

The Pharmaceutical Industry in Figures

Key Data * 2018



THE PHARMACEUTICAL INDUSTRY: A KEY ASSET TO SCIENTIFIC AND MEDICAL PROGRESS

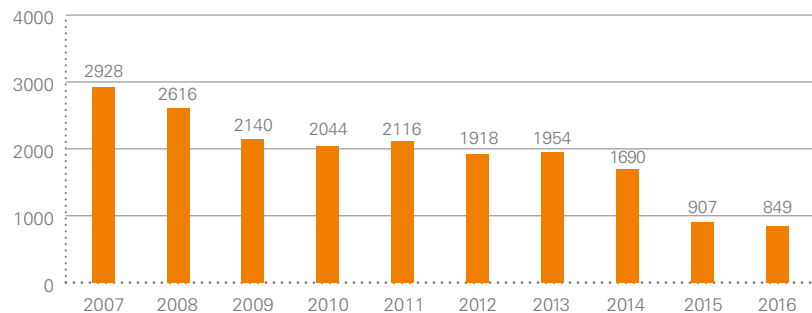
Thanks to advances in science and technology, the research-based pharmaceutical industry is entering an exciting new era in medicines development. Research methods are evolving and we have many promising prospects on the horizon – from the possibilities offered by personalised medicines, to the potential offered by harnessing the power of big data. The innovative pharmaceutical industry is driven by, and drives, medical progress. It aims to turn fundamental research into innovative treatments that are widely available and accessible to patients.

Already, the industry has contributed to significant improvements in patient well-being. Today's European citizens can expect to live up to 30 years longer than they did a century ago. Some major steps in biopharmaceutical research, complimented by many smaller steps, have allowed for reductions in mortality, for instance from HIV/AIDS-related causes and a number of cancers. High blood pressure and cardiovascular diseases can be controlled with antihypertensive and cholesterol-lowering medicines; knee or hip replacements prevent patients from

immobility; and some cancers can be controlled – or even cured – with the help of new targeted treatments. European citizens can expect not only to live longer, but to live better quality lives. Yet major hurdles remain, including Alzheimer's, Multiple Sclerosis, many cancers, and orphan diseases.



TOTAL NUMBER OF DEATHS AMONG AIDS CASES IN EUROPE (TOTAL EU/EEA)



Source: HIV/AIDS surveillance in Europe 2017, WHO Regional Office for Europe & European Centre for Disease Prevention and Control (ECDC), November 2017

THE PHARMACEUTICAL INDUSTRY: A KEY ASSET TO THE EUROPEAN ECONOMY

As well 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.



INDUSTRY (EFPIA total)

	2000	2010	2016	2017
Production	127,504	199,400	248,053	258,000 (€)
Exports (1) (2)	90,935	276,357	373,333	385,000 (€)
Imports	68,841	204,824	278,462	287,000 (€)
Trade balance	22,094	71,533	94,871	98,000 (€)
R&D expenditure	17,849	27,920	33,949	35,200 (€)
Employment (units)	554,186	670,088	747,607	750,000 (€)
R&D employment (units)	88,397	117,035	112,425	115,000 (€)
Total pharmaceutical market value at ex-factory prices	89,449	153,685	199,234	207,000 (€)
Payment for pharmaceuticals by statutory health insurance systems (ambulatory care only)	76,909	129,464	133,203	137,000 (€)

Values in € million unless otherwise stated

(1) Data relate to EU-27, Norway and Switzerland since 2005 (EU-15 before 2005); Croatia and Serbia included since 2010; Turkey included since 2011; Russia included since 2013

(2) Data relating to total exports and total imports include EU-28 intra-trade (double counting in some cases)

Source: EFPIA member associations (official figures) - (€): EFPIA estimate; Eurostat (EU-28 trade data 2000-2017)

MAIN TRENDS

The research-based pharmaceutical industry can play a critical role in restoring Europe to growth and ensuring future competitiveness in an advancing global economy. In 2017 it invested an estimated € 35,200 million in R&D in Europe. It directly employs some 750,000 people and generates three to four times more employment indirectly – upstream and downstream – than it does directly. However, the sector faces real challenges. Besides the additional regulatory hurdles and escalating R&D costs, the sector has been severely hit by the impact of fiscal austerity measures introduced by governments across much of Europe since 2010.

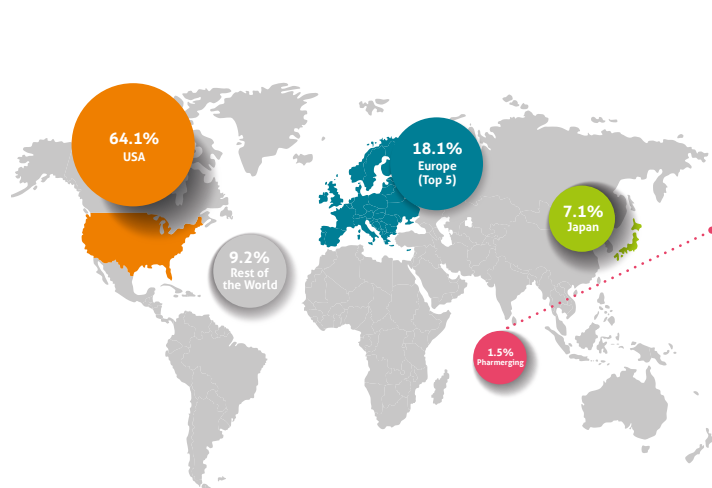
* There is rapid growth in the market and research environment in emerging economies such as Brazil, China and India, leading to a gradual migration of economic and research activities from Europe to these fast-growing markets. During the period 2013-2017 the Brazilian, Chinese and

Indian markets grew by 11.5%, 9.4% and 11.0% respectively compared to an average market growth of 4.4% for the top 5 European Union markets and 7.3% for the US market (source: IQVIA Institute, March 2018).

* In 2017 North America accounted for 48.1% of world pharmaceutical sales compared with 22.2% for Europe. According to IQVIA data (MIDAS May 2018), 64.1% of sales of new medicines launched during the period 2012-2017 were on the US market, compared with 18.1% on the European market (top 5 markets).

* The fragmentation of the EU pharmaceutical market has resulted in a lucrative parallel trade. This benefits neither social security nor patients and deprives the industry of additional resources to fund R&D. Parallel trade was estimated to amount to € 5,202 million (value at ex-factory prices) in 2016.

