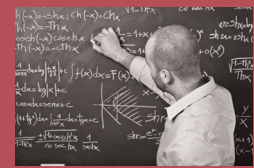


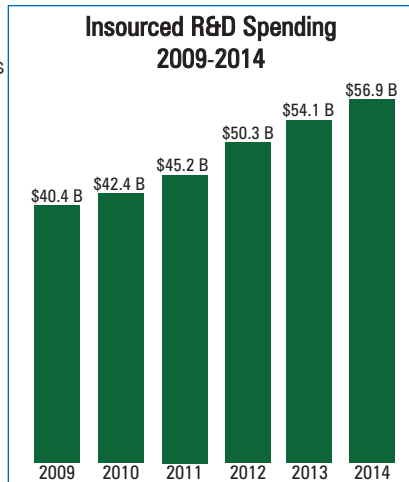
INSOURCING BENEFITS U.S. RESEARCH & DEVELOPMENT



Foreign-owned firms continue to expand their research and development (R&D) activities in the United States. R&D carried out by foreign companies in the United States supports 185,500 high-paying American jobs, helps spur the discovery of new products and processes, and contributes to America's economic growth. Over six years, foreign companies spent nearly \$300 billion on research and development.

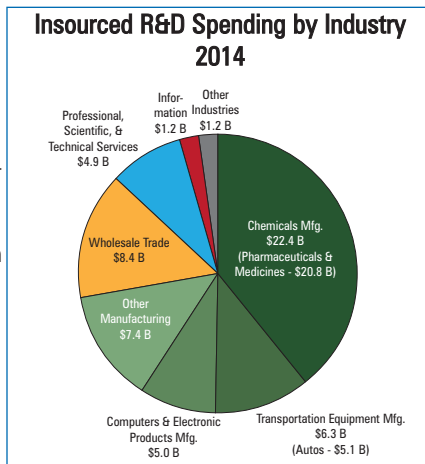
Insourced R&D Nears \$57 Billion in 2014

Many foreign companies conduct some of their R&D activities in the United States to improve their products and services and to enhance their overall competitiveness. Insourced R&D spending has eclipsed \$40 billion each year from 2009 to 2014, even during the 2009 recession year. Since 2012, insourced R&D has exceeded \$50 billion, peaking at about \$57 billion in 2014, up 41 percent from 2009.



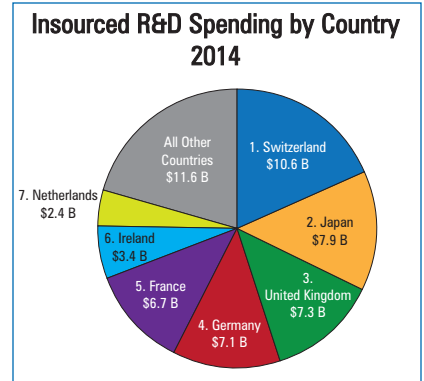
Manufacturing Exceeds 70 Percent of Insourced R&D

America's research-intensive manufacturing sector attracted more than \$41 billion in R&D spending from foreign companies in 2014. More than half was in chemicals, followed by transportation equipment and computers and electronics. Within chemicals, pharmaceuticals and medicines accounted for 93 percent of R&D performed. Similarly, autos made up 81 percent of R&D spending in transportation equipment manufacturing. In addition to R&D in the manufacturing sector, foreign firms have spent billions of dollars on R&D in other major sectors of the American economy, including wholesale trade, professional, scientific, and technical services, and information.



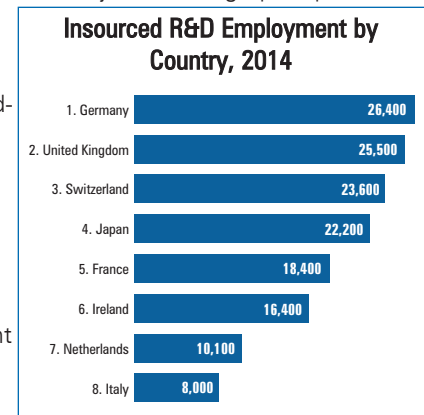
Swiss Companies Perform Most Insourced R&D

Seven countries accounted for more than three-quarters of total R&D spending by international firms in 2014. Due to R&D performed by several major Swiss pharmaceutical companies, Switzerland represented nearly a fifth of the total. Japanese, British, German, and French affiliates each ranked among the largest performers of R&D in the United States.



