The Best of

Smart Pharma

2018

Concepts

Methods

Tools



Smart Pharma Consulting

Strategy

- Pharma Market Perspectives 2023
- Pharma Strategy Crafting

Marketing & Sales

- Pharma Market Research
- Pharma Field Force Organization

Management

- Project Management
- KPIs & KEIs for Success

Smart Pharma Care

The Hidden Part of Smart Pharma



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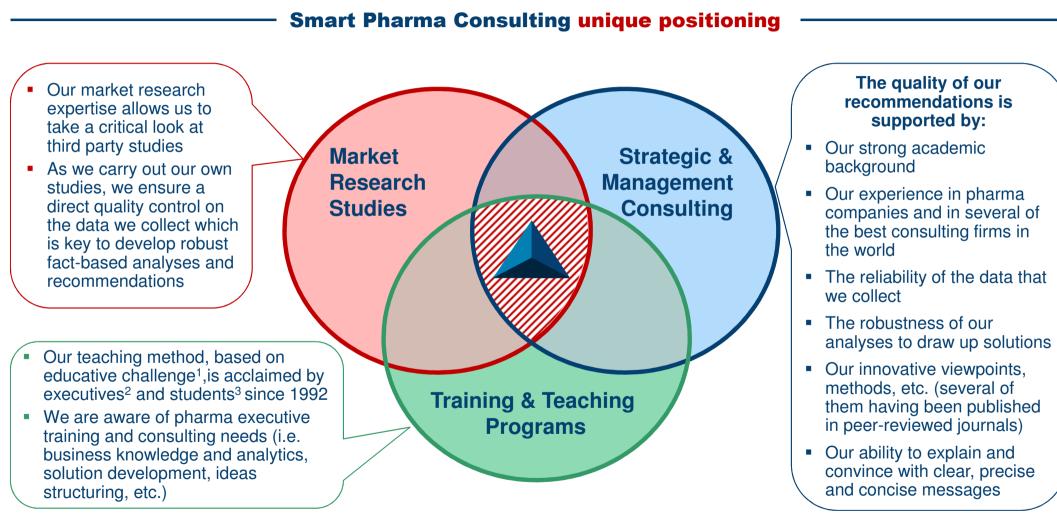
"Becoming Smarter is our ambition – Delivering Smarter Services our mission – Being Innovative our obsession"

– Key features —

- For the past 18 years, becoming Smarter has been our corporate ambition...
- and providing our clients with Smarter services has been our corporate mission
- Smart Pharma Consulting has strived to allocate its resources and to develop its capabilities to:
 - 1. Generate and disseminate high quality insights regarding healthcare environment and pharmaceutical market
 - 2. Share knowledge and thoughts through consulting, training and teaching activities, as well as through numerous publications such as reports, books, articles, position papers
 - 3. Offer innovative viewpoints, concepts, methods, tools and solutions that outperform mainstream ones

Sources: Smart Pharma Consulting

Our triple expertise provides us with a unique positioning on the consulting market and enables us to create synergies to deliver our clients smarter services



Smart Pharma Consulting is officially registered as a training organization by the French government since 2002

Sources: Smart Pharma Consulting

¹ Challenge of participants (e.g. analytical rigor, relevance of recommendations, quality of the oral presentations, etc.) – ² ~1,000 executives trained – ³ More than 1,900 students trained The following selection of concepts / methods, tools and opinions, that are available on our website¹, illustrates our "innovative power"

	Concepts / Methods	Tools	Opinions
Strategy & Management	 4Ws (What, Why, so What, What to do?) Preference-driven Strategy Pharma Corporate Reputation The Smart Manager 	 Development Strategy Matrix Corporate ID Card Advanced SWOT Customer Preference Card Pharma Reputation Index 	 The mirage of the BRICs²
Marketing & Sales	 4Ws Brand Booster Program Segmentation KAM Expert Wheel The ELITE Program 	 Brand Preference Mix Index Behavioral Prescriber Segmentation (BPS) KEIs³ vs. KPIs⁴ Portfolio Strategic Matrix High Impact Interactions (H2I) 	 Brand preference supersedes brand satisfaction Med reps are key to drive physician preference
Medical	• 4Ws	 KOL ID Card KOL Partnership Plan (K2P) Integrated Regional Strategic Plan 	• NA

Smart Pharma Consulting innovations -

Sources: Smart Pharma Consulting analysis

¹ www.smart-pharma.com – ² Brazil, Russia, India, China – ³ Key execution indicators – ⁴ Key performance indicators



The purpose of this report is to analyze the current situation and the key trends of the pharmaceutical market by the end of 2023 at both global and French level

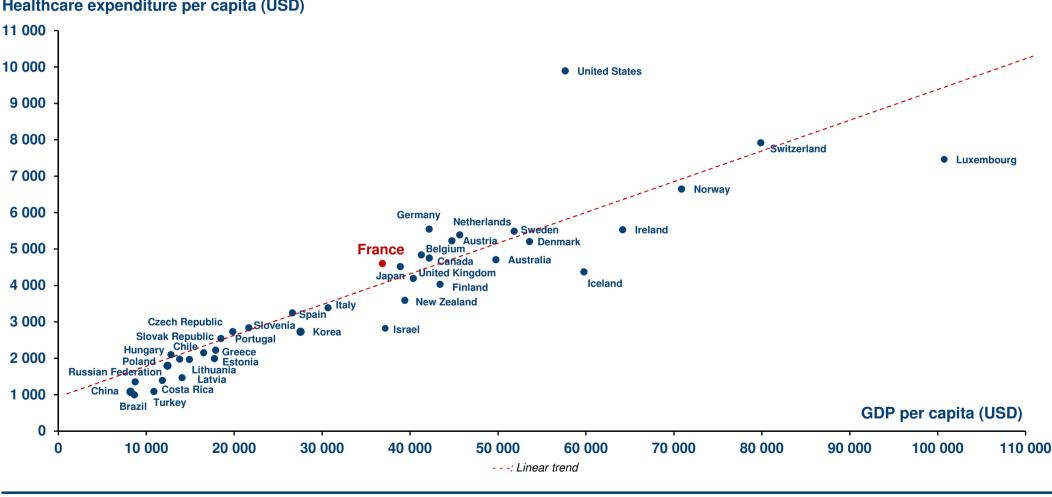
Pharma Market Perspectives 2017 – 2023

 Smart Pharma Consulting proposes to address the following key issues related to the pharma market evolution by the end of 2023, to better grasp its strategic impacts



Healthcare expenditure and GDP per capita are highly related and the ranking¹ of France (#14 and #20 respectively) shows that healthcare is a key national priority

Relation between GDP and healthcare expenditure per capita (2016)



Healthcare expenditure per capita (USD)

Sources: Health at a Glance, OECD (2017) - World Bank National Accounts Data (November 2018) -Smart Pharma Consulting analyses

¹ Amongst 44 countries in the world

Healthcare expenditure will keep on growing faster than national economies due to demographic factors and willingness of citizens to have better access to healthcare

Total healthcare expenditure as a % of GDP (Local currency) 20% 2005 2016 17.2% 15,2% 15% 11,3% 10,5% . 10,6%^{11,0%} 10,9% 9,7% 10% 9,0% 8,7% 8,9% 8,2% 8,2% 8,1% 5% 0% **USA** France UK Germany Japan Spain Italy

Healthcare expenditure as a percentage of GDP –

- Healthcare expenditure represent one of the largest public spending items in most developed economies: 1st (USA), 2nd (France, Germany, Japan, and UK)¹ and 3rd (Italy and Spain)²
- At best, governments and payers will manage to slow down the rise of healthcare expenditure as a percentage of GDP but would not be able to stop it
- There is no optimal ratio of healthcare expenditure over GDP, it primarily results from:
 - Public health conditions
 - Governments investment prioritization
 - Citizens willingness to seek for care
 - Healthcare cost

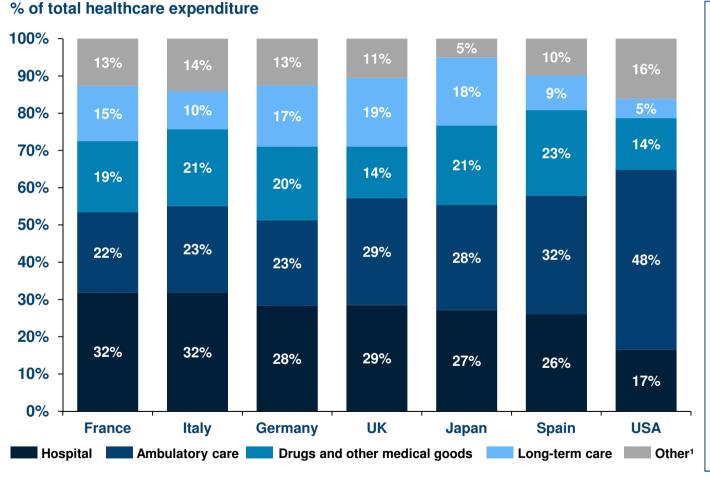
Sources: Health at a Glance, OECD (2017) – Government at a Glance (2017) – Smart Pharma Consulting analyses

¹ After social protection – ² After social protection and general public services

The Best of Smart Pharma 2018

The cost of drugs is far behind that of hospital and ambulatory care, yet this segment is targeted by governments because it is easier and quicker to reduce

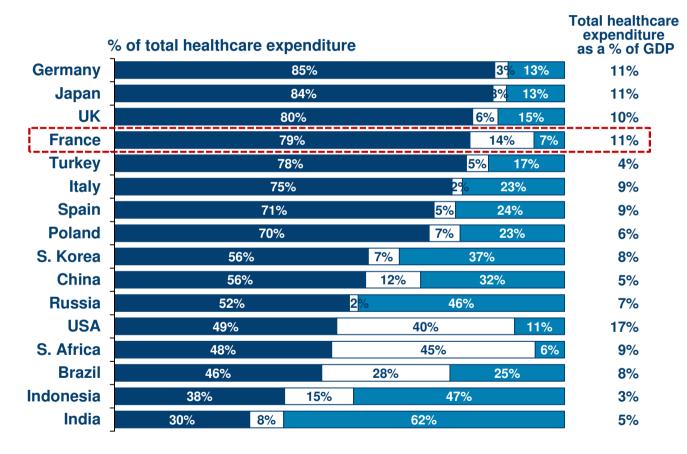
Breakdown of healthcare expenditure per country (2017*)



- Drugs represent the 3rd largest source of healthcare expenditure in major developed countries
- Drugs are typically the easiest segment to apply cost-containment measures on, as decisions are:
 - Made by payers (either public and/or private), with a limited bargaining power of suppliers
 - Much better accepted by citizens than restriction measures on the other segments
- However, to significantly reduce total healthcare costs, governments will need to apply cost-optimization measures on all healthcare segments, irrespective of their relative importance

Sources: OECD Health Database (November 2018) – Smart Pharma Consulting analyses ¹ Other expenditure include ancillary services, preventive care & governance, health system and financing administration * Data 2017 (Italy), 2016 (France, Germany, UK, Spain and USA) and 2015 (Japan) France is one of the countries where the percentage of "out-of-pocket" spending to cover the healthcare expenditure is the lowest

Share of public spending in total healthcare expenditure (2016*)



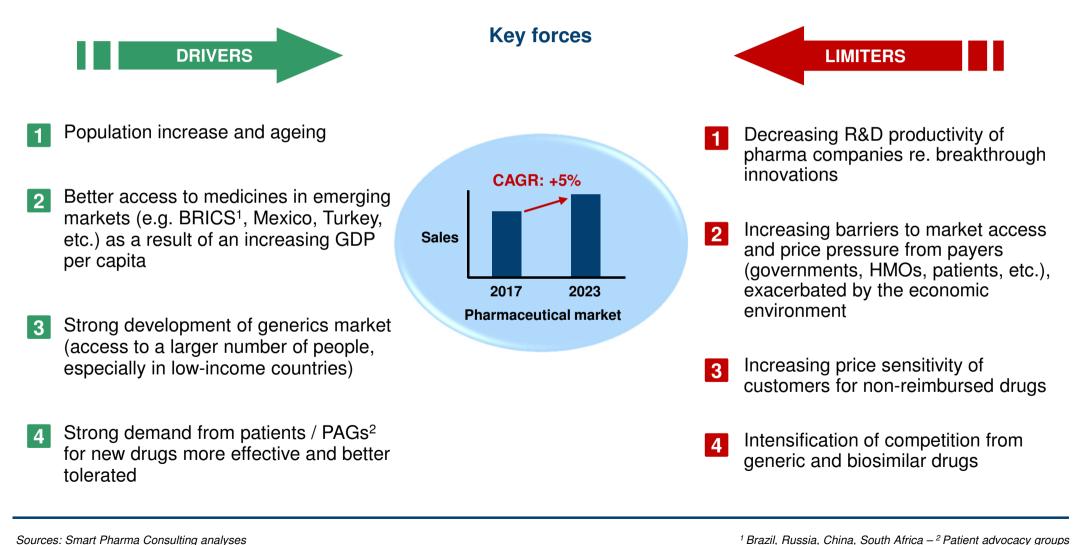
■ Government and compulsory health insurance □ Voluntary health insurance ■ Out-of-pocket

- With 11% of its GDP spent in healthcare, France belongs to the countries allocating the largest share of their resources
- Its level of public spending on healthcare is amongst the highest, just behind Germany, Japan and the UK, showing a highly protective healthcare system
- The great majority of the French citizens have a complementary private healthcare insurance (compulsory for all employees, irrespective of their employers company size, since the 1st of January 2016)
- As a result, "out-of-pocket" money is limited to 7% only

Sources: World Bank and OECD Health Databases (November 2018) – Smart Pharma Consulting analyses * Note: Data 2016 (Italy and S. Korea), 2015 (Germany, UK, France, Turkey, Spain, Poland and USA) and 2014 (Japan, China, Russia, S. Africa, Brazil, Indonesia and India)

The key drivers and limiters of the global pharmaceutical market by the end of 2023, as well as their probable impact on sales trends, are well identified



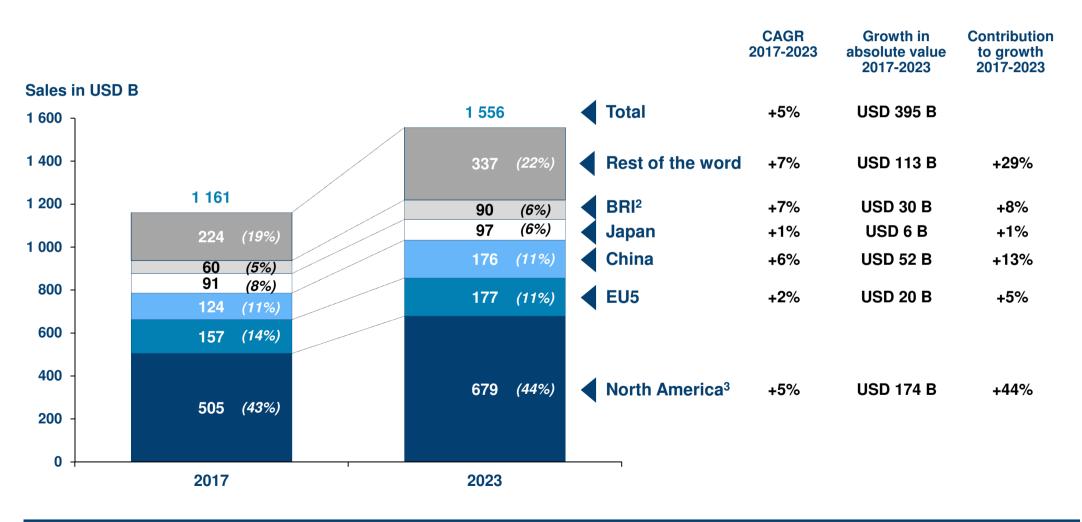


Sources: Smart Pharma Consulting analyses

Smart Pharma Consulting

Sales of EU5¹ should grow slowly by 2023 due to stringent cost containment measures leading to a three-point decrease of their weight in the global pharmaceutical market





Sources: IQVIA Institute (March 2018) – Global OTC Drugs Market, Mordor Intelligence (May 2018) – Smart Pharma Consulting estimates

¹ France, Germany, Italy, Spain, UK – ² Brazil, Russia, India – ³ USA and Canada



By 2023, the French Pharma market is expected to step back from the 5th to the 6th place at the global level and to keep its 2nd position after Germany in Europe

Global pharmaceutical market ranking in value¹ (2012 – 2017 – 2023) –

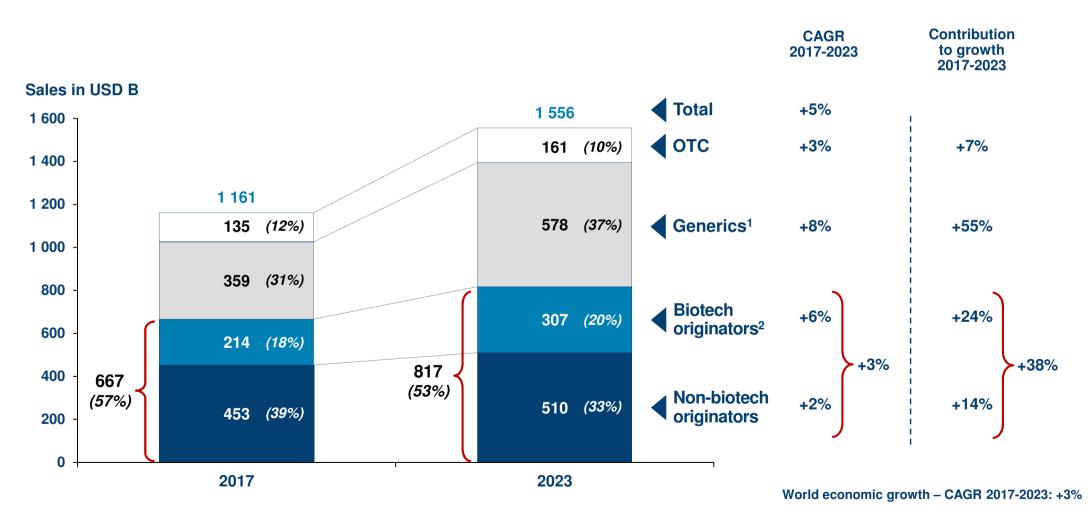
Rank	2012	2017	2023	CAGR 2017-2023	
1	USA	USA	USA	++	
2	China	China	China	+++	
3	Japan	Japan	Japan	+	
4	Germany	Germany	Germany	++	
5	France	France	Brazil	++++	
6	Italy	Brazil	France	+	
7	Brazil	Italy	Italy	+	
8	UK	UK	UK	+	
9	Spain	Spain	India	++++	
10	Canada	Canada	Spain	+	
11	India	India	Canada	++	
12	South Korea	Russia	Russia	+++	
13	Australia	South Korea	South Korea	++	
14	Russia	Australia	Australia	+	
15	Mexico	Mexico	Turkey	+++	CAGR
16	Argentina	Turkey	Mexico	+++	2017 – 2023
17	Saudi Arabia	Poland	Argentina	+++	++++ →>8%
18	Poland	Saudi Arabia	Poland	+++	+++ → 6 - 8
19	Switzerland	Argentina	Saudi Arabia	++	++ → 3 – 5
20	Belgium	Switzerland	Switzerland	++	+ $\rightarrow 0-2$

Sources: IQVIA Institute (March 2018) – Smart Pharma Consulting estimates

¹ In 2017 USD, at constant exchange rate

The generics segment should become more important in value than non-biotech original drugs one in 2023 and contribute to 55% of the growth between 2017 and 2023

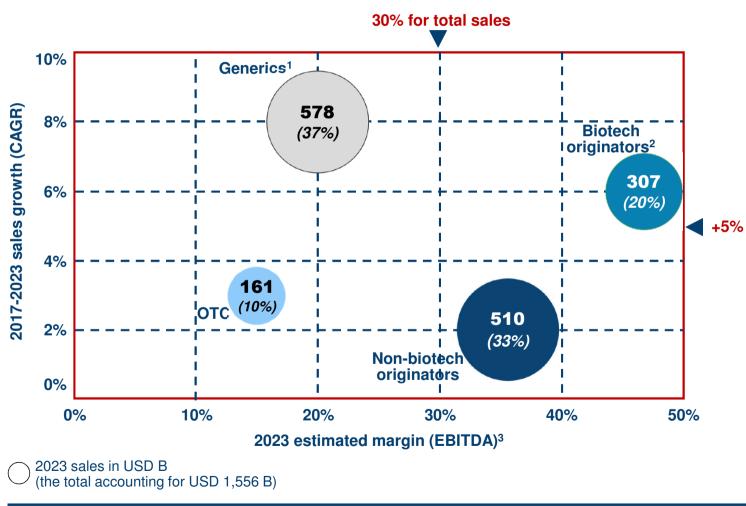
Global pharmaceutical market growth by strategic segment (2017 – 2023)



Sources: IQVIA Institute (March 2018) – Global OTC Drugs Market, Mordor Intelligence (May 2018) – Global economic growth projections, The Conference Board (November 2018) – Smart Pharma Consulting estimates

¹ Including branded and unbranded generics and biosimilars, excluding OTC – ² Excluding biosimilars, already included in the "Generics" segment By 2023, the sales growth of the pharma market should be essentially driven by generics and biotech originators, but pharma companies should lose two points of profitability

Global pharmaceutical market growth by strategic segment (2017 – 2023)



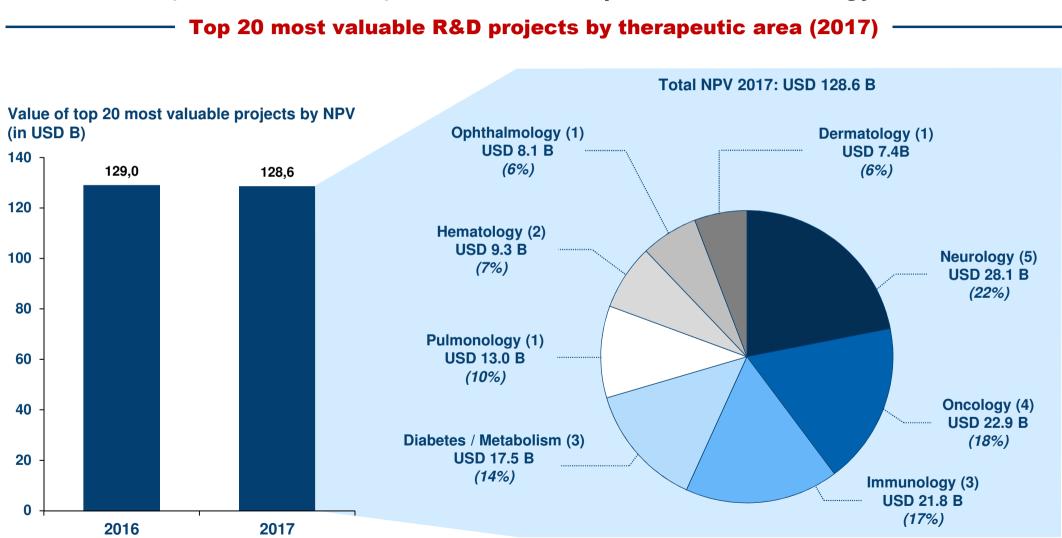
Sources: IQVIA Institute (March 2018) – Global OTC Drugs Market, Mordor Intelligence (May 2018) – Smart Pharma Consulting estimates

 By 2023, the sales (incl. human drugs only for the non-OTC segments; medical devices and food supplements for the OTC segment) should reach USD 1,556 B and grow at a pace of +5% p.a.

 The average EBITDA of the Pharma industry should decrease from ~32% in 2017 to ~30% in 2023, mainly as a result of increasing price pressure

- The OTC segment appears to be the least attractive
- The biotech segment will remain attractive but biosimilar competition will ramp up

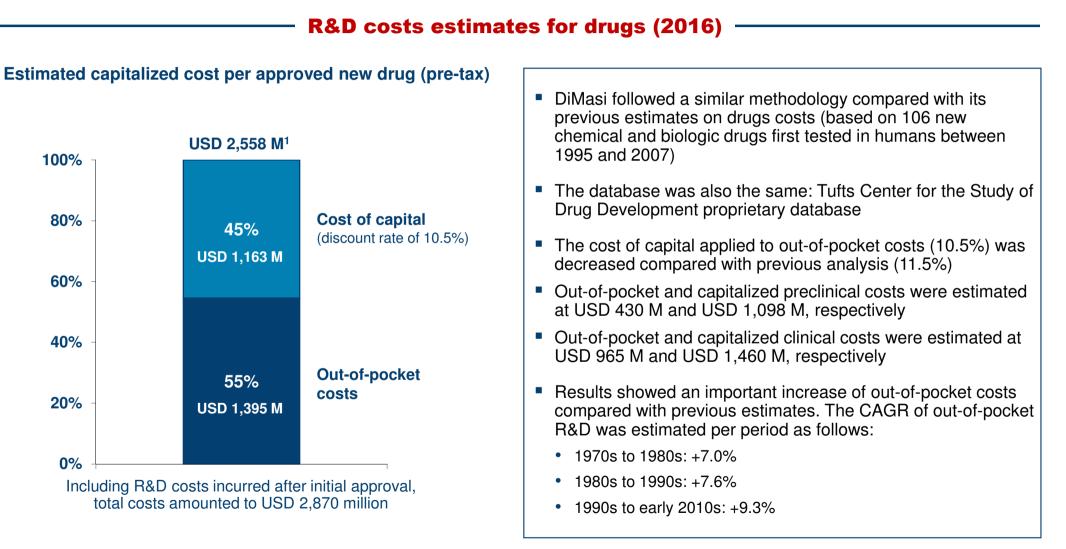
¹ Including branded and unbranded generics and biosimilars, excluding OTC – ² Excluding biosimilars, already included in the "Generics" segment – ³ Earnings before interest, taxes, amortization and depreciation In 2017, the top 20 most valuable R&D projects by net present value reached USD 128.6 B (vs. 129 B in 2016), with 22% of the potential in neurology



Sources: Evaluate Pharma "World Preview 2018, outlook to 2024" (June 2018) and previous version – Smart Pharma Consulting analyses

Note: (x): number of projects – USD B: total NPV by therapeutic area – (x%): Contribution in total NPV of Top 20 most valuable R&D projects

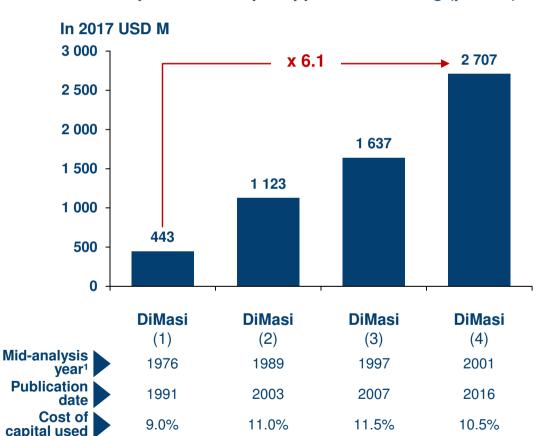
The latest estimates by DiMasi concluded in an important out-of-pocket spending growth while cost of capital discount rate was decreased by one point of percentage



¹ Capitalized costs in 2014 USD

The analysis of four studies carried out with the same methodology shows that the development cost of new drugs has more than sextupled over the last three decades

Evolution of R&D costs



Estimated capitalized cost per approved new drug (pre-tax)

- The evolution of the capitalized R&D costs per approved new drug, after neutralization of the inflation, can be mainly explained by:
 - The growth of the out-of-pocket costs, especially the growth of clinical trials spending: x10.8 between the 1991 and the 2016 estimates (vs. preclinical spending which grew less: x3.9)
 - The decrease of the success rates to reach approval from phase I, ranging from 23% in the first 1991 estimates to 12% in the 2016 estimates
 - The overall increase of the used cost of capital, even if, in the 2016 estimates, a 10.5% cost of capital was used, in decrease of 1 point of percentage from the previous estimates. These assumptions of cost of capital seem overestimated compared with available data from NYU Stern School of Business for biotech products (9.2%, based on 411 firms) and for traditional pharma (7.7%, based on 157 firms)

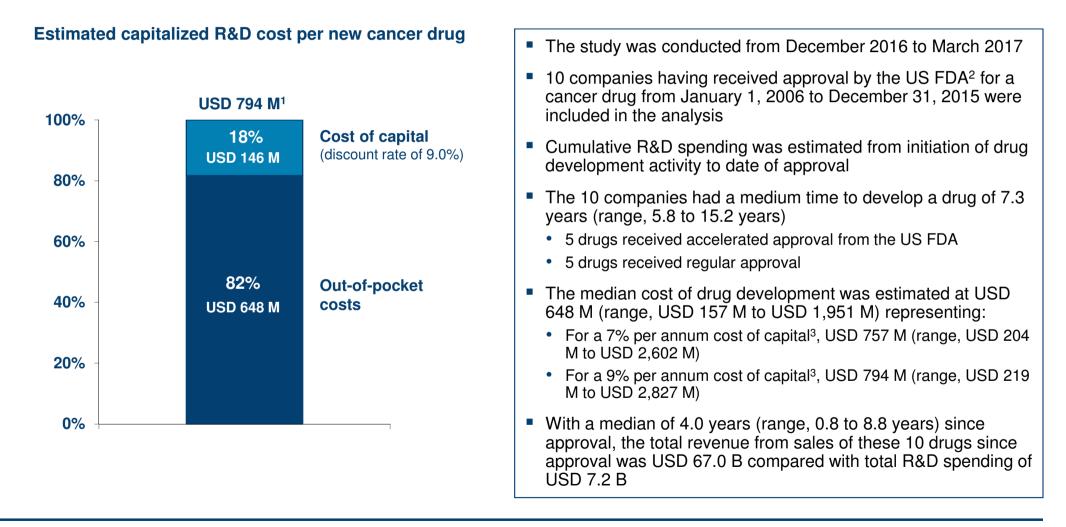
Note: For the sake of comparability, all values are adjusted to USD 2017 prices using data of the US GDP implicit price deflator from the US. Bureau of Economic Analysis The GDP implicit deflator shows the rate of price change in the economy as a whole, being the ratio of GDP in current local currency to GDP in constant local currency

Sources: DiMasi (1991) – DiMasi et al. (2003) – DiMasi, Grabowski (2007) – DiMasi (2016) – Cost of Capital, NYU Stern School of Business (January 2016) – Implicit price deflators for GDP, Bureau of Economic Analysis – Smart Pharma Consulting analyses

¹ Products with first testing in humans over the analyzed period

In the JAMA Internal Medicine study, the median cost of developing a single cancer drug was estimated at USD 794 M, including a 9% per annum cost of capital

R&D costs estimates for oncology drugs (2017)

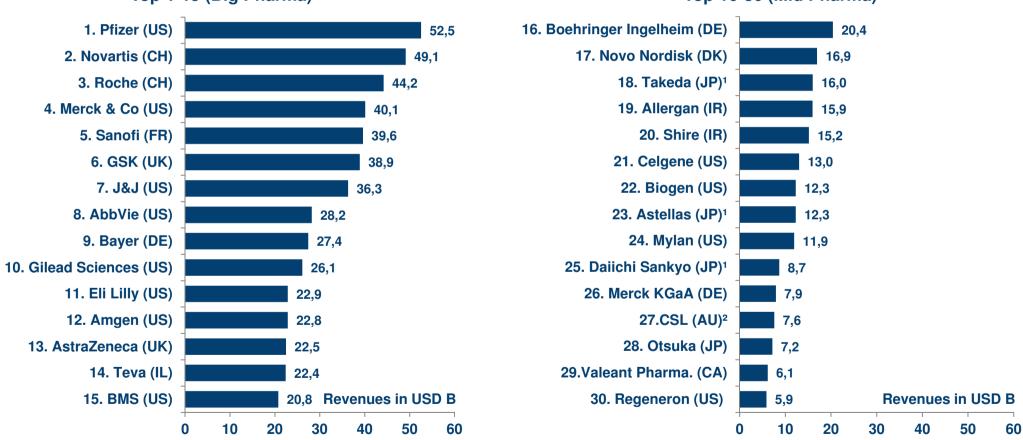


Source: JAMA Internal Medicine (November 2017) - Smart Pharma Consulting analyses

¹ Capitalized costs in 2017 USD – ² Food and Drug Administration – ³ Opportunity cost

The top 30 pharma companies based on prescription sales counts 12 companies from the USA and 11 from Europe

Top 30 prescription sales pharma companies (2017)



Top 1-15 (Big Pharma)

Top 16-30 (Mid Pharma)

Note: panel of the 30 biggest pharma companies in terms of prescription sales in 2017 (excluding diagnostics, medical device and nutrition products)

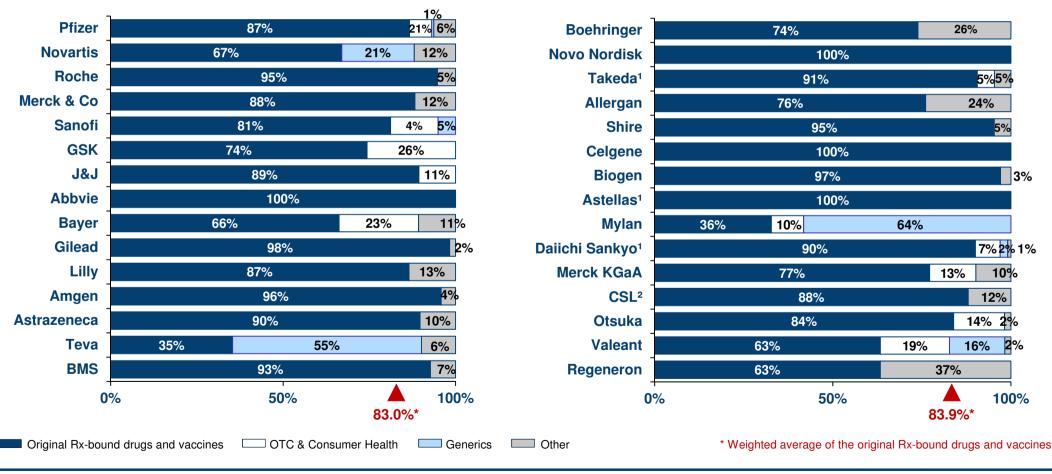
Sources: Companies annual reports (2017) – Smart Pharma Consulting analyses

¹ Fiscal year ended March 31, 2018 – ² Fiscal year ended June 30, 2018

Mid Pharma

In 2017, original Rx-bound drugs and vaccines was the main source of revenue for most Big and Mid Pharma companies

Strategic segments (2017)



Big Pharma

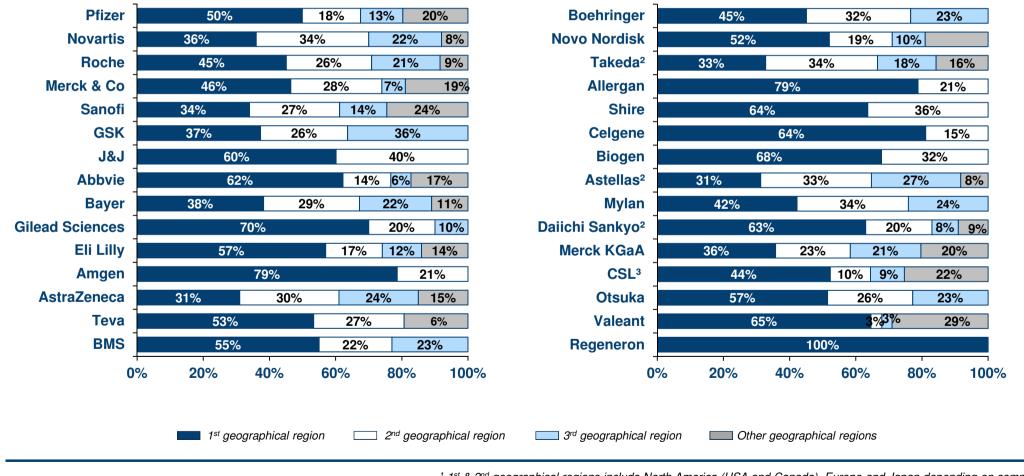
Sources: Companies annual reports (2017) – Smart Pharma Consulting analyses

¹ Fiscal year ended March 31, 2018 – ² Fiscal year ended June 30, 2018

22

Mid Pharma companies tend to be less geographically diversified, with most of them generating more than half of their revenues in a single region

Geographical distribution¹ (2017)



Big Pharma

Mid Pharma

Sources: Companies annual reports (2017) – Smart Pharma Consulting analyses

¹ 1st & 2nd geographical regions include North America (USA and Canada), Europe and Japan depending on companies – ² Fiscal year ended March 31, 2018 – ³ Fiscal year ended June 30, 2018

Most of the recent M&A operations have been carried out to strengthen Big and Pharma companies positions on their core strategic segments

Major M&A operations (2015 – 2017)

Acquirer	Acquired	Strategic objectives		
, loganoi	(> USD 2.0 B)		Strengthening	Expansion
Pfizer	 Hospira (Generics / Biosimilars) Medivation (Oncology) Anacor (Anti-inflammatory) 	v v	~	
Novartis	 Advanced Accelerator Applications (Oncology) 		*	
Sanofi	Boehringer Ingelheim (Consumer healthcare business of the company)		~	
1 %1	 Actelion (Pulmonary arterial hypertension) 		~	
AbbVie	AbbVie Pharmacyclics (Oncology) Stemcentrx (Oncology)		* *	
Gilead Sciences	 Kite Pharma (Cancer immunotherapies) 		~	
AstraZeneca	 Acerta Pharma (Cancer and autoimmune diseases) ZS Pharma (Cardiovascular and metabolic diseases) 		* *	
 Actavis Generics (Generics business of Allergan) Auspex Pharmaceuticals (CNS disorders) Rimsa (Latin America) 			*	✓
BMS	 Cardioxyl (Cardiovascular) IFM Therapeutics (Cancer immunotherapies) 		× ×	

Big Pharma

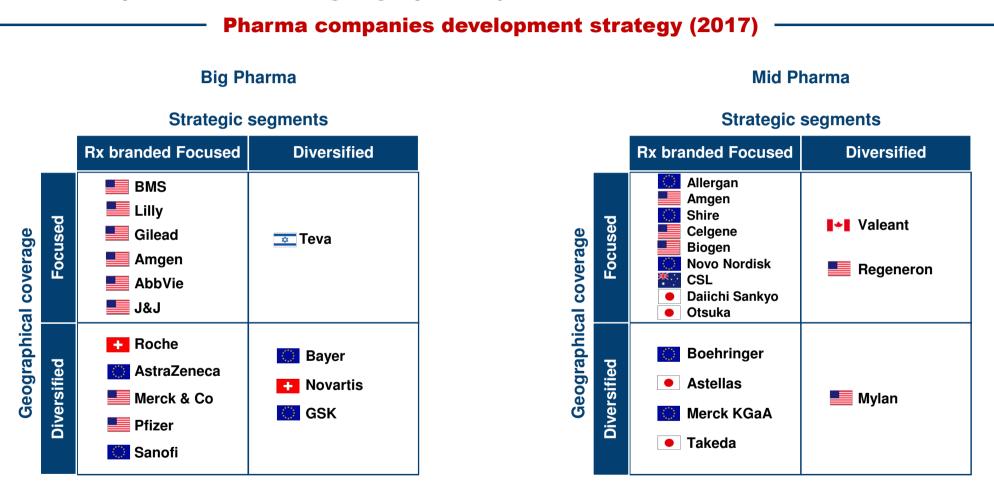
Acquirer	Acquired	Strategic objectives		ves
	(> USD 2.0 B)		Strengthening	Expansion
Boehringer Ingelheim	 Merial (Animal health business of Sanofi) 		~	
Takeda	 Ariad Pharmaceuticals (Oncology) 		~	
Allergan	 Life Cell unit of Acelity (Aesthetics & Regenerative) Kythera Biopharmaceuticals (Aesthetics) 		× ×	
Shire	 Baxalta (Rare diseases) Dyax Corp (Rare diseases) NPS Pharmaceuticals (Rare diseases) 		> > >	
Celgene	 Receptos (Immune- inflammatory diseases) 		~	
Mylan	 Meda (OTC, Emerging markets such as China, Asia or MEA) 	*		✓
Valeant Pharma	 Salix Pharmaceuticals (Gastrointestinal) 	~		

Mid Pharma

Note: Diversification means entering new strategic segments/balancing minor segments - Strengthening means reinforcing major strategic segments - Expansion means geographical coverage

Sources: ThePharmaLetter – Companies press releases – Smart Pharma Consulting analyses

Big and Mid Pharma companies are mainly focused on Rx branded segment, but Big Pharma companies are more geographically diversified

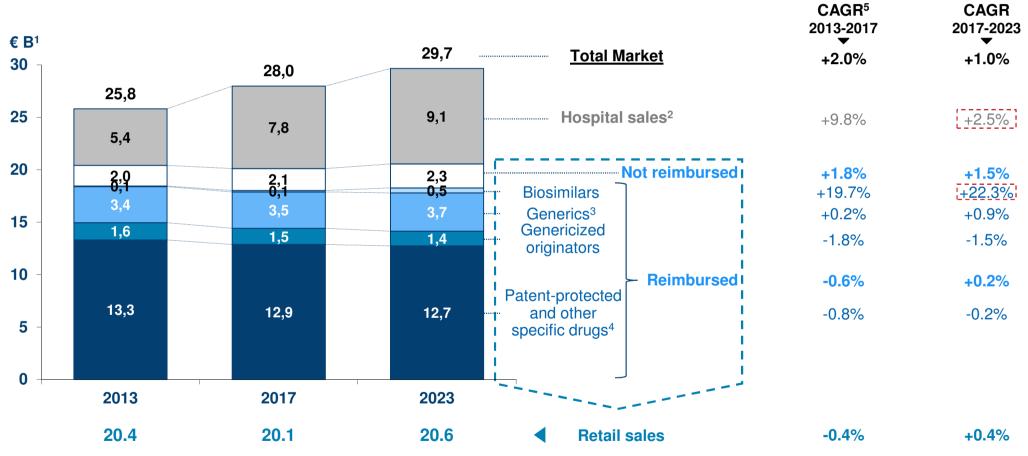


Note: Rx Branded focused: Original Rx-bound drugs and vaccines ≥ 75% of total product sale – Geographically focused: >50% of sales in a single geographical region (e.g. USA, Europe, Japan, etc.)

