

**GOVERNMENT FINANCING  
OF RESEARCH AND DEVELOPMENT**

**1980 – 1987**

euostat



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BUREAU VOOR DE STATISTIEK DER EUROPESE GEMEENSCHAPPEN  
SERVIÇO DE ESTATÍSTICA DAS COMUNIDADES EUROPEIAS

L-2920 Luxembourg — Tél. 43011 — Télex : Comeur Lu 3423  
B-1049 Bruxelles, bâtiment Berlaymont, rue de la Loi 200 (bureau de liaison) — Tél. 235 1111

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Analysis by objectives  
Detailed report 1980–87

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## 1. INTRODUCTION

### 1.1. General comments

This report forms part of a series of yearly reports providing regularly updated information on trends in the government financing of R&D in Member States of the Community.

The Community survey designed to gather data on government financing of research and development takes into account only the budget appropriations entered in the budgets of the Member States for R&D, and not the budget appropriations actually spent.

The corresponding amounts are subdivided into final appropriations, voted by the competent authorities, for the years prior to the survey year and provisional appropriations, subject to revision, for the current year.

In addition, the data on government financing of R&D are classified by socio-economic objectives according to the 1983 version of the NABS nomenclature (Nomenclature for the analysis and comparison of science programmes and budgets).

The most important information on the collection, processing and interpretation of basic data is given below (and in the annexes). Further details are given in a handbook drawn up by the Subcommittee.<sup>1</sup>

1.1.1. The field of the survey remains the same as in previous reports. It covers the financing of R&D by central government as defined in the European system of integrated economic accounts (ESA). This definition includes within central government the *Länder* of the Federal Republic of Germany, but excludes local government. For public enterprises, only provisions by central government are taken into account in the R&D budget. An analysis of Community-financed R&D is also included.

1.1.2. In common with most Community statistics and like last year's report, this report takes 1980 as the reference year. This is the reference most commonly used for Community statistics in general and national accounts in particular to calculate amounts in real terms. The analysis of time series will be confined to a period starting in 1981 because of the major breaks in the series between 1980 and 1981.

1.1.3. This report gives data available in 1987 on final budgets for 1986 and provisional budgets for 1987 together with various time series going back to 1981. The basic data are given in terms of current prices, and at current exchange rates,<sup>2</sup> but the most important tables are those which give an idea of the trends, in real terms, in R&D financing. In these tables (Table I, Section 2, and Table 3 in the statistical annex),<sup>3</sup> the overall totals have been deflated by a price index specific to R&D based on data taken from national accounts for years prior to 1987 and on estimates for 1987 projected from earlier data.

1.1.4. In the body of the report, an attempt has been made to distinguish clearly between the retrospective analysis of the trends from 1981 to 1986, based on actual R&D appropriations taken from final budgets, and the comparison of provisional figures for 1986 and 1987, based on data from provisional budgets, likely to be substantially revised during the year.

<sup>1</sup> See 'Methods and definitions used for the annual report on government financing of R&D' (Crest/1217/81). This document can be obtained from the Subcommittee's secretariat.

<sup>2</sup> For implementation of this principle, see Annex 2.

<sup>3</sup> Generally, the tables in the text are numbered in roman numerals and those in the statistical annex in arabic numerals.

1.1.5. At the end of the report there is a specific analysis of government R&D funds for enterprises (Section 5) and for multilateral cooperation (Sections 6 and 7). There is also a provisional quantitative evaluation of the budget appropriations for R&D in fields not explicitly mentioned in the 1983 NABS nomenclature, but which have been singled out for analysis because of their growing interest; these are biotechnology, information technology and developing countries (Section 8).

## 1.2. General characteristics of total and government financing of R & D

To obtain a better picture of the importance of government funds in total R & D expenditure, it is useful to make a comparison both between the Member States and between the Community of 12 and the OECD countries with a major research effort (United States, Japan). For this purpose, the data used throughout Section 1.2 will be OECD data taken from biennial surveys on overall R & D spending by OECD member countries, converted into ecus.

Although they relate to the same definitions of R & D, OECD and Community data differ nevertheless on certain points:

- (i) the data obtained from OECD ISY (International Statistics Year) surveys reflect actual expenditure within national territory established after the event and are compiled by the research establishments themselves;
- (ii) Community data, taken from national budgets, relate to the proposed government funding (i.e. are compiled in advance of spending) for research carried out within and outside national territory and are supplied by those providing the research funds.

These differences are reflected in the concepts used by the two organizations, particularly the concept of government financing, but a structural analysis of the OECD data nevertheless provides interesting pointers for the Community countries. The most recent data available are for 1985 (or, failing that, are estimates based on earlier years).

### 1.2.1. Gross domestic expenditure on R & D

Calculated in terms of purchasing power parities rather than exchange rates, gross domestic expenditure on R & D in the United States, EUR 12 and Japan may be broken down approximately as follows for 1985:

USA	EUR 12 <sup>1</sup>	Japan <sup>2</sup>	Total
52 %	30 %	18 %	100 %

This includes defence expenditure which has a significant effect on the comparison. Taking estimates of gross expenditure on civil R&D only, the gap narrows as follows:

USA	EUR 12 <sup>1</sup>	Japan <sup>2</sup>	Total
46 %	32 %	22 %	100 %

<sup>1</sup> Estimate.

<sup>2</sup> Japanese figures adjusted.

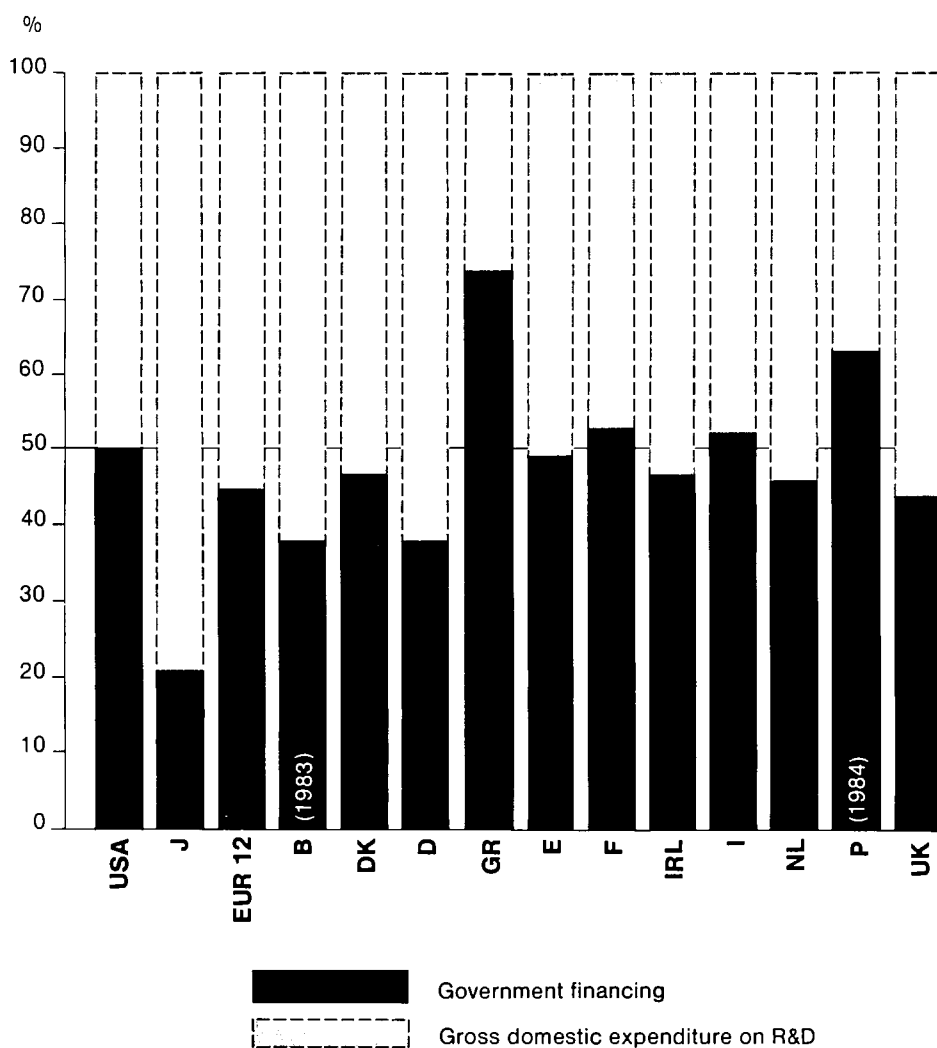
1.2.2. *Gross domestic expenditure on R & D and government financing*

Evaluated from data for 1985 or the nearest year for some Community countries, the share of government financing in gross domestic expenditure on R & D is as follows:

<b>USA</b>	<b>EUR 12<sup>1</sup></b>	<b>Japan</b>
50%	45%	21%

The actual share of government financing in the total R & D expenditure of the Member States is shown in the graph below:

**Graph A**  
**Gross domestic expenditure on R&D and the share of government financing – 1985**



Source: OECD/DISTI data bank – January 1988

<sup>1</sup> Estimate.

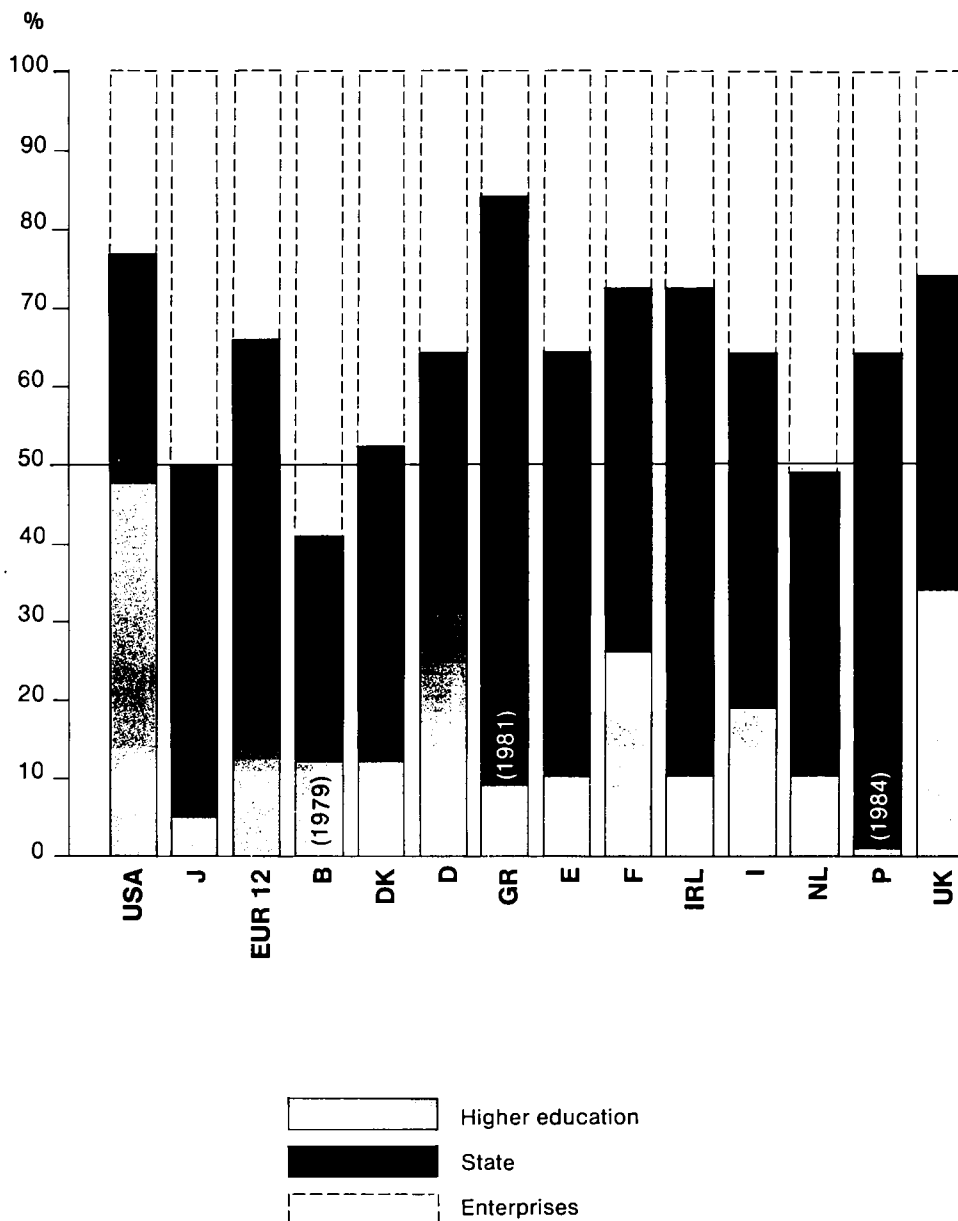
In two countries the share of government financing in gross domestic expenditure on R & D is well above the Community average of 45 %: Greece (74 %) and Portugal (62 %).

In contrast, two countries are well below this average: FR of Germany and Belgium (38 %).

1.2.3. *Breakdown of government financing of gross domestic expenditure on R & D by performing sectors*

If we now consider how government funding is actually distributed among the three main sectors carrying out research – industry, the public sector/non-profit-making institutions, and higher education – we find the situation illustrated in the following graph:

**Graph B**  
**Breakdown of the government share of gross domestic expenditure on R&D by performing sectors – 1985 or nearest year**



Source: OECD/DISTI data bank – January 1988

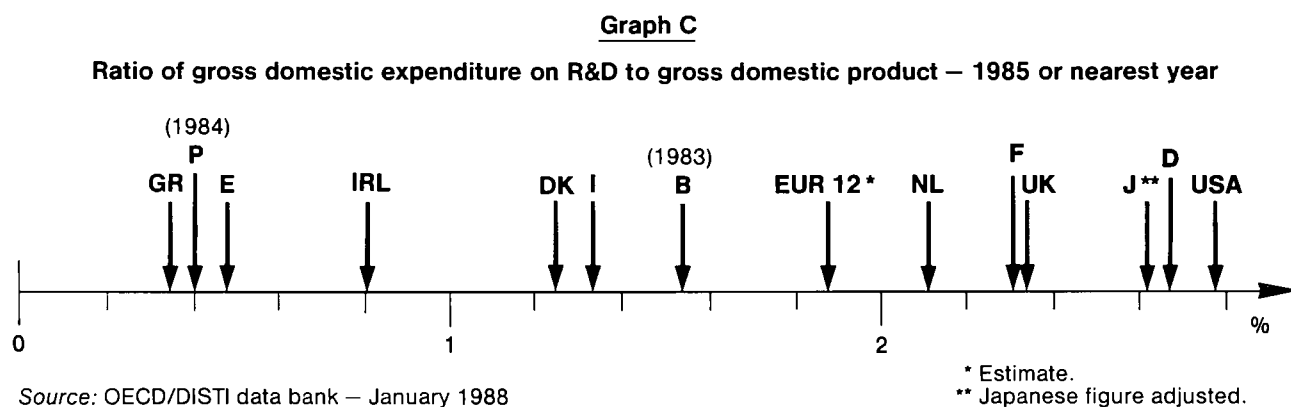
In the breakdown of government financing of gross domestic expenditure on R & D the Community occupies a position between the United States and Japan: the USA, EUR 12 and Japan assign respectively 47 %, 26 % and 5 % of their public funding to enterprises and 23 %, 32 % and 52 % to higher education.

One Member State, France, breaks down its government R & D funding on the lines of the Community average.

Among the other Member States, the United Kingdom is the country where the pattern is nearest to the American one, whereas the Netherlands, Belgium and Denmark have a breakdown more closely akin to that of Japan.

#### 1.2.4. Ratio of gross domestic expenditure on R & D to gross domestic product

If gross domestic expenditure on R & D is related to gross domestic product to obtain some idea of the impact of research expenditure on the economy, the relative position of the various countries can be represented as follows:



Among the Member States there was only one country in 1985 that had a ratio of gross domestic expenditure on R & D to gross domestic product well above the Community average of 1.9 % and close to that of Japan (2.6 %) and the United States (2.8 %): this was FR of Germany (2.7 %).

Three other countries have a ratio above the Community average: United Kingdom and France (2.3 %) and the Netherlands (2.1 %).

The other countries have a ratio well below the Community average.

## 2. TRENDS IN BUDGET APPROPRIATIONS FOR R & D

Before examining the trends in budget appropriations for R & D in the Community countries, we shall briefly survey the comparative trends, as regards total R & D expenditure and the share of government financing, between the Community and those non-Community countries of most interest for comparison purposes, the United States and Japan.

### 2.1. Comparative trends in the Community, the United States and Japan

Although we have comparable figures for all three on total gross domestic R & D expenditure, the same is not true of government spending.

The only figures currently available for R & D budget appropriations in Japan are partial estimates that do not go beyond 1984 for two essential reasons. Firstly, it is extremely difficult to single out the real share of research in the Japanese budget. Secondly, the estimates available apply to domestic research and disregard Japanese Government financing for research carried out abroad.

It therefore seemed preferable in the case of government R & D appropriations to make use of the much more reliable figures on government funding taken from the OECD surveys, the latest of which for Japan covers 1985.