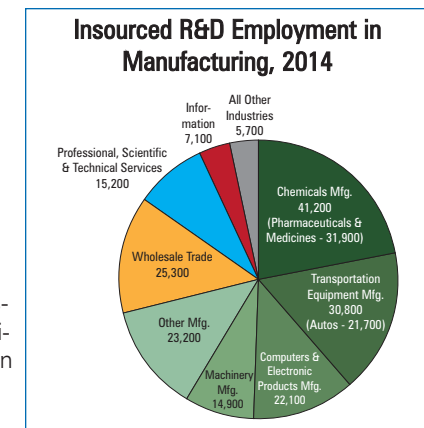
German Companies Support the Most Insourced R&D Jobs in the United States

Insourced R&D supported 185,500 American jobs in 2014. German companies supplied 26,400 jobs, making up 14 percent of all foreign-affiliated R&D jobs. Companies from the United Kingdom, Switzerland, and Japan each provided more than 20,000 high-paying R&D jobs in the United States. French companies ranked fifth in employment of U.S. R&D personnel at 18,400. Japan was the only non-European country among the top eight nations by insourced R&D employment.



Chemicals Tops U.S. Insourced R&D Employment

Manufacturing constituted more than 70 percent of all R&D employment supported by foreign companies in the United States in 2014. Chemicals composed more than 30 percent of these jobs, followed by a combined 67,800 R&D jobs in transportation equipment, computers and electronic products, and machinery. Wholesale trade and professional, scientific, and technical services, and information together supported about 48,000 R&D insourced jobs.



Note: Content First, LLC prepared this document for the Organization for International Investment using the latest available data from the Bureau of Economic Analysis at the time of publication in November 2016. Data cover the activities of majority-owned U.S. affiliates of foreign multinational enterprises.

Appendix: Insourced R&D Spending

(millions of dollars)

Insourced R&D Spending by Selected Country	Insourced R&D Spending by Selected Industry
<u>2014</u>	<u>2014</u>
Europe \$42,068	Manufacturing \$41,124
Austria \$41	Chemicals \$22,407
Belgium \$406	Basic chemicals \$739
Denmark \$418	Paints, coatings, and adhesives \$214
Finland \$317	Pharmaceuticals and medicines \$20,750
France \$6,749	Soap, cleaning compounds, and toilet preparations \$274
Germany \$7,080	Computers and electronic products \$5,000
Ireland \$3,426	Communications equipment (D)
Italy (D)	Navigational, measuring, and other instruments \$1,562
Luxembourg \$26	Semiconductors and other electronic components \$1,791
Netherlands \$2,362	Electrical equipment, appliances, and components \$1,070
Norway \$29	Food \$714
Russia \$18	Machinery \$2,835
Spain \$125	Agriculture, construction, and mining machinery \$519
Sweden \$624	Industrial machinery \$149
Switzerland \$10,551	Ventilation, heating, air-conditioning, and commercial refrigeration equipment \$141
United Kingdom \$7,269	Medical equipment and supplies \$755
Asia and Pacific \$10,539	Nonmetallic mineral products \$292
Australia \$196	Petroleum and coal products (D)
China \$496	Plastics and rubber products \$470
Hong Kong \$68	Primary and fabricated metals \$572
India \$96	Transportation equipment \$6,295
Japan \$7,865	Motor vehicles, bodies and trailers, and parts \$5,127
New Zealand (D)	Wholesale trade \$8,407
Singapore \$387	Drugs and druggists' sundries \$2,746
South Korea \$1,278	Electrical goods \$2,513
Taiwan \$98	Machinery, equipment, and supplies \$402
Middle East \$1,676	Motor vehicles and motor vehicle parts and supplies \$535
Bahrain \$9	Petroleum and petroleum products (D)
Israel \$981	Professional and commercial equipment and supplies \$1,353
Saudi Arabia (D)	Professional, scientific, and technical services \$4,905
United Arab Emirates (D)	Architectural, engineering, and related services \$109
Caribbean \$1,626	Computer systems design and related services \$1,126
Bermuda (D)	Scientific research and development services \$3,203
United Kingdom Islands, Caribbean \$733	Information \$1,235
Canada \$509	Publishing industries \$693
South and Central America \$70	Telecommunications \$230
Brazil \$28	Real estate and rental and leasing \$150
Mexico (D)	Finance and insurance \$77
Africa \$20	Retail trade \$9
South Africa \$20	Other industries
Addenda:	Agriculture, forestry, fishing, and hunting \$101
BRICS* \$658	Mining \$559
European Union (28) \$31,442	

