



EUROPEAN FEDERATION
OF PHARMACEUTICAL
INDUSTRIES AND ASSOCIATIONS

Today's research, tomorrow's cures

The Pharmaceutical Industry in Figures



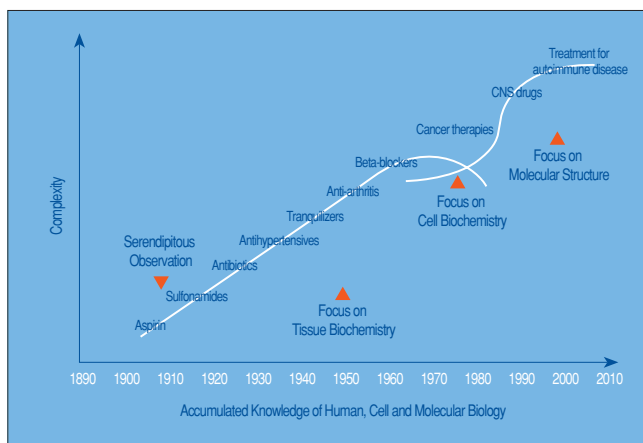
Key Data • 2001 update

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

Medicine has played a central part in health care and therapeutic practice since the earliest times. 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 spurred medical progress in the treatment of infections, some forms of cancer, nervous disorders, stomach ulcers, asthma, hypertension and AIDS, to name but a few.

Throughout last century, the pharmaceutical industry has been developing ever more sophisticated methods of research to reveal and target ever increasingly complex disease mechanisms. Today's biotechnological techniques used, not only in research, but also in the design and manufacture of medicines, vaccines and diagnostic tools, offer immense potential for improving human health.

CHRONOLOGY OF DRUG INNOVATION



Source: Boston Consulting Group, 1993

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 is one of Europe's best-performing high-technology sectors.

INDUSTRY (EFPIA Total) (*)	1990	1995	1999	2000
Number of companies (units)	n.a.	n.a.	3,385	-
Production	63,207	87,162	121,371	130,000 (e)
Exports	23,180	44,032	76,485	86,000 (e)
Imports	16,113	30,183	53,649	60,000 (e)
Trade balance	7,067	13,849	22,836	26,000 (e)
R&D expenditure	7,871	10,745	15,927	17,000 (e)
Employment (units)	500,400	502,201	536,215	540,000 (e)
R&D employment (units)	76,287	79,197	85,051	85,500 (e)
Pharmaceutical market value at manufacturer's prices	42,995	59,174	81,886	87,000 (e)
Pharmaceutical market value at retail prices	67,247	91,931	123,226	131,000 (e)
Payment for pharmaceuticals by statutory health insurance systems (**)	42,263	57,916	67,564	71,000 (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

PHARMACEUTICAL PRODUCTION

EFPIA 1999	€ million
Austria	1,311
Belgium	4,247
Denmark	3,040
Finland	610
France	23,390
Germany	18,331
Greece	438
Ireland	5,071
Italy	13,514
Netherlands	4,548
Norway	269
Portugal	396
Spain	6,790
Sweden	5,313
Switzerland	13,813
Turkey	1,812
United Kingdom	18,478
Total	121,371

Note: All data based on SITC 54;
 Portugal: 1995 data;
 Greece, Sweden: 1998 data;
 Belgium, Denmark, France, Greece, Ireland,
 Italy, Spain, Switzerland,
 Turkey, United Kingdom: estimate;
 Portugal, Spain, Switzerland, Turkey:
 veterinary products excluded.