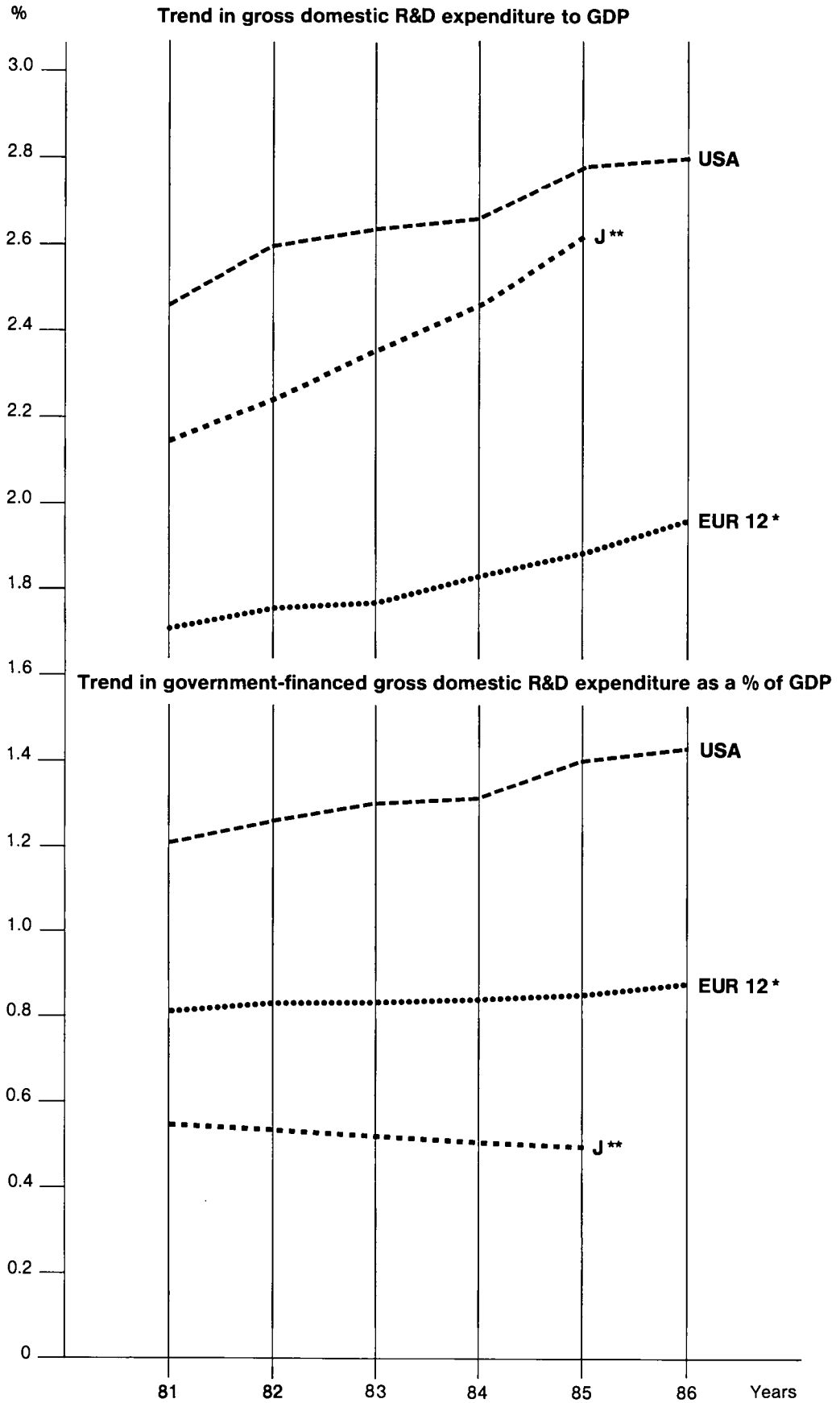
Finally, trends in gross domestic expenditure and government financing of R & D will be compared by relating them to the gross domestic product so as to obtain a better understanding of the links between R & D and the general economy.

#### *2.1.1. Comparative trends in the ratio of gross domestic R & D expenditure to GDP*

If we consider only the period 1981-85 for which data have been estimated for EUR 12, we find a steady increase in the ratio of gross domestic R & D expenditure to GDP which demonstrates the relationship between R & D and the economy (see Graph D). However, the growth rate differs for the three regions under consideration: the ratio increases by an average of 1.8% a year for the Community as a whole compared with 2.6% for the United States and 4.1% for Japan.

With these annual growth rates holding relatively steady over the period under review, the gap separating the Community countries from the USA and Japan will continue to widen since there is no sign of any change in the trends observed.

**Graph D**



Source: OECD/DISTI data bank – January 1988

\* Estimate.  
\*\* Japanese figures adjusted.

### 2.1.2. *Comparative trends in the ratio of government financing of R & D to gross domestic product*

In contrast to the previous ratio, this ratio declined very slightly in Japan and showed a relatively modest increase for the Community as a whole and the United States over the period 1981-85 (see Graph D).

In the United States this modest increase is mainly due to the impact of defence appropriations which went up substantially over the period 1981-85, while government funding of civil R & D even declined in real terms over the same period.<sup>1</sup>

A predominance of one of the two types of appropriations cannot account for the small increase in the Community ratio. On average civil R & D appropriations increased at almost the same rate as total government appropriations over the period 1981-85 and this trend continued in 1986, as is shown by Table I, where the figures have been deflated by the R & D price index.

## 2.2. **Trends in the breakdown of budget appropriations for R & D within the Community**

The figures in the following paragraphs relate solely to the Community and refer to budget appropriations for R & D as defined in the manual 'Methods and definitions' (see footnote 1, page 7).

Before examining the trends in government spending on R & D in EUR 12 as a whole and in the individual Member States, it might be useful to consider the relative importance of each country within the Community.

In order to rule out the incidence of any fluctuations in prices and exchange rates, figures deflated by the R & D price index and converted on the basis of 1980 exchange rates will be used. The choice of 1980 as the reference year for comparisons of R & D data may appear arbitrary but, as already mentioned, it is the year commonly taken for the preparation of all Community statistics, which include research figures.

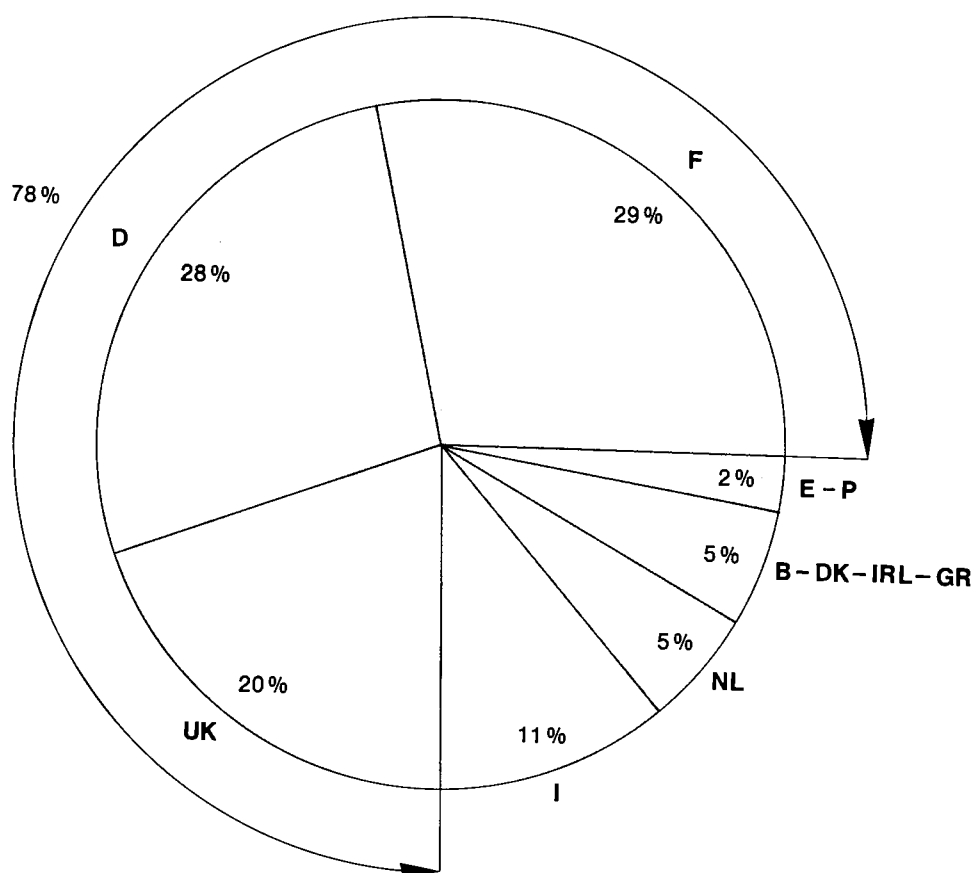
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<sup>1</sup> See annual report on government financing of R & D 1980-86.



**Graph E**

**Breakdown of budget appropriations for R&D (at 1980 prices and exchange rates) within the Community in 1986**



In 1986 the three large countries (FR of Germany, France and the United Kingdom) together accounted for 78% of the total budget appropriations for R&D (in real terms) of the Community countries. That share has declined somewhat in comparison to 1981 as a result of Germany's slower rate of increase in R&D budget appropriations last year and the very marked increase in Italy's government R&D funding since 1981 (see Table I).

### 2.3. Trends in R&D budget appropriations for the Community as a whole

To avoid the major break in time series between 1980 and 1981, time comparisons will be based on 1981 instead of 1980.

#### 2.3.1. Trends in total budget appropriations

In 1986 R&D budget appropriations for EUR 12 amounted to ECU 35 500 million, almost 1 000 million up on 1985, giving a nominal increase of only 2.9%, well below the average annual rate of increase over the period 1981-86, which was 7.8%.

Evaluated in 1980 prices and exchange rates, total Community appropriations for R&D in 1986 were virtually at the same level as in 1985, in marked contrast to the remarkably steady growth at an annual average in real terms of 2.2% over the period 1981-85 (see Table I).

A comparison of provisional budgets for 1986 and 1987 indicates that in real terms R&D appropriations for 1987 are likely to remain at the same level.

### 2.3.2. Trends in budget appropriations for civil R&D

Although civil R&D appropriations in all Community countries showed a slight increase in real terms in 1986 (0.9%), whereas total budget appropriations at 1980 prices and exchange rates remained steady, this increase is well below the real average recorded over the period 1981-86 (2.7%).

To judge from provisional budgets for 1986 and 1987, budget appropriations in real terms should increase in 1987 at more or less the same rate as in 1986.

### 2.3.3. Trends in the ratio of R&D budget appropriations to total budgets and to gross domestic product

The ratio of R&D budget appropriations to total budgets for EUR 12 may be estimated at around 3.1% and has increased very slightly since 1983 although without regaining the level of earlier years.

The ratio of R&D budget appropriations to GDP has remained just above 1% since 1981 with a slight upward trend that weakened in 1986 (see Graph F).

## 2.4. Trends in budget appropriations for R&D in the Community Member States

### 2.4.1. Trends in the total R&D budget appropriations of the Member States

The total figure for R&D budget appropriations in 1986, expressed in 1980 prices and exchange rates for the Community as a whole, conceals very different trends in individual Member States.

Three types of trend may be distinguished:

- (i) countries with a high real growth rate in 1986 and over the period 1981-86:

#### Average rate

	1981-86	1985-86
Italy	7.5 %	14.0 %
Denmark	6.8 %	12.0 %
Ireland	4.2 %	7.3 %

- (ii) countries whose budget appropriations fell in 1986 but remained steady or increased slightly over the period 1981-86:

#### Average rate

	1981-86	1985-86
FR of Germany	0.6 %	-0.8 %
Belgium	1.3 %	-4.3 %
United Kingdom	0.0 %	-5.7 %

- (iii) the other countries recorded a rate of increase in real terms in their R & D budget appropriations somewhere between those of the two previous groups both in 1986 and over the period 1981-86:

**Average rate**

	1981-86	1985-86
Netherlands	1.8 %	2.7 %
France	3.3 %	0.3 %
Greece	9.9 %	0.1 %

A comparison of provisional budgets for 1986 and 1987 shows the following changes within each of the three groups:

- (i) in the first group, Ireland is likely to see a slower growth in 1987 than over the period 1981-86;
- (ii) in the second group, the real growth rate in Germany in 1987 should be higher than that recorded over the period 1981-86;
- (iii) in the third group, Greece is likely to experience relatively high growth in 1987 similar to that recorded in 1985.

**2.4.2. Trends in budget appropriations for civil R & D in the Member States**

In countries in which defence does not play an important role in the NABS objectives, appropriations for civil R & D naturally follow the same pattern as total appropriations.

In the other countries, apart from Italy, appropriations for civil R & D fell in real terms in 1986, thereby affecting the average trend over the period 1981-86:

**Average rate**

	1981-86	1986-87
United Kingdom	0.5 %	-3.3 %
France	5.3 %	-1.7 %
FR of Germany	-0.1 %	-1.0 %

It seems likely from a comparison of provisional budgets that in Germany the growth in appropriations for civil R & D in 1987 will pick up to a rate close to that of total appropriations.

**2.4.3. Trends in the ratio of R & D budget appropriations to total budgets and to gross domestic product**

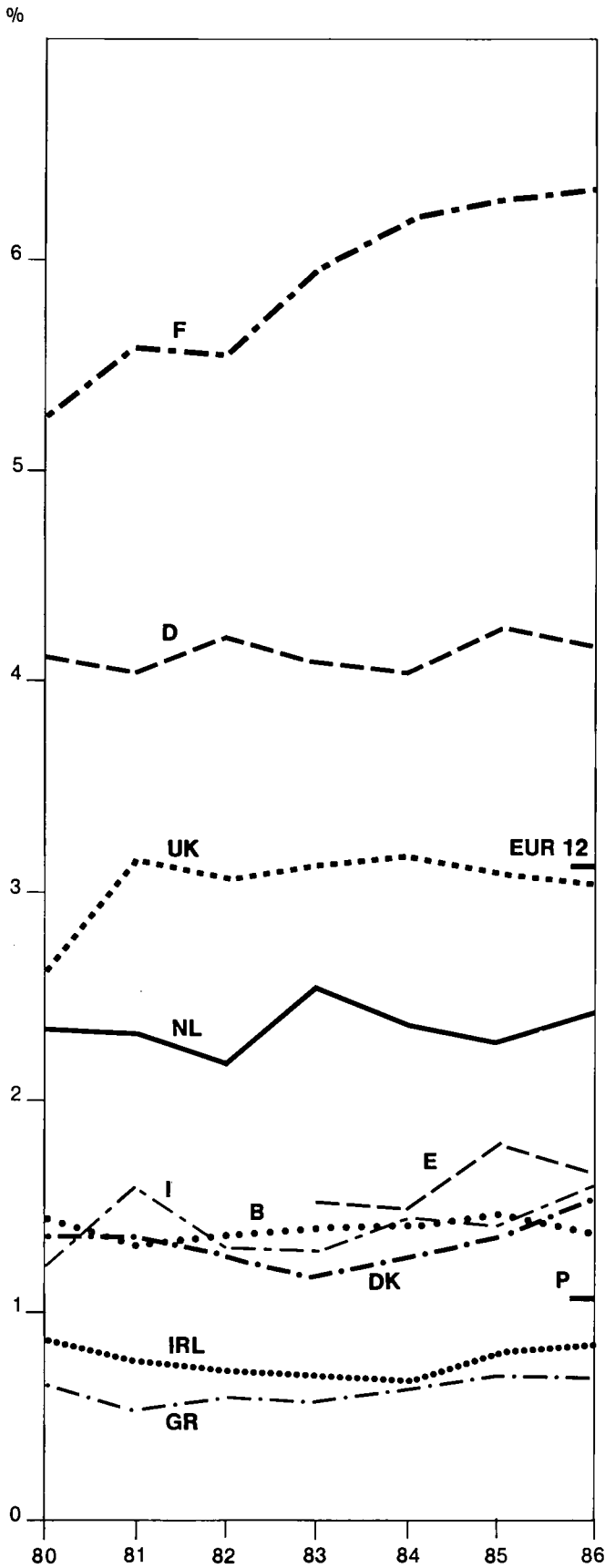
Over the period 1981-86, the ratio of R & D budget appropriations to total budgets has remained steady or increased slightly (FR of Germany) or strongly (France).

The same is not true of the ratio of R & D budget appropriations to gross domestic product. In three countries (United Kingdom, Belgium, FR of Germany) this shows a downward trend over the period under review, particularly marked in 1986.

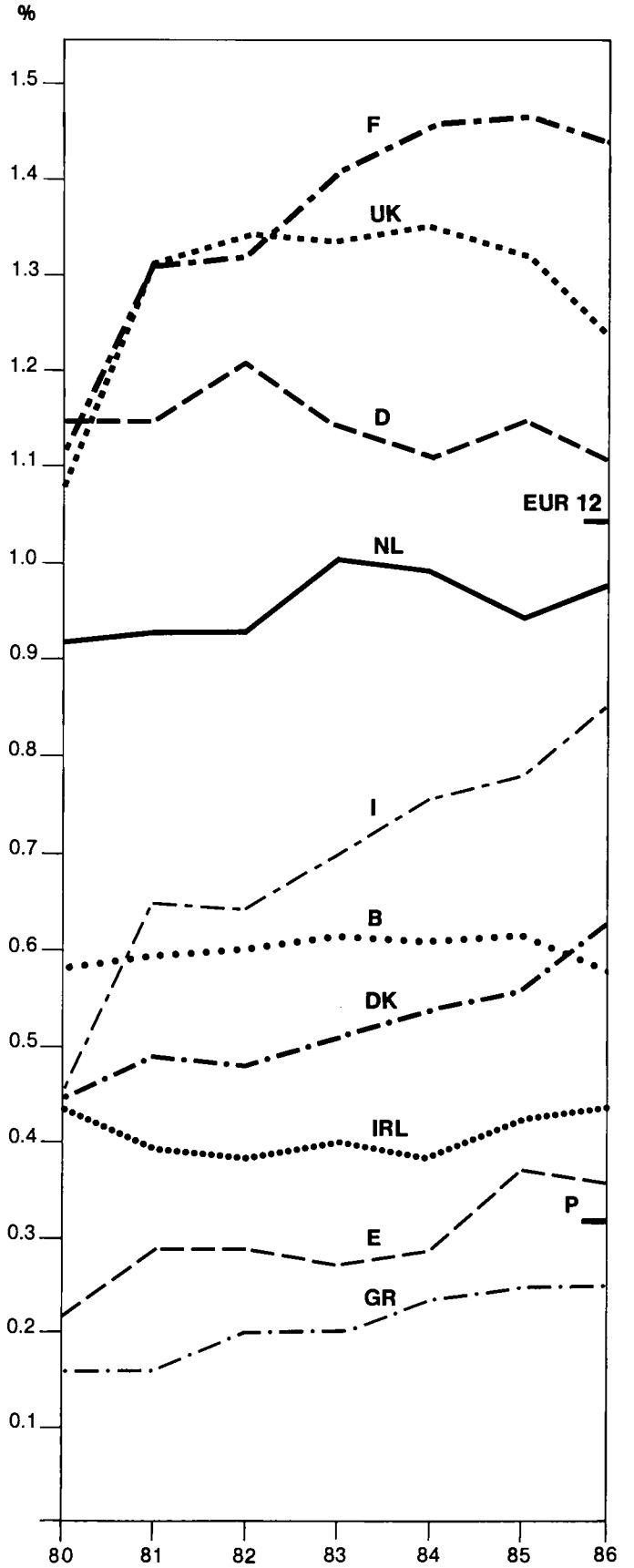
In France the ratio increased overall up to 1985 when it changed direction and recorded a substantial fall in 1986.

