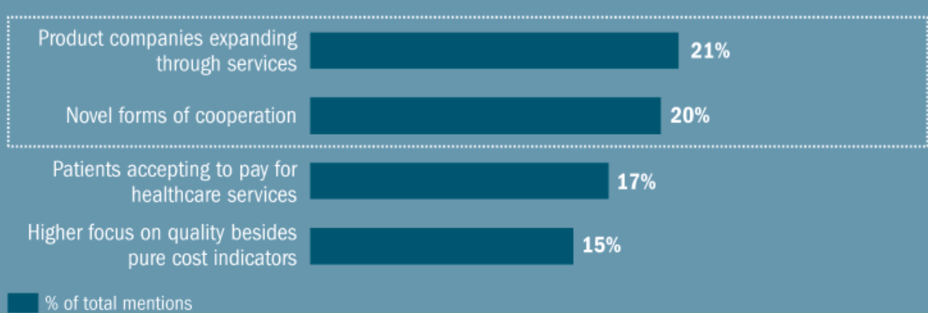
> **Pay for performance:** Health insurance companies have begun to pay providers according to qualitative performance targets

> **Novel forms of cooperation within and across the value chain:** New providers are entering into innovative forms of cooperation with traditional players

> **Privatization in healthcare provision:** Public deficit and costs are growing, provoking a trend towards privatization

When asked to name the trend with the highest potential, 21% of our survey participants chose the expansion of product companies through services. 20% opted for novel forms of cooperation, while 17% believe that patients accepting to pay for healthcare services will prove most beneficial.

Chart 1.1: **WHICH HEALTHCARE TRENDS ARE THE TOP 3 OPPORTUNITIES FOR THE PHARMACEUTICAL INDUSTRY?**



Source: Roland Berger Survey 2007/2008

However, during the interviews we conducted, this verdict received mixed reactions. It is undisputed that some firms have already successfully managed to transform themselves. For instance, Fresenius Medical Care now offers **services** as well as dialysis products and disposables. Yet while some executives even anticipate that, in future, such business models could include more direct access between patients and pharmaceutical corporations, others remain cautious. "If services try to compensate for a lack of product differentiation, it will not work", said one executive. Others pointed out that services need to either provide leverage for the core business – or become profitable in themselves.

The potential of **novel forms of cooperation**, on the other hand, was confirmed by all interviewees. For instance, Philips, the insurance company Achmea and the academic hospital Erasmus MC Rotterdam developed telemedicine, a new service for patients with chronic heart failure. Philips provided its expertise on electronics, while Achmea added its knowledge on patients and healthcare issues and Erasmus MC contributed its medical expertise. Such partnerships, which run along the entire value chain, are considered key for small biotech companies, traditional competitors or suppliers alike. Hence, in the future, pharmaceutical companies will need to move away from being mass producers of products, and begin to partner with the best institutions and individuals.

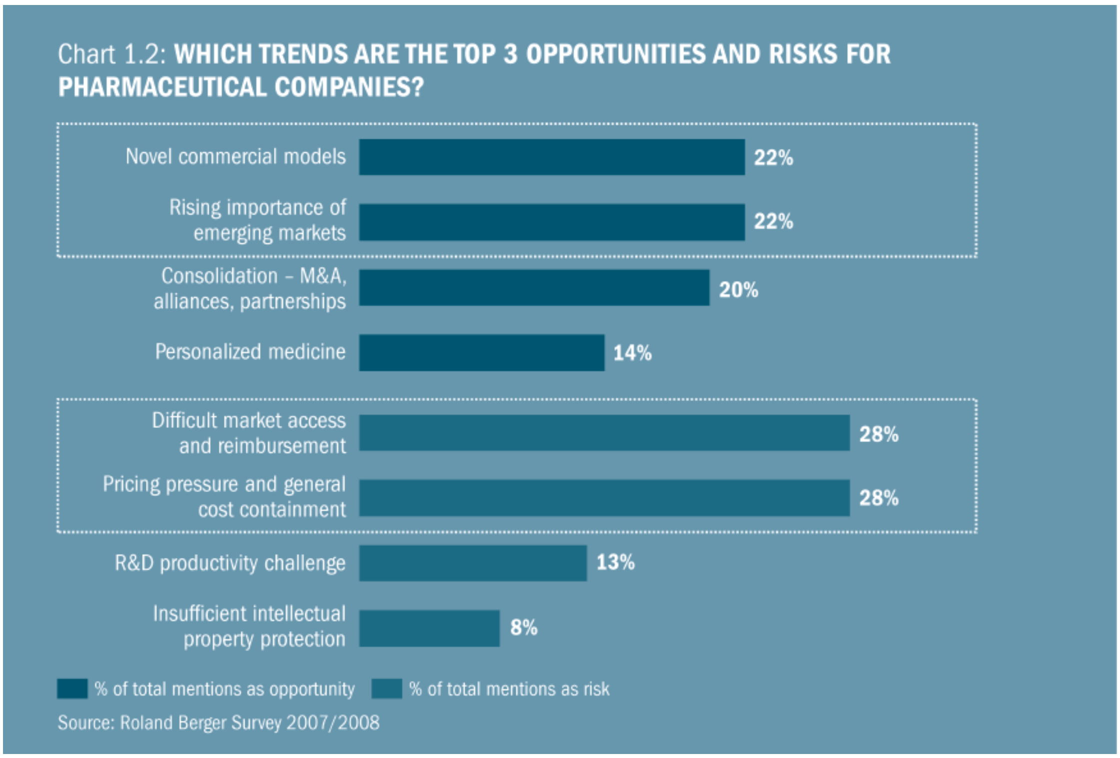
With patients increasingly willing **to pay for healthcare services**, a secondary healthcare market has emerged. The population in Germany, for instance, already spends EUR 60 billion a year on "healthy" products and services, such as wellness. And as a recent study by Roland Berger Strategy Consultants[1)] showed, people would even raise their healthcare spending by an additional 25%, if their demand were met by the right products and offerings. Yet while the life-style drug sector undoubtedly provides significant potential in a non-budget-regulated environment, it appears that the industry is still focussing too hard on traditional, publicly funded drugs.

Trends in the Pharmaceutical industry

In terms of individual pharmaceutical trends, many cited **novel commercial models** and the **rising importance of emerging markets** as the most promising. Further **consolidation through M&A, alliances and partnerships** made it a close third. **Difficult market access and reimbursement** were named as the biggest risks, along **with pricing pressure and general cost containment**.

Novel commercial models have been an industry issue for a while. Not only have new stakeholders, such as payors and patients, gained influence. On a different note, many managers believe that by rethinking traditional models, corporations could improve their image.

1) Dr. Joachim Kartte, Karsten Neumann: "Der Zweite Gesundheitsmarkt: Die Kunden verstehen, Geschäftschancen nutzen", Roland Berger Strategy Consultants Study, 2007. (Available upon demand to interested readers.)



The **rising importance of emerging markets** is reflected by a number of developments. For example, in 2008, GlaxoSmithKline established an Emerging Markets region and appointed its President to the Corporate Executive Team. Contrary to mature markets, the middle class in such regions has increased its purchasing power. Furthermore, the public provision of healthcare is improving. Yet some stumbling blocks remain, such as the issue of liberalization in Russia or the need for better protection of intellectual property in India. However, in summary, there is no doubt that emerging markets will provide a key growth engine in the mid- to long-term. In the meantime, the BRIC countries allow the industry to learn in a "non-traditional", much more consumer-driven environment.

It is noteworthy that our interview partners detected higher potential in **personalized medicine** than the participants of our survey did. One of the first products to leverage this trend was Herceptin by Genentech, which treats a category of breast cancer. A specific test can track cancer cells which express the protein HER2, making the patient eligible for the drug. However, some fear that individualized treatment will foster sub-segmented clinical studies and more rigorous data generation, driving development costs even higher.

The challenges ahead

Market access and reimbursement have emerged as top management issues. According to our survey, generating demand with physicians is no longer sufficient. This can be traced back to the increasing hurdles related to reimbursement. Hence, many managers expect that the trend, not to launch products in certain markets, will accelerate – as could already be witnessed in the UK, Germany and France.

As with reimbursement, **general cost containment** has also resulted in significant pricing pressure across most markets. A major driver of this development is the discounts which are granted to payors. Moreover, due to fragmented budgets and decision-making, total costs are not relevant enough: It is the price of the product which counts.

Most executives concur that **R&D productivity** remains a key challenge. Some are even convinced that this is the underlying issue for all of the industry's problems. For one, costs are on a steady rise. Yet, due to poor clinical trial results and higher regulatory hurdles – which have increased costs by 50% and more – the number of approvals cannot keep pace. "The industry needs to apply a model which is less fragmented and much more entrepreneurial", said one top manager.

The **issue of insufficient intellectual property protection** earned mixed reactions. While some managers believe that it could challenge the existence of the entire industry, others are not as pessimistic. Some pointed out that, should patent protection fail, R&D expenses could be reduced by two thirds. Others see the matter as a call for action: "The industry should stop fighting for patent protection and learn to create protected market situations using different instruments, such as brands or customer loyalty."

Profit Pool and Risks

Given that the industry is under immense pressure, it is necessary to examine potential consequences regarding the industry's profit pool. In this context, one of the key questions is the regional distribution of the profit pool – and the associated risks.