Source: EFPIA member associations (official figures)

EMPLOYMENT IN THE PHARMACEUTICAL INDUSTRY

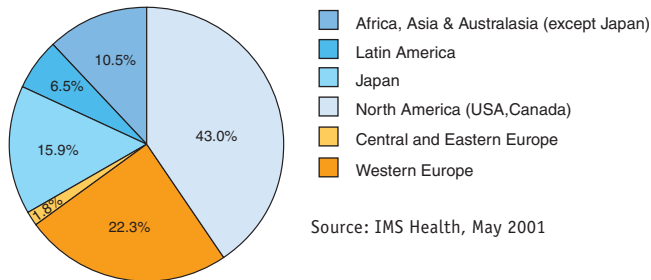
EFPIA 1999	Units
Austria	9,200
Belgium	21,817
Denmark	17,574
Finland	6,016
France	92,200
Germany	112,996
Greece	7,800
Ireland	14,000
Italy	69,970
Netherlands	12,800
Norway	4,152
Portugal	9,650
Spain	38,600
Sweden	16,300
Switzerland	26,200
Turkey	17,440
United Kingdom	59,500
Total	536,215

Note: Greece: 1998 data;
 Austria, Belgium, France, Ireland,
 Italy, Netherlands, Norway, Spain,
 Sweden, Switzerland, United Kingdom:
 estimate.

Source: EFPIA member associations (official figures)

PHARMACEUTICAL SALES

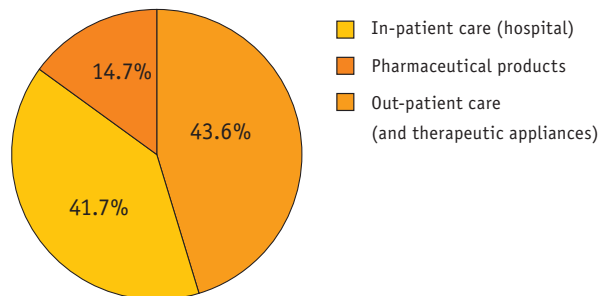
BREAKDOWN OF THE WORLD PHARMACEUTICAL MARKET – 2000 SALES



The world pharmaceutical market was worth an estimated € 392,640 million (at ex-factory prices) in 2000. The North American market (USA & Canada) grew fastest and remained the world's largest market with a 43.0% share, well ahead of Europe and Japan.

Constraints on the industry have tightened in recent years, despite the fact that on average, pharmaceutical spending accounts for less than 15% of total health expenditure. In contrast with the US, the pharmaceutical industry in Europe is faced with a patchwork of pricing and reimbursement regulations. According to 1999 IMS data, 57% of sales of new medicines marketed since 1995 are generated on the US market, compared with 25% on the European market.

BREAKDOWN OF TOTAL HEALTH CARE SPENDING IN EUROPE – 1998



Source: OECD Health Data, A Comparative Analysis of 29 countries, 2000 – EFPIA calculations (non-weighted average)

PHARMACEUTICAL MARKET VALUE (AT EX-FACTORY PRICES)

EFPIA 1999	€ million
Austria	1,660
Belgium	2,576
Denmark	810
Finland	1,068
France	15,915
Germany	17,380
Greece	1,546
Ireland	608
Italy	10,529
Netherlands	2,360
Norway	822
Portugal	1,989
Spain	6,610
Sweden	2,103
Switzerland	1,810
Turkey	2,250
United Kingdom	11,850
Total	81,886

Note: Medicinal products as defined by Directive 65/65/EEC; Belgium, France, Greece, Ireland, Spain, Sweden: estimate
Norway, Sweden: data relate to market sales at pharmacy purchase prices

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 1999	€ million
Austria	1,662
Belgium	6,063
Denmark	2,764
Finland	222
France	8,189
Germany	14,070
Greece	159
Ireland	4,830
Italy	5,523
Netherlands	4,026
Norway	209
Portugal	229
Spain	1,857
Sweden	3,761
Switzerland	13,192
Turkey	121
United Kingdom	9,608
Total	76,485

Note: all data based on SITC 54;
Exports free on board (FOB);
Italy, Spain, Switzerland, Turkey: veterinary products excluded;
Greece: estimate.

