

## Patterns in EC alliance formation

Alliance formation in the EC has changed dramatically in the last ten years. Alliances have become more complex and their functions have become more varied. The accompanying graph shows that, by the end of the 1980s, there was an enormous growth in all types of alliances, but especially in the number of "multifunctional" alliances: alliances that include cooperation in R&D, production and marketing. Most of the ones classified as "other" are agreements between firms concerning technical standards.

In the early 1980s, American firms were the preferred partners of EC companies. By the mid-1980s this had begun to change. Since then, as a prelude to 1992, EC firms have been increasingly forming alliances with other EC firms.

Alliances between EC firms tend to be different from the alliances EC firms form with U.S. or Japanese companies. Over half of the alliances between EC firms are multifunctional. While R&D alliances are common, EC firms tend to form few alliances that are focused only on production or marketing. Multifunctional collaboration is also common between EC and American firms and much of it includes equity arrangements. Alliances between Japanese and EC firms have focused more on production. There is a recent Japanese trend, however, toward setting up R&D centres in the EC. Many of the initial Japanese plants in Europe were "screw driver" plants that simply assembled components made elsewhere. The move toward doing R&D in Europe is motivated by the fear that the Japanese will be discriminated against after 1992 since the EC is interested in companies that produce value-added.

### Americans Are The Favourite Non-EC Partners (percentage)

YEAR	U.S.	JAPAN	OTHER
1980	40.0	0	0
1981	30.4	13.0	8.7
1982	48.1	5.6	5.6
1983	51.6	5.5	7.7
1984	46.4	9.6	6.4
1985	40.7	9.3	7.8
1986	39.2	9.5	9.1
1987	28.1	5.6	10.8
1988	28.8	6.2	11.9
1989	30.1	6.8	14.3

Note: this data is based on a survey of 1833 firms.  
Source: LAREA/CEREM (Paris).

### Alliances – More Complex and Diverse

Year	R&D	Production	Marketing	Global	Other
1980	0	2	0	3	0
1981	12	0	3	8	0
1982	19	9	8	18	0
1983	26	19	15	31	0
1984	28	25	19	49	4
1985	52	37	39	67	9
1986	73	32	27	90	10
1987	61	30	39	118	1
1988	81	42	84	186	10
1989	44	78	57	225	8

Figures indicate EC alliances formed outside of EC alliance programs

Note: Alliances that involve two functions (e.g. R&D and production, but not marketing) have been entered twice (under R&D and under production), but alliances involving all three functions have been listed only once under "global." The drop in the number of R&D and commercial agreements in 1989 reflects the movement towards global agreements rather than a movement away from any one of the categories.

Source: LAREA/CEREM (Paris) data base.

Alliance patterns are also different from one industry to the next. For example, significantly more alliances in the biotechnology sector involve R&D than in the next largest R&D sector, information technologies. There are also relatively few R&D-based alliances in the materials sector. Marketing agreements, on the other hand, are far more important in the information technologies industry than in biotechnology or materials. More than any other sector, alliances in the materials industry tend to be production-oriented.

Within each industry, alliance patterns also differ. In the information technologies industry, for example, alliances between EC firms are more concerned with R&D, while EC-American alliances are often vehicles for market penetration involving either European firms eager to enter the U.S. market or American firms wanting to take advantage of the Single Market. On the other hand, EC-Japanese alliances in the information technologies sector are fairly evenly distributed between R&D, production and marketing, although these alliances do not include all three functions nearly as often as do intra-EC and EC-American alliances.