

## The Pharmaceutical Industry in Figures

Key Data \* 2016



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

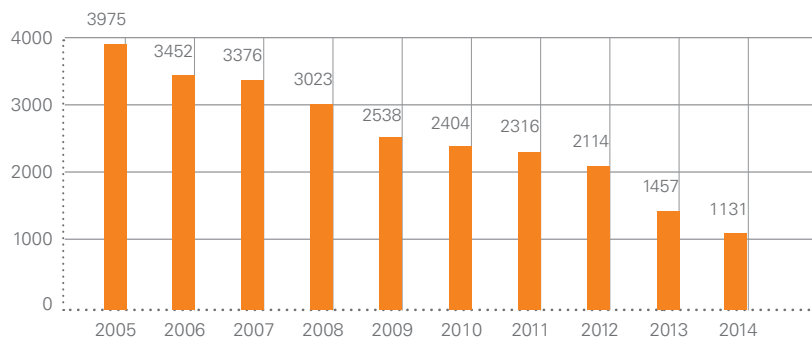
Thanks to advances in science and technology, the research-based pharmaceutical industry is entering an exciting new era in medicines development. Research methods are evolving and we have many promising prospects on the horizon – from the possibilities offered by personalised medicines, to the potential 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 disease 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 2014, WHO Regional Office for Europe & European Centre for Disease Prevention and Control (ECDC), December 2015

## 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	2014	2015
 Production	125,316	199,400	221,088	225,000 (e)
 Exports (1) (2)	90,935	276,357	324,452	361,500 (e)
 Imports	68,841	204,824	251,427	275,000 (e)
 Trade balance	22,094	71,533	73,025	86,500 (e)
 R&D expenditure	17,849	27,920	30,887	31,500 (e)
 Employment (units)	534,882	670,088	723,448	725,000 (e)
 R&D employment (units)	88,397	117,035	118,052	118,000 (e)
 Total pharmaceutical market value at ex-factory prices	86,446	153,118	183,924	192,000 (e)
 Payment for pharmaceuticals by statutory health insurance systems (ambulatory care only)	76,909	129,464	124,273	126,000 (e)

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) – (e): EFPIA estimate; Eurostat (EU-28 trade data 1995–2014)

## 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 2015 it invested an estimated € 31,500 million in R&D in Europe. It employs directly some 725,000 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.

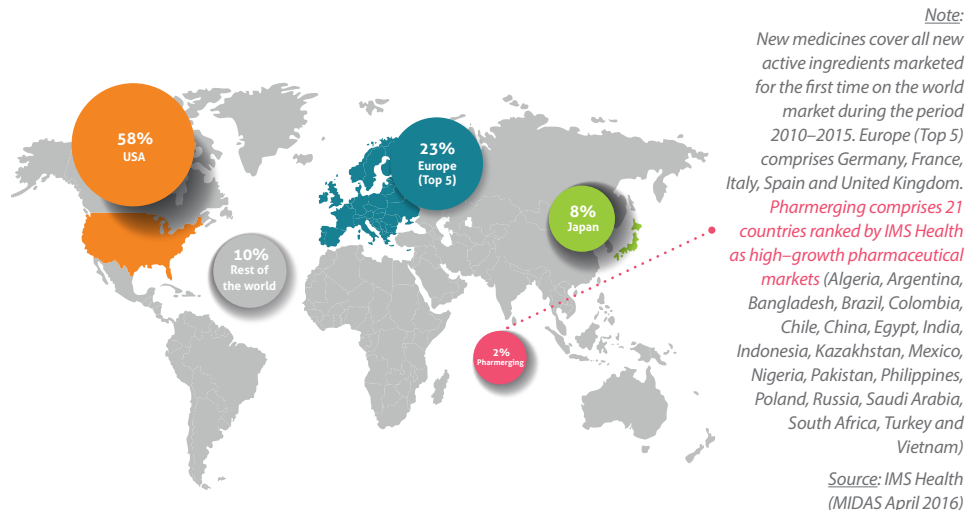
\* There is rapid growth in the market and research environment in emerging economies such as Brazil, China and India, leading to a gradual migration of economic and research activities from Europe to these fast-growing markets. In 2015 the Brazilian and Chinese markets grew by 14.0% and 7.0%

respectively, compared with an average market growth of 5.9% for the total European market and 8.5% for the US market (source: IMS Health, April 2016).

\* In 2015 North America accounted for 48.7% of world pharmaceutical sales compared with 22.2% for Europe. According to IMS Health data, 58% of sales of new medicines launched during the period 2010–2015 were on the US market, compared with 23% on the European market (top 5 markets).

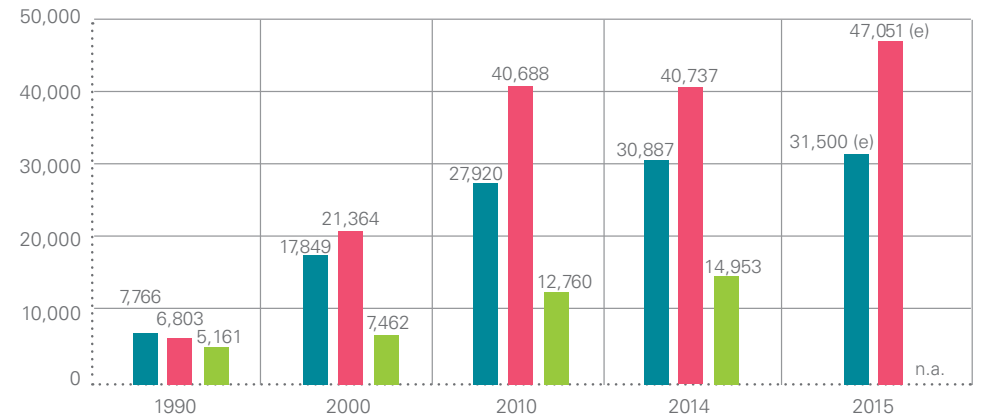
\* The fragmentation of the EU pharmaceutical market has resulted in a lucrative parallel trade. This benefits neither social security nor patients and deprives the industry of additional resources to fund R&D. Parallel trade was estimated to amount to € 5,589 million (value at ex-factory prices) in 2014.