Sources: Companies annual reports (2017) – Smart Pharma Consulting analyses

By 2023, the French pharmaceutical market should be mainly driven by innovative hospital products and biosimilars

Evolution of drug sales by segment (2013 – 2017 – 2023)



* Hospital rebates are estimated to -30% of total hospital sales

Sources: GERS and Top Pharma data – Smart Pharma Consulting analyses ¹ Constant ex-factory prices –² Estimated rebated sales including hospital sales of biosimilars, products invoiced in addition of the hospitalization charges (on top of T2A) and reassigned medicine sales –³ Reimbursable generics and quasi-generics –⁴ Sales of medicines whose patents have not expired and of other specific products (calcium, sodium, potassium, paracetamol, etc.) – ⁵ Compound Annual Growth Rate



When compared to the other EU5 countries, a wider array of indicators are used by French health authorities to evaluate the economic value of drugs

Health economic evaluations: Submission requirements in Europe -

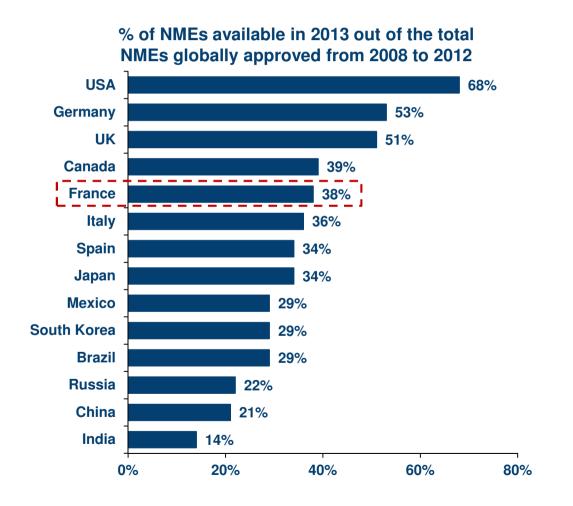
Therapeutic benefit	Cost- effectiveness modeling	Budget impact modeling	HRQoL¹ data	Data vs. SoC²	Innovation	Comments
~	~	~	~	~	~	Cost-effectiveness considered since 2013 with the creation of the CEESP (Economic committee for healthcare products)
~		•	~	~		Free pricing during the first six months on the market: i.e. before the assessment by IQWG (Institute for Quality and Efficiency in Health Care)
~	~	•	~	~		One of the first countries to implement a form of value-based pricing including cost-effectiveness and QoL (Quality of Life) data
~	(national or regional requirement)	(national and regional requirement)		~	~	Requirements may vary from a region to another
~	(national or regional requirement)	(national and regional requirement)		~		Requirements may vary from a region to another

Sources: "An Introduction to European Market Access", PRMA Consulting – Smart Pharma Consulting updates

¹ Heath-Related Quality of Life – ² Standard of Care

A small proportion of globally approved drugs are launched in France mainly due to market access obstacles (non-reimbursed, low price, etc.)

Market access to new drugs – International comparisons



The fact that all approved new molecular entities (NMEs) are not introduced everywhere depends on several factors: - **Different regulatory systems** and authorities (FDA, EMA, etc.) impose different market access requirements and procedures - Even when there is a centralized approval procedure like in the European Union, the approved drug is not necessarily introduced in all countries as local pricing and reimbursement policies can make the launch unattractive Generally, market potential and attractiveness (epidemiology, pricing and reimbursement policies, etc.) are key factors in the decision of introducing a drug in a particular country by pharma companies New drugs are usually more expensive, which makes their introduction more difficult in lower income countries, where the public budget for pharmaceuticals is lower In the future, the availability of new medicines might be reduced in developed countries (with the exception of the USA) due to stricter cost containment measures, but increased in emerging countries where spending on pharmaceuticals is growing strongly

Sources: "Global Outlook for Medicines Through 2018", IMS Health – Smart Pharma Consulting analyses In eight European countries, including France, pharma companies and patients must wait more than a year after marketing authorization to get a new drug reimbursed¹

Average time to market in European countries



- In Europe, the delay between marketing authorization of a drug and its availability on the market may vary widely, due to the time required to obtain its inclusion on reimbursement list and a price agreement
- In countries such as France, Italy or Spain, this delay exceeds the 180 days recommended by the European Commission
- An important delay may be harmful both for patients who do not have full access to innovative therapies and for companies which face a loss of revenues¹
- The UK and Germany have no delay since the price and reimbursement negotiations occur once the product has reached the market

Sources: Patients W.A.I.T. Indicator – IFIP (June 2018)

¹ Excluding early access programs for breakthrough innovations (e.g. ATU / post-ATU in France) – ² For drugs receiving their first marketing authorization between 2013 and 2015 The implementation of managed entry agreements are most often time-consuming and costly for payers and/or pharma companies, outweighing their benefits

Pros & Cons of managed entry agreements -

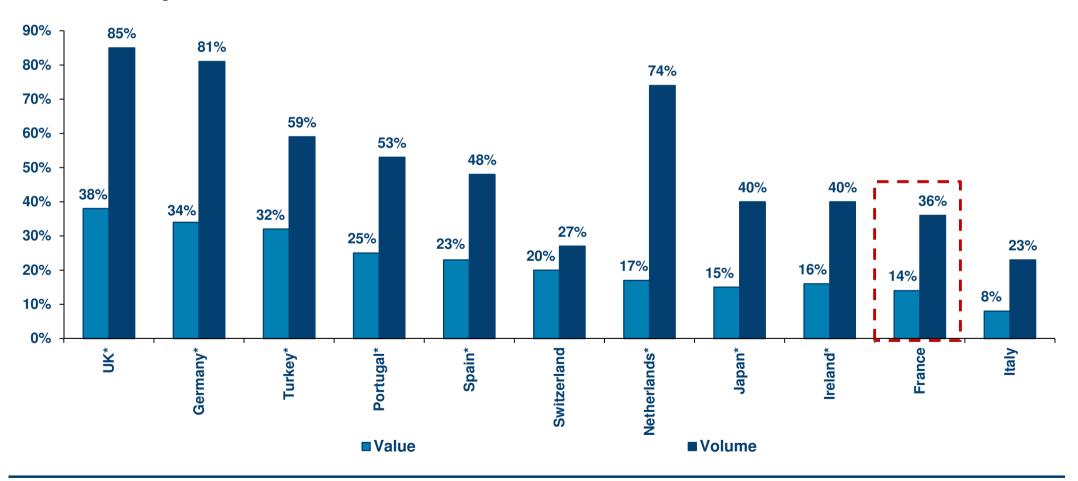
	Pros	Cons
CEPS	 Potential to re-evaluate the effectiveness of drugs at a later stage and re-negotiate the price based on real-world evidence Help address post-licensing uncertainty by offering flexibility in dealing with new and often expensive treatments Improve the cost-effectiveness through a discount or a payback agreement for non-responders Enable different types of schemes addressing different needs, both financial and non-financial 	 Additional efforts required to make a new drug available to patients, such as negotiation time, monitoring of patient response, data gathering, development of registries, etc. Threat that manufacturers could start proposing higher entry prices in the expectancy of having to engage managed entry agreements Limited capacity to implement and assess evidence, notably if implementation takes place at regional/hospital level
Pharma companies	 Speed up pricing negotiations and reimbursement Potential to benefit from a better corporate reputation as a result of the willingness to take responsibility for the use of the drug in real-life Potential to reinforce the long-term collaboration between payers, health authorities and pharmaceutical companies Enable discounts without impacting list prices 	 Costs related to the implementation of the managed entry agreement can, in some cases, totally outweigh benefits Concessions required such as refunds for non-respondent patients, discounts, gathering of additional data Voluntary versus no voluntary nature of such contracts leading to a variability in stakeholders perception

Sources: "Managed entry agreements for pharmaceuticals: the European experience", Alessandra Ferrario and Panos Kanavos, April 2013 – Smart Pharma Consulting analyses



France is below most OECD countries in terms of generics penetration in the pharmaceutical market mainly due to a more restrictive definition of generics

Share of generics in the reimbursed pharmaceutical market (2017)



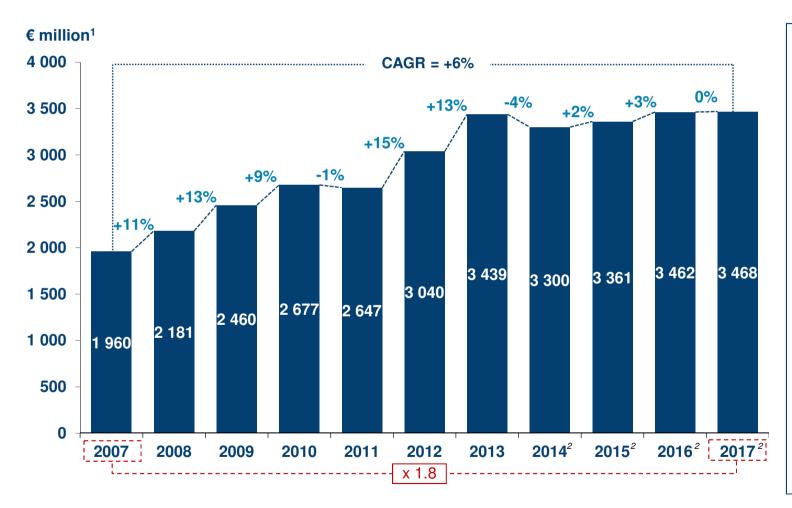
% of reimbursed drugs sales

Sources: OECD Health Statistics for 2017 – GERS data for France – Smart Pharma Consulting analyses

^{*} Data for 2016

The retail generics market size has remained stable, in value terms, since 2013 due to strong price pressure applied by the French government





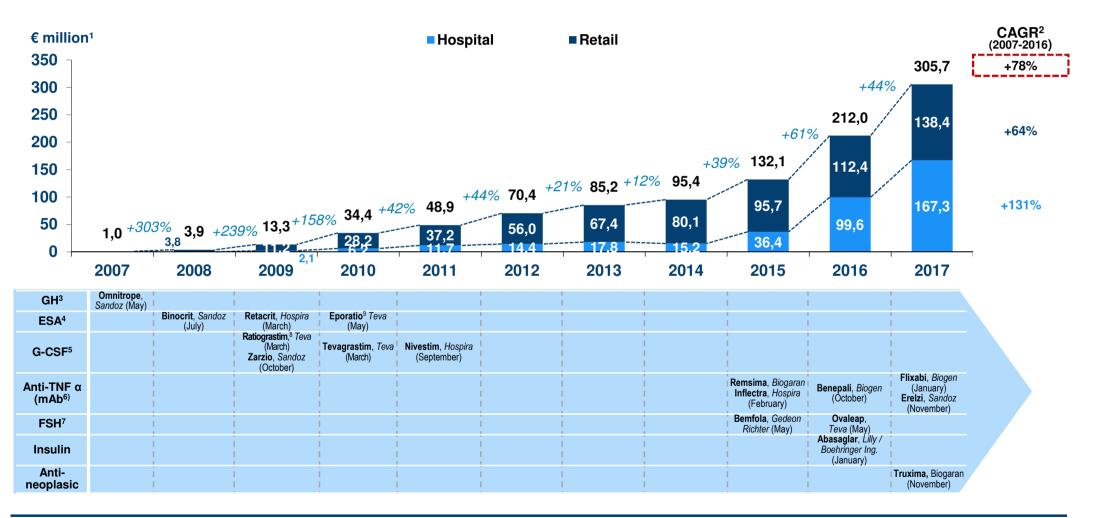
- After a decrease in 2011, the sales of the generics market have been re-boosted by governmental measures³ introduced since 2012
- Since 2001, there have been four successive waves of drugs de-reimbursement. Thus, in 2011, 85% of the medicines were reimbursed. Since then, these waves have led to regular re-evaluations of the SMR (clinical benefit)
- Regarding the sales of nonreimbursable generics, they were estimated at:
 - € 233 M in 2014
 - € 241 M in 2015
 - € 252 M in 2016
 - € 284 M in 2017
- At the end of 2016, the Ministry of Health launched a campaign to promote the use of generics

Sources: GERS dashboard (December 2017) – Senate report – Smart Pharma Consulting analyses ¹ Constant ex-factory price – ² Excluding sales of non-reimbursable generics from 2014 to 2017 – ³ Increase of the national objective of average generics penetration, introduction of individual incentives for pharmacists achieving substitution objectives on a selection of generic groups, generalization of the "Tiers Payant" system, which exempts from upfront payment patients accepting the generic substitution



Sales of biosimilars, which were launched since 2007 and belonged to seven types of products in 2017, reached a total ~ € 306 million on the total market in 2017

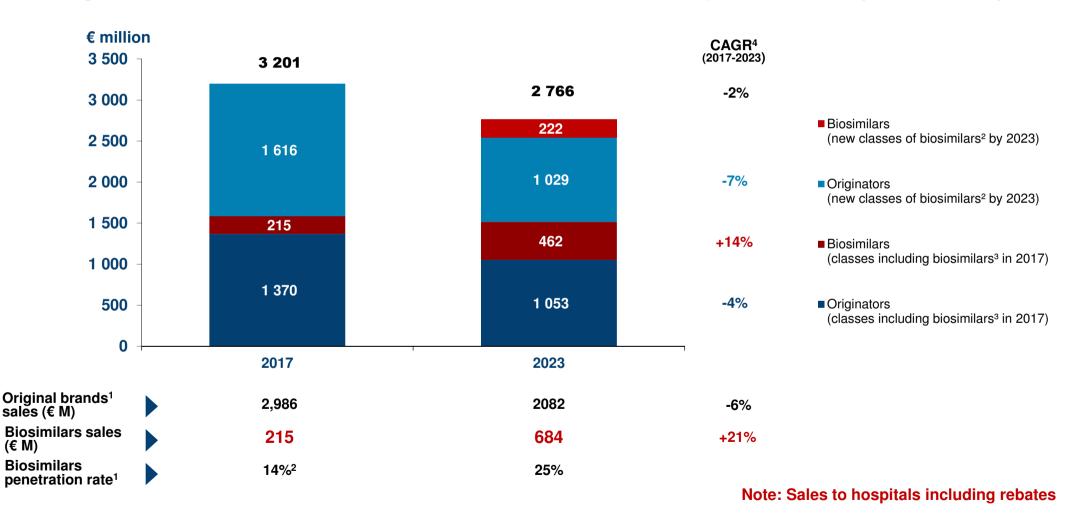




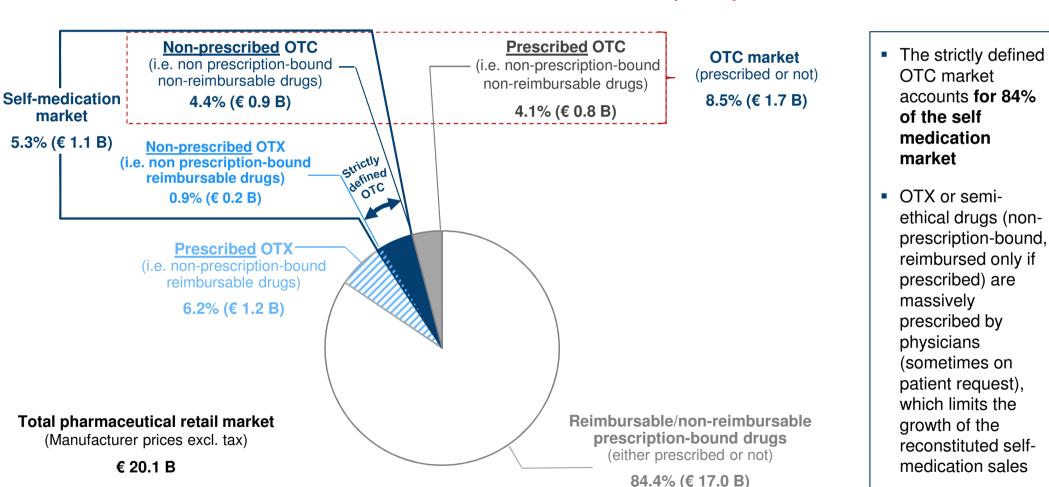
Sources: GERS – ¹ Ex-factory prices excluding rebates – ² CAGR: Compound annual growth rate – ³ GH: Growth hormones – ⁴ ESA: Erythropoiesis stimulating agents – ⁵ G-CSF: Granulocyte colony stimulating factors – ⁶ mAb: Monoclonal antibodies – ⁷ FSH: Follicle Stimulating Hormone – ⁸ Ratiogastrim was removed from market in 2016 – ⁹ Eporatio is not a biosimilar per se but is rather a "me-too" product. It was first launched by Ratiopharm, before to be acquired by Teva in March 2010

Sales of biosimilars could increase significantly and reach € 684 million in 2023, thanks to new classes contribution

Originators and biosimilars sales forecasts – Retail and hospital markets (2017 – 2023)



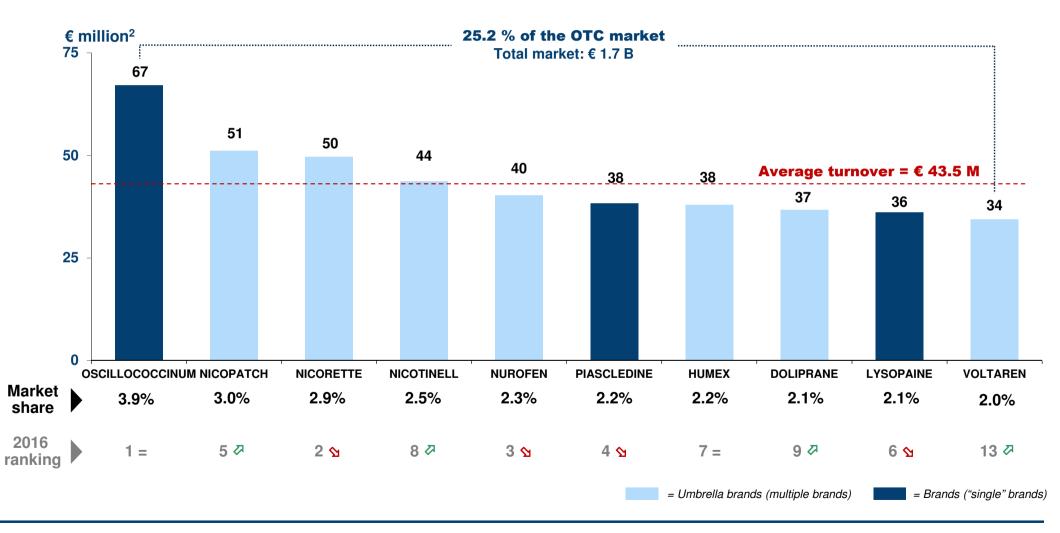
Sources: GERS – Smart Pharma Consulting analyses ¹ Include originators and other brands of the class without biosimilars –² Only takes into account the classes for which biosimilar products are already marketed – ³ Pegfilgrastim (Neulasta), trastuzumab (Herceptin), cetuximab (Erbitux), palivizumab (Synagis), natalizumab (Tysabri), adalimumab (Humira), teriparatide (Forsteo), omalizumab (Xolair), tocilizumab (roActemra), panitumumab (Vectibix), ipilimumab (Yervoy), bevacizumab (Avastin) – ⁴ CAGR: Compound annual growth rate In 2017, the self-medication market accounted for 5.3% of the retail pharmaceutical market and included both reimbursable and non-reimbursable non-prescribed drugs



OTC market size and structure (2017)

Sources: Smart Pharma Consulting estimates based on data from GERS and Pharmastat-IQVIA

The top 10 brands – including seven umbrella brands – of the OTC market generated 25% of the total sales in 2017



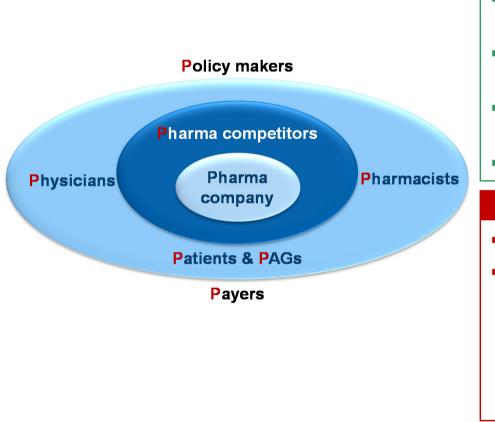
Top 10 brands and umbrella brands – OTC¹ market (2017)

Sources: GERS – Smart Pharma Consulting analyses

¹ Non-listed, non-reimbursable products – ² Ex-factory prices

The French pharma market will remain a priority for global pharma players because, despite a slower growth, it will still belong to the top 10 markets worldwide in 2023

Competitive environment on the French pharma market



Opportunities Access to high quality healthcare will remain one of the top priorities of the current government and of French citizens Thus, the French pharma market should remain amongst the top ones in the world Shift from hospital to ambulatory care will be accelerated by the government Government wish to foster innovation Threats Stricter control of reimbursed drug expenditure More transparency required from pharma companies by stakeholders, leading to a certain number of constraints: Systematic control of partnerships between pharma companies and HCPs - Stringent control of medical calls content (basically limited to SmPCs) making them less interesting for HCPs

Sources: Smart Pharma Consulting analyses

The pharmaceutical market sales should keep on growing at a pace of +5% p.a. but pharma companies profitability will be significantly impacted by price cuts

Global Pharma Market SWOT analysis

Market Opportunities

- Access to high quality healthcare will remain one of the top priorities of governments and citizens
- Thus, the pharma market should keep on growing at 5% per annum, on average, over the 2017-2023 period
- Market consolidation through M&As will contain competitive intensity amongst pharma companies
- Increasing collaborations with academics contributing to discover more effective and better tolerated drugs

Pharma Companies Strengths

- Improving portfolio management with a more focused strategy on the most attractive strategic segments
- Breakthrough innovative drugs to come by the end of 2023, especially in neurology, oncology and immunology
- Improved clinical studies quality and development of real word data contributing to optimize drugs benefits
- Reduction or removal of marketing and sales investments which have no or limited business impact

Market Threats

- Increasing price pressure on all categories of drugs (innovative or not, reimbursed or not) from public and private health insurers; and from patients for OTCs
- Higher risks and stricter regulation re. R&D and registration leading to higher costs to launch innovations
- Increasing difficulties to interact with healthcare professionals to inform them or create partnerships due to lack of interest and time; and regulatory constraints

Pharma Companies Weaknesses

- Poor reputation of the global pharma industry
- Weak negotiating power of pharma companies vs. public payers or private payers (e.g. HMOs in the USA)
- Lack of robust strategy as shown by frequent changes of priorities amongst numerous pharma companies¹
- Rigidity and complexity of internal processes preventing pharma companies from optimally seizing opportunities and addressing threats¹

The Best of Smart Pharma 2018

¹ See the position paper "Best-in-class Pharma Strategy Crafting" released in March 2018 and freely available on our website: www.smart-pharma.com

Each pharma company should reinforce stakeholders preference to grow its market share by offering better drugs, highly valued services and building a good reputation

One-page Strategic implications



Sources: Smart Pharma Consulting analyses

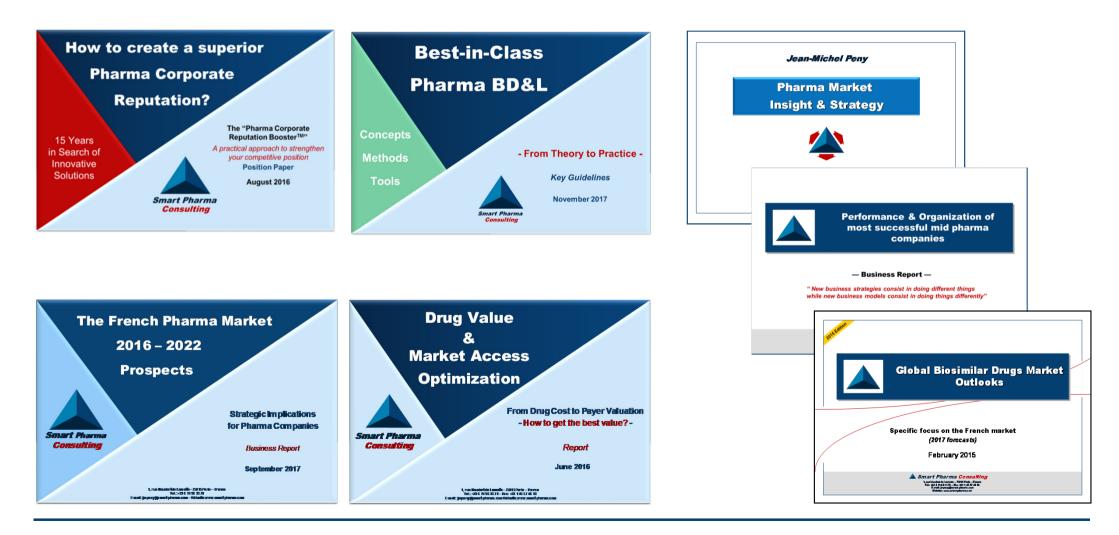
¹ Patient advocacy groups – ² See the position paper "How to create a superior Pharma Corporate Reputation?" released in August 2016 and freely available on our Website: www.smart-pharma.com – ³ And to a lesser extent in distribution or manufacturing facilities





Smart Pharma Consulting publishes regularly well-documented reports, including thoughtful analyses to help pharma companies make fact-based strategic decisions

Selected market studies relative to corporate strategy



Source: Smart Pharma Consulting

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Strategy sets long term direction and scope of a company to achieve a competitive advantage through proper capability building and resources allocation

– Strategy definition -

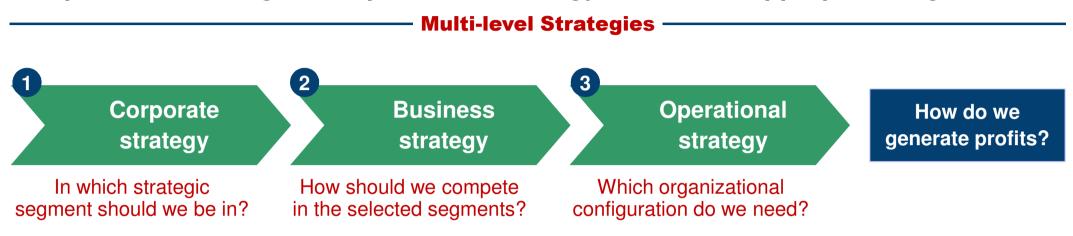
- Strategy is a consistent, unifying and integrative assembly of decisions defined to achieve the ambition and the corresponding objectives set by a company, in the most effective, efficient and less risky manner
- It attempts to achieve the long-term sustainable advantages the company can maintain in its businesses, by responding to the present and future opportunities and threats in the market segments it covers, through the optimal management of its strengths and weaknesses
- It is concerned with the definition of optimal capabilities and resources configuration to take advantage, better than competition, of the evolving customers needs and wants
- It covers the responsibilities and actions required from all hierarchical levels (corporate, business, operational) in the firm
- It defines the nature of the economic and non-economic contributions the company intends to make to its stakeholders

"A successful strategy meets or, better, exceeds customers, employees and shareholders expectations to raise their respective preference for the company, its products and associated services"

Source: Smart Pharma Consulting, adapted after Strategor 2016



Corporate strategy selects the strategic segments, business strategy creates a competitive advantage and operational strategy defines the appropriate organization



- Corporate strategy defines the purpose and the scope in which a company competes or should compete and how value will be added to its different businesses
- Business or competitive strategy is concerned with how to compete successfully within particular strategic segments (e.g. original brands, generics, OTCs, medical device, etc.)
- Strategic segments correspond to companies within an industry which are subject to the same critical success factors which are addressed by a given business unit of the company
- Operational strategy determines the activities, capabilities, processes, structure¹, culture and resources needed to effectively support the corporate- and business-level strategies

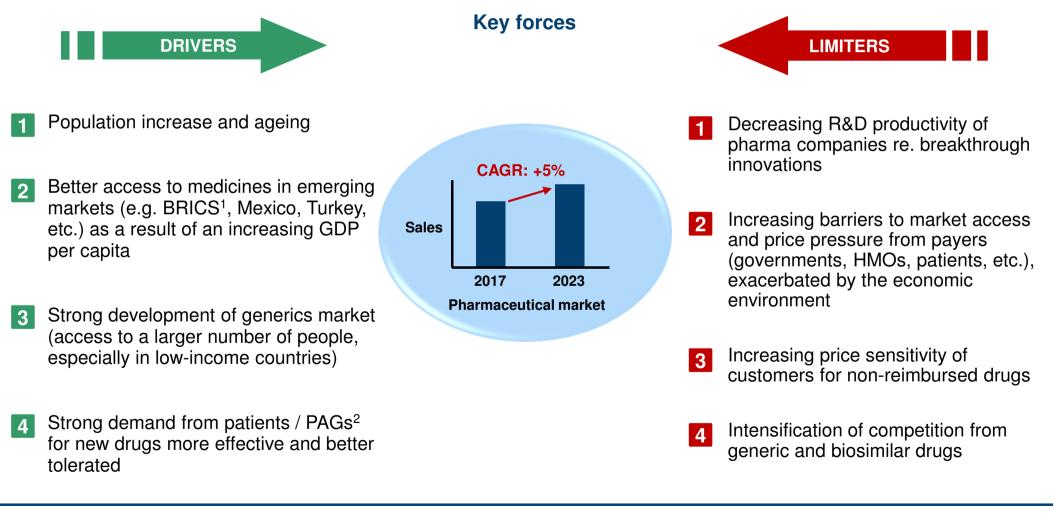
Source: Smart Pharma Consulting, adapted after G. Johnson et al., 2008

¹ Including the headcounts and the organigramme

Smart Pharma Consulting

The key drivers and limiters of the global pharmaceutical market by the end of 2023, as well as their probable impact on sales trends, are well identified

Global pharmaceutical market drivers and limiters (2017 – 2023)



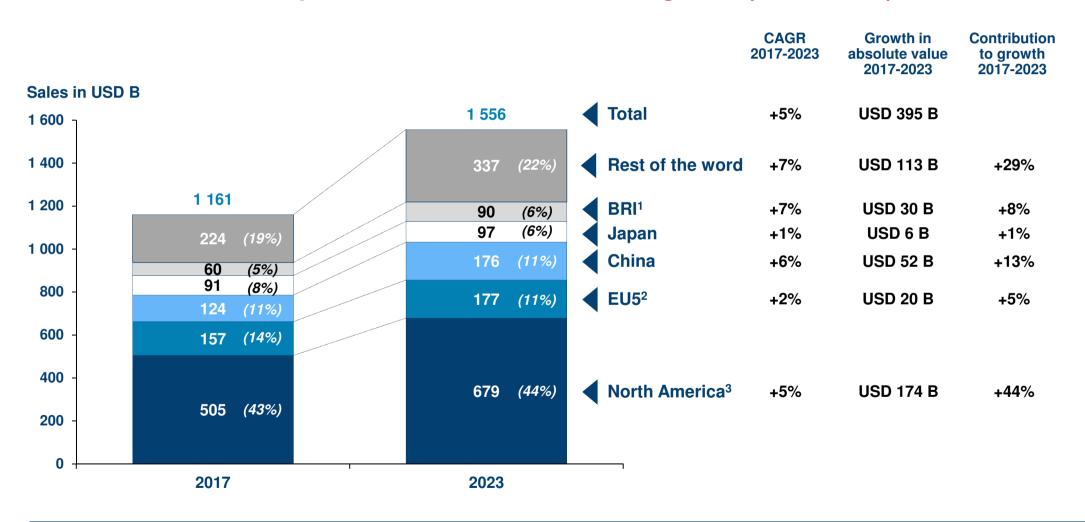
Source: Smart Pharma Consulting analyses

¹ Brazil, Russia, China, South Africa – ² Patient advocacy groups



Sales of EU5 should grow slowly by 2023 due to stringent cost containment measures leading to a three-point decrease of their weight in the global pharmaceutical market

Global pharmaceutical market size and growth (2017 – 2023)



Sources: Outlook for Global Medicines through 2021, Quintiles IMS (December 2016) – Smart Pharma Consulting estimates

¹ Brazil, Russia, India – ² France, Germany, Italy, Spain, UK – ³ USA and Canada

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By 2023, the French Pharma market is expected to step back from the 5th to the 6th place at the global level and to keep its 2nd position after Germany in Europe

Global pharmaceutical market ranking in value¹ (2012 – 2017 – 2023) -

Rank	2012	2017	2023	CAGR 2017-2023	
1	USA	USA	USA	++	
2	China	China	China	+++	
3	Japan	Japan	Japan	+	
4	Germany	Germany	Germany	++	
5	France	France	Brazil	++++	
6	Italy	Brazil	France	+	
7	Brazil	Italy	Italy	+	
8	UK	UK	UK	+	
9	Spain	Spain	India	++++	
10	Canada	Canada	Spain	+	
11	India	India	Canada	++	
12	South Korea	Russia	Russia	+++	
13	Australia	South Korea	South Korea	++	
14	Russia	Australia	Australia	+	
15	Mexico	Mexico	Turkey	+++	CAGR
16	Argentina	Turkey	Mexico	+++	2017 – 2023
17	Saudi Arabia	Poland	Argentina	+++	++++ →>8%
18	Poland	Saudi Arabia	Poland	+++	+++ → 6 - 8%
19	Switzerland	Argentina	Saudi Arabia	++	++ → 3 – 5%
20	Belgium	Switzerland	Switzerland	++	+ $\rightarrow 0-2\%$

Sources: IQVIA Institute (March 2018) – Smart Pharma Consulting estimates

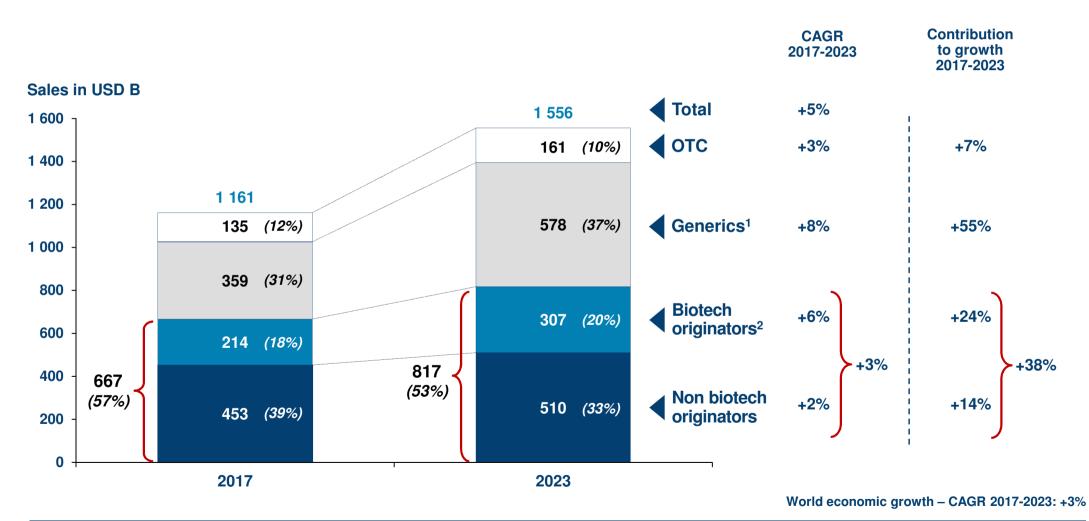
¹ In 2017 USD, at constant exchange rate

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The generics segment should become more important in value than non-biotech original drugs one in 2023 and contribute to 55% of the growth between 2017 and 2023

Global pharmaceutical market growth by strategic segment (2017 – 2023)



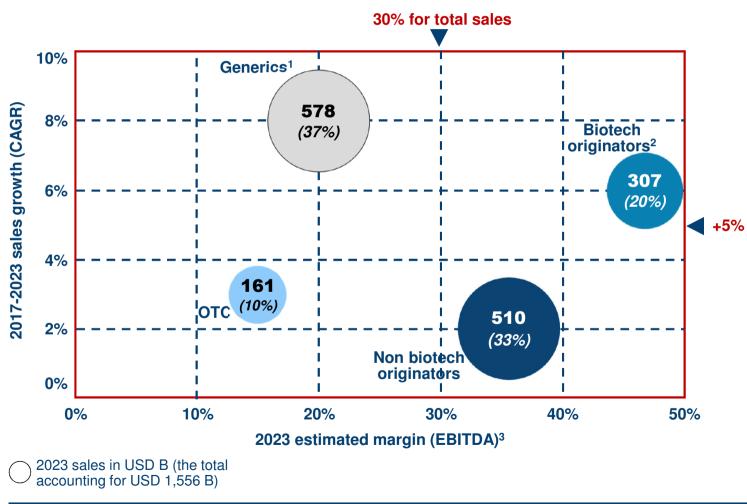
Sources: Outlook for Global Medicines through 2021, Quintiles IMS (December 2016) – Global OTC Drugs Market, Mordor Intelligence (August 2016) – Global economic growth projections, The Conference Board (November 2017) – Smart Pharma Consulting estimates

¹ Including branded and unbranded generics and biosimilars, excluding OTC – ² Excluding biosimilars, already included in the "Generics" segment



By 2023, the sales growth of pharma companies should be essentially driven by generics and biotech originators, but they should lose two points of profitability

Global pharmaceutical market growth by strategic segment (2017 – 2023)



Sources: Outlook for Global Medicines through 2021, Quintiles IMS (December 2016) – Global OTC Drugs Market, Mordor Intelligence (August 2016) – Global economic prospects, World Bank (June 2017) – Smart Pharma Consulting estimates By 2023, the sales (incl. human drugs only for the non-OTC segments; medical devices and food supplements for the OTC segment) should reach USD 1,556 B and grow at a pace of +5% p.a.