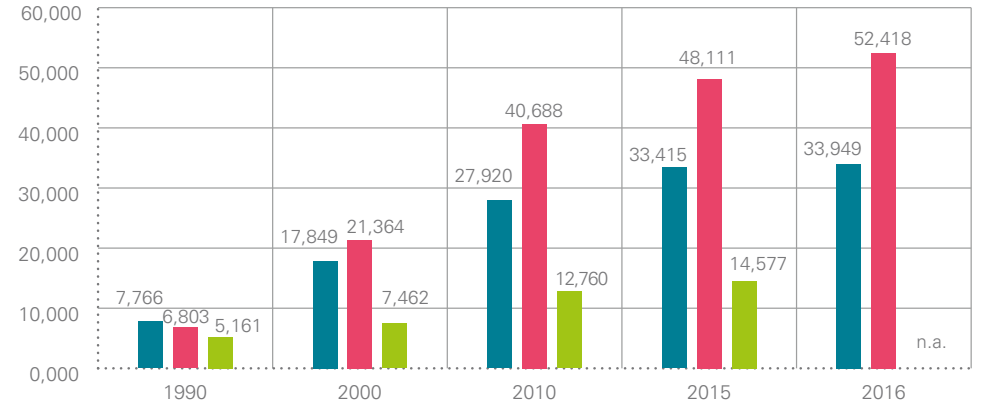
GEOGRAPHICAL BREAKDOWN (BY MAIN MARKETS) OF SALES OF NEW MEDICINES LAUNCHED DURING THE PERIOD 2012-2017



Note:
New medicines cover all new active ingredients marketed for the first time on the world market during the period 2012-2017
Europe (Top 5) comprises Germany, France, Italy, Spain and United Kingdom
Pharmerging comprises 21 countries ranked by IQVIA as high-growth pharmaceutical markets (Algeria, Argentina, Bangladesh, Brazil, Colombia, Chile, China, Egypt, India, Indonesia, Kazakhstan, Mexico, Nigeria, Pakistan, Philippines, Poland, Russia, Saudi Arabia, South Africa, Turkey and Vietnam)

Source: IQVIA (MIDAS May 2018)

PHARMACEUTICAL R&D EXPENDITURE IN EUROPE, USA AND JAPAN (MILLION OF NATIONAL CURRENCY UNITS*), 1990-2016

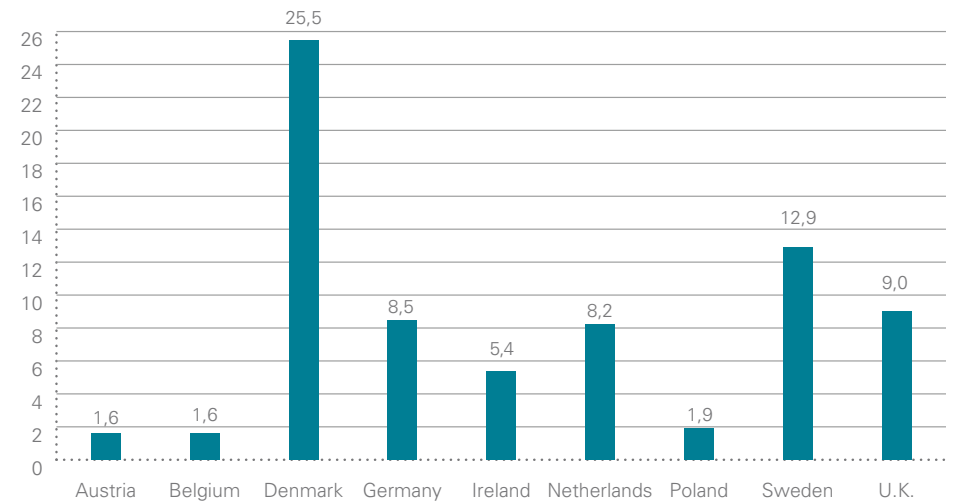


* Note: Europe: € million; USA: \$ million; Japan: ¥ million x 100

Source: EFPIA member associations, PhRMA, JPMA



SHARE OF PARALLEL IMPORTS IN PHARMACY MARKET SALES (%) – 2016



Note: U.K.: in % of pharmacy market sales at reimbursement prices

Source: EFPIA member associations (estimate)

PHARMACEUTICAL INDUSTRY RESEARCH AND DEVELOPMENT IN EUROPE

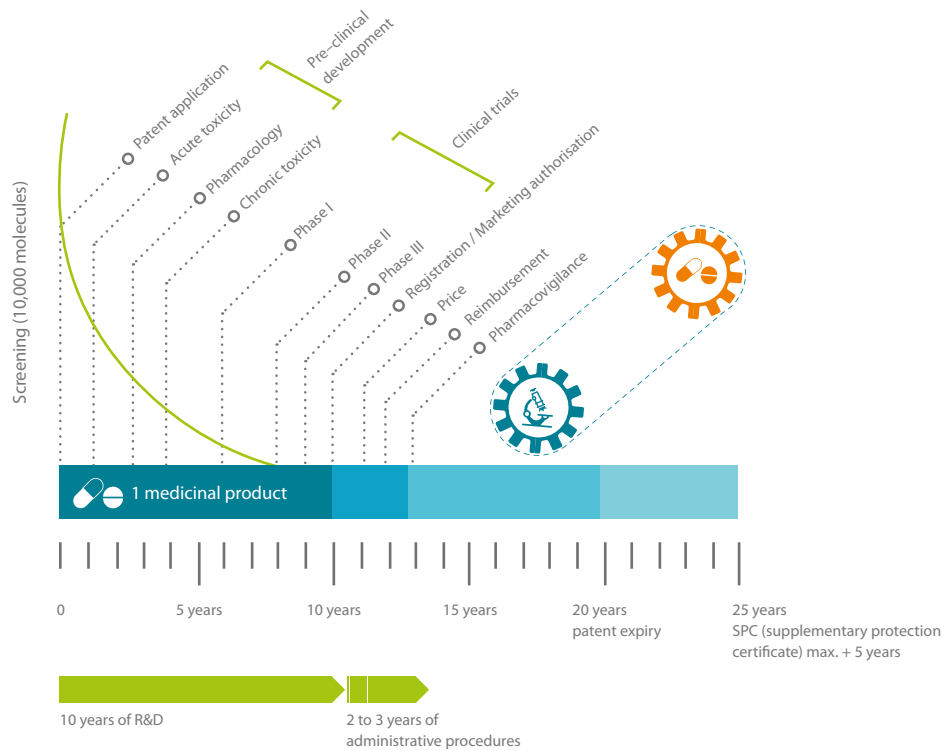
All new medicines introduced into the market are the result of lengthy, costly and risky research and development (R&D) conducted by pharmaceutical companies:

* 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 € 1,926 million (\$ 2,558 million in year 2013 dollars) in 2016 (DiMasi et al, Journal of Health Economics, January 2016);

* 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.

PHASES OF THE RESEARCH AND DEVELOPMENT PROCESS



PHARMACEUTICAL INDUSTRY RESEARCH AND DEVELOPMENT IN EUROPE

EFPIA 2016	€ million	€ million	
Austria	294	Latvia	n.a
Belgium	2,889	Lithuania	n.a
Bulgaria	n.a	Malta	n.a
Croatia	40	Netherlands	642
Cyprus	85	Norway	126
Czech Republic	77	Poland	289
Denmark	1,497	Portugal	75
Estonia	n.a	Romania	109
Finland	198	Russia	412
France	4,451	Slovakia	n.a
Germany	6,227	Slovenia	180
Greece	42	Spain	1,085
Hungary	178	Sweden	1,104
Iceland	n.a	Switzerland	6,429
Ireland	305	Turkey	66
Italy	1,470	U.K.	5,679
TOTAL		33,949	

Note:

The figures relate to the R&D carried out in each country.