### GEOGRAPHICAL BREAKDOWN (BY MAIN MARKETS) OF SALES OF NEW MEDICINES LAUNCHED DURING THE PERIOD 2010–2015\*



\* *Note:* Percentages may not total 100 due to rounding

### PHARMACEUTICAL R&D EXPENDITURE IN EUROPE, USA AND JAPAN (MILLIONS OF NATIONAL CURRENCY UNITS\*), 1990–2015

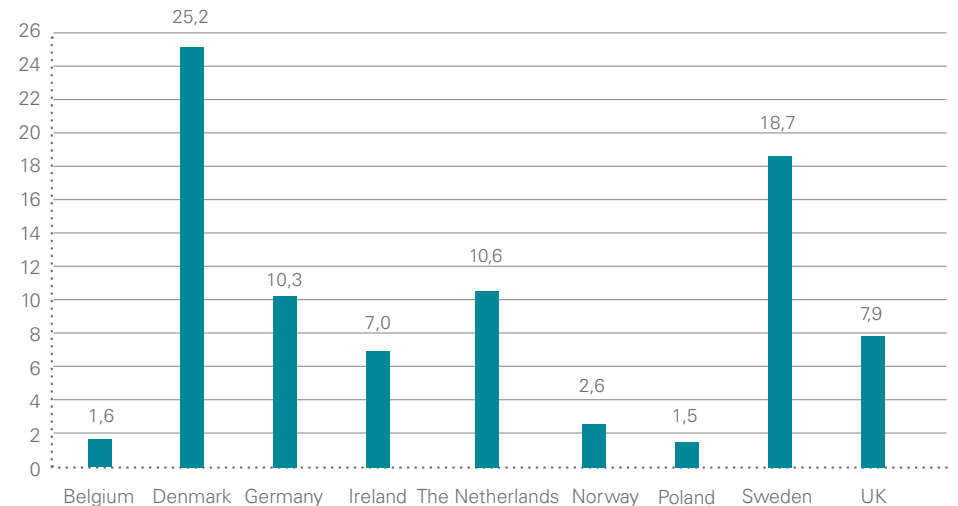


\* *Note:* Europe: € million; USA: \$ million; Japan: ¥ million x 100  
(e): estimate



*Source:* EFPIA member associations, PhRMA, JPMA

### SHARE OF PARALLEL IMPORTS IN PHARMACY MARKET SALES (%) – 2014



*Source:* EFPIA member associations (estimate)

# PHARMACEUTICAL INDUSTRY RESEARCH AND DEVELOPMENT IN EUROPE

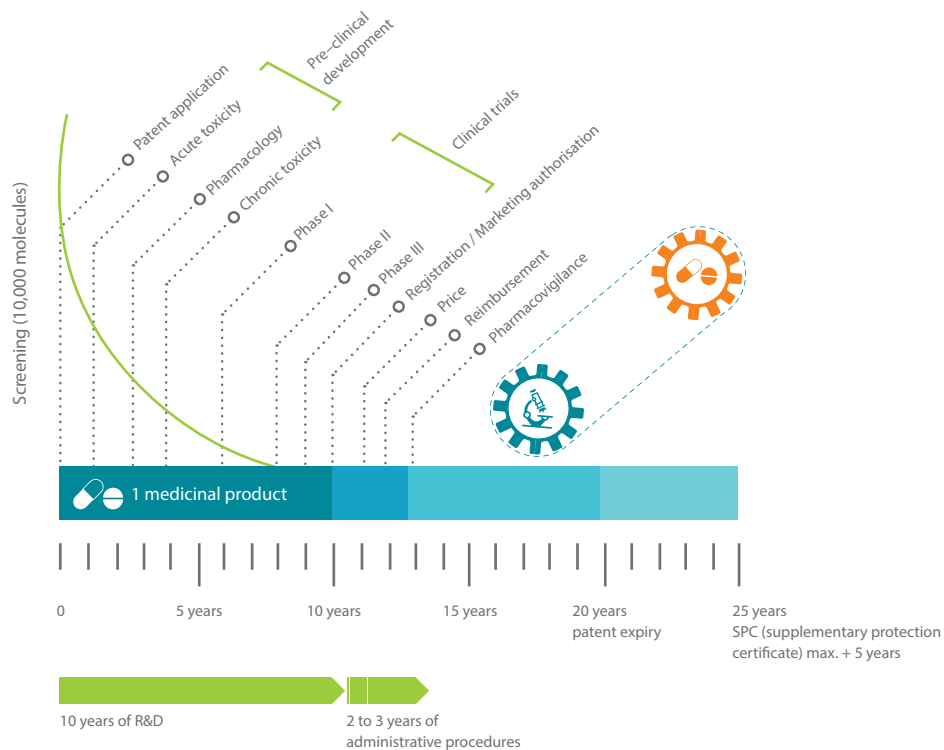
All new medicines introduced into the market are the result of lengthy, costly and risky research and development (R&D) conducted by pharmaceutical companies:

\* 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) 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