**Graph F**

**Trend in the ratio of R&D budget appropriations to total budget**



**Trend in the ratio of R&D budget appropriations to GDP**



**Table I**  
**General characteristics of budget appropriations for R&D in 1986**

	Government R&D appropriations in 1986 at current values and exchange rates  (million ECU)		Government R&D appropriations at 1980 prices and exchange rates						Ratio of government R&D appropriations to total budget		Ratio of government R&D appropriations to gross domestic product	
			Annual average rate of change				Contribution of Member States to the EUR 12 total					
	Total	Civil	Total		Civil		1981	1986	1981	1986	1981	1986
		1981-86	1986-87 <sup>1</sup>	1981-86	1986-87 <sup>1</sup>							
Belgium	653	642	1.3	- 1.6	1.1	- 1.2	2.4	2.6	1.31	1.33	0.63	0.57
Denmark	509	507	6.8	19.4	8.0	19.5	1.0	1.4	1.36	1.55	0.49	0.63
FR of Germany	10 049	8 832	0.6	2.0	- 0.1	1.9	30.3	28.1	4.06	4.20	1.15	1.10
Greece	99	97	4.8	12.2	5.4	12.7	0.3	0.3	0.51	0.67	0.16	0.25
Spain	802	764	6.4	21.3	6.4	-17.3	:	2.3	:	1.61	0.28	0.34
France	10 273	6 935	3.3	- 3.0	5.1	- 7.3	27.9	29.3	5.62	6.34	1.31	1.44
Ireland	116	116	4.2	1.6	4.2	1.6	0.3	0.3	0.74	0.80	0.39	0.44
Italy	4 409	4 033	7.5	8.1	7.0	8.8	8.3	10.7	1.60	1.60	0.65	0.85
Netherlands	1 705	1 658	1.8	1.7	1.8	1.5	5.2	5.0	2.34	2.40	0.93	0.96
Portugal	92	92	:	35.0	:	35.0	:	0.3	:	1.04	:	0.32
United Kingdom	6 787	3 329	0.0	- 0.4	0.5	- 3.3	22.4	20.3	3.18	3.04	1.31	1.24
EUR 12	35 492	27 003	2.2	0.6	2.7	0.3	100.0	100.0	3.33	3.11	1.02	1.04
European Communities	661	661	:	:	:	:	:	:	:	:	:	:

<sup>1</sup> Comparison of provisional budgets.

### 3. CHANGES IN THE STRUCTURE OF R&D BUDGET APPROPRIATIONS BY OBJECTIVES

Because of the different share of R&D appropriations going to defence in the Community countries, a distinction will be made here between civil and defence R&D appropriations.

#### 3.1. Changes in the structure of total R&D appropriations

The importance of defence in total government R&D financing differs greatly from one country to another, but one feature is common to all of them: the largest single amount of their financing goes to objectives 10 (research financed from general university funds) and 11 (non-oriented research). For EUR 12, one third of total government R&D spending in 1986 went to these types of research, with university research accounting for 22 % and non-oriented research 11 %.

As shown in Table V, two countries spent approximately the Community average on research financed from general university funds: Belgium (23 %) and Ireland (22 %). Most of the others allocated a higher percentage: Netherlands (43 %), Denmark (33 %), Germany and Portugal (32 %) and Greece (27 %). Only the United Kingdom, Spain and France fell below the Community average: Spain (18 %), United Kingdom (15 %) and France (12 %). Although this is partly due to the importance of defence research in those countries, another factor, at least in France and Spain, is the predominance of non-oriented research which accounts for 18 % and 15 % respectively of total government appropriations in those two countries.

The following table grouping related objectives has been drawn up to facilitate comparison:

**Table II**

**EUR 12: Government R & D appropriations classified by groups of objectives**

%

Groups of NABS objectives	Final budgets		Provisional budgets	
	1985	1986	1986	1987
2 - 3 - 4 - 8 Human and social objectives	9.4	9.6	9.5	9.6
1 - 5 - 7 - 9 Technological objectives	28.2	28.7	27.8	28.0
6 Agriculture	3.8	3.7	3.6	3.6
10 Research financed from general university funds	21.2	22.4	22.1	23.0
11 Non-oriented research	11.1	10.8	11.3	10.7
12 Unclassified	0.9	0.9	0.8	1.1
13 Defence	25.4	23.9	24.9	23.9
Total	100.0	100.0	100.0	100.0

This table shows some variations in the structure of R & D appropriations for the Community of 12.

Although in general research under objectives 10 and 11 accounted for the same percentage of R & D appropriations in 1985 and 1986, funds for university research increased more than those for non-oriented research. This trend is found everywhere except Greece, where the opposite phenomenon is observed.

In 1986 the small increase in social and human objectives is found to a greater or lesser extent in all countries except France and the Netherlands.

The rather more sustained increase in technological objectives is absent in three countries: Denmark, France and Italy.

In Denmark, the smaller increase in technological objectives than in total appropriations is mainly due to changes made in 1986 in the method of evaluating R & D appropriations, which are described in Section 4.2.

In Italy, the Member State devoting the largest percentage to technological objectives (40 % in 1986), the decline is, as in France, due to budget cuts in the energy sector.

In contrast three countries (Greece, Netherlands and United Kingdom) recorded a particularly marked increase in percentage for technological objectives, mainly going to industrial productivity and technology.

Finally, defence appropriations, which showed a smaller increase in relative terms than total R & D appropriations, will be examined in Section 3.3.

### 3.2. Changes in the structure of civil R & D spending

Overall, government financing of civil R & D accounts for approximately three quarters of the total Community research budget but the percentage varies greatly from one country to another: Ireland (100 %); the Netherlands, Belgium, Denmark and Greece (over 95 %); Germany and Italy (around 90 %); France (68 %) and the United Kingdom (49 %) (see Table V).

The breakdown of appropriations is as follows for the Community as a whole:

Table III

EUR 12: Government appropriations for civil R&D classified by objectives

%

NABS objectives	Final budgets		Provisional budgets	
	1985	1986	1986	1987
1. Exploration and exploitation of the earth	2.4	2.3	2.2	2.4
2. Infrastructures and general land-use planning	2.9	3.0	2.9	2.8
3. Control of environmental pollution	2.1	2.1	2.1	2.3
4. Protection and improvement of human health	4.8	4.7	4.7	4.8
5. Production, distribution and rational utilization of energy	12.8	11.0	11.5	9.3
6. Agricultural productivity and technology	5.1	4.9	4.8	4.8
7. Industrial productivity and technology	17.3	18.1	17.2	18.1
8. Social structures and relationships	2.7	2.8	3.0	2.7
9. Exploration and exploitation of space	5.6	6.2	6.1	7.1
10. Research financed from general university funds	28.2	29.4	29.4	30.3
11. Non-oriented research	14.9	14.3	15.1	14.1
12. Other civil research	1.2	1.2	1.0	1.4
Total civil R&D financing	100.0	100.0	100.0	100.0

Leaving aside Chapters 10 and 11, examined earlier, and Chapter 13, discussed below, technological objectives show the widest variations, and this is particularly true of appropriations for energy and industry.

Appropriations for energy research increased to a lesser extent than total civil R&D appropriations in 1986 and this was particularly marked in countries devoting the highest share of appropriations to this area of research: Italy (21.8% in 1985, 16.6% in 1986), Germany (14.3% in 1985, 11.8% in 1986). This trend is mainly due to the reduced funding for nuclear fission research.

In contrast, the substantial increase in appropriations for industrial research is particularly marked in the United Kingdom (14% in 1985, 20% in 1986) and the Netherlands (15.7% in 1985, 17.8% in 1986), where the increased funding was designed to promote general research or to improve industrial efficiency and competitiveness. The other countries recorded a smaller increase or even a net decline, as in Belgium.

The small rise in agricultural appropriations for the Community as a whole conceals a substantial fall in Ireland where the share in civil R&D (the highest of all Member States) dropped from 28.7% in 1985 to 23.8% in 1986.

### 3.3. Changes in the structure of defence spending

Military research, which in 1985 accounted for almost one quarter of total R&D budget appropriations, is concentrated mainly in four countries:

**Table IV****Defence as a percentage of total government financing for R & D**

	Final budgets		Provisional budgets	
	1985	1986	1986	1987
United Kingdom	51.9	50.9	51.6	51.2
France	31.3	32.5	31.0	34.1
Federal Republic of Germany	11.9	12.1	12.4	12.5
Italy	9.9	8.5	8.4	7.8
EUR 12 <sup>1</sup>	25.4	23.9	24.9	23.9

<sup>1</sup> Estimate.

The slower growth in the proportion allocated to defence spending in regard to total R&D appropriations was mainly due to the United Kingdom, which spends more than half of its R&D appropriations on this sector. In 1986 it cut its defence appropriations, unlike those for civil R&D. Defence appropriations increased more than total appropriations in France and Germany.





Table V

## Breakdown of final R&amp;D budgets by objectives in 1985 and 1986

NABS objectives	EC		EUR 12		B		DK		D		GR	
	1985	1986	1985	1986	1985	1986	1985	1986	1985	1986	1985	1986
1. Exploration and exploitation of the earth	1.5	0.8	1.8	1.8	3.1	3.1	1.3	1.6	2.1	2.0	5.5	7.0
2. Infrastructures and general land-use planning	0.6	1.2	2.2	2.3	0.7	0.8	2.4	2.2	1.9	1.9	0.5	0.3
3. Control of environmental pollution	5.4	6.0	1.6	1.6	2.5	2.3	1.5	1.0	3.1	3.2	3.4	2.7
4. Protection and improvement of human health	4.2	4.1	3.6	3.6	2.7	3.1	3.3	6.0	3.0	3.1	7.6	7.5
5. Production, distribution and rational utilization of energy	55.8	56.2	9.5	8.4	11.5	10.2	6.5	4.9	12.6	10.4	2.6	6.0
6. Agricultural productivity and technology	2.8	1.9	3.8	3.7	7.0	7.3	7.4	7.7	2.0	2.0	27.1	24.7
7. Industrial productivity and technology	26.7	26.6	12.9	13.8	16.4	14.3	21.1	16.1	14.1	14.6	7.7	9.4
8. Social structures and relationships	0.5	0.8	2.0	2.1	0.7	0.7	4.2	4.4	2.3	2.3	5.6	6.5
9. Exploration and exploitation of space	1.0	1.0	4.2	4.7	6.6	7.5	3.2	2.7	3.9	4.5	0.6	0.3
10. Research financed from general university funds	-	-	21.0	22.4	22.2	22.8	31.0	33.5	31.4	31.6	28.3	26.5
11. Non-oriented research	1.3	1.3	11.1	10.8	22.4	23.0	17.7	19.2	11.4	12.2	6.1	6.0
12. Other research	-	-	0.9	0.9	2.7	3.3	-	-	0.1	0.1	2.0	0.3
Total financing of civil R&D	100.0	100.0	74.6	76.1	98.5	98.4	99.5	99.6	88.1	87.9	97.1	97.3
13. Defence	-	-	25.4	23.9	1.5	1.6	0.5	0.4	11.9	12.1	2.9	2.7
Total financing	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

E		F		IRL		I		NL		P		UK		NABS objectives
1985	1986	1985	1986	1985	1986	1985	1986	1985	1986	1985	1986	1985	1986	
6.7	5.5	1.5	1.4	0.9	0.6	1.3	1.3	0.6	0.6	:	10.9	1.8	1.8	1. Exploration and exploitation of the earth
4.3	3.2	3.1	3.3	4.0	3.9	1.1	1.0	4.0	4.2	:	11.6	1.2	1.5	2. Infrastructures and general land-use planning
0.4	0.4	0.5	0.4	0.8	0.9	1.0	0.9	3.2	3.1	:	2.9	1.1	1.0	3. Control of environmental pollution
2.5	3.4	4.0	3.4	4.3	4.5	4.6	5.0	2.7	2.7	:	0.2	3.6	3.8	4. Protection and improvement of human health
7.9	10.6	7.8	7.0	1.3	1.2	19.7	15.2	4.5	4.1	:	4.6	4.5	4.0	5. Production, distribution and rational utilization of energy
7.3	5.3	3.5	3.5	28.7	23.8	3.8	3.9	4.4	4.5	:	17.6	4.6	4.6	6. Agricultural productivity and technology
18.5	17.4	12.1	11.2	28.9	28.9	20.6	21.3	15.2	17.3	:	6.9	6.7	9.8	7. Industrial productivity and technology
0.8	0.9	2.6	2.8	7.5	9.8	1.1	1.2	2.5	2.6	:	1.1	1.2	1.3	8. Social structures and relationships
3.7	2.1	5.6	6.1	1.6	1.9	7.1	6.5	0.9	3.1	:	-	1.8	2.6	9. Exploration and exploitation of space
21.3	22.1	11.9	12.3	19.7	22.4	21.7	27.1	42.6	41.0	:	32.3	14.6	15.3	10. Research financed from general university funds
18.2	22.3	14.4	14.8	2.2	2.2	7.5	6.6	10.1	9.9	:	0.6	6.5	3.0	11. Non-oriented research
2.1	2.0	1.7	1.1	-	-	0.6	1.2	4.4	3.9	:	11.3	0.3	0.3	12. Other research
93.7	95.2	68.7	67.5	100.0	100.0	90.1	91.5	96.9	97.2	:	100.0	48.1	49.1	Total financing of civil R&D
6.3	4.8	31.3	32.5	-	-	9.9	8.5	3.1	2.8	:	-	51.9	50.9	13. Defence
100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	:	100.0	100.0	100.0	Total financing

Table VI

## Breakdown of provisional R&amp;D budgets by objectives in 1986 and 1987

NABS Objectives	EC		EUR 12		B		DK		D		GR	
	1986	1987	1986	1987	1986	1987	1986	1987	1986	1987	1986	1987
1. Exploration and exploitation of the earth	0.6	0.7	1.6	1.8	2.5	3.1	1.3	1.5	2.1	1.9	5.5	7.1
2. Infrastructures and general land-use planning	0.8	0.6	2.2	2.2	0.6	0.7	2.4	2.3	1.9	1.9	0.4	0.3
3. Control of environmental pollution	5.8	5.3	1.6	1.7	2.4	2.2	1.5	1.3	3.3	3.3	3.4	2.1
4. Protection and improvement of human health	4.1	2.8	3.5	3.6	2.1	3.0	3.3	4.8	3.0	3.2	9.3	7.4
5. Production, distribution and rational utilization of energy	56.8	51.6	8.7	7.1	10.1	9.5	6.7	4.4	10.5	8.7	2.6	3.6
6. Agricultural productivity and technology	1.9	1.5	3.6	3.6	7.2	7.6	7.0	8.5	2.0	2.0	24.9	26.0
7. Industrial productivity and technology	26.7	33.2	12.8	13.7	16.2	12.8	20.6	16.2	14.3	15.3	8.7	11.2
8. Social structures and relationships	0.8	1.1	2.2	2.1	0.7	0.5	4.3	3.6	2.3	2.3	6.4	7.3
9. Exploration and exploitation of space	1.1	1.5	4.6	5.4	7.3	9.8	3.1	2.6	4.5	4.9	0.6	0.4
10. Research financed from general university funds	-	-	22.1	23.0	22.8	22.3	29.5	32.1	31.8	31.5	26.9	25.3
11. Non-oriented research	1.4	1.8	11.3	10.7	20.5	23.6	19.7	22.3	11.8	12.3	6.1	6.7
12. Other research	-	-	0.8	1.1	6.3	3.8	-	-	0.1	0.1	2.2	0.2
Total financing of civil R&D	100.0	100.0	75.1	76.1	98.5	98.9	99.5	99.6	87.6	87.5	97.1	97.7
13. Defence	-	-	24.9	23.9	1.5	1.1	0.5	0.4	12.4	12.5	2.9	2.3
Total financing	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