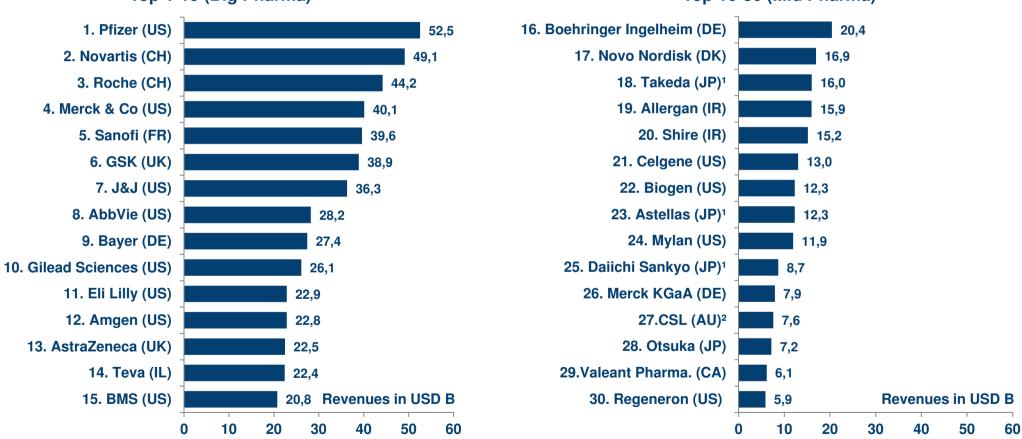
- The average EBITDA of the Pharma industry should decrease from ~32% in 2017 to ~30% in 2023, mainly as a result of increasing price pressure
- The OTC segment appears to be the least attractive
- The biotech segment will remain attractive but biosimilar competition will ramp up

¹ Including branded and unbranded generics and biosimilars, excluding OTC – ² Excluding biosimilars, already included in the "Generics" segment – ³ Earnings before interest, taxes, amortization and depreciation

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The top 30 pharma companies based on prescription sales counts 12 companies from the USA and 11 from Europe

Top 30 prescription sales pharma companies (2017)



Top 1-15 (Big Pharma)

Top 16-30 (Mid Pharma)

Note: panel of the 30 biggest pharma companies in terms of prescription sales in 2017 (excluding diagnostics, medical device and nutrition products)

Sources: Companies annual reports (2017) – Smart Pharma Consulting analyses

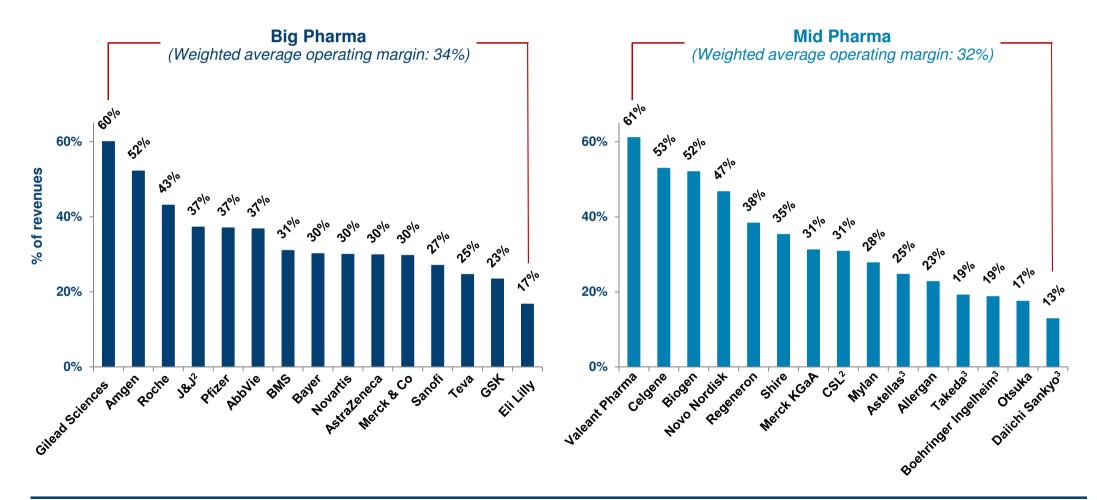
¹ Fiscal year ended March 31, 2018 – ² Fiscal year ended June 30, 2018

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The 2017 average operating margin was higher for Big Pharma companies in comparison to Mid Pharma companies, with a similar dispersion profile





Sources: Companies annual reports (2017 or 2016) – Smart Pharma Consulting analyses ¹ Earnings before interest, taxes, amortization and depreciation – ² 2016 data – ² Fiscal year ended June 30, 2018 – ³ Fiscal year ended March 31, 2018

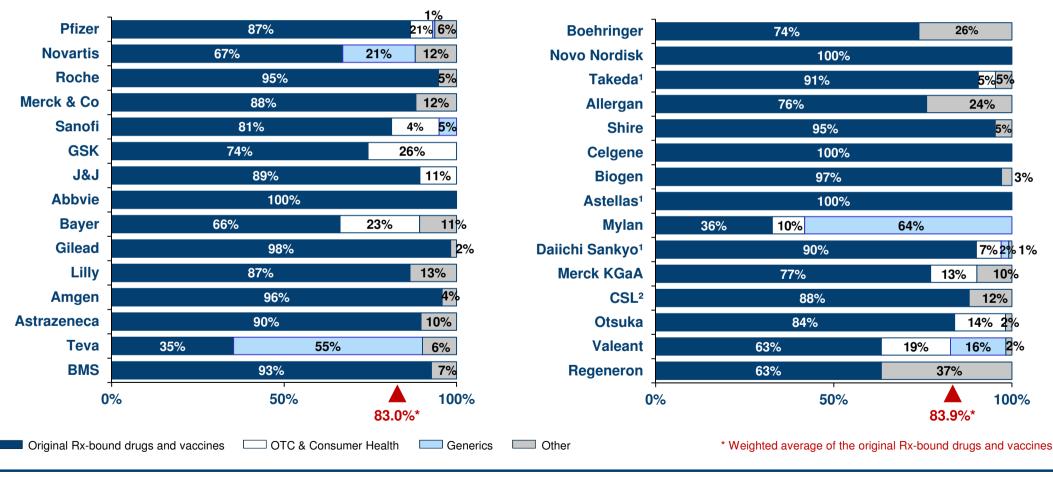
The Best of Smart Pharma 2018

Mid Pharma



In 2017, original Rx-bound drugs and vaccines was the main source of revenue for most Big and Mid Pharma companies

Strategic segments (2017)



Big Pharma

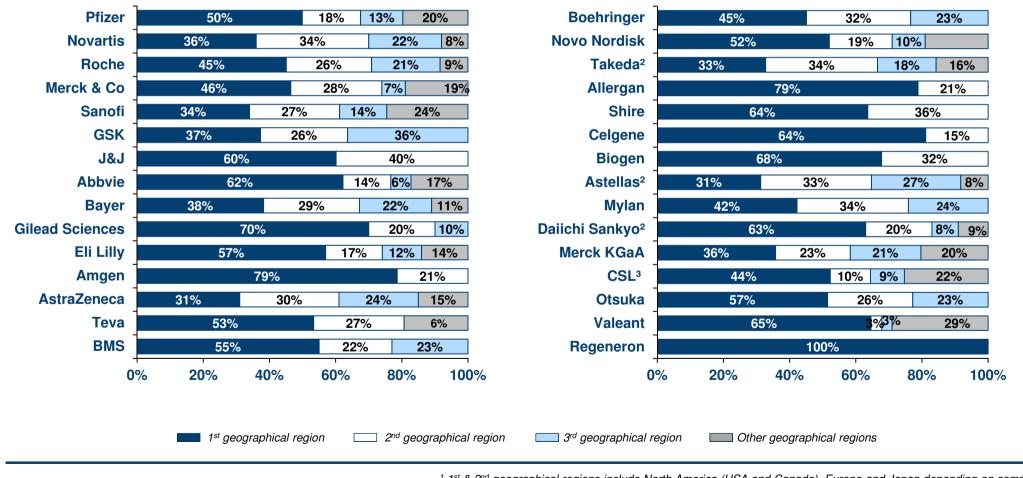
Sources: Companies annual reports (2017) – Smart Pharma Consulting analyses

¹ Fiscal year ended March 31, 2018 – ² Fiscal year ended June 30, 2018

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Mid Pharma companies tend to be less geographically diversified, with most of them generating more than half of their revenues in a single region

Geographical distribution¹ (2017)



Big Pharma

Mid Pharma

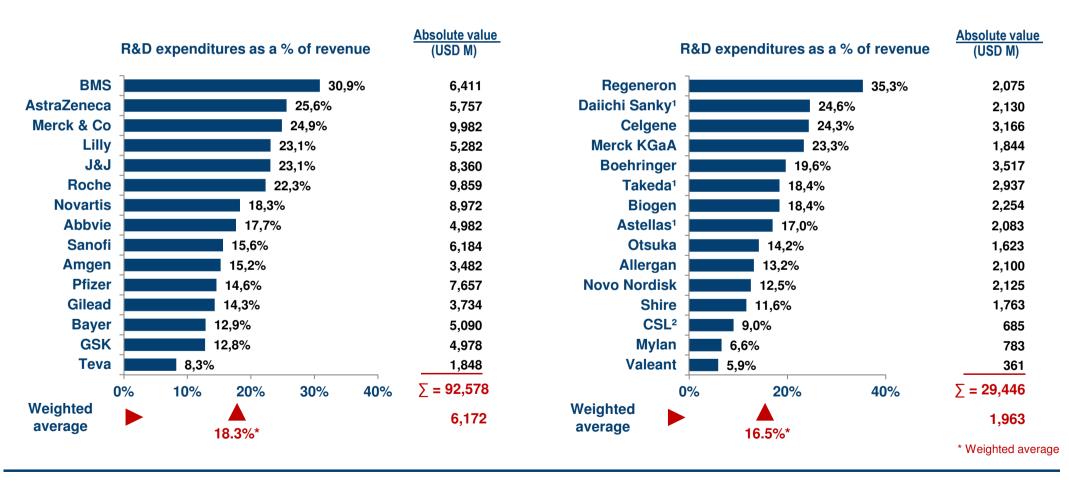
Sources: Companies annual reports (2017) – Smart Pharma Consulting analyses

¹ 1st & 2nd geographical regions include North America (USA and Canada), Europe and Japan depending on companies – ² Fiscal year ended March 31, 2018 – ³ Fiscal year ended June 30, 2018



Big Pharma companies have spent three times more for R&D in absolute value than Mid Pharma companies and ~2 points more as a percentage of their revenues

Top 30 prescription pharma companies – R&D expenditures (2017)



Big Pharma

Mid Pharma

Sources: Companies annual reports (2017 or 2016) – Smart Pharma Consulting analyses

¹ Fiscal year ended March 31, 2018 – ² Fiscal year ended June 30, 2018

Mid Pharma



Most of the recent M&A operations have been carried out to strengthen Big and Mid Pharma companies positions on their core strategic segments

Top 30 prescription pharma companies – Major M&A operations (2015-2017)

Acquirer	Acquired (> USD 2.0 B)	Strategic objectives			Acquirer	Acquired	Strategic objectives			
		Diversification	Strengthening	Expansion		Acquirer	(> USD 2.0 B)	Diversification	Strengthening	Expansion
Pfizer	 Hospira (Generics / Biosimilars) Medivation (Oncology) Anacor (Anti-inflammatory) 	v V	*			Boehringer Ingelheim	 Merial (Animal health business of Sanofi) 		✓ J → J → J	
Novartis	 Advanced Accelerator Applications (Oncology) 		×				 Ariad Pharmaceuticals 			
Sanofi	Boehringer Ingelheim (Consumer healthcare business of the company)		~			Takeda	(Oncology)		· ·	
J&J	Actelion (Pulmonary arterial hypertension)		~			Allergan	 Life Cell unit of Acelity (Aesthetics & Regenerative) Kythera Biopharmaceuticals 		v	
AbbVie	 Pharmacyclics (Oncology) Stemcentrx (Oncology) 		* *				(Áesthetics)		¥	
Gilead Sciences	 Kite Pharma (Cancer immunotherapies) 		~			Shire	 Baxalta (Rare diseases) Dyax Corp (Rare diseases) 		✓ ✓	
AstraZeneca	Acerta Pharma (Cancer and autoimmune diseases) Conditionation		~			Celgene	• NPS Pharmaceuticals (Rare diseases)		~	
	• ZS Pharma (Cardiovascular and metabolic diseases)		v				 Receptos (Immune- inflammatory diseases) 		~	
Teva	Actavis Generics (Generics business of Allergan)		×				Innaninatory diseases/			
	 Auspex Pharmaceuticals (CNS disorders) Rimsa (Latin America) 		*	×		Mylan	 Meda (OTC, Emerging markets such as China, Asia or MEA) 	v		✓
BMS	 Cardioxyl (Cardiovascular) IFM Therapeutics (Cancer immunotherapies) 		* *			Valeant Pharma	 Salix Pharmaceuticals (Gastrointestinal) 		~	

Big Pharma

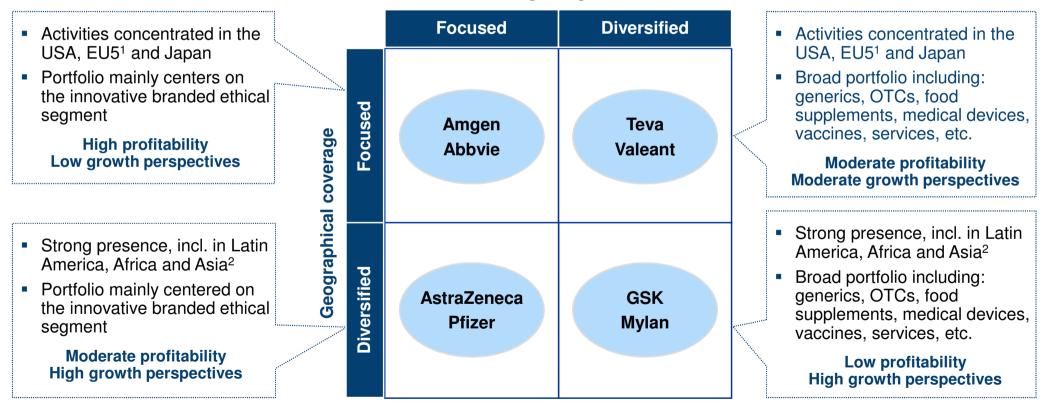
Note: Diversification means entering new strategic segments/balancing minor segments – Strengthening means reinforcing major strategic segments – Expansion means geographical coverage

Sources: ThePharmaLetter - Companies' press releases - Smart Pharma Consulting analyses



Concentration strategies use to generate higher profitability ratios, whereas diversification and geographical expansion strategies provide higher profit growth

Development strategy matrix: Principles



Strategic segments

Source: Smart Pharma Consulting analyses

¹ France, Germany, Italy, Spain, UK – ² Including segments of the population with lower income and/or from rural areas



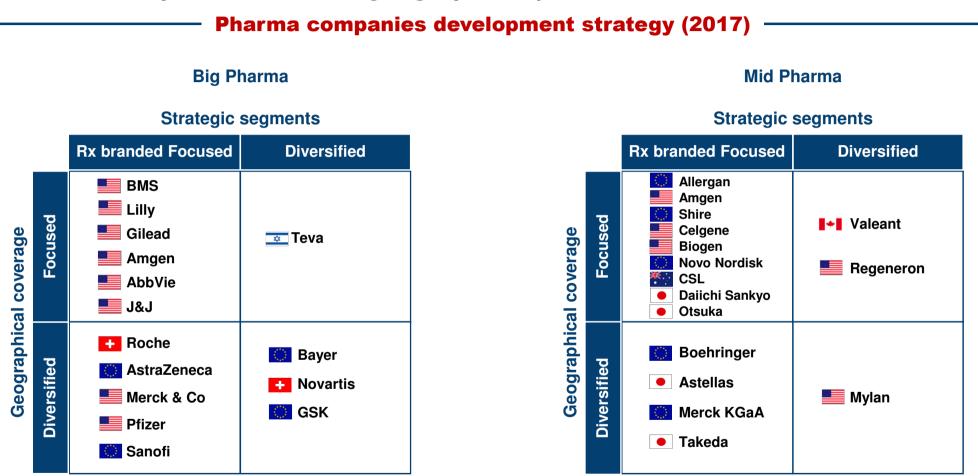
Even if there is no one-size-fits-all winning strategy, a "global healthcare" strategy seems to be a reasonable long-term default option for Big Pharma companies

Strategic Sales **Profitability Profit Recommendations** evolution* development directions evolution* evolution* Strategy showing the highest return on investment Moderately risky if portfolio of breakthrough innovations Local ethicals Reservoir of sales growth on the lower priced me-too markets (e.g. Amgen entering the biosimilars market) Diversification in new strategic segments should be carried out preferably through acquisitions to save time. Local take advantage of brand equity (especially in the OTC healthcare market), know-how, and access to clients Portfolio diversification is best implemented through the Global acquisition of global players (e.g. Pfizer and Hospira) healthcare Geographical expansion is preferable through the acquisition of local leaders (e.g. Teva and Rimsa) Geographical expansion implies an "aggressive" direct or indirect presence (through licensing-out deals) Global + + ethicals Social "expansion" requires a tiered pricing policy or lowpriced products to access low-income patients * + + + Highly positive ++ Moderately positive + Slightly positive - - - Highly negative - - Moderately negative - Slightly negative

Development strategy matrix: Features

Source: Smart Pharma Consulting analyses

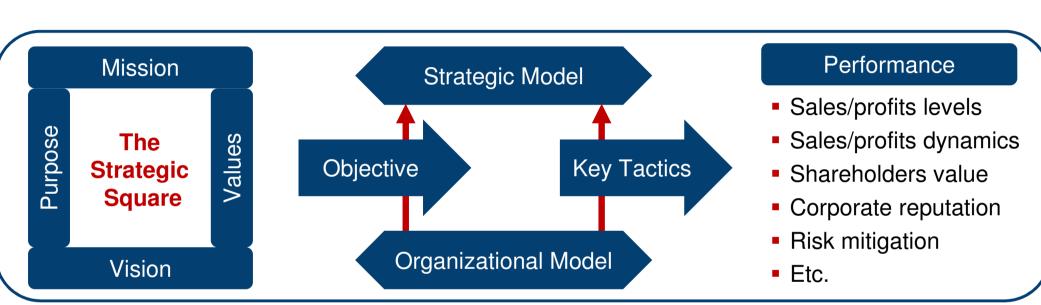
Big and Mid Pharma companies are mainly focused on the Rx branded segment but Big Pharma companies are more geographically diversified



Note: Rx Branded focused: Original Rx-bound drugs and vaccines ≥ 75% of total product sale – Geographically focused: >50% of sales in a single geographical region (e.g. USA, Europe, Japan, etc.)

Sources: Companies annual reports (2017) – Smart Pharma Consulting analyses

This strategic process should help pharma companies translate their "Strategic Square" into the right strategy and tactics supported by the right organization



Methodology: Smart strategic process

- Purpose: Why do we exit?
- Vision: What do we aspire to become?
- Mission: What do we do and for whom?
- Values: What do we believe in and how do we behave?
- Objective: What do we want to achieve?

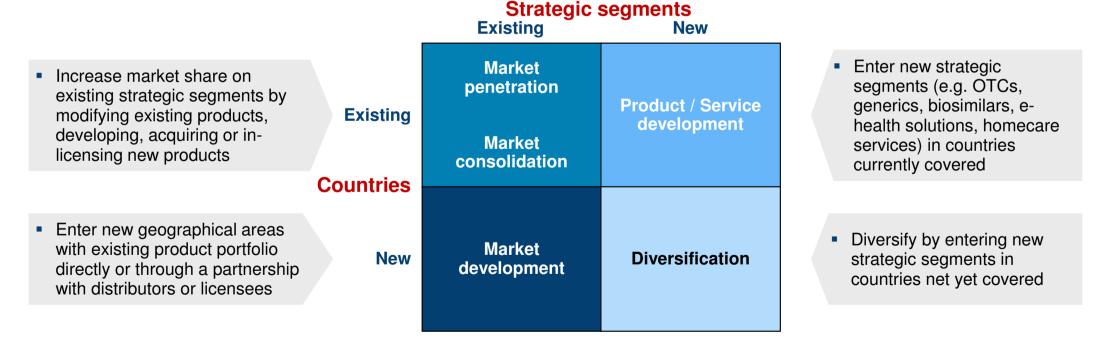
- Strategic model: Where do we want to play and how are we going to play to win?
- Organizational model: What are the activities/capabilities, the processes, the structure¹ and culture we need to put in place to execute the strategy?
- Key tactics: How are we going to execute the strategy?
- Performance: What have we quantitatively and qualitatively² achieved and what are the gaps and why, if any?

Source: Smart Pharma Consulting

Four basic corporate strategies can be adopted by pharma companies to secure a long-term and profitable growth, in line with their shareholders expectations

Corporate strategy crafting (1/2)

- The Development strategy matrix is a practical tool to select the most attractive sources of growth
- Diversification is in general the riskiest option because the farthest from the company core competencies
- However, playing in diverse strategic segments with different characteristics can enable to mitigate business risks



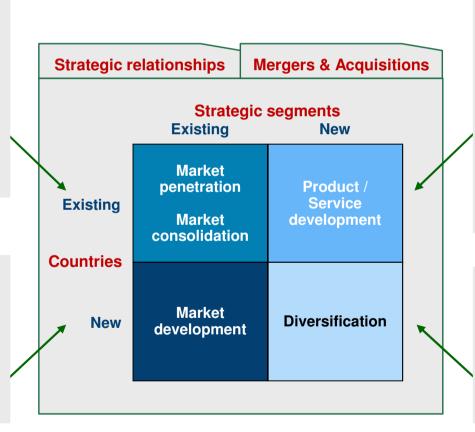
"The purpose of corporate strategy is to decide where to play and how to play to succeed"

Source: Adapted by Smart Pharma Consulting from H. Ansoff

The corporate strategy can be implemented by pharma companies organically or inorganically, through strategic partnerships, mergers or acquistions¹

Corporate strategy crafting (2/2)

- Collaboration with a third party (e.g. pharma company and/or CSO²) to increase share of contacts and/or share of voice
- Co-marketing or co-promotion agreements to increase resources to market a product
- Acquisition of competitors to reduce or better manage competitive intensity
- Direct market entry by setting up its own subsidiary
- Indirect market entry by licensingout its product portfolio to a third party or with a CSO
- Indirect market entry by acquiring a local player to take advantage of its resources and capabilities



- Entry on new strategic segments can be carried out through in-house R&D and/or through:
 - Horizontal integration (e.g. OTC, generics, homecare services)
 - Downward integration (e.g. distribution business)
 - Upward integration (e.g. toll manufacturing business)
 - Outsourcing to a CRO³
 - Etc.
- New strategic segments entry and new geographical coverage can be carried out organically or through acquisition, merger, joint-venture, inlicensing (e.g. with a pharma company) or subcontracting (e.g. with a pharma company, a CSO, a CRO) agreements

Source: Adapted by Smart Pharma Consulting from H. Ansoff

¹ See our position paper "Best-in-Class Pharma BD&L" available on our website – ² Contract sales organization – ³ Contract research organization To craft a successful strategy, pharma companies must evaluate their business environment to identify where their competitive advantage will be the strongest

Business strategy crafting (1/3) -

To create a successful business strategy, pharma companies should carefully evaluate the strategic segment landscape they play in by:

Customers

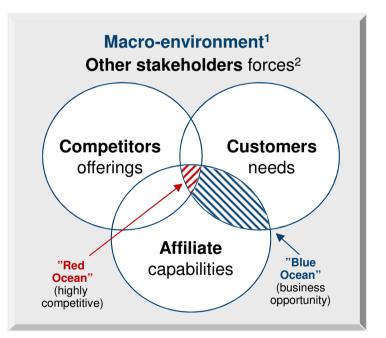
- Developing a detailed understanding of customer needs / wants
- Segmenting and targeting customers
- Identifying unique ways of creating superior value for customers

Competitors

 Analyzing competitors' current strategies, their impact, and predicting how they might change in the future

Company

- Providing products and services fulfilling better than competition, tangible and intangible customers needs / wants
- Finding strategic spaces or "blue oceans" that align the company's capabilities with customer unmet needs and...
- ... raising barriers to prevent competitors to enter



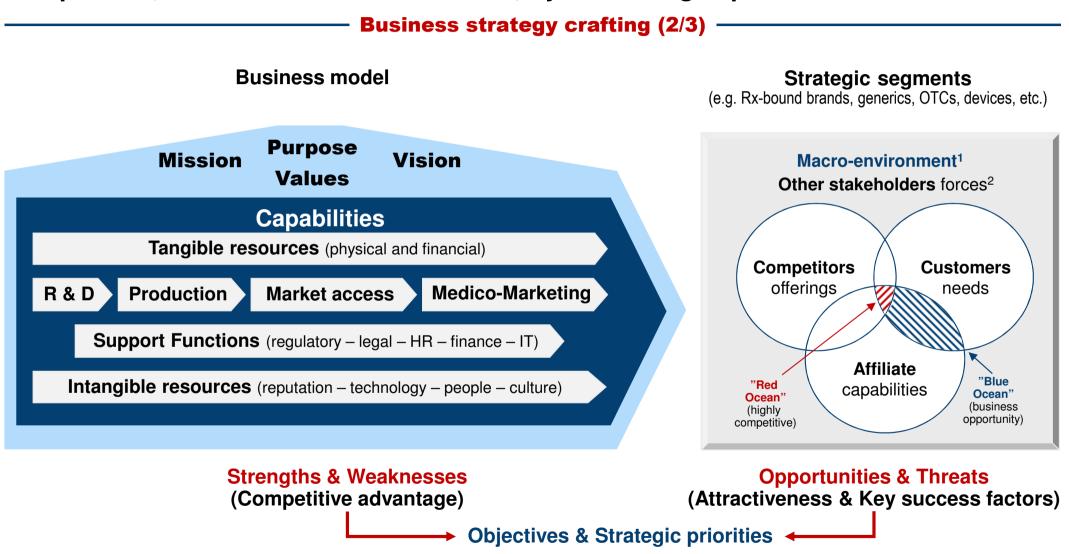
"Don't just give customers excellent services, make sure they realize how great is the service they get"

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Source: Adapted after C. Kim et R. Mauborgne 2005 - D.J. Collis , HBR April 2008 - Smart Pharma Consulting
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¹ Political/legal, Economic, socio-demographic and technological factors – ² Including Suppliers, new entrants, substitutes, complements



The business strategy must offer a value proposition that meets, better than competition, customers needs and wants, by mobilizing capabilities and resources

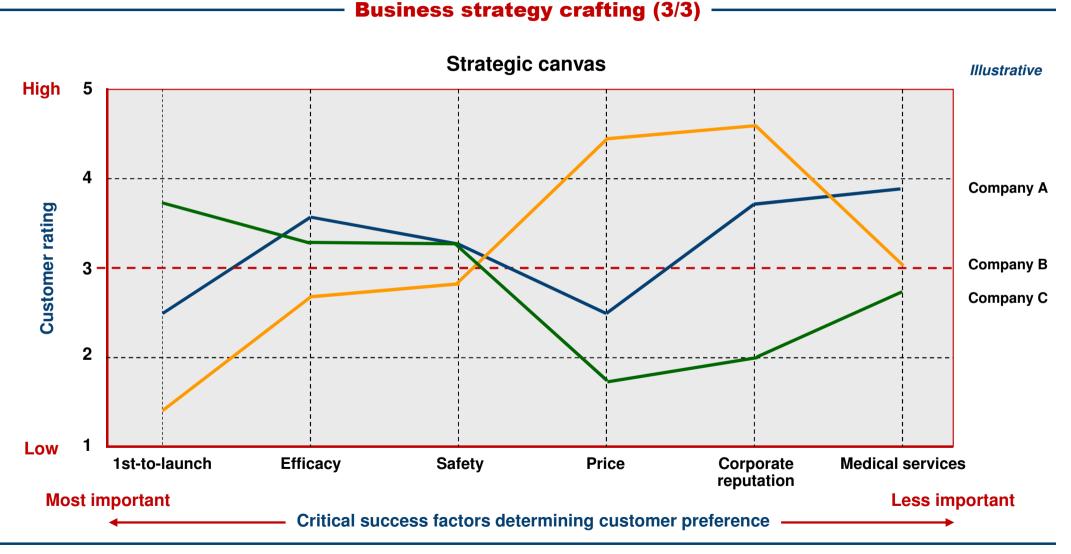


Sources: Adapted by Smart Pharma Consulting from C. Kim et al. and from D.J. Collis, HBR April 2008

¹ Political / legal, economic, socio-demographic and technological factors – ² Including suppliers, new entrants, substitutes, complements



The strategic canvas can help identify strategic gaps which represent opportunities that are not being fully exploited by competition



Source: Adapted after C. Kim et R. Mauborgne 2005

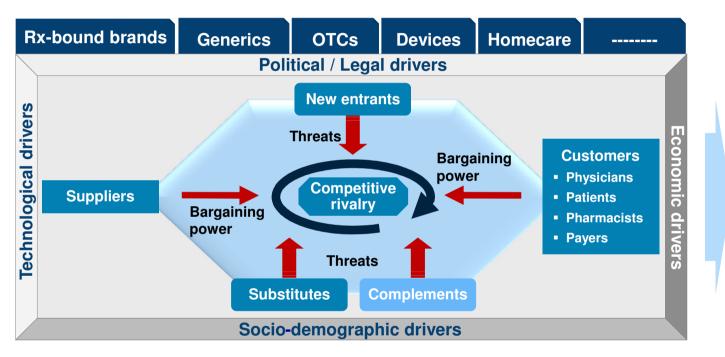
¹ Political / legal, economic, socio-demographic and technological factors – ² Including suppliers, new entrants, substitutes, complements

The Best of Smart Pharma 2018



Business opportunities by strategic segment (e.g. original Rx-bound drugs, generics, OTCs, etc.) can be assessed through PEST analysis and the "5+1 forces framework"

Business strategy – Attractiveness of strategic segments (1/3)



Analysis of Political / Legal – Economic – Socio-demographic – Technological drivers, called PEST analysis, and then the "5+1 forces Framework" will help pharma companies set an appropriate strategy per strategic segment

"Porter's five forces"

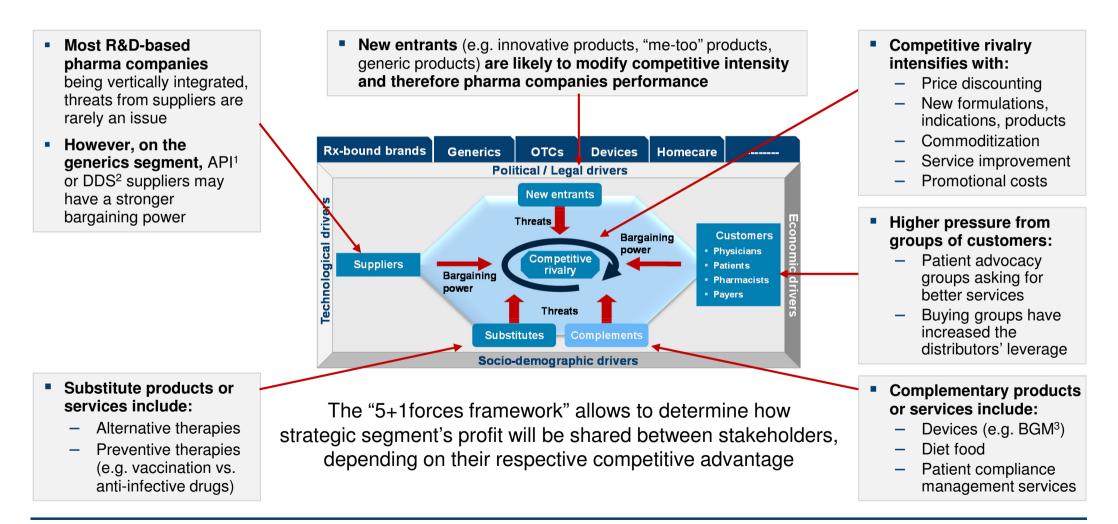
"Additional force"

Source: Adapted by Smart Pharma Consulting from M. Porter 2008

- The four key macro-environmental drivers:
 - Political / Legal
 - Economy
 - Socio-demography
 - Technology
- The five key micro-environment drivers:
 - Suppliers
 - Customers
 - New entrants
 - Substitutes
 - Competitive rivalry
- ... plus the "Complements" influence the attractiveness of each strategic segment and impact the success or the failure of pharma companies strategy
- These key drivers for change can be used to build scenarios of possible futures, especially by adopting the "what if" technique

The "5+1 forces framework" is particularly helpful to identify the key stakeholders that will influence the long-term structure and profitability of strategic segments

Business strategy – Attractiveness of strategic segments (2/3)

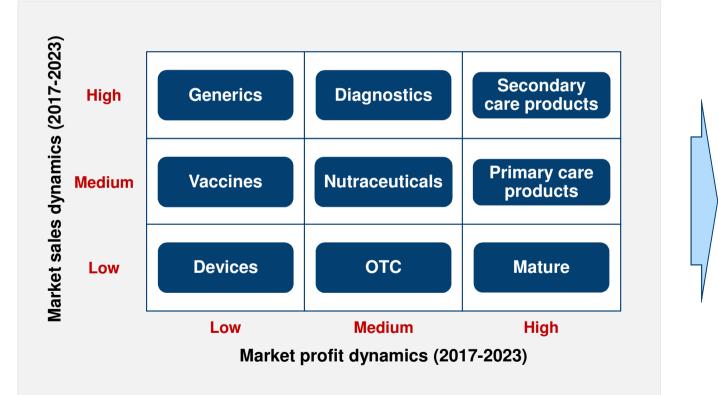


Source: Adapted by Smart Pharma Consulting from M. Porter 2008

¹ Active pharmaceutical ingredients – ² Drug delivery system – ³ Blood glucose meter

Attractiveness of new strategic segments should be put into a dynamic perspective and potential synergies with existing businesses also be considered

Business strategy – Attractiveness of strategic segments (3/3)



- The attractiveness of a strategic segment should be defined, based on the evolution of economic indicators such as sales and profits
- Additional parameters such as potential synergies with the existing business should also be considered, while evaluating attractiveness of new strategic segments

Source: Smart Pharma Consulting analysis



Key success factors by strategic segment where business opportunities have been identified are driven from competitive intensity and from customers needs and wants

Business strategy - Key success factors by strategic segment -

How do affiliates survive competition?

- Competitive analysis
 - What drives competition?
 - What are the main dimensions of competition?
 - How intense is the competition?
 - How can we obtain a superior competitive position?
 - How can we create customer's preference?

What do customers need and want?

Demand analysis

- Who are our customers?
- What is their respective role? (prescribers, consumers, distributors, payers, influencers, "injectors", etc.)
- What do they want?
- What do they need?
- What are their available alternatives?
- What does create customers' preference?