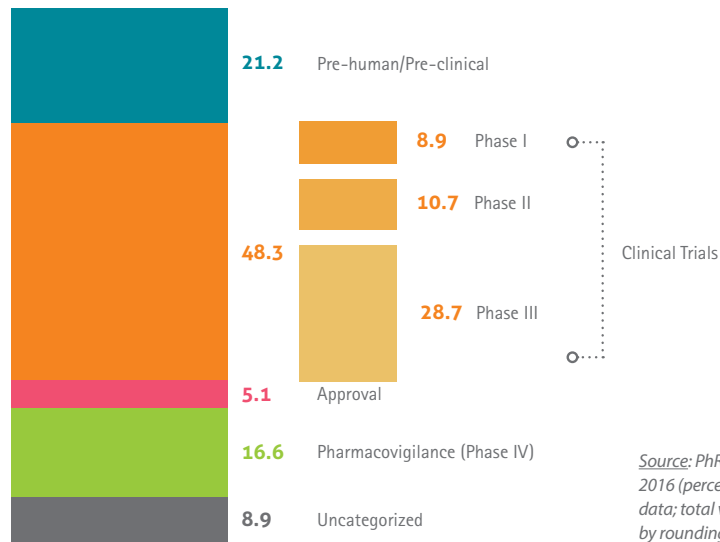
## PHARMACEUTICAL INDUSTRY RESEARCH AND DEVELOPMENT IN EUROPE

EFPIA 2014	€ million		€ million
Austria	650	Lithuania	n.a.
Belgium	2,453	Malta	n.a.
Bulgaria	n.a.	Netherlands	642
Croatia	40	Norway	124
Cyprus	85	Poland	274
Czech Republic	77	Portugal	85
Denmark	1,453	Romania	180
Estonia	n.a.	Russia	197
Finland	197	Serbia	n.a.
France	4,564	Slovakia	n.a.
Germany	5,813	Slovenia	161
Greece	80	Spain	953
Hungary	158	Sweden	765
Ireland	305	Switzerland	5,338
Italy	1,350	Turkey	75
Latvia	n.a.	United Kingdom	4,868
<b>TOTAL</b>			<b>30,887</b>

*Note:*  
 The figures relate to the R&D carried out in each country.  
 Austria, Cyprus, France, Greece, Ireland, Norway, Portugal: 2013 data; Czech Republic, Hungary: 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)

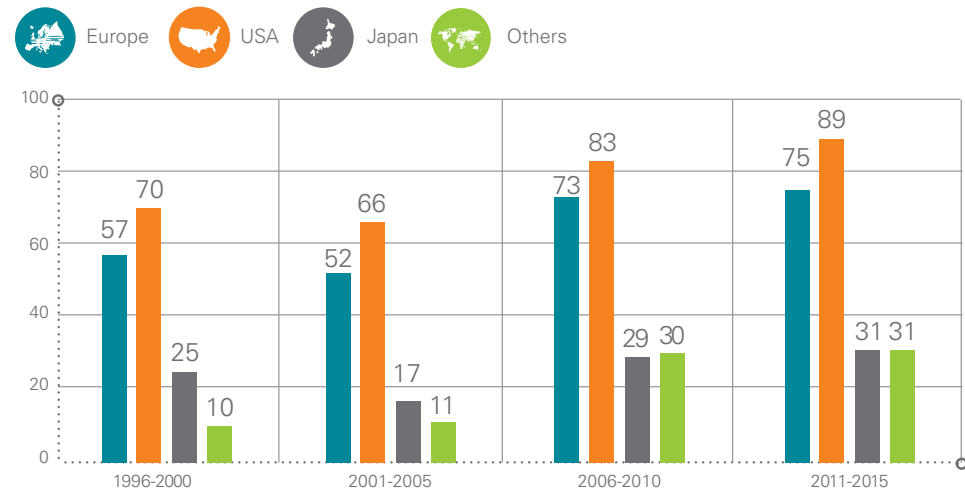


ALLOCATION OF R&D INVESTMENTS BY FUNCTION (%)



Source: PhRMA, Annual Membership Survey 2016 (percentages calculated from 2014 data; total values may be affected by rounding)

NUMBER OF NEW CHEMICAL OR BIOLOGICAL ENTITIES (1996-2015)



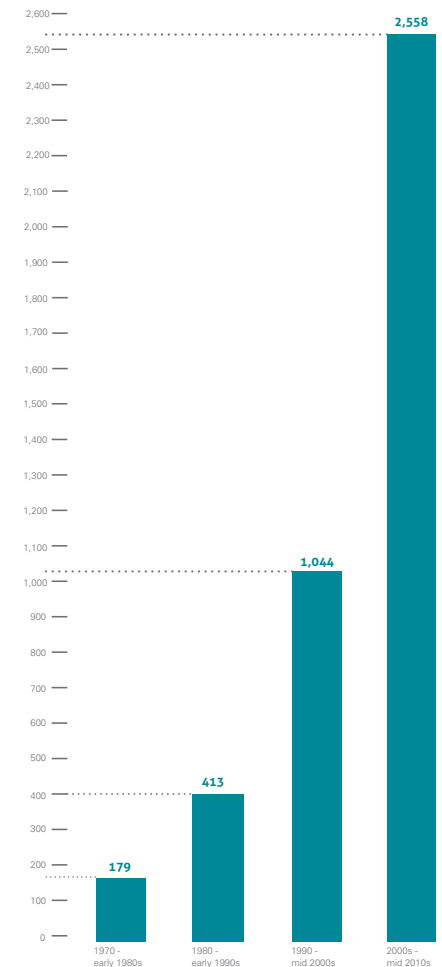
Source: SCRIIP – EFPIA calculations (according to nationality of mother company)

IMPORTANCE OF PHARMACEUTICAL R&D

In 2014 the pharmaceutical industry invested nearly € 30,900 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 is 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.

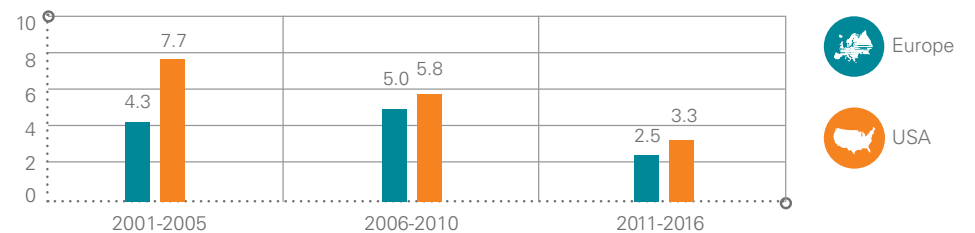
ESTIMATED FULL COST OF BRINGING A NEW CHEMICAL OR BIOLOGICAL ENTITY TO MARKET (\$ MILLION, YEAR 2013 \$)

