



EUROPEAN FEDERATION
OF PHARMACEUTICAL
INDUSTRIES AND ASSOCIATIONS

Today's research, tomorrow's cures

The Pharmaceutical Industry in Figures



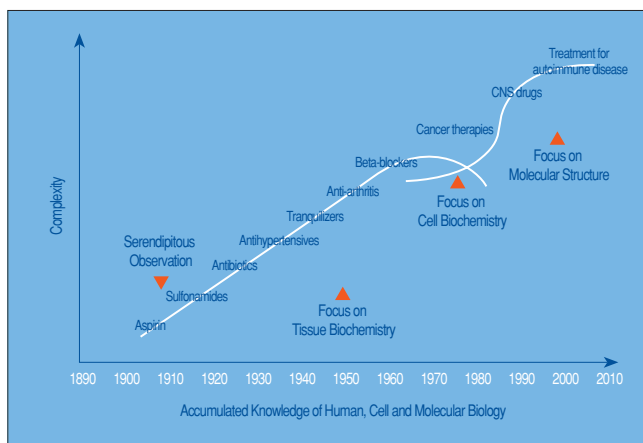
Key Data • 2003 update

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

The research-based pharmaceutical industry's key contribution to medical progress is to turn fundamental research findings into innovative treatments that are widely available and accessible. Its successes in researching and developing new medicines have helped in the fight against previously fatal diseases (such as smallpox, tuberculosis, syphilis, diphtheria and polio) and have spurred medical progress in the treatment of other infections (including HIV-AIDS), cancer, nervous disorders, stomach ulcers, asthma, and hypertension, to name but a few.

Since aspirin was invented a century ago, scientific and technological breakthroughs in the pharmaceutical industry have enabled researchers to target increasingly complex diseases ever more closely, first by exploring the biochemistry of tissues, and then that of individual cells. Today's research through the mapping of the human genome will enable scientists to target the causes of diseases rooted in man's molecular structure.

CHRONOLOGY OF DRUG INNOVATION



Source: Boston Consulting Group

THE PHARMACEUTICAL INDUSTRY: A KEY ASSET TO THE EUROPEAN ECONOMY

Besides driving medical progress and improving public health within Europe and worldwide, the research-based pharmaceutical industry is a key asset to the European economy. The pharmaceutical industry remains one of Europe's best performing high-technology sectors.

INDUSTRY (EFPIA Total) (*)	1990	2000	2001	2002
Production	63,142	130,060	149,792	160,000 (e)
Exports	23,180	89,065	114,182	130,000 (e)
Imports	16,113	63,863	80,353	90,000 (e)
Trade balance	7,067	25,202	33,829	40,000 (e)
R&D expenditure	7,941	17,202	18,869	19,800 (e)
Employment (units)	500,762	559,410	582,341	582,500 (e)
R&D employment (units)	76,287	88,258	91,433	91,500 (e)
Pharmaceutical market value at ex-factory prices	42,997	89,603	98,662	105,000 (e)
Pharmaceutical market value at retail prices	67,388	136,927	151,563	162,000 (e)
Payment for pharmaceuticals by statutory health insurance systems (**)	42,627	73,840	82,470	88,000 (e)

Values in € million unless otherwise stated

(*) Including Turkey as of 1997

(**) Since 1998 data relate to ambulatory care only

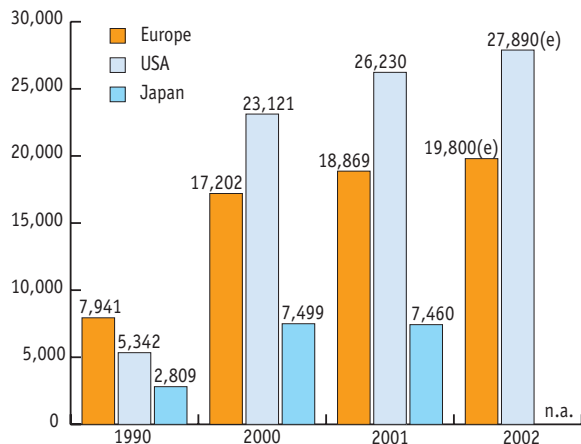
Source: EFPIA member associations (official figures) - (e): EFPIA estimate

MAIN TRENDS

Data for 2001 and preliminary figures for 2002 confirm the vulnerability of the pharmaceutical industry in Europe with respect to its main US competitor. Indicators show that the US has increased its relative position as a locus of innovation.