Source: Adapted by Smart Pharma Consulting from R. Grant 2008



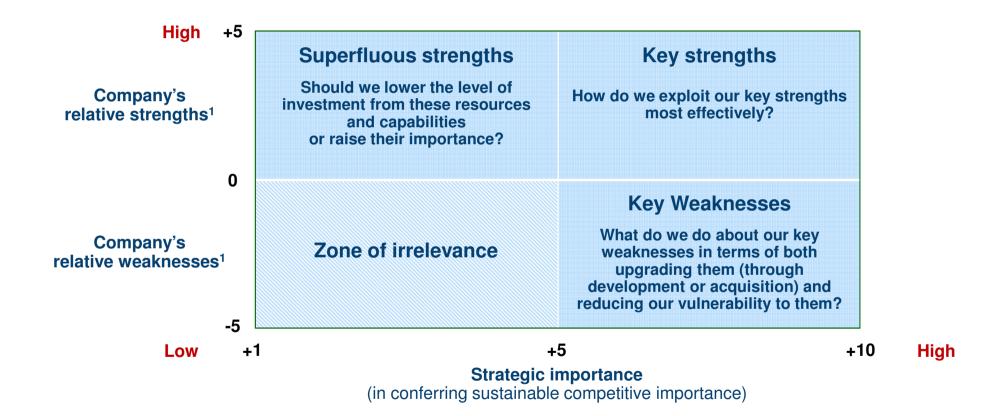
Systematic appraisal of company's resources and capabilities provides the basis for formulating operational strategy



Source: Adapted by Smart Pharma Consulting from R. Grant 2008

Pharma companies should reinforce resources and capabilities that are critical to establishing a sustainable competitive advantage to generate superior profits

Operational strategy – Resource and capabilities assessment



"Some resources and capabilities are needed to play, but not needed to win"

Source: Adapted by Smart Pharma Consulting from R. Grant 2008

¹ Compared with competitors

Pharma companies capabilities can be developed or adjusted internally, as well as externally through outsourcing, strategic alliances or merger and acquisition

Operational strategy – Approaches to capability development

Merger & Acquisition

- Acquiring capabilities should be considered if desired capabilities can only be developed over long periods
- Integrating the acquired capabilities with the acquirer's ones involves major risks such as:
 - Culture clashes
 - Personality clashes
 - Incompatibility of management systems

resulting in degradation or destruction of the capabilities that were sought

Outsourcing

 Companies can access capabilities (and resources) by borrowing them from other companies through outsourcing arrangements

Internal Development

- Growing capabilities requires that companies replicate them internally...
- ... by systematizing the knowledge that underlies capabilities through the formulation of SOPs¹

Strategic Alliances

- Accessing capabilities through alliances offers a more targeted and cost effective mean than acquisition
- A strategic alliance involves the sharing of resources in pursuit of common goals
- Where both alliance partners are trying to acquire one another's capabilities, the result may well be a "competition for competence" that ultimately destabilizes the relationship

Source: Adapted by Smart Pharma Consulting from R. Grant 2008

¹ Standard operating procedures



Strategic priorities should be set after capabilities assessment to outperform competitors on key success factors inherent to each targeted strategic segment

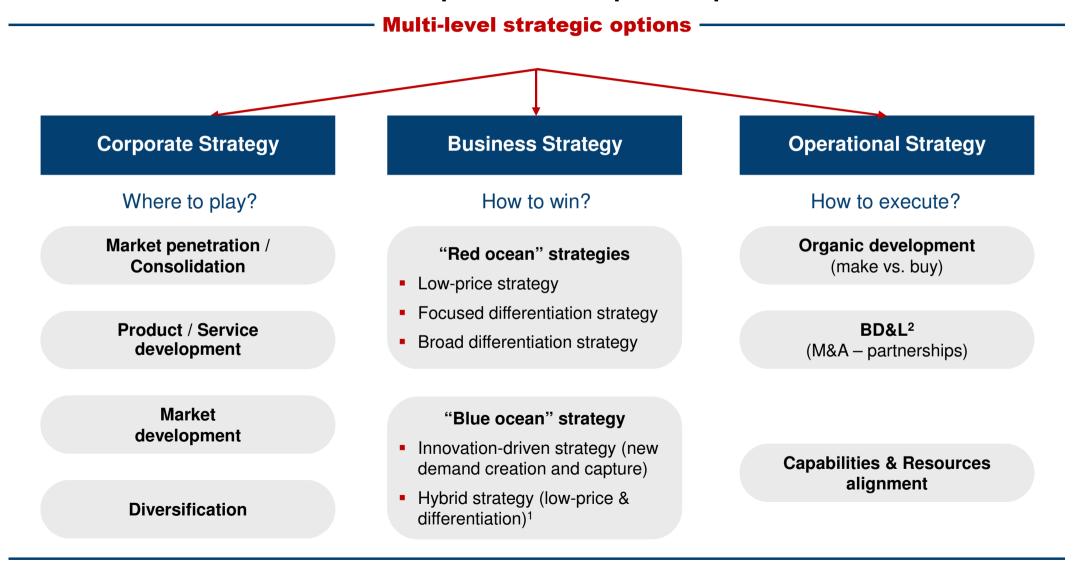
Strategic priorities & competitive advantage



Source: Adapted by Smart Pharma Consulting from R. Grant 2008 and D. Waters 2006



The three different strategic levels – corporate, business and operational – must be crafted in a consistent manner to optimize the impact on performance

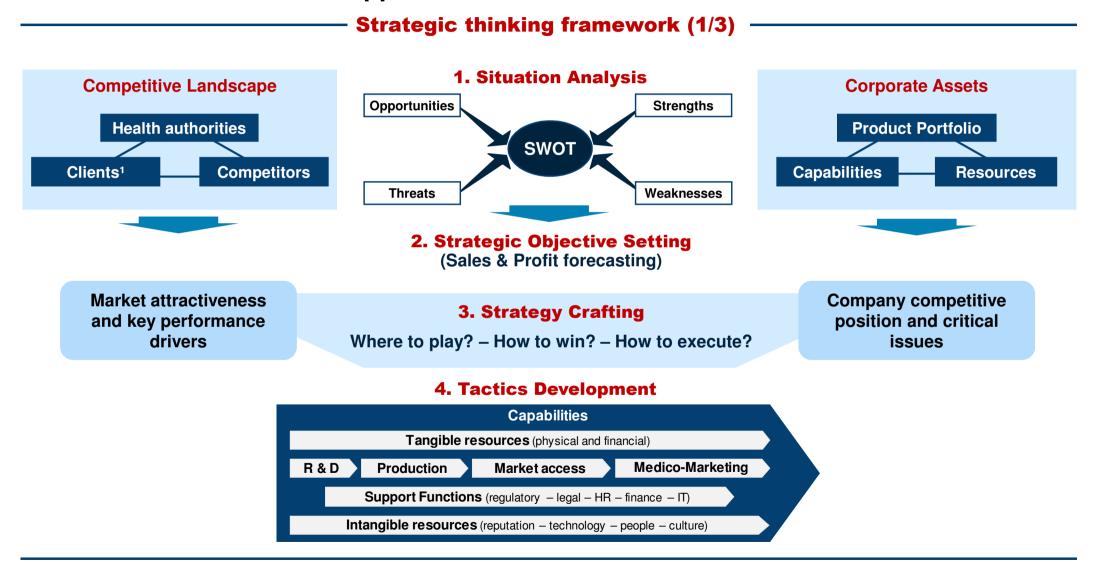


Sources: Adapted by Smart Pharma Consulting from G. Johnson et al., 2008, W.C. Kim & R. Mauborgne, 2005

¹ Eliminating or reducing costs while raising or creating value – ² Business Development & licensing



The strategic thinking process aims at aligning company's unique capabilities and resources to seize market opportunities and address market threats



Source: Smart Pharma Consulting

¹ Including payers, physicians, patients, pharmacists, nurses

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Smart Pharma Consulting recommends the following approach to craft a strategy at corporate, business and operational levels to boost pharma companies performance

- Strategic thinking framework (2/3)

Situation Analysis

Kick-off meeting organization

- Agreement on project management, scope and deliverables
- Historical market and product data analysis (2014 2017)
 - Internal and external data collection through desk research, and interviews to acquire the right level of insights
 - Analysis of sales and profits per strategic segment:
 - Competitive landscape (health authorities, clients and competitors opinions and behaviors)
 - Corporate assets (product portfolio, capabilities and resources)
 - Advanced SWOT analysis
- Sales and profits growth modeling (2018 2023) by applying the on-going strategy ("as is" scenario)
- Writing of the situation analysis summary

Strategy Formulation

Strategy crafting workshops

- Review of situation analysis outputs
- Reassessment of the strategic square (purpose, mission, vision, values)
- Strategic objective setting
- Review and prioritization of multi-level strategic options (corporate, business, operational)
- Development of tactics that will support the selected strategies (alignment of capabilities and resources along the different components of the value chain)

• Fine-tuning of the strategy

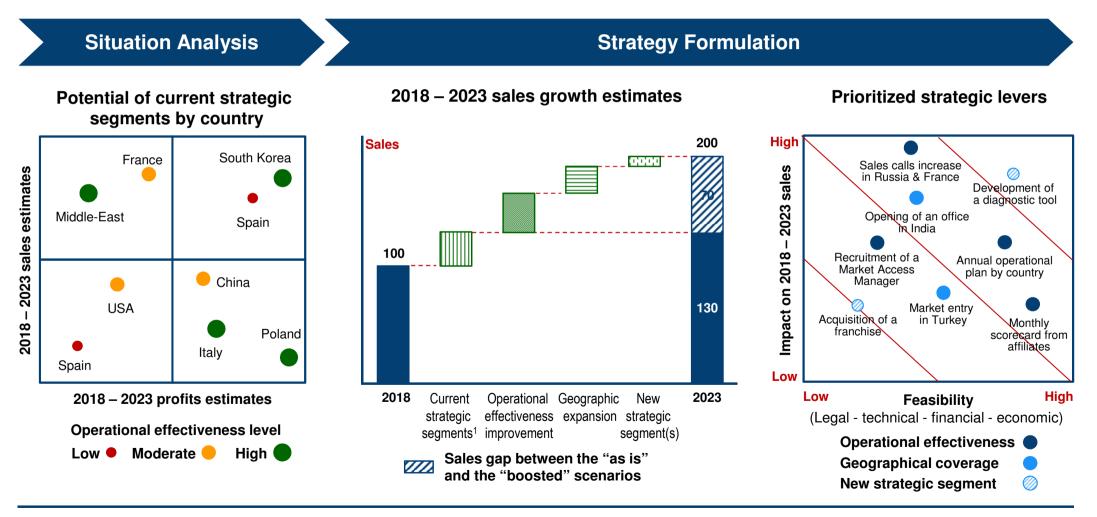
- Sales and profits growth modeling (2018 2023) following the integration of the recommended strategy and tactics ("boosted" scenario)
- Final selection of the strategic levers (suitability, efficacy / acceptability and feasibility) to boost the performance
- Tactical recommendations (key activities supporting strategic priorities) and monitoring tools¹
- Writing of the 2018 2023 Strategy Plan

Source: Smart Pharma Consulting

¹Key Execution Indicators (KEIs) and Key Performance Indicators (KPIs)

The following enabling tools will help pharma companies make strategic decisions and formalize them in a robust and practical strategic plan

Strategic thinking framework (3/3)



Source: Smart Pharma Consulting

¹ "As is" scenario

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This masterclass has been designed to help pharma executives build robust and relevant strategies while ensuring their proper execution for an optimal result

Masterclass: Pharma Strategy & Operational Excellence

Day 1: Market Analysis

- 9:00 Introduction to the masterclass
- 9:10 Review and discussion of most appropriate concepts, methods and tools to <u>analyze</u> current strategies (at corporate, business and operational levels)
- 10:30 Break
- 10:45 Case study #1: Strategic situation analysis:
 - Analysis of strategic segments covered
 - Analysis of products/services offered by segment
 - Corporate, business and operational strategy assessment
- 13:00 Lunch
- 14:00 Presentation of the case study outputs, discussion and agreement on key learnings
- 15:30 Break
- 15:45 Lecture by and discussion with an expert: "Review of the most audacious and successful strategies – Lessons from non pharma markets"
- 17:00 End of the 1st day

Day 2: Strategy Crafting & Execution

- 9:00 Introduction to the 2nd day
- 9:10 Review and discussion of most appropriate concepts, methods and tools to <u>craft</u> and <u>execute</u> strategies (at corporate, business and operational levels)
- 10:30 Break
- 10:45 Case study #2: Strategy crafting:
 - Setting a strategic objective
 - Selecting strategic options at corporate, business and operational levels
 - 13:00 Lunch
- 14:00 Presentation of the case study outputs, discussion and agreement on key learnings
- 15:00 Case study #3: Strategy execution:
 - Developing high execution standards
 - Monitoring the quality of execution with KEIs¹
- 16:15 Break
- 16:30 Presentation of the case study outputs, discussion and agreement on key learnings
- 17:30 End of the masterclass

Source: Smart Pharma Consulting

¹ Key execution indicators



Smart Pharma Consulting applies systematically the 4 Ws approach which enables to make evidence-based decisions and therefore to improve their relevance

- The 4 Ws approach —

WHAT?	WHY?	SO WHAT?	WHAT TO DO?
 Identify key market facts and events: Sales data (competitors and own sales) Opinion, decisions and / or behavioral changes of key stakeholders (e.g. health authorities, competitors and customers¹ and the company itself) 	 Understand the factors that have triggered or that are likely to trigger market facts and events: What are the root causes of sales data and trends? What are the root causes of health authorities, competitors and customers¹ opinion, decisions and / or behavior? Etc. 	 Analyze the implications for the stakeholders (e.g. health authorities, competitors, customers¹ and the company itself) related to the key market facts and events that have been identified or anticipated Define if these facts and events represent opportunities or threats for the company (and its brands) 	 Based on the three previous steps (WHAT – WHY – SO WHAT) define the relevant strategic and tactical decisions to be made to optimize the brand performance These strategic and tactical decisions should contribute to optimize the performance of the company and its brands

Smart Pharma Consulting publishes regularly well-documented reports, including thoughtful analysis to help pharma companies make fact-based decisions

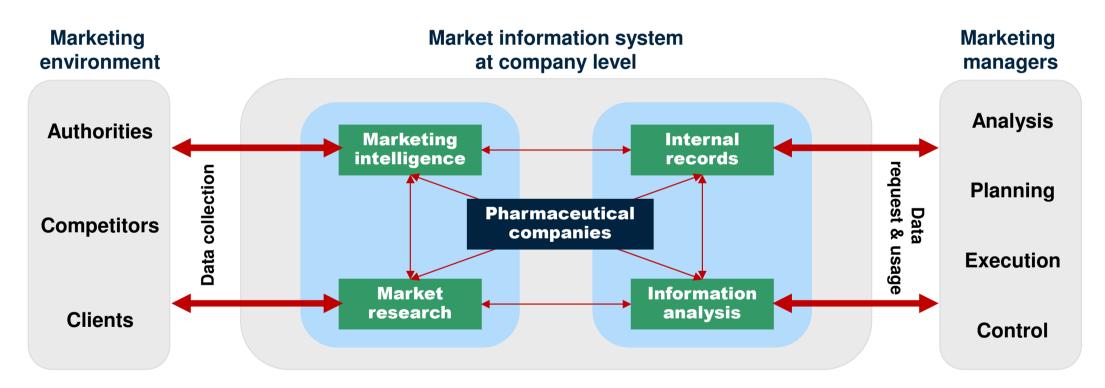
Selected market studies recently published -



A well-designed market information system reconciles what managers would like to have, what they really need and what is feasible to obtain

Market Information system

"By itself, information has no worth – its value comes from how it is used"



"The market information system begins and ends with the information user"

Sources: Adapted after P. Kotler by Smart Pharma Consulting

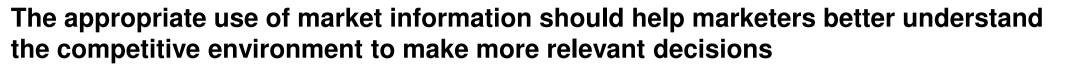
Marketing intelligence is an on-going process requiring a curious state of mind and which often needs to be completed by specific market researches

Marketing Intelligence vs. Market Research

Market research
 Managers cannot always wait for information to arrive in bits and pieces from marketing intelligence system They often require formal studies of specific situations
The most common studies carried out are:
 Assessment of market potential
 Market share analysis
 Determination of market characteristics
 Sales analysis
 Studies of business trends
 Sales forecasting
 Competitive product studies
 Testing of existing products
 Client behavior analysis
 These studies can be done internally or by a market research agency

Sources: Adapted after P. Kotler by Smart Pharma Consulting

¹ Contract Research Organizations – ² Contract Sales Organizations



Market Research Purpose

Definition

 Market research is the systematic design – collection – analysis – reporting of data and findings relevant to a specific marketing situation faced by the company or the brand



- Market research can be carried out to:
 - Better understand the market
 - Support a decision
 - Monitor / control marketing activities
 - Develop sales forecasts

Approach

- Methods generally involve analyzing behaviors, attitudes and opinions of key market stakeholders such as:
 - Authorities
 - Clients
 - Competitors

Sources: Adapted after P. Kotler by Smart Pharma Consulting



An effective market research requires careful preparation and close collaboration between researchers and marketers

Market Research Process						
A four-step approach						
Problem and research objective definition	Research planning for data collection	Data collection and analysis	Data interpretation and findings report			
 Prepare a brief with: Purpose of the study (What for?) Specific issues to be covered (What?) Objectives: exploratory, descriptive, causal (How?) Constraints: time, budget, methodology 	 Determine the specific information needed Define the relevant sources of information: Primary (to be generated) Secondary (existing data) Choose the method (e.g. observation, survey, experiment) Write a research plan 	 Implement the plan (internally or through a subcontractor): Collecting data Processing data Analyzing data Monitor the fieldwork to control quality Check data accuracy and completeness before processing and analyzing 	 Interpret findings and draw conclusions about their implications (jointly by marketers and market researchers) Write a report that: Is clear, precise and concise Takes into consideration the needs of the final users 			

Sources: Adapted after P. Kotler by Smart Pharma Consulting

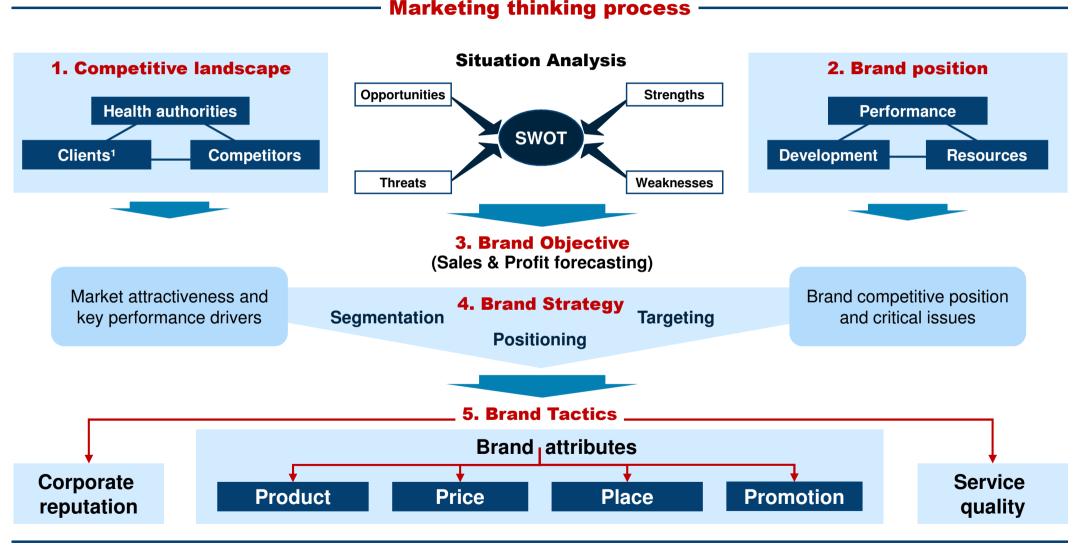
Once the problem has been clearly defined, research objectives must be set by the marketers and the market researchers

Market Research objectives —

	Characteristics	Examples
Exploratory objective	 Preliminary data gathering that will help better define a problem, suggest hypotheses and specify research Methods are informal (documentary search, qualitative studies) 	 Brand sales are declining, why? Are the patients complaining about the injector? What are they saying?
Descriptive objective	 Data collection to describe a market, a target The problem must be well defined Studies are more quantitative and methods include surveys, panels, internal or external secondary data 	 What is the market potential for a brand? What are the demographics and attitudes of physicians that most use the current leading brand?
Causal objective	 Information is collected with the objective of explaining the market or target features These studies enable hypotheses about cause-and-effect relationships to be tested and can be used to evaluate strategic alternatives, optimize the marketing mix, develop forecasts 	 Which brand positioning is the most effective? Are physicians strongly influenced by scientific papers? Is price a key prescribing factor?

Sources: Adapted after J.J. Lambin and P. Kotler by Smart Pharma Consulting

Smart Pharma Consulting supports pharma companies in their marketing thinking process, from situation analysis to objective setting, strategy and tactics crafting

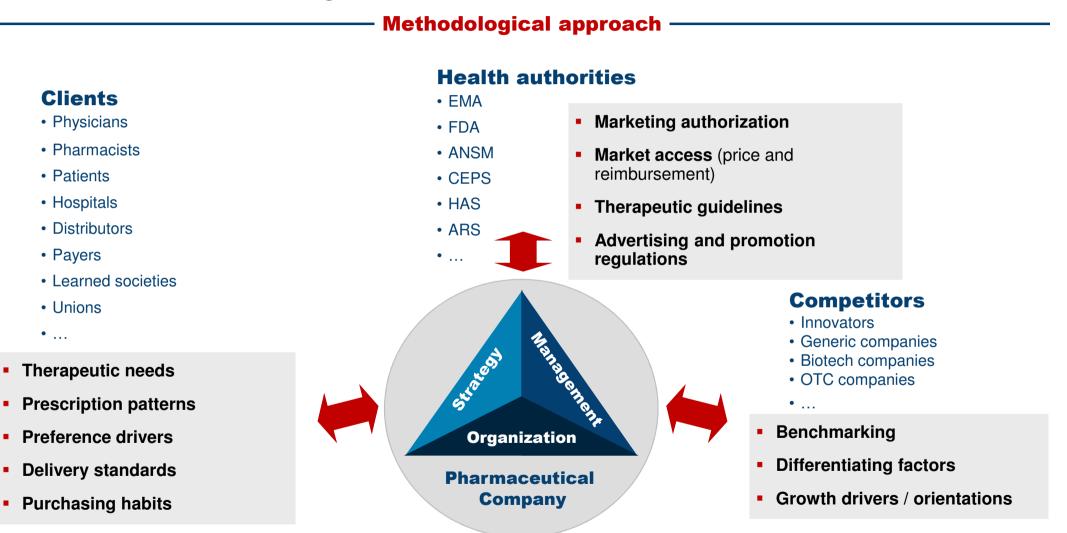


Source: Smart Pharma Consulting

¹ Including payers, physicians, patients, pharmacists, nurses

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Our ability to collect insights from all market stakeholders and our robust analytical skills allow us to deliver high value-added recommendations

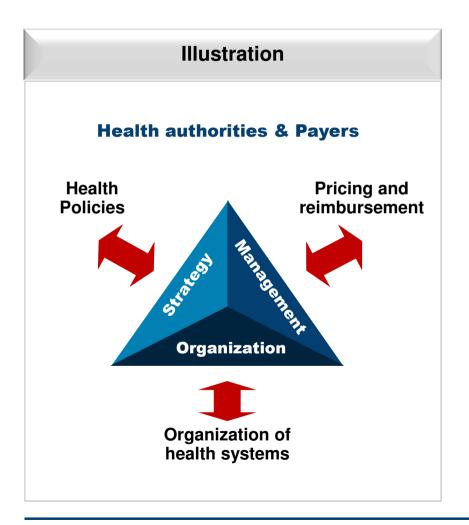




Smart Pharma Consulting is used to carrying out studies to better know and understand healthcare systems through individual interviews and in-depth desk researches

Health authorities

Market studies targeted at health authorities -



Types of studies recently undertaken

- Organization of health systems
 - Research on health systems across the world
 - Market access systems by country
 - Study of the organization, the composition and the strategic priorities of regional health bodies

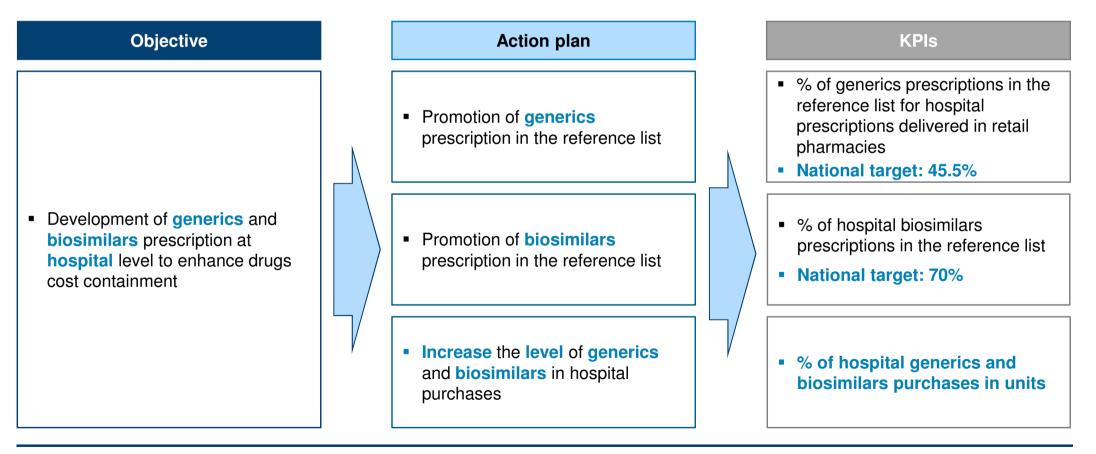
Health Policies

- Analysis of healthcare reforms across Europe
- Study of healthcare expenditure containment policies
- Comparison of health policies regarding Rx-to OTC switches in Europe
- Pricing and reimbursement
 - Analysis of decision-making processes and key decision criteria re. pricing and reimbursement
 - Study of the copayment policies of supplementary health insurance funds re. drugs according to the reimbursed level by the Social Insurance

Smart Pharma Consulting has interviewed hospital and regional health authorities collaborators to evaluate the impact of a new measure on drug performance

Health authorities **Example:** Measure to enhance drug prescription quality and efficiency

The French health authorities have recently introduced contracts between hospitals, regional health agencies and regional health insurance through which physicians are encouraged to prescribe more generics and biosimilars



Source: Smart Pharma Consulting

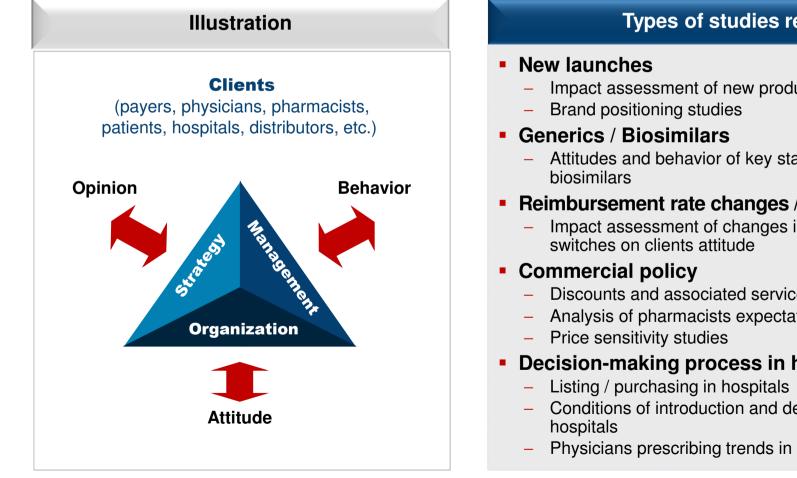
¹ Regional Health Agency (Agence Régionale de Santé) – ² Hospital medical commission (Commission Médicale d'Etablissement) – ³ Contract for healthcare quality and efficiency enhancement (Contrat d'Amélioration de la Qualité des Soins)



Smart Pharma Consulting is used to collecting and analyzing information about all pharma companies clients involved on the retail and the hospital markets

Clients

- Market studies targeted at clients -



Types of studies recently undertaken

- Impact assessment of new product launches
- Attitudes and behavior of key stakeholders regarding generics and

Reimbursement rate changes / Rx-to-OTC switches

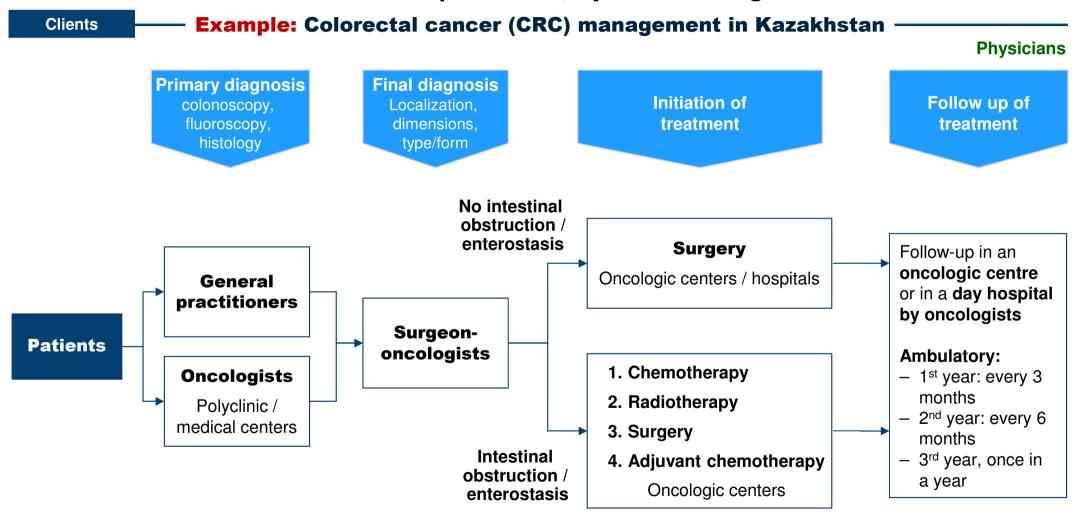
- Impact assessment of changes in reimbursement rate or Rx-to-OTC
- Discounts and associated services offered to pharmacists
- Analysis of pharmacists expectations regarding direct sales offers

Decision-making process in hospitals

- Conditions of introduction and deployment of new care practices in
- Physicians prescribing trends in oncology



Smart Pharma Consulting is able to figure out protocols and disease management in countries where there is little data published, by interviewing stakeholders



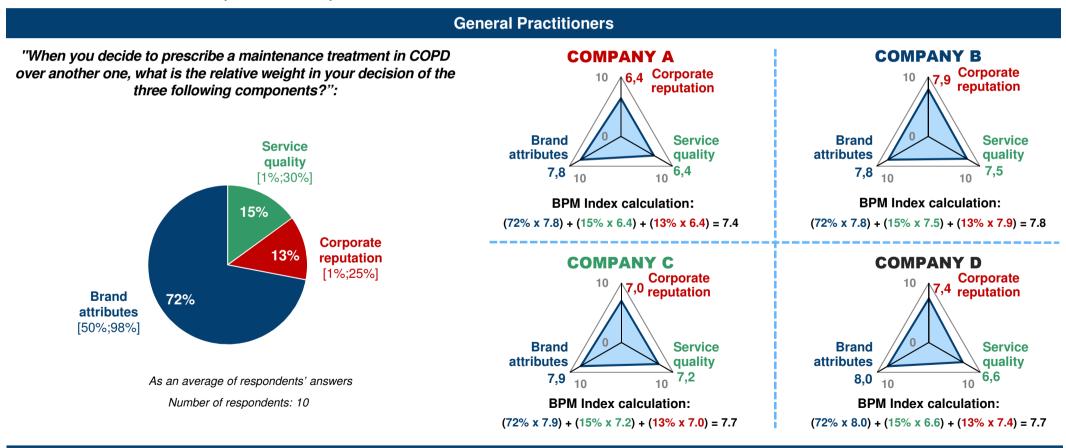
Smart Pharma Consulting assesses regularly the degree of physicians preference for competing brands with the help of the "Brand Preference Mix" concept¹

Clients

Example: Assessment of brand preference in the respiratory market

Physicians

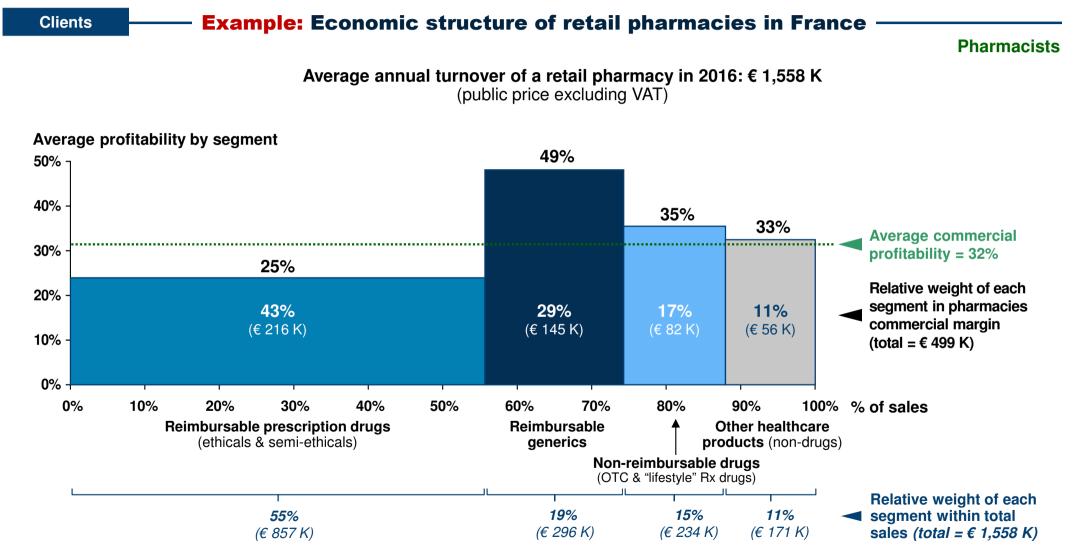
The Brand Preference Mix helps determine the key prescribing drivers that can be activated to enhance prescribers preference for a brand, and thus increase its market share



Source: Smart Pharma Consulting

¹ Developed by Smart Pharma Consulting (see position paper "How to get physicians prefer your brand?" on: www.smart-pharma.com)

The in-depth knowledge and understanding of the market, through regular studies, enables Smart Pharma Consulting to produce complex and insightful analyses



Source: Smart Pharma Consulting

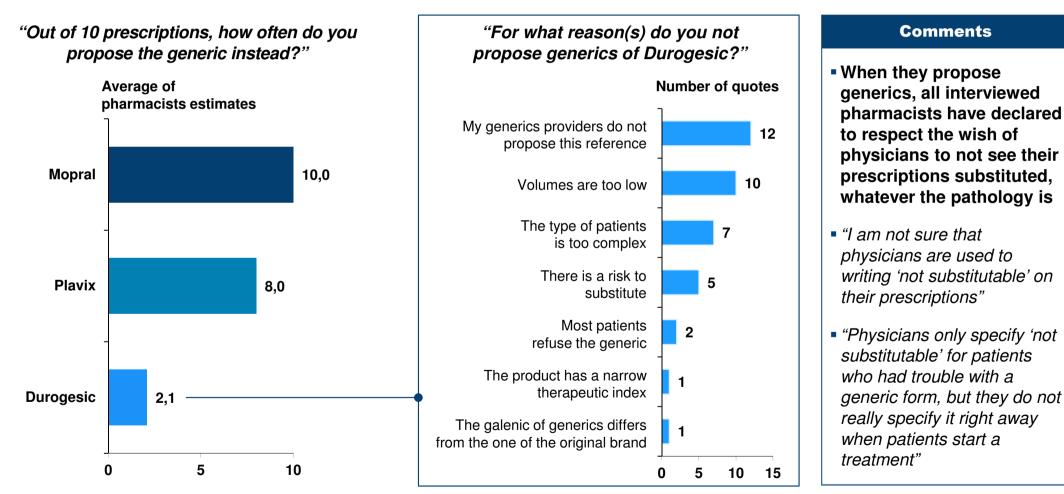
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Smart Pharma Consulting is used to conducting interviews with pharmacists to get a fine understanding of their behavior

Clients

Example: Generics substitution behavior of retail pharmacists

Pharmacists





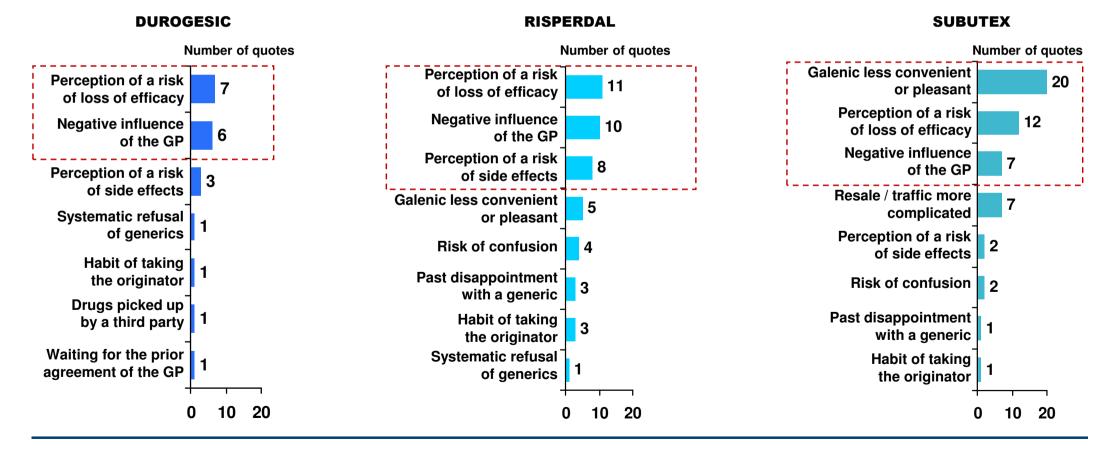
Smart Pharma Consulting is used to carrying out patient surveys to understand patients behaviors and motivations

Clients

Example: Generics substitution refusal by patients

Patients

"Why do you refuse generics substitution?"

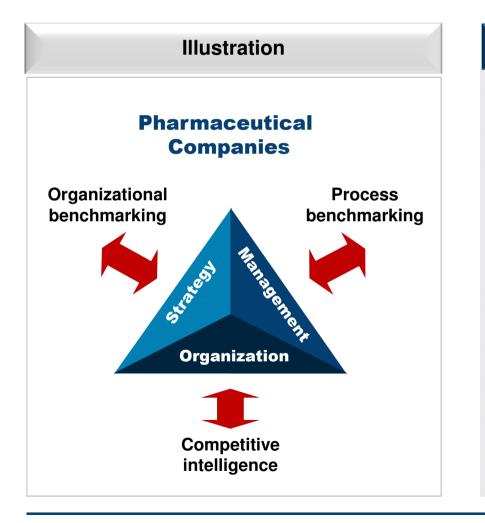




Smart Pharma Consulting carries out various types of benchmarking and competitive intelligence studies in the pharmaceutical sector, following a strict code of ethics

Competitors

Market studies on competitors -



Types of studies recently undertaken

- Organizational benchmarking
 - Surveys on organizational models
 - Surveys on different jobs in the pharmaceutical industry
 - Investigation of headcounts and the resources allocation

Process benchmarking

- Best practices identification
- Surveys on adoption of new sales and marketing tools (CRM, trigger marketing, digital media, etc.)