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 (%)

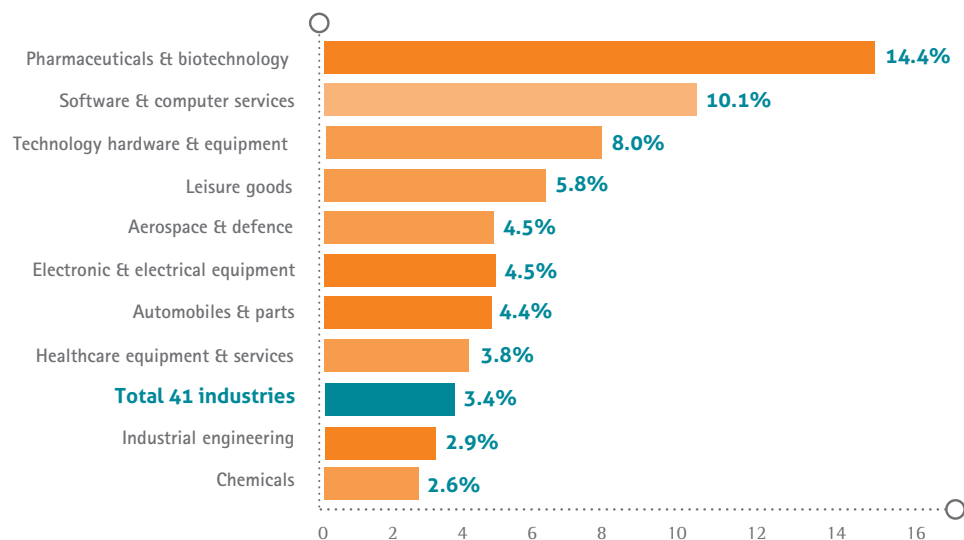
Source: EFPIA, PhRMA



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 2015 EU Industrial R&D Investment Scoreboard the pharmaceutical and biotechnology sector amounts to 18.2% of total business R&D expenditure worldwide.

**RANKING OF INDUSTRIAL SECTORS BY OVERALL SECTOR R&D INTENSITY (R&D AS PERCENTAGE OF NET SALES – 2014)**



*Note:*  
Data relate to the top 2,500 companies with registered offices in the EU (608), Japan (360), The USA (829) and the Rest of the World (703), ranked by total worldwide R&D investment (with R&D investment above €17.9M)

*Source:* The 2015 EU Industrial R&D Investment Scoreboard, European Commission, JRC/DG RTD

## PHARMACEUTICAL PRODUCTION

EFPIA 2014	€ million	€ million	
Austria	2,776	Malta	n.a.
Belgium	9,299	Netherlands	6,180
Bulgaria	115	Norway	745
Croatia	412	Poland	2,782
Cyprus	180	Portugal	1,486
Czech Republic	n.a.	Romania	655
Denmark	8,725	Russia	5,316
Estonia	n.a.	Serbia	n.a.
Finland	1,599	Slovakia	n.a.
France	20,981	Slovenia	872
Germany	30,401	Spain	13,953
Greece	857	Sweden	6,475
Hungary	2,629	Switzerland	35,819
Ireland	19,305	Turkey	3,227
Italy	28,696	United Kingdom	17,483
Latvia	120		
Lithuania	n.a.		
<b>TOTAL</b>		<b>221,088</b>	

*Note:*  
All data based on SITC 54  
Latvia, Romania: 2013 data; Denmark, Hungary, Norway: 2012 data; Cyprus, Netherlands: 2010 data  
Croatia, Czech Republic, 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 2014	units		units
Austria	13,117	Lithuania	1,220
Belgium	34,075	Malta	445
Bulgaria	9,900	Netherlands	12,000
Croatia	5,740	Norway	3,800
Cyprus	1,140	Poland	28,100
Czech Republic	17,900	Portugal	8,000
Denmark	26,455	Romania	21,000
Estonia	400	Serbia	n.a.
Finland	5,476	Slovakia	3,000
France	92,650	Slovenia	8,946
Germany	112,475	Spain	38,677
Greece	26,100	Sweden	11,012
Hungary	22,600	Switzerland	41,876
Ireland	26,373	Turkey	22,000
Italy	63,000	United Kingdom	64,000
Latvia	1,971		
<b>TOTAL</b>		<b>723,448</b>	

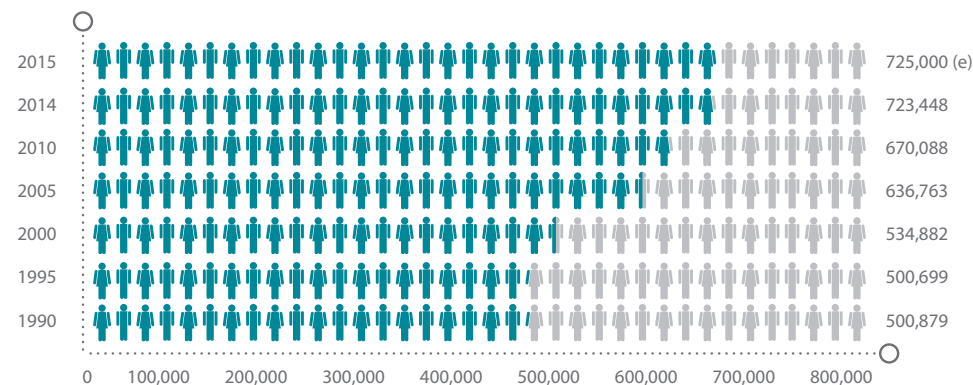
*Note:*  
 Austria, Bulgaria, Lithuania, Norway: 2013 data; Hungary, Latvia, Portugal, Slovakia: 2012 data; Cyprus: 2007 data;  
 Malta: 2004 data  
 Austria, Belgium, Bulgaria, Croatia, Estonia, France, Greece, Ireland, Italy, Malta, Netherlands, Norway, Poland, Romania, Slovenia,  
 Sweden, Switzerland, Turkey, United Kingdom: estimate

*Source:* EFPIA member associations (official figures)

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”.