- Between 1990 and 2002, R&D investment in United States rose more than fivefold, while in Europe it only grew 2.5 times.
- Between 1991 and 2001, the US market grew by 11.6% per annum well ahead of Europe (weighted average growth of 7.4%). Figures adjusted for inflation show an even bigger differential of market growth between the US and Europe, with the US market growing twice as fast as the European market.
- Europe lacks a climate which favours and rewards innovation. According to IMS Health data, 62% of sales of new medicines marketed since 1997 are generated on the US market, compared with 21% on the European market.
- The fragmentation of the EU pharmaceutical market results in a lucrative parallel trade which benefits neither social security nor patients but deprives the industry from additional resources to fund R&D. Parallel trade was estimated to amount to € 3,600 million (value at ex-factory prices) in 2001.

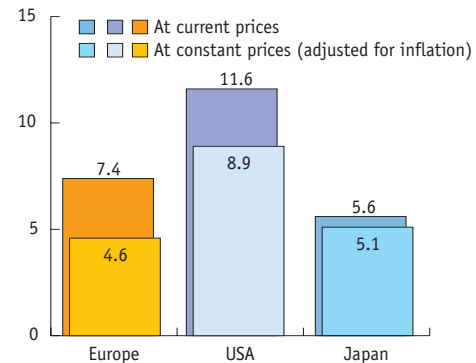
PHARMACEUTICAL R&D EXPENDITURE IN EUROPE, USA AND JAPAN (€ MILLION), 1990-2002



(e): estimate

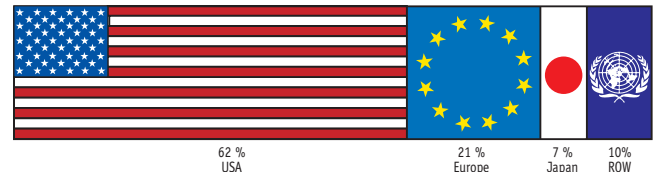
Source: EFPIA member associations, PhRMA, JPMA

TOTAL PHARMACY MARKET (AT EX-FACTORY PRICES) AVERAGE GROWTH RATE FOR THE PERIOD 1991-2001 (%)



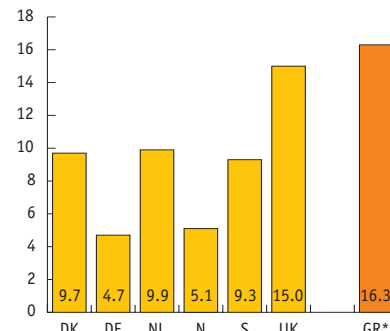
Source: EFPIA member associations, PhRMA, JPMA

GEOGRAPHICAL BREAKDOWN (BY MAIN MARKETS) OF SALES OF NEW MEDICINES LAUNCHED DURING THE PERIOD 1997-2001



Source: IMS Health (MIDAS), September 2001

SHARE OF PARALLEL IMPORTS IN TOTAL PHARMACEUTICAL SALES (%) - 2001



* Greece: parallel exports

Note: Denmark, Germany, The Netherlands, Norway, Sweden, UK : data 2001; Greece: data 2000

Source: EFPIA member associations

PHARMACEUTICAL PRODUCTION

EFPIA 2001	€ million
Austria	1,862
Belgium	4,301
Denmark	3,674
Finland	666
France	28,171
Germany	20,400
Greece	337
Ireland	9,529
Italy	16,564
Netherlands	5,602
Norway	294
Portugal	1,450
Spain	7,663
Sweden	5,100
Switzerland	19,854
Turkey	2,069
United Kingdom	22,256
Total	149,792