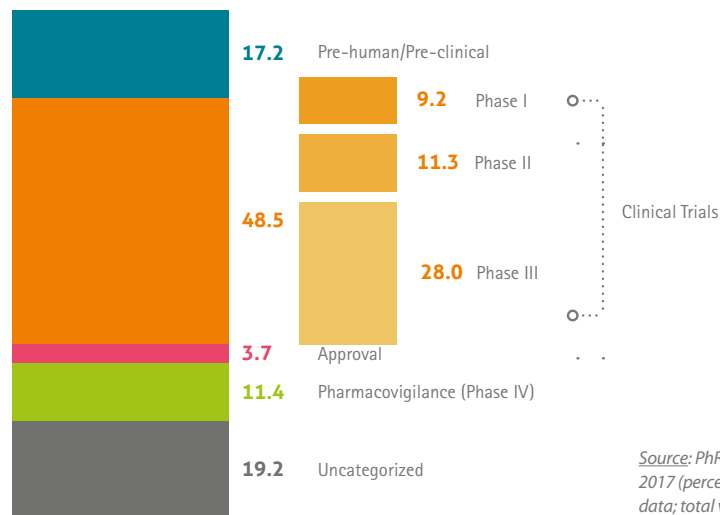
Austria, France, Greece, Norway, Portugal, Sweden: 2015 data; Cyprus, Ireland: 2013 data; Czech Republic: 2012 data; Croatia, Netherlands: 2011 data

Belgium, Croatia, Denmark, France, Germany, Greece, Ireland, Italy, Netherlands, Norway (LMI members), Poland, Romania, Slovenia, Sweden (LIF members), Switzerland (Interpharma members), Turkey: estimate

Source: EFPIA member associations (official figures)

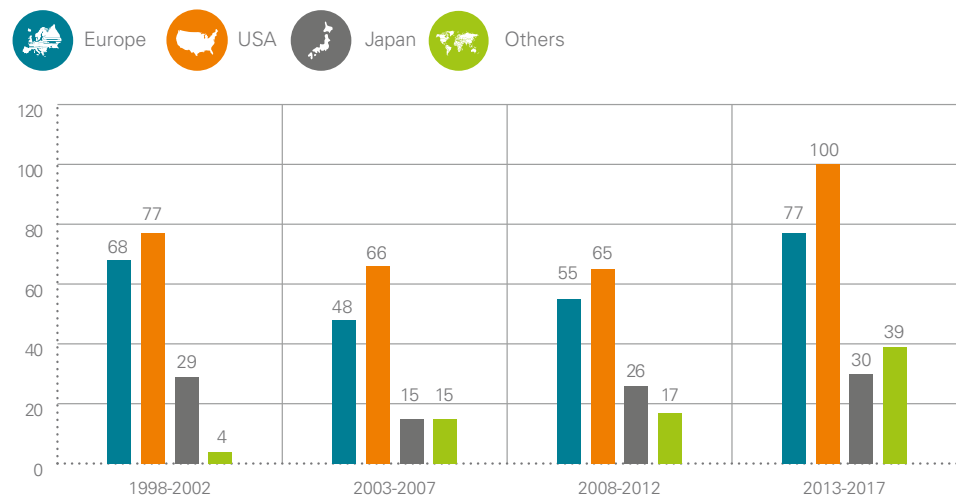


ALLOCATION OF R&D INVESTMENTS BY FUNCTION (%)



Source: PhRMA, Annual Membership Survey 2017 (percentages calculated from 2016 data; total values may be affected by rounding)

NUMBER OF NEW CHEMICAL OR BIOLOGICAL ENTITIES (1998-2017)



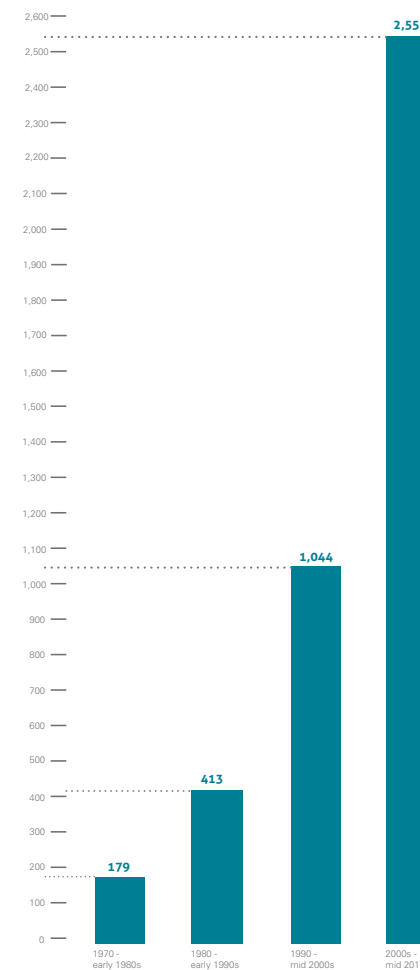
Source: SCRIP – EFPIA calculations (according to nationality of mother company)

IMPORTANCE OF PHARMACEUTICAL R&D

In 2016 the pharmaceutical industry invested nearly € 34,000 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 during the period 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.

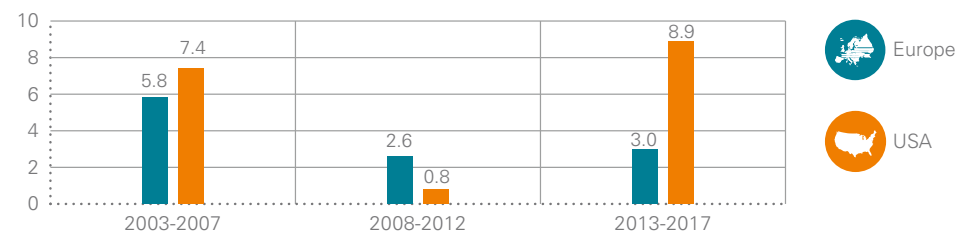
ESTIMATED FULL COST OF BRINGING A NEW CHEMICAL OR BIOLOGICAL ENTITY TO MARKET (\$ MILLION – YEAR 2013 \$)

Source: Joseph. A. DiMasi, Henry G. Grabowski, Ronald W.Hansen, Innovation in the pharmaceutical industry: New estimates of R&D costs, Journal of Health Economics, 47 (2016), 20–33



PHARMACEUTICAL R&D EXPENDITURE – ANNUAL GROWTH RATE (%)

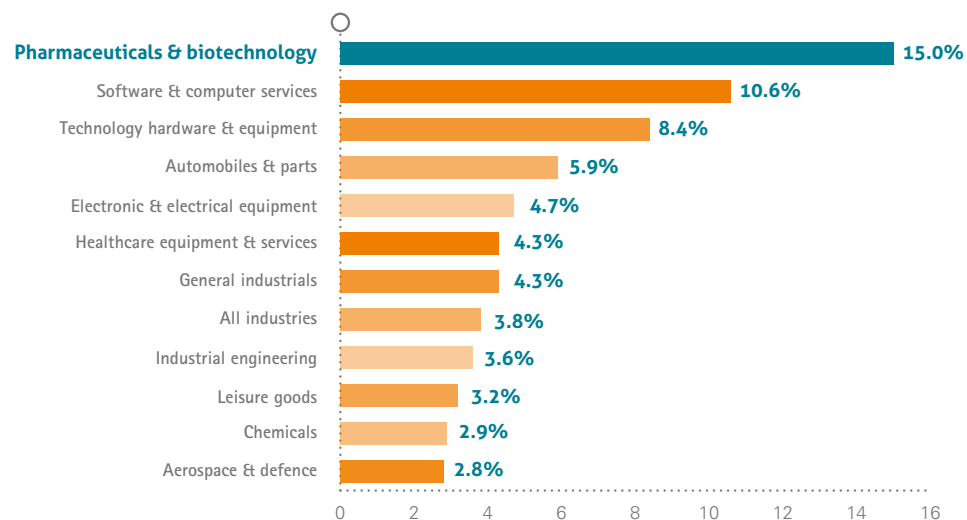
Note: USA: data relating to period 2013-2016
Source: EFPIA, PhRMA



According to EUROSTAT data, the pharmaceutical industry is the high technology sector with the highest added-value per person employed, significantly higher than the average value for high-tech and manufacturing industries. The pharmaceutical industry is also the sector with the highest ratio of R&D investment to net sales.