Source: EFPIA member associations (official figures)

PHARMACEUTICAL IMPORTS

EFPIA 1999	€ million
Austria	2,228
Belgium	4,728
Denmark	877
Finland	667
France	5,184
Germany	8,142
Greece	1,040
Ireland	1,122
Italy	6,138
Netherlands	3,997
Norway	679
Portugal	953
Spain	3,322
Sweden	1,347
Switzerland	5,487
Turkey	1,254
United Kingdom	6,484
Total	53,649

Note: All data based on SITC 54;
Imports CIF (Cost - Insurance - Freight);
Italy, Spain, Switzerland, Turkey: veterinary products excluded;
Greece: estimate.

Source: EFPIA member associations (official figures)

PHARMACEUTICAL BALANCE OF TRADE

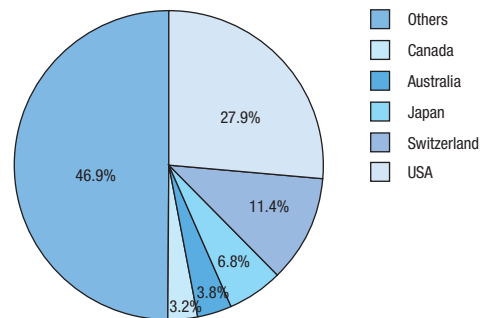
EFPIA 1999	€ million
Austria	- 566
Belgium	1,335
Denmark	1,887
Finland	- 445
France	3,005
Germany	5,928
Greece	- 881
Ireland	3,708
Italy	- 615
Netherlands	29
Norway	- 470
Portugal	- 724
Spain	- 1,465
Sweden	2,414
Switzerland	7,705
Turkey	- 1,133
United Kingdom	3,124
Total	22,836

Note: All data based on SITC 54;
Italy, Spain, Switzerland, Turkey: veterinary products excluded;
Greece: estimate.

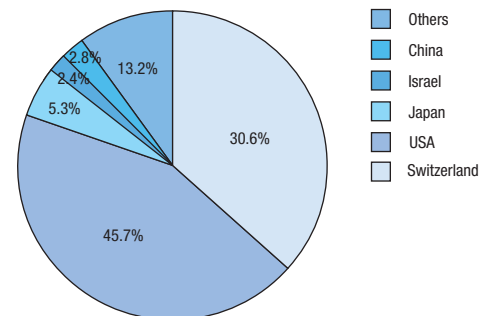
Source: EFPIA member associations (official figures)

THE EUROPEAN UNION'S TOP 5 PHARMACEUTICAL TRADING PARTNERS - 2000

EU-15 exports

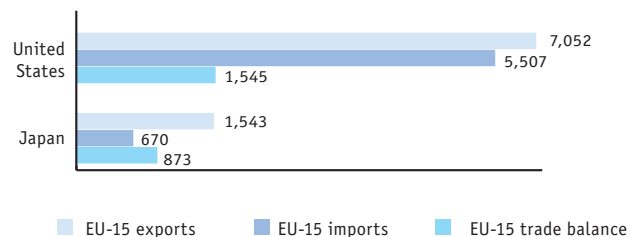


EU-15 imports



Source: Eurostat, External and Intra-European Union Trade, SITC 54

EU-15 TRADE BALANCE VERSUS USA AND JAPAN, 2000 - € MILLION



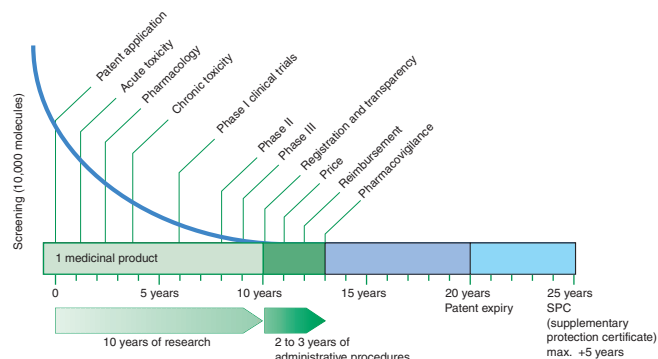
Source: Eurostat, External and Intra-European Union Trade, SITC 54

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 € 560 million in 1999 (Office of Health Economics & Lehman Brothers, U.K.);
- 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