E		F		IRL		I		NL		P		UK		NABS objectives
1986	1987	1986	1987	1986	1987	1986	1987	1986	1987	1986	1987	1986	1987	
5.3	7.7	1.5	1.4	0.7	0.6	1.1	1.4	0.6	0.6	10.2	9.0	1.7	1.7	1. Exploration and exploitation of the earth
3.4	0.2	3.2	3.2	3.9	4.2	0.9	0.8	4.2	4.6	8.9	10.5	1.4	1.6	2. Infrastructures and general land-use planning
0.4	2.0	0.5	0.4	0.8	1.0	1.0	0.9	3.0	3.1	3.0	3.4	0.7	1.5	3. Control of environmental pollution
4.0	8.6	3.8	3.6	4.9	3.9	4.4	4.5	2.2	2.5	0.2	0.2	3.7	3.3	4. Protection and improvement of human health
12.3	3.1	7.1	6.7	1.2	1.1	17.4	11.1	4.6	4.0	5.0	4.7	4.6	3.6	5. Production, distribution and rational utilization of energy
4.9	6.7	3.6	3.6	27.3	24.2	3.7	3.5	4.4	4.3	14.4	14.2	4.6	4.3	6. Agricultural productivity and technology
17.1	21.5	12.1	10.6	26.1	27.2	19.1	19.1	14.8	17.6	7.3	6.2	6.7	9.9	7. Industrial productivity and technology
0.9	0.9	2.9	2.7	8.0	10.0	1.1	1.2	3.5	2.4	0.2	1.3	1.3	1.2	8. Social structures and relationships
4.8	8.8	5.8	5.9	1.1	2.3	6.9	9.3	2.9	2.8	-	-	1.8	2.6	9. Exploration and exploitation of space
18.1	19.8	11.8	12.0	23.9	23.0	28.6	31.9	43.1	40.7	35.5	30.5	14.9	15.3	10. Research financed from general university funds
20.6	8.5	15.1	14.7	2.2	2.4	7.0	6.6	9.8	10.3	1.8	0.5	6.8	3.3	11. Non-oriented research
2.2	3.4	1.2	1.0	-	-	0.2	1.9	4.3	4.4	13.5	19.5	0.3	0.3	12. Other research
94.2	91.1	69.0	65.9	100.0	100.0	91.6	92.2	97.4	97.2	100.0	100.0	48.4	48.8	Total financing of civil R&D
5.8	8.9	31.0	34.1	-	-	8.4	7.8	2.6	2.8	-	-	51.6	51.2	13. Defence
100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	Total financing

Table VII

## Breakdown of final budgets for civil R&amp;D by objectives in 1985 and 1986 (% of total civil R&amp;D)

NABS objectives	EC		EUR 12		B		DK		D		GR	
	1985	1986	1985	1986	1985	1986	1985	1986	1985	1986	1985	1986
1. Exploration and exploitation of the earth	1.5	0.8	2.4	2.3	3.1	3.2	1.3	1.6	2.4	2.3	5.7	7.2
2. Infrastructures and general land-use planning	0.6	1.2	2.9	3.0	0.7	0.8	2.4	2.3	2.2	2.1	0.5	0.3
3. Control of environmental pollution	5.4	6.0	2.1	2.1	2.5	2.4	1.5	1.0	3.6	3.7	3.5	2.7
4. Protection and improvement of human health	4.2	4.1	4.8	4.7	2.7	3.1	3.3	6.1	3.4	3.5	7.8	7.7
5. Production, distribution and rational utilization of energy	55.8	56.2	12.8	11.0	11.6	10.3	6.5	5.0	14.3	11.8	2.7	6.2
6. Agricultural productivity and technology	2.8	1.9	5.2	4.9	10.2	7.5	7.5	7.8	2.3	2.3	27.9	25.4
7. Industrial productivity and technology	26.7	26.6	17.3	18.1	16.7	14.5	21.2	16.2	16.1	16.6	8.0	9.6
8. Social structures and relationships	0.5	0.8	2.7	2.8	0.7	0.7	4.2	4.5	2.6	2.6	5.8	6.7
9. Exploration and exploitation of space	1.0	1.0	5.6	6.2	6.7	7.6	3.2	2.8	4.4	5.1	0.6	0.4
10. Research financed from general university funds	-	-	28.2	29.4	22.5	23.1	31.1	33.7	35.7	35.9	29.1	27.2
11. Non-oriented research	1.3	1.3	14.9	14.3	22.8	23.4	17.8	19.3	12.9	13.9	6.3	6.2
12. Other research	-	-	1.2	1.2	2.7	3.3	-	-	0.1	0.2	2.1	0.3
Total financing of civil R&D	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

#### 4. SPECIAL FEATURES OF GOVERNMENT R & D FINANCING IN EACH MEMBER STATE

##### 4.1. Belgium

4.1.1. Total R & D financing in the national budget was BFR 28 600 million in 1986, 600 million down on 1985, reflecting a fall of 2.1 % in nominal terms. With the R & D price index up by 2.2 % over the same period, this means that the fall in real terms was 4.3 %.

To judge from the comparison of provisional budgets for 1986 and 1987, this marked downward trend in appropriations in real terms in 1986 is unlikely to be reversed in 1987. Over the period government appropriations are likely to increase by only 1.3 %, which is less than the predicted rise in the R & D price index.

4.1.2. A study by objectives of the variations recorded between 1984 and 1986 gives the following breakdown on either side of the increase in R & D prices (2.2 %):

E		F		IRL		I		NL		P		UK		NABS objectives
1985	1986	1985	1986	1985	1986	1985	1986	1985	1986	1985	1986	1985	1986	
7.2	5.8	2.1	2.1	0.9	0.6	1.4	1.5	0.6	0.6	:	10.9	3.7	3.6	1. Exploration and exploitation of the earth
4.6	3.3	4.5	4.8	4.0	3.9	1.2	1.1	4.1	4.4	:	11.6	2.5	3.1	2. Infrastructures and general land-use planning
0.4	0.4	0.7	0.6	0.8	0.9	1.2	1.0	3.3	3.2	:	2.9	2.3	2.1	3. Control of environmental pollution
2.7	3.5	5.8	5.1	4.3	4.5	5.1	5.5	2.7	2.8	:	0.2	7.6	7.8	4. Protection and improvement of human health
8.4	11.2	11.4	10.4	1.3	1.2	21.8	16.6	4.7	4.2	:	4.6	9.4	8.2	5. Production, distribution and rational utilization of energy
7.8	5.6	5.2	5.2	28.7	23.8	4.2	4.3	4.6	4.7	:	17.6	9.6	9.3	6. Agricultural productivity and technology
19.8	18.3	17.7	16.6	28.9	28.9	22.9	23.3	15.7	17.8	:	6.9	14.0	20.0	7. Industrial productivity and technology
0.8	0.9	3.7	4.2	7.5	9.8	1.2	1.3	2.6	2.7	:	1.1	2.5	2.7	8. Social structures and relationships
3.9	2.2	8.2	9.1	1.6	1.9	7.9	7.1	0.9	3.2	:	-	3.8	5.2	9. Exploration and exploitation of space
22.8	23.2	17.3	18.3	19.7	22.4	24.1	29.6	43.9	42.2	:	32.3	30.4	31.2	10. Research financed from general university funds
19.4	23.4	21.0	21.9	2.2	2.2	8.4	7.2	10.4	10.2	:	0.6	13.6	6.2	11. Non-oriented research
2.3	2.1	2.4	1.7	-	-	0.7	1.4	4.5	4.0	:	11.3	0.5	0.6	12. Other research
100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	:	100.0	100.0	100.0	Total financing of civil R&D

*Nominal rate of change (1986/85)*  
%

**(a) Objectives with a nominal growth equal to or greater than the rise in R&D prices**

4 – Protection and improvement of human health	13.3
9 – Exploration and exploitation of space	10.6
2 – Infrastructures and general planning of land use	5.8
13 – Defence	3.2
8 – Social structures and relationships	2.3
6 – Agricultural productivity and technology	2.3

**(b) Objectives with a nominal growth below the rise in R&D prices**

10 – Research financed from general university funds	0.4
11 – Non-oriented research	0.1
1 – Exploration and exploitation of the earth	-1.3
All objectives	-2.1
3 – Control of environmental pollution	-7.9
5 – Production, distribution and rational utilization of energy	-13.3
7 – Industrial productivity and technology	-14.8

The reduction in real terms in Belgian Government R & D appropriations as a result of budget cuts mainly affected technological objectives. With the exception of space, these objectives suffered reduced funding in nominal terms, especially the production, distribution and rational utilization of energy (objective 5) and industrial productivity and technology (objective 7).

General university funds (objective 10) and non-oriented research (objective 11) remained stable in nominal terms in 1986.

Only the appropriations for social and human objectives were up in the year under review, mainly because of the increase in objective 4 (protection and improvement of human health). This should be interpreted with caution since technical adjustments were made in 1986 in the presentation of the 'public health' appropriations in the interdepartmental budget for science policy.

**Table VIII-1**  
**Government R & D financing classified by groups of objectives**

Groups of NABS objectives	%			
	Final budgets		Provisional budgets	
	1985	1986	1986	1987
2 - 3 - 4 - 8 Human and social objectives	6.5	6.9	5.8	6.4
1 - 5 - 7 - 9 Technological objectives	37.6	35.1	36.0	35.2
6 Agriculture	7.0	7.3	7.1	7.6
10 Research financed from general university funds	22.2	22.8	22.8	22.3
11 Non-oriented research	22.4	23.0	20.5	23.6
12 Unclassified research	2.7	3.3	6.3	3.8
13 Defence	1.5	1.6	1.5	1.1
Total	100.0	100.0	100.0	100.0

## 4.2. Denmark

4.2.1. In 1986 Danish R & D appropriations totalled DKR 4036 million, which was 627 million or 18% more than in 1985. With the R & D price index up by 5.6%, government R & D spending increased in real terms by 12%. This is in line with the trend recorded over the past few years.

A comparison of provisional budgets for 1986 and 1987 indicates that this trend is likely to continue or even to strengthen.

It should be noted, however, that figures for the final 1986 and provisional 1987 budgets are estimated from coefficients relating to 1985 whereas the corresponding budgets for earlier years are based on coefficients going back to 1982. This difference may distort the comparisons but does not invalidate the general trend observed over a period of several years.

4.2.2. Because of the different methods used to evaluate the most recent data compared to earlier years, the annual variations in objectives will not be analysed as they do not allow a clear trend over the past two years to be discerned.



A structural comparison of government R & D appropriations by groups of objectives clearly demonstrates the difficulty of drawing conclusions on recent trends.

**Table VIII-2**  
**Government R & D financing classified by groups of objectives**

Groups of NABS objectives	Final budgets		Provisional budgets	
	1985	1986	1986	1987
2-3-4-8 Human and social objectives	11.4	13.7	11.5	12.0
1-5-7-9 Technological objectives	32.0	25.4	31.8	24.7
6 Agriculture	7.4	7.7	7.0	8.5
10 Research financed from general university funds	31.0	33.5	29.5	32.1
11 Non-oriented research	17.7	19.2	19.7	22.3
12 Unclassified research	-	-	-	-
13 Defence	0.5	0.4	0.5	0.4
Total	100.0	100.0	100.0	100.0

### 4.3. Federal Republic of Germany

#### 4.3.1. General trends in R & D expenditure

The final budgets of the Federal and *Länder* governments for 1986 show government-funded R & D expenditure in the Federal Republic of Germany of DM 21 400 million. This was an increase in nominal terms of 1.7 % over R & D spending in 1985 (DM 21 000 million). In real terms, allowing for an R & D deflator of 2.4 %, there was a slight drop.

Expenditure on R & D in 1987 based on the provisional budgets of the Federal and *Länder* governments, supplemented in part by estimates, comes to DM 22 400 million, up 4.6 % on the comparable figure for 1986; assuming a deflator of about 2.6 %, this amounts to a real increase in spending of just under 2 %.

Turning to the pattern of R & D expenditure by broad objectives (see table), there was a sharp drop from 1985 to 1986 in the proportion spent on technology, mostly to the benefit of non-oriented research. The share of agriculture remained the same while the other areas showed slight expansion. A similar pattern is apparent between 1986 and 1987 (provisional), although research financed from general university funds now also shows a slight decline. The biggest growth is again in non-oriented research. The share of agricultural research continues unchanged with the other areas undergoing slight proportional increases.

**Breakdown of government R & D appropriations by groups of objectives**

%

Groups of objectives (NABS 1983)	Final budgets		Provisional budgets	
	1985	1986	1986	1987
2 - 3 - 4 - 8 Human and social objectives	10.4	10.5	10.5	10.7
1 - 5 - 7 - 9 Technological objectives	32.8	31.5	31.4	30.8
6 Agriculture	2.0	2.0	2.0	2.0
10 Research financed from general university funds	31.4	31.6	31.8	31.5
11 Non-oriented research	11.4	12.2	11.8	12.3
13 Defence	11.9	12.1	12.4	12.5
Total	100.0	100.0	100.0	100.0

The decline in technology research spending, both from 1985 to 1986 in the final budgets and from 1986 to 1987 in the provisional budgets, can largely be attributed to the drop in Chapter 5 expenditure (production, distribution and rational utilization of energy) and to a small extent to the slight dip in Chapter 1 expenditure (exploration and exploitation of the earth). These trends disguise the marked expansions under other chapters in this sector. The loss in share of research financed from general university funds between 1986 and 1987 (provisional) is due solely to the below-average rise in spending in this area compared with the others. Together with technological objectives, it remains an area where most government-funded R & D expenditure is concentrated. These two combined account for 62.3 % of the 1987 provisional total.

#### 4.3.2. R & D expenditure by chapter headings

The trends in spending in the various chapters are described below.

##### Chapter 1

The final figures for appropriations allocated to exploration and exploitation of the earth show a slight decline between 1985 and 1986 (-1.7 %). The provisional figures for 1987 also indicate a drop from the previous year (-3.5 %). The reasons lie in the wind-down of investment programmes in sea and ocean research (1.5). Subsections 1.0 and 1.5 account for the bulk of spending under this chapter.

##### Chapter 2

The final figures show only a slight change from 1985 to 1986 (-0.6 %). Between 1986 and 1987 (provisional) there is expected to be a 6.9 % rise in expenditure. The main contributor to this increase is spending on ground-based transport (2.4). Transport systems continue to be the focus of this chapter.

### **Chapter 3**

Above-average increases are evident in R & D expenditure on control of environmental pollution, both in the final figures between 1985 and 1986 (+ 4.3 %) and the provisional figures from 1986 to 1987 (+ 5.0 %). This increased spending by both Federal and *Länder* governments affects all the sections of this chapter. The main bulk of expenditure comes under 3.0.

### **Chapter 4**

There has also been an above-average expansion in R & D spending on the protection and improvement of human health. The rise from 1985 to 1986 (final figures) was 2.8 %. Differences are apparent between subsections, however. For example, R & D expenditure on biomedical engineering and medicines (4.3) has risen sharply while spending under 4.8 has declined with the ending of a programme in the field of psychiatric, psychotherapeutic and psychosomatic research. The increase in the provisional 1987 figures over 1986 (+ 13.2 %) is related mainly to 4.1 and 4.3; the focus in this chapter is on 4.1 and 4.0.

### **Chapter 5**

Expenditure in this chapter has been affected particularly by the marked drop in spending on nuclear fission (e. g. development of reactor lines). Both the final figures for 1986 against 1985 and the provisional budgets for 1987 over 1986 show sharp declines in funding (– 16.7 % and – 13.7 %). In addition to 5.2, subsection 5.1 has also seen a reduction in R & D expenditure, although much less significant in this latter case. The bulk of spending in this chapter remains concentrated in 5.2.

### **Chapter 6**

In the periods under review, expenditure on agricultural production and technology rose by slightly more than average. The final budgets for 1986 over 1985 show an increase of 3.8 %, mainly accounted for by 6.0 and 6.6. The provisional figures for 1987 against 1986 indicate a further growth in spending of 4.3 %. The main focus within the chapter is R & D in crop products (6.4).

### **Chapter 7**

As in previous years, there has been continuing expansion of R & D spending on industrial productivity and technology in the period under review. The growth between 1985 and 1986 (final) was 4.7 %, with very significant rates of increase in subsections 7.8 (e.g. R & D in laser technology), 7.0 and 7.6 (in the latter area, for example, funding for R & D in the field of information processing). Above-average rises are also recorded for R & D spending in subsection 7.1 (for instance, indirect promotion of research under programmes to increase R & D capacity in the private sector) as well as in 7.7 and 7.2. This contrasts with sizeable reductions of funding in 7.3, 7.4 and 7.5 (e.g. expenditure on development work in civil aircraft manufacturing).

The provisional figures for 1987 show an increase of 12.0 % in spending over the comparable figures of the previous year.

Major growth has been evident for example in subsections 7.5 (including a rise in development spending on civil aircraft manufacturing), 7.8 (e.g. R & D in laser technology) and 7.2 (for instance research on materials). Expenditure in this chapter is concentrated in 7.1, 7.2 and 7.5, which account for over two thirds of spending in Chapter 7 altogether.

## **Chapter 8**

The trend of R & D expenditure in this chapter (social structures and relationships) has been upward in the periods under review, but expansion has been below average. The increase of 1.5 % between the final figures for 1985 and 1986 conceals a mixed pattern in the different subsections. There were rises in R & D funding in 8.7 (particularly from *Länder* budgets), 8.6 and 8.5 but declines in the amounts spent in 8.0 and 8.4 especially. The 1987 provisional figures suggest there will be an increase of 1.1 % over 1986. Most expenditure in this chapter is concentrated in 8.1.

## **Chapter 9**

Both final appropriations for 1986 compared with 1985 and the provisional figures for 1987 over 1986 reveal rapid growth in R & D spending on space exploration and exploitation (+ 17.6 % and + 14.1 %). The final out-turn figures indicate the biggest increases in subsections 9.4 (e. g. orbital structures and space transport systems) and 9.3. A drop in funding has occurred in 9.1. The further expansion suggested by the provisional figures for 1987 will benefit nearly all subsections.

## **Chapter 10**

Research financed from general university funds, mostly supplied from the *Länder* budgets, experienced an about average rise in the period under review. R & D expenditure shown by the final budget figures for 1986 compared with 1985 went up by 2.1 %, while the provisional figures point to an increase of 3.7 % from 1986 to 1987. Most of this spending is concentrated on mathematics and natural sciences (10.1).