Box 1.1: Assumptions and approach for calculating the pharmaceutical profit pool

Using market data and publicly available company information, we estimated the pharmaceutical industry profit pools for the US, Europe, Japan and BRIC. We defined **profit pool** as the market revenues, after subtraction of the average SG&A costs and average COGS. We used the market revenues for the year 2007, estimated average SG&A costs and average COGS by region as a percentage of sales and then calculated the profit pool margin by region, yielding the absolute profit pool.

Chart 1.3: **PROFIT POOL**

	USA	Europe	Japan	BRIC	Others	Total
Revenues [USD bn]	315	210	70	40	50	685
SG&A [%]	30%-40%	20%-35%	30%-40%	20%-30%	30%-40%	25%-35%
COGS [%]	20%-30%	20%-30%	25%-35%	40%-50%	30%-40%	25%-35%
Profit pool [USD bn; range]	**95-125**	**75-95**	**20-30**	**10-15**	**10-20**	**210-280**

Source: Research, Roland Berger

According to our calculations, the worldwide pharmaceutical industry profit pool in 2007 was an estimated USD 210-280 billion. The largest part can be allotted to the US, followed by Europe. The contributions of other regions, including BRIC, are not yet significant. However, this ranking is set to change: Many believe that while the relative importance of the US will remain high, it has already peaked. BRIC countries on the other hand are expected to play a crucial role beyond the 5-year time-horizon. These findings were underlined by our survey results: When asked to state in which of the markets the pharma profit pool was most at risk, 46% of our respondents named the US. 29% of respondents cited Europe, while only a minority opted for Japan (15%) or BRIC (12%).

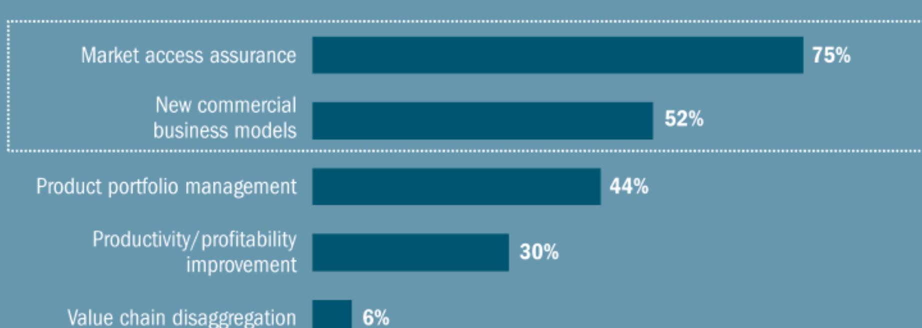
In summary, while the US still accounts for the largest profit pool, it also bears the highest risk. This trend can be traced back to major pricing pressure as well as to the high fines and litigation costs which pharmaceutical companies are subject to.

Other comments made by our interviewees regarded the markets in Europe and BRIC. Following the recent healthcare reforms, it appears as though the European markets are standing still. At the same time, the Third World and even some emerging markets continue to provide a significant challenge for the industry. The question remains in what form and shape (and price) innovation is brought to those markets. The ongoing discussion on AIDS is only the tip of the iceberg, and the industry still lacks a comprehensive model for the future.

Relevance of key decision areas

In an effort to encourage pharmaceutical companies to exploit the opportunities and react to the risks, Roland Berger has derived five key decision areas which we will cover in more detail in the following chapters.

Chart 1.4: **WHAT IS THE RELEVANCE OF THE FIVE KEY DECISION AREAS IN ORDER TO BE PREPARED FOR THE FUTURE?**



Source: Roland Berger Survey 2007/2008

> For 3 out of 4 survey respondents, "market access assurance" is the most relevant (see chapter 2).

> Half of the interviewees identified "new commercial business models" as key (chapter 3).

> Almost half, respectively a third, of the respondents named "product portfolio management" (chapter 4) and "productivity/profitability improvement" (chapter 5).

> Only "value chain disaggregation" (chapter 6) has not yet made it to the top of the agenda. However, some companies, both large (Eli Lilly) and mid-sized (Solvay), have already begun to disaggregate the value chain. With the margins continuing to erode, this topic will become more relevant. As one executive said: "The industry is too conservative. Research, Clinical Development, Production, Sales and Distribution all provide further potential for outsourcing and thus cost-saving potential."

It has become evident that the industry is currently facing a multitude of challenges – both from within the industry and from a healthcare world which is transforming at a staggering pace. Corporations are nearing a series of crossroads which may well make or break their success in the future. Traditional business models and strategies will need to be reformed, and some executives will have to rethink their regional priorities. At this point, only one thing seems certain: Nothing will remain the same. Never before has the industry experienced such a situation.

2. Why market access has developed into such a challenge

Traditionally, companies wishing to access a market needed to pass three hurdles; safety, efficacy and (manufacturing) quality. In the recent past, however, not only has the regulation for these restrictions been tightened, but some markets – particularly in Europe – have also implemented an additional fourth hurdle: cost-effectiveness.

In this context, the establishment of the National Institute of Clinical Excellence (NICE) in the UK in 1999 can be considered a major milestone. Today, most European countries evaluate the cost-effectiveness of drugs according to their own national methodologies and processes. As a result, for corporations wishing to access a certain market, generating demand is no longer sufficient.

Box 2.1: The National Institute for Health and Clinical Excellence (NICE)

During the course of its first three years, the National Institute for Health and Clinical Excellence (NICE) assessed more than 70 different healthcare technologies, from the prophylactic extraction of wisdom teeth to the use of anakinra (Kineret) for rheumatoid arthritis. More recently, the institute has been focussing on high-cost therapies, yet the principle remains the same: Its methodologies and processes are well documented, and the institute regularly publishes comprehensive and updated guidelines, such as the "Guide to the Methods of Technology Appraisal".

This chapter will outline the relative relevance of market access hurdles across geographies. Furthermore, we will compare markets by the individual type of market access control and describe the key dimensions of relevant programs.

Taking the first steps

In order to gain access to markets, the following issues have to be resolved:

> **Registry:** Before a product can be sold, it has to be registered. In order to gain approval, it has to fulfil certain safety, efficacy and (manufacturing) quality conditions. Since the Vioxx safety issues, registration has became more difficult for both new and marketed products. This is particularly true for the US.

> **Reimbursement:** This involves a cost/benefit assessment, which may be based on the arithmetic Health Technology Assessments, which are mandated by NICE (see box 2.1).

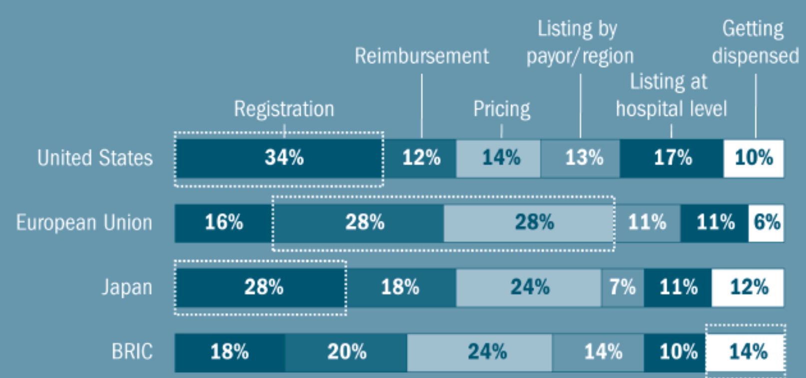
> **Pricing:** Through tenders and price negotiations, both payors and providers have managed to establish rebates, resulting in differing list and net prices.

> **Listing by payor/region:** This may result in restricted access and/or limited choice on formulary. This method is typically linked to net pricing and is common in the US.

> **Listing at hospital level:** Due to the very costly (ambulatory) care provided to oncology patients, drug cost containment has become even more of a strategic priority in many hospitals. Advanced hospitals let cross-functional drug committees, consisting of physicians, nurses and representatives of the administrative and purchasing departments, decide on the listing.

> **Getting dispensed:** Some companies have started to review the potential of distribution and logistics as an opportunity to gain access to their customers and to better control the product flow. As a side effect, this also limits product forfeiting and parallel trade, which in some European countries accounts for 15% of market value.

Chart 2.1: **WHAT ARE THE TOP 3 MARKET ACCESS HURDLES FOR EACH REGION?**



Source: Roland Berger Survey 2007/2008

The relative importance of these market access hurdles varies among regions.

> Due to the increasingly stricter FDA rules, 34% see registration as the major hurdle in the US.

> Many European markets exercise cost containment by allowing lengthy reimbursement decisions. Hence, reimbursement and pricing came top of the list (28%).

> Due to lack of resources and competencies, Japan sports a slow approval process. Therefore 28% of all participants see registration as the country's most important hurdle.

> In BRIC countries, getting dispensed can represent a major issue (14%), due to the limited infrastructure and the strong power of existing players. However, since patients typically have to pay a much larger out-of-pocket contribution, the region continues to offer many opportunities for new business models.