Competitive intelligence

- Identification of future entrants and impact assessment
- Investigation of product launches (dates and conditions)
- Promotional investments assessment
- Pricing policy at hospital

As shown in this example, Smart Pharma Consulting is able to realize organizational benchmarking such as detailed headcount surveys

Competitors – Example: Headcount survey in small to mid-sized pharma companies

Organizational benchmarking

	Pharma company A	Pharma company B	Pharma company C	Pharma company D	Pharma company E	Pharma company F	Pharma company G	
Sales	50 to 79 €M	20 to 49 €M	20 to 49 €M	50 to 79 €M	50 to 79 €M	80 to 120 €M	20 to 49 €M	Mean
General management	2	2	1.5	1.5	1.5	2	2	2
Marketing	6	7	3	5	6	10	5	6
Sales management	5	1	4	3	2	7	9	4
Medical	3	0	2.5	2.5	3.5	8	5	4
Finance	8	5	3	3	2.5	13	4	6
Regulatory affairs	2	12	2	0.5	8	12	4	6
Legal	0	0	0	0	0	2	2	1
Human Resources	2.5	2	1	3	1	6	4.5	3
Public affairs / Communication	0	0	0	0	0	0	0	0
Commercial excellence	0	0	0	0	0	8	0	1
Training department	0	0	0	1	0	0.5	0	0
Business Development	0	1	0	0	0	1	0	0
Market access	0	0	0	1	0	2	0	0
General services	1	1	0	0	0	3	0.5	1
Logistic / IT	0	0	2	0	0	7	0	1
R&D / Clinical studies	0	0	0	0	4	12	0	2
Total headquarters	29.5	31.0	19.0	20.5	28.5	93.5	36.0	37
Sales Reps – GPs	66	8	48	160	20	111	33	64
First line managers – GPs	6	1	0	16	3	13	4	6
Second line managers	0	0	4	2	0	2	0	1
Sales Reps – Specialists & hospital	11	10	0	10	0	6	0	5
First line managers – Specialists & hospital	0	0	0	1	0	1	0	0
KAM & others	0	0.5	0	0	0	0	3	1
Total field forces	83.0	19.5	52.0	189.0	23.0	133.0	40.0	77
Grand total	112.5	50.5	71.0	209.5	51.5	226.5	76.0	114
Number of therapeutic areas	8	5	5	7	1	9	4	6
Number of products	18	7	16	17	1	32	16	15

Smart Pharma Consulting interviewed service providers and pharma companies to survey the remote e-detailing adoption, identify best practices and assess the impact

Competitors

Example: Benchmarking of remote e-detailing practices

Process benchmarking

Context

- Specific needs to strengthen detailing:
 - Inform physicians about new indications and side effects of non-promoted products
 - Vacancies
 - Campaigns with temporary increase of targeted physicians
 - Geographic dispersion of physicians (Russia)
 - Limited access to physicians (Sweden, Turkey)

Objectives

- Increase the reach of the message by expanding the target
- Improve the efficacy of communication by increasing the call frequency
- Reduction of overall detailing costs

Implementation

- France: sales reps 100% dedicated to remote edetailing, quantitative approach (20 contacts/day)
- Italy: sales reps 100% dedicated to remote edetailing, qualitative approach (retention goal)
- Russia, Sweden: implementation of hybrid sales reps (face-to-face and remote e-detailing)



Results

\square	~	

Key learning

France: some physicians systematically refuse remote e-detailing

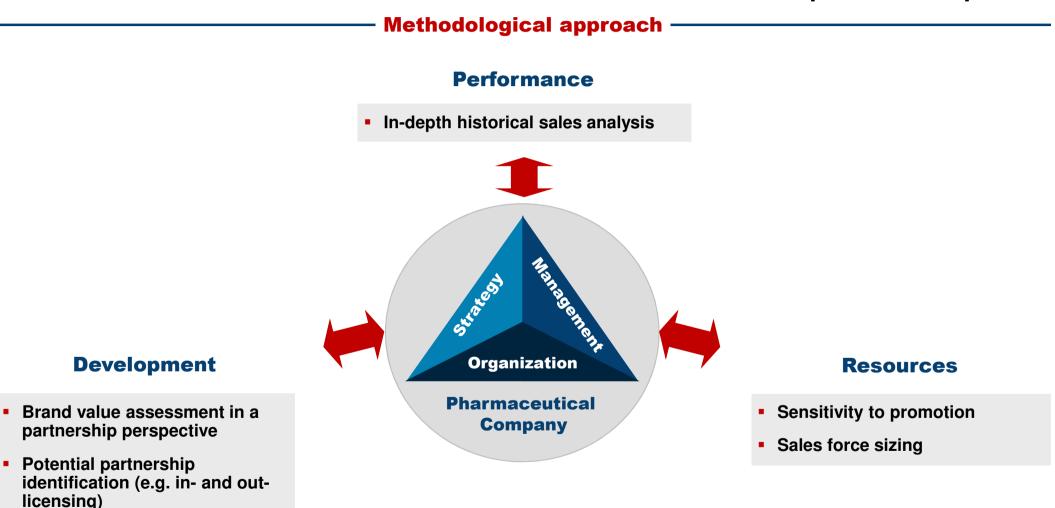
- Italy: 35%-40% of physicians regularly accept remote e-detailing
- Russia and Sweden: increase of call frequency
- Remote e-detailing does not suit all physicians, hence, before implementing it, to identify those who:
 - Can have online access
 - Are likely to accept remote e-detailing
- The quality of calls is key to build a long term relationship with physicians, thus it is important to:
 - Train the sales force properly
 - Propose interesting and useful contents, meeting customer expectations and needs
 - Fix appointment by telephone rather than by e-mail (risk of spamming)

Through desk research and interviews, Smart Pharma Consulting has been able to estimate the magnitude of generics price war overtime on the French hospital market

Competitors — Example: Hospital generics pricing **Competitive intelligence** Zometa case study in France Comments Zometa (zolendronic acid), marketed by Estimated price on hospital market Novartis, is a bisphosphonate used in: 225 € €210 - The prevention of bone complications in adult patients with advanced malignant 200 € disease with bone involvement The treatment of tumor-induced 175 € hypercalcemia in adult patients -48% 150 € • The first generic, marketed by Sandoz, -68% entered the market mid-May 2013, a week 125 € €110 before Mylan. Fresenius launched its 4 mg -95% -99% 100 € version in June, Hospira in May and Medac in August €70 75€ Competition on price is usually even 50 € more aggressive in hospital when there are more than one company marketing 25 € €10 a generic version €2 0€ According to a generics company: MAMJJASONDJFMAM S F J JA 0 N D "This behavior is illogical and is prejudicial -2014for all generics companies as this price 2013 does not support the market and does not Number of generics permit us to offer associated services" players



Smart Pharma Consulting rigorous and evidence-based analyses allow to transform information into actionable and added-value recommendations to pharma companies

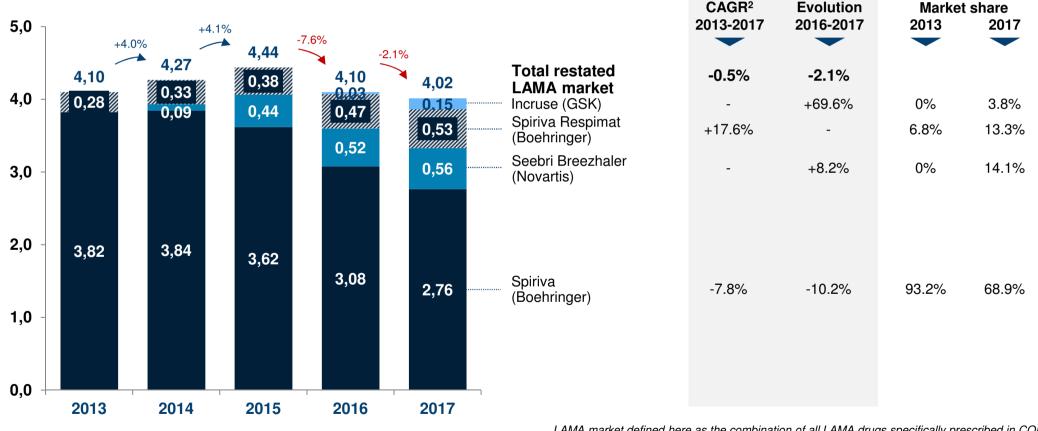


Smart Pharma Consulting regularly carries out in-depth brands analyses to get a comprehensive understanding of the dynamics of their performance

Performance

Example: Historical analysis of COPD products

Million packs (MAT¹ September)



LAMA market defined here as the combination of all LAMA drugs specifically prescribed in COPD

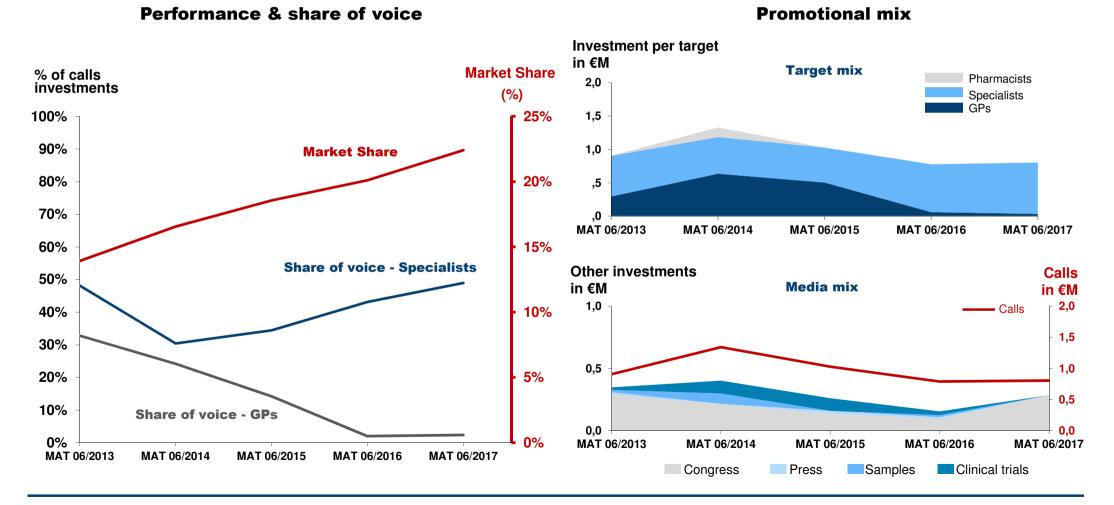
Source: Smart Pharma Consulting

¹ Moving Annual Total – ² Compound Annual Growth Rate

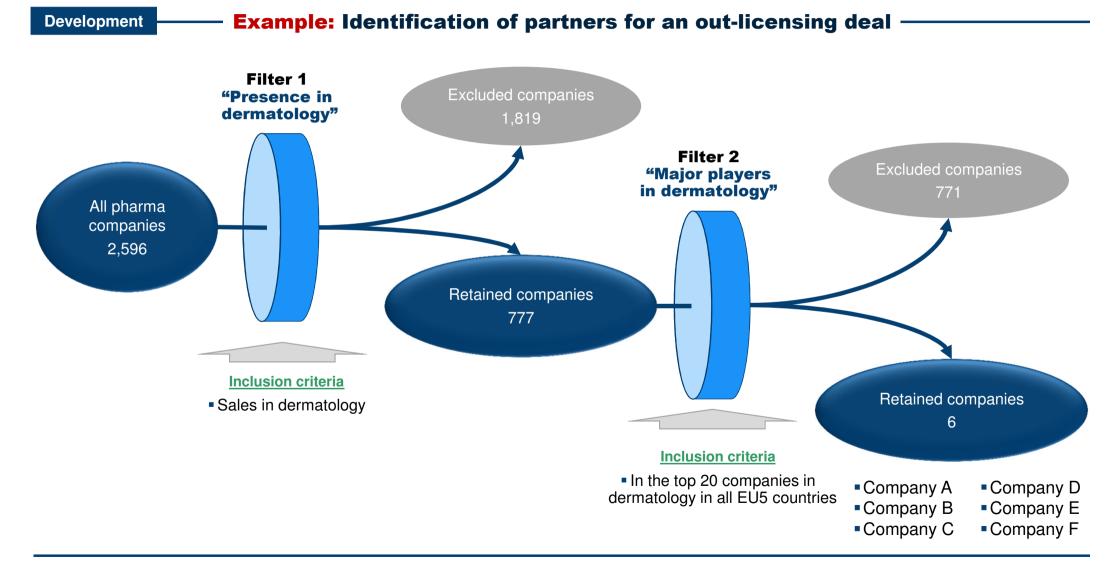
Smart Pharma Consulting can help pharma companies assess the sensitivity of their brands to promotional investments in quantitative and qualitative terms



Example: Sensitivity to promotional investments -



Based on rigorous market analyses and an effective methodology¹, Smart Pharma Consulting can help identify potential partners for in- or out-licensing deals

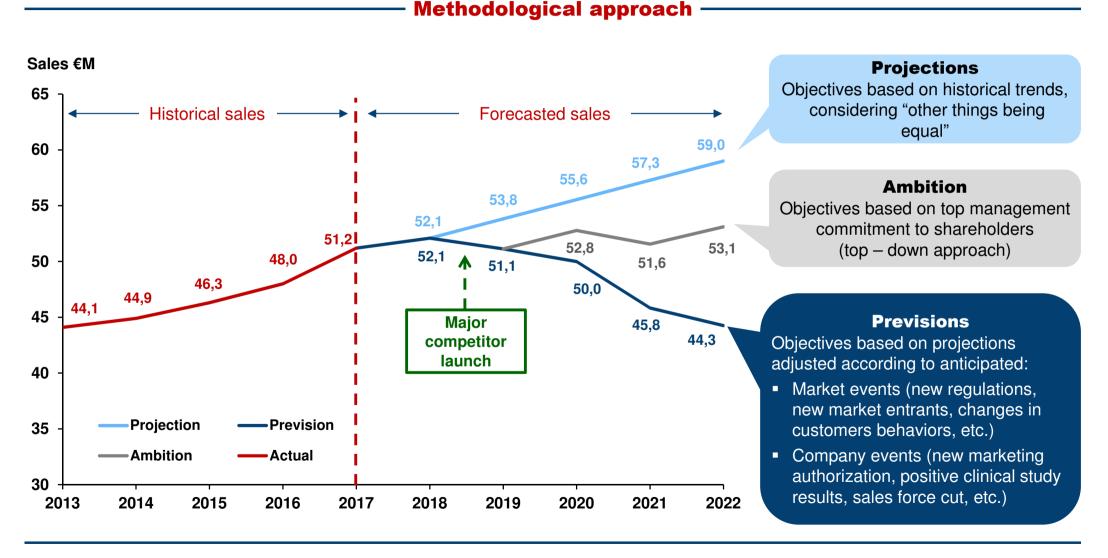


Source: Smart Pharma Consulting

¹ Developed by Smart Pharma Consulting (see position paper "Best-in-Class Pharma BD&L" on: www.smart-pharma.com)

Smart Pharma Consulting

Smart Pharma Consulting is regularly asked by pharma companies to build scenarios to estimate sales and profits objectives according to the prevision method



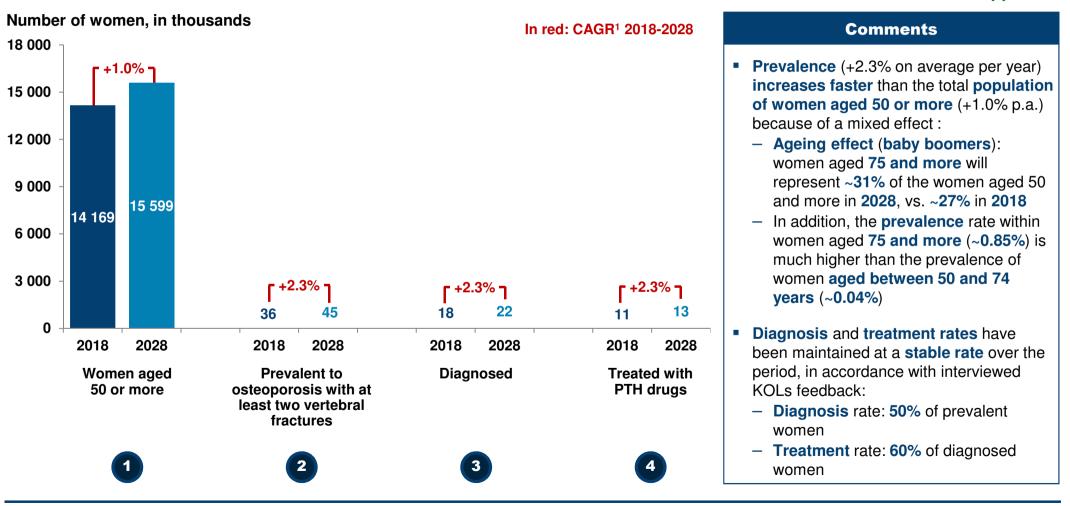
Source: Smart Pharma Consulting

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A patient approach based on epidemiological data, diagnosis and treatment rates can be applied to estimate the evolution of a market size and of a brand market share

Example: Sales forecasting in the osteoporosis market

Patient approach

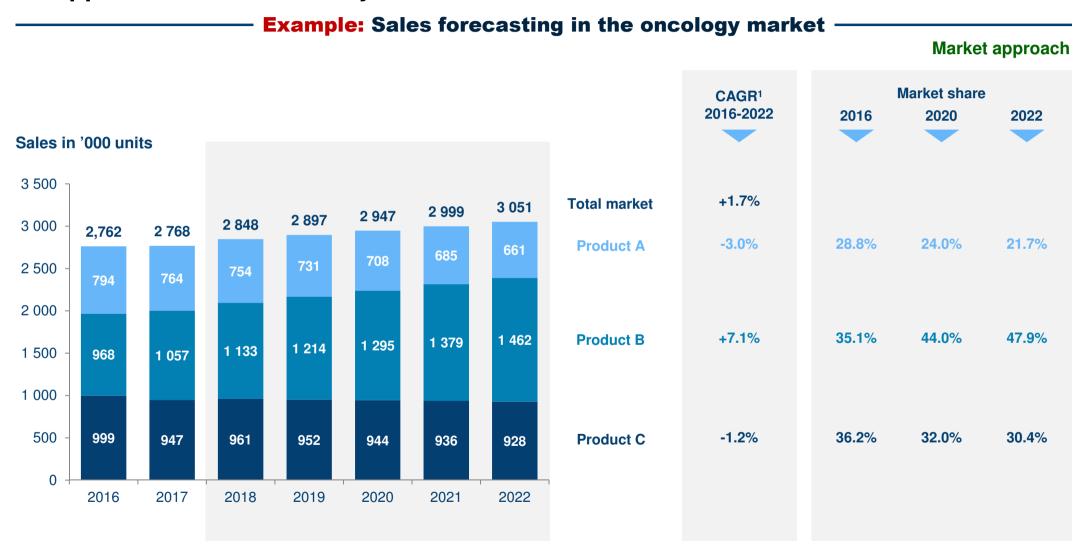


Source: Smart Pharma Consulting

¹ Compound annual growth rate



A market approach based on the adjustment of historical sales projections can also be applied to estimate the dynamics of a brand on its market

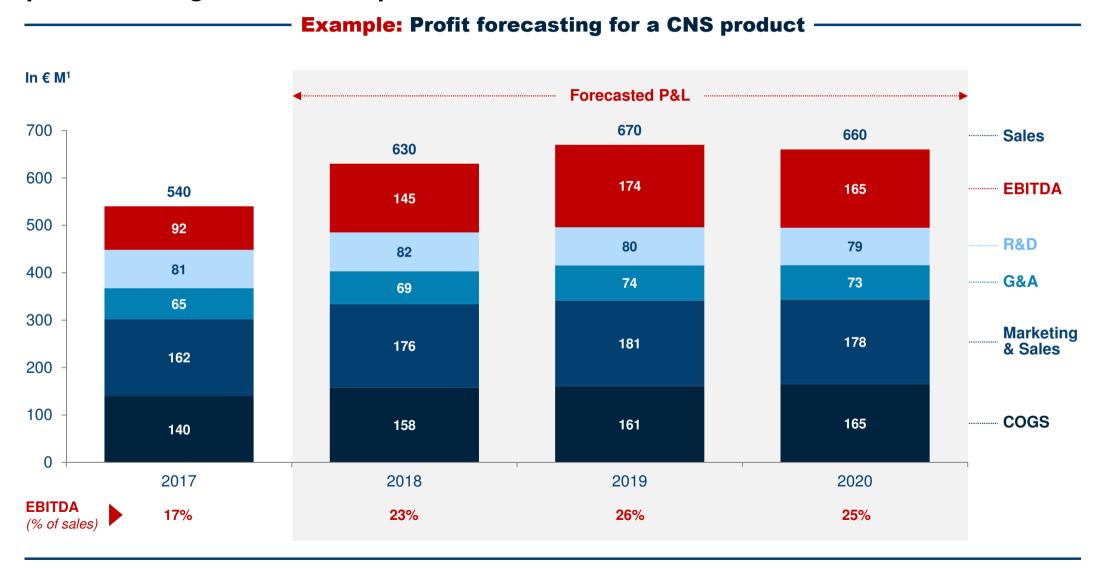


Source: Smart Pharma Consulting

¹ Compound annual growth rate

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Smart Pharma Consulting can develop for pharma companies models to forecast the potential margin of selected products



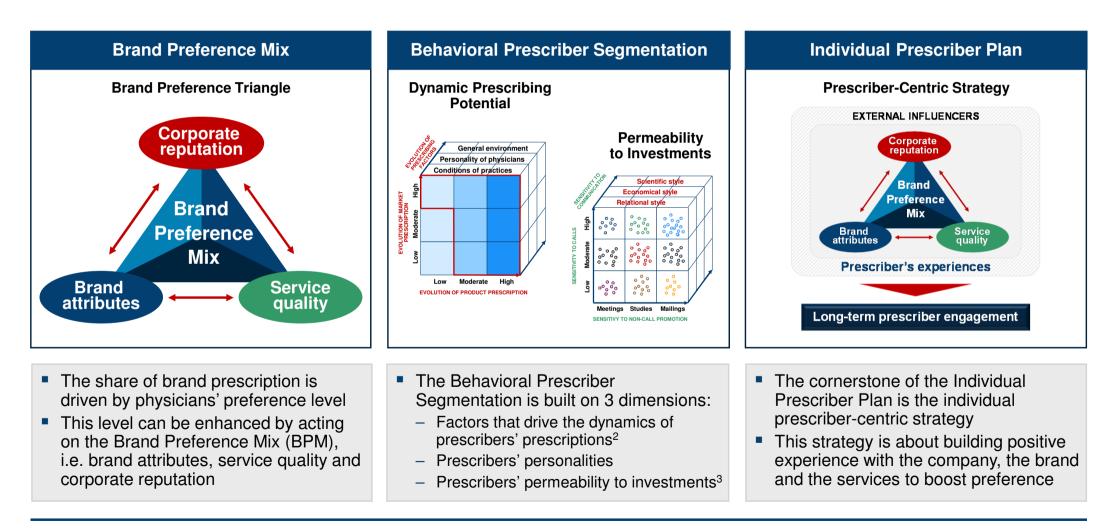
Source: Smart Pharma Consulting

¹ Constant ex-factory prices, excluding VAT

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The Brand Booster Program¹ is an innovative strategic model relying on three components that can be combined to efficiently optimize brand performance

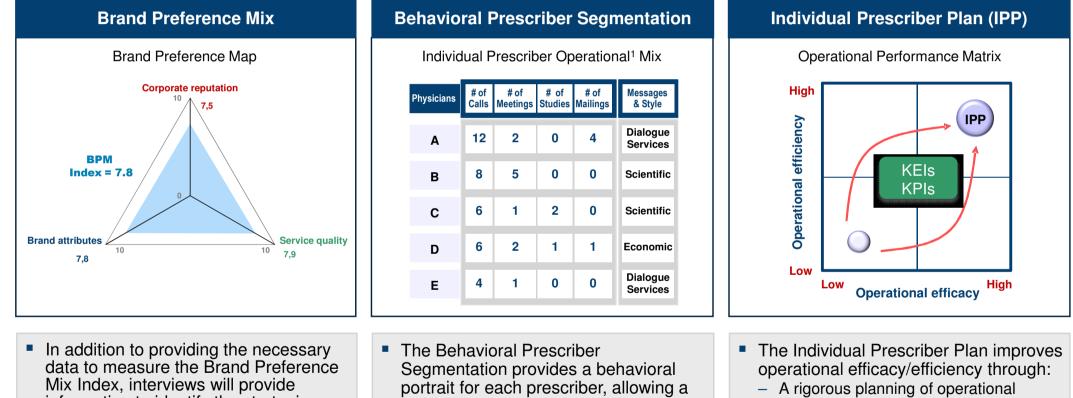
Brand Booster Program: Framework



Source: Smart Pharma Consulting

¹ Developed by Smart Pharma Consulting (see position paper "Best-in-Class Pharma Marketers" on: www.smart-pharma.com) – ² By market (competitors + brand) and by brand – ³ Medico-marketing-sales investments The Brand Booster Program¹ enables to determine the optimal level and nature (channel, message, tone) of operational² resources to be allocated per physician

Brand Booster Program: Benefits -



- information to identify the strategic levers and the key initiatives to implement to reinforce the three dimensions of the Brand Preference Mix
- more effective/efficient targeting and a customized allocation of operational² resources for each prescriber
- activities
- A systematic monitoring of the execution and impact of activities with specific indicators (KEIs³ – KPIs⁴)

Source: Smart Pharma Consulting

¹ Developed by Smart Pharma Consulting (see position paper "Best-in-Class Pharma Marketers" on: www.smart-pharma.com) – ² Medico-marketing-sales – ³ Key Execution Indicators – ⁴ Key Performance Indicators

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As the author of the Brand Booster Program¹, Smart Pharma Consulting is the best positioned to ensure its smooth and efficient implementation by pharma companies

Brand Booster Program: Implementation

Brand Preference Mix

- Design and implementation of national studies to measure the Brand Preference Mix Index
- Design and facilitation of the implementation of Brand Preference Mix Index measurement at hospital/department and at prescriber levels through sales forces

Behavioral Prescriber Segmentation

- Presentation and training of the medico-marketingsales departments to learn how to:
 - Collect prescriber insight to define an Individual Prescriber Portrait
 - Quantitatively and qualitatively adjust operational efforts for each targeted prescriber

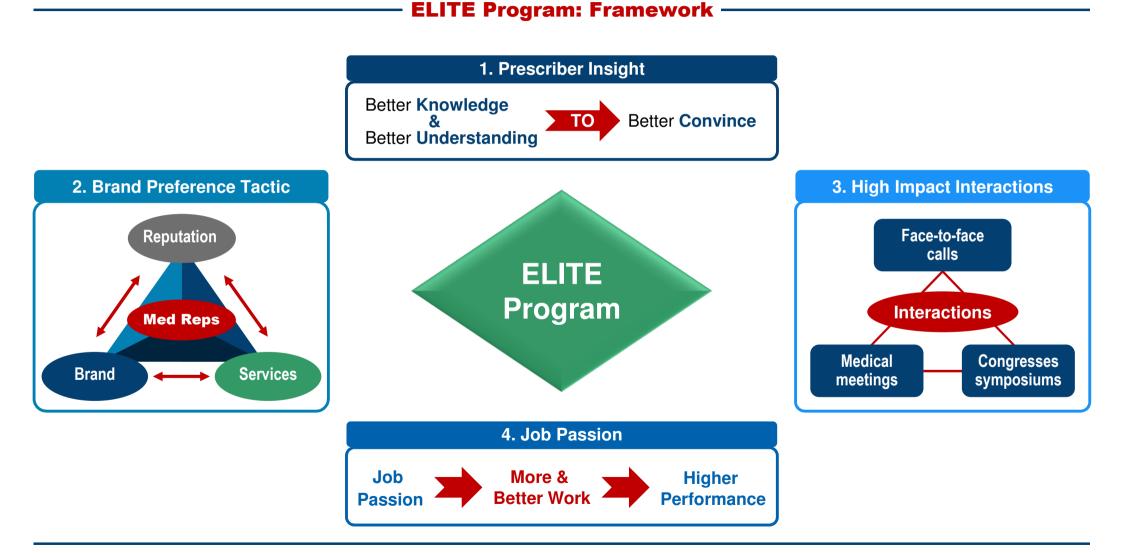
Individual Prescriber Plan

- Design of an Individual Prescriber Plan structure, including monitoring tools
- Training of marketers and other collaborators to correctly prepare Individual Prescriber Plans
- Challenge of teams involved in the preparation and development of Individual Prescriber Plans

¹ Developed by Smart Pharma Consulting (see position paper "Best-in-Class Pharma Marketers" on: www.smart-pharma.com)



The ELITE Program¹ is based on 4 pillars enabling med reps to interact more efficiently with prescribers and to optimize the prescription share of the brands they promote



Source: Smart Pharma Consulting

¹ Developed by Smart Pharma Consulting (see position paper "Best-in-Class Medical Reps" on: www.smart-pharma.com)

The ELITE Program¹ can help med reps create interactions that are better valued by their customers and thus contribute to strengthen the preference for their promoted brands



The ELITE Program assumes that prescribers opinion and corresponding prescribing behavior depend on:

- External influencers (key stakeholders)
- Internal influencers (Brand Preference Mix)

- Their willingness to interact with med reps
- Med reps ability to create highly valued interactions

¹ Developed by Smart Pharma Consulting (see position paper "Best-in-Class Medical Reps" on: www.smart-pharma.com) – ² Corresponds to the three levers (i.e. product attributes, corporate reputation and quality of services) that can be activated by med reps to influence the prescribers

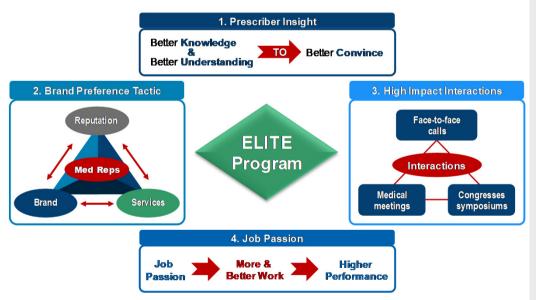
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Source: Smart Pharma Consulting

Smart Pharma consultants have facilitated the implementation of the ELITE Program¹ for several pharma companies since they developed its concept and related tools

ELITE Program: Implementation

- Smart Pharma Consulting has an in-depth expertise in improving sales force efficiency coming from:
 - General management experiences in France and abroad for pharma companies
 - Numerous sales force effectiveness consulting projects carried out since 2001
- The ELITE Program which has been developed by Smart Pharma Consulting proposes an holistic and practical approach to obtain a significant improvement of med reps efficiency and efficacy
- Smart Pharma Consulting can help pharma companies implement the ELITE Program as follows:
- 1. Craft a communication strategy demonstrating to med reps the benefits they will draw from the program
- 2. Design a framework that fits the company ambition and takes into account its current situation
- 3. Create specific and userfriendly tools to facilitate the execution of the four pillars of the ELITE Program by the med reps



- 4. Develop specific training modules² for med reps and their managers to help them master:
 - The concepts
 - The methods
 - The tools

related to each of the four pillars that constitute the ELITE Program

 Adjust the organization to best support the execution of the ELITE Program

Source: Smart Pharma Consulting

¹ Developed by Smart Pharma Consulting (see position paper "Best-in-Class Medical Reps" on: www.smart-pharma.com) – ² The Smart Pharma Institute of Management, which is the training department of Smart Pharma Consulting, is registered since 2002

The "Market Analysis & Forecasting" masterclass has been designed for participants looking for robust and simple tools, and wishing to strengthen their analytical skills

Masterclass¹: Market Analysis & Forecasting Excellence -

Day 1: Market Analysis

- 9:00 Introduction to the masterclass
- 9:10 Review and discussion of analytical concepts, methods and tools sent to participants as a pre-read
- 10:30 Lecture by and discussion with an expert: "Review of the most advanced market analyses – Lessons from non pharma markets"
- 11:45 Break
- 12:00 Case study #1: Market & brand dynamics evaluation:
 - Stakeholders behaviors analysis²
 - Key market drivers & barriers analysis
 - Sensitivity of brands to operational³ investments
 - From data analysis to decision making
- 13:00 Lunch
- 14:00 Case study #1: cont.
- 16:00 Break
- 16:15 Presentation of the case study outputs, discussion and agreement on key learnings
- 17:45 End of the 1st day

Day 2: Forecasting

- 8:30 Introduction to the 2nd day
- 8:40 Review and discussion of sales forecasting concepts, methods and tools sent to participants as a pre-read
- 10:00 Break
- 10:15 Case study #2 part 1: Baseline & scenario building:
 Historical trends evaluation
 - Determination of future events and of their impact
- 12:30 Lecture by and discussion with an expert: "What is the business value of sales forecasting?"
- 13:00 Lunch
- 14:00 Case study #2 part 2: Sales forecast modeling:
 - Patient-based forecasting
 - Lifecycle based forecasting (new, growing, mature)
- 15:30 Break
- 15:45 Presentation of the case study (parts 1 & 2) outputs, discussion and agreement on key learnings
- 16:45 Co-development with participants of key learnings
- 17:45 End of the masterclass

Source: Smart Pharma Consulting

¹ Inter-company or intra-company programs proposed both in English and in French⁻² Health authorities, payers, physicians, pharmacists, patients, patient advocacy groups, competitors, etc. ⁻³ Medico-marketing and sales





Smart Pharma Consulting applies systematically the 4 Ws approach which enables to make evidence-based decisions and therefore to improve their relevance

- The 4 Ws approach —

WHAT?	WHY?	SO WHAT?	WHAT TO DO?
 Identify key market facts and events: Sales data (competitors and own sales) Opinion, decisions and / or behavioral changes of key stakeholders (e.g. health authorities, competitors and customers¹ and the company itself) 	 Understand the factors that have triggered or that are likely to trigger market facts and events: What are the root causes of sales data and trends? What are the root causes of health authorities, competitors and customers¹ opinion, decisions and / or behavior? Etc. 	 Analyze the implications for the stakeholders (e.g. health authorities, competitors, customers¹ and the company itself) related to the key market facts and events that have been identified or anticipated Define if these facts and events represent opportunities or threats for the company (and its brands) 	 Based on the three previous steps (WHAT – WHY – SO WHAT) define the relevant strategic and tactical decisions to be made to optimize the performance of the company and its brands Then, redefine the organization of the company to best support the new strategy and the corresponding tactics

Source: Smart Pharma Consulting



Smart Pharma Consulting publishes regularly well-documented reports, including thoughtful analyses to help pharma companies make more robust decisions

Selected publications related to Pharma Field Force Organization



Source: Smart Pharma Consulting

The Pharma Field Force Organization relates to the way the in-field collaborators who meet customers should work and be organized to be effective and efficient

Introduction: Working definitions

Pharma Field Force

Are the people of a pharma company who work in the "field" to contribute – directly or indirectly – to generate sales

Pharma Field Force People

May Include: medical reps, pharma reps, MSLs¹, KAMs², KIM³, regional market access managers, area managers⁴





Field Force Reorganization

Consists in readjusting people activities, structure, processes and culture to boost the efficacy and efficiency of the company

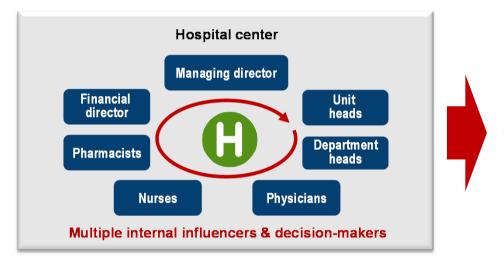
"A successful Field Force Organization is the one which supports effectively and efficiently the strategy"

Source: Smart Pharma Consulting, adapted after Strategor 2016

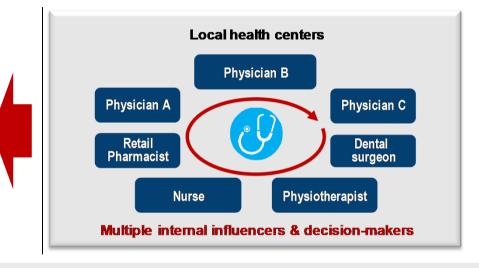
Field Force Teams access to customers has become more difficult due to lack of time and interest, and influencing them more complex due to multiple decision-makers

Introduction: Pharma Environment Mega-trends

Hospital market segment



- The access to HCPs and other customers by the Field Force Teams is more and more controlled, if not forbidden
- Within hospital centers, physician prescribing decisions are more and more made in concertation, following protocols, and through the influence and pressure of various stakeholders, incl. payers, regional health authorities, etc.
- Hospital centers are also regrouping themselves which increases their business importance and bargaining power



Open care market segment

- Access to HCPs on the open care market segment has become a major issue for Field Force Teams
- More and more office-based physicians work in group practice for better efficiency and practicality
- Their prescribing behavior is more and more under the influence of health authorities, payers or other HCPs
- The increasing concentration of retail pharmacies¹, has an impact on their interactions with Field Force Teams

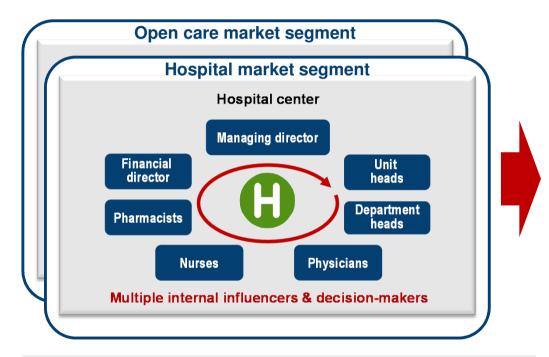
Source: Smart Pharma Consulting, adapted after Strategor 2016

¹ Regrouped in chains or VTOs (Voluntary Trade Organizations) adopting purchasing behaviors similar to those observed in the FMCG (Fast-Moving Consumer Goods) sector, with an increasing pressure to get better prices and services

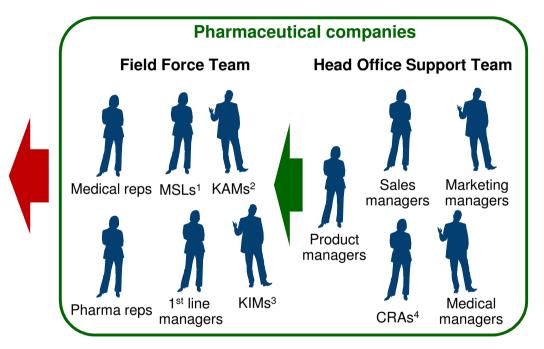
Smart Pharma Consulting

Pharma companies must rethink their Field Force Team organization to secure their access to customers and manage to get their products preferred

Introduction: Impact of Pharma Environment on Field Force Teams



- The grouping of hospital centers and office-based physicians have led pharma companies to deal with bigger accounts benefiting from a stronger bargaining power...
- ... in a context of economic pressure, making customers more price-sensitive than ever



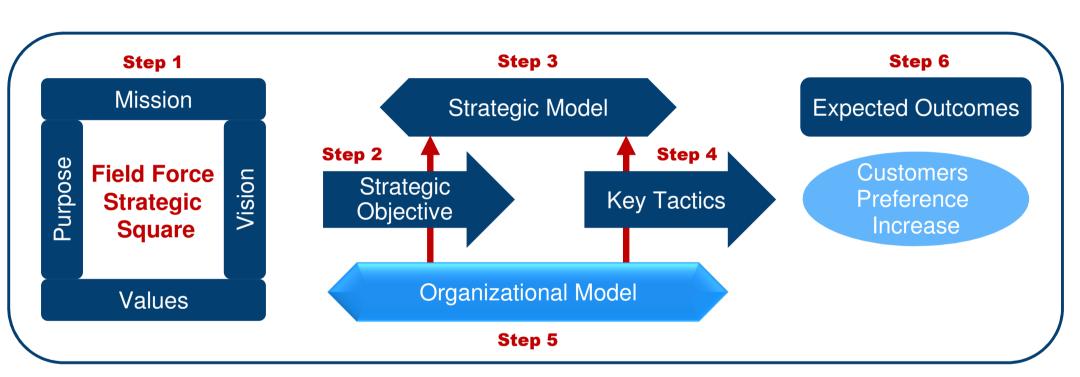
- Pharma companies have to address two key issues:
 - To protect, as much as possible, the price of their drugs
 - To move from a B-to-C to a B-to-B business model in which the prescribing decision is made by multiple stakeholders having different views and objectives

¹ Medical Science Liaisons – ² Key Account Managers – ³ Key Institution Managers who are in contact with regional health authorities and payers and who can propose hospital centers to participate, for instance, to a local public health initiative on a given pathology –⁴ Clinical Research Assistants

Source: Smart Pharma Consulting, adapted after Strategor 2016



The Smart Field Force Framework will help pharma companies design the best organizational model to support the right strategy and tactics

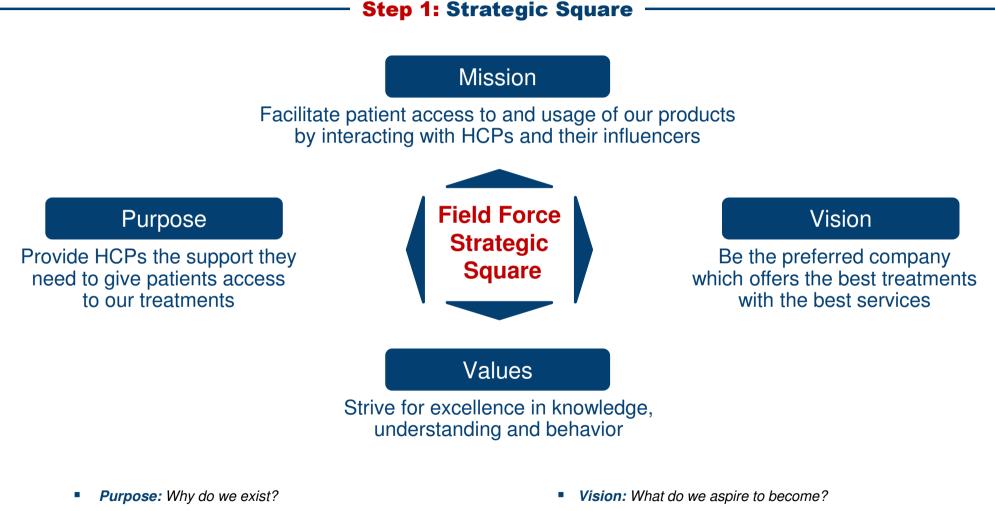


Methodology: Smart Field Force Framework

- The Smart Field Force Framework, developed by Smart Pharma Consulting, should enable pharma companies to align their "Strategic Square" to their strategic objective and then craft the best strategy and the corresponding tactics to meet this objective
- The organizational model will be designed accordingly to support effectively and efficiently the strategy and the tactics

Source: Smart Pharma Consulting

Once the purpose, mission, vision and values have been set and shared, the Field Force should contribute to create the highest value for customers



• *Mission:* What do we do and for whom?

Values: What do we believe in and how do we behave?