According to the 2016 EU Industrial R&D Investment Scoreboard the pharmaceutical and biotechnology sector amounts to 19.1% of total business R&D expenditure worldwide.

RANKING OF INDUSTRIAL SECTORS BY OVERALL SECTOR R&D INTENSITY (R&D AS PERCENTAGE OF NET SALES – 2016)



Note:
Data relate to the top 2,500 companies with registered offices in the EU (590), Japan (356), the US (837), China (327) and the Rest of the World (390), ranked by total worldwide R&D investment (with investment in R&D above €21 million).

Source: The 2016 EU Industrial R&D Investment Scoreboard, European Commission, JRC/DG RTD

PHARMACEUTICAL PRODUCTION

EFPIA 2016	€ million	€ million	
Austria	2,737	Latvia	120
Belgium	12,821	Lithuania	n.a
Bulgaria	121	Malta	n.a
Croatia	615	Netherlands	6,180
Cyprus	180	Norway	745
Czech Republic	n.a	Poland	2,893
Denmark	14,219	Portugal	1,686
Estonia	n.a	Romania	655
Finland	1,721	Russia	4,228
France	19,040	Slovakia	n.a
Germany	29,197	Slovenia	1,936
Greece	895	Spain	15,144
Hungary	3,050	Sweden	7,302
Iceland	89	Switzerland	46,280
Ireland	19,305	Turkey	4,439
Italy	30,010	U.K.	22,445
TOTAL		248,053	

Note:
All data based on SITC 54
Bulgaria: 2015 data; Ireland: 2014 data; Latvia, Romania: 2013 data; Norway: 2012 data; Cyprus, Netherlands: 2010 data
Croatia, Denmark, France, Ireland, Italy, Netherlands, Norway, Portugal, Slovenia, Spain, Sweden, Switzerland: estimate
Bulgaria, Croatia, Cyprus, France, Germany, Hungary, Ireland, Latvia, Norway, Poland, Portugal, Romania, Slovenia: veterinary products excluded

Source: EFPIA member associations (official figures)



EMPLOYMENT IN THE PHARMACEUTICAL INDUSTRY

EFPIA 2016	Units		Units
Austria	14,634	Latvia	1,971
Belgium	35,250	Lithuania	1,220
Bulgaria	10,800	Malta	445
Croatia	6,000	Netherlands	17,900
Cyprus	1,140	Norway	3,800
Czech Republic	17,900	Poland	30,351
Denmark	26,963	Portugal	7,400
Estonia	380	Romania	30,000
Finland	4,792	Russia	n.a
France	98,786	Slovakia	3,000
Germany	115,663	Slovenia	9,493
Greece	16,800	Spain	41,102
Hungary	24,800	Sweden	11,012
Iceland	n.a	Switzerland	44,232
Ireland	26,373	Turkey	20,000
Italy	64,400	U.K.	61,000
TOTAL			747,607

Note:

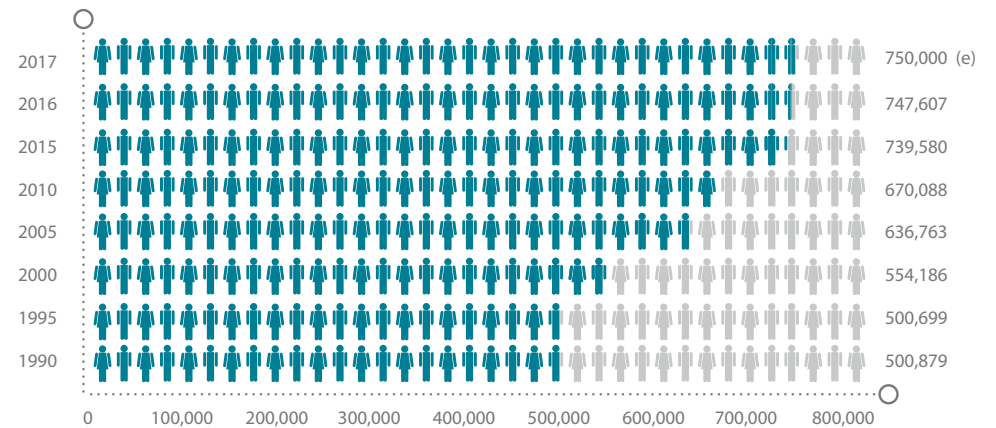
Croatia, Czech Republic, Ireland, Sweden: 2014 data; Denmark, Lithuania: 2013 data; Latvia: 2012 data; Slovakia: 2011 data; Cyprus: 2007 data; Malta: 2004 data
Austria, Belgium, Bulgaria, Croatia, Estonia, France, Ireland, Italy, Malta, Netherlands, Norway, Poland, Romania, Slovenia, Sweden, Switzerland, Turkey, United Kingdom: estimate

Source: EFPIA member associations (official figures) - (e): EFPIA estimate

The research-based pharmaceutical industry is one of Europe's major high-technology industrial employers. Recent studies in some countries showed that the research-based pharmaceutical industry generates three to four times more employment indirectly - upstream and downstream - than it

does directly. Further, a significant proportion of these are valuable skilled jobs, for instance in the fields of academia or clinical science, which can help maintain a high-level knowledge base and prevent a European "brain drain".

EMPLOYMENT IN THE PHARMACEUTICAL INDUSTRY (1990-2017)

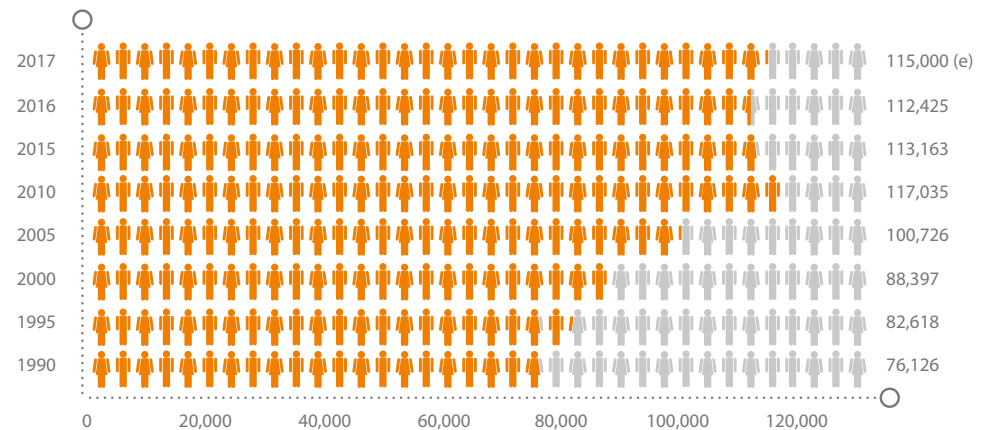


Note:

Data includes Turkey (since 2011), Croatia and Lithuania (since 2010), Bulgaria, Estonia and Hungary (since 2009), Czech Republic (since 2008), Cyprus (since 2007), Latvia, Romania & Slovakia (since 2005), Malta, Poland and Slovenia (since 2004)

Source: EFPIA member associations (official figures) - (e): EFPIA estimate

EMPLOYMENT IN PHARMACEUTICAL R&D (1990-2017)



Note:

Data includes Greece & Lithuania (since 2013), Bulgaria and Turkey (since 2012), Poland (since 2010), Czech Republic, Estonia and Hungary (since 2009), Romania (since 2005) and Slovenia (since 2004)