Focus on reimbursement, pricing and listing

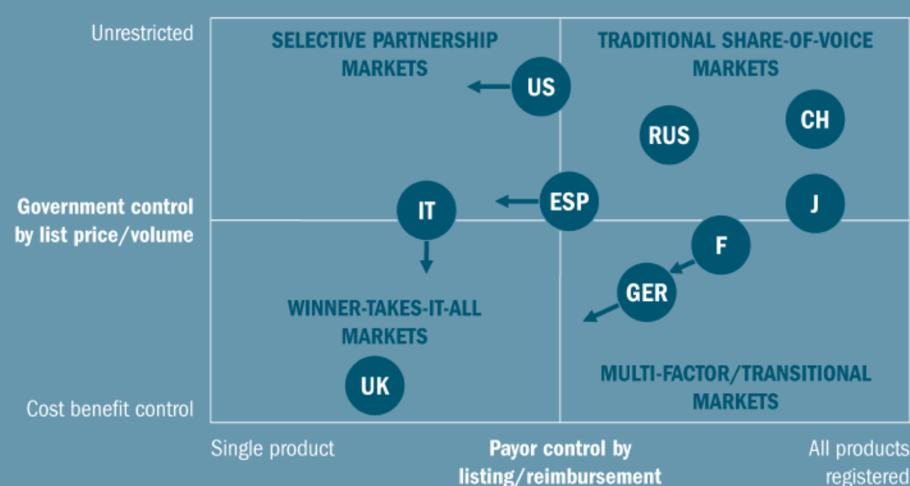
Based on our extensive project experience and the data gathered for this study, we compared the markets in terms of reimbursement, pricing and listing (see chart 2.2):

> y-axis: Market access controlled by (national) government through list prices/volumes

> x-axis: Market access controlled by payor through listing/ reimbursement

> The arrows indicate trends, also discussed during our top executive interviews

Chart 2.2: **ACCESS OF DRUG PROVIDERS TO MARKETS**



Source: Roland Berger

> The **US** are dominated by very strong pricing pressure, with net pricing being the predominant issue. The effects of this should not be underestimated. Already, one participant told us: "The net prices in the US, Thailand and South Korea are the same for our products."

> With NICE and its formal Health Technology Assessments, the **United Kingdom** has set a trend in terms of reimbursement. Rationing has become a major element of cost containment, resulting in long waiting lists, a growing importance of private healthcare and increased medical tourism. However, some suspect hidden opportunities in this system: "Provided you have the right data, you can virtually guarantee to capture the full market."

> In some European countries, such as **Portugal**, short-term cost constraints have turned demand-driven hospital markets into access-controlled ones within the very short period of only two to three years.

> Since the healthcare reform, the IQWiG (Institute for quality and profitability in healthcare) handles reimbursement decisions in **Germany**. While this has strengthened payors, some fear that Germany could combine the worst of the British (financial/arithmetic value) and the French system (clinical value added).

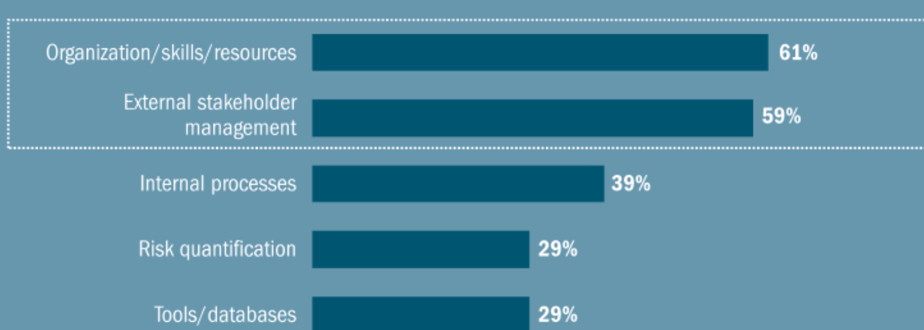
> **Italy** and **Spain** have delegated a large part of the cost containment responsibility to the regions, which has resulted in large differences within the countries. Some markets, such as Andalusia, only consider costs – and require the complete removal of services which are valued in other regions, such as Catalonia.

Getting it done

To sum up, pharmaceutical executives are not yet satisfied with their market access programs. While 40% of all companies have already implemented such an agenda, 35% are still working on it. Nearly half of our participants believe that their global/regional market access programs work well in terms of internal processes and external stakeholder management. 45% say this is true for the area of organization, skills and resources.

Conversely, respondents are least satisfied with their systematic risk quantification (only 27%) and capability-building through tools/databases (31%), representing clear opportunities for improvement.

Chart 2.3: **IN WHICH DIMENSIONS OF YOUR GLOBAL/REGIONAL MARKET ACCESS PROGRAM WILL YOUR COMPANY INVEST IN THE COMING TWO YEARS?**



Source: Roland Berger Survey 2007/2008

Given the importance of market access, pharmaceutical companies feel the need to invest further. Most are looking at improving their **organization, skills and resources** (61%), as well as the **external stakeholder management** (59%).

In this context, Roland Berger has identified three core competencies necessary for market access excellence:

> **Core internal processes**, such as the monitoring of health political changes and the analysis of the implications these may have on a company's product portfolio

> **Handling of target customers in the market**, such as Key Account Managers for payors, either private (US, Germany, Netherlands) or regional (England, Italy, Spain)

> **Ensuring of reimbursement** for products typically linked to pricing, for example through formal Health Technology Assessments

As shown above, the pharmaceutical market is set to change profoundly in the coming years, forcing companies to be both first-in-class and best-in-class – an objective which is virtually impossible to achieve. While traditional hurdles, such as safety, efficacy and (manufacturing) quality, are subject to heightened regulation, other markets have introduced completely new guidelines. Hence, generating demand is no longer sufficient. Since the changes which the countries and regions are undergoing differ greatly, it is crucial to tailor and implement a stringent and (cost-) effective market access program which best fits the need of the individual corporation.

3. Time for a change: New commercial business models

The changes in both the pharmaceutical and the healthcare markets have put existing commercial business models to a tough test. Over the course of the next five years, the players will have to adapt to new realities; simply fine-tuning is now a measure of the past. For years, many executives followed the paradigm "to be marginally better but marketed like hell". Future growth, however, will depend upon innovation and a clear clinical differentiation. However, the commercial area will remain a key success factor. And the industry will once again have to face the fundamental question: Which are our core competencies in this field and how can we develop them further?

This chapter will outline the idea behind the Roland Berger Business Model Mixer©, which – since being introduced in last year's study[2)] – has generated a lot of interest across the industry. We will talk you through the modifications which we have undertaken since then and explain how the model can help you assure market access and increase profitability.

Roland Berger Business Model Mixer©

In 2007, Roland Berger developed and published its Business Model Mixer©. Based on our wealth of industry experience, we identified six key dimensions which make up the characteristics of a pharmaceutical company's commercial business model. When reviewing their current model, companies follow a two-step process: First, each company (or entity) has to determine its current position, depending on its products, customers and competitive situation. In a second step, the company (or entity) must decide how it wants to position itself for each of the following six dimensions:

> **From individual products to product bundles/portfolios**, for example related to therapeutic areas such as cardiovascular or oncology

> **From product to healthcare services**, which as of yet are typically not charged for. Such services are considered a "quick opportunity" to create large revenues. However, generating profitable growth is considered more difficult

> **From direct to indirect influence on prescribers**, such as accounts, payors and patients

2) Stephan Danner, Aleksandar Ruzicic, Patrick Biecheler: "Commercial excellence in the pharmaceutical industry: Delivering superior value to your customers in challenging times", Roland Berger Strategy Consultants Study, 2007. (Available upon demand to interested readers.)

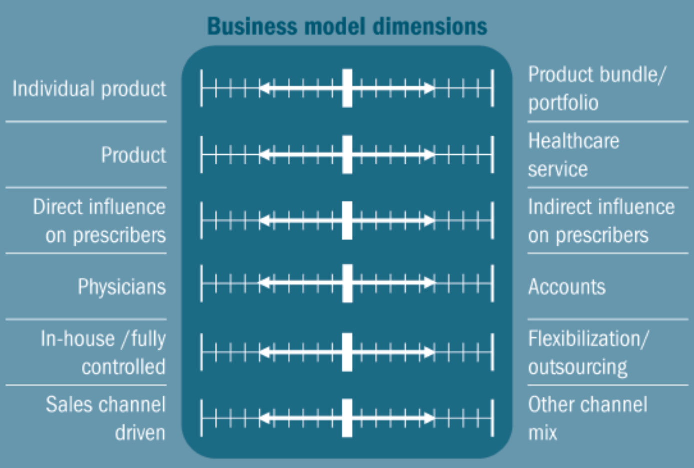
> **From physicians to accounts**, particularly traditional providers, and increasingly, payors and healthcare authorities

> **From full in-house control to flexibility/outsourcing**, beyond purely tactical outsourcing for peak demand or due to stringent labor laws. For example, some firms will instruct their sales force to concentrate on high potential customers, while other segments will be addressed with contracted sales forces and/or through other channels

> **From a focus on the sales channel to emphasis on other channels**, as evidenced by the buzzword "e-detailing". This trend is spurred along by the fact that in many cases, the sales force can no longer contact the physicians directly, but has to resort to alternative ways like the internet

By favoring one dimension over another, the pharmaceutical company defines the characteristic attributes of its new business model. For instance, the company can choose between the two extremes of offering an individual product or leveraging a broader product portfolio. Each choice has a formative influence on the company's sales approach and offerings, and thereby on the business model that is ultimately adopted.