Note: All data based on SITC 54
 Greece: 2000 data
 Sweden: 2001 provisional data
 Austria, Belgium, Denmark, France, Ireland, Italy, Norway, Portugal,
 Spain, Switzerland: estimate
 Norway, Spain, Switzerland, Turkey: veterinary products excluded

Source: EFPIA member associations (official figures)

EMPLOYMENT IN THE PHARMACEUTICAL INDUSTRY

EFPIA 2001	Units
Austria	9,200
Belgium	24,137
Denmark	15,131
Finland	6,810
France	96,300
Germany	114,959
Greece	11,500
Ireland	18,000
Italy	78,770
Netherlands	15,100
Norway	4,447
Portugal	10,484
Spain	38,950
Sweden	19,100
Switzerland	29,613
Turkey	20,840
United Kingdom	69,000
Total	582,341

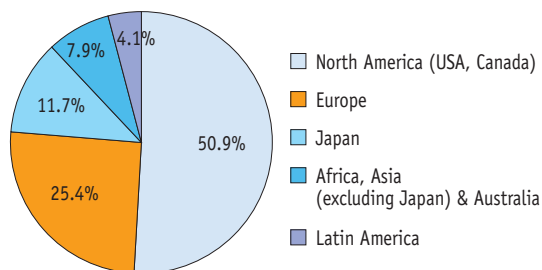
Note: Austria, Denmark: 2000 data
 Austria, Belgium, France, Greece, Ireland, Italy, Norway, Spain,
 Sweden, United Kingdom: estimate

Source: EFPIA member associations (official figures)

PHARMACEUTICAL SALES

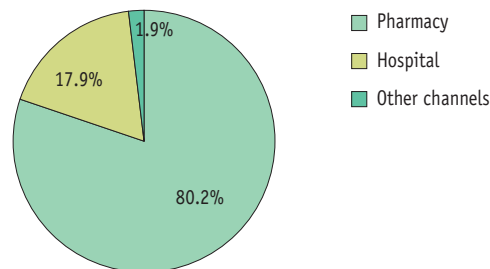
The world pharmaceutical market was worth an estimated € 423,467 million (at ex-factory prices) in 2002. The North American market (USA & Canada) grew fastest and remained the world's largest market with a 50.9% share, well ahead of Europe and Japan.

BREAKDOWN OF THE WORLD PHARMACEUTICAL MARKET – 2002 SALES



Source: IMS World Review 2003 and IMS Consulting

BREAKDOWN OF THE TOTAL EUROPEAN PHARMACEUTICAL MARKET VALUE (AT EX-FACTORY PRICES) BY MAIN DISTRIBUTION CHANNELS, 2001



Note: Other channels include dispensing doctors, supermarkets, drugstores and other retail outlets

Greece: other channels cover parallel exports sales

Denmark, Norway: pharmaceutical market value at pharmacy purchasing price

Source: EFPIA member associations

PHARMACEUTICAL MARKET VALUE (AT EX-FACTORY PRICES)

EFPIA 2001	€ million
Austria	1,862
Belgium	2,850
Denmark	1,131
Finland	1,282
France	18,674
Germany	20,151
Greece	1,924
Ireland	840
Italy	13,265
Netherlands	2,809
Norway	1,033
Portugal	2,319
Spain	8,072
Sweden	2,361
Switzerland	2,240
Turkey	2,837
United Kingdom	15,012
Total	98,662

Note: Medicinal products as defined by Directive 65/65/EEC

Denmark, Norway: pharmaceutical market value at pharmacy purchasing price

Austria, Belgium, France, Ireland, Spain, Sweden: estimate

Source: EFPIA member associations (official figures)

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. Samples and sales of veterinary medicines are excluded.