Source: Smart Pharma Consulting

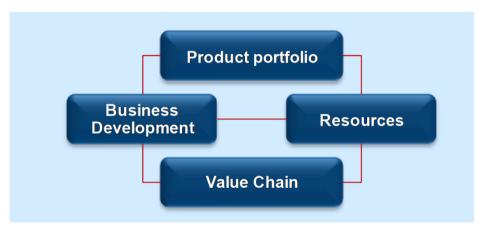
The optimal design of a Field Force organization should start with an in-depth analysis of the evolution of the competitive landscape and of the company assets

Step 2: Strategic Objective – Situation & Trends Analysis



Competitive Landscape Analysis

- The target Field Force organization will depend on the competitive landscape which can be analyzed with the 7Ps method¹ which, stakeholder by stakeholder, defines:
 - Behavioral trends (What?)
 - Driving forces (Why?)
 - Implications (so What?)
 - Strategic priorities (What to do?)



Company Assets Assessment

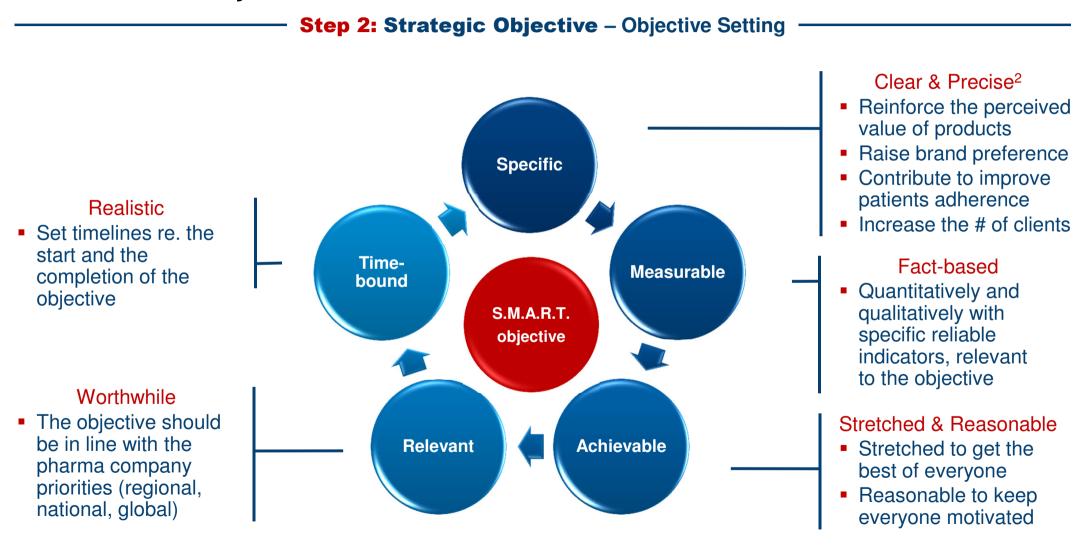
- To define a target organization, the company assets should also be assessed:
 - The current and future product portfolios
 - The tangible² and intangible³ resources
 - The components of the value chain, including the support functions
 - The business development initiatives going on

Source: Smart Pharma Consulting

¹ See Smart Pharma Consulting Report "The French Pharma Market 2016 – 2022 Prospects" – ² Physical and financial – ³ Reputation, technology, people, culture – ⁴ Regulatory, legal, HR, finance, IT



The strategic objective should be set according to the S.M.A.R.T. rule, well-explained and understood by all members of the Field Force¹ to maximize their adherence to it



Source: Smart Pharma Consulting

¹ Irrespective of their function –² Illustrative examples

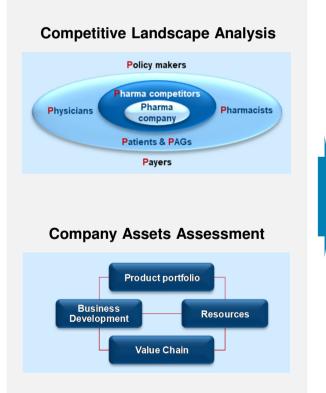


The strategy should be crafted according to the analyzed situation and trends, and the strategic objective set, prior to the design of the Field Force organization



1. Situation & Trends Analysis

2. Strategic Objective



3. Strategy Crafting



The Pharma Company strategy¹ related to Field Force activities will attempt to raise customer preference and create a long-lasting competitive advantage by:

- Seizing market opportunities
- Combating market threats
- Taking advantage of competitive strengths
- Addressing competitive weaknesses



Four dimensions should be considered:

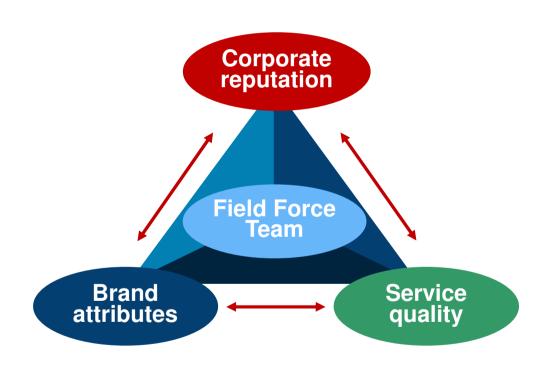
- Activities (and competencies)
- Structure (FTEs, organization chart)
- Processes (coordination, decisionmaking, information sharing, etc.)
- Culture (working conditions, etc.)

Source: Smart Pharma Consulting

¹ See Smart Pharma Consulting position paper "Best-in-Class Pharma Strategy" published in March 2018

The utmost strategic priority of the Field Force Team is to strive to strengthen the preference of their customers for the products marketed by their company

Step 3: Strategic Model – The Brand Preference Mix (BPM)¹



"The Brand Preference Mix concept is a powerful means to enhance customer preference to marketed brands"

- Preference is the most relevant concept far better than satisfaction – to boost market share growth, and thus the performance of pharma companies
- To raise customers' preference for their products, pharma companies can act on three components:
 - Corporate reputation
 - The perceived quality of proposed services
 - The perceived benefits of brand attributes
- These three components should be strongly linked between themselves by customers
- Field Force Teams play an important role to leverage these three components

Source: "Building prescriber loyalty", J.-M. Peny et al., SCRIP Magazine, September 1993 – Smart Pharma Consulting ¹ See Smart Pharma Consulting position paper "Best-in-Class Medical Reps" published in April 2017 and "Best-in-Class Pharma Marketers" published in March 2017 To boost the preference of physicians for their marketed brands, Pharma Marketers can leverage the three components of their Brand Preference Mix (BPM)

Step 3: Strategic Model – Activation of BPM levers



- Field Force Team must ensure a high level of knowledge and understanding of:
 - → The healthcare environment
 - → The customers they interact with
 - \rightarrow The products they market and the corresponding pathologies and ...
- ... create highly valued interactions, meeting basic and extra customers expectations¹

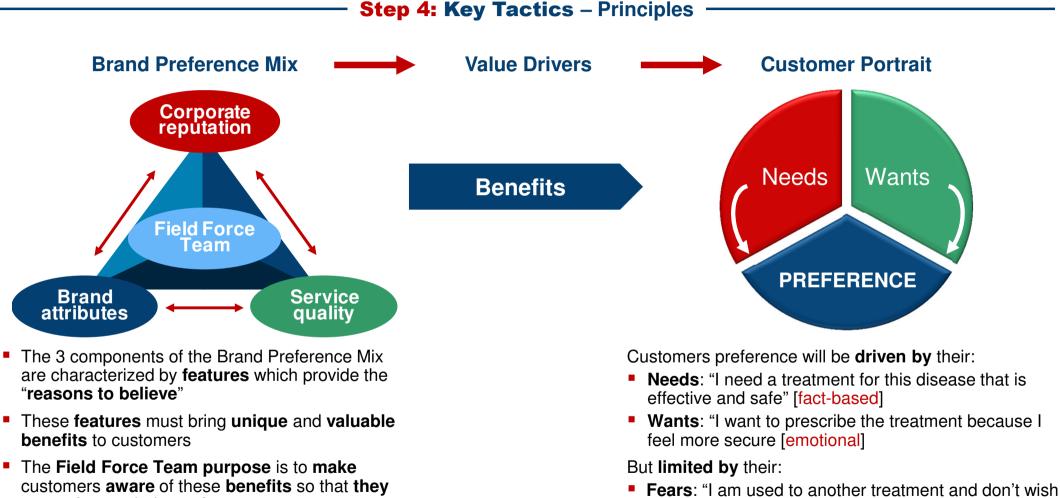
¹ See Smart Pharma Consulting position paper "Best-in-Class Medical Reps" published in April 2017

Source: "Building prescriber loyalty", J.-M. Peny et al., SCRIP Magazine, September 1993 – Smart Pharma Consulting

to change my habits" [fact-based & emotional]



Field Force Teams must put into perspective the value drivers related to the three components of the Brand Preference Mix to gain/strengthen customers preference



properly use their products

December 2018

Source: Smart Pharma Consulting, adapted from the book "Pharma Marketing Tool Box" 2015



Features of each component of the Brand Preference Mix should be expressed as benefits to customers in order to strengthen their preference to the brand

Step 4: Key Tactics – Customers Preference Path (1/3) –

Brand Preference Mix (BPM)	Features of the BPM component	Benefits to customers	
Corporate reputation	 What to say and what to do to build an appealing image (e.g. values, initiatives, achievements, strategic priorities, etc.) and establish the company as a reliable player? How should these initiatives be carried out? 	The benefits the	
Brand attributes	 How to make the brand perceived positively different from competition? How to highlight these attributes in an effective and efficient way? To whom these differentiating points should be communicated? 	customers are likely to draw ¹ should be identified for each feature of	
Service quality	 What services should be developed to create a strong positive difference vs. competition? How to make sure these services are highly valued by customers? [Are they useful / interesting / convenient / well executed?] How should these services be implemented in an optimal manner? [How to ensure the in-field people collaborate effectively and efficiently to deliver highly valued services?] 	each component of the Brand Preference Mix,	

Source: Smart Pharma Consulting, adapted from the book "Pharma Marketing Tool Box" 2015

¹ Benefits could be: functional, financial, emotional and/or self-expressive



Field Force Teams must contribute to enhance customers preference to their brands by positively differentiating the components of the BPM they value the most

Step 4: Key Tactics – Customers Preference Path (2/3)

Brand Preference Mix (BPM)	Features of the BPM components	Benefits to customers	Desirability level ¹	Exclusivity level ¹
Corporate reputation (CR)			LowModerateHigh	NonePartialTotal
			LowModerateHigh	NonePartialTotal
Brand attributes (BA)			LowModerateHigh	NonePartialTotal
			LowModerateHigh	NonePartialTotal
Service quality (SQ)			LowModerateHigh	NonePartialTotal
			LowModerateHigh	NonePartialTotal

Source: Smart Pharma Consulting, adapted from the book "Pharma Marketing Tool Box" 2015

¹ Should be selected only the benefits that are at least moderately desirable and partially exclusive



The exclusive and desirable benefits associated to the components of the BPM should be expressed by customer type or, even better, by individual customer

Step 4: Key Tactics – Customers Preference Path (3/3)

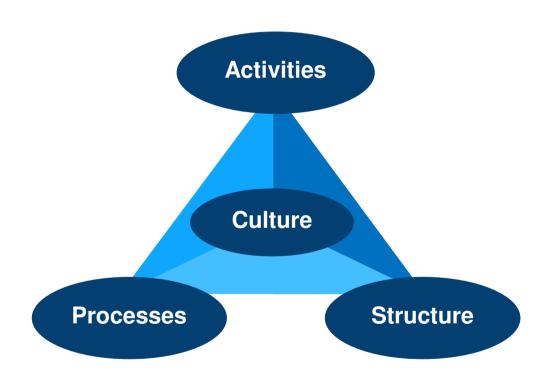
Customer type ¹	BPM ²	Value proposition (exclusive & desirable benefits)
	Corporate Reputation	
	Brand Attributes	
	Service Quality	
	Corporate Reputation	
	Brand Attributes	
	Service Quality	
	Corporate Reputation	
	Brand Attributes	
	Service Quality	

Source: Smart Pharma Consulting, adapted from the book "Pharma Marketing Tool Box" 2015 ¹ Physicians, Pharmacists, Patients, Payers, Policy makers, Patient advocacy groups, etc. ² Indicate on which component of the BPM (corporate reputation, brand attributes, service quality) the value proposition is built



The Field Force organization model should be designed so as to support the execution of the crafted strategy and tactics in the most effective and efficient way

Step 5: Organizational Model – The Organizational Triangle



- The organization model should be designed to best support the implementation of the strategy and the corresponding tactics
- The organizational model developed by Smart Pharma Consulting is built on four dimensions:
 - Activities of collaborators
 - Structure and headcount
 - Key processes
 - Cultural traits
- These four dimensions should be consistent and regularly adjusted, qualitatively and quantitatively, to ensure an optimal support of the strategy

Source: Smart Pharma Consulting

The organization must be designed to enable quick and easy adjustments to environment changes, and to get collaborators aligned to boost customer preference

Step 5: Organizational Model – Activation of the four levers

Lever #1: What should be the Field Force Team key **activities** (and the required competencies)?

Activities

Culture

Structure

Lever #4: What culture do we want to create within the Field Force Team (e.g. pragmatism, proactivity, empowerment, tangible results, crossfunctional working method, etc.)

Lever #3: What are the key business

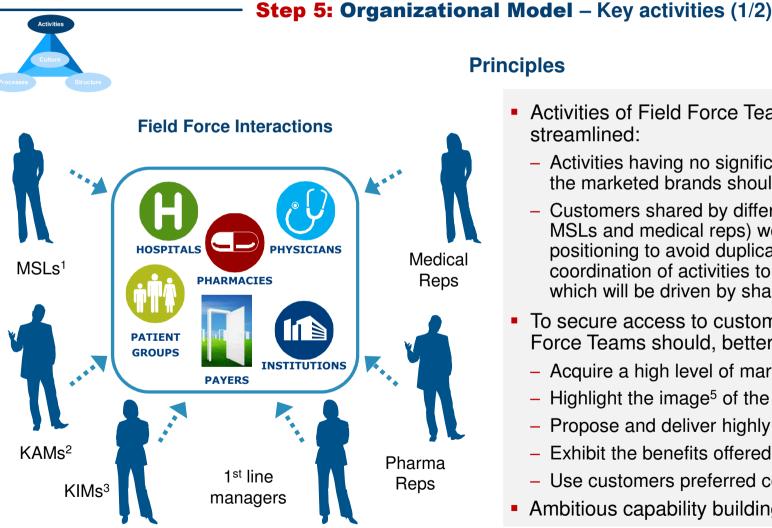
processes (interactions, decision making, execution and performance monitoring) and are they efficient? Lever #2: What structure

(organigram & FTEs)¹ will best support Field Force Teams to achieve their tasks efficiently?

Source: Smart Pharma Consulting

¹ Including chain of command and span of control dimensions

Field Force Teams activities should be regularly adjusted to secure a regular access to customers and to boost their preference to the brands marketed by the company



Principles

- Activities of Field Force Teams should be systematically streamlined:
 - Activities having no significant impact to raise the value of the marketed brands should be stopped
 - Customers shared by different Field Force functions (e.g. MSLs and medical reps) would require a clear copositioning to avoid duplication and a thoughtful coordination of activities to leverage potential synergies which will be driven by sharing competencies, and/or costs
- To secure access to customers and influence them, Field Force Teams should, better than competitors:
 - Acquire a high level of market insights⁴
 - Highlight the image⁵ of the company they work for
 - Propose and deliver highly valued services
 - Exhibit the benefits offered by the marketed brands
 - Use customers preferred communication channels
- Ambitious capability building programs would be required

Source: Smart Pharma Consulting

¹ Medical Science Liaison –² Key Account Managers –³ Key Institution Managers –⁴ Meaning: have an excellent knowledge and a good understanding of the healthcare system, the key market stakeholders (health authorities, competitors, customers) -⁵ See Smart Pharma Consulting position paper "How to create a superior Pharma Corporate reputation" published in August 2016

The Best of Smart Pharma 2018

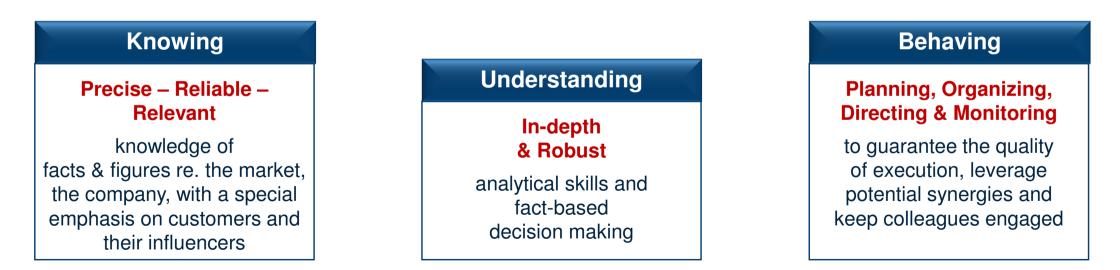
The development of Field Force Teams competencies can be structured and prioritized with the help of the Smart Index tool

Step 5: Organizational Model – Key activities (2/2)

The Smart Index

The Smart Index is a tool which structures the development of competencies around 3 components:

Smart index = Knowing x Understanding x Behaving

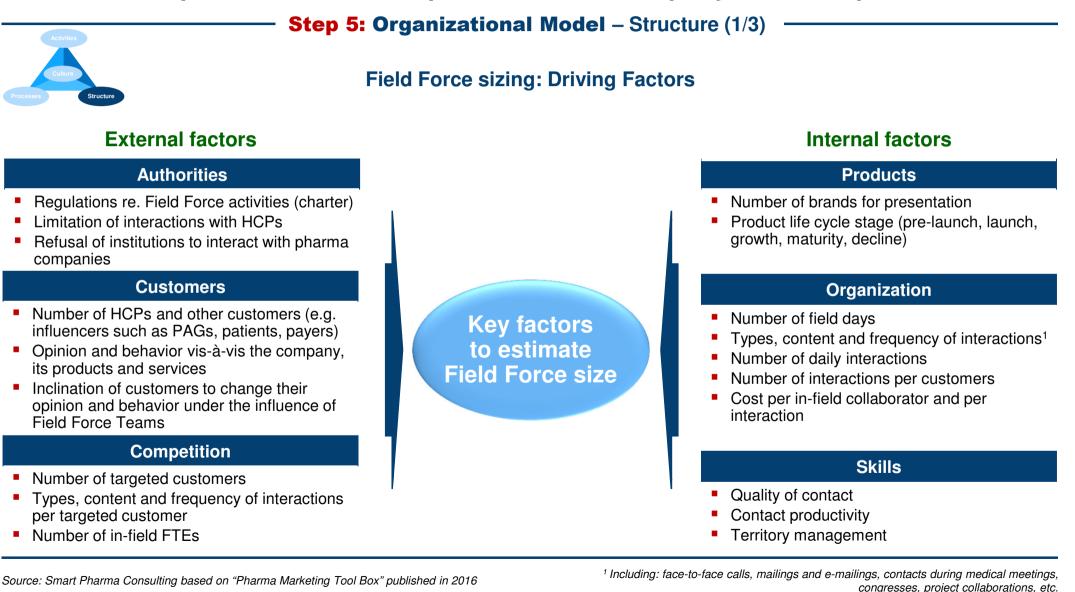


"Any fool can know. The point is to understand" - Albert Einstein

Source: Smart Pharma Consulting

¹ See Smart Pharma Consulting position paper "Be a Smart Manager, Not just a Good one" published in June 2017

There is no magic numbers, the Field Force size depends on external and internal factors, the impacts of which are specific to each company and each product

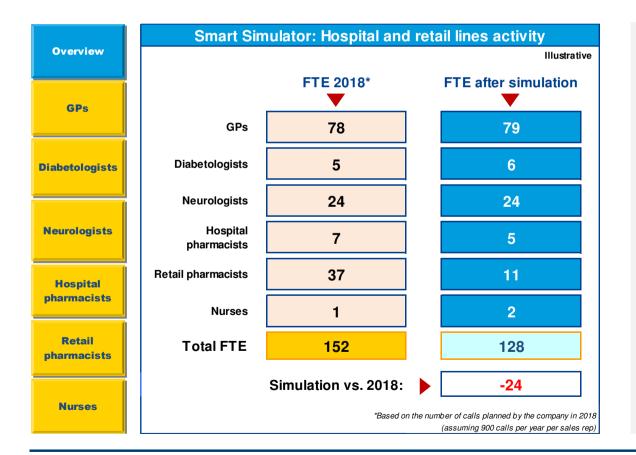


The Best of Smart Pharma 2018

The Smart Simulator helps to estimate the optimal Field Force resources and the best structure by adjusting coverage and frequency by customer and by product

Step 5: Organizational Model – Structure (2/3)

Field Force sizing: The Smart Simulator

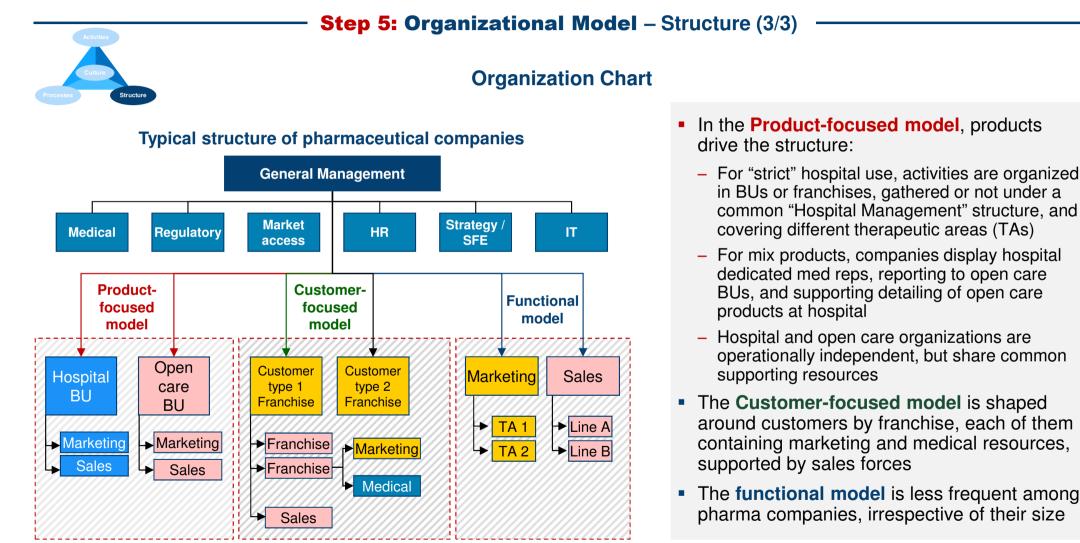


- The Smart Simulator is an enabling tool to help pharma companies evaluate the impact of external and internal factors, either qualitative or quantitative, which will influence the size of their Field Force
- Thus, the sizing, expressed as FTEs, will depend on:
 - The number of customers for whom interactions with the Field Force is likely to have a significant positive impact on the performance of marketed products
 - The types of interactions customers are open to
 - The optimal number of interactions to be carried out for each customer
 - The time related to the implementation of these interactions
 - The combined activities, and possible synergies amongst different in-field collaborators¹
- The Smart Simulator, as any simulator, gives a preliminary estimate which must be completed by a qualitative analysis, customer by customer

Source: Smart Pharma Consulting

¹ Medical reps, MSLs, KAMs, KIMs, Pharma reps, etc.

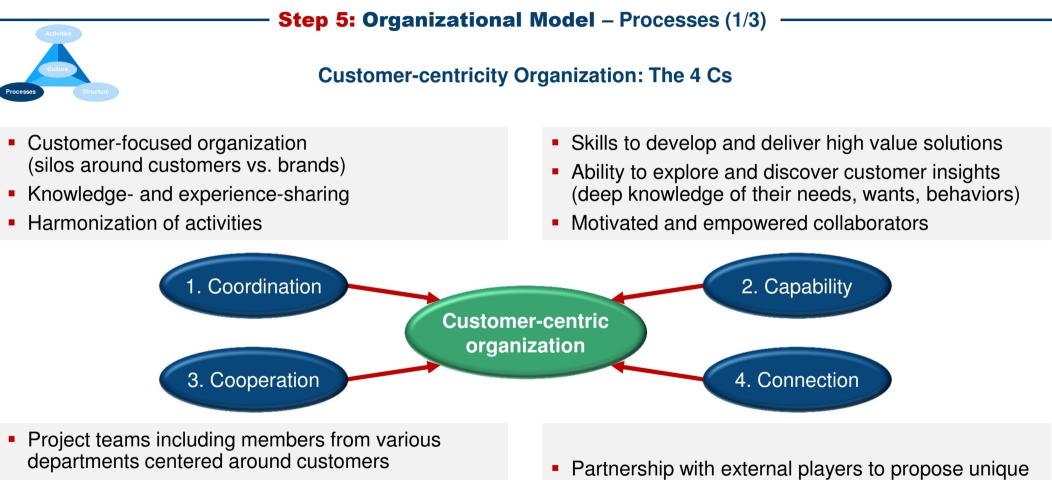
The preferred structure should be built around customers, remain lean and agile, favoring collaborations across departments and with the support functions



Source: Smart Pharma Consulting benchmark study



High market sensitivity, simple and short processes, cross-departments coordination and cooperation will contribute to better serve customers

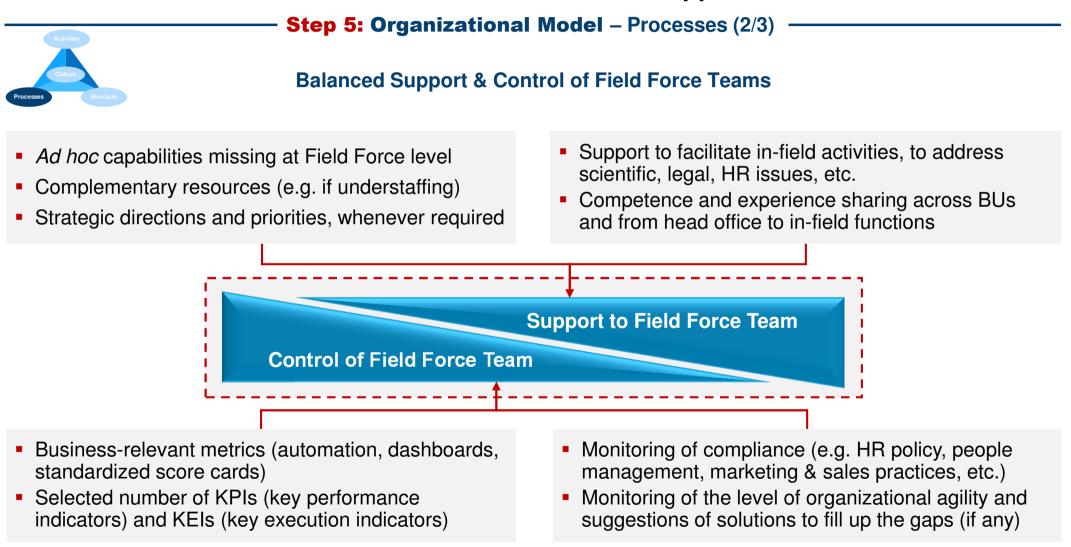


- Shared customer database
- Introduction of metrics to foster cultural change

 Partnership with external players to propose unique and highly valued offerings to customers

Sources: Adapted from R. Gulati (HBR 2007) - Smart Pharma Consulting analyses

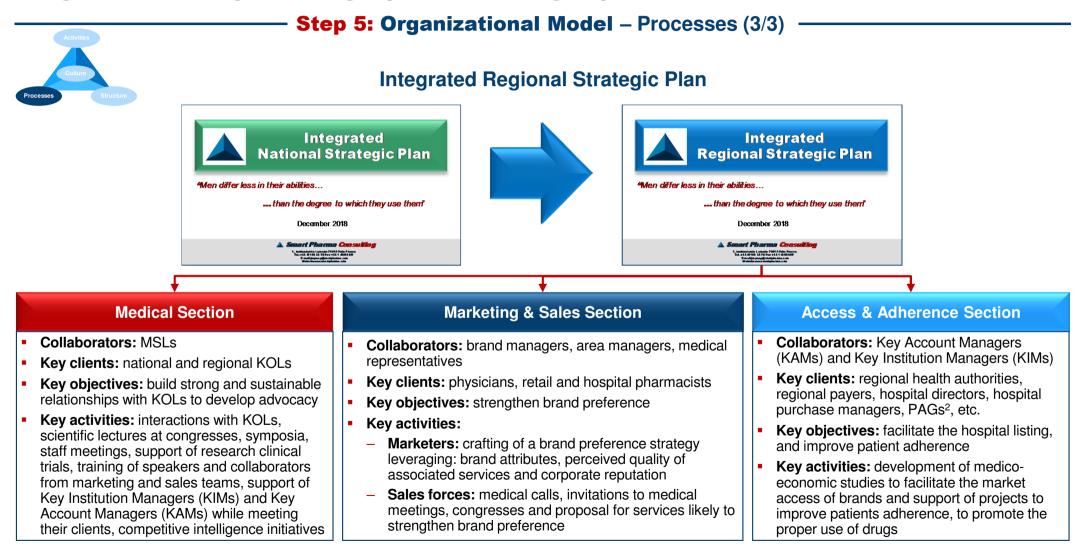
To create value for field forces, and therefore for the company, head office functions should maintain a business-driven balance between support and control



Sources: Smart Pharma Consulting analyses

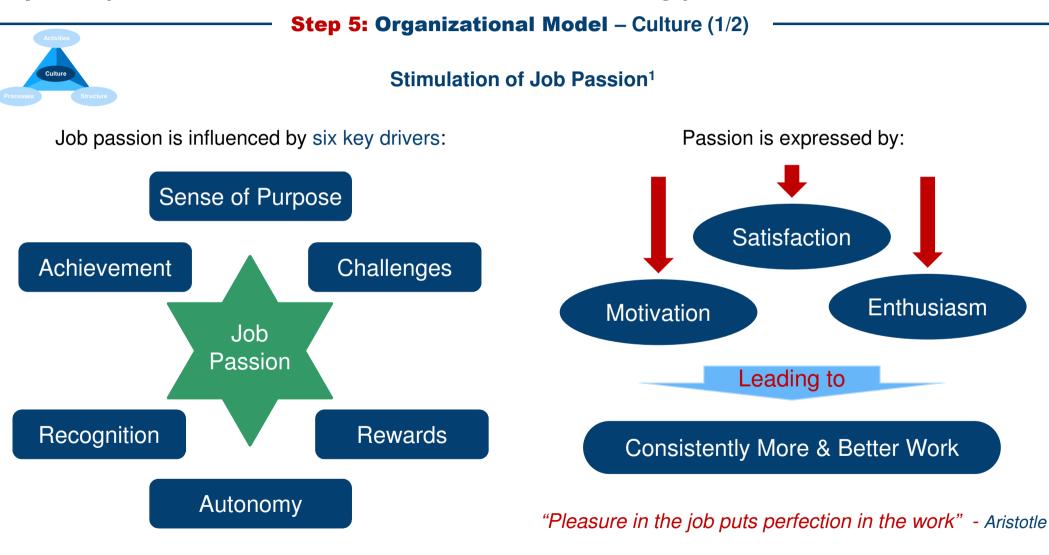


The activities of in-field collaborators interacting with the same customers should be integrated in a single strategic plan, including separated sections



Sources: Smart Pharma Consulting analyses

Stimulating Field Force members passion for their job is a key performance driver, especially in a context where customers are increasingly reluctant to meet them



Source: Smart Pharma Consulting

¹ See Smart Pharma Consulting position paper "Be a Smart Manager, Not just a Good one" published in June 2017

Managing by mutual benefits will give Field Force Teams a sense of purpose which will increase the probability to get their full and sustainable engagement



Management by Mutual Benefits¹



- Definition of objectives agreed by both management and employees
- Well-adapted to vertical management models
- However, by focusing on results, the way to achieve them (the planning) can be overlooked and lead to suboptimal efficiency
- Does not favor innovation nor flexibility

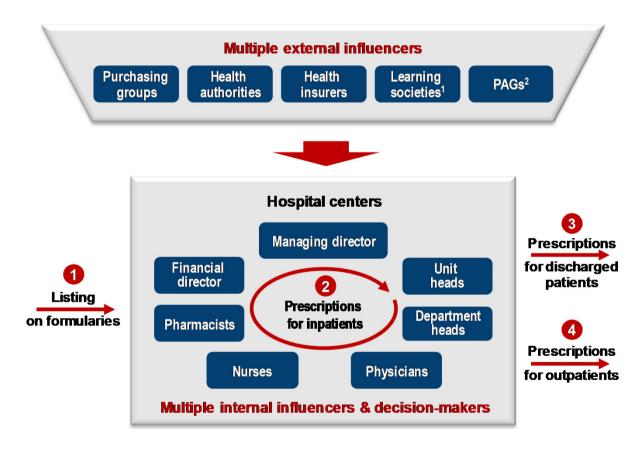
MBMB (Management By Mutual Benefits)

- Creates mutual benefits and value by fulfilling the respective expectations of employees and employers
- Maximize the probability to obtain the full engagement of employees
- Requires from managers to (better) satisfy collaborators …
- ... to create favorable conditions to secure a higher quality of execution that will lead to better results

Source: Smart Pharma Consulting

The Field Force strategy and organization must have a favorable impact on one or several of the key performance drivers of products prescribed at hospital level

Step 6: Expected Outcomes – Hospital Market Segment



- The expected results from the Field Force strategy, its related tactics and supporting organization will come from their – direct or indirect – positive impact on the following performance drivers:
 - 1. Listing on formularies³
 - 2. Prescription for inpatients⁴
 - 3. Prescription for discharged patients⁴
 - 4. Prescription for outpatients⁴
- Maintaining access to HCPs is a key challenge that must be addressed by ensuring high quality interaction, from customers perspective
- The actions to activate these drivers will depend on:
 - Each hospital specificities (e.g. strategic priorities, procurement process and policy, degree of complexity, power games)
 - Product portfolio competitive position
 - Value of services offered to date
 - Corporate reputation

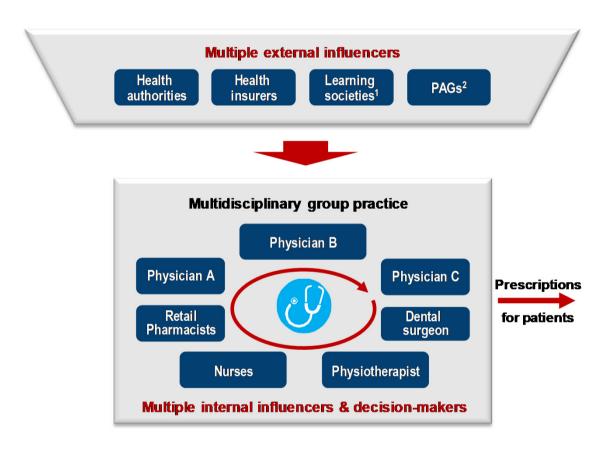
¹ Through the therapeutic guidelines they may publish $-^{2}$ Patient Advocacy Groups $-^{3}$ Under the direct responsibility of KAMs $-^{4}$ Under the direct responsibility of medical reps

Key performance drivers for pharma companies

Source: Smart Pharma Consulting

Field Force Teams operating on the open care market must secure access to customers and raise their brand preference by ensuring highly valued interactions

Step 6: Expected Outcomes – Open care Market Segment



- On the open care market, the expected outcome from the implementation of the customer strategy and of the supporting Field Force organization is to:
 - Secure a regular access to health care professionals (HCPs) which has become more and more difficult, especially in health centers
 - Raise the preference of HCPs in favor of the marketed products by leveraging the three components of the Brand Preference Mix³
 - Maintain a favorable opinion and behavior of stakeholders who are likely to influence HCPs and patients
- To address these challenges, the Field Force Team members will have to:
 - Ensure high value interactions
 - Coordinate their activities to leverage potential synergies
 - Be flexible enough to adjust themselves to the external and internal changes
- ¹ Through the therapeutic guidelines they may publish ² Patient Advocacy Groups ³ See Smart Pharma Consulting position paper "Best-in-Class Pharma Marketers" published in March 2017

Source: Smart Pharma Consulting



To measure the efficacy and efficiency of a Field Force Team, it is recommended to monitor the activities they carry out with KEIs¹ and their related impact with KPIs²

Step 6: Expected Outcomes – Measurement Tools

			indstrative
What is the objective?	2 What is the target?	3 KEls ¹	4 KPIs ²
 Create / reinforce awareness 	 Physicians (e.g. KOLs, specialists, GPs) 	 % of the target covered by the Field Force Team 	 Brand Preference Mix index (i.e. corporate
Generate interest	 Pharmacists (e.g. retail or hospital) 	 % of the target influenced by the Field Force Team 	reputation, product attributes, service quality)
Develop brand preferenceIncrease share of	 Patients 	 % of the target having a positive opinion of the 	 % of hospitals having listed the brand
prescription	 Nurses 	services offered ³	 Price negotiation
 Increase compliance 	 Influencers 	 Number of interactions (e.g. by customer, by in-field 	 Sales level and evolution
 Limit substitution rate 	(e.g. health authorities, "politics", patient advocacy	collaborator)	 Share of prescription
 Get the brand listed 	groups, public health insurance, private health	 Implementation time required vs. planned 	 Change in the number of treatment initiations
 Fine tune the profile of the customer 	insurance, professional associations)	Actual vs. budgeted cost	 Return on investment

"If it cannot be measured, it cannot be managed" – Peter Drucker

Source: Smart Pharma Consulting based on "Pharma Marketing Tool Box" published in 2016

¹ Key Execution Indicators – ² Key Performance Indicators – ³ Based on: usefulness, interest, convenience, quality of execution)

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Illustrativ

Pharma companies having no choice but to transform themselves to boost their performance, they can follow the 8-step process for leading change



Source: Adapted by Smart Pharma Consulting from John P. Kotter 1996 and 2016, Richard L. Daft 2016

The careful implementation of these eight steps is important because it provides pharma companies with a robust framework to facilitate the change process

The 8-Step Process for Leading Change – Implementation

1. Create a sense of urgency	2. Build a guiding coalition	3. Create a vision and craft a strategy
 From competitive environment and company performance, people must see (facts) and feel (emotions) the necessity to transform the company Most managers must be able to describe opportunities for collaborators 	 A "transformation team" with a strong leader must be set up This "guiding coalition" must be strongly convinced of the need to change… and form a powerful close-knit group in terms of reputation, influence, etc. 	 A clear vision people adhere to and a good understanding of the strategy to make it a reality will help envision the benefits of the change for individuals and the company Leaders play a key role at this stage
4. Enlist volunteer team	5. Enable actions by removing barriers	6. Generate quick-wins
 To make change happen, a large team of advocate and role models who "walk the talk" and drive in the same direction to achieve the vision, must be built 	 Structures and processes that obstruct the change effort should be removed Risk taking and innovative ideas should be encouraged 	 Quick wins are essential to boost the credibility of the change process and keep the momentum going
7. Sustain acceleration	8. Institute o	change
 Activities structures processes and cultures 	ral traits which	tivities structures processes and cultural

- do not fit with the new vision must be changed
- Change leaders should be hired, promoted, developed

 How new activities, structures, processes and cultural traits have helped improve performance should be shown and institutionalized to make the change stick

Source: Adapted by Smart Pharma Consulting from John P. Kotter 1996 and 2016, Richard L. Daft 2016

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Change management requires to pay a special attention to resisters and apply the appropriate techniques to address the root causes of their resistance