Chart 3.1: **THE ROLAND BERGER BUSINESS MODEL MIXER®**



Source: Roland Berger

Many pharmaceutical companies have begun to transform their business model – particularly with regard to their account management and market access. One year ago, almost half of the executives we surveyed stated that their companies were planning to roll out new business models over the course of the next two years. A quarter of respondents foresaw this happening by 2007. Predominantly, this is expected to affect the sales representatives: "The sales force is not dead, since the pharmaceutical industry will retain access to physicians", said one participant. However, the trend will shift towards more content.

Box 3.1 Diabetes disease management – An example for a new business model

The market for the treatment of diabetes is one of the most promising markets for new business models. By the year 2030, the number of patients is expected to have doubled from 171 million in 2000 to 366 million. Yet despite this skyrocketing demand, various challenges are creating a strong need for change. Expiring patents and an empty pipeline are forcing innovation leaders to take action. Furthermore, the diabetes market is fragmented into individual value chain segments, making it difficult for players to control the patient flow and improve overall results. A potential new business model involves offering more integrated services.

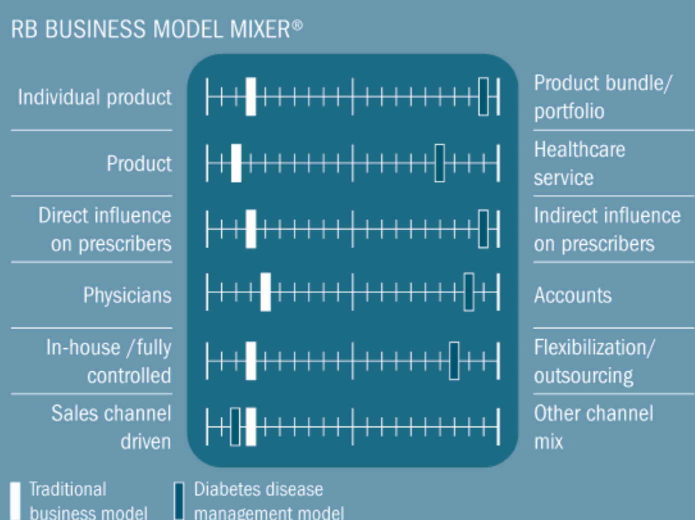
The diabetes disease management model represents a radical change from the traditional business model. The pharmaceutical and/or medical devices company guarantees superior diabetes treatment to participating patients. This could include access to the latest measurement devices and drugs, or continuous monitoring by qualified physicians using automated regular data transfer. In return, the patient would pay an out-of-pocket fee.

This business model assumes that the wealthy population forms a significant market in which patients are the dominant stakeholders and are willing to spend more on healthcare. Furthermore, it is assumed that patients can be made aware of the benefits which result from disease management and that patients have influence on the prescribed treatment.

Although this model requires a good degree of change, pharmaceutical and/or medical devices companies can build on the strength of their traditional business models. They can exploit their ability to create and promote product innovations and can also use their classic sales channels to recruit interested payors/regions and providers. The core strength is the opportunity to fully leverage the patient's power to influence prescribers once they have been recruited through participating payors/providers.

However, the model is very patient-focused and requires extensive administrative efforts if the services are provided mainly by in-house units. Reduced quality control from outsourced treatments and lack of experience in determining out-of-pocket fees add to the challenges of this business model.

Chart 3.2: **DIABETES DISEASE MANAGEMENT MODEL**



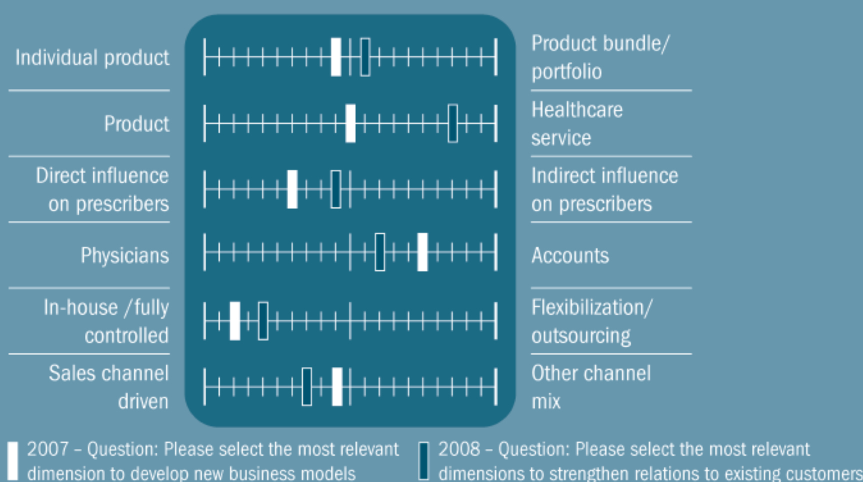
Source: Roland Berger

Roland Berger Business Model Mixer© 2008

Despite the focus on specialty products, the commercial expenditure – defined as the sum of all expenses for Marketing and Sales – is still rising fast. Therefore, many executives are calling for an increased degree of cost-transparency.

In 2007, the main focus lay on the shift from physicians to key account management (25%), which was intended to ensure a more customer-centric approach and market access. In 2008, however, moving from product to healthcare services (27%) was regarded as the most important dimension – in order to serve both existing customers and new stakeholders. In this context, many top executives pointed out that the industry already provides many services for free, which is not beneficial: "If something is free of charge, it has no value, even in healthcare."

Chart 3.3: **WHICH ARE THE MOST RELEVANT DIMENSIONS TO DEVELOP NEW BUSINESS MODELS?**



Source: Roland Berger Surveys 2007 and 2007/2008

Interestingly, when asked to evaluate which role alternative channels can play in terms of strengthening relationships with existing customers, the survey respondents were even more conservative than our interview partners. While many believe that the sales force is inherently inefficient, they still defend the representatives as being the best sales tool.

Another divergence becomes obvious in terms of the relevance of moving into healthcare services. While the participants of our survey seem to expect miracles from this adaption, the executives we interviewed were more cautious. While it has been shown that markets such as The Netherlands are willing to pay for services, e.g. large nurse programs, some questions remain unanswered. For example, fees for healthcare services are possible in the UK. But many remain uncertain about who will be responsible for the treatment, especially if physicians are employed. Hence, many executives do not believe that a forward integration into healthcare services can be achieved profitably. "The product remains at the core of the industry value proposition", said one manager.

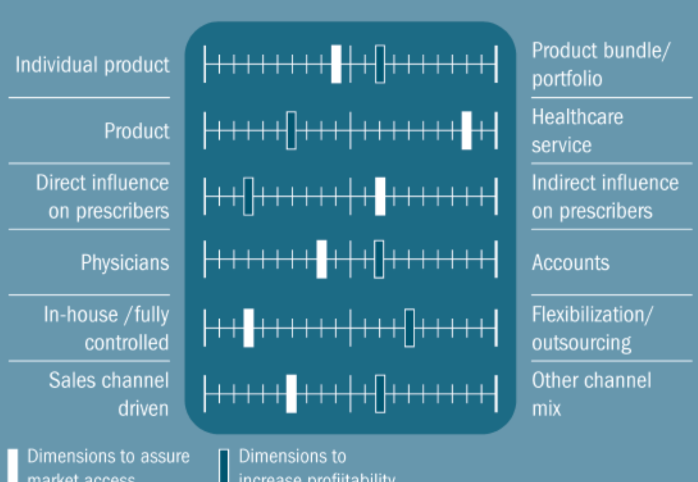
How to ensure market access and increase profitability

The different pharmaceutical business model alternatives can serve various purposes, i.e.

> strengthen the relations to existing customers
> strengthen the relations to new stakeholders
> assure market access
> increase profitability
> relieve exposure to patent expiry

We asked pharmaceutical managers to select the relevant dimensions for all of these areas. In order to ensure market access, the shift from product to healthcare services was perceived as the most crucial (32%). However, the general assumption was that this was only possible if they were free of charge. In terms of increasing profitability, moving towards flexibilization/ outsourcing was seen as most effective (24%). However, given that some Top 10 companies have already implemented creative risk sharing models with Contract Sales Organizations (CSOs), this was not surprising. Similarly, other dimensions scored highest for other purposes. For example, the development from individual product to product portfolio was seen as the best way to relieve exposure to patent expiry (30%).

Chart 3.4: **WHICH ARE THE MOST RELEVANT DIMENSIONS TO ASSURE MARKET ACCESS/TO INCREASE PROFITABILITY?**



Source: Roland Berger Survey 2007/2008

In summary, it can be seen that the industry is reviewing its commercial model. While corporations are driven by the wish to better cope with changing customer structure and become more cost-effective, they are simultaneously investing in services. At this point in time, however, this is seen as an effort to maintain customer access and loyalty, rather than as a contribution to revenue and profit.

A completely different game

Two additional, yet strongly linked trends became evident in our interviews. As illustrated in the chapter on market access, outcomes will become crucial as pay for performance models are introduced. Hence, medical information will develop into a key tool for pharmaceutical companies and grow to be an essential part of the Marketing & Sales mix.