## **Chapter 11**

The growth of expenditure for non-oriented research has been well above average. On the final figures, the increase in R & D spending between 1985 and 1986 was 9.0 %. In the Federal Government sector, the main contributor has been research funding for the large research institutions. Within the chapter, the biggest rise was in the engineering sciences (11.2). The provisional budget figures indicate that the expansion of R & D expenditure in this chapter between 1986 and 1987 will probably be 9.2 %. The focus within the chapter continues to be mathematics and natural sciences, which have seen an increase in their share of all government-funded R & D spending in the Federal Republic of Germany in the periods considered here; this subsection (11.1) accounted for more than 70 % of expenditure in this chapter in 1986.

## **Chapter 13**

The final budget figures for 1986 compared with 1985 show a 3.2 % increase in spending on defence research. The 1987 provisional figures also suggest that, over 1986, there will have been a slightly above-average growth in expenditure in this chapter.

### **4.4. Greece**

4.4.1. In 1986 Greek R & D appropriations totalled DR 13 646 million against 11 600 million in 1985, giving a nominal rise of 17.6 %. As the R & D price index rose by 17.3 %, government financing of R & D recorded a very slight increase in real terms in the course of the year. This is due

to the introduction of the two-year plan to stabilize the economy involving a freeze on wages and salaries which affected in particular the salary bracket covering a large proportion of R & D staff. As the R & D price index takes into account the average remuneration of all wage and salary earners, it overestimates the increase in research staff salaries. Hence the real increase in government R & D appropriations may be estimated at 3 %, in any case well below the increases recorded since 1982.

A comparison of provisional budgets for 1986 and 1987 indicates an increase of around 23 % which, set against the increase in the R & D price index estimated at about 12 %, should lead to a greater increase in R & D appropriations in real terms.

4.4.2. The variations in government research funding give the following breakdown on either side of the probable rise in the R & D price index:

	<i>Nominal rate of change (1986/85)</i> %
<b>(a) Objectives with a nominal growth equal to or greater than the rise in R &amp; D prices</b>	
5 – Production, distribution and rational utilization of energy	169
1 – Exploration and exploitation of the earth	50
7 – Industrial productivity and technology	43
8 – Social structures and relationships	37
All objectives	18
4 – Protection and improvement of human health	17
11 – Non-oriented research	16
<b>(b) Objectives with a nominal growth below the rise in R &amp; D prices</b>	
13 – Defence	11
10 – Research financed from general university funds	10
6 – Agricultural productivity and technology	7
3 – Control of environmental pollution	– 9
9 – Exploration and exploitation of space	– 28
2 – Infrastructures and general planning of land use	– 30

It is clear from a comparison of the major groups of objectives that technological objectives have increased substantially (22.7 % in 1986, 16.4 % in 1985).

Within this group objective 5 (energy) has more than doubled since the previous year. This is mainly due to the financing of a single project for the construction of a solar village near Athens.

The other objective that has increased substantially is objective 7 (industrial technology). The 43 % rise is in line with increases in recent years designed for the setting-up of new technological institutes.

Objective 1 (exploration and exploitation of the earth) is the third item contributing to the increase in technological spending. The 50 % increase is due to the fact that, amongst the research centres engaged in mineral prospecting, two oceanographic research centres are carrying out programmes coming under headings 1.4 (hydrology) and 1.5 (seas and oceans).

Table VIII-4

## Government R &amp; D financing classified by groups of objectives

Groups of NABS objectives	%			
	Final budgets		Provisional budgets	
	1985	1986	1986	1987
2 - 3 - 4 - 8 Human and social objectives	17.2	17.0	19.6	17.1
1 - 5 - 7 - 9 Technological objectives	16.4	22.7	17.4	22.3
6 Agriculture	27.1	24.7	24.9	26.0
10 Research financed from general university funds	28.3	26.5	26.9	25.3
11 Non-oriented research	6.1	6.0	6.1	6.7
12 Unclassified research	2.0	0.3	2.2	0.2
13 Defence	2.9	2.7	2.9	2.3
Total	100.0	100.0	100.0	100.0

The share of social and human objectives has remained virtually unchanged over the period 1985-87. In this category only objective 8 (social structures and relationships) has increased its share as a result of improved funding for socio-economic projects.

The objectives whose share in total R & D appropriations has declined include agriculture, which takes up almost one quarter of the funding. The decline is due firstly to cuts in the Ministry of Agriculture's research budget and secondly to the reclassification to other objectives of funds formerly coming under objective 6.

The share of research financed from general university funds has also declined. The plan to stabilize the economy required salary increases to be kept within very tight limits and restricted current and capital expenditure in higher education.

A comparison with the provisional budget for 1987 shows that the ratio between human and social objectives and technological objectives will remain unchanged during the year. However, there will be a substantial increase in objective 7 (industrial technology) which will receive 11.2 % of total government R & D funding.

#### 4.5. Spain

The figures for 1985 and 1986 which apply to final and provisional budgets respectively are not directly comparable. Consequently this section will be limited to a few comments relevant to the structure of R & D budget appropriations in Spain rather than their trends.

Overall, Spanish appropriations amounted to some PTA 100 000 million in 1985-86. Between 35 and 40% go to technological objectives, nearly 40% to basic research, with the remainder almost equally divided between social and human objectives, agriculture and defence. The structure is fairly close to that of Belgium for similar totals in absolute terms.

Table VIII-5

Government R & D financing classified by groups of objectives

Groups of NABS objectives	Final budgets		Provisional budgets	
	1985	1986	1986	1987
2-3-4-8 Human and social objectives	8.0	7.9	8.7	11.7
1-5-7-9 Technological objectives	36.7	35.6	39.5	41.1
6 Agriculture	7.3	5.3	4.9	6.7
10 Research financed from general university funds	21.3	22.1	18.1	19.8
11 Non-oriented research	18.2	22.3	20.7	8.5
12 Unclassified research	2.1	2.0	2.2	3.4
13 Defence	6.4	4.8	5.8	8.9
Total	100.0	100.0	100.0	100.0

4.6. France

4.6.1. Government appropriations for R & D totalled FF 69 100 million in 1986, an increase of 2 400 million over 1985, giving a nominal rise of 3.9%. As the R & D price index rose by 3.7% in the same period, this means that government R & D financing remained on the same level in real terms. The increase is well below the average recorded in recent years.

A comparison of provisional budgets for 1986 and 1987 shows no increase in appropriations in nominal terms. However, there were major cancellations in 1986 appropriations so comparison of the final 1986 budget with the provisional 1987 budget shows a nominal growth of almost 5%. As the final budget for 1987 has not been changed, this increase will be maintained.

4.6.2. An examination by objectives of the variations in appropriations gives the following breakdown on either side of the increase in the R & D price index (3.7%):

*Nominal rate of change (1986/85)*  
%

(a) Objectives with a nominal growth equal to or greater than the rise in R & D prices

8 - Social structures and relationships	14
9 - Exploration and exploitation of space	13
2 - Infrastructures and general planning of land use	8
13 - Defence	8
10 - Research financed from general university funds	7
11 - Non-oriented research	6
All objectives	4

(b) Objectives with a nominal growth below the rise in R & D prices

6 - Agricultural productivity and technology	2
1 - Exploration and exploitation of the earth	1
7 - Industrial productivity and technology	- 4
3 - Control of environmental pollution	- 6
5 - Production, distribution and rational utilization of energy	- 7
4 - Protection and improvement of human health	- 10

Budget appropriations did not increase by more than R & D prices and the variations are scattered on either side of the increase. As the coefficients applied to the breakdown by objectives were the same in 1985 and 1986 the changes are entirely due to changes in the allocation of funds by the bodies concerned.

The smaller share of social and human objectives in total R & D spending was mainly due to a reduction in the nominal value of appropriations going to health and to a lesser extent the environment. The relative share of social structures and relationships, which recorded a sharp increase, is too small to offset that trend.

The reduction in the share of technological objectives is more marked (- 1.3 points). This is due to major cancellations affecting industrial technologies (electronics, direct aid for industrial research) and energy. This trend is partly offset by the very large increase in expenditure on space in relation with the international cooperation programmes in that field.

The other major objectives, general university funds, non-oriented research and defence, recorded comparable relative increases well above the price rise.

**Table VIII-6**  
**Government R & D financing classified by groups of objectives**

Groups of NABS objectives	%			
	Final budgets		Provisional budgets	
	1985	1986	1986	1987
2-3-4-8 Human and social objectives	10.1	9.9	10.4	9.9
1-5-7-9 Technological objectives	27.1	25.8	27.0	24.7
6 Agriculture	3.5	3.5	3.6	3.6
10 Research financed from general university funds	11.9	12.3	11.8	12.0
11 Non-oriented research	14.4	14.8	15.1	14.7
12 Unclassified research	1.7	1.1	1.1	1.0
13 Defence	31.3	32.5	31.0	34.1
Total	100.0	100.0	100.0	100.0

#### 4.7. Ireland

4.7.1. The Irish R & D budget in 1986 was IRL 84.9 million, almost 10 million or 13% up on 1985. This growth is appreciably higher than the 6% rise in the R & D price index in the same period, giving a real growth rate of 7% for 1986.

A comparison of provisional data for 1986 and 1987 seems to indicate, however, that this increase will slow down considerably in 1987.

4.7.2. The variations in government R & D funding classified by objectives give the following breakdown on either side of the rise in R & D prices (5.6%):



(a) Objectives with a nominal growth equal to or greater than the rise in R&D prices

8 – Social structures and relationships	47
9 – Exploration and exploitation of space	34
3 – Control of environmental pollution	32
10 – Research financed from general university funds	28
4 – Protection and improvement of human health	18
All objectives	13
7 – Industrial productivity and technology	13
11 – Non-oriented research	12
2 – Infrastructures and general planning of land use	9

(b) Objectives with a nominal growth below the rise in R&D prices

5 – Production, distribution and rational utilization of energy	5
6 – Agricultural productivity and technology	– 6
1 – Exploration and exploitation of the earth	– 19

Reduced to comparably sized groups of objectives, the increase in funding in 1986 primarily benefited social and human programmes, especially objective 8 (social structures and relationships) where the research is aimed primarily at training activities and government and business management.

The share of general university funds has increased substantially, especially for agricultural sciences, while appropriations for agricultural research declined in nominal terms, especially for fisheries and fish breeding programmes. However, of the other Member States only Greece allocated a comparable proportion to this area of research.

The share of technological objectives in total R&D appropriations did not change and appropriations for industry increased at the same rate as total funding.

Table VIII-7

Government R&D financing classified by groups of objectives

Groups of NABS objectives	%			
	Final budgets		Provisional budgets	
	1985	1986	1986	1987
2–3–4–8 Human and social objectives	16.7	19.1	17.5	19.1
1–5–7–9 Technological objectives	32.6	32.6	29.1	31.2
6 Agriculture	28.7	23.8	27.3	24.2
10 Research financed from general university funds	19.7	22.4	23.9	23.0
11 Non-oriented research	2.2	2.2	2.2	2.4
12 Unclassified research	–	–	–	–
13 Defence	–	–	–	–
Total	100.0	100.0	100.0	100.0

#### 4.8. Italy

4.8.1. In 1986 government R&D financing totalled LIT 6 444 000 million, an increase of 1 130 000 million or 21 % over 1985. As the R&D price index rose by 6.5 % over the same period, this is equivalent to a growth in real terms of some 15 %, the highest of all the Member States. This substantial increase is in line with the very marked upward trend in government R&D spending recorded since 1982 which has strengthened as inflationary pressures have eased.

A comparison of provisional budgets for 1986 and 1987 indicates that appropriations are likely to increase by about 10 % in real terms during 1987, again a high rate compared to those for earlier years.

4.8.2. An examination by objectives of the annual variations gives the following breakdown on either side of the increase in R&D prices (6.5 %):

*Nominal rate of change (1986/85)*  
%

##### (a) Objectives with a nominal growth equal to or greater than the rise in R&D prices

10 – Research financed from general university funds	52
8 – Social structures and relationships	38
4 – Protection and improvement of human health	33
1 – Exploration and exploitation of the earth	29
7 – Industrial productivity and technology	25
6 – Agricultural productivity and technology	25
All objectives	21
9 – Exploration and exploitation of space	12
3 – Control of environmental pollution	10
2 – Infrastructures and general planning of land use	8

##### (b) Objectives with a nominal growth below the rise in R&D prices

11 – Non-oriented research	6
13 – Defence	4
5 – Production, distribution and rational utilization of energy	– 6

The most striking points are as follows:

- (a) the very high growth in appropriations for general university funds, partially due to a statistical adjustment; in fact the share of general university funds has been re-evaluated without leaving out or distinguishing disciplines;
- (b) the marked increase in all human and social objectives, especially objective 8 (social structures and relationships) and, within that objective, the heading 'cultural activities' which is up by 80 %, mainly because of an increase in research appropriations for the activities of the Ministry of Cultural Affairs;
- (c) a smaller increase in technological objectives and even a reduction in absolute terms in funding for energy which mainly affects nuclear fission research; the ENEA (the main nuclear energy board) has diversified its technological objectives and research sectors, involving an increase in fusion activity.

Table VIII-8

## Government R &amp; D funding classified by groups of objectives

Groups of NABS objectives	%			
	Final budgets		Provisional budgets	
	1985	1986	1986	1987
2-3-4-8 Human and social objectives	7.8	8.2	7.4	7.4
1-5-7-9 Technological objectives	48.6	44.4	44.6	40.9
6 Agriculture	3.8	3.9	3.7	3.5
10 Research financed from general university funds	21.7	27.9	28.6	31.9
11 Non-oriented research	7.6	6.6	7.1	6.6
12 Unclassified research	0.6	1.2	0.2	1.9
13 Defence	9.9	8.5	8.4	7.8
Total	100.0	100.0	100.0	100.0

## 4.9. Netherlands

4.9.1. In 1986 the Netherlands R & D budget came to HFL 4 092 million against 3 942 million the previous year, giving a nominal increase of HFL 220 million or 5.7 %. As the R & D price index rose by 2.9 % in the same period, research appropriations increased by just under 2.7 % in real terms, above the average taken over recent years.

Nevertheless a comparison of provisional budgets for 1986 and 1987 indicates that the appropriations are likely to increase in real terms in 1987 at the same rate as the average recorded over 1981-86.

4.9.2. Classified by objectives, the annual variations give the following breakdown on either side of the increase in R & D prices (2.9 %):

*Nominal rate of change (1986/85)*  
%

## (a) Objectives with a nominal growth equal to or greater than the rise in R &amp; D prices

9 – Exploration and exploitation of space	258
7 – Industrial productivity and technology	18
2 – Infrastructures and general planning of land use	10
8 – Social structures and relationships	8
6 – Agricultural productivity and technology	6
4 – Protection and improvement of human health	6
All objectives	6

## (b) Objectives with a nominal growth below the rise in R &amp; D prices

11 – Non-oriented research	2
3 – Control of environmental pollution	0
10 – Research financed from general university funds	0
1 – Exploration and exploitation of the earth	0
13 – Defence	-6
5 – Production, distribution and rational utilization of energy	-6

Apart from objective 3 (environment), the funding for social and human objectives increased in relation to total R & D spending.

Technological objectives as a whole recorded a substantial increase, especially:

- (i) objective 7 (industrial technology) where the increase went mainly to improving industrial efficiency and competitiveness, for which appropriations were up by 38 %;
- (ii) objective 9 (exploration and exploitation of space) where the very high increase stemmed essentially from commitments under multilateral cooperation programmes.

Objectives 10 (general university funds) and 11 (non-oriented research) showed a smaller increase than total R & D appropriations, which mainly affected multidisciplinary research.

**Table VIII-9**  
**Government R & D financing classified by groups of objectives**

Groups of NABS objectives	%			
	Final budgets		Provisional budgets	
	1985	1986	1986	1987
2-3-4-8 Human and social objectives	12.7	12.6	13.1	12.6
1-5-7-9 Technological objectives	21.6	25.1	22.8	25.0
6 Agriculture	4.5	4.5	4.4	4.3
10 Research financed from general university funds	43.4	41.0	43.0	40.7
11 Non-oriented research	10.3	9.9	9.8	10.3
12 Unclassified research	4.5	3.9	4.3	4.4
13 Defence	3.1	2.8	2.6	2.8
Total	100.0	100.0	100.0	100.0

#### 4.10. Portugal

In 1986 government R & D appropriations came to ESC 13.4 million.

On the basis of provisional budgets, it seems that appropriations should increase sharply by more than 50% in 1987.

In the structure of government R & D appropriations the unclassified research item is extremely large, which means that caution is called for in comparisons between 1986 and 1987 as far as objectives are concerned.

One of the striking features is the importance of agricultural research, otherwise found only in Ireland and Greece.

Under the human and social objectives, infrastructures and general planning of land use plays a decisive role.

Under the industrial objectives, industry heads the list and the funds go mainly to increasing industrial efficiency and competitiveness.

Table VIII-10

## Government R&amp;D financing classified by groups of objectives

Groups of NABS objectives	%			
	Final budgets		Provisional budgets	
	1985	1986	1986	1987
2-3-4-8 Human and social objectives	:	15.8	12.3	15.3
1-5-7-9 Technological objectives	:	22.4	22.5	19.9
6 Agriculture	:	17.6	14.4	14.2
10 Research financed from general university funds	:	32.3	35.5	30.5
11 Non-oriented research	:	0.6	1.8	0.5
12 Unclassified research	:	11.3	13.5	19.5
13 Defence	:	-	-	-
Total	:	100.0	100.0	100.0

## 4.11. United Kingdom

4.11.1. Total government funds allocated to R&D in 1986 were estimated at UKL 4 562 million, UKL 20 million down on 1985, so that in nominal terms the funding remained fairly steady. As the R&D price index went up by 5.3% in the same period, government research funding showed a decline in real terms that may be estimated at 5%.

A comparison of provisional budgets for 1986 and 1987 shows no sign of any change in this trend.