PHARMACEUTICAL EXPORTS

EFPIA 2001	€ million
Austria	2,297
Belgium	10,486
Denmark	3,790
Finland	330
France	12,861
Germany	18,204
Greece	345
Ireland	9,075
Italy	8,860
Netherlands	6,639
Norway	263
Portugal	345
Spain	2,738
Sweden	4,645
Switzerland	18,357
Turkey	166
United Kingdom	14,781
Total	114,182

Note: All data based on SITC 54

Exports free on board (FOB)

Italy, Norway, Spain, Switzerland, Turkey:
veterinary products excluded

Source: EFPIA member associations (official figures)

PHARMACEUTICAL IMPORTS

EFPIA 2001	€ million
Austria	2,640
Belgium	9,355
Denmark	1,206
Finland	849
France	7,308
Germany	11,465
Greece	1,323
Ireland	1,913
Italy	8,498
Netherlands	5,954
Norway	835
Portugal	1,214
Spain	4,973
Sweden	1,604
Switzerland	9,095
Turkey	1,704
United Kingdom	10,417
Total	80,353

Note: All data based on SITC 54

Imports CIF (Cost - Insurance - Freight)

Italy, Norway, Spain, Switzerland, Turkey:
veterinary products excluded

Source: EFPIA member associations (official figures)

PHARMACEUTICAL TRADE BALANCE

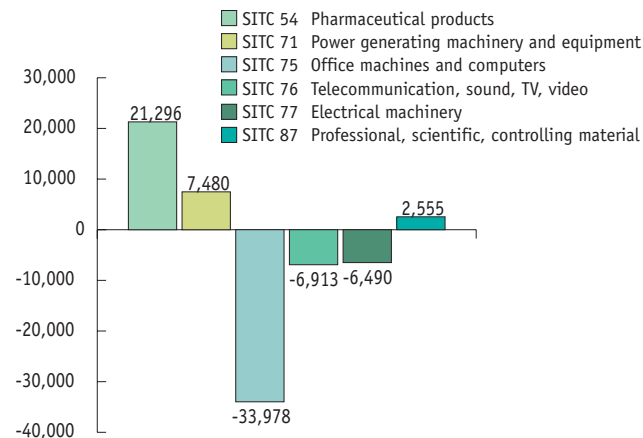
EFPIA 2001	€ million
Austria	- 343
Belgium	1,131
Denmark	2,584
Finland	- 519
France	5,553
Germany	6,739
Greece	- 978
Ireland	7,162
Italy	362
Netherlands	685
Norway	- 572
Portugal	- 869
Spain	- 2,235
Sweden	3,041
Switzerland	9,262
Turkey	- 1,538
United Kingdom	4,364
Total	33,829

Note: All data based on SITC 54

Italy, Norway, Spain, Switzerland, Turkey:
veterinary products excluded

Source: EFPIA member associations (official figures)

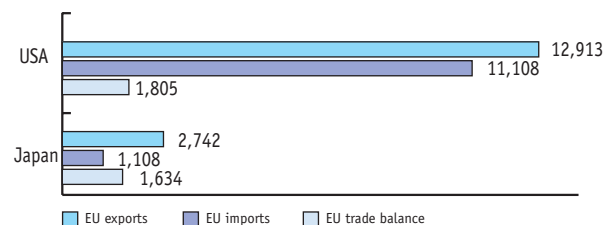
EU TRADE BALANCE - HIGH TECHNOLOGY SECTORS (€ MILLION) - 2001



Source: EUROSTAT, SITC 54

In several European countries, the pharmaceutical industry ranks among the top five net exporters in the manufacturing sector. At European level, the pharmaceutical industry does more than any other high-technology sector to contribute to the EU's trade balance.