This development has the potential to change the industry dramatically. At this point, many critizise that once drugs have been registered, the pharmaceutical corporations stop the generation of data. In future, however, the call for Evidence Based Medicine (EBM) will force the industry to constantly learn around the product. For one, this will make it a more attractive partner for authorities, payors and patients alike. In addition, this demand for information will promote new forms of communication. Compliance call centers will need to be established; some executives anticipate an expert system leveraging web 2.0 technology.

At the same time, the growing importance of information will also alter the competitive field. Until now, the corporations have left the payors to generate the relevant data, making them increasingly able to stratify patients and identify relevant biomarkers. Moreover, emerging and unexpected players will carve niches for themselves. Today, many consumers trust Google and Microsoft more with their medical records than they do the pharmaceutical companies. Consequently, future gold-mines are being created by external players. As a result, similar to medical devices, the pharmaceutical industry will need to lock-in doctors and/or systems with more layers of information, e.g. data, software, algorithms.

New realities require new commercial models. While fine-tuning traditional strategies may have worked in the past, this is no longer an option. Instead, business innovation and clear clinical differentiation will determine the top players of the future. The Roland Berger Business Model Mixer© can assist you in identifying which strategy best suits your company's position and competitive situation. Not only will this help you address the current challenges. It will also enable you to outperform your competitors and lay the groundwork for future excellence.

4. The art of managing a product portfolio

As many industry analysts and journalists have formulated in the past, the product portfolios of many pharmaceutical companies are at risk. While this development is augmented by many factors, the dependency on blockbusters and the maturity of individual products can be seen as the triggers.

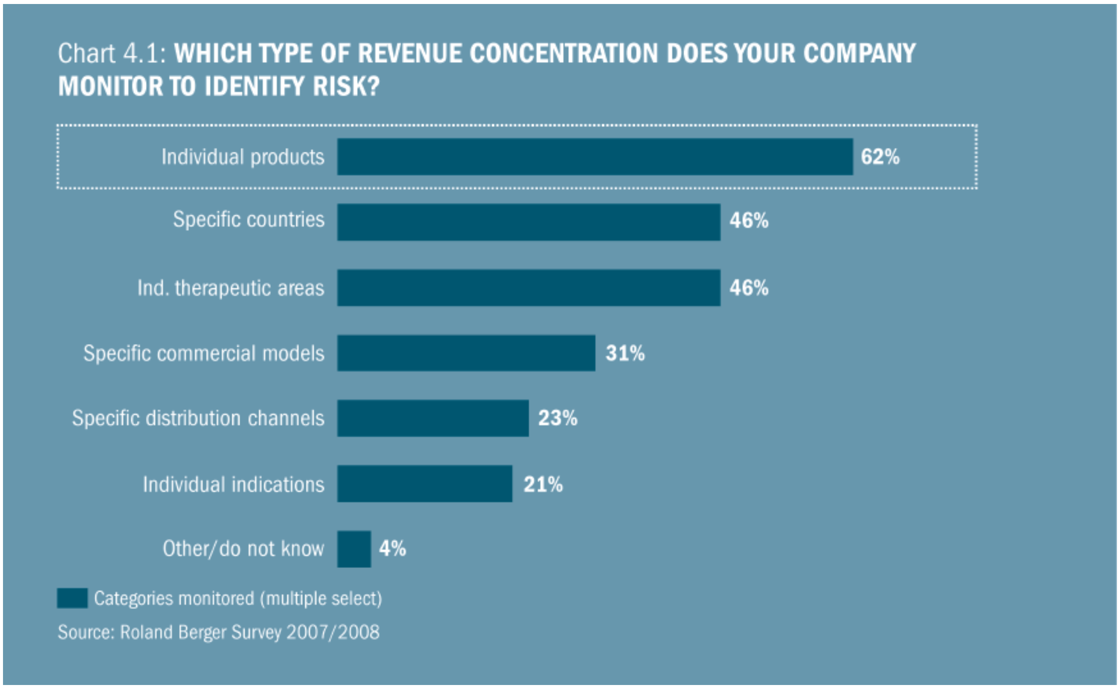
In most markets, the expiration of patents for small molecule blockbusters has begun to eat away at revenues. With generic products waiting in the wings, it is crucial that companies identify and monitor such product portfolio risks at an early stage and manage them appropriately, e.g. through timely product and/or business innovation.

In this chapter, we will introduce the most important categories of revenue concentration and illustrate the industry's exposure to patent expiry. Moreover, we will highlight the product dependency of leading pharmaceutical companies and outline the most cost-effective strategies for innovation.

We asked pharmaceutical experts which types of revenue concentration they were paying most attention to. Both industry and analysts focus on the dependence on individual products, particularly blockbusters. However, revenue concentration can also occur with regard to specific countries (e.g. the US), Therapeutic Areas (e.g. oncology) or single payors.

Due to patent expirations and law suits, 62% identified the concentration on **individual products** as the highest risk and therefore claimed to monitor it most often. **Regional concentration** (46%) and dependency on **Therapeutic Areas** (46%) were also named.

In an effort to mitigate risks, pharmaceutical top executives have opted for differing strategies. Diversified companies tend to focus on small, less competitive areas in which they can apply their key strength while avoiding major M&A deals. Others shy away from highly competitive TAs, such as oncology, or concentrate on areas which entail large out-of-pocket contributions. On a different note, while it does not seem a major issue as yet, many believe that the industry should also be monitoring the risk of payor concentration, e.g. Centers for Medicaid & Medicare (CMS) in the US.

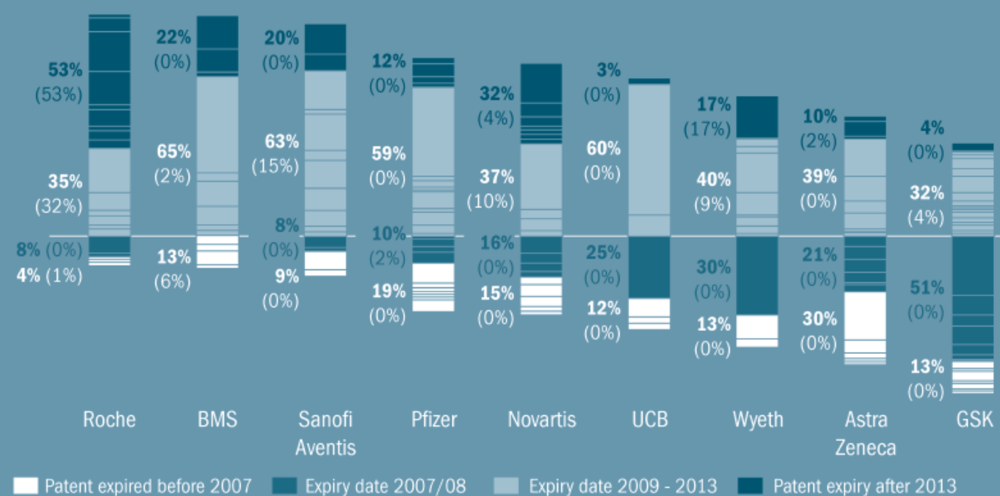


Assessing the risks of product portfolios

Since pharmaceutical product portfolios are very transparent in terms of revenues, it is possible to conduct a bottom-up analysis. On this basis, Roland Berger assessed the risks which the leading players are exposed to.

To begin with, we identified prescription drugs in the portfolios and classified them as either small molecules or biologicals. We then calculated how much the individual products contributed to the total pharmaceutical revenues of the company in 2007 and used publicly available data to research the date of patent expiration in the US. In a next step, we correlated the revenue share with the expiration date and created four clusters – "patent already expired", "patent expiry date in 2007/2008", "patent expiry within the next five years, i.e. 2009 to 2013" and "patent expiration after 2013".

Chart 4.2: **PRODUCT PORTFOLIO ASSESSMENT FOR SELECTED PHARMACEUTICAL COMPANIES**



Source: Company information, research, Roland Berger

As the chart shows, most large pharmaceutical companies are at risk of losing large shares of their revenues. The majority depend upon products of which the patent expires within the next five years. Hence, the anticipated "perfect storm" has already started. However, size does not necessarily minimize risk, as the example of **Pfizer** shows (see box 4.1). **Roche**, on the contrary, is one of the few which stand out: While 35% of the company's revenues are threatened by expiration within the next five years, almost all of the affected products are biologicals. In total, more than half of revenues will be protected by patents beyond 2013.