Management of Resistance to Change -

	Resistance to	Change Matrix	Techniques for Reducing Resistance to Change
o change <mark>High</mark>	Lack of confidence (Reinsure – Explain – Involve)	Acceptance (Involve – Empower)	 Education & communication In case of misinformation, but may not work if lack of trust and credibility Participation When resisters are able to contribute Facilitation & support When resisters are fearful and anxious
Low Ability to	Lack of experience & confidence (Reinsure – Explain – Train)	Lack of experience (Explain – Train – Coach)	 Negotiation When resistance comes from a powerful group, but can open doors for others to apply pressure too Manipulation & co-optation When a powerful group endorsement is needed, but can backfire and cause to lose credibility Coercion
	Low Willingness	to change High	 When a powerful group endorsement is needed, but may be illegal, backfire and cause to lose credibility

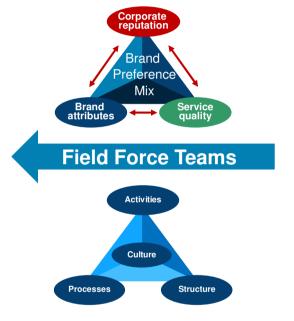
Source: Source: Smart Pharma Consulting – Stephen P. Robbins et al 2017

The Smart Field Force Framework helps pharma companies better align their strategy and their organization to optimize their performance

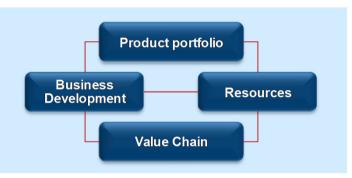
Smart Field Force Framework Recommendations



- Policy makers want to develop a more effective and efficient healthcare system
- Payers priority is to better control healthcare expenditure by cutting prices and limiting access to patients
- PAGs fight to get an earlier and broader access to innovative treatments and get better therapeutic outcomes
- HCPs need more time to treat patients and to remain well informed of innovations and new medical practices



Company Assets Assessment



- Strategy should be focused at enhancing customers preference to their brands with the help of the Brand Preference Mix
- Organization should be designed so that:
 - Activities are carried out by highly competent people working in multidisciplinary teams
 - Field Force Teams are structured around customers / customer groups
 - Processes are kept simple to guarantee agility, flexibility and leanness
 - Passion for their job is developed and cultivated amongst Field Force Teams



The following method to reorganize Field Force Teams is one example of the services proposed by Smart Pharma Consulting to help pharma companies

Example of Method to Reorganize of Field Force Teams



 Road map development to transition from current to target organization (incl. change management process)

> ¹ Including: hospital and retail pharmacists, hospital and office-based physicians (specialists or GPs), PAGs, regional health authorities / payers – ² Taking into account the four following dimensions: Activities – Processes – Structure – Culture

programs to facilitate the change

Teams of the pharma company

management within the Field Force

Source: Smart Pharma Consulting

performance

and performance

Pharma Company field force organization

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Introduction

This Survival Kit reviews key principles and tools to manage projects efficiently

- The purpose of this document is to review:
 - Clearly
 - Precisely
 - Concisely

the key principles and tools that enable to manage projects in an effective and efficient way

These principles and tools can be useful to manage both simple and complex projects for personal or professional purposes

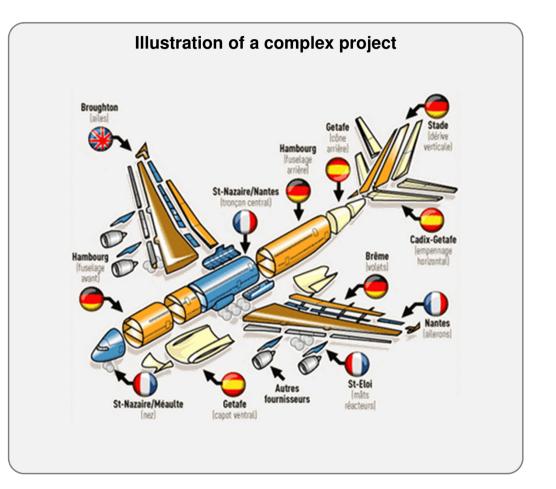
The most important steps of the project management will be illustrated



Project Definition (1/2)

A project combines activities, carried out within a set time frame, to achieve a defined result

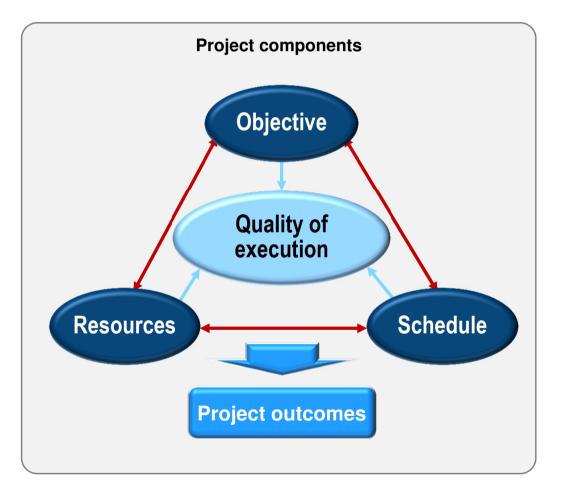
- The term "project" refers to a number of non repetitive and temporary activities that are carried out to produce:
 - A product
 - A service
 - A unique result
- A project can:
 - Last from a couple of hours to several years
 - Involve one or thousands of people
 - Cost from a few to billions of euros
 - Be of a professional or personal nature



Project Definition (2/2)

A project has 3 components: its objective, a schedule, and the required resources to complete it

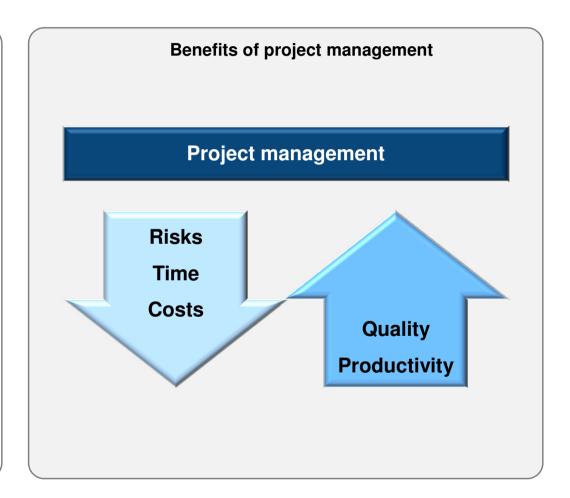
- A project can be defined by three components:
 - Its **objective**: purpose and desired outcome
 - The schedule: timetable and milestones, including its start and completion dates
 - The **resources** available to conduct the project: people, technical and financial resources
- The 3 components impact the quality of execution and the outcome of the project
- They are intertwined and influence each other:
 - A change in desired outcome will impact the cost and schedule
 - A shortening of the deadline could have an impact on costs and the quality of the outcome
 - A reduction in the budget can modify the quality of the outcome and the deadline



Project Management Benefits

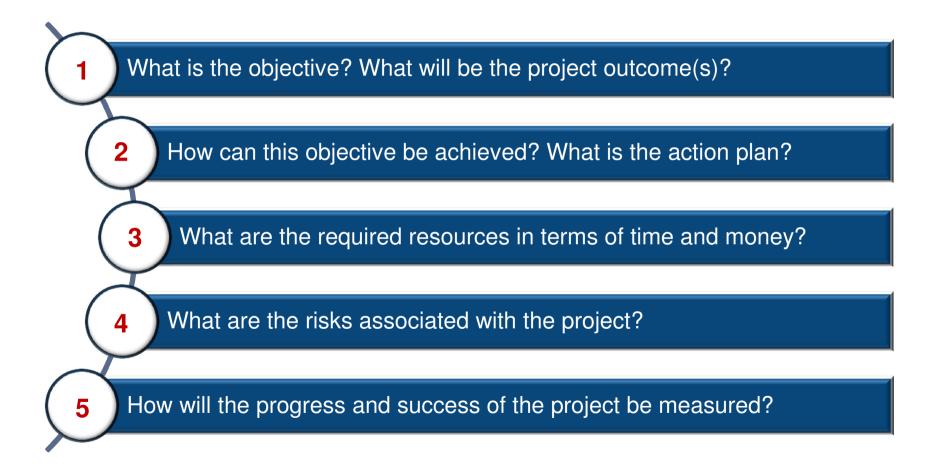
The proper management of projects improves their probability of success

- Using a project management methodology allows a project manager to:
 - Set adequate expectations for the project
 - Improve the quality of deliverables
 - Increase productivity / efficiency
 - Reduce scope creep
 - Avoid cost overruns
 - Meet the agreed deadlines
 - Prevent risks
 - Promote communication between the project team and the project stakeholders
 - Build on experience
 - Reduce the number of projects that fail



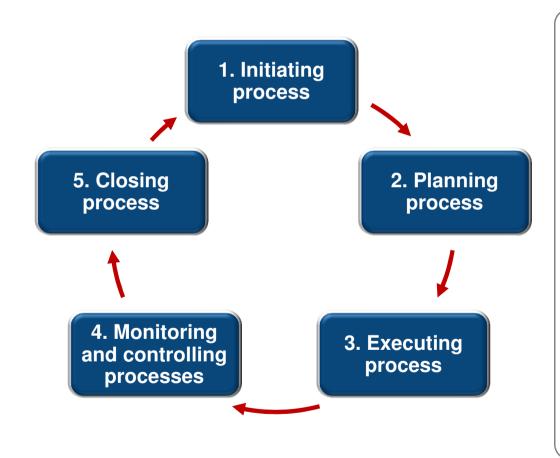
Key Principles of Project Management

These questions will help ensure the proper unfolding of a project and limit the risk of failure



Key Steps of a Project

Every project goes through five different steps



- The initiating process includes a cost-benefit analysis and evaluating the feasibility of the project from a technical and resource point of view
- 2. The planning process **ensures** a **smooth execution** and **increases** the **chance** of **success**
- The executing process is the part where works get done and where people skills and team-work are most important
- The implementation of the project needs to be monitored and controlled to ensure that everything is carried out according to the plan
- The closing process comes after the project has been completed and is meant to build on the project experience

Step 1: Initiating Process

The initiating process avoids pursuing projects that are bound to fail

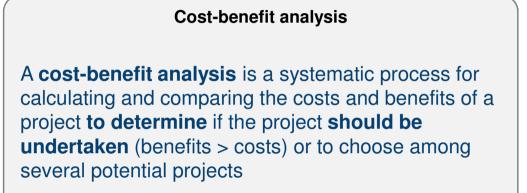


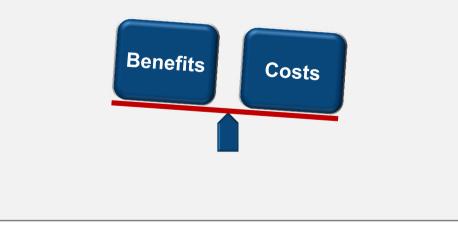
1. Should the project be done?

- Are the expected benefits worth the expected costs of the project?
- Can the issue be approached in a better way?
- Can the expected outcome be achieved in a better way?

2. Can the project be done?

- Is the project technically feasible?
- Are the required resources (people, money, time) available?







Step 2: Planning Process: Introduction

Project planning will reduce risks and mistakes

The project management plan should include:

- An overview of the reasons for the project and a detailed description of intended results
- A list of all constraints, assumptions and required works related to the project
- A breakdown of the roles and responsibilities of the project management and team members
- A detailed project schedule
- Resources needs (personnel, funds, equipment, facilities, information, etc.)
- A description of how significant risks and uncertainties will be managed
- Plans for project communications
- Plans for ensuring project quality

A scope statement precising the following points must be written:

- Rationale: how and why the project came to be, the business need addressed, the scope of work, how it will interfere with other activities
- Objectives: deliverables of the project
- Scope description: features and functions of the deliverables
- Acceptance criteria: process and criteria for accepting the completed deliverables
- Constraints: restrictions limiting what can be achieved, the manner and deadlines within which they can be achieved, and the cost of achieving it
- Assumptions: way in which uncertainty related to the project will be addressed



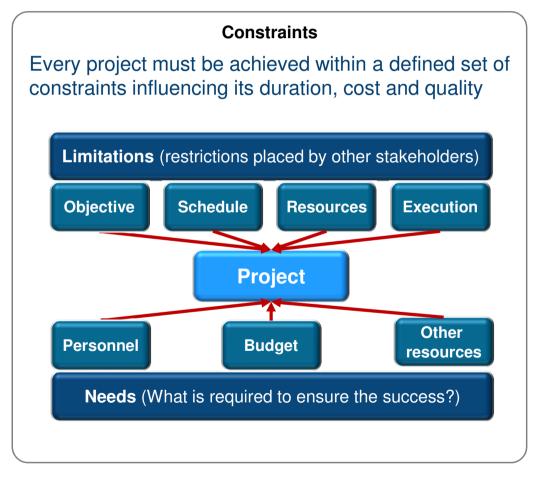
Step 2: Planning Process: Objectives & Constraints

Success will depend on the quality of objective set and the proper management of constraints

Objectives

The project objectives should be:

- Brief and simple to understand (no jargon)
- Accepted by the project stakeholders
- Controllable: the project team should be able to influence the success of each objective
- SMART:
 - Specific: clear and detailed target
 - Measurable: specified performance indicators¹
 - Achievable: challenging but attainable
 - **R**ewarded: benefits that people will get for attaining the set objective
 - Time-bound: including deadlines



¹ Can be either quantitative or qualitative goals. What matters is that people define goals precisely enough to measure progress and the achievement

Sources: Smart Pharma Consulting

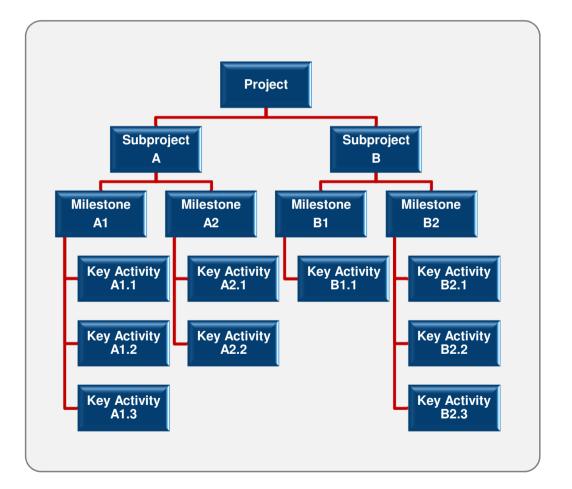
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Smart Pharma Consulting

Step 2: Planning Process: Work Breakdown Structure

A WBS makes work sequences both identifiable and understood by breaking a project down

- A work breakdown structure (WBS) breaks down a full project into several manageable units:
 - Subprojects
 - Milestones: completion of an important set of work packages
 - Key activities: summary tasks
 - Work packages: tasks, activities, work elements
- A work breakdown structure (WBS) helps to:
 - Identify all the work that needs to be done
 - Logically organize work so that it can be scheduled
 - Assign work to team members
 - Identify the needed resources
 - Communicate what has to be done
 - Organize work using milestones



Step 2: Planning Process: Roles & Responsibilities

Roles & Responsibilities must be transparent and widely available for reference

- Roles depend on actions and activities assigned
- Each role is associated with some responsibilities
- Team members relate to each others as follows¹:
 - **Authority:** ability to make binding decisions
 - **Responsibility:** commitment to achieve results
 - Accountability: consequences of own performance
- Delegating involves transferring authority²
- Defining and sharing roles and responsibilities upfront can help improve performance and identify potential difficulties during a project
- A Responsibility Assignment Matrix (RAM) can be used to display the team roles and responsibilities:
 - A RAM depicts each project audience role in the performance of different project activities
 - There is no standard format for a RAM

Responsibility Assignment Matrix (RAM)					
			Peo	ople	
WBS code	Key activities and milestones	Project manager	Task Leader	Employee A	Employee B
3.1.	Design of a questionnaire	А	Р		
3.2.	Look out for potential respondents			Р	
3.3.	Carry out the interviews		А		Р
3.4.	Summarize and analyze the answers	А	S, A	Р	S

P = Primary responsibility

S = Secondary responsibility

A = Approval required

Sources: Smart Pharma Consulting

¹ Although authority can be transferred to another person, responsibility for the results can only be shared – ² Delegation involves risk as you are responsible for the consequences of someone else decisions

Step 2: Planning Process: Schedule – Introduction

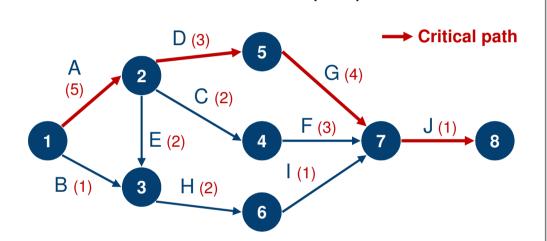
The initial project schedule aims at determining the time it will take to complete the project

 Two pieces of information are needed to determine the amount of time required to complete a project: Sequence: the order in which activities need to be performed Duration: the time each activity will last 	
 Network diagrams can be used to illustrate the order in which project activities are to be performed: Activities-on-arrow diagrams Activities-on-node diagrams 	SI
 Network diagrams display: Activities required to complete the project (i.e. work breakdown structure) and their dependencies The time that each activity will take to complete 	Ear
 The milestones (or events) which are important but take no time and consume no resources mark the start or the end of one or more activities 	Lat

Scheduling vocabulary				
Critical path	A sequence of activities that takes the longest time to complete			
Noncritical pathA sequence of activities in which some activities can be delayed without moving back the project completion date				
Slack time/float The maximum amount of time an activity can be delayed w/o moving back the completion date				
Earliest start date	The earliest date an activity can be started			
Earliest finish date The earliest date an activity can be finished				
Latest start date	The latest date an activity can be started without moving back project completion date			
Latest finish date	The latest date an activity can be finished without moving back the project completion date			

Step 2: Planning Process: Schedule – Activities-on-arrow Diagram

CPM displays the sequencing of activities and helps find the critical path of the project



Critical Path Method (CPM)

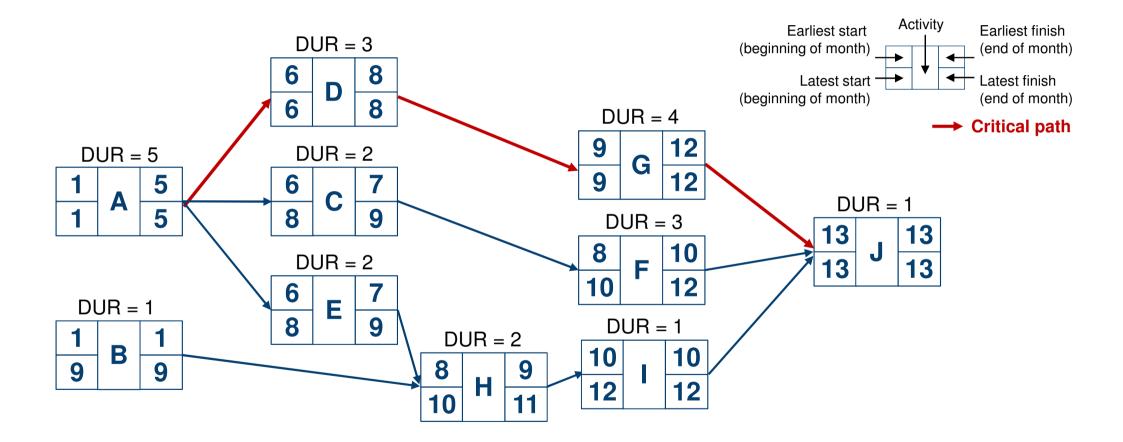
- The critical path is the path that takes the longest to complete (A-D-G-J)
- The time a project takes is equal to the time of its critical path (5+3+4+1), which in this case is 13 months if everything is done on schedule with no delays
- Other paths are not critical because they can waste some time without slowing the project (i.e. activity C can take up to two extra months and not hold up the project)

Activities					
Activity	Description	Required Predecessor	Duration (months)		
А	Product design	(None)	5		
В	Market research	(None)	1		
С	Production analysis	А	2		
D	Product model	А	3		
Е	Sales brochure	А	2		
F	Cost analysis	С	3		
G	Product testing	D	4		
Н	Sales training	B, E	2		
I	Pricing	Н	1		
J	Project report	F, G, I	1		



Step 2: Planning Process: Schedule – Activities-on-node Diagram

The activities-on-node diagrams are more used than those displaying activities on the arrows



Step 2: Planning Process: Schedule – Gantt Chart

The Gantt chart allows to visualize the start and completion dates of a sequence of tasks

- The Gantt chart is a planning tool that displays the dates by which a series of activities should be completed as well as the expected duration of those activities
- To create a Gantt chart, it is previously necessary to have determined:
 - A list of all activities required to complete the project (i.e. the work breakdown structure)
 - The time that each activity will take to complete
 - The dependencies between the activities (i.e. some activities can't be started before others are finished)
 - The milestones (events)
- Gantt charts provide a good presentation tool for illustrating milestones and the planned duration of activities, however they provide less information than network diagrams

Illustration of a Gantt chart Marketing plan product X

Kov estivities	Oct.	Nov.	Dec.	
Key activities	1 2 3 4	1 2 3 4	1 2 3 4	
aunch meeting	•			
Analysis of quantitative and qualitative data				
nterviews with actors in the value chain (GPs, pharmacists, etc.)				
Nodelling of several sales scenarios for the next 3 years				
/alidation of forecasts meeting				
Determination and allocation of the promotional budget				
Brainstorming and devising the different promotional activities				
Production of promotional materials				
Nonitoring of the actions implementation and impact				

Step 2: Planning Process: Schedule – Human Resources Allocation

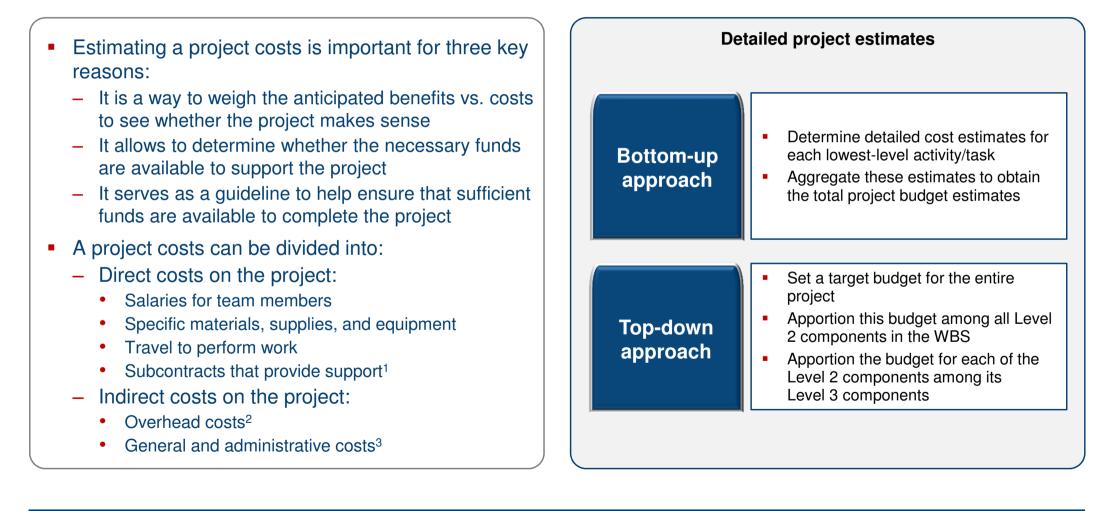
Matching people to the most suitable tasks can save time and increase the quality of the outcome

- Planning for the personnel needed for a project raises the probability of success by enabling the project manager to:
 - Ensure the best qualified people available are assigned to each task
 - Explain more effectively to team members what contribution to the project is expected from them
 - Develop more accurate and realistic schedules
 - Ensure that people are on hand when they're needed
 - Monitor resources expenditure to identify and address possible overruns or underruns
- A Skills Matrix can be used to display people proficiency in specified skills and knowledge, as well as their interest in working on assignments using these skills and knowledge

Skills Matrix						
		Employee A			Employee B	
	Level of skill or knowledge	Level of responsibility applying it	Interest	Level of skill or knowledge	Level of responsibility applying it	Interest
Writing skills	0	2	0	2	1	1
Quantitative skills	3	3	1	1	1	0
Communication skills	2	1	1	3	2	1
Level of skill or knowledge	Level of responsibility applying Interest the skill or knowledge					
0 = no capability	-	1 = must work under0 = no interest in applyingsupervisionthis skill or knowledge				
	2 = can work independently with little or no direct supervision 1 = interested in applyir this skill or knowled					
1 = basic level		•	-			11 2 0
1 = basic level 2 = intermediate level	wit 3 = car	•	rect super	rvision		11.2 0

Step 2: Planning Process: Budget

The planning phase budget is a more detailed version of the one calculated at project initiation



Sources: Smart Pharma Consulting

Smart Pharma Consulting



Step 2: Planning Process: Communication

Effective communication is critical in that it ensures that everyone is on the same page

- Effective communication consists in:
 - Sharing the **right message**....
 - ... with the **right people**...
 - ... in a timely manner...
 - ... through the **right communication channels**
- Informative communication supports the following:
 - Continued buy-in and support from key audiences and team members
 - Prompt problem identification and decisionmaking
 - A clear project focus
 - Ongoing recognition of project achievements
 - Productive working relationships among team members

Communication Management Plan

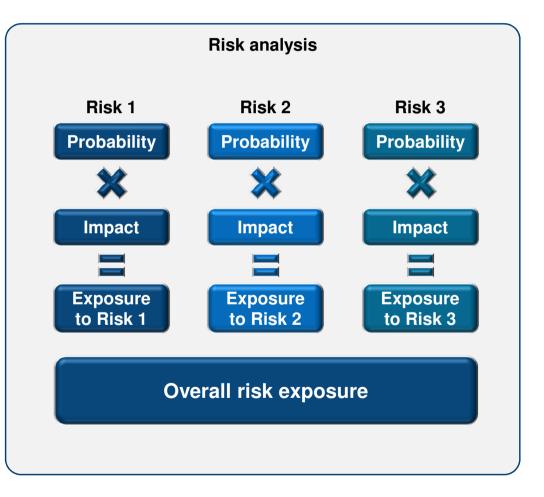
It is a document that specifies all communications generated throughout the project. At a minimum, it should include:

The people whose information needs are addressed through the project communication	
ds The information that the target audience wants and/or needs	
The specific type of activity to be used to ransmit information to the audience	
The specific data to be shared in the project communication	
When the information-sharing activity occurs (regular schedules vs. ad hoc)	
How and when the data for the report are collected	

Step 2: Planning Process: Risk Assessment

Risks that could come up during the project should be identified, assessed and dealt with

- They are four ways to deal with a risk:
 - Accept: incur the chance of a negative impact
 - Avoid: adapt plans to circumvent the problem
 - Mitigate: reduce the impact through implementation of actions
 - Transfer: outsource the risk to a third party that is used to or prepared to manage the outcome
- When assessing how to deal with a risk, two criteria must be considered:
 - Probability: the likelihood that the risk will materialize
 - Impact: the consequences that will affect the project



Step 3: Executing Process

The executing process is where works get done and people skills and team-work are key

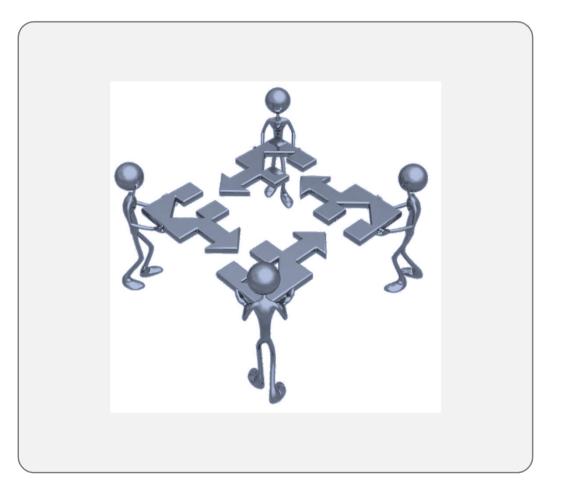
The executing process can be split between:

The preparation phase

- Assigning people to all project roles
- Introducing team members
- Giving and explaining tasks to team members
- Defining how the team will perform
- Setting up necessary tracking systems
- Announcing the project to the organization

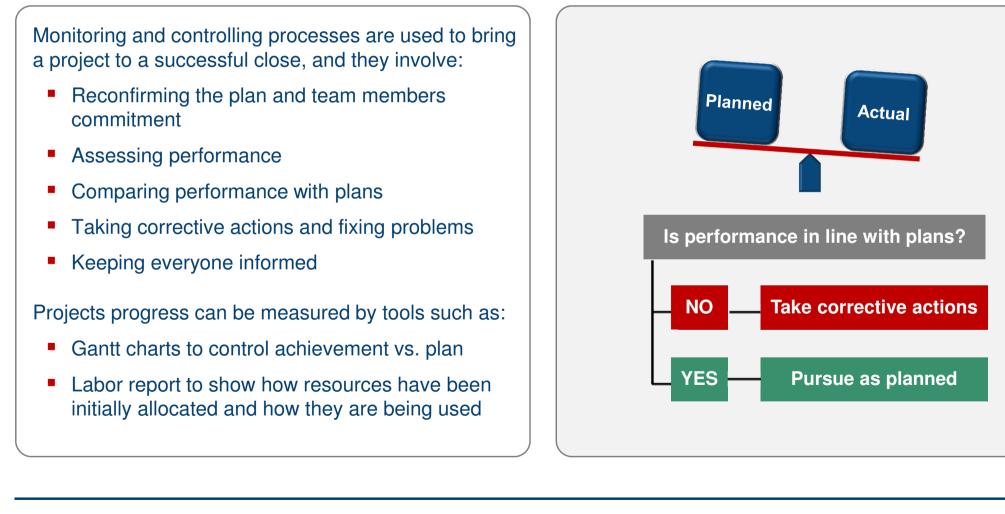
The execution phase

- Doing the work that is in the plan
- Assuring quality
- Managing the team (assignment, review, etc.)
- Developing the team (training and mentoring)
- Sharing information



Step 4: Monitoring and Controlling Processes: Introduction

Monitoring and controlling processes are used to bring a project to a successful close



Step 4: Monitoring and Controlling Processes: Labor report

The workload chart summarizes how resources are used and organized during a project

- The labor report shows how resources have been initially allocated and how they are being used on the project
- This tool is a way to plan for the workload (in hours, days, etc.) of the different members of the team for each of the activities that constitute the project
- The labor chart shows the number of days of work allocated to each activity (e.g.: forecast, remaining, revised, realized)

Illustration of a labor report

Employee A is spending less time than planned at the beginning but ends up working slightly more than what was planned

Work break- down code	Description of key activity	Employee		Budget	Week 1	Week 2	Week 3
2.1	Analysis of quantitative and qualitative data	А	Planned	150 hrs	50 hrs	50 hrs	50 hrs
			Actual		40 hrs	50 hrs	70 hrs
			Remaining	150 hrs	110 hrs	60 hrs	0 hrs
			Difference		-10 hrs	-10 hrs	+10 hrs
2.1	Analysis of quantitative and qualitative data	В	Planned	75 hrs	0 hrs	40 hrs	35 hrs
			Actual		0 hrs	30 hrs	20 hrs
			Remaining	75 hrs	75 hrs	45 hrs	25 hrs
			Difference		0 hrs	-10 hrs	-25 hrs

Employee B is spending less time than planned on the activity, which needs to be investigated: he might be working faster than anticipated or he might be working on some other activities/projects

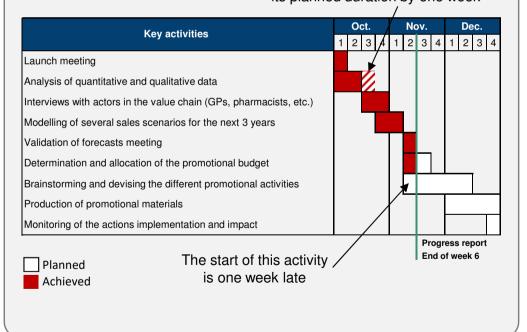
Step 4: Monitoring and Controlling Processes: Gantt chart

Besides its use for planning purposes, the Gantt chart can also be used as a controlling tool

- The Gantt chart is also used for controlling purposes as this tool can display on the same chart the dates by which a series of activities should be completed and the status of their effective achievement
- It is therefore possible to distinguish what remains to be done to complete a certain task or project, and to determine if work is ahead, late, or in line with the planned timetable
- The Gantt chart allows to measure the gaps between the actual and expected dates of completion of tasks or activities
- As such, when a gap is recorded, the project manager can decide whether he needs to implement a corrective action to catch up for the delay or prevent the delay from expanding

Illustration of a Gantt chart Marketing plan product X

This activity exceeded its planned duration by one week

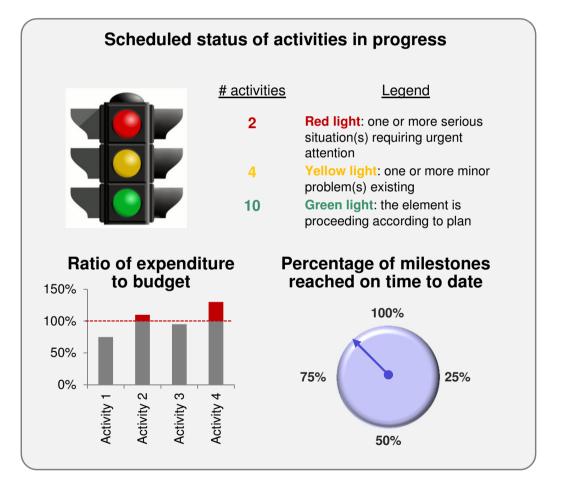


Step 4: Monitoring and Controlling Processes: Dashboards

Dashboards depict key indicators of project performance in a visual way

Designing a dashboard requires to follow 3 steps:

- 1. Select the major categories of information:
 - Results (outcome of the project or KPI¹)
 - Performance to schedule² and resource budgets
 - Risk management (current status of risk factors)
- 2. Choose specific indicators for each information
 - Results (e.g. Patient adherence increase by 9%)
 - Performance to schedule (e.g. # of milestones met vs. missed) and to resource budgets (e.g. ratio of funds used to budget)
 - Risk management (e.g. # of risks likely to occur)
- 3. Select the format for each indicator
 - Table, bar graph, pie chart, traffic lights, etc.