TRADE IN PHARMACEUTICALS BETWEEN EU-15, USA AND JAPAN (€ MILLION) - 2001



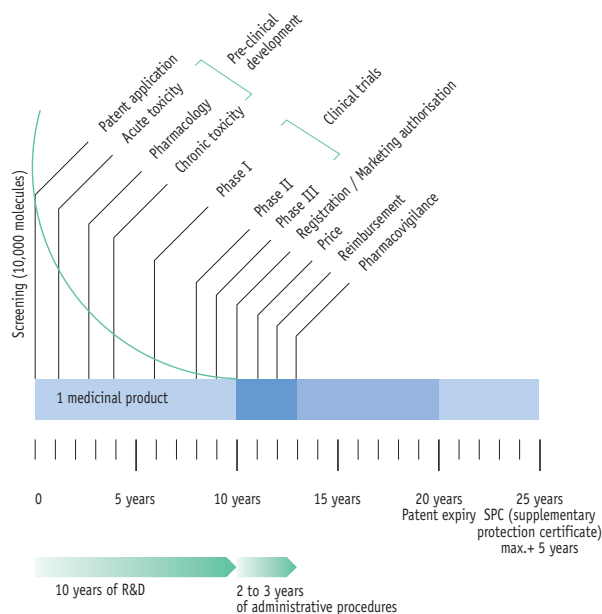
Source: EUROSTAT, SITC 54

PHARMACEUTICAL INDUSTRY RESEARCH & DEVELOPMENT IN EUROPE

Pharmaceutical R&D is:

- Lengthy: by the time a medicinal product is placed on the market, an average of 12-13 years will have elapsed since the synthesis of the new active substance;
- Costly: the cost of researching and developing a new chemical or biological entity was estimated at € 895 million in 2001 (Di Masi J., Tufts University, Centre for the Study of Drug Development, November 2001);
- Of a high risk nature: on average, out of every 10,000 substances synthesised in laboratories, only one or two will successfully pass all the stages to become marketable medicines.

PHASES OF THE RESEARCH AND DEVELOPMENT PROCESS



Source: AGIM, Recherche et Vie

PHARMACEUTICAL INDUSTRY RESEARCH & DEVELOPMENT IN EUROPE

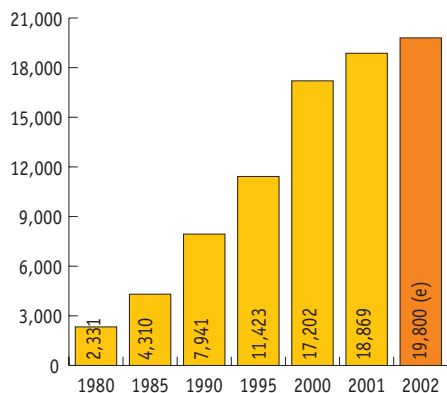
EFPIA 2001	€ million
Austria	n.a.
Belgium	1,179
Denmark	814
Finland	213
France	3,351
Germany	3,381
Greece	n.a.
Ireland	52
Italy	769
Netherlands	394
Norway	94
Portugal	n.a.
Spain	398
Sweden	994
Switzerland	2,085
Turkey	n.a.
United Kingdom	5,145
Total	18,869

Note: The figures relate to the R&D carried out in each country.
Denmark, Netherlands: 2000 data
Belgium, Denmark, France, Ireland, Italy, Norway, Spain, Sweden (LIF member companies), Switzerland: estimate
Source : EFPIA member associations (official figures)

IMPORTANCE OF PHARMACEUTICAL R&D

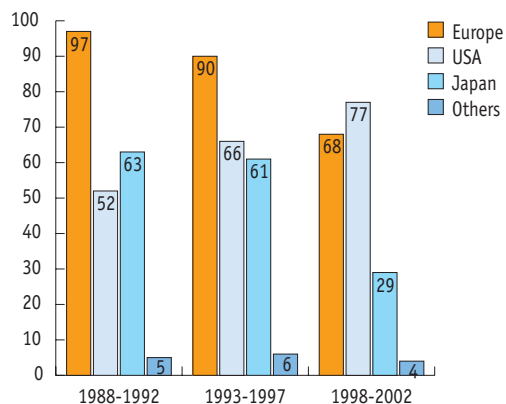
In 2001 the pharmaceutical industry invested about € 18,800 million in R&D on the European territory. Compared to the US, Europe is seen as a less attractive R&D investment location in terms of market size and incentives for the creation of new biotech companies. The latest data available on new chemical and biological entities (period 1998-2002) show the predominance of the United States which has now become the leading inventor of new molecules in the world.