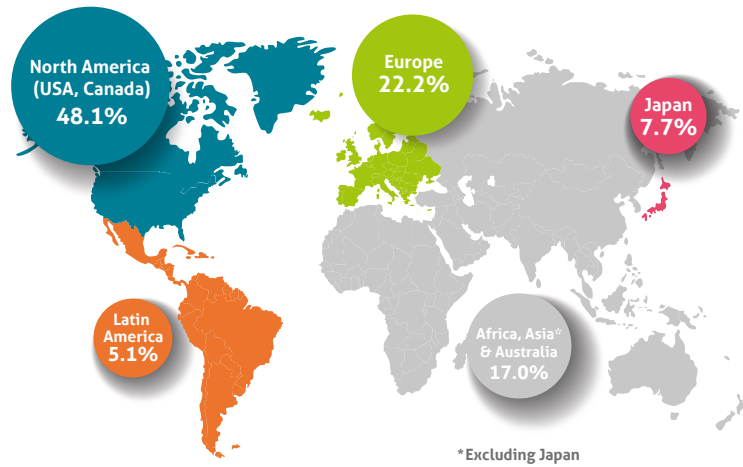
Croatia, Cyprus, Latvia, Malta, Serbia, Slovakia: data not available

Source: EFPIA member associations - (e): EFPIA estimate

PHARMACEUTICAL SALES

The world pharmaceutical market was worth an estimated € 754,555 million (\$ 852,647 million) at ex-factory prices in 2017. The North American market (USA & Canada) remained the world's largest market with a 48.1% share, well ahead of Europe and Japan.

BREAKDOWN OF THE WORLD PHARMACEUTICAL MARKET – 2017 SALES



Note:
Europe includes Turkey and Russia; percentages might not add up due to rounding

Source: IQVIA (MIDAS), May 2018 (data relate to the 2017 audited global retail and hospital pharmaceutical market at ex-factory prices)

PRICE STRUCTURE

Distribution margins, which are generally fixed by governments, and VAT rates differ significantly from country to country in Europe. On average, approximately one third of the retail price of a medicine reverts to distributors (pharmacists and wholesalers) and the State.

BREAKDOWN OF THE RETAIL PRICE OF A MEDICINE, 2016 (%)



PHARMACEUTICAL MARKET VALUE (at ex-factory prices)

EFPIA 2016	€ million	€ million	
Austria	3,657	Lithuania	538
Belgium	4,771	Malta	77
Bulgaria	1,026	Netherlands	5,052
Croatia	710	Norway	1,835
Cyprus	180	Poland	5,744
Czech Republic	1,639	Portugal	2,983
Denmark	2,446	Romania	2,547
Estonia	290	Russia	13,269
Finland	2,333	Serbia	564
France	28,362	Slovakia	1,216
Germany	30,815	Slovenia	587
Greece	4,890	Spain	15,595
Hungary	2,225	Sweden	3,917
Iceland	147	Switzerland	5,132
Ireland	1,977	Turkey	7,752
Italy	25,959	U.K.	20,774
Latvia	225		
TOTAL		199,234	

Note:
Medicinal products as defined by Directive 2001/83/EEC
Cyprus, Denmark, Finland, Iceland, Latvia, Lithuania, Norway, Russia, Slovenia, Sweden: pharmaceutical market value at pharmacy purchasing prices
Cyprus: 2015 data; Serbia: 2011 data; Malta: 2007 data
Belgium, France, Germany, Ireland, Italy, Malta, Norway, Spain, United Kingdom: estimate

Source:
EFPIA member associations (official figures) – Latvia, Slovakia, Norway: IQVIA
The figures above are for pharmaceutical sales, at ex-factory prices, through all distribution channels (pharmacies, hospitals, dispensing doctors, supermarkets, etc.), whether dispensed on prescription or at the patient's request. Sales of veterinary medicines are excluded.



VAT RATES APPLICABLE TO MEDICINES

The table below shows the VAT rates applied to medicines in European countries as of 1 January 2018.

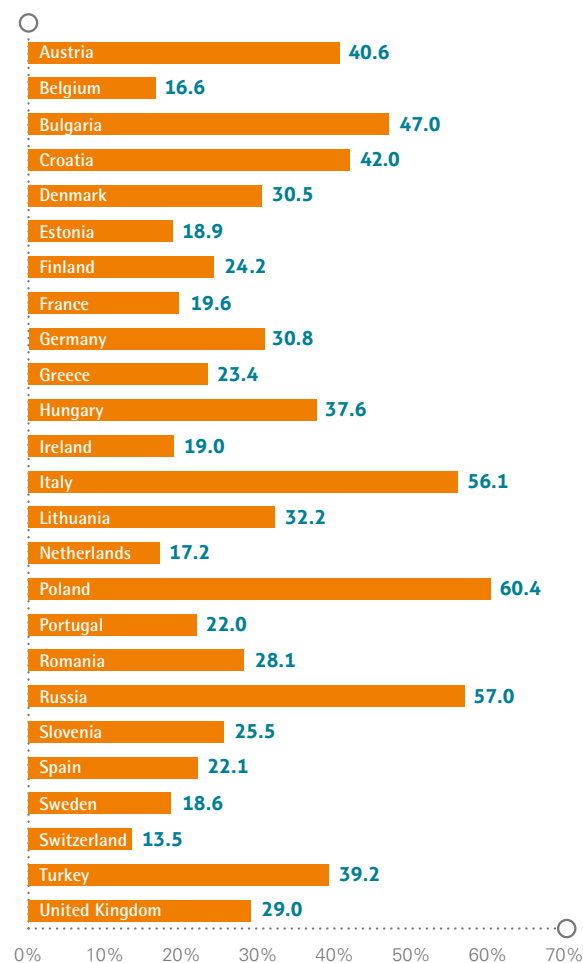
Country	Standard VAT rate (%)	VAT rates applied to medicines	
		Prescription (%)	OTC (%)
Austria	20,0	10,0	10,0
Belgium	21,0	6,0	6,0
Bulgaria	20,0	20,0	20,0
Croatia	25,0	5,0	5,0
Cyprus	19,0	5,0	5,0
Czech Republic	21,0	10,0	10,0
Denmark	25,0	25,0	25,0
Estonia	20,0	9,0	9,0
Finland	24,0	10,0	10,0
France (1)	20,0	2,1	10,0
Germany	19,0	19,0	19,0
Greece	24,0	6,0	6,0
Hungary	27,0	5,0	5,0
Iceland	24,0	24,0	24,0
Ireland (2)	23,0	0–23,0	0–23,0
Italy	22,0	10,0	10,0
Latvia	21,0	12,0	12,0
Lithuania (3)	21,0	5,0	21,0
Luxembourg	17,0	3,0	3,0
Malta	18,0	0,0	0,0
Netherlands	21,0	6,0	6,0
Norway	25,0	25,0	25,0
Poland	23,0	8,0	8,0
Portugal	23,0	6,0	6,0
Romania	19,0	9,0	19,0
Russia	18,0	10,0	10,0
Serbia	20,0	10,0	10,0
Slovakia	20,0	10,0	10,0
Slovenia	22,0	9,5	9,5
Spain	21,0	4,0	4,0
Sweden	25,0	0,0	25,0
Switzerland	7,7	2,5	2,5
Turkey	18,0	8,0	8,0
U.K.	20,0	0,0	20,0

(1) France: reimbursable medicines 2.1%; non-reimbursable medicines 10.0% (2) Ireland: oral medication 0%; other medication 23% (3) Lithuania: reimbursable medicines 5.0%; non-reimbursable medicines 21.0%

GENERICS

The term 'generic' is widely used but its definition is not always consistent between countries. Generics are usually produced by a manufacturer who is

not the inventor of the original product, and are marketed when intellectual property protection rights are exhausted.