Step 5: Closing Process

The closing process is meant to build on the project experience

The closing process involves a number of activities that must be carried out after the project has been completed:

- Closing all project accounts
- Performing a post-implementation review
- Holding a post-project evaluation with the project team to recognize project achievements and discuss lessons that can be applied to the next project
- Providing performance feedbacks and help team members move on to their next assignments
- Delivering project completion report

Post-project evaluation

A **post-project evaluation** is an assessment of the results, activities, and processes that allows the project manager to:

- Recognize achievements and acknowledge people work
- Identify techniques and approaches that worked, and devise steps to ensure they're used in the future
- Identify techniques and approaches that didn't work, and devise steps to ensure they aren't used again in the future



Summary of Project Key Steps

The 5 steps of project management include activities essential to maximize chances of success

1. Initiating process	 Clarification of the business need(s) Definition of the high-level expectations and resource budgets Identification of the audiences that may play a role in the project
2. Planning process	Detail of the project scope, time frames, resources, risks, quality, etc.
3. Executing process	 Establishment and management of the project team Communication with and management of project audiences Implementation of project plans
4. Monitoring and controlling processes	 Tracking of the project developments (time frames, costs and quality) Introduction of the necessary actions to ensure project plans are successfully implemented and the desired results achieved
5. Closing process	 Evaluation of the achieved outcome Final evaluation (feedback with the project team)

The Project Manager (1/2)

The project manager specifies, organizes and plans a project from conception to realization

The project manager:

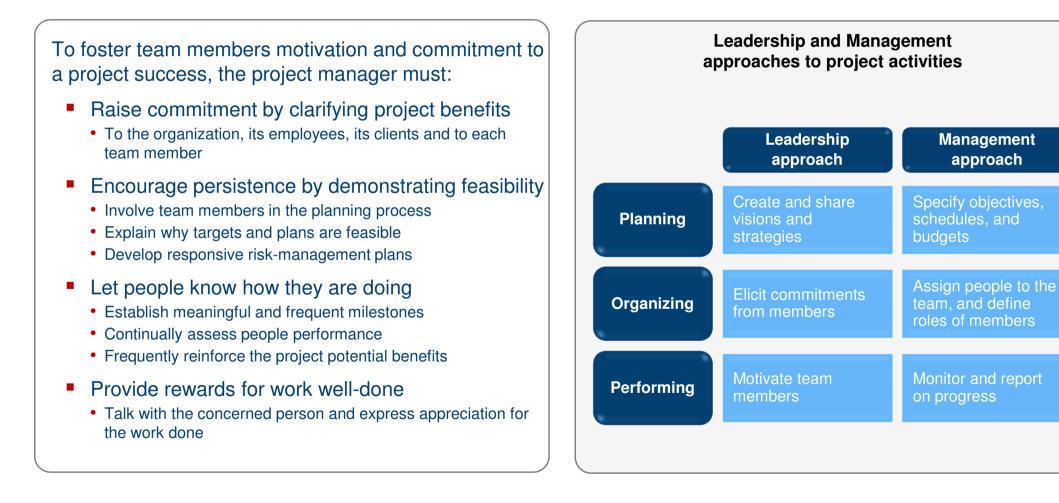
- Defines and implements the execution plans (schedules and deadlines, workloads, budget and funding, quality and risks)
- Keeps tracks of, and control, the progress, the execution of the plans and the meeting of budgets
- Animates the team (roles and responsibilities definition, consciousness raising, mobilization, communication, delegation, control)
- Communicates internally on the project progress
- Is both a manager and a leader
- Is responsible for the outcomes of the project

The ideal project manager should have:

- Enthusiasm for the project
- Team-building and negotiation skills
- Ability to manage change effectively
- A tolerant attitude toward ambiguity
- A customer-focused orientation
- Adherence to the priorities of business
- Knowledge of the industry or technology

The Project Manager (2/2)

A key role of the project manager is to create and sustain the motivation of team members



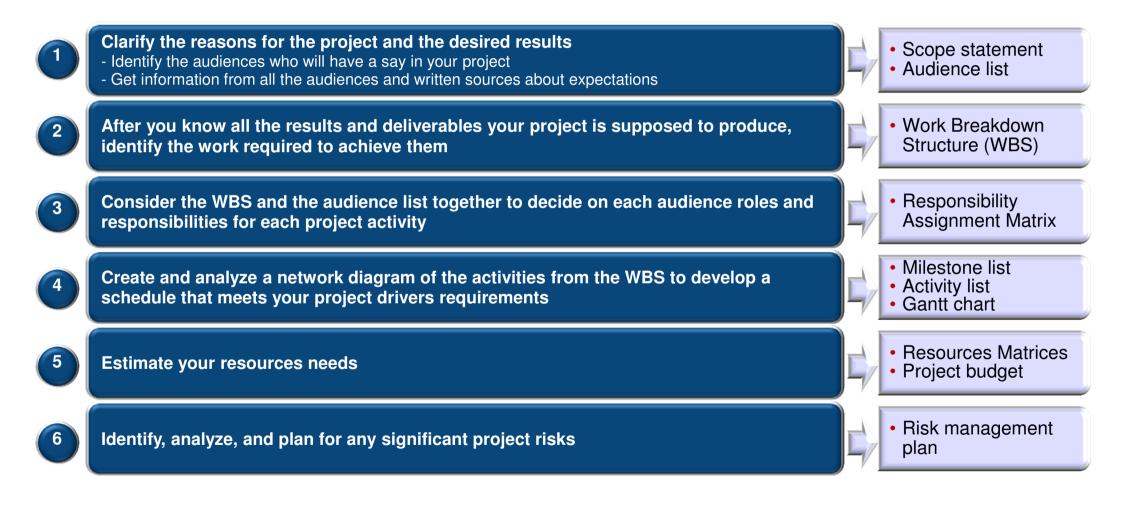
Sources: Smart Pharma Consulting

approach



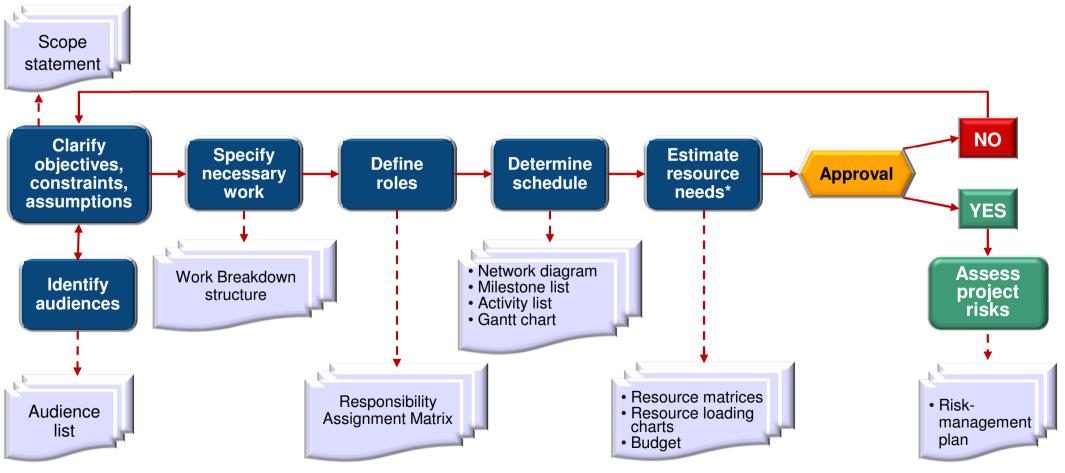
Key Learnings: Preparing a Project Plan (1/2)

Project planning involves several steps for which several sections of the plan are produced



Key Learnings: Preparing a Project Plan (2/2)

These steps should be adjusted until drivers and supporters agree with and support the results



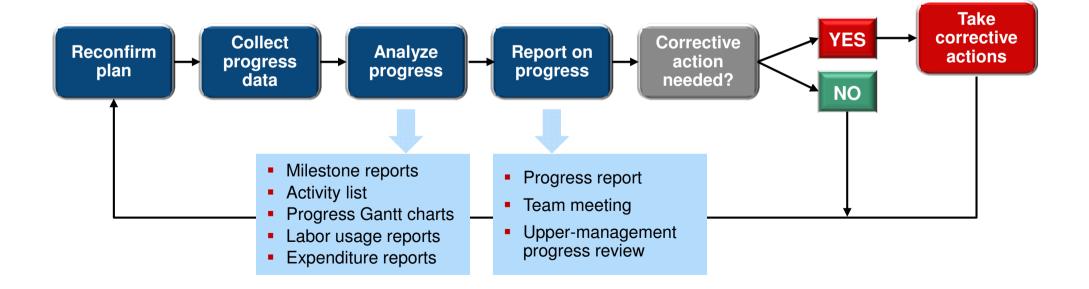
* Personnel, equipment, raw materials, facilities, information, funds

Sources: Smart Pharma Consulting, adapted from S. E. Portny

Key Learnings: Controlling Project Execution

Tracking, assessing and reporting project performance requires to apply specific activities

- At the start of each performance period, people and resources availability must be confirmed and scheduled
- At the end of each performance period, activities performed, milestones dates, resource expenditure and quality should be assessed vs. project plan; issues or problems should identified and necessary corrective actions taken



Sources: Smart Pharma Consulting, adapted from S. E. Portny

Training Program – Intra-company

One-day program (or longer) to manage effectively and efficiently projects, more or less complex

Content & Organization

- The program will include basic principles, key tools, practical exercises and case studies relative to the pharmaceutical industry
- The program content will be customized according to the specific needs of the clients
- The program duration will be of one day, a day and a half or two days, according to the clients desire

Target Audience

- Any collaborators from pharmaceutical companies having the responsibility to manage projects that are more or less complex
- Participant can be part of the medical, marketing, commercial, market research, strategic,... departments

Example of a One-Day Program

9:00	Introduction to the program
9:10	Review of the basic principles and key tools to properly manage projects
10:40	Break
11:00	Exercises: Familiarization with the key tools
12:30	Lunch
13:30	Case study #1: Application to a simple project
15:00	Break
15:20	Case study #2: Application to a moderately complex project
16:50	Conclusion and key takeaways
17:30	End of the program







1. Introduction

KPIs & KEIs are both essential to optimize the business performance over time

- The purpose of business indicators is to help improve performance through enhanced efficacy and efficiency
- "KPIs & KEIs for Success" highlights the value of measuring:
 - Key Performance Indicators (KPIs) related to objectives achievement
 - Key Execution Indicators (KEIs) related to activities to be carried out to reach these objectives
- In this document, we propose a method, tools and practical examples to facilitate the proper use of KPIs and KEIs in the context of the pharmaceutical industry

"If you can't measure it, you can't manage it" – Peter Drucker

Sources: Smart Pharma Consulting

The Best of Smart Pharma 2018

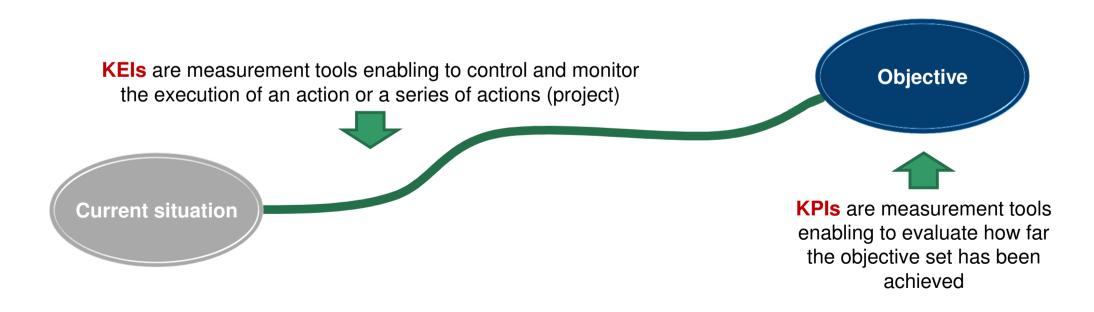


KPIs measure the degree of objective achievement and KEIs the excellence in execution

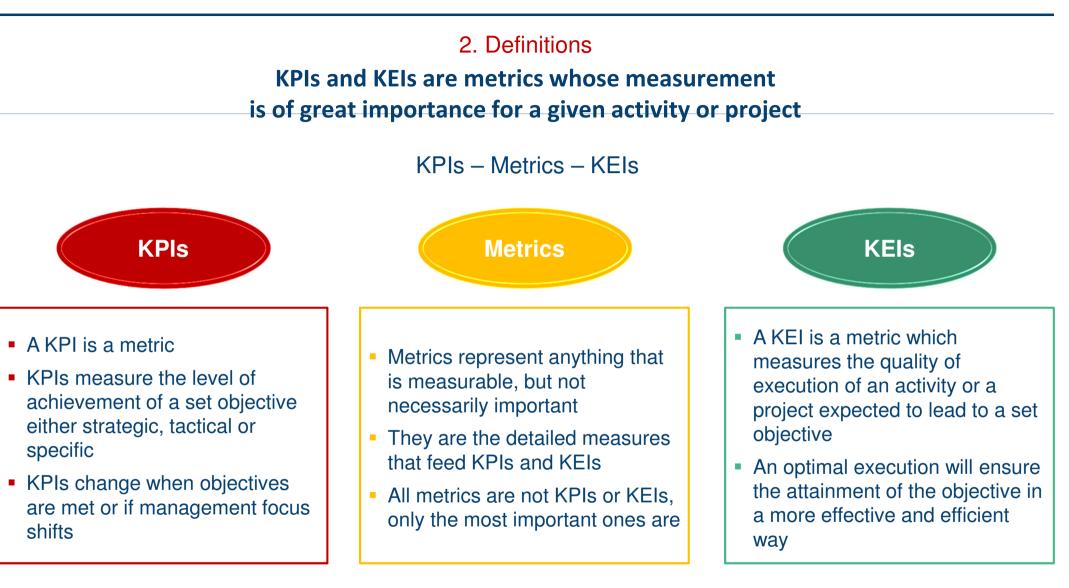
KPIs vs. KEIs

For purposes of clarity and efficacy, it is essential to differentiate:

- Key Performance Indicators (KPIs) which measure the outcome of an activity or a project
- Key Execution Indicators (KEIs) which measure the quality of execution of an activity or of a project



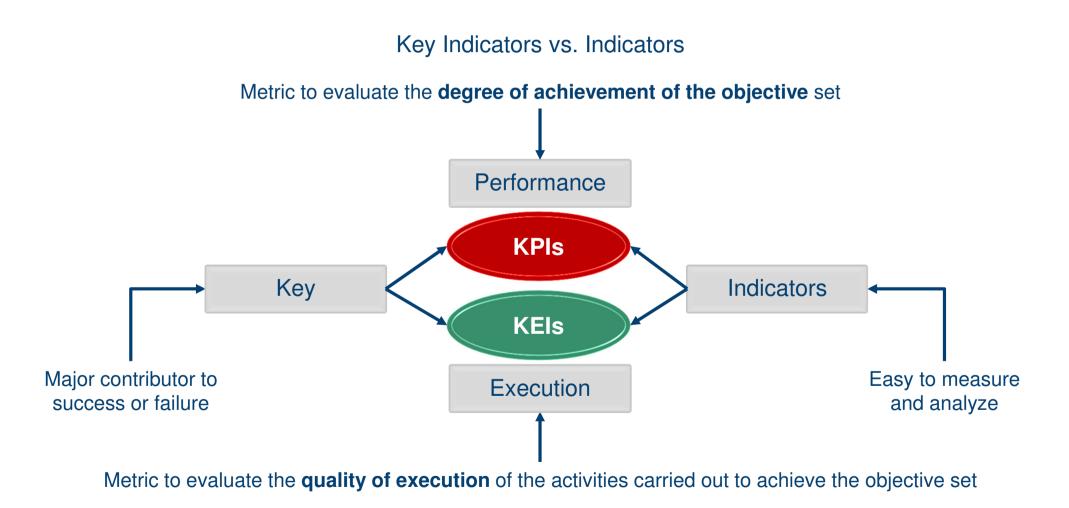




"KEIs check that you are on the right track and KPIs check that you arrive at destination"



KPIs & KEIs are complementary and should be limited to the most important activities



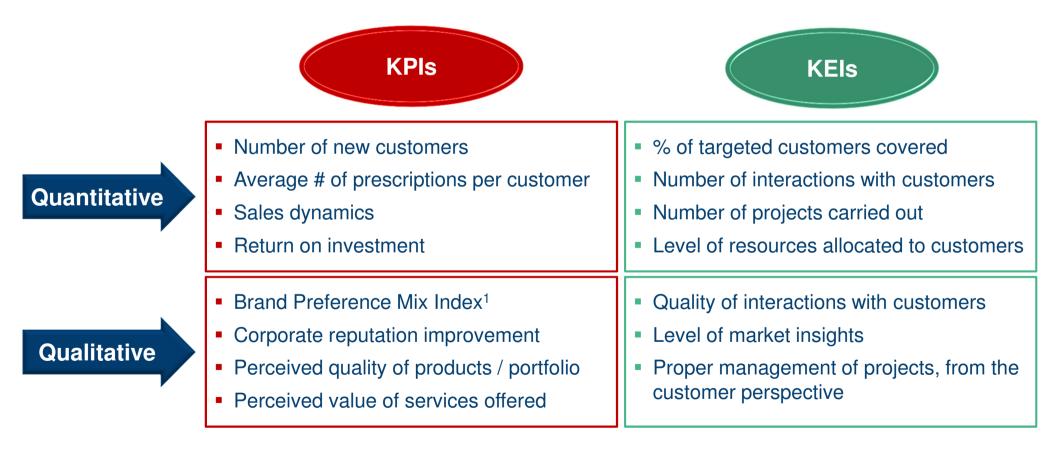
Sources: Smart Pharma Consulting

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KPIs and KEIs can be quantitative and/or qualitative





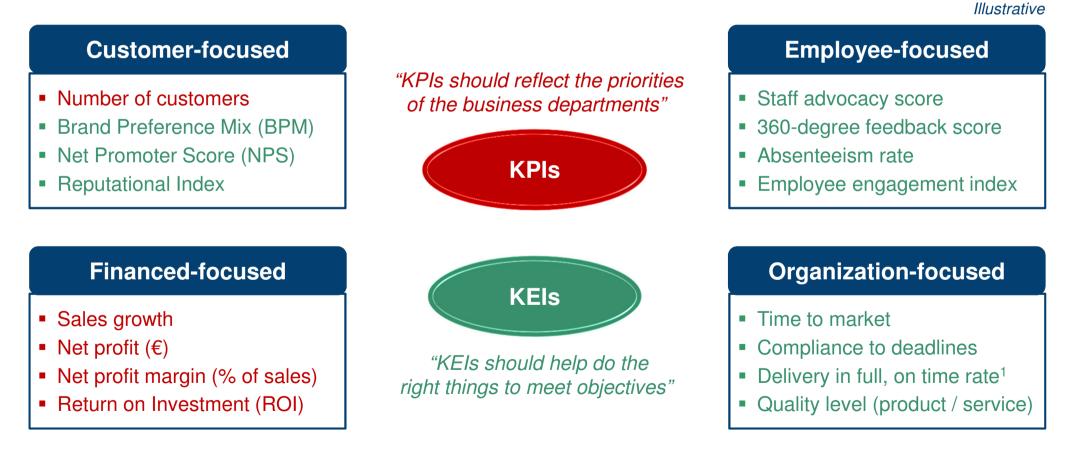
Sources: Smart Pharma Consulting

¹ Corporate reputation x products image x perceived service quality: see Smart Pharma Consulting website



Business departments use different KPIs to measure their success and KEIs to monitor the manner to achieve it

Examples of Potential Indicators by Business Activity



¹ DIFOT



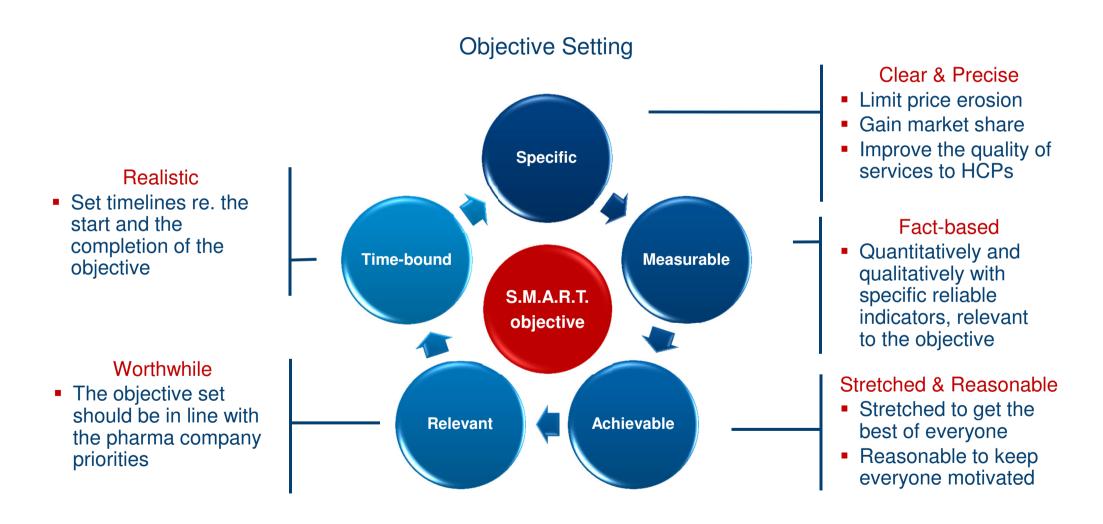
KPIs and KEIs may be very different in nature

Typology of KPIs & KEIs

Typology	Definitions	Examples of KPIs	Examples of KEIs
Quantitative	Measure by counting, averaging numbers, calculating rates, ratios, etc.	Units sold per month	Number of customers met
Qualitative	Express opinions, traits, characteristics	Customers satisfaction survey	Opinion of customers
Process	Measure the efficiency or productivity of a business process	Days of hospitalization to treat a patient with appendicitis	Compliance with project deadlines
Input	Measure assets and resources invested in or used to generate business results	Investments in a project to improve patient care	Actual vs. budgeted investment
Output	Measure the financial and non-financial results of business activities	Revenues – Numbers of new clients	Number of clients having a positive opinion of products
Leading	Measure activities that will have a significant impact on future performance	Pricing negotiated with payers	Quality of tendering planning
Lagging	Measure the output (success or failure) of past activities	ROI – profitability	Number of applications sent on time for tenders



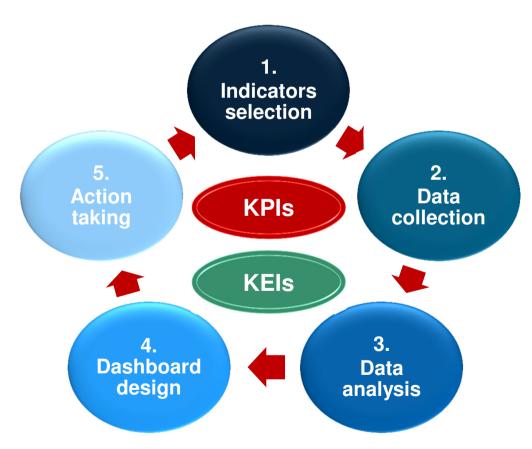
While defining KPIs and KEIs, target performance and execution objectives should be S.M.A.R.T



Smart Pharma Consulting

3. How to choose the right indicators?

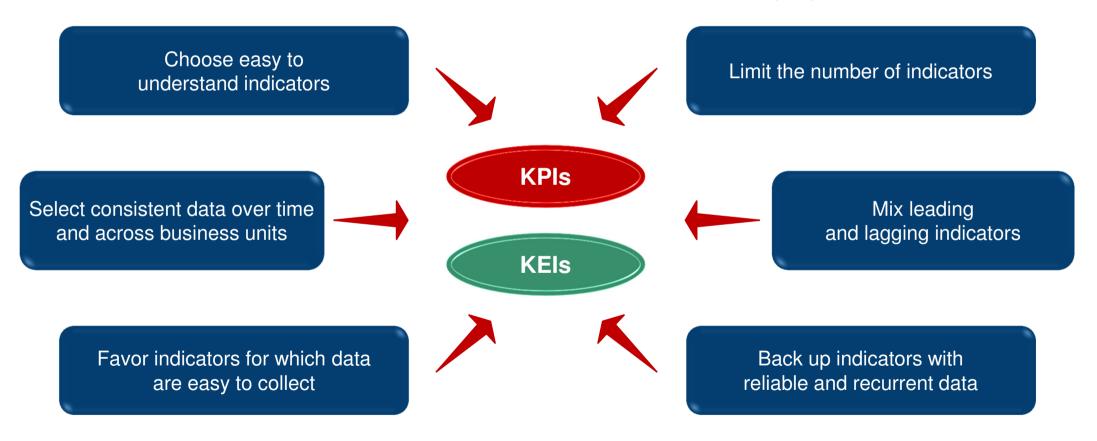
The following wheel defines the key steps to make the best use of KPIs & KEIs



From Selection to Action: Introduction

The following tips will help select the metrics that make the best KEIs & KPIs

From Selection to Action: 1- Indicators selection (1/3)



Selection of KPIs & KEIs should be clearly put in the context of the objectives they are related to

From Selection to Action: 1- Indicators selection (2/3)

To select effective KPIs and KEIs, the following questions should be answered

Key questions	Examples	
What is the objective the KPIs & KEIs relate to?	 Improve customer preference to company products 	
What is the performance issue to be addressed?	The degree of our customer preference	
What is the audience for the KPIs and KEIs?	 Management committee / Market access team 	
How will these indicators be used?	 The KPIs & KEIs will be used to assess and report the impact of services on customer preference 	

Sources: Smart Pharma Consulting after Bernard Marr & Co

Selected KEIs & KPIs must reflect progress on specific challenges to be addressed

From Selection to Action: 1- Indicators selection (3/3)

Illustrative

Indicators	Formula	Insight	When to apply
Brand Preference Mix ¹	 Average response on a 10-point scale re. corporate reputation, brand image and perceived quality of associated services 	 Provides a measure of customer level of preference 	 Once or twice a year depending on the activity
Net Promoter Score	 Average response on a 10-point scale to the question "Would you recommend this service or product to a friend?" 	 Provides a measure of customer satisfaction 	 Once or twice a year depending on the activity
Trust & Value	 Multivariate formula measuring perception on a visual analog scale 	 Understanding of what drives Trust & Value with HCPs and how the company performs 	 Once a year
Number of client hospitals	 Number of hospital where products are listed vs. the total number of targeted hospitals 	 Evaluation of the performance vs. objective Measure of the impact of projects carried out with hospitals 	 On-going measurement

Data collected should be reliable, actionable and reflect the priorities of the company

From Selection to Action: 2 - Data Collection (1/2)

To collect data (qualitative or quantitative), the following questions should be properly answered

Key questions Examples Opinion of customers re. corporate reputation, What are the data to be collected? service quality and product attributes Survey of customers having benefited from a What are the sources of data to be collected? service in 2018 Through face-to-face customers interviews by a How will the data be collected? market research agency With a 10-point visual analog scale How will the performance level be determined? What are the targets and performance thresholds?

How often should the data be collected and reported?

- Gain 2 points in 2018 vs. 2017
- Data collected twice a year and reported once a year

Sources: Smart Pharma Consulting after Bernard Marr & Co



For each indicator, the measure, the target, the source and the frequency should be defined

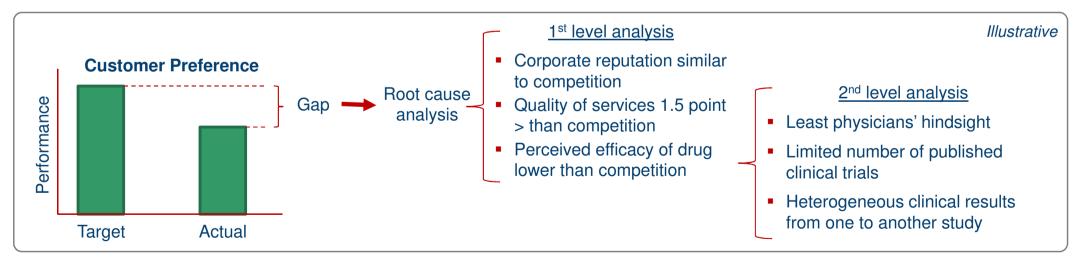
From Selection to Action: 2 - Data Collection (2/2)



Analysis of data related to KEIs & KPIs enables to extract business insights

From Selection to Action: 3 - Data analysis

- The proper analysis of KPIs & KEIs will require to link the collected data to the objective to be achieved or the industry benchmarks, respectively in terms of performance and quality of execution
- One of the generic approach consists to:
 - Compare actual to target performances
 - Measure and analyze the potential differences (either positive or negative): gap analysis
 - Look for the factors responsible for these gaps: root cause analysis¹



Sources: Smart Pharma Consulting

¹ With the help of the Ishikawa diagram, also called fishbone or cause-and-effect diagrams

Display types will depend on analyses, audience and messages

From Selection to Action: 4 - Dashboard Design (1/3)

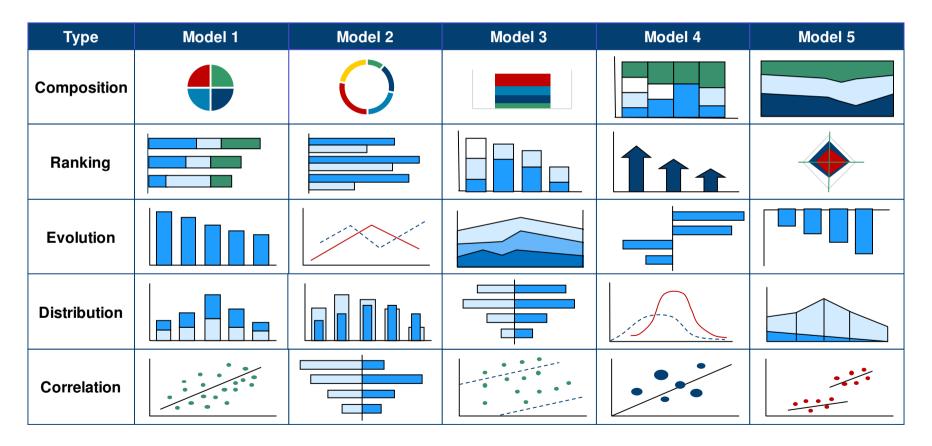
- Quantitative and qualitative data should be carefully analyzed before choosing the type of graphics
- The choice of graphical display will depend on the analysis carried out, on the audience and on the message to be conveyed:
 - Type 1 : Composition => Share of business...
 - Type 2 : Ranking => Ranking of regions based on number of hospital where products are listed...
 - Type 3 : Evolution => Number of tenders won...
 - Type 4 : Distribution => Business distribution by region...
 - Type 5 : Correlation => Relation between projects carried out in hospitals and product listing...

Sources: Smart Pharma Consulting

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The selection of displays should be done in an easy to interpret manner

From Selection to Action: 4 - Dashboard Design (2/3)



A dashboard is an efficient way of displaying multiple KPIs & KEIs in a singular view

From Selection to Action: 4 - Dashboard Design (3/3)



Illustrative

- Dashboards provide at-a-glance views of indicators
- They contain series of graphics, charts, gauges and other visual indicators that can be monitored and interpreted
- The visualizations on a dashboard may come from one underlying dataset or many, and from one underlying report or many
- Dashboards should comply with 3 elements:
 - Display "need-to-have" data only, to avoid distraction and remain focused on what is essential to perform
 - 2. Be well-structured, in a logical manner
 - 3. Easy to read and to interpret

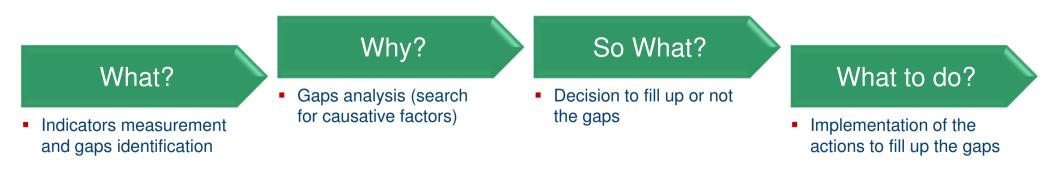


A dashboard is an enabler to make decisions

From Selection to Action: 5 - Action Taking

- ACT NOW
- If KPIs show that performance is progressing as per plan, actions should be taken to secure the momentum or outperform the preset objective
- If the performance is below expectation, and the causative factors have been determined with the help of KEIs, the management should take actions to fill up the gaps
- If judged as non-attainable, the performance target may be revised

From observation to action



"KPIs change when objectives are met or if management focus shifts"

Selecting and using KPIs & KEIs is a difficult process requiring a deep thought

Problems & Issues related to KPIs & KEIs

KPIS & KEIs may not yield what they were meant to provide for various reasons:

- The indicator is not related or relevant to the work being performed
- The rate of change in the indicator is too slow to produce a result that is actionable
- Turnaround time for actions needed to correct low performing indicators takes too long
- The responses or the processes needs to deal with indicators indicating a problem either do not exist or are inadequate
- The indicators are only loosely monitored by front line managers as opposed to being shared with the team as a whole
- Too many KPIs & KEIs selected leading to confusion and "noise"

Sources: Smart Pharma Consulting after T. Tsongas, Symantec



4. Key learnings

KPIs & KEIs play the role of a compass to help companies achieve their objective, efficiently

- Targeted KPIs are an effective tool for driving project objective realization
- KEIs will help keeping activities (projects) on track to deliver the expected value (performance)
- Although industry standards matter, companies may choose different KPIs & KEIs from their competitors; what matters is how relevant the indicators are to the business
- Companies should also review their objectives and strategies regularly and make necessary adjustments on their KPIs & KEIs
- KPIs are important to help focus on common objectives...
- ... and ensure they stay aligned within the company priorities
- A well-designed set of KPIs should provide a clear indication of current levels of performance and help make better decisions that bring the business closer to achieving its strategic objectives

Sources: Smart Pharma Consulting

5. Training program – Intra-company

One-day program to define relevant KPIs & KEIs for a better efficacy and efficiency

Content & Organization

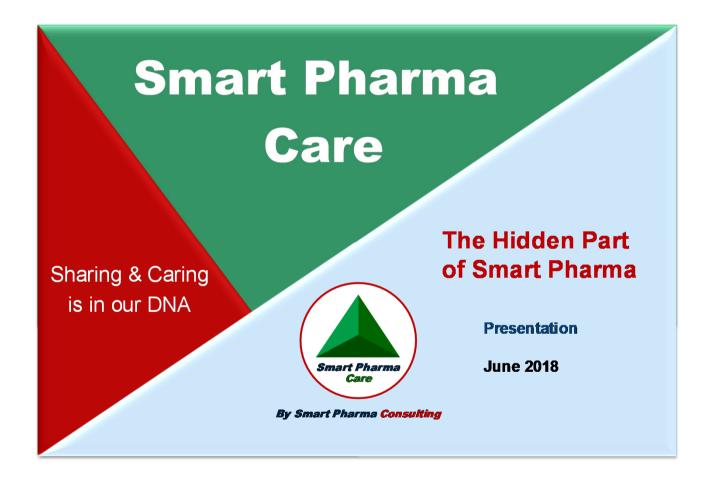
- The program will include basic definitions, recommendations, key tools, practical exercises and case studies relative to the pharmaceutical industry
- The program content will be customized according to the specific needs of the clients
- The program duration will be of one day, one day and a half or two days, according to the client needs and desire

Target Audience

- Any collaborators from pharmaceutical companies, whatever their level of responsibility and seniority
- Participant can be part of the medical, marketing, commercial, market research, strategic,... departments

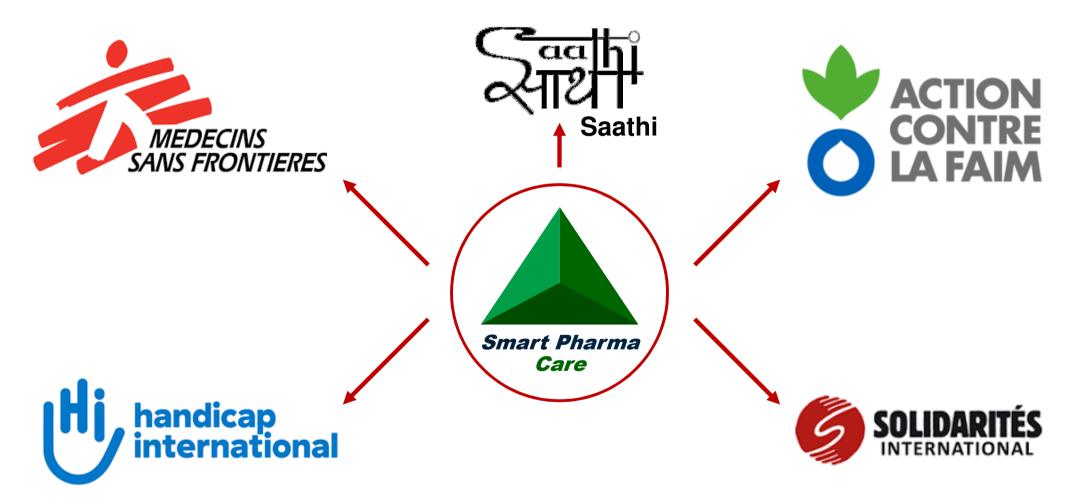
Example of a One-Day Program

- 9:00 Introduction to the program
- 9:10 Review definitions and basic principles related to KPIs and KEIs, in general and in the context of the pharma business
- 10:40 Break
- 11:00 Exercises: Indicators selection data collection data analysis dashboard design action taking
- 12:30 Lunch
- 13:30 Case study #1: Practical implementation
- 15:00 Break
- 15:20 Case study #2: Practical implementation
- 16:50 Conclusion and key takeaways
- 17:30 End of the program



Smart Pharma Consulting has been partnering with four reputable NGOs on projects located in Africa and with the Nepalese NGO Saathi for 13 years

Smart Pharma Consulting – The hidden part



Source: Smart Pharma Consulting

Smart Pharma Consulting

The projects we support in Africa focus on children, protecting them against violence, diseases, and securing their access to water and food

Projects supported in Africa





Source: Smart Pharma Consulting

¹ Democratic Republic of Congo

Smart Pharma Consulting

Smart Pharma Consulting

Smart Pharma Consulting has developed the "Children Protection Project in Nepal" in one of the poorest countries in the world

Children Protection Project in Nepal

Country Background

- Population: 31 million
- A multilingual (123) and multiethnic (125) country
- Life expectancy at birth: 70 years
- Devasted by an earthquake in 2015, killing >8,000 people

- A civil war between the Communist Party of Nepal (Maoist) and the government of Nepal, lasted from 1996 to 2006, killing 19,000 people, including civilians...
- I ... leading to the abolishment of the monarchy in 2008
- The Nepal is amongst the 30 poorest countries in the world, with a GDP per capita of \$ 920 (IMF 2018)











The roots of this project go back to the early 80', at the time the current President of Smart Pharma Consulting set up a medical mission in the Himalayas

Children Protection Project in Nepal

Project Genesis





Internship at the **Royal Drug** research laboratory of Kathmandu during the Spring (research on ayurvedic medicine) 1982

une première grace a une association d'étudiants Une équipe médicale nantaise en mission au Népal cet été

<text><text><text><text><text><text><text><text><text><text>

Set up of an exploratory healthcare mission in the Annapurna valley during the Summer 1983

Set up of one **health post** in the **Annapurna valley** with a French physician and nurse



Smart Pharma Consulting has been partnering for 12 years with the Nepalese NGO Saathi and takes care of 188 children in Kathmandu valley

Children Protection Project in Nepal



Project launch & Development

2006



We have signed a partnership with Pramada Shah, who was the President of the NGO Saathi Nepal, to support 15 children



As of June, Smart Pharma Consulting ensures the **full support**¹ of **188 children**

Source: Smart Pharma Consulting

¹ Since 2013, in collaboration with FSNB Health & Care, another French consulting firm

The Best of Smart Pharma 2018

Smart Pharma Consulting is committed to support each child until he becomes psychologically and financially autonomous

Children Protection Project in Nepal

Principles & Organization (1/2)

- The "Children Protection Project in Nepal" is managed and funded by Smart Pharma Consulting with the operational collaboration of the Nepalese NGO Saathi
- Our mission:

"To give children protection, education and healthcare and to maximize their chance to become financially & psychologically autonomous"

Our organization:

Smart Pharma Consulting

- We rescue street children, orphans and/or abused children
- We employ 26 staff members to look over them
- Children go to school or to university, receive non-formal or professional education, depending on their individual situation



Source: Smart Pharma Consulting

The Best of Smart Pharma 2018





We provide children with psychological support, regular medical screenings and organize sport and cultural activities for them

Children Protection Project in Nepal

Principles & Organization (2/2)

- Our organization (cont.):
 - We rent four houses for the children going to school (160) and rooms for those going to university (28)





- We provide them with psychological counselling, medical support (two medical and dental camps per year) and hygiene education

They participate to **sport** and **cultural** (e.g. music, singing, theatre) **activities**

"Their success is our pride; their success is our unique reward"

Children Protection Project in Nepal

Our Success Stories (1/2)



- Tsering was rescued from the street when he was at high risk
- · He has been with Saathi since 2001
- He has a BA in Fine Arts
- He works in his own school as an art teacher



- Chandramaya was rescued in 2007 while she was at high risk
- She has a bachelor degree in nursing and still studies to get a master degree
- She got married this year
- She is a role model for her younger "sisters"

"Their success is our pride, their success is our unique reward"

Children Protection Project in Nepal

Our Success Stories (2/2)





- Reshma father was killed while her mother was living in an unsafe environment
- She joined us in 2006
- She started to study social work and then moved recently to Australia to get a diploma at the Software Development College



- Rajkumar is orphan and was rescued from the street in 2007
- He studies business management and takes chartered accountant course
- He is strongly involved in social works

To secure the sustainability of its "Children Protection Project in Nepal" Smart Pharma Consulting is studying different funding models

Children Protection Project in Nepal



What Future?

How to ensure the sustainability of the "Children Protection Project in Nepal"?

Examples of possible options

Create a foundation

- A foundation, independent from Smart Pharma Consulting, could receive donations from corporations, institutions, individuals to keep on funding projects to protect and give a better future to underprivileged children
- Such a foundation could also carry out specific events and actions to raise funds





Transfer to Karuna-Schechen

- The funding of the "Children Protection Project in Nepal" could be transferred to this NGO, headquartered in Kathmandu, which was co-founded by Matthieu Ricard in the mid 80'
- It supports programs in health, education...
- ... to improve Himalayan people life

Sharing and caring being in Smart Pharma Consulting DNA,

we will keep on working hard to maintain, and even reinforce our action

Smart Pharma Care – In a nutshell

Key facts & figures

- 13 years of commitment to "save our children"
- Support of programs carried out in Africa for 4 well-known NGOs:
 - Médecins Sans Frontières since 2005
 - Action contre la Faim, Handicap International and Solidarités International since 2007
- Management of the "Children Protection Project in Nepal" with the operational support of the local NGO Saathi since 2006, and the financial support of FSNB Health & Care for the last 5 years
- We manage the "Children Protection Project in Nepal" like a "business" with an objective, a strategy, an annual budget, KPIs and a reporting process
- The overall investment of Smart Pharma Care since 2005 has amounted to a total of ~€4M, representing 16% of our sales











Consulting firm dedicated to the pharmaceutical sector operating in the complementary domains of strategy, management and organization

The Smart Pharma Publications

- Our publications have in common to:
 - Be well-documented and propose in-depth analyses
 - Share innovative concepts, methods and tools

The Best of Smart Pharma 2018

- This e-book is the "best-of" our 2018 publications which have been dedicated to the development of executives
- Thus, we have published six new position papers:
 - 1 position paper in the "Perspectives Series":
 - Pharma Market Perspectives 2023
 - 3 position papers in the "Best-in-Class Series":
 - Pharma Market Research
 - Pharma Strategy Crafting
 - Field Force Organization
 - 2 position papers in the "Smart Manager Series":
 - Project Management
 - KPIs & KEIs for Success
 - 1 presentation of Smart Pharma CSR programs:
 - Smart Pharma Care
 (*The Hidden Part of Smart Pharma*)

Smart Pharma Consulting Editions



- Besides our consulting activities which take 85% of our time, we are engaged in sharing our knowledge and thoughts through our:
 - Publication of articles, booklets, books and business reports
 - Teaching and training activities
- Smart Pharma Consulting has published;
 - 17 business reports regarding:
 - The French healthcare system and pharma market
 - The French generics and biosimilar markets
 - The French pharma distribution
 - The French OTC market
 - The market access and drug valuation
 - The global biosimilars drugs market
 - The best performing pharma companies
 - The pharma digital marketing
 - 42 articles dedicated to pharma business issues
 - >70 position papers incl. Concepts, Methods and Tools
 Best regards,

Jean-Michel Peny