PHARMACEUTICAL R&D EXPENDITURE IN EUROPE (€ MILLION)



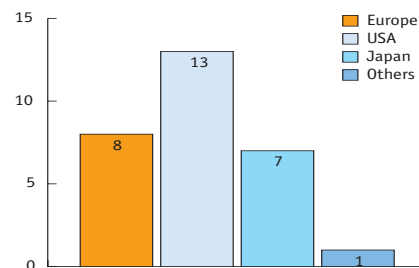
Source: EFPIA Member Associations (official figures) - (e): EFPIA estimate

NEW CHEMICAL AND BIOLOGICAL ENTITIES (1988-2002)



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

ORIGIN OF THE 29 NEW MOLECULAR (CHEMICAL AND BIOLOGICAL) ENTITIES LAUNCHED ON THE WORLD MARKET IN 2002



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

BIOPHARMACEUTICALS

The major health challenges facing Europe require new technologies. Approximately one-fifth of the new molecular entities launched on the world market each year are now derived from biotechnology. In the future, thanks to the understanding of the basic mechanisms of disease acquired from the international human genome project and other high-tech genetic studies, biotechnology research on chronic diseases will enable scientists to predict a patient's response to treatment and create new "personalised" medicines according to genetic variations that predispose some people to diseases such as arthritis, Alzheimer's disease, cancer, diabetes and depression.

Although Europe's biopharmaceutical sector is growing steadily, it remains dominated by its American competitor. Most European biotech companies are still young, because Europe all but missed out on the first wave of biotech start-ups in the 1980s.

BIOPHARMACEUTICALS - EUROPE VERSUS USA (2001)

Indicators	Europe	USA
Turnover (€ million)	15,327	31,808
R&D expenditure (€ million)	8,354	17,522
Net loss (€ million)	1,699	7,701
Number of companies (units)	1,879	1,457
Number of employees (units)	87,182	191,000

Source: Ernst & Young, 'Beyond Borders, The Global Biotechnology Report 2002' (data cover both public and private companies)

PAYMENT FOR PHARMACEUTICALS BY COMPULSORY HEALTH INSURANCE SYSTEMS AND NATIONAL HEALTH SERVICES (AMBULATORY CARE ONLY)

EFPIA 2001	€ million
Austria	1,650
Belgium	2,006
Denmark	690
Finland	768
France	16,309
Germany	21,355
Greece	1,291
Ireland	726
Italy	11,608
Netherlands	3,365
Norway	886
Portugal	1,147
Spain	7,083
Sweden	1,649
Switzerland	1,435
Turkey	n.a.
United Kingdom	10,502
Total	82,470

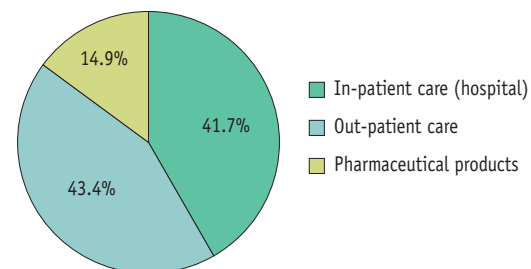
Note: Austria: 2000 data
France, Greece, Ireland, Netherlands, Norway, Spain, Sweden,
United Kingdom: estimate

Source : EFPIA member associations (official figures)

VALUE OF MEDICINES

Constraints on the industry have tightened in recent years. In many countries, medicines have been the prime target of health cost containment measures, despite the fact that, on average, pharmaceutical spending accounts for only 15% of total health expenditure in Europe. However, there is growing evidence at macro and micro-economic level regarding the added value of medicines in the health care context, not only in terms of global cost savings but also in terms of the contribution to quality of care. Medicines not only provide the best treatment for many diseases, but also generate savings by substantially reducing costs in other branches of health care (hospital stays, invalidity, etc).