SHARE (ESTIMATE – IN %) ACCOUNTED FOR BY GENERICS IN PHARMACEUTICAL MARKET SALES VALUE (AT EX-FACTORY PRICES), 2016

Note:
Bulgaria, Croatia, Denmark, Estonia, Finland, Greece, Ireland, Hungary, U.K.: share of generics in pharmacy market sales
Austria, Belgium, France, Germany, Italy, Netherlands, Portugal, Slovenia, Spain: share of generics in reimbursable pharmacy market sales
Lithuania, Poland, Romania, Russia, Sweden, Switzerland, Turkey: share of generics in total market sales
Cyprus, Czech Republic, Iceland, Latvia, Malta, Norway, Serbia, Slovakia: 2016 data not available
France: data relate only to those active substances listed on the official list of medicines
Definition: 'generic' means a medicine based on an active substance that is out of patent and which is marketed under a different name from that of the original branded medicine.

Source: EFPIA member associations

PHARMACEUTICAL EXPORTS

EFPIA 2016	€ million	€ million	
Austria	8,405	Lithuania	724
Belgium	40,723	Luxembourg	324
Bulgaria	804	Malta	847
Croatia	891	Netherlands	28,495
Cyprus	261	Norway	705
Czech Republic	2,226	Poland	2,701
Denmark	12,301	Portugal	1,131
Estonia	76	Romania	706
Finland	840	Russia	338
France	28,271	Slovakia	516
Germany	69,513	Slovenia	2,503
Greece	1,059	Spain	10,497
Hungary	4,452	Sweden	7,308
Ireland	30,169	Switzerland	64,508
Italy	20,524	Turkey	788
Latvia	409	United Kingdom	30,318
TOTAL		373,333	

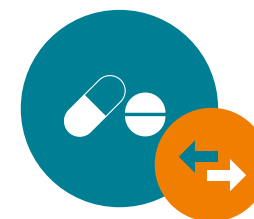
Note:
 All data based on SITC 54
 Norway: veterinary products excluded, 2014 data
 Source: Eurostat (COMEXT database – February 2018)
 Norway: Statistics Norway; Switzerland: Swiss Federal Customs Administration



PHARMACEUTICAL IMPORTS

EFPIA 2016	€ million	€ million	
Austria	8,349	Lithuania	960
Belgium	33,506	Luxembourg	441
Bulgaria	1,167	Malta	146
Croatia	1,205	Netherlands	21,085
Cyprus	232	Norway	1,597
Czech Republic	3,824	Poland	5,326
Denmark	3,604	Portugal	2,429
Estonia	385	Romania	2,750
Finland	2,011	Russia	8,575
France	23,141	Slovakia	1,792
Germany	44,721	Slovenia	1,154
Greece	2,853	Spain	13,201
Hungary	3,627	Sweden	3,923
Ireland	6,238	Switzerland	23,361
Italy	22,124	Turkey	4,101
Latvia	568	United Kingdom	30,066
TOTAL		278,462	

Note:
 All data based on SITC 54
 Norway: veterinary products excluded, 2014 data
 Source: Eurostat (COMEXT database – February 2018)
 Norway: Statistics Norway; Switzerland: Swiss Federal Customs Administration



PHARMACEUTICAL TRADE BALANCE

EFPIA 2016	€ million		€ million
Austria	56	Lithuania	-236
Belgium	7,217	Luxembourg	-117
Bulgaria	-363	Malta	701
Croatia	-314	Netherlands	7,410
Cyprus	29	Norway	-892
Czech Republic	-1,598	Poland	-2,625
Denmark	8,697	Portugal	-1,298
Estonia	-309	Romania	-2,044
Finland	-1,171	Russia	-8,237
France	5,130	Slovakia	-1,276
Germany	24,792	Slovenia	1,349
Greece	-1,794	Spain	-2,704
Hungary	825	Sweden	3,385
Ireland	23,931	Switzerland	41,147
Italy	-1,600	Turkey	-3,313
Latvia	-159	United Kingdom	252
TOTAL			94,871

Note:

All data based on SITC 54

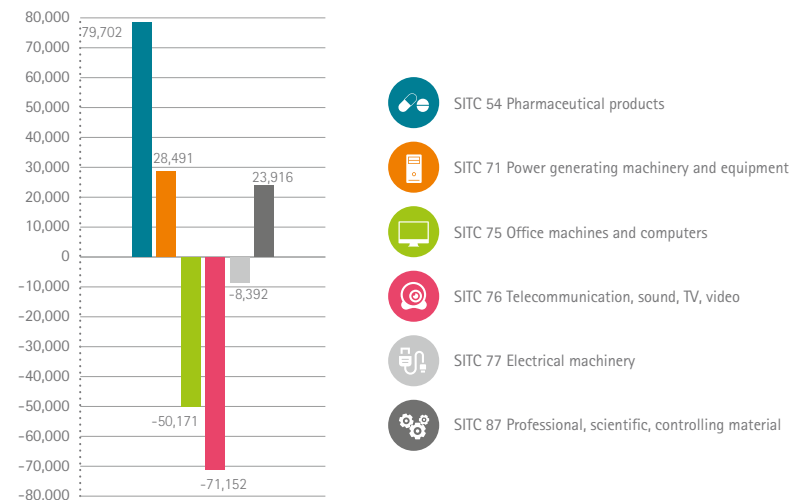
Norway: veterinary products excluded, 2014 data

Source: Eurostat (COMEXT database – February 2018)

Norway: Statistics Norway; Switzerland: Swiss Federal Customs Administration



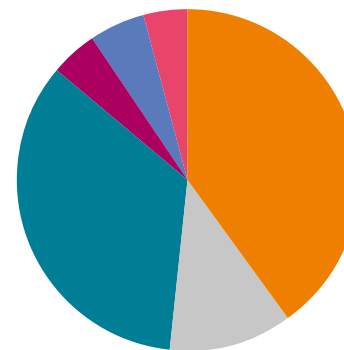
EU-28 TRADE BALANCE – HIGH TECHNOLOGY SECTORS (€ MILLION) – 2017



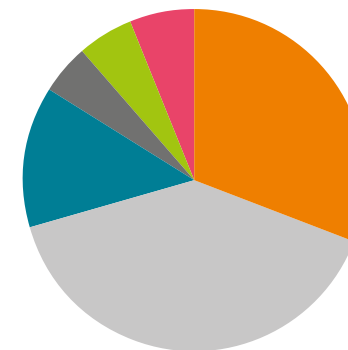
Source: Eurostat, COMEXT database, June 2018

THE EUROPEAN UNION'S TOP 5 PHARMACEUTICAL TRADING PARTNERS – 2017

	USA	Others	Switzerland	Israel	Russia	Singapore	Japan	China
EU imports	40.0%	11.9%	34.3%	5.2%	-	4.5%	-	4.1%
EU exports	31.1%	39.6%	13.4%	-	4.6%	-	5.2%	6.1%



