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# **Pharmaceutical Sciences Market Analysis**

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#### Market Research on Pharmaceutical Sciences

The Board of Pharmaceutical Sciences (BPS) of the International Pharmaceutical Federation (FIP) has developed a view on the future of pharmaceutical sciences in 2020. The global pharmaceutical market is projected to reach 10.27 billion USD by 2025. The market is expected to see a growth at 13.1% CAGR owing to increasing incidence of Adverse Drug Reaction. The key driver for the growth of the pharmaceutical market is ADR's. In 2015, the U.S. FDA received almost 253,017 serious adverse events and 44,693 deaths associated with adverse drug reactions (ADRs). This shows the possible demand for instigating safety and pharma services. The statistic shows the projected growth of the world pharmaceutical market by the regional group between 2018 and 2022. It is expected that the pharmaceutical market will have a compound annual growth rate of 6 to 9 percent in this period.

This statistic describes the projected global pharmaceutical market growth for the period 2016-2021, measured by the compound annual growth rate (CAGR) and sorted by regional submarkets. It is expected that North America will grow at a CAGR of 4.3 percent. Pharmaceuticals represented a US\$300 bn-a-year market globally as of 2015, the World Health Organization states. The global pharmaceutical market is expected to surpass US\$400 bn by 2018. Worldwide prescription drug sales forecasted to grow at a robust 6.5% (CAGR) through 2022 to reach \$1.06trn. 32% of the 2022 increase in sales to come from orphan drugs (+\$95bn).

#### Major Pharma Associations around the Globe:

- Academy of Managed Care Pharmacy (AMCP), Alexandria, VA
- American Association of Pakistani Pharmaceutical Scientists
- British Columbia Pharmacy Association
- California Pharmacists Association
- Kansas Pharmacists Association
- Ohio Pharmacists Association
- Pharmacy Guild of Australia

- European Association of Pharma Biotechnology
- Pharmaceutical Group of the European Union
- European Federation of Pharmaceutical Industries and Associations
- European Biopharmaceutical Enterprises
- European Federation of Pharmaceutical Industries and Associations
- European Biotechnology
- Farmaindustria
- European Pharmaceutical Union (EPU)
- Pharmaceutical Group of the European Union (PGEU)
- European Association of Employed Community Pharmacists in Europe (EPhEU)
- Danish Association of Pharmaconomists
- Norwegian Pharmacy Association

## The Pharmaceutical Industry: A Key Asset to The European Economy

As driving medical progress by researching, developing and bringing new medicines that improve health and quality of life for patients around the world, the research-based pharmaceutical industry is a key asset of the European economy. It is one of Europe's top performing high technology sectors.

## PHARMACEUTICAL INDUSTRY RESEARCH AND DEVELOPMENT IN EUROPE

All new medicines introduced into the market are the result of lengthy, costly and risky research and development (R&D) conducted by pharmaceutical companies: Certain key factors that decide the market value of a pharmaceutical product are:

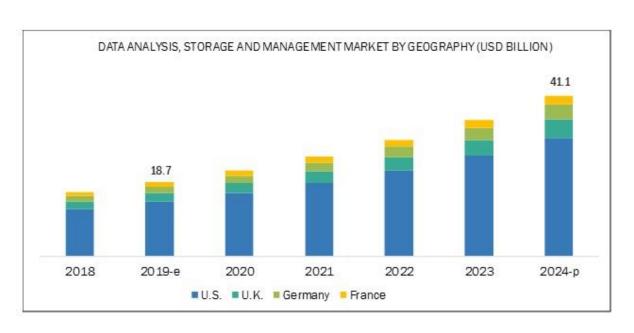
- by the time a medicinal product reaches the market, an average of 12-13 years will have elapsed since the first synthesis of the new active substance;
- The cost of researching and developing a new chemical or biological entity was estimated at € 1,172 million (\$ 1,506 million in year 2011 dollars) in 2012 (Mestre-ferrandiz et al, office of Health Economics, December 2012);
- on average, only one to two of every 10,000 substances synthesised in laboratories will successfully pass all stages of development required to become a marketable medicine.

Hence the value of the product is set accordingly keeping in mind all such factors.