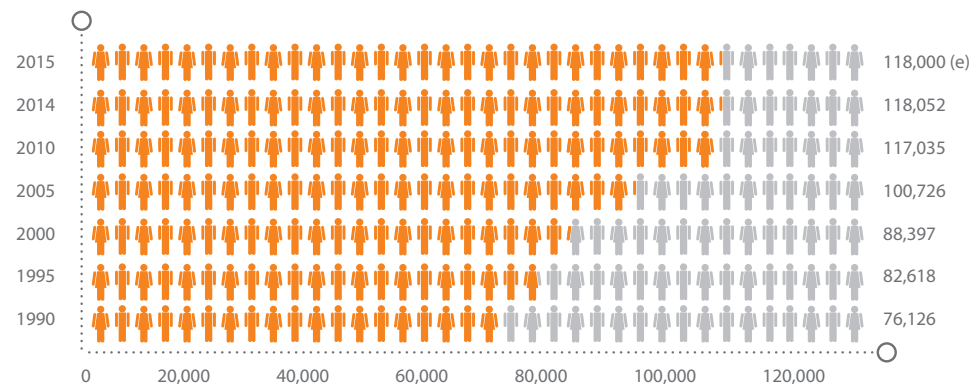
### EMPLOYMENT IN THE PHARMACEUTICAL INDUSTRY (1990–2015)



*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 (1990–2015)



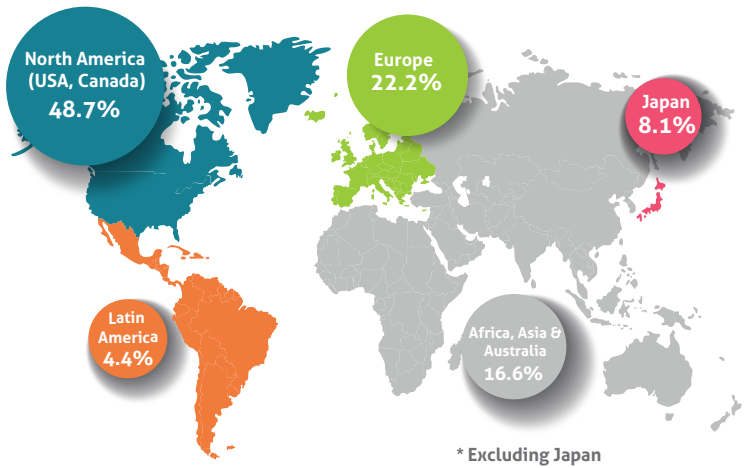
*Note:*  
 Data includes Greece & Lithuania (since 2013), Bulgaria and Turkey (since 2012), Poland (since 2010), Czech Republic, Estonia and Hungary (since 2009), Romania (since 2005) and Slovenia (since 2004)  
 Croatia, Cyprus, Latvia, Malta, Serbia, Slovakia: data not available

*Source:* EFPIA member associations – (e): EFPIA estimate

## PHARMACEUTICAL SALES

The world pharmaceutical market was worth an estimated € 715,992 million (\$ 794,393 million) at ex-factory prices in 2015. The North American market (USA & Canada) remained the world's largest market with a 48.7% share, well ahead of Europe and Japan.

### BREAKDOWN OF THE WORLD PHARMACEUTICAL MARKET – 2015 SALES



*Note:*  
Europe includes Turkey, Russia and Ukraine  
*Source:* IMS Health (MIDAS), May 2016 (data relate to the 2015 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, 2014 (%)



*Note:*  
Non-weighted average for Europe (average estimate for 22 countries)  
*Source:* EFPIA member associations

## PHARMACEUTICAL MARKET VALUE (at ex-factory prices)

EFPIA 2014	€ million	€ million	
Austria	3,366	Malta	77
Belgium	4,502	Netherlands	4,560
Bulgaria	879	Norway	1,684
Croatia	630	Poland	5,246
Cyprus	183	Portugal	2,817
Czech Republic	2,050	Romania	2,765
Denmark	2,184	Russia	14,521
Estonia	249	Serbia	564
Finland	2,165	Slovakia	1,088
France	27,366	Slovenia	537
Germany	29,150	Spain	14,124
Greece	3,560	Sweden	3,884
Hungary	2,009	Switzerland	4,210
Iceland	108	Turkey	6,715
Ireland	1,768	United Kingdom	18,908
Italy	21,538		
Latvia	174		
Lithuania	343		
<b>TOTAL</b>		<b>183,924</b>	

*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  
Iceland: 2013 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, Lithuania, Slovakia: IMS Health  
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 2016.

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	25.0
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	23.0	6.0	6.0
Hungary	27.0	5.0	5.0
Iceland	24.0	24.0	24.0
Ireland (2)	23.0	0.0 – 23.0	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	20.0	9.0	9.0
Russia	10.0	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	8.0	2.5	2.5
Turkey	18.0	8.0	8.0
United Kingdom	20.0	0.0	20.0