EU imports



EU exports

Source: Eurostat, COMEXT database, June 2018

TOTAL SPENDING (PUBLIC AND PRIVATE) ON HEALTHCARE AS A PERCENTAGE OF GDP AT MARKET PRICES

Country	1980	1990	2000	2010	2015	2016
Austria	7.0	7.7	9.2	10.1	10.3	10.4
Belgium	6.1	7.1	7.9	9.9	10.5	10.4
Czech Republic	-	3.8	5.7	6.9	7.3	7.3
Denmark	8.4	8.0	8.1	10.4	10.3	10.4
Estonia	-	-	5.2	6.3	6.5	6.7
Finland	5.9	7.2	6.8	8.9	9.4	9.3
France	6.7	8.0	9.5	10.7	11.1	11.0
Germany	8.1	8.0	9.8	11.0	11.2	11.3
Greece	-	6.1	7.2	9.6	8.4	8.3
Hungary	-	-	6.8	7.6	7.2	7.6
Iceland	5.9	7.4	9.0	8.8	8.6	8.6
Ireland	7.5	5.6	5.9	10.5	7.8	7.8
Italy	-	7.0	7.6	9.0	9.0	8.9
Latvia	-	-	5.4	6.1	5.8	5.7
Luxembourg	4.6	5.1	5.9	7.0	6.0	6.3
Netherlands	6.6	7.1	7.1	10.4	10.7	10.5
Norway	5.4	7.1	7.7	8.9	10.0	10.5
Poland	-	4.3	5.3	6.4	6.3	6.4
Portugal	4.8	5.5	8.4	9.8	9.0	8.9
Slovakia	-	-	5.3	7.8	6.9	6.9
Slovenia	-	-	7.8	8.6	8.5	8.6
Spain	5.0	6.1	6.8	9.0	9.2	9.0
Sweden	7.8	7.3	7.4	8.5	11.0	11.0
Switzerland	6.6	7.4	9.3	10.7	12.1	12.4
Turkey	2.4	2.5	4.6	5.1	4.1	4.3
United Kingdom	5.1	5.1	6.0	8.5	9.9	9.7
Europe	6.1	6.3	7.2	8.7	8.7	8.8
USA	8.2	11.3	12.5	16.4	16.9	17.2
Japan	6.3	5.7	7.2	9.2	10.9	10.9

Note: Europe: non-weighted average (26 countries) – EFPIA calculations

Source: OECD Health Data 2017, June 2018

PAYMENT FOR PHARMACEUTICALS BY COMPULSORY HEALTH INSURANCE SYSTEMS AND NATIONAL HEALTH SERVICES (ambulatory care only)

EFPIA 2016	€ million	€ million	
Austria	2,711	Lithuania	228
Belgium	3,973	Malta	n.a.
Bulgaria	354	Netherlands	4,560
Croatia	382	Norway	1,289
Cyprus	93	Poland	1,852
Czech Republic	550	Portugal	1,190
Denmark	775	Romania	1,471
Estonia	134	Russia	1,445
Finland	1,412	Serbia	216
France	23,416	Slovakia	1,089
Germany	36,530	Slovenia	294
Greece	1,945	Spain	9,913
Hungary	1,051	Sweden	2,168
Iceland	63	Switzerland	5,146
Ireland	1,558	Turkey	6,368
Italy	8,268	U.K.	12,633
Latvia	126		
TOTAL		133,203	

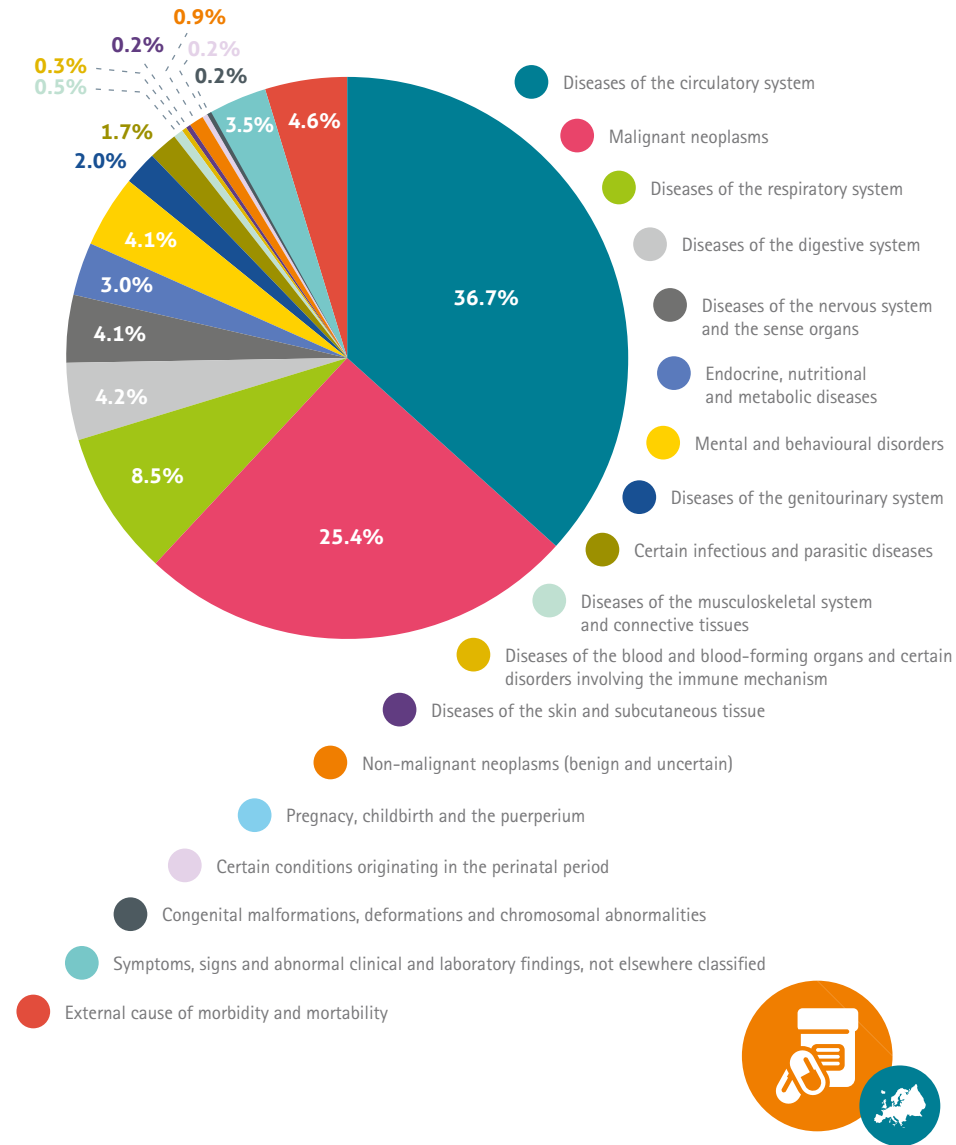
Note:

Cyprus, Czech Republic, Norway: 2015 data; Lithuania: 2013 data; France, Ireland, Netherlands, Norway, Sweden, U.K.: estimate

Source: EFPIA member associations (official figures)

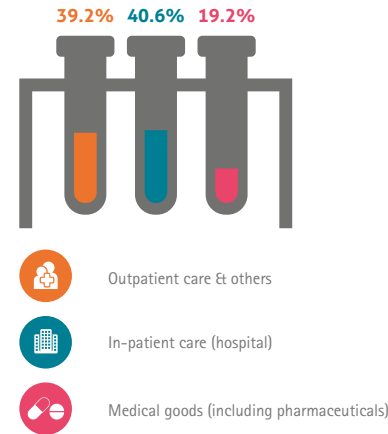


CAUSES OF DEATH BY MAJOR DISEASE AREAS IN EUROPE (EU-28)