The value of pharmaceutical research based on the amount of research funding in different countries in Europe can be compared from the table below

EfpIA 2012 € million	
Austria	453
Belgium	2,343
Bulgaria	n.a.
Croatia	40
Cyprus	14
Czech Republic	49
Denmark	1,411
Estonia	n.a.
Finland	264
France	4,392
Germany	5,767

Greece	84
Hungary	158
Ireland	194
Italy	1,230
Latvia	n.a.
Lithuania	n.a.
Malta	n.a.
Netherlands	642
Norway	141
Poland	227
Portugal	88
Romania	200
Serbia	n.a.
Slovakia	n.a.
Slovenia	164
Spain	997
Sweden	942
Switzerland	4,965
Turkey	83
United Kingdom	5,187
Total	30,035
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#### IMPORTANCE OF PHARMACEUTICAL R&D

In 2012 the pharmaceutical industry invested more than  $\in$  30,000 million in R&D in Europe. A decade of strong uS market dominance led to a shift of economic and research activity towards the uS from 1995-2005. Additionally, Europe is now facing increasing competition from emerging economies: rapid growth in the market and research environments in countries such as brazil and china are contributing to the move of economic and research activities to non-European markets. The geographical balance of the pharmaceutical market – and ultimately the R&D base – is likely to shift gradually towards emerging economies

## Pharmaceutical R&D Expenditure - Annual Growth Rate %

## PHARMACEUTICAL SALES

The world pharmaceutical market was worth an estimated € 655,222 million (\$ 870,200 million) at ex-factory prices in 2013. The north american market (usa&canada) remained the world's largest market with a 41.0% share, well ahead of europe and japan.

Breakdown of the World Pharmaceutical Market - 2013 Sales

#### PRICE STRUCTURE

Distribution margins, which are generally fixed by governments, and vat rates differ significantly from country to country in Europe. On average, approximately 34% of the retail price of a medicine reverts not to the manufacturer, but rather to the distributors (pharmacists and wholesalers) and the state.

The pharmaceutical industry is undergoing a tremendous deal of change. There are many pharmaceutical companies, who are providing the better products. The Pharma industry is one of the most sought after, and flourished industries. As the pharmaceutical drug manufacturers are one of the reasons for the economic well being of a nation. On the other hand, we can say that the Pharma industry is responsible for the economic development. That is the main reason for both research and development of newer and better products for various kinds of diseases.

## Top Pharma companies around the Globe:

- Johnson & Johnson
- Novartis
- Roche
- Pfizer
- GSK (GlaxoSmithKline)
- AstraZeneca
- Gilead Sciences

As a highly specialized production location for pharmaceutical products, Switzerland enjoys an excellent reputation the world over. The presence of highly qualified scientists and pharmaceutical talent from the world's leading universities make a significant contribution towards developing new medicines. The framework conditions are also in place: the Swiss healthcare system supports the introduction of new medicines and, in doing so, offers companies access to a sophisticated test and sales market. In addition to Switzerland, international markets play a decisive role. Value added in the pharmaceutical industry has continued to increase over the last decade in Switzerland. Switzerland is by far the most important stock exchange for Life Sciences companies in Europe.

## Global Pharmaceutical Industry 2013-2018: Trend, Profit, and Forecast Analysis

The global pharmaceutical industry revenue is forecasted to reach an estimated \$1,226.0 billion by 2018, with good growth over the next five years (2013-2018). The industry is expected to register growth led by aging population, changing lifestyles, hectic daily activities, unhealthy eating habits, increasing incidence of chronic diseases across the entire global population providing growth opportunities for the industry players.

The industry is engaged in discovery, development, manufacture, and marketing of prescription drugs. Industry products include ethical drugs and consumer healthcare but animal healthcare drugs are not included. The global pharmaceutical market faces major challenge from increasing investment and strict regulation. Changing lifestyles and the fast socio-demographic shift due to urbanization in both developed and growth markets globally are expected drive the demand.