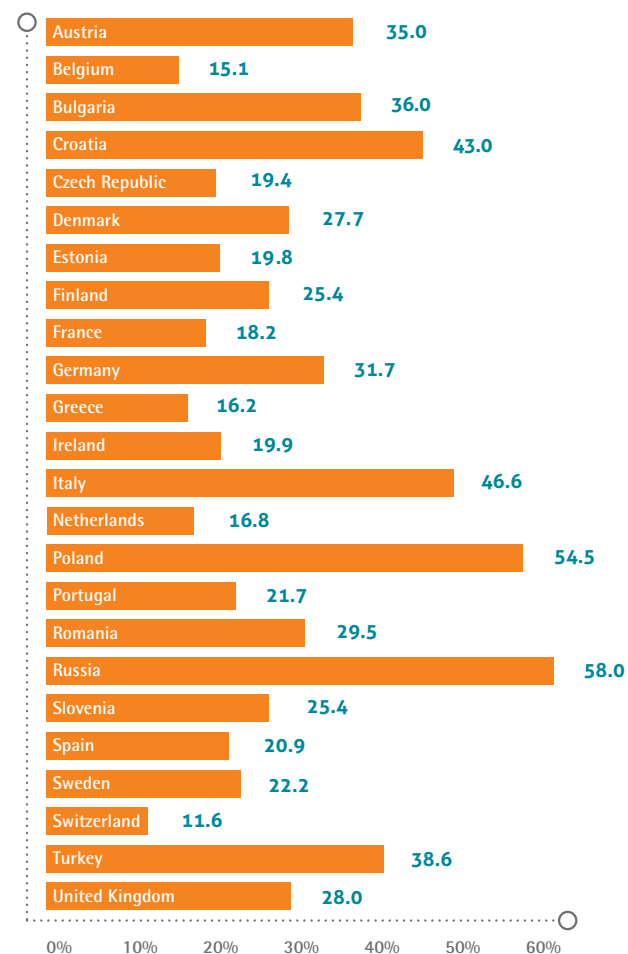
(1) France: reimbursable medicines 2.1%; non-reimbursable medicines 10.0% (2) Ireland: oral medication 0%; other medication 23%

(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), 2014

Note:

Croatia, Denmark, Estonia, Finland, Greece, United Kingdom: share of generics in pharmacy market sales

Austria, Belgium, Bulgaria, France, Germany, Ireland, Italy, Netherlands, Portugal, Slovenia, Spain: share of generics in reimbursable pharmacy market sales

Czech Republic, Poland, Romania, Russia, Sweden, Switzerland, Turkey: share of generics in total market sales

Cyprus, Hungary, Iceland, Latvia, Lithuania, Malta, Norway, Serbia, Slovakia: 2014 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 that is marketed under a different name from that of the original branded medicine.

Source: EFPIA member associations

## PHARMACEUTICAL EXPORTS

EFPIA 2014	€ million		€ million
Austria	8,521	Luxembourg	280
Belgium	39,844	Malta	253
Bulgaria	791	Netherlands	23,098
Croatia	413	Norway	705
Cyprus	242	Poland	2,761
Czech Republic	2,069	Portugal	877
Denmark	9,891	Romania	849
Estonia	57	Russia	437
Finland	844	Slovakia	438
France	27,111	Slovenia	2,382
Germany	60,478	Spain	10,256
Greece	1,043	Sweden	6,493
Hungary	3,668	Switzerland	50,673
Ireland	22,223	Turkey	644
Italy	20,115	United Kingdom	26,172
Latvia	312		
Lithuania	512		
<b>TOTAL</b>			<b>324,452</b>

*Note:*  
All data based on SITC 54  
Norway: veterinary products excluded

*Source:* Eurostat (COMEXT database – May 2016)  
Norway: Statistics Norway; Switzerland: Swiss Federal Customs Administration



## PHARMACEUTICAL IMPORTS

EFPIA 2014	€ million		€ million
Austria	7,288	Luxembourg	389
Belgium	32,066	Malta	125
Bulgaria	1,057	Netherlands	16,528
Croatia	675	Norway	1,597
Cyprus	216	Poland	4,688
Czech Republic	3,453	Portugal	2,159
Denmark	3,646	Romania	2,630
Estonia	328	Russia	13,569
Finland	1,869	Slovakia	1,527
France	24,593	Slovenia	976
Germany	37,835	Spain	12,075
Greece	2,690	Sweden	3,367
Hungary	2,882	Switzerland	19,064
Ireland	4,497	Turkey	3,556
Italy	18,707	United Kingdom	26,108
Latvia	475		
Lithuania	792		
<b>TOTAL</b>			<b>251,427</b>

*Note:*  
All data based on SITC 54  
Norway: veterinary products excluded

*Source:* Eurostat (COMEXT database – May 2016)  
Norway: Statistics Norway; Switzerland: Swiss Federal Customs Administration



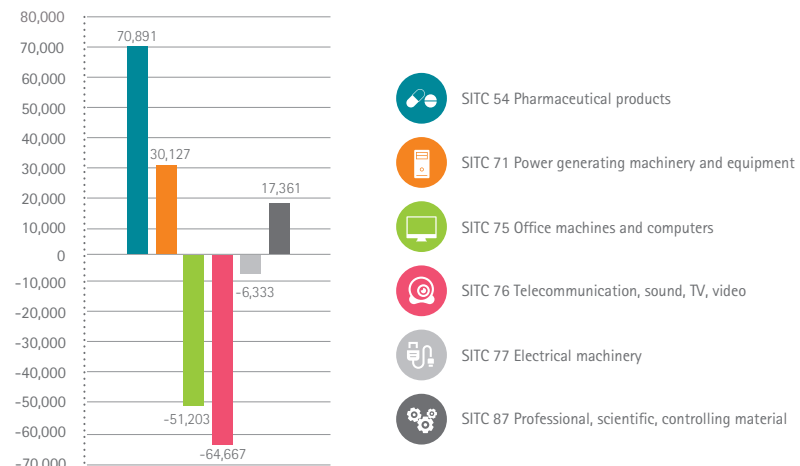
## PHARMACEUTICAL TRADE BALANCE

EFPIA 2014	€ million	€ million	
Austria	1,233	Luxembourg	- 109
Belgium	7,778	Malta	128
Bulgaria	- 266	Netherlands	6,570
Croatia	- 262	Norway	- 892
Cyprus	26	Poland	- 1,927
Czech Republic	- 1,384	Portugal	- 1,282
Denmark	6,245	Romania	- 1,781
Estonia	- 271	Russia	- 13,132
Finland	- 1,025	Slovakia	- 1,089
France	2,518	Slovenia	1,406
Germany	22,643	Spain	- 1,819
Greece	- 1,647	Sweden	3,126
Hungary	786	Switzerland	31,609
Ireland	17,726	Turkey	- 2,912
Italy	1,408	United Kingdom	64
Latvia	- 163		
Lithuania	- 280		
<b>TOTAL</b>		<b>73,025</b>	