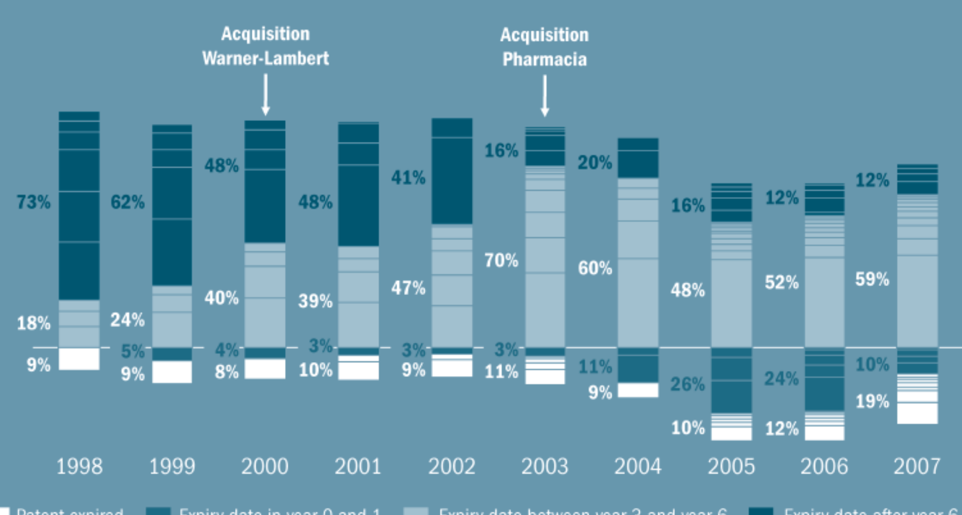
It is important to note that the risk is not comparable for biologicals and small molecules (indicated by the second number): Due to the difficulty in copying the manufacturing for biologicals, one way to meet the challenge could be to agree upon price reductions for the period after the patent has expired. In summary, however, the pressure which reimbursement issues and market access restrictions will exert, can be expected to have a negative impact on most markets.

These figures are a clear indication that only through renewing their portfolios can pharmaceutical companies hope to secure future revenues. While innovation can come from both in-house and external R&D, it can be estimated that companies need to renew their overall drug portfolio every 10 to 12 years.

Box 4.1 An analysis of Pfizer's product portfolio (1998-2007)

Over the course of time, Pfizer's product portfolio risk has increased significantly. This is true not only with regards to the dependency upon single products, but also for the exposure to patent expiry. In 2007, 70% of revenues were generated from products of which the patents will expire by 2013. The acquisition of Warner-Lambert in 2000 and Pharmacia in 2003 did not improve the situation. On the contrary, Warner-Lambert's block-buster Lipitor drove the risk even further. In 2007, the product, which will expire in 2009, amounted for 35.5% of overall pharmaceutical revenues. At the same time, the dependency on Pharmacia's Celebrex, a Cox-2 inhibitor that will expire in 2013, increased from 0.4% to 6.4% in 2007.

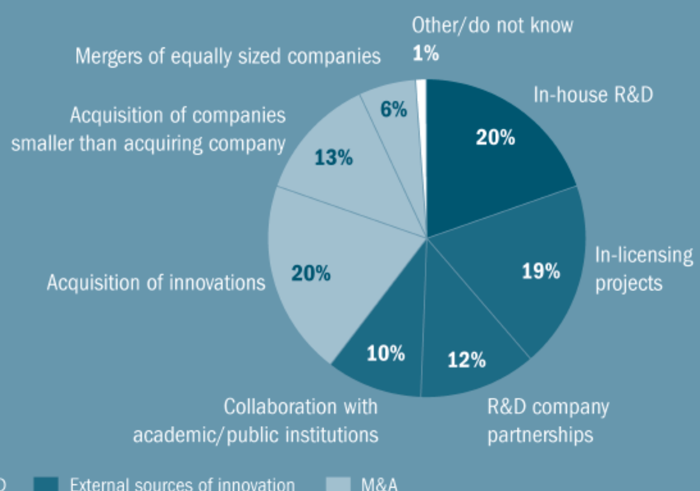
Chart 4.3: **PFIZER – PRODUCT PORTFOLIO ASSESSMENT 1998-2007**



Source: Company information, research, Roland Berger

In this context, it will become crucial to determine the most effective way to organize both innovation and the renewal of the product-palette. With the options ranging from in-house R&D and external partnerships to full-fledged M&A, we asked pharmaceutical managers which innovation strategy they perceived to be the most cost-effective.

Chart 4.4: **WHICH INNOVATION STRATEGIES DO YOU ASSESS TO GENERATE REVENUES MOST COST-EFFECTIVELY?**



Source: Roland Berger Survey 2007/2008

41% of the respondents favor **external sources**, making this the most preferred innovation strategy. While for years, the industry waited until innovative ideas were brought forward, many now feel the need to take a more proactive approach. However, this is also causing problems. "The market for external innovation is becoming increasingly overcrowded", warned one executive: "I do not think the market is big enough to satisfy the demands of the industry." This could drive the next consolidation wave. Not surprisingly, **M&A** were named by 39% of participants, with many stating that they prefer to acquire or strike deals with large biotech companies, rather than with large pharmaceutical competitors.

One of the attractions of any type of external collaboration is that it allows companies to tap into other pockets of innovation, such as mid- to long-term academic partnerships. However, given the high price of many deals, executives pointed out that they needed to retain their ability "to say no and walk-away from opportunities".

Due to its cost intensity, in-house **R&D** was rated less important – a view which some of our interview partners do not share. Some claim that this remains the most economic way to obtain innovations in the long-term and that in-house projects can match in-licensed projects in terms of productivity. As a bottom line, it can be noted that while a considerable percentage of corporations plan to conduct less research in-house, they feel the need to maintain the capabilities, in order to understand and evaluate external opportunities within key focus areas.

Our findings prove that many pharmaceutical companies are at risk of losing out on future revenues. While their portfolios are often concentrated upon individual products, certain markets or Therapeutic Areas, this trend is enhanced by the fact that a large wave of patents is set to expire within the next couple of years, opening the way for generics. Consequently, one of the industry's main priorities must be to be explore and implement innovations – both internally and externally.

5. How to improve productivity and profitability

While the pharmaceutical industry is still one of the most profitable lines of business, the mounting pressure on corporations is affecting their bottom line.

As discussed in chapter 2, the issues related to reimbursement and market access have already had an impact on prices. One top executive estimated that annual price erosion has risen to more than 2%. In addition, as outlined in chapter 4, companies are challenged by the expiration of patents and increasing competition by generics. This development is exacerbated by limited innovation with new products.

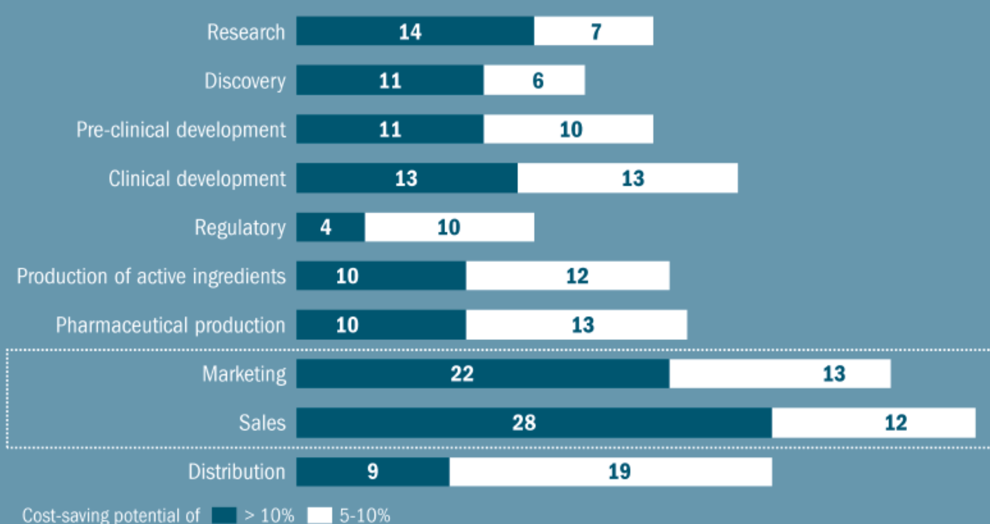
The time has come to take action. Top executives want to address these issues head-on. While the most popular strategy is to reduce the level of costs, the individual approaches differ: One manager estimated that in order to maintain profitability, expenses have to be reduced by an annual rate of 5%. Others take a more general stance: "The cost-reduction potential depends on the portfolio", said one manager. However, despite the declining overall margins, most feel confident that highly profitable pockets will remain.

In this chapter, we will illustrate which areas along the value chain offer potential for further cost-saving. We have compiled an overview of the relevant programs which the leading companies have either announced or already executed. Moreover, we asked top executives for their opinions on further improvements with regards to productivity and profitability.

A glance at our survey findings shows that most respondents attributed a cost-cutting potential of 5-10% to **Sales** (40%) and **Marketing** (35%), while a quarter cited the potential to be higher than 10%. More than a fifth of all respondents indicated that the costs for **producing** both **pharmaceuticals** and **active ingredients** could be reduced by an additional 5-10%, and every tenth executive we asked estimated this factor to be above 10%.

Top executives indicated that **production/manufacturing** and **supply chain/ logistics** still offer significant cost-saving potential, particularly for small molecule drugs. This can be explained by the historically huge gross margins, as well as by the capacity and supply chains, which many consider to be "idle" and "inefficient". It is believed that a more focused product portfolio would enable corporations to maintain even fewer manufacturing sites.

Chart 5.1: **HOW DO YOU ASSESS THE COST-SAVING POTENTIAL (%) IN YOUR COMPANY IN EACH STEP OF THE VALUE CHAIN?**



Source: Roland Berger Survey 2007/2008

In most areas of **R&D**, roughly one fifth identified a cost-saving potential of 5-10%; for (pre-) clinical development, 1 out of 4 respondents believed this to be true. However, this was not always associated with mere cuts. Rather, many feel the need for R&D to become more productive. However, executives pointed out just how sensitive this area is in terms of cost-savings. "While development projects are the easiest and fastest to shed, this can jeopardize the future of the entire company", said one manager. This follows from the fact that corporations depend on the output to renew their maturing portfolios – and will be particularly reliant on these over the course of the next five years. Emerging markets can provide cost-saving potential for clinical development, but this needs to be balanced with the demand for clinical data generated in the US and Europe. Conversely, external innovations also contribute to the exploding R&D costs.