(D) Suppressed to avoid disclosure of individual companies.

*The BRICS countries are Brazil, Russia, India, China, and South Africa.

Note: Data are the latest at the time of publication in November 2016 and cover majority-owned U.S. affiliates of foreign multinational enterprises.

Source: Bureau of Economic Analysis

Appendix: Insourced R&D Employment

Insourced R&D Employment by Selected Country

	<u>2014</u>
Europe	137,500
Austria	n/a
Belgium	700
Denmark	1,400
Finland	2,100
France	18,400
Germany	26,400
Ireland	16,400
Italy	8,000
Luxembourg	n/a
Netherlands	10,100
Norway	n/a
Russia	n/a
Spain	600
Sweden	3,300
Switzerland	23,600
United Kingdom	25,500
Asia and Pacific	31,500
Australia	600
China	2,300
Hong Kong	900
India	500
Japan	22,200
Singapore	1,000
South Korea	3,400
Taiwan	300
Caribbean	7,400
Bermuda	3,000
United Kingdom Islands, Caribbean	2,000
Canada	4,000
Middle East	3,200
Israel	1,600
Saudi Arabia	700
United Arab Emirates	800
South and Central America	200
Brazil	100
Mexico	n/a
Africa	100
South Africa	100
Addenda:	
BRICS*	3,000
European Union (28)	113,600

Insourced R&D Employment by Selected Industry

	<u>2014</u>
Manufacturing	132,200
Beverages and tobacco products	200
Chemicals	41,200
Basic chemicals	4,300
Pharmaceuticals and medicines	31,900
Computers and electronic products	22,100
Semiconductors and other electronic components	7,800
Navigational, measuring, and other instruments	6,900
Electrical equipment, appliances, and components	7,400
Food	2,500
Machinery	14,900
Nonmetallic mineral products	1,000
Paper	200
Petroleum and coal products	1,500
Plastics and rubber products	2,800
Primary and fabricated metals	3,000
Primary metals	900
Fabricated metal products	2,100
Transportation equipment	30,800
Motor vehicles, bodies and trailers, and parts	21,700
Wholesale trade	25,300
Electrical goods	7,500
Motor vehicles and motor vehicle parts and supplies	1,900
Petroleum and petroleum products	700
Professional, scientific, and technical services	15,200
Architectural, engineering, and related services	400
Computer systems design and related services	4,000
Management, scientific, and technical consulting	1,500
Information	7,100
Publishing industries	4,500
Telecommunications	700
Real estate and rental and leasing	400
Finance and insurance	300
Retail trade	50
Other industries	
Mining	3,000

(D) Suppressed to avoid disclosure of individual companies.

*The BRICS countries are Brazil, Russia, India, China, and South Africa. BRICS total does not include Russia.

Note: Data are the latest at the time of publication in November 2016 and cover majority-owned U.S. affiliates of foreign multinational enterprises.

Source: Bureau of Economic Analysis