#### **Features and Scope of this Report:**

To make any investment or strategic decision, you need adequate and timely information. This market report fulfils this core need. Some of the features of this market report are:

- (US \$) - Industry estimates of by size in terms value regions and by segments - Global pharmaceutical industry annual trend (2007-2012)and forecast (2013-2018)
- Porter's Five Force analysis
- New product launch, merger and acquisition activity in global pharmaceutical industry
- Quarterly demand trend (Q1 2011-Q4 2012) and forecast analysis (Q1 2013-Q4 2014) for pharmaceutical industry analysis
- Gross and net profit trends in the global pharmaceutical industry
- Cost structure trend in the global as well as regional pharmaceutical industry

# Market Analysis of Global Pharmaceutical Industries:

The global \$1.12 trillion market in 2022, will rise at a faster clip during 2016-2020, then slow down a bit as major patent expiration take hold. It is expected that the global market declined by 1.0% in 2015, but will grow by 4.8% this year. Prescription sales excluding generics will rise 4.4% this year, and expected to reach \$1.006 trillion in 2022. Generics sales will increase from \$73 billion in 2015 to \$115 billion in 2022, and constitute 10.2% of prescription sales at that point only 0.3 percentage points more than it is now.

The global market for drug discovery technologies and products was worth \$38.4 billion in 2011. This figure is projected to reach \$41.4 billion in 2012 and \$79 billion in 2017, a five-year compound annual growth rate (CAGR) of 13.8%. There is a need to impede serious adverse effects caused by the drugs by enhancing drug targeting through research in pharmacology.

The global revenue for single use technology reached \$1.4 billion and \$1.7 billion in 2013 and 2014, respectively. This market is expected to grow at a compound annual growth rate (CAGR) of 11.7% to nearly \$3.0 billion for the period 2014-2019.

According to the Quintiles IMS Institute predicts that the pharmaceutical market by 2021 will reach nearly USD 1,485 billion, by an increase of USD 350-380 billion from the USD 1,105 billion recorded in 2016. Global brand spending is forecast to increase to USD 815-832 billion in 2021. Global generic spending is expected to increase to USD 495-505 billion by 2021.

The United States share of global spending will increase from USD 461.7 billion in 2016 to USD 645-675 billion in 2021, while the European share of spending will grow from USD 151.8 billion to USD 170-200 billion. Meanwhile, pharmerging countries will spend nearly 315-345 USD billion in 2021 from 242.9 in 2016.

## Glance at Market of Pharma:

These data describe the outcome of the patient as defined in U.S reporting regulations. Serious means that one or more of the following outcomes were documented in the report: death, hospitalization, life threatening. There is a need to impede serious adverse effects caused by the drugs by enhancing drug targeting through research in pharmacy.

## The Changing Geography of Pharma Markets

Growth over past decades means that North America and Western Europe still account for 56% of the global market, but Asia Pacific has overtaken Western Europe as the second largest region. Growth in Asia Pacific is fueled by increased affordability of drugs resulting from the launch of low-priced generics. Other factors that are positive for growth in Asia Pacific are the rise of GDP per capita in the region, government programs to support healthcare, and rapid urbanization, which brings both doctors and pharmacies within easy reach of increasing proportions of growing populations. Pharma sales in Asia Pacific will grow at 8.4% a year to 2021.

The story is a similar one at the level of country. The USA, by itself worth 25% of the global total, is restraining global growth by rising at below 5% a year, while the much smaller pharma markets of India and China are both achieving double that pace.

# **Key Segments in the Pharmaceutical Market**

The largest pharma market globally is for musculoskeletal drugs. These are treatments for diseases such as rheumatoid- and osteo- arthritis, osteoporosis, carpal tunnel syndrome, tendonitis, rotator cuff tear, muscular dystrophy, myasthenia gravis, lupus erythematosus and others. Major drugs in this segment include Piroxicam Glaxo, Dolonex, Felden, and Piroxicam Pfizer. The segment accounted for 14% of the global total in 2017. Cardiovascular, oncology and ant-infective drugs are the second third and fourth largest markets.

Drugs for treating metabolic disorders such as diabetes and diseases of the thyroid and pituitary glands will be the fastest-growing segment of the global pharma market to 2021. This segment will grow at 9% a year going forward, following recent growth of 11.6%, but it will remain in fifth place for market size.