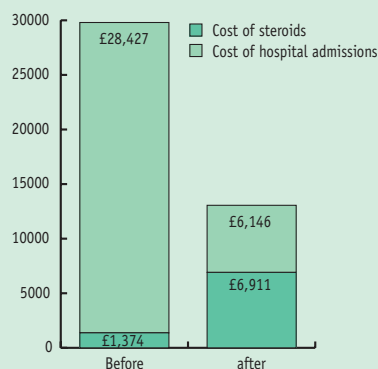
BREAKDOWN OF TOTAL HEALTH EXPENDITURE IN EUROPE – 2000



Source: OECD Health Data 2002, A Comparative Analysis of 30 countries – EFPIA calculations (non-weighted average)

THE CASE OF INTRODUCING INHALED CORTICOSTEROID IN ASTHMA MANAGEMENT

An audit carried out among 50 patients with severe asthma attending a specialist asthma clinic in Leeds showed that, after



six months, adding inhaled corticosteroid in the disease treatment led to an increase in steroid costs from £1,374 to £6,911. However, the costs of hospital admissions fell from £28,427 to £6,146, with a combined effect of reducing healthcare costs by £16,744 or 56%.

Source: The Value of Medicines (Asthma), ABPI

TOTAL SPENDING ON HEALTH CARE AS A PERCENTAGE OF GDP AT MARKET PRICES

	1970	1980	1990	2000
Austria	5.3	7.6	7.1	8.0
Belgium	4.0	6.4	7.4	8.7
Denmark	-	9.1	8.5	8.3
Finland	5.6	6.4	7.9	6.6
France	-	-	8.6	9.5
Germany	6.3	8.8	8.7	10.6
Greece	6.1	6.6	7.5	8.3
Ireland	5.1	8.4	6.6	6.7
Italy	-	-	8.0	8.1
Luxembourg	3.6	5.9	6.1	6.0
Netherlands	-	7.5	8.0	8.1
Norway	4.4	7.0	7.8	7.8
Portugal	2.6	5.6	6.2	8.2
Spain	3.6	5.4	6.6	7.7
Sweden	6.9	9.1	8.5	7.9
Switzerland	5.6	7.6	8.5	10.7
Turkey	2.4	3.3	3.6	4.8
U.K.	4.5	5.6	6.0	7.3
Europe	4.9	7.1	7.5	8.1
USA	6.9	8.7	11.9	13.0
Japan	4.5	6.4	5.9	7.8

Note: Luxembourg: 1999 data;
 Sweden, Turkey: 1998 data
 Europe (excluding Turkey): non-weighted average –
 EFPIA calculations

Source: OECD Health Data 2002, A Comparative Analysis of 30 countries,
 4th edition (August 2002)

VAT RATES APPLICABLE TO MEDICINES (ON 01/01/2003)

Country	Standard VAT rate (%)	VAT rates applied to medicines	
		Prescription (%)	OTC (%)
Austria (1)	20.0	20.0	20.0
Belgium	21.0	6.0	6.0
Denmark	25.0	25.0	25.0
Finland	22.0	8.0	8.0
France (2)	19.6	2.1 - 5.5	2.1 - 5.5
Germany	16.0	16.0	16.0
Greece	18.0	8.0	8.0
Ireland (3)	21.0	0.0 - 21.0	0.0 - 21.0
Italy	20.0	10.0	10.0
Netherlands	19.0	6.0	6.0
Norway	24.0	24.0	24.0
Portugal	19.0	5.0	5.0
Spain	16.0	4.0	4.0
Sweden	25.0	0.0	25.0
Switzerland	7.6	2.4	2.4
Turkey	18.0	18.0	-
UK	17.5	0.0	17.5