4.11.2. A calculation by objectives of the annual variations gives the following breakdown on either side of the R&D price increase (5.6%):

*Nominal rate of change (1986/85)*  
%

## (a) Objectives with a nominal growth equal to or greater than the rise in R&amp;D prices

7 - Industrial productivity and technology	46
9 - Exploration and exploitation of space	38
2 - Infrastructures and general planning of land use	27
8 - Social structures and relationships	9

## (b) Objectives with a nominal growth below the rise in R&amp;D prices

4 - Protection and improvement of human health	5
10 - Research financed from general university funds	4
All objectives	0
1 - Exploration and exploitation of the earth	-2
6 - Agricultural productivity and technology	-2
13 - Defence	-2
3 - Control of environmental pollution	-11
5 - Production, distribution and rational utilization of energy	-11
11 - Non-oriented research	-54

Although social and human objectives are up overall, there is a marked fall in spending on the environment, which mainly affects research on radioactive pollution.

The net growth in technological objectives taken as a whole is mainly due to the very large increases allocated to industry and space.

For industry, the increase reflects almost exclusively the development of general research.

Space appropriations tend to reflect commitments under multinational cooperation programmes.

In contrast, funding for energy research shows a substantial fall which mainly affects nuclear research and in particular nuclear fission research.

Finally, the reduction of more than 50 % in non-oriented research appropriations affects almost all disciplines.

**Table VIII-11**

**Government R&D financing classified by groups of objectives**

%

Groups of NABS objectives	Final budgets		Provisional budgets	
	1985	1986	1986	1987
2-3-4-8 Human and social objectives	7.2	7.6	7.0	7.6
1-5-7-9 Technological objectives	14.9	18.2	14.8	17.9
6 Agriculture	4.6	4.6	4.6	4.3
10 Research financed from general university funds	14.6	15.3	14.9	15.3
11 Non-oriented research	6.5	3.0	6.8	3.3
12 Unclassified research	0.3	0.3	0.3	0.3
13 Defence	51.9	50.9	51.6	51.2
Total	100.0	100.0	100.0	100.0

## 5. R & D BUDGET APPROPRIATIONS GOING TO ENTERPRISES

### 5.1. Type

For the purposes of the surveys on government financing of R & D, enterprises are defined as in the European system of integrated economic accounts (ESA) and therefore include both public and private enterprises and non-profit institutions recognized as independent legal entities in the following three sectors:

- (a) non-financial corporate and quasi-corporate enterprises;
- (b) credit institutions;
- (c) insurance enterprises;

while the R & D payments to be taken into consideration are essentially:

- (i) purchases of research services;
- (ii) current transfers (R & D);
- (iii) capital transfers (R & D investment grants);
- (iv) loans and investments in the capital of research companies.

In so far as they do not pass through the general university funds, these payments are included regardless of the channels through which they reach the enterprise: direct transfer or via one or more intermediate bodies (distribution funds, credit institutions, etc.).

This budgetary approach can give figures very different from the results of the OECD statistical surveys (see 1.2.3). A substantial share of the budget appropriations intended for enterprises may be used to finance research internal to parts of the company's administration or funds intended for enterprises may be paid to intermediate bodies and may be used by these bodies for their own research. The money actually received by the enterprises may then fall well short of the appropriations actually intended for them.<sup>1</sup>

Consequently great caution is called for in comparing Community and OECD figures for payments to enterprises.

## 5.2. Amount

Even though they do not cover all the Member States, the figures for grants paid to enterprises for R & D (see Graph G and Table IX) do throw some light on the scope and structure of the funds allocated.

As a general rule the larger countries allocate a bigger share of their government R & D funding to enterprises than the smaller ones: United Kingdom (36 %), Germany (28 %) and between 12 and 19 % for the other countries.

The proportion of government financing going to research in enterprises depends greatly on the importance of defence in the contracts concluded between the State and private enterprises.

Considering only appropriations to enterprises for civil R & D, we see that the share of these appropriations in the total civil R & D budget falls within a narrower range: Germany (23 %), United Kingdom (8 %) with the other countries somewhere in between.

In those countries, funds going to enterprises increased, whereas in the United Kingdom and Germany they fell in absolute terms in 1986. The fields most affected by budget cuts were defence in the United Kingdom and energy research followed by health, non-oriented research and exploration and exploitation of the earth in Germany.

Leaving aside defence, the main objective to benefit from grants to enterprises was of course industrial technology, and its share increases as defence becomes less important: Ireland (100 %), Italy (84 %), Netherlands (83 %), Germany (33 %), United Kingdom (10 %).

In Ireland, where funding for enterprises goes exclusively to industry, the money is spent solely on increasing industrial efficiency and competitiveness. Although the objective of such funding in Ireland is to improve competitiveness, the funding goes to a variety of sectors which cannot be identified when the funds are initially allocated. While the Netherlands, like Ireland, spends almost all the public money going to industrial enterprises on developing efficiency and competitiveness, the other countries diversify their funding, which goes to the chemical industry, the electrical and electronic industry, precision engineering, etc.

There is also a direct relationship between the share of defence in budget appropriations for enterprises and the share of funding that goes to space research.

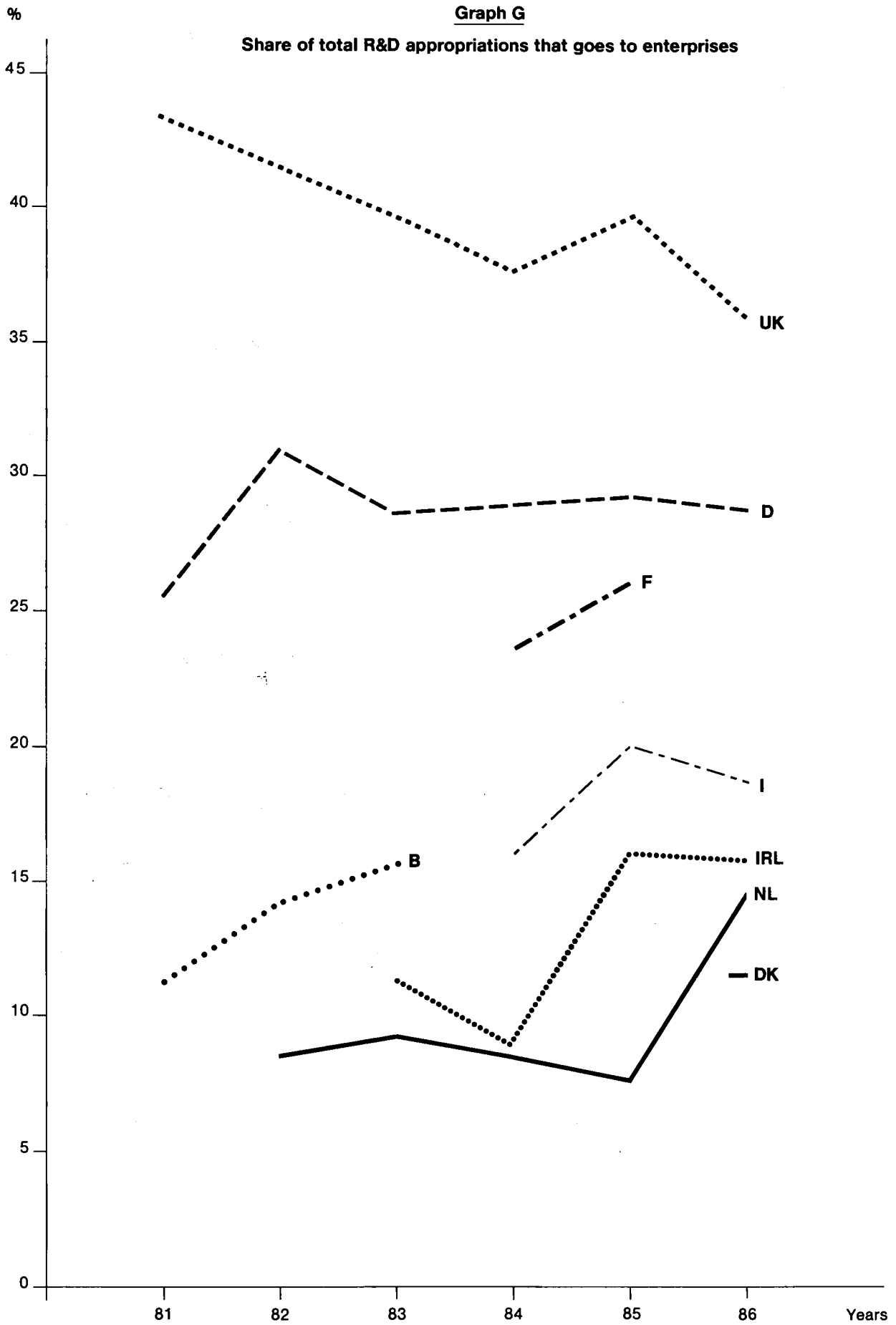
Mention should be made of the importance Germany attaches to funds for energy R & D by enterprises, the main focus of which is nuclear fission research. However, it should not be concluded from this that the other countries neglect research by enterprises in this sector. The differences between Member States result largely from the fact that own funds put up by public enterprises in this field are not taken into account in total R & D budget appropriations.

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<sup>1</sup> For example, of the FF 30000 million intended for French enterprises over the period 1986-87, only FF 18 to 19000 million was actually received by these enterprises for their R & D work.

**Graph G**

**Share of total R&D appropriations that goes to enterprises**





**Table IX**  
**Breakdown of R & D budget appropriations going to enterprises<sup>1</sup>**  
**1986**

%

NABS objectives	B	DK	D	GR	E	F	IRL	I	NL	P	UK
1. Exploration and exploitation of the earth	:	:	1.2	:	:	:	–	–	–	:	0.0
2. Infrastructures and general planning of land use	:	:	3.1	:	:	:	–	1.1	–	:	0.4
3. Control of environmental pollution	:	:	3.0	:	:	:	–	–	–	:	0.2
4. Protection and improvement of human health	:	:	0.9	:	:	:	–	–	–	:	0.3
5. Production, distribution and rational utilization of energy	:	:	17.3	:	:	:	–	2.6	0.3	:	0.0
6. Agricultural productivity and technology	:	:	0.1	:	:	:	–	–	–	:	0.1
7. Industrial productivity and technology	:	:	33.1	:	:	:	100.0	84.0	83.0	:	9.9
8. Social structures and relationships	:	:	0.8	:	:	:	–	–	–	:	0.0
9. Exploration and exploitation of space	:	:	3.6	:	:	:	–	10.2	15.4	:	0.0
10. Research financed from general university funds	:	:	–	:	:	:	–	–	–	:	–
11. Non-oriented research	:	:	0.1	:	:	:	–	2.1	–	:	0.0
12. Unclassified research	:	:	0.3	:	:	:	–	–	–	:	0.2
13. Defence	:	:	36.5	:	:	:	–	–	1.4	:	89.0
Total R & D appropriations for enterprises											
	(%)	100.0	100.0	:	:	:	100.0	100.0	100.0	:	100.0
	(million ECU)	60 <sup>2</sup>	2802	:	:	:	18	832	249	:	2436
Share in total government R & D appropriations (%)	:	11.8	27.9	:	:	:	15.7	18.9	14.6	:	35.9

<sup>1</sup> The structural differences in the organization of business activities in different countries can distort the pattern of R & D financing going to business enterprises.

<sup>2</sup> Estimate.

## 6. MULTILATERAL COOPERATION

R & D funds for multilateral cooperation are included in the total amount of R & D only if they are entered in the central government budget as defined in the European system of integrated economic accounts (ESA). Informal collaboration and intramural support for multilateral projects are excluded from the analysis.

The comparison of multilateral cooperation figures for different countries is distorted if defence is taken into account, for a number of reasons:

- (i) of the large countries, the Federal Republic of Germany and the United Kingdom devote a far higher proportion of their cooperation appropriations to defence than the other countries: Germany 19 % and the United Kingdom 7 % in 1986, compared with only 2 % for the other countries excluding France;
- (ii) for some countries, including France, it is very difficult to single out cooperation appropriations from the general defence research budget;
- (iii) the nature of defence cooperation depends greatly on the size of the country: small countries make greater use of multilateral cooperation whereas the larger ones prefer to enter into bilateral agreements.

For all these reasons it seems preferable to confine the comparative analysis to the cooperation appropriations for civil R & D as shown in Table X.

Germany is the only country in which multilateral cooperation appropriations were lower in 1986 than the previous year, with energy and industrial technology recording the sharpest decline.

In an examination of the structure of cooperation funding for civil R & D, two points catch the eye:

- (i) the share of cooperation funding in total civil R & D appropriations is more than 10 % for the bigger countries and less than 10 % for the others;
- (ii) all countries give priority to two objectives: research under objectives 10 and 11 and space research (European Space Agency programmes).

Most of the space research funding comes from multilateral cooperation, as is shown by the percentages of cooperation appropriations in total appropriations for space research:

Ireland (100 %), Denmark (87 %), Germany (74 %), United Kingdom (59 %), Italy (51 %), Netherlands (21 %).

Over and above these similarities, there are features specific to each country which depend on national choices:

- (a) Ireland gives preference to agricultural research in its cooperation activities, just as it does domestically.

Although modest in absolute terms, cooperation under objective 8 (social structures and relationships) plays a part that is unequalled in any other country. The purpose of this co-operation is to develop research on training and education;

- (b) the Federal Republic of Germany encourages cooperation in two sectors:
  - (i) energy (mainly nuclear fission as already mentioned in the context of funding for enterprises),
  - (ii) industry (especially the development of means of transport);
- (c) the United Kingdom, like Germany, encourages research on means of transport within industrial research both by means of multilateral cooperation and at national level;
- (d) the Netherlands, like Germany, supports cooperation on nuclear fission although energy research is not a national priority.

**Table X**  
**Multilateral cooperation appropriations for civil R & D**  
**1986**

%

NABS objectives	B	DK	D	GR	E	F	IRL	I	NL	P	UK
1. Exploration and exploitation of the earth	:	-	0.3	:	:	:	:	0.1	-	:	0.6
2. Infrastructures and general planning of land use	:	0.0	0.5	:	:	:	9.6	-	-	:	0.1
3. Control of environmental pollution	:	-	0.3	:	:	:	0.7	0.1	-	:	0.0
4. Protection and improvement of human health	:	-	0.2	:	:	:	-	1.1	0.7	:	2.3
5. Production, distribution and rational utilization of energy	:	1.1	21.4	:	:	:	1.6	-	17.2	:	7.6
6. Agricultural productivity and technology	:	-	1.4	:	:	:	22.5	3.2	-	:	2.3
7. Industrial productivity and technology	:	-	21.7	:	:	:	9.8	0.7	-	:	36.8
8. Social structures and relationships	:	0.2	0.6	:	:	:	14.1	0.7	-	:	0.1
9. Exploration and exploitation of space	:	39.1	35.6	:	:	:	25.9	65.8	23.5	:	26.3
10. Research financed from general university funds	:	-	-	:	:	:	15.5	-	-	:	-
11. Non-oriented research	:	59.6	18.2	:	:	:	0.3	28.4	58.2	:	24.0
12. Unclassified research	:	-	-	:	:	:	-	-	0.3	:	-
Total appropriations for cooperation in civil R & D	{	100.0	100.0	:	:	:	100.0	100.0	100.0	:	100.0
	{	31	939	:	:	:	84	224	49	:	387
Share of civil R & D cooperation appropriations in total civil government R & D appropriations (%)	:	6.1	10.6	:	:	:	7.3	5.6	3.1	:	11.6

## 7. COOPERATION IN THE COMMUNITY INSTITUTIONS

The Community institutions participate directly or indirectly in civil research projects. The relevant amounts, which are not normally included in national R & D expenditure, are shown separately in the tables.

The money contributed by these institutions to national or cooperative research programmes in 1986 amounted to 661 million ECU, an increase of 15% over 1985. Overall, this amounts to 2.2% of all government research funding for civil R & D in the Community countries.

Table VII indicates that cooperation within the Community institutions is mainly concentrated on two major objectives:

- (i) the energy sector, where most of the funding goes to research on nuclear fission (radiation protection and prevention programmes) and to fusion (JET programme);
- (ii) industry, where more than half of the appropriations go to the design of information processing machines (Esprit programme).

A comparison of figures for 1986 and 1987 indicates that total Community contributions should increase by 18%, continuing the trend observed in 1986.

## **8. ATTEMPT TO EVALUATE GOVERNMENT R & D APPROPRIATIONS FOR BIOTECHNOLOGY, INFORMATION TECHNOLOGY AND THE DEVELOPING COUNTRIES**

This chapter covers research which inherently cuts across a whole range of NABS objectives and is of vital importance for Europe. The three fields involved are biotechnology, information technology and developing countries.

Because of the degree of uncertainty in identifying defence appropriations for all these three research areas and the difficulty of collecting data from universities carrying out R & D in these fields, the amounts of government financing intended for biotechnology, information technology and developing countries set out in the series of Tables XI apply only to civil R & D and exclude general university funds (GUF).

### **8.1 Biotechnology**

Generally speaking the definition of biotechnology R & D adopted by the Subcommittee is based on the OECD definition of biotechnology but confines it to R & D activities. This definition was drafted with the help of the relevant departments in the Commission's Directorate-General XII.

Examination of Table XI-1 shows that the larger countries and the European Community devote 1 to 2 % of their civil research appropriations to biotechnology R & D, while the figure for the other Member States is 4 % or more.

This is certainly due to the fact that appropriations for biotechnology R & D are more difficult to single out in the smaller countries. In the larger countries this research is done under clearly defined programmes for which specific appropriations are earmarked. In the other countries, this research tends to come under R & D on biology in general and its funding cannot easily be singled out from the total appropriations for biological research. Also, these countries generally have to estimate the funds allocated to biotechnology proper and a tendency to adopt a broader interpretation of the definition in the annex cannot be ruled out.