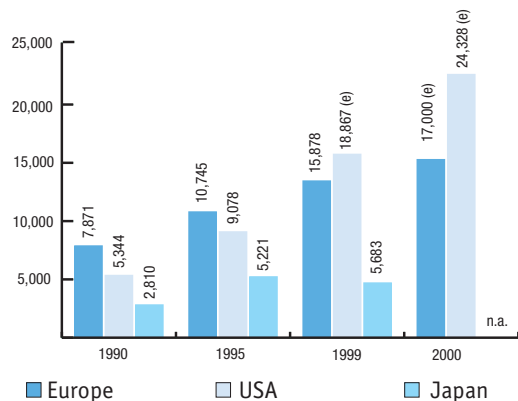
PHARMACEUTICAL INDUSTRY RESEARCH & DEVELOPMENT IN EUROPE

EFPIA 1999	€ million
Austria	n.a.
Belgium	738
Denmark	517
Finland	115
France	2,744
Germany	2,991
Greece	n.a.
Ireland	29
Italy	845
Netherlands	310
Norway	85
Portugal	n.a.
Spain	345
Sweden	1,169
Switzerland	1,813
Turkey	n.a.
United Kingdom	4,226
Total	15,927

Note: The figures relate to the R&D carried out in each country; Denmark, Finland, France, Netherlands, Sweden, Switzerland: estimate.

Source: EFPIA member associations (official figures)

PHARMACEUTICAL R&D EXPENDITURE IN EUROPE, THE USA AND JAPAN (€ MILLION), 1990-2000

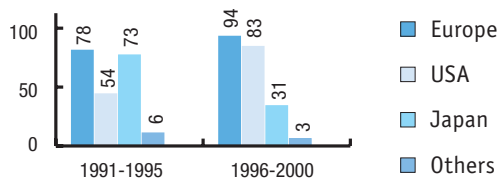


(e): EFPIA & PhRMA estimate

Source: EFPIA member associations, PhRMA, JPMA

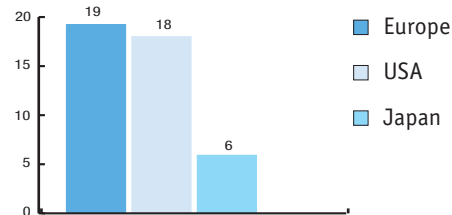
The European pharmaceutical industry is losing competitiveness as compared to the US industry and there is a process of concentration of R&D into North America. Until 1990, Europe was the world leader in terms of pharmaceutical R&D and innovation, but it has gradually lost ground and in 1997, US industry was able to overtake its European counterparts for the first time ever in terms of the total amount of R&D expenditure. Between 1990 and 1999, R&D investment in Europe doubled, while in the United States it grew by 3.5 times. In 1990, major European research-based companies spent 73% of their world-wide R&D expenditure on the EU territory. In 1999, they spent only 59% on the EU territory. The USA was the main beneficiary of this transfer of R&D location.

NEW CHEMICAL OR BIOLOGICAL ENTITIES (1991-2000)



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

NEW MOLECULAR (CHEMICAL AND BIOLOGICAL) ENTITIES LAUNCHED ON THE WORLD MARKET IN 2000



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

BIOTECHNOLOGY

In the health field, biotechnology is breeding new knowledge at breathtaking rate. It has already enabled researchers to identify new pathogenic agents, such as viruses (HIV, hepatitis, etc), describe the mechanisms of diseases through the identification of genes and their effect on disease, and provide new tools for manufacturing medicinal products as well as for therapy and diagnosis. Approximately one quarter of the 40 new molecular entities launched on the world market each year are now biotechnology-derived.

Although Europe's biopharmaceutical sector is growing steadily, it is still dominated by its American rival.

