

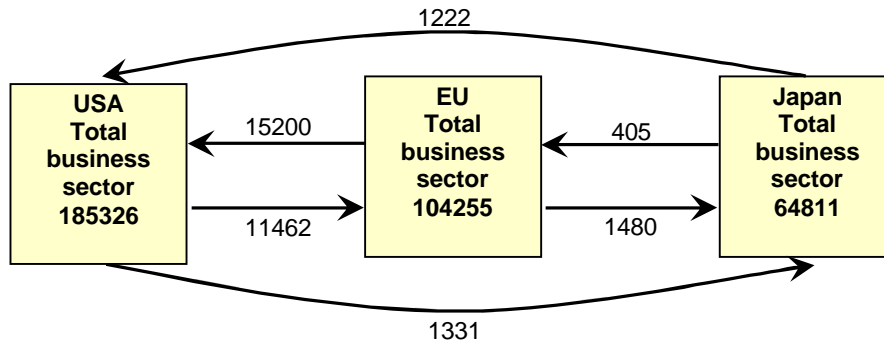
## Snapshots 'Key Figures 2003/2004'

### **3. International R&D Investment flows: the share of the EU-15 in decline**

The level and intensity of business R&D expenditure is a key determinant of an economy's future competitiveness. The business sector is closest to the market economy and best positioned to significantly improve or develop new goods and services and commercialise them. Business R&D expenditure is market-driven and accounts for most innovation expenditure.

- Business expenditure on R&D is rising everywhere. In the EU-15, it increased substantially, by about 50%, between 1995 and 2001. But growth was even more important in the US. Business expenditure on R&D increased there by about 130% between 1995 and 2001. In other words, here too the EU-15 and the US are not following the same pace of pattern.
- Moreover, analysing the flows of companies' R&D expenditure between the Triad (US-JP-EU) in 2000 (see fig I-2d) shows that the US attracted one third more R&D expenditure from EU-15 companies than US companies allocated in the EU-15 (15,2 versus 11,5 billion). Between the EU-15 and Japan the imbalance was relatively even more dramatic, but on a much smaller scale. These data imply that, for the year 2000 alone, there was a net outflow of nearly € 5 billion of European R&D funding to the advantage mainly of the US research system.
- The total amount of US R&D expenditure made in the EU-15 increased in real terms by about 50% between 1991 and 2000. Compared to other world regions, however, the EU-15 is attracting a share of about 10% less US R&D spending than ten years ago. The EU-15 represented nearly 80% of the total -world-wide- US overseas R&D expenditure in the first half of the 1990s against 70%-72% in 1998-2000. This relative decline of Europe was to the advantage of the other world regions, notably Canada and China. The sharp increase of US R&D expenditure in China deserves special note, rising from € 5 million in 1991 to € 120 million in 1998 (€ 1995 PPS). This trend underlines a major weakness for Europe, namely not attracting enough knowledge-intensive and knowledge-producing capital in the global knowledge-based economy.
- Especially Germany, and to a lesser extent Ireland, The Netherlands and Belgium, experienced a significant decrease of their share in total US overseas R&D expenditure (Germany: -7%, Ireland: -4%, The Netherlands: -3% and Belgium: -2% between 1991 and 2000, see Annex 2). A decline in share, however, was not the case in all Member States. Sweden (+7%) and UK (+3.5%) were able to attract relatively more US R&D funding during the 1990s. As a result, the UK became in 2000 the most important destination country for US overseas R&D expenditure in Europe and in the world.

Figure I-2d R&D Investment flows between the EU-15, US and Japan, 2000 (in million 2000€PPS)



Source: DG Research

Key Figures 2003-2004

**Annex 2: Share of EU-15 Member States in total US overseas R&D Expenditure to the main world regions (in % of €1995 PPS, 1991 and 2000)**

	Millions of €1995PPS		Share in total (%)	
	1991	2000	1991	2000
BE	358	414	4,6%	2,9%
DK (1)	16	50	0,2%	0,4%
DE	2.124	2.872	27,3%	20,3%
EL	4	14	0,1%	0,1%
ES	94	228	1,2%	1,6%
FR	773	1.372	9,9%	9,7%
IE	575	515	7,4%	3,6%
IT	280	615	3,6%	4,3%
NL	434	355	5,6%	2,5%
AT	16	102	0,2%	0,7%
PT	9	28	0,1%	0,2%
FI	1	72	0,0%	0,5%
SE	51	1.078	0,7%	7,6%
UK (2)	1.398	3.059	18,0%	21,6%
JP	431	850	5,5%	6,0%
CAN	936	1.905	12,0%	13,5%
AUS	134	354	1,7%	2,5%
EAE (3)	143	269	1,8%	1,9%
China (3)	5	120	0,1%	0,8%
Hong Kong (3)	12	41	0,1%	0,3%
Singapore	93	496	1,2%	3,5%
Taiwan	34	131	0,4%	0,9%

Notes: (1) data for 1991 refer to year 1992

(2) data for 2000 refer to year 1999

(3) EAE = Emerging Asian Economies (China, Hong Kong, Singapore and Taiwan); data for 2000 refer to year 1998

Source: DG Research, Key Figures 2003