The country which devotes the highest proportion of its civil R & D appropriations to biotechnology by a wide margin is Ireland (8.5 %). In addition to the reasons mentioned earlier, this high proportion is also due to the very large increase in these appropriations in recent years. In 1986 appropriations for biotechnology R & D were almost 30 % up on the previous year. The increase is even more marked if we consider only appropriations intended for biotechnology R & D in industry (40 %) and reflects the emphasis in this country on improving industrial efficiency and competitiveness, also a priority in State aid to enterprises (see 5.2).

Table XI-1 also shows clearly how much more importance Ireland attributes to R & D in industrial biotechnology than the other countries, a trend which has further strengthened in 1986.

In Greece appropriations for biotechnology R & D were up by more than 40 % and this trend is likely to continue in 1987. The increase was accompanied by a reallocation of appropriations by NABS objectives, mainly to the benefit of health, the share of which rose from 33 % in 1985 to over 60 % in 1986.

In the other countries for which comparable 1985 data are available, appropriations for biotechnology R & D have not risen to the same extent as in the two countries mentioned above. It is not so much the rate of increase as the structure of R & D spending by NABS objectives that is of interest in these countries.

Generally speaking biotechnology R & D focuses more specifically on four objectives: health, agriculture, industry and to a lesser extent non-oriented research. Apart from Italy, where the appropriations go almost entirely to health, agricultural and industrial objectives predominate in the other countries. In the case of the emphasis on health (in other fields as well as biotechnology) in Italy, allowance must be made for difficulties in covering this information area under the NABS classification. Only a few bodies and agencies can easily identify, in their budget, specific items or programmes in these fields. In the near future a better evaluation will be available. In industry,

research designed to improve industrial efficiency, competitiveness and manufacturing techniques is of the greatest importance.

Biotechnology R&D at Community level focuses in particular on two objectives (health and agriculture), while industrial research is confined to petrochemistry and coal chemistry.

## 8.2. Information technology

Figures for information technology R & D suffer greatly in the larger countries (Germany, France and the United Kingdom) from the lack of information on defence appropriations for research in this field. In these countries, or at least in France and the United Kingdom, appropriations for information technology R&D in the civil sector are probably only a minor part of total appropriations for such research.

Considering civil R & D alone (excluding GUF), Table XI-2 shows the same general finding as for biotechnology. Apart from Ireland and the European Community, the countries devote between 1 and 5 % of their civil R & D appropriations to information technology.

The substantial share of civil appropriations going to information technology R&D in Ireland (12 %) is due to the reasons mentioned earlier for biotechnology: a broad interpretation of the concept of information technology to include the study of its economic and social implications, and the high increase in public appropriations for such research in recent years, even though it slackened somewhat in 1986 (+ 18 %). Industry is obviously the main beneficiary with more than three quarters of the total. Here again most of the money is designed to increase industrial efficiency and competitiveness. The large share allocated to the objective social structures and relationships, which increased fourfold in 1986, is spent entirely on improving government and business management.

Naturally the other countries also give priority to industrial research in this field, the proportion being higher than that in Ireland and even exceeding 80 % in three countries: Germany, Italy and Greece.

Although in Italy the money is allocated entirely to research on the design of information processing machines, in Germany it also goes to electronics, manufacturing techniques and engineering. In Greece, the large increase of almost 37 % in appropriations for information technology in 1986 is due mainly to the purchase of equipment by the 'Demokritos' research centre which is developing a microelectronic laboratory and received almost half of the funding earmarked for this area of research.

In the United Kingdom only just over half of the civil research appropriations for information technology goes to industry but that is because non-oriented research is of almost equal importance in the classification of these appropriations by NABS objectives. More than 40 % of the civil R & D appropriations going to these technologies fall under objective 11.2 concerning the engineering sciences.

European Community funds for the development of information technology research go almost entirely to industry as a result of the Esprit programme.

## 8.3. Developing countries

There are two possible approaches to R&D for the benefit of developing countries: either the projects relate exclusively to the developing countries or they are of interest to the developing countries but also pursue a more general objective. The predominant approach varies from one country to another.

France is a typical example of the first approach. Here most of the research concerning the developing countries is done by two institutes: the Research Office for Overseas Scientific and

Technical Development (Orstom) and the Study and Research Group for the Development of Tropical Agriculture.

In the other countries, R & D relevant to the developing countries is not as specific and it is more difficult to identify its share in the many different programmes or institutions engaged in such research.

These differences partly explain the wide deviations between countries (see Table XI-3).

The main objectives under which R & D for development is classified are obviously health, agriculture and industry.

As for biotechnology, Italy devotes almost all its development R & D funding to health research.

Germany does not give any particular priority to health but spends about 30% of its funds on R & D in the energy sector, especially on new sources and energy conservation.

While giving great priority to objectives 4 (health) and 6 (agriculture), the United Kingdom also has a particular interest in objective 2 (especially water supply).

In the Community R & D appropriations for the benefit of the developing countries, health and medical research play a much more prominent role than in the individual countries.

In general there is a possibility of overlaps between R & D in biotechnology and/or information technology and R & D related to developing countries. This makes it extremely difficult to collect quantitative data on these research areas.

**Table XI-1**  
**Breakdown of the share of civil R & D budget appropriations going to biotechnology**  
**1986**

%

NABS objectives	EC	B	DK	D	GR	E	F	IRL	I	NL	P	UK
1. Exploration and exploitation of the earth	-	:	:	-	-	:	-	-	-	:	:	1.9
2. Infrastructures and general planning of land use	-	:	:	-	-	:	-	0.4	-	:	:	-
3. Control of environmental pollution	-	:	:	6.4	6.1	:	-	2.0	-	:	:	0.4
4. Protection and improvement of human health	24.2	:	:	33.1	61.5	:	32.4	2.1	99.0	:	:	5.7
5. Production, distribution and rational utilization of energy	-	:	:	-	1.3	:	1.8	-	-	:	:	-
6. Agricultural productivity and technology	69.8	:	:	11.2	13.6	:	28.4	22.9	1.0	:	:	65.4
7. Industrial productivity and technology	6.0	:	:	36.4	10.6	:	9.5	70.3	-	:	:	26.5
8. Social structures and relationships	-	:	:	0.4	-	:	-	-	-	:	:	-
9. Exploration and exploitation of space	-	:	:	-	-	:	-	-	-	:	:	-
11. Non-oriented research	:	:	:	12.5	7.0	:	18.8	2.3	-	:	:	-
12. Unclassified research	:	:	:	-	-	:	9.0	-	-	:	:	0.0
Total (excluding GUF)												
	{ (%)											
	{ (million ECU)											
	100.0	:	100.0	100.0	100.0	:	100.0	100.0	100.0	100.0	:	100.0
	8.9	:	22.1 <sup>1</sup>	104.6	3.7	:	160.4	9.8	36.6	20.4 <sup>2</sup>	:	49.1
Share in total government appropriations for civil R & D (%)	1.4	:	4.4	1.2	3.8	:	1.5	8.5	0.9	1.2	:	1.5

<sup>1</sup> Estimate.

<sup>2</sup> Excluding government subsidies to enterprises for programmes carried out within those enterprises (approximately 4 to 6 million ECU).

**Table XI-2**  
**Breakdown of the share of civil R & D budget appropriations going to information technology**  
**1986**

%

NABS objectives	EC	B	DK	D	GR	E	F	IRL	I	NL	P	UK
1. Exploration and exploitation of the earth	-	:	:	-	-	:	-	1.7	-	:	:	2.0
2. Infrastructures and general planning of land use	-	:	:	5.3	0.9	:	-	-	11.6	:	:	-
3. Control of environmental pollution	-	:	:	0.1	-	:	-	-	-	:	:	-
4. Protection and improvement of human health	-	:	:	-	0.8	:	0.4	-	0.2	:	:	-
5. Production, distribution and rational utilization of energy	-	:	:	-	-	:	-	-	-	:	:	-
6. Agricultural productivity and technology	-	:	:	0.1	-	:	-	-	4.8	:	:	-
7. Industrial productivity and technology	100.0	:	:	87.8	82.6	:	73.7	76.8	83.4	:	:	54.6
8. Social structures and relationships	-	:	:	0.2	14.9	:	14.4	21.4	-	:	:	-
9. Exploration and exploitation of space	-	:	:	2.5	-	:	-	0.1	-	:	:	-
11. Non-oriented research	-	:	:	1.4	0.9	:	10.7	-	-	:	:	43.4
12. Unclassified research	-	:	:	-	-	:	0.8	-	-	:	:	-
Total (excluding GUF)	{ (%) 100.0	:	100.0	100.0	100.0	:	100.0	100.0	100.0	100.0	:	100.0
	{ (million ECU) 120	:	20.2	446.8	4.1	:	411.0	14.1	35.3	19.6	:	151.7
Share in total government appropriations for civil R & D (%)	18.2	:	4.0	5.1	4.2	:	4.0	12.1	0.9	1.2	:	4.6

<sup>1</sup> Estimate.

**Table XI-3**  
**Breakdown of the share of civil R & D budget appropriations going to research for the developing countries**  
**1986**

%

NABS objectives	EC	B	DK	D	GR	E	F	IRL	I	NL	P	UK
1. Exploration and exploitation of the earth	-	:	:	0.7	-	:	11.1	-	-	:	:	4.7
2. Infrastructures and general planning of land use	-	:	:	3.8	-	:	6.3	-	-	:	:	12.6
3. Control of environmental pollution	-	:	:	1.7	-	:	3.2	-	-	:	:	1.0
4. Protection and improvement of human health	75.0	:	:	0.3	-	:	17.2	-	93.4	:	:	32.8
5. Production, distribution and rational utilization of energy	-	:	:	30.5	-	:	6.0	-	-	:	:	1.4
6. Agricultural productivity and technology	25.0	:	:	25.8	-	:	29.5	-	6.6	:	:	37.0
7. Industrial productivity and technology	-	:	:	23.2	-	:	8.6	-	-	:	:	5.8
8. Social structures and relationships	-	:	:	6.2	-	:	9.4	-	-	:	:	4.7
9. Exploration and exploitation of space	-	:	:	-	-	:	-	-	-	:	:	-
11. Non-oriented research	-	:	:	7.8	-	:	2.3	-	-	:	:	-
12. Unclassified research	-	:	:	-	-	:	6.3	-	-	:	:	-
Total (excluding GUF)	{ (%) 100.0	:	100.0	100.0	-	:	100.0	-	100.0	100.0	:	100.0
	{ (million ECU) 9.1	:	8.2 <sup>1</sup>	73.1	-	:	278.1	-	0.3	41.9	:	49.2
Share in total government appropriations for civil R & D (%)	1.4	:	1.6	0.8	-	:	2.7	-	0.0	2.5	:	1.5

<sup>1</sup> Estimate.





### Calculation of the R & D price index

The price index prepared to deflate R & D financing is defined by the equation:

$$I^{(t+n/t)} = \sum_i \omega_i \frac{P_i(t+n)}{P_i(t)}$$

where  $\sum_i \omega_i = 1$

and t and t+n are two years under consideration

$\omega_i$  (i = 1, 2, 3) are the weightings

$P_i(t)$  (t = 1, 2, 3) are the corresponding prices for year t.

1. The weightings correspond to the shares of government expenditure that can be allocated to the following three expenditure categories:

- (i) wage and salary expenditure;
- (ii) other current expenditure;
- (iii) capital expenditure.

The data for evaluating these allocations are obtained from the OECD international statistical surveys.

2. Data on prices are obtained from the European system of national accounts and are defined as follows:

$P_1(t)$  per capita remuneration;

$P_2(t)$  general consumer price index;

$P_3(t)$  index of gross fixed capital formation.

#### Increase in the R & D price index

	B	DK	D	GR	E	F	IRL	I	NL	P	UK
1981/1980	6.5	10.3	5.4	24.1	17.0	13.7	17.8	20.6	4.6	21.7	12.3
1982/1981	7.9	11.1	4.3	24.3	13.8	12.8	14.6	16.9	5.5	23.5	8.3
1983/1982	6.3	6.8	3.4	20.7	13.1	10.0	10.0	15.1	3.0	19.2	6.8
1984/1983	6.3	5.3	2.9	21.7	12.5	7.5	8.8	11.1	1.5	12.3	5.2
1985/1984	5.4	4.5	2.6	19.3	8.2	6.4	6.5	9.5	1.6	26.2	7.0
1986/1985	2.2	5.6	2.4	17.3	8.1	3.7	5.6	6.5	2.9	15.5	5.6
1987/1986 <sup>1</sup>	3.0	5.6	2.5	12.2	6.8	3.4	5.2	6.4	2.3	11.4	5.3

<sup>1</sup> Estimate.



## Methodological notes

### R&D objectives

The Nomenclature for the analysis and comparison of scientific programmes and budgets (NABS), 1983 version, is used for the breakdown of data.

### Government financing

This is financing by central government as defined by the European system of national accounts (ESA). This definition includes the 11 *Länder* in the Federal Republic of Germany.

It should be noted that there are breaks in the continuity of the figures for five countries.

There has been a slight discontinuity in the Italian series since 1973. Since then a small percentage of R&D relating mainly to human health and agriculture has gradually been transferred from the central government budget to the budgets of the regions which now are excluded from the survey. The effects of this transfer cannot be accurately estimated but are thought to be around 1–2%. They go some way to explaining the marked irregularity in the Italian figures for that period. Changes in the methods, timing of the surveys and definitions of R&D coefficients are responsible for a lack of continuity in the figures for the United Kingdom in the period 1974 to 1976, for the Federal Republic of Germany between 1976 and 1977 and for Ireland between 1977 and 1979, where a continuous process of improving definitions has been instituted. For Belgium, the adoption of new methods of breaking down the science policy budget is responsible for a break in the continuity of the series from 1978.

In addition, unlike previous years, the United Kingdom included in its budget for 1979–80 a provision to cover the increase in prices during the period between the passing of the budget and its implementation. This provision represents on average 8–9% of the total financing.

The Danish data do not refer to an actual R&D budget. They are estimated from coefficients dating back to 1982 and must therefore be interpreted with some caution.

The regular collection of data on Greek R&D activities started in the late 1970s. The first survey of government research spending supplemented by estimates of the R&D workforce was made in 1977 and repeated in 1978. These figures included research spending by a few large public-sector undertakings (electricity, posts and telecommunications, oil, etc.). Since the collection of figures for actual expenditure delayed the provision of data and was not in line with the Community system, a number of innovations were made in 1983:

- (i) public undertakings were excluded from the scope of the survey;
- (ii) the recording of actual expenditure was abandoned;
- (iii) total figures for each research centre were recorded;
- (iv) research coefficients were applied to the figures recorded for higher education.

These changes are obviously the reason for the break in the series mentioned in the report.

### Total R&D financing

For 1975 to 1985, the total appropriations for R&D in the final budgets of the Member States, including revisions to the budgets during the budgetary year, are used; for 1986, the figures in the provisional budgets are used.

Two separate questions arise concerning the use of data from provisional budgets:

- (a) the value of these data in predicting minor changes in structure that occur from one year to another. It seems inherently probable that the guidance will be valuable and broadly speaking this has been confirmed by the analysis of final budgets once they become available. This report has been written on the assumption that the provisional budgets for 1986 and 1987 provide reliable warning of changes in pattern and structure;
- (b) the value of these data in providing a forecast of the volume of expenditure. Here the difficulties are greater but the important point is not so much the absolute size of the differences between provisional and final budgets as their relative size and the changes in the budgets from one year to the next. No clear-cut conclusions can be drawn from the evidence available but it suggests that the relationship differs from one country to another.

This is not surprising in itself as the institutional relationship between the two budgets varies in different countries. The total amount of the provisional budget appears to be information valuable enough to justify the use made of it in Table II but not to warrant its inclusion in the main tables on the same footing as final budgets.

### **Total budgets**

The figures quoted are taken from the harmonized statistics prepared by DG II (Economic and Financial Affairs) of the Commission. The definitions correspond to those normally used in discussion of government financing of R & D but are not always identical with those most commonly used in the Member States.

### **Population**

The figures used are the harmonized estimates of mean population over the year, prepared by Eurostat.

### **Data on European Communities expenditure**

The figures are based on the Commission's budget documents. They include R & D financing by the European Coal and Steel Community but not funding of technological research by the European Development Fund, which is financed directly by the Member States. Up to 1978, Commission appropriations were expressed initially in budget units of account equal to one United States dollar or 50 Belgian francs at 1970 rates of exchange. They were then converted into EUA. As the budget has been expressed in EUA since 1978, previous budgets have also been converted into that unit. Following the adoption of the ecu in 1979, the Community institutions have used it for the presentation of data since 1981.

### **Comparison between EUR 12, the United States and Japan**

The US and Japanese figures are taken from OECD international surveys of R & D resources.

### **Gross domestic product (GDP)**

The figures for gross domestic product have been prepared in accordance with the European system of integrated economic accounts (ESA).

### **Figures in current values**

These amounts are expressed in national currencies and in EUA, i.e., units of account calculated by converting the national currencies at either the central rates or at the market rates depending on the country (see *Eurostatistics, Data for short-term economic analysis*). For conversion into ecus, the averages of the rates of exchange for each year have been used, except for comparison of the last two years, which was based on the rates in March 1986 and 1987.

### **Figures in constant terms**

The figures in current national currencies have been deflated for the period 1980–87 by the R & D price index. For 1987, deflation was based on an estimate of the R & D price index, using data from 'Economic forecasts 1987–88, April–May 1987' by DG II.