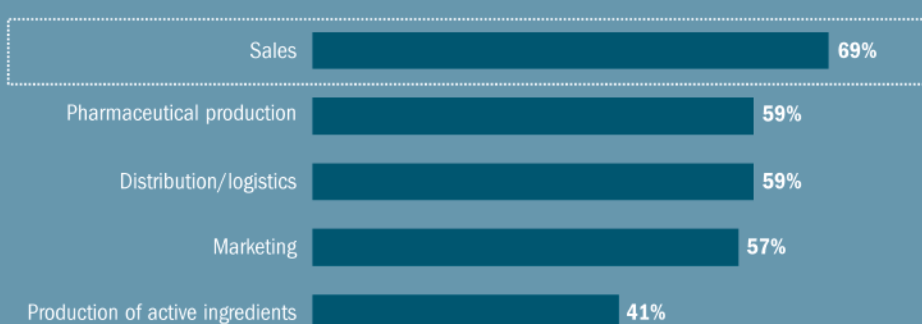
To sum up, manufacturing and the distribution supply chain are still considered major opportunities, particularly in comparison to industries under margin pressure. However, most managers associate Marketing & Sales with the largest, short-term cost-cutting potential.

It seems as though many of the investments in this field are not spent in a targeted or focused manner. Since it can be expected that the industry will increasingly measure its Return On Investments in this area, Marketing & Sales may well be faced with even more drastic cost-savings and other attempts to improve profitability in the future. In this context, since new commercial business models introduce radical changes rather than incremental improvements, these could reduce the costs considerably.

Taking the necessary steps

Over recent years, pharmaceutical companies have undertaken extensive cost-saving initiatives. The majority turned their attention to **Sales** (69%), for instance by reducing the number of representatives once a product was withdrawn or detected with late development failure. This was especially common in the US. 59% addressed **pharmaceutical production** and **distribution/logistics**, while 57% also addressed **Marketing**.

Chart 5.2: **IN WHICH PARTS OF THE VALUE CHAIN HAVE YOU PERFORMED COST-SAVINGS WITHIN THE LAST TWO YEARS?**



Source: Roland Berger Survey 2007/2008

In future, the largest focus for future cost-saving programs will be on Marketing & Sales. However, top executives also identified further potential in other areas, such as the back-office or support areas, which – over recent years – were invested heavily in. "This has resulted in inefficiencies and non value-adding structures", stated one manager.

Just how intense pressure on the industry has become, is reflected by the most recent cost-saving announcements by the corporations, which we researched systematically from publicly available sources, such as press releases, newspaper articles or analyst reports.

Pfizer, being the leading pharmaceutical company, announced the largest absolute job cut in the industry to date. In an attempt to lower costs by more than USD 1 billion annually, 11.5% of total positions (= 10,000 FTEs in total) were shed. Additionally, all areas across the value chain were reviewed, from Marketing & Sales to Manufacturing and R&D. The move became necessary because the patents of many key drugs are set to expire between 2009 and 2012. Since these account for 41% of Pfizer's revenues, the company's future is imperiled by the potential loss of USD 14 billion in revenues. Moreover, Pfizer was forced to halt development of Torcetrapib, the star drug in its pipeline. This had a large effect, since the product was originally intended to replace the sales of best-selling Lipitor, which loses market exclusivity in late 2009.

Even **Amgen**, the largest biotech company, had to announce cost-saving programs in 2007. The cuts – which were the first in the company's 27-year history – affected 13.7% (= between 2,200 and 2,600 FTEs) of the global positions, mainly in G&A, Manufacturing and R&D. By down-sizing, Amgen responded to studies which showed that two of their anemia blockbusters – when given in high doses – raised the risk of death. In 2007, Aranesp and Epogen generated half of the company's revenues.

Chart 5.3: **SELECTED COST-SAVING ANNOUNCEMENTS OF PHARMACEUTICAL COMPANIES IN 2007**

Company	Percentage[1)]/Number of FTEs cuts	R&D	Manufacturing	M&S	G&A
Amgen	**13.7%** (2,400)	✓	✓	✓	
Pfizer	**11.5%** (10,000)	✓		✓	
Bristol-Myers Squibb	**11.4%** (4,800)	✓	✓		✓
AstraZeneca	**11.3%** (7,600)				
Bayer	**5.7%** (6,100)		✓		
GlaxoSmithKline	**4.8%** (5,000)		✓		✓
Johnson & Johnson	**4.1%** (5,000)			✓	
Novartis	**3.8%** (3,750)	✓	✓		✓

1) FTE's cut as percentage of total global workforce in year of FTE cut

Source: Company information, press research, Roland Berger

To sum up, most managers still feel that reducing costs provides the highest, short-term potential to relieve the pressure on the bottom line. However, it should be noted that such measures only buy time. While high profile cost-savings are considered "good" by analysts, "it is not possible to save ourselves to salvation", said one manager. Rather, companies need to address the underlying innovation problem: At the end of the day, it is still all about the top line – even in challenging times.

6. The disaggregation of the value chain

Typically, when the bottom line is under pressure, companies react by focussing on their core competencies and ensuring more stringent make vs. buy considerations. However, the pharmaceutical industry still follows the traditional, fully integrated Pharmaceutical Company model (FIPCO), which makes the value chain more rigid than in other lines of business.

In the following, we will provide an industry assessment of core competencies and outline a comprehensive make vs. buy approach. Moreover, we will present potential strategies and illustrate first examples of strategic outsourcing and externalization.

Although the industry knows of the pressing need to rethink the value chain, how can pharmaceutical companies decide which are their core competencies? Roland Berger has identified four guiding principles that help reconfigure value chains while preserving critical core competencies in-house (see box 6.1).

Box 6.1: How can pharmaceutical companies reconfigure their value chain?

Differentiate decision-making from execution activities

> Maximize the creation of value through decision-making
> Limit the in-house execution of labor and/or capital intensive tasks, when the value creation/competitive advantages are only minimal
> Example: clinical trial design vs. clinical trial quality monitoring

Strive for operational excellence in all in-house activities

> Aim to be superior to or best-in-class across industry and contract suppliers
> Continuous benchmarking ensures operational excellence
> Example: The overcapacity in manufacturing chemical active ingredients makes outsourcing attractive

Retain activities with strategic long-term implications on the profit pool

> Due to the increasing power of suppliers, scarce capacities could lead to a redistribution of the profit pool (e.g. biological manufacturing of active ingredients)
> The establishment of standards, as evidenced in the computer industry, is the most powerful example: The pharmaceutical industry should collaborate and create standards as a basis for R&D, such as Electronic Medical Records.

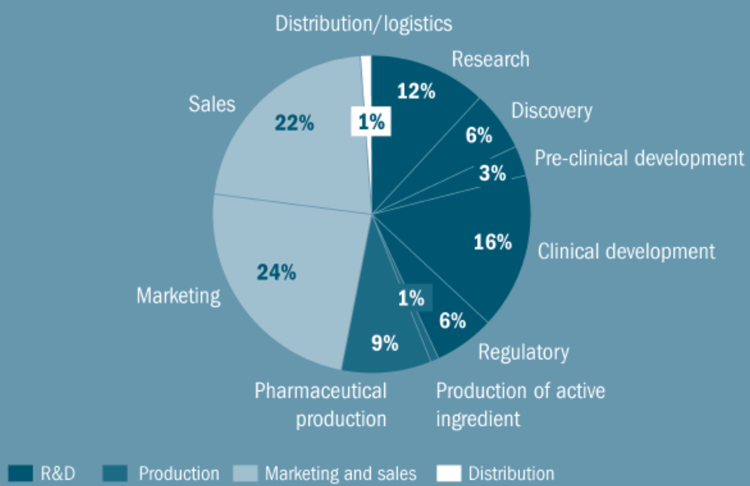
Investigate activities with regard to their relevance for focused franchise strategies

> Typical examples include commercial activities, such as specialized sales forces for physicians, or key account management for organizational customers
> This guideline can also be applied for R&D, and clinical development in particular

Mapping out the road to future success

While Marketing & Sales and Research & Development will remain core competencies, they will be differently aligned. In addition, partnerships with external suppliers will determine success in the future: Already, some of the Top 10 pharmaceutical companies have struck cooperations for commercialization of primary care opportunities.

Chart 6.1: **WHAT ARE THE TOP 3 CORE COMPETENCIES OF YOUR COMPANY CONCERNING THE FOLLOWING STEPS ALONG THE VALUE CHAIN?**



Source: Roland Berger Survey 2007/2008

When asked for an assessment of the companies' core competencies, the answers were not as obvious. While many survey respondents identified **Marketing** (24%) and **Sales** (22%) as core competencies, this was challenged by some top executives. Some claim to be focussing on the execution of established marketing processes rather than on the investigation and fulfilment of customer needs. Others believe that, given the high overcapacity of the sales force, this function no longer constitutes a core competency. The vision of overall **R&D** as a core competency (43%) was also disputed: Some pointed out that, in future, Research and Discovery will be the focus of deal making, and therefore completed externally.