BIOTECH COMPANIES - EUROPE VERSUS USA (2000)

Indicators	Europe	USA
Turnover (€ million)	8,679	23,750
R&D expenditure (€ million)	4,977	11,400
Net loss (€ million)	1,570	5,964
Number of companies (units)	1,570	1,273
Number of employees (units)	61,104	162,000

Source: Ernst & Young's Eighth Annual European Life Sciences Report 2001

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

EFPIA 1999	€ million
Austria	1,290
Belgium	1,727
Denmark	651
Finland	611
France*	13,877
Germany	18,522
Greece	1,187
Ireland	475
Italy	7,372
Netherlands	2,811
Norway	682
Portugal	944
Spain	5,920
Sweden	1,571
Switzerland	1,173
Turkey	n.a.
United Kingdom	8,751
Total	67,564

Note: *France: the figure does not include spending reimbursed by supplementary insurance, mutual or private (€ 2,229 million in 1999)

Source: EFPIA member associations (official figures)

VAT RATES APPLICABLE TO MEDICINES (ON 01/01/2001)

Country	Standard VAT rate (%)	VAT rates applied to medicines	
		Prescription (%)	OTC (%)
Austria (1)	20.0	0.0 - 20.0	0.0-20.0
Belgium	21.0	6.0	6.0
Denmark	25.0	25.0	25.0
Finland	22.0	8.0	8.0
France (2)	20.6	2.1 - 5.5	2.1 - 5.5
Germany	16.0	16.0	16.0
Greece	18.0	8.0	8.0
Ireland (3)	20.0	0.0 - 20.0	0.0 - 20.0
Italy	20.0	10.0	10.0
Netherlands	19.0	6.0	6.0
Norway	23.0	23.0	23.0
Portugal	17.0	5.0	5.0
Spain	16.0	4.0	4.0
Sweden	25.0	0.0	25.0
Switzerland	7.5	2.3	2.3
UK	17.5	0.0	17.5

(1) Austria: 0% for medicines covered by health insurance

(2) France: reimbursable medicines 2.1%; non reimbursable medicines 5.5%

(3) Ireland: oral medication 0%; other medication 20%

EFPIA MEMBERS

EFPIA represents the pharmaceutical industry operating in Europe. Founded in 1978, its members are 18 national pharmaceutical industry associations of Europe and 43 companies undertaking research, development and manufacturing of medicinal products in Europe for human use.

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

Syndicat National de l'Industrie Pharmaceutique (SNIP)

Germany

Verband Forschender Arzneimittelhersteller (VFA)

Greece

Association of Pharmaceutical Companies of Greece (SFEE)

Ireland

Irish Pharmaceutical Healthcare Association (IPHA)

Italy

Associazione Nazionale dell'Industria Farmaceutica (Farmindustria)

Netherlands

Nederlandse Vereniging van de Research geörienteerde Farmaceutische Industrie (Nefarma)

Norway

Legemiddelindustriforeningen
Norwegian Association of Pharmaceutical Manufacturers (LMI)

Portugal

Associação Portuguesa da Industria Farmaceutica (Apifarma)

Spain

Asociacion Nacional Empresarial de la Industria Farmaceutica (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

Bundesverband der Pharmazeutischen Industrie (BPI)

EFPIA MEMBER COMPANIES

FULL MEMBERS

Akzo Nobel Pharma
Almirall-Prodesfarma
AstraZeneca
Aventis Pharma
Baxter
Bayer
Beaufour Ipsen
Boehringer Ingelheim
Bristol Myers Squibb
Chiesi Farmaceutici
DuPont Pharmaceuticals
Eli Lilly & Co
Laboratorios Esteve
GlaxoSmithKline
Grünenthal
Johnson & Johnson
Knoll
Leo Pharmaceutical Products
H. Lundbeck
Menarini
Merck KGaA
Merck & Co
Novartis
Novo Nordisk
Pfizer
Pharmacia
Roche
Sanofi-Synthelabo
Schering
Schering-Plough
Schwarz Pharma
Seron
Laboratoires Servier
Sigma-Tau
Solvay
UCB Pharma
Wyeth-Ayerst (AHP)
Zambon Group

AFFILIATE MEMBERS

Amgen
Bracco SpA
Gruppo Ferrer
Recordati
J. Uriach & Cia

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

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