- (1) Austria: 0% for reimbursed medicines
 (2) France: reimbursable medicines 2.1%; non-reimbursable medicines 5.5%
 (3) Ireland: oral medication 0%; other medication 21%

MEMBERSHIP

EFPIA represents the pharmaceutical industry operating in Europe. Founded in 1978, its members are 18 national pharmaceutical industry associations and 43 companies undertaking research, development and manufacturing of medicinal products for human use in Europe. EFPIA has a liaison status with national pharmaceutical industry associations from five EU candidate countries (Bulgaria, Czech Republic, Hungary, Poland and Slovenia).

EFPIA MEMBER ASSOCIATIONS

Austria

Fachverband der Chemischen Industrie Österreichs (FCIO)

Belgium

Association Générale de l'Industrie du Médicament (AGIM)

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 Nazionale dell'Industria Farmaceutica (Farmindustria)

Netherlands

Nederlandse Vereniging van de Research-georiënteerde Farmaceutische Industrie (Nefarma)

Norway

Legemiddelindustriforeningen
Norwegian Association of Pharmaceutical Manufacturers (LMI)

Portugal

Associação Portuguesa da Indústria Farmacêutica (Apifarma)

Spain

Asociación Nacional Empresarial de la Industria Farmacéutica (Farmindustria)

Sweden

Läkemedelsindustriföreningen
The Swedish Association of the Pharmaceutical Industry (LIF)

Switzerland

Société Suisse des Industries Chimiques (SSIC)

Turkey

Pharmaceutical and Chemical Manufacturers Association (IEIS)

United Kingdom

The Association of the British Pharmaceutical Industry (ABPI)

Founder member (Germany)

Bundesverband der Pharmazeutischen Industrie (BPI)

EFPIA MEMBER COMPANIES

FULL MEMBERS

Abbott Laboratories
Akzo Nobel Pharma
Almirall-Prodesfarma
AstraZeneca
Aventis Pharma
Baxter
Bayer AG
Beaufour Ipsen
Boehringer Ingelheim
Bristol Myers Squibb
Chiesi Farmaceutici
Eli Lilly & Co
Esteve
GlaxoSmithKline
Grünenthal
Johnson & Johnson
H. Lundbeck
Menarini
Merck KGaA
Merck & Co
Novartis
Novo Nordisk
Orion Pharma
Pfizer
Pharmacia
Procter & Gamble Pharmaceuticals
Roche
Sanofi-Synthelabo
Schering AG
Schering-Plough
Schwarz Pharma
Serono
Laboratoires Servier
Sigma-Tau
Solvay
UCB Pharma
Wyeth

AFFILIATE MEMBERS

Amgen
Bracco
Gruppo Ferrer
Powderject
Recordati
J. Uriach & Cia

United States
The Netherlands
Spain
United Kingdom
France/Germany
United States
Germany
France
Germany
United States
Italy
United States
Spain
United Kingdom
Germany
United States
Denmark
Italy
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United States
Switzerland
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France
Italy
Belgium
Belgium
United States

United States
Italy
Spain
United Kingdom
Italy
Spain



EUROPEAN FEDERATION
OF PHARMACEUTICAL
INDUSTRIES AND ASSOCIATIONS

Today's research, tomorrow's cures

EFPIA represents the pharmaceutical industry operating in Europe.

Its mission is to promote pharmaceutical research and development in Europe in order to find better treatments and cures that improve human health worldwide.

Through its membership, EFPIA represents the common views of about 2,000 large, medium and small companies including the entire European research-based pharmaceutical sector whose interests also include an important part of the generics segment. Two specialised groups have also been created within EFPIA to address specific issues relating to vaccines (EFPIA/EVM – European Vaccines' Manufacturers) and the needs of biopharmaceutical companies (EFPIA/EBE - Emerging Biopharmaceutical Enterprises).

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

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