*Note:*  
 All data based on SITC 54  
 Norway: veterinary products excluded  
 Source: Eurostat (COMEXT database – May 2016)  
 Norway: Statistics Norway; Switzerland: Swiss Federal Customs Administration



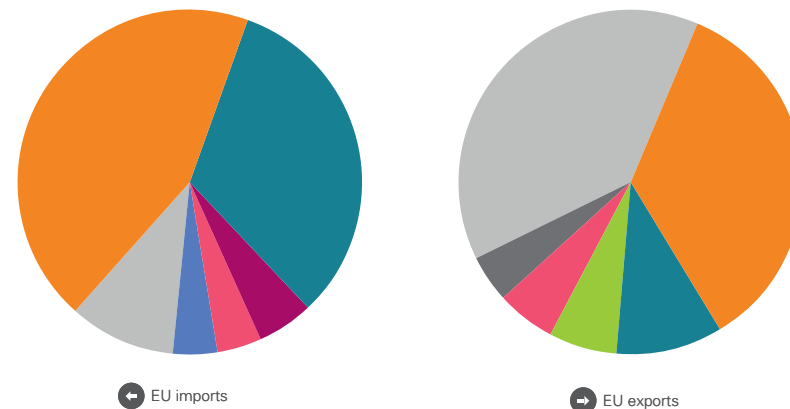
## EU-28 TRADE BALANCE – HIGH TECHNOLOGY SECTORS (€ MILLION) – 2015



Source: Eurostat, COMEXT database, April 2016

## THE EUROPEAN UNION'S TOP 5 PHARMACEUTICAL TRADING PARTNERS – 2015

	USA	Others	Switzerland	Israel	Russia	Singapore	Japan	China
EU imports	43.9%	10.0%	32.5%	4.1%	-	5.4%	-	4.1%
EU exports	35.1%	38.6%	10.0%	-	4.3%	-	6.5%	5.5%



Source: Eurostat, COMEXT database, April 2016

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

Country	1970	1980	1990	2000	2012	2013
Austria	4.9	7.0	7.7	9.2	10.1	10.1
Belgium	3.8	6.2	7.1	8.0	10.2	10.2
Czech Republic	–	–	3.8	5.7	7.1	7.1
Denmark	–	8.4	8.0	8.1	10.4	10.4
Estonia	–	–	–	5.2	5.8	6.0
Finland	5.0	5.9	7.2	6.7	8.5	8.6
France	5.2	6.7	8.0	9.5	10.8	10.9
Germany	5.7	8.1	8.0	9.8	10.8	11.0
Greece	–	–	6.0	7.2	9.1	9.2
Hungary	–	–	–	6.8	7.5	7.4
Iceland	4.6	5.8	7.4	9.0	8.7	8.7
Ireland	4.9	7.5	5.6	5.6	8.1	–
Italy	–	–	7.0	7.6	8.8	8.8
Luxembourg	–	–	–	5.9	6.6	–
Netherlands	–	6.6	7.1	7.0	11.0	11.1
Norway	4.0	5.4	7.1	7.7	8.8	8.9
Poland	–	–	4.3	5.3	6.3	6.4
Portugal	2.3	4.8	5.5	8.3	9.3	9.1
Slovakia	–	–	–	5.3	7.7	7.6
Slovenia	–	–	–	8.1	8.7	8.7
Spain	3.1	5.0	6.1	6.8	9.0	8.8
Sweden	–	–	7.3	7.4	10.8	11.0
Switzerland	4.9	6.6	7.4	9.3	11.0	11.1
Turkey	–	2.4	2.5	4.7	5.0	5.1
United Kingdom	4.0	5.1	5.1	6.3	8.5	8.5
Europe	4.4	6.1	6.4	7.2	8.7	8.8
USA	6.2	8.2	11.3	12.5	16.4	16.4
Japan	4.4	6.4	5.8	7.4	10.1	10.2

Note: Europe: non-weighted average (25 countries) – EFPIA calculations

Source: OECD Health Data 2015, May 2016

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

EFPIA 2014	€ million	€ million	
Austria	2,511	Lithuania	194
Belgium	3,637	Malta	n.a.
Bulgaria	327	Netherlands	4,341
Croatia	464	Norway	1,230
Cyprus	44	Poland	1,805
Czech Republic	535	Portugal	1,170
Denmark	759	Romania	1,162
Estonia	112	Russia	1,694
Finland	1,306	Serbia	263
France	23,415	Slovakia	894
Germany	33,343	Slovenia	269
Greece	2,000	Spain	9,360
Hungary	784	Sweden	1,962
Iceland	92	Switzerland	4,146
Ireland	1,463	Turkey	5,622
Italy	8,598	United Kingdom	10,655
Latvia	116		
<b>TOTAL</b>		<b>124,273</b>	

Note:

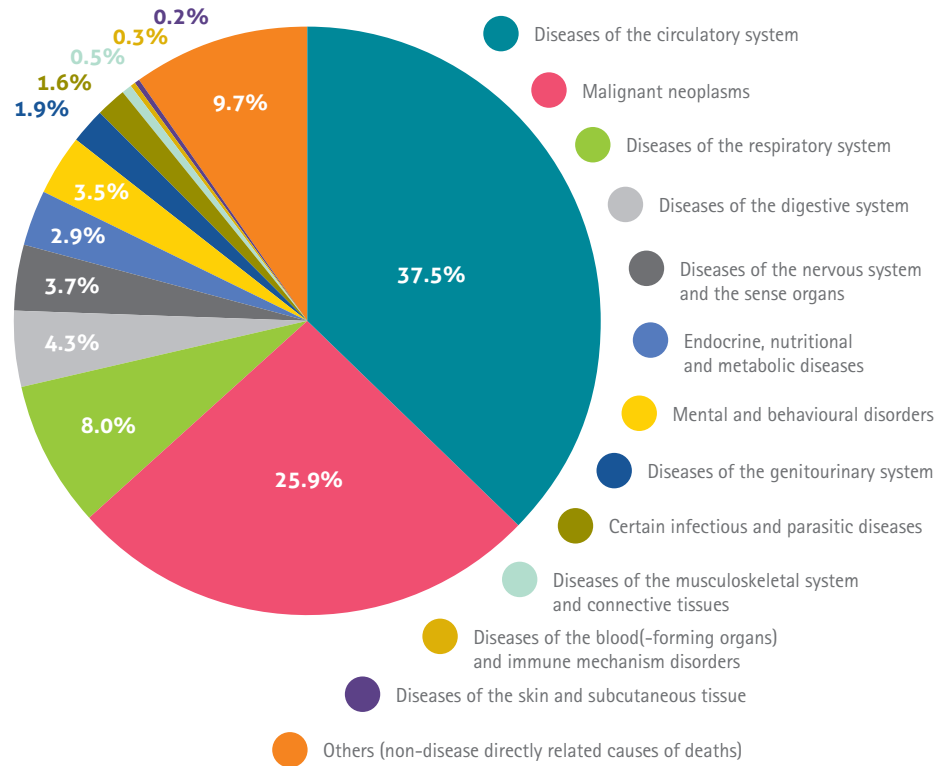
Cyprus, Iceland, Latvia, Lithuania, Serbia: 2013 data; Slovakia: 2011 data

France, Ireland, Netherlands, Norway, Sweden, United Kingdom: estimate

Source: EFPIA member associations (official figures)



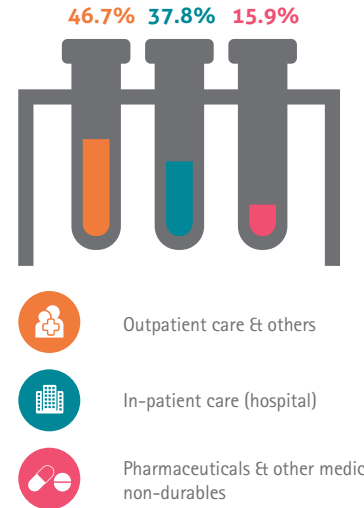
## CAUSES OF DEATH BY MAJOR DISEASE AREAS IN EUROPE (EU-28)



Data Source: Eurostat, data relate to year 2013 (non-disease directly related causes of deaths: EFPIA calculations), May 2016



## BREAKDOWN OF TOTAL HEALTH EXPENDITURE IN EUROPE – 2013

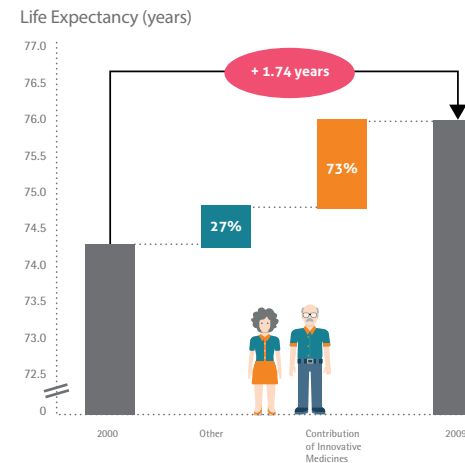


## THE ADDED VALUE OF MEDICINES IN HEALTHCARE

Medicines constitute only a small part of healthcare costs with, on average, 15.9% of total health expenditure in Europe being spent on pharmaceuticals and other medical non-durables. 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 2016, May 2016 – EFPIA calculations (non-weighted average for 19 EU & EFTA countries)

## CONTRIBUTION OF INNOVATIVE MEDICINES TO INCREASE IN LIFE EXPECTANCY (2000–2009)



\* From 2000–2009, an improvement in population weighted mean life expectancy at birth of 1.74 years was seen across 30 OECD countries.

\* Innovative medicines are estimated to have contributed to 73% of this improvement once other factors are taken into account (e.g. income, education, immunization, reduction in risk factors, health system access).

Source: Lichtenberg, F: Pharmaceutical innovation and longevity growth in 30 developing OECD and high-income countries, 2000–2009 (2012)

## 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 (Farindustria)

### Netherlands

Vereniging Innovatieve Geneesmiddelen Nederland (Nefarma)

### Norway

Legemiddelindustriforeningen / 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

Scienceindustries / Interpharma

### Turkey

Araştırmacı İlaç Firmaları Derneği (AİFD)

### 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 (AFA)

**Lithuania:** The Innovative Pharmaceutical Industry Association (IFPA)

**Malta:** Maltese Pharmaceutical Association (PRIMA)

**Romania:** Association of International Medicines Manufacturers (ARPIIM)

**Serbia:** Innovative Drug Manufacturers' Association (INOVIA)

**Slovakia:** 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

Baxalta

Bayer

Biogen

Boehringer Ingelheim

Bristol Myers Squibb

Celgene

Chiesi Farmaceutici

Eli Lilly

Genzyme

GlaxoSmithKline

Grünenthal

Ipsen

Johnson & Johnson

LEO Pharma

H. Lundbeck

Menarini

Merck

MSD

Novartis

Novo Nordisk

Pfizer

Pierre Fabre

Roche

Sanofi

Servier

Shire

Takeda

UCB

### \* Affiliate Members

Bial

Daiichi-Sankyo

Eisai

Esteve

The Medicines Company

Orion Pharma

Otsuka

Recordati

Vifor Pharma





European Federation of Pharmaceutical  
Industries and Associations

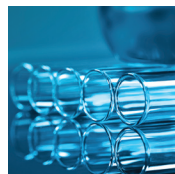
**EFPIA (The European Federation of Pharmaceutical Industries and Associations) represents the research-based pharmaceutical industry operating in Europe.**

Founded in 1978, its members comprise 33 national pharmaceutical industry associations and 42 leading pharmaceutical companies undertaking research, development and manufacturing of medicinal products in Europe for human use.

Its mission is to promote pharmaceutical research and development and the best conditions in Europe for companies to bring to market medicines that improve human health and the quality of life around the world.

Through its membership, EFPIA represents the common views of more than 1,900 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, formerly EVM) 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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