Data Source: Eurostat, data relate to year 2015 (non-disease directly related causes of deaths: EFPIA calculations), June 2018

BREAKDOWN OF TOTAL HEALTH EXPENDITURE IN EUROPE – 2015



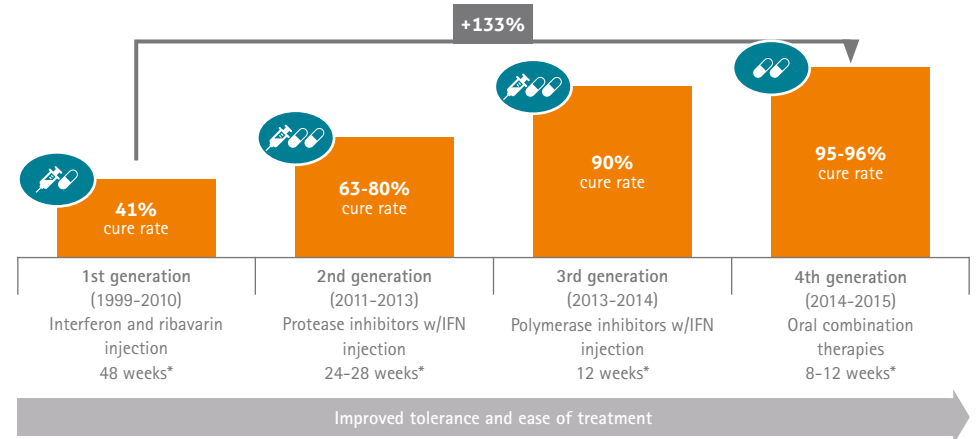
THE ADDED VALUE OF MEDICINES IN HEALTHCARE

Medicines constitute a small part of healthcare costs with, on average, 19.2% of total health expenditure in Europe being spent on pharmaceuticals and other medical goods. In costly diseases such as cancer and rheumatoid arthritis, medicines account for even less than 10% of the total disease costs. Medicines can also generate additional savings, for example by substantially reducing costs in other areas of healthcare, including hospital stays and long-term care costs.

Source: OECD Health Statistics 2017, May 2018 – EFPIA calculations (non-weighted average for 25 EU & EFTA countries)

CHRONOLOGY OF HEPATITIS C TREATMENT (1999–2015)

* Hepatitis C is the leading cause of liver transplants and the reason liver cancer is on the rise



* Treatment duration, INF=interferon;

Source: PhRMA, 'Prescription Medicines: International Costs in Context' (2017)

EFPIA MEMBER ASSOCIATIONS

- Austria**
Fachverband der Chemischen Industrie Österreichs (FCIO)
- Belgium**
Association Générale de l'Industrie du Médicament (pharma.be)
- Denmark**
Laegemiddelindustriforeningen
The Danish Association of the Pharmaceutical Industry (Lif)
- Finland**
Lääketeollisuus ry
Pharma Industry Finland (PIF)
- France**
Les Entreprises du Médicament (LEEM)
- Germany**
Verband Forschender Arzneimittelhersteller (VFA)
- Greece**
Hellenic Association of Pharmaceutical Companies (SFEE)
- Ireland**
Irish Pharmaceutical Healthcare Association (IPHA)
- Italy**
Associazione delle Imprese del Farmaco (Farmindustria)
- Netherlands**
Vereniging Innovatieve Geneesmiddelen
- Norway**
Legemiddelindustrien
Norwegian Association of Pharmaceutical Manufacturers (LMI)
- Poland**
Employers Union of Innovative Pharmaceutical Companies (Infarma)
- Portugal**
Associação Portuguesa da Indústria Farmacêutica (Apifarma)

- Russia**
Association of International Pharmaceutical Manufacturers (AIPM)
- Spain**
Asociación Nacional Empresarial de la Industria Farmacéutica (Farmaindustria)
- Sweden**
Läkemedelsindustriföreningen
The Swedish Association of the Pharmaceutical Industry (LIF)
- Switzerland**
Verband der forschender pharmazeutischen Firmen der Schweiz (Interpharma)
- Turkey**
Arastirmaci Ilac Firmalari Dernegi (AIFD)
- United Kingdom**
The Association of the British Pharmaceutical Industry (ABPI)

ASSOCIATIONS WITH LIAISON STATUS

- Bulgaria:** Association of Research-based Pharmaceutical Manufacturers in Bulgaria (ARPharM)
- Croatia:** Innovative Pharmaceutical Initiative (IFI)
- Cyprus:** Cyprus Association of Pharmaceutical Companies (KEFEA)
- Czech Republic:** Association of Innovative Pharmaceutical Industry (AIFP)
- Estonia:** Association of Pharmaceutical Manufacturers in Estonia (APME)
- Hungary:** Association of Innovative Pharmaceutical Manufacturers (AIPM)
- Latvia:** Association of International Research-based Pharmaceutical Manufacturers (SIFFA)
- Lithuania:** The Innovative Pharmaceutical Industry Association (IFPA)
- Malta:** Maltese Pharmaceutical Association (PRIMA)
- Romania:** Association of International Medicines Manufacturers (ARPIM)
- Serbia:** Innovative Drug Manufacturers' Association (INOVIA)
- Slovakia:** Slovak Association of Innovative Pharmaceutical Industry (AIFP)
- Slovenia:** Forum of International Research and Development Pharmaceutical Industries (EIG)
- Ukraine:** Association of Pharmaceutical Research and Development (APRaD)

MEMBER COMPANIES

✨ Full Members

- AbbVie
- Almirall
- Amgen
- Astellas
- AstraZeneca
- Bayer
- Biogen
- Boehringer Ingelheim
- Bristol-Myers Squibb
- Celgene
- Chiesi
- Eli Lilly
- GlaxoSmithKline
- Grünenthal
- Ipsen
- Johnson & Johnson
- LEO Pharma

- Menarini
- Merck
- Merck Sharp & Dohme (MSD)
- Novartis
- Novo Nordisk
- Pfizer
- Pierre Fabre
- Roche
- Sanofi
- Servier
- Shire
- Takeda
- Teva
- UCB

✨ Affiliate Members

- Bial
- Daiichi-Sankyo
- Eisai
- Esteve
- Lundbeck
- Orion Pharma
- Otsuka
- The Medicines Company
- Vifor Pharma





European Federation of Pharmaceutical
Industries and Associations

EFPIA (The European Federation of Pharmaceutical Industries and Associations) represents the research-based pharmaceutical industry operating in Europe.

Founded in 1978, its members comprise **33** national pharmaceutical industry associations and **40** leading pharmaceutical companies undertaking research, development and manufacturing of medicinal products in Europe for human use.

EFPIA aims to create an environment that enables its members to innovate, discover, develop and deliver new therapies and vaccines for people across Europe, as well as contribute to the European economy. EFPIA's vision is for a healthier future for Europe. A future based on prevention, innovation, access to new treatments and better outcomes for patients.

Through its membership, EFPIA represents the common views of more than 1,950 large, medium and small companies including the entire European research-based pharmaceutical sector whose interests also include a significant part of the generics and biosimilars segments. Two specialised groups have been created within EFPIA to address specific issues relating to vaccines (Vaccines Europe) and the needs of biopharmaceutical companies (EBE - European Biopharmaceutical Enterprises).

Further details about the Federation and its activities can be obtained from:



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