Furthermore, the relevance of outsourcing was emphasized. While many embrace traditional outsourcing strategies (e.g. for their data management), more aggressive strategies can already be observed, providing a glimpse of a different future on the horizon. In terms of R&D, Eli Lilly is transforming from a fully integrated pharmaceutical company into a "network structure" of outside contractors, service providers and others. AstraZeneca, on the other hand, announced that it intended to outsource all its drug manufacturing activities. Although this was later withdrawn, it shows that they are obviously no longer considered to be a core competency.

Chart 6.2: **SELECTED OUTSOURCING ANNOUNCEMENTS BY VALUE CHAIN STEP**

Research & Discovery	Development	Manufacturing	Marketing & Sales
"Lilly shifting work to outsiders Lilly is pushing to shift up to half of the cost of its research and development, long considered a core mission, onto outside partners by 2010." ***Indystar.com*** *December 7, 2007*	**"The elixir of life** Industry experts assess the share of outsourcing in clinical trials to reach 60%." ***Medbiz, FT*** January, 2008	**"AstraZeneca leaves Manufacturing** British firm looks to China for its pharmaceutical chemical production needs" ***Chemical and Engineering News Business*** *July 30, 2007*	**"The new [outsourcing] deal** Its [Quintiles] total capital commitment to Cymbalta's [Eli Lilly] commercialization is more than USD 400 million." ***Pharmaceutical Executive*** *November, 2007*

Source: Press research, Roland Berger

Make vs. buy decisions will be even more complex in the future, given that aggregation, i.e. activities performed for others which go beyond captive needs, will have to be taken into consideration. Already, many examples of aggregation along the value chain steps can be observed. For instance, Boehringer Ingelheim provides contract manufacturing services to industrial customers; its biopharmaceutical facilities in Biberach (Germany) and Vienna (Austria) offer the entire production technology chain. In 1991, Novo Nordisk spun-off Novo Nordisk Engineering (NNE) and its 130 employees, which provided engineering and construction services to the biopharmaceutical industry. In 2007, NNE acquired Pharmaplan, and integrated it into NNE Pharmaplan, which was intended to offer more services to third-party customers, rather than to the Novo Nordisk Group.

With an industry which is changing rapidly, pharmaceutical corporations and their managers need to think ahead. Many of the executives who participated in this study are asking themselves whether the traditional pharmaceutical operating model is broken. While the answer to this question is certain to differ from company to company, one thing is sure: The industry cannot afford the cost-intensive in-house structures which it has built along the entire value chain over the last years. As one executive put it: "Pharma is certainly different from most other industries." But this fact cannot explain the huge difference in the degree of integration along its value chain. Rather, this can only be explained by the level of profit the industry was able to make in the past.

Looking ahead, it is time for pharmaceutical executives to once again ask a set of very fundamental questions: What are our core competencies? Do we need to reconsider our traditional approach and opt for a different strategy? How can we optimize our value chain? Already, some companies are experimenting with radically different ideas. In the future, only those pharmaceutical companies which are able to answer these questions in a completely new fashion will be on the winning side.

7. How can Roland Berger help

Roland Berger Strategy Consultants has conducted a wide range of projects for pharmaceutical companies in the past, and the challenges and risks of a transforming healthcare world remain a strong focus for our daily work.

We tailor our support to the specific needs of our clients, by leveraging a comprehensive set of proven methodologies, tools and approaches developed and applied in the pharmaceutical industry and beyond. Typically, we focus on three distinctive client support areas:

> **Diagnose the present**, e.g. through a systematic effectiveness assessment

> **Imagine the future**, e.g. by designing new business models

> **Execute for impact**, e.g. through hands-on turn-around and restructuring, one of the core competencies of Roland Berger Strategy Consultants across all industries

Our pharmaceutical expertise is based on our broad range of client work in the industry, as well as on our extensive healthcare work for government organizations, such as national ministries of health and regional governments, payors and providers. Additionally, we have conducted systematic research, and published numerous reports on the key topics.

Roland Berger Strategy Consultants can assist pharmaceutical companies in all aspects which have been outlined in this study. To illustrate, we have helped our clients

> improve their **market access**, for instance by assessing the needs of all stakeholders involved, particularly after healthcare reforms, or by realigning the processes and organization in accordance with a new strategy

> challenge and rethink their existing **commercial business models**, typically through (self-) assessments and qualitative interviews with both external and internal stakeholders. Moreover, we have defined new models and strategies in different therapeutic areas, in both primary care (e.g. diabetes), as well as specialty care (e.g. oncology). In particular, we have supported companies that offer medical products to explore profitable expansion strategies into services

> facilitate risk management programs within their **product portfolio management**, including a systematic quantitative risk assessment as well as comprehensive contingency planning for the most relevant risks. In addition, we have defined global decision processes/bodies across functions, both at the portfolio level and for individual projects/products

> implement comprehensive global reorganization, restructuring and cost-saving programs, as well as improve **profitability and productivity**

> Finally, we have also started to engage our customers in systematically challenging their **value chain configuration**.

Hence, due to our wealth of industry expertise, Roland Berger Strategy Consultants can help you address all issues – from defining winning strategies for the future to executing for impact, with a particular emphasis on quick-wins.

8. Sources

Focussing on patent protected prescription drugs, Roland Berger conducted not only a quantitative survey, but also interviewed top executives for qualitative insights.

The quantitative survey was carried out with a general management audience, both on paper and online through a co-operation with Scrip Awards. We received responses from more than 30 companies. Of these, up to four respondents replied, respectively. In total, the participants represented companies which amount to over 50% of global pharma revenues. Out of the top 30 pharmaceutical companies, 20 were included in this survey.

Chart 8.1: **SURVEY PARTICIPANTS**

Global revenues	**50%**	Above USD 15 bn
	25%	Between USD 5 and 15 bn
	25%	Below USD 5 bn
Functional area	**49%**	Commercial operations
	26%	General management
	25%	Other functions
Geographic responsibility	**38%**	Country specific
	32%	Global
	30%	Regional (multi country)

Source: Roland Berger Survey 2007/2008

In addition, Roland Berger conducted in-depth interviews with executives from international pharmaceutical companies. These 50 intensive face-to-face discussions were held with Chief Executive Officers, Chief Financial Officers, Heads of Europe, Heads of Marketing and General Managers of Top 5 European markets, as well as with other top executives representing most major functions and roles. These interviews provided us with a wealth of qualitative insights from which we were able to generate this study, which offers a snapshot of the industry's current frame of mind.

9. Who to contact

Stephan Danner is a Partner at the global Pharmaceutical & Healthcare Competence Center at Roland Berger Strategy Consultants in Berlin. Leading Roland Berger's global pharma practice, he works with pharmaceutical clients to design and implement corporate strategies, highly effective operating models as well as performance improvement programs along the entire value chain. Marketing and sales, organizational development and restructuring as well as post-merger integration are among his key areas of expertise. Stephan Danner is the author of several publications and has presented at multiple international conferences and events.

Alt Moabit 101b, 10559 Berlin, Germany

Stephan_Danner@de.rolandberger.com
+49 (30) 39927-3556

Aleksandar Ruzicic is a Principal at the Zurich office of Roland Berger Strategy Consultants. Throughout his career, Aleksandar has advised international pharmaceutical companies on strategic and operational topics from R&D to marketing and sales, particularly on new business models, market access and sales force effectiveness projects. He has also worked on global and European transformation projects along the value chain, such as cost-savings and business process redesign programs. In addition, he has advised pharmaceutical companies on how to reconfigure their value chains and optimize their footprint. Aleksandar Ruzicic has published a series of reports and articles on these issues and leads Roland Berger Strategy Consultants' ongoing research into the pharmaceutical industry.

Neumünsterallee 12, 8008 Zurich, Switzerland

Aleksandar_Ruzicic@ch.rolandberger.com
+41 (44) 38481-67

Patrick Biecheler is a Principal at the Paris office of Roland Berger Strategy Consultants. A wealth of experience both at Roland Berger Strategy Consultants and as a marketing director in the pharmaceutical industry have made him an authority in a broad range of marketing and sales topics. His expertise covers areas such as strategic positioning, parallel trade, and generification management, post-merger integration and operational effectiveness. Patrick has successfully implemented performance optimization strategies in various projects and has shared his knowledge in a series of reports and articles on the key lessons learned. He too is involved in Roland Berger Strategy Consultants' ongoing research into commercial effectiveness.

11, rue de Prony, 75017 Paris, France

Patrick_Biecheler@fr.rolandberger.com
+33 (1) 53670-902

Amsterdam
Bahrain
Barcelona
Beijing
Berlin
Brussels
Bucharest
Budapest
Casablanca
Chicago
Detroit
Düsseldorf
Frankfurt
Hamburg
Hong Kong
Istanbul
Kyiv
Lisbon
London
Madrid
Milan
Moscow
Munich
New York
Paris
Prague
Riga
Rome
São Paulo
Shanghai
Stuttgart
Tokyo
Vienna
Warsaw
Zagreb
Zurich