**Statistical data**



## Symbols and abbreviations

EUA/UCE	Statistical unit of account (based on central market rates)
GDP/PIB	Gross domestic product (GDP)
Mio/mio	Million
Mrd/mia	Thousand million
p	Provisional
.	Data not available
-	Nil
0 (0.0)	Less than half of the unit used

The symbols +, 0 and - in the tables which contain calculations of mean trends are used to indicate whether the values for the latest year are above, on, or below the mean trend line (regression)

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## R&amp;D FINANCING

## CREDITS POUR LA R&amp;D

IN NATIONAL CURRENCIES  
AT CURRENT VALUESEN MONNAIES NATIONALES  
A PRIX COURANTS

Period Période	EUR 12	EC/CE	BL	DK	DE	GR	ES	FR	IR	IT	NL	PO	UK
	MIO ECU	MIO ECU	MIO FB	MIO DKR	MIO DM	MIO DRA	MRD PTA	MIO FF	MIO £	MRD LIT	MIO FL	MIO ESC	MIO £
TOTAL FINANCING OF R&D / CREDITS TOTAUX DE R&D													
1980	:	284,3	19926,5	1697,6	17046,4	2792,0	33,7	31100,0	41,2	1549,7	3105,8	:	2477,1
1981	:	351,7	20767,2	1982,3	17741,7	3365,0	47,8	40832,0	43,9	2603,1	3266,5	:	3315,8
1982	:	389,2	23083,5	2219,4	19306,0	4152,0	54,8	47187,0	50,7	2996,7	3415,5	:	3689,8
1983	:	462,6	25254,5	2642,5	19095,4	6067,0	60,0	55400,0	58,9	3782,3	3830,5	:	3999,8
1984	:	442,1	26814,9	3038,9	19413,6	8908,0	73,6	62375,0	62,3	4653,5	3858,5	:	4307,8
1985	:	572,5	29237,0	3409,2	21030,8	11600,0	104,7	67460,0	75,0	5313,7	3872,3	:	4582,1
1986	35492,0	660,7	28579,4	4036,4	21381,9	13646,7	110,2	69857,0	84,9	6444,2	4092,5	13470,4	4561,8
1986 p)	35874,3	653,7	28516,2	3583,5	21374,8	13646,7	100,3	72990,0	81,3	6105,8	4062,1	12247,4	4666,2
1987	36998,9	776,7	28897,0	4521,6	22351,8	17186,7	129,9	73208,0	86,9	7023,5	4177,3	18417,0	4715,3
MEAN TREND PER YEAR / TENDANCE ANNUELLE MOYENNE													
1980-1986	:	15,1	6,2	15,5	3,8	30,3	21,8	14,4	12,8	26,8	4,7	:	10,7
EXPECTED CHANGE (IN %) / ACCROISSEMENT EN %													
1987-1986	3,1	18,8	1,3	26,2	4,6	25,9	29,5	0,3	6,9	15,0	2,8	50,4	1,1
FINANCING OF CIVIL R&D / CREDITS POUR LA RECHERCHE CIVILE													
1980	:	284,3	19850,6	1692,9	15316,2	2598,2	32,0	19750,0	41,2	1508,0	3008,0	:	1133,5
1981	:	351,7	20687,7	1977,2	16169,4	3143,7	45,5	25132,0	43,9	2435,0	3167,4	:	1590,0
1982	:	389,2	23004,9	2213,8	17659,2	4152,0	51,3	30487,0	50,7	2854,0	3311,6	:	1931,6
1983	:	462,6	24968,7	2636,2	17260,9	6043,2	56,2	37300,0	58,9	3566,4	3717,8	:	2034,5
1984	:	442,1	26429,0	3016,8	17476,8	8600,2	68,7	41535,0	62,3	4266,3	3738,5	:	2138,5
1985	:	572,5	28793,8	3391,4	18521,8	11261,0	98,1	46360,0	75,0	4786,0	3751,9	:	2203,2
1986	27002,6	660,7	28121,9	4018,8	18791,4	13271,5	105,0	47157,0	84,9	5895,8	3978,7	13470,4	2237,7
1986 p)	27093,3	653,7	28088,6	3564,9	18716,4	13271,5	94,5	50290,0	81,3	5590,6	3955,1	12247,4	2258,6
1987	28139,8	776,7	28591,8	4503,4	19554,9	16783,9	118,4	48208,0	86,9	6473,5	4060,4	18417,0	2299,6
MEAN TREND PER YEAR / TENDANCE ANNUELLE MOYENNE													
1980-1986	:	15,1	6,0	15,5	3,5	31,2	21,9	15,6	12,8	25,5	4,8	:	12,0
EXPECTED CHANGE (IN %) / ACCROISSEMENT EN %													
1987-1986	3,9	18,8	1,8	26,3	4,5	26,5	25,3	-4,1	6,9	15,8	2,7	50,4	1,8



## R&amp;D FINANCING

## CREDITS POUR LA R&amp;D

IN MIO ECU AT CURRENT  
VALUES AND EXCHANGE RATESEN MIO ECU A PRIX ET A  
TAUX DE CHANGES COURANTS

2

Period Période	EUR 12	EC/CE	BL	DK	DE	GR	ES	FR	IR	IT	NL	PO	UK
TOTAL FINANCING OF R&D / CREDITS TOTAUX DE R&D													
1980	:	284,3	490,8	216,9	6753,1	47,1	338,3	5299,1	61,0	1303,2	1125,2	:	4138,9
1981	:	351,7	502,9	250,2	7057,5	56,6	465,7	6760,3	63,6	2060,7	1177,1	:	5994,8
1982	:	389,2	516,3	272,1	8125,4	63,5	509,2	7337,2	73,5	2263,7	1306,7	:	6583,6
1983	:	462,6	555,8	325,0	8410,2	77,7	470,9	8182,2	82,4	2801,9	1509,7	:	6813,7
1984	:	442,1	590,1	373,0	8674,1	100,8	581,7	9077,1	85,8	3368,7	1529,1	:	7293,7
1985	:	572,5	651,0	425,2	9446,4	109,7	810,8	9927,9	104,8	3671,8	1542,1	:	7779,7
1986	35492,0	660,7	652,6	508,7	10049,4	99,3	801,7	10273,1	115,7	4408,5	1704,9	91,5	6786,8
1986 p)	35874,3	653,7	649,8	449,6	9941,6	101,1	735,5	10649,6	115,0	4139,7	1676,5	86,9	7329,1
1987	36998,9	776,7	673,2	577,4	10786,5	112,8	891,5	10605,0	111,9	4754,5	1785,6	114,6	6586,1
MEAN TREND PER YEAR / TENDANCE ANNUELLE MOYENNE													
1980-1986	:	15,1	4,9	15,3	6,8	13,2	15,5	11,7	11,3	22,5	7,2	:	8,6
EXPECTED CHANGE (IN %) / ACCROISSEMENT EN %													
1987-1986	3,1	18,8	3,6	28,4	8,5	11,6	21,2	-0,4	-2,7	14,9	6,5	31,9	-10,1
FINANCING OF CIVIL R&D / CREDITS POUR LA RECHERCHE CIVILE													
1980	:	284,3	489,0	216,3	6067,7	43,8	320,7	3365,2	61,0	1268,1	1089,7	:	1894,0
1981	:	351,7	501,0	249,6	6432,0	51,0	442,8	4161,0	63,6	1927,7	1141,4	:	2874,6
1982	:	389,2	514,5	271,4	7432,3	62,5	476,6	4740,5	73,5	2156,0	1266,9	:	3446,4
1983	:	462,6	549,5	324,2	7602,2	77,4	440,9	5508,9	82,4	2641,9	1465,3	:	3465,8
1984	:	442,1	581,6	370,3	7808,7	97,4	543,2	6044,4	85,8	3088,4	1481,6	:	3620,7
1985	:	572,5	641,1	422,9	8319,5	106,5	759,3	6822,7	104,8	3307,1	1494,2	:	3740,7
1986	27002,6	660,7	642,2	506,5	8831,9	96,5	763,6	6934,9	115,7	4033,3	1657,5	91,5	3329,2
1986 n)	27093,3	653,7	640,1	447,2	8705,1	98,3	692,9	7337,6	115,0	3790,5	1632,4	86,9	3547,6
1987	28139,8	776,7	666,1	575,1	9436,8	110,1	812,1	6983,5	111,9	4382,2	1735,6	114,6	3211,9
MEAN TREND PER YEAR / TENDANCE ANNUELLE MOYENNE													
1980-1986	:	15,1	4,6	15,2	6,5	14,1	15,6	12,8	11,3	21,3	7,2	:	9,9
EXPECTED CHANGE (IN %) / ACCROISSEMENT EN %													
1987-1986	3,9	18,8	4,1	28,6	8,4	12,1	17,2	-4,8	-2,7	15,6	6,3	31,9	-9,5

## R&amp;D FINANCING

## CREDITS POUR LA R&amp;D

IN MIO ECU AT VALUES  
AND EXCHANGE RATES 1980EN MIO ECU A PRIX ET A  
TAUX DE CHANGES 1980

Period Période	EUR 12	BL	DK	DE	GR	ES	FR	IR	IT	NL	PO	UK	
TOTAL FINANCING OF R&D / CREDITS TOTAUX DE R&D													
1980	:	490,8	216,9	6753,2	47,1	338,3	5299,1	61,0	1303,2	1125,2	:	4138,9	
1981	:	480,3	229,6	6666,4	45,7	409,9	6120,5	55,1	1814,8	1131,6	:	4932,3	
1982	:	494,7	231,4	6957,3	45,4	412,6	6270,7	55,5	1787,4	1121,6	:	5066,0	
1983	:	509,2	258,0	6651,6	54,9	400,0	6690,5	58,5	1961,6	1221,2	:	5141,0	
1984	:	508,6	281,7	6571,8	66,3	435,9	7009,2	56,6	2174,9	1211,8	:	5263,5	
1985	:	536,3	303,7	6932,0	73,3	573,2	7175,3	63,0	2287,4	1201,3	:	5257,6	
1986	:	24461,0	513,2	340,4	6880,1	73,4	558,2	7166,5	67,6	2607,1	1234,0	66,0	4954,6
1986 p)	24659,9	511,7	302,0	6916,6	79,8	537,8	7508,9	64,6	2518,9	1227,6	62,7	4929,1	
1987	24796,5	503,5	360,6	7053,7	89,6	652,5	7283,8	65,7	2722,4	1248,1	84,7	4731,9	
MEAN TREND PER YEAR / TENDANCE ANNUELLE MOYENNE													
1980-1986	:	0,7	7,8	0,3	7,7	8,7	5,2	1,7	12,3	1,5	:	3,0	
EXPECTED CHANGE (IN %) / ACCROISSEMENT EN %													
1987-1986	0,6	-1,6	19,4	2,0	12,2	21,3	-3,0	1,6	8,1	1,7	35,0	-4,0	
FINANCING OF CIVIL R&D / CREDITS POUR LA RECHERCHE CIVILE													
1980	:	489,0	216,3	6067,8	43,8	320,7	3365,2	61,0	1268,1	1089,7	:	1894,0	
1981	:	478,5	229,0	6075,6	42,7	389,7	3767,1	55,1	1697,6	1097,3	:	2365,1	
1982	:	493,0	230,8	6363,9	45,4	386,2	4051,4	55,5	1702,3	1087,5	:	2652,0	
1983	:	503,4	257,4	6012,6	54,7	374,4	4504,6	58,5	1849,6	1185,3	:	2615,0	
1984	:	501,3	279,6	5916,2	64,0	407,0	4667,4	56,6	1994,0	1174,1	:	2612,9	
1985	:	528,1	302,2	6105,0	71,1	536,9	4931,0	63,0	2060,2	1163,9	:	2528,0	
1986	18480,1	505,0	338,9	6046,6	71,4	531,6	4837,8	67,6	2385,3	1199,6	66,0	2430,4	
1986 p)	18633,7	504,0	300,4	6056,4	77,6	506,7	5173,6	64,6	2306,4	1195,3	62,7	2385,8	
1987	18667,2	498,1	359,1	6171,1	87,5	594,4	4796,4	65,7	2509,2	1213,2	84,7	2307,7	
MEAN TREND PER YEAR / TENDANCE ANNUELLE MOYENNE													
1980-1986	:	0,5	7,8	-0,1	8,5	8,8	6,2	1,7	11,1	1,6	:	4,2	
EXPECTED CHANGE (IN %) / ACCROISSEMENT EN %													
1987-1986	0,3	-1,2	19,5	1,9	12,7	17,3	-7,3	1,6	8,8	1,5	35,0	-3,3	

Period Période	EUR 12	BL	DK	DE	GR	ES	FR	IR	IT	NL	PO	UK
Ecu current prices and exchange rates / Ecu prix et taux de change courants per head par habitant												
1980	:	49.8	42.3	109.7	4.9	9.0	98.7	17.9	22.8	79.5	:	73.9
1981	:	51.0	48.9	114.4	5.6	12.3	125.3	18.5	36.1	82.6	:	107.0
1982	:	52.4	53.2	131.8	6.5	13.4	134.8	21.1	40.0	91.3	:	116.9
1983	:	56.4	63.5	136.9	7.9	12.3	149.7	23.5	49.3	105.1	:	120.9
1984	:	59.9	73.0	141.8	10.2	15.2	165.9	24.3	59.8	106.0	:	129.7
1985	:	66.0	83.1	154.8	11.0	21.0	179.9	29.6	64.3	106.4	:	137.3
1986	110.2	66.2	99.4	164.6	9.9	20.7	185.5	32.7	77.0	117.0	9.4	119.7
Ecu prices and exchange rates 1980 / Ecu prix et taux de change 1980 per head par habitant												
1980	:	49.8	42.3	109.7	4.9	9.0	98.7	17.9	22.8	79.5	:	73.9
1981	:	48.7	44.8	108.1	4.7	10.9	113.4	16.0	31.8	79.4	:	80.0
1982	:	50.2	45.2	112.9	4.6	10.9	115.2	15.9	31.6	78.4	:	89.9
1983	:	51.7	50.4	108.3	5.6	10.5	122.4	16.7	34.5	85.0	:	91.2
1984	:	51.6	55.1	107.4	6.7	11.4	128.1	16.0	38.6	84.0	:	93.6
1985	:	54.4	59.4	113.6	7.4	14.9	130.1	17.8	40.0	82.9	:	92.8
1986	76.0	52.1	66.5	112.7	7.3	14.4	129.4	19.1	45.5	84.7	6.8	87.4
IN % OF TOTAL BUDGET / EN % DU BUDGET TOTAL												
1980	:	1.47	1.36	4.16	0.68	:	5.26	0.85	1.25	2.82	:	2.61
1981	:	1.31	1.36	4.06	0.52	:	5.62	0.74	1.60	2.34	:	3.18
1982	:	1.33	1.31	4.24	0.50	:	5.59	0.71	1.32	2.26	:	3.10
1983	:	1.40	1.19	4.12	0.55	1.50	5.96	0.70	1.30	2.48	:	3.16
1984	:	1.41	1.29	4.08	0.64	1.46	6.20	0.67	1.42	2.37	:	3.20
1985	:	1.47	1.40	4.29	0.68	1.75	6.29	0.75	1.45	2.33	:	3.12
1986	3.11	1.33	1.55	4.20	0.67	1.61	6.32	0.80	1.60	2.41	1.04	3.04
IN % OF GROSS DOMESTIC PRODUCT / EN % DU PRODUIT INTERIEUR BRUT												
1980	:	0.58	0.45	1.15	0.16	0.22	1.12	0.44	0.46	0.92	:	1.08
1981	:	0.59	0.49	1.15	0.16	0.28	1.31	0.39	0.65	0.93	:	1.31
1982	:	0.60	0.48	1.21	0.16	0.28	1.32	0.38	0.64	0.93	:	1.34
1983	:	0.62	0.51	1.14	0.20	0.26	1.41	0.40	0.70	1.01	:	1.33
1984	:	0.61	0.54	1.11	0.24	0.28	1.46	0.38	0.76	0.98	:	1.35
1985	:	0.62	0.56	1.15	0.25	0.37	1.47	0.42	0.78	0.94	:	1.32
1986	1.04	0.58	0.63	1.10	0.25	0.34	1.44	0.44	0.85	0.97	0.32	1.24
MEAN TREND PER YEAR TENDANCE ANNUELLE MOYENNE												
TOTAL BUDGET / BUDGET TOTAL												
:	8.0	13.0	3.7	30.4	:	11.0	14.0	21.7	7.4	:	7.9	
GROSS DOMESTIC PRODUCT / PRODUIT INTERIEUR BRUT												
7.6	6.3	9.5	4.6	21.6	13.5	9.8	12.9	14.4	3.8	22.5	8.2	

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Nabs Objectives	Code	EC/CE	EUR 12	BL	DK	DE	GR	ES
		1000 ECU	1000 ECU	1000 FB	1000 DKR	1000 DM	1000 DRA	MIO PTA
1985								
1. EXPLORATION AND EXPLOITATION OF THE EARTH	0100	8831	:	904100	44429	444800	636310	7040
2. INFRASTRUCTURE AND GENERAL PLANNING OF LAND-USE	0200	3500	:	210000	80957	403701	56231	4470
3. CONTROL OF ENVIRONMENTAL POLLUTION	0300	31114	:	717600	50890	661688	398893	404
4. PROTECTION AND IMPROVEMENT OF HUMAN HEALTH	0400	23964	:	780300	111032	637076	877331	2606
5. PRODUCTION, DISTRIBUTION AND RAT. UTILIZATION OF ENERGY	0500	319736	:	3353100	220422	2657273	305284	8251
6. AGRICULTURAL PRODUCTION AND TECHNOLOGY	0600	16117	:	2049200	253942	417443	3145608	7686
7. INDUSTRIAL PRODUCTION AND TECHNOLOGY	0700	152992	:	4799800	717826	2974210	896609	19376
8. SOCIAL STRUCTURES AND RELATIONSHIPS	0800	3070	:	204400	143168	482257	651748	804
9. EXPLORATION AND EXPLOITATION OF SPACE	0900	5492	:	1942100	109552	820443	65090	3851
10. RESEARCH FINANCED FROM GEN. UNIV. FUNDS (GUF)	1000	-	:	6480000	1055916	6610266	3281000	22323
11. NON-ORIENTED RESEARCH	1100	7670	:	6562100	603276	2395523	709440	19053
12. OTHER CIVIL RESEARCH	1200	-	:	791100	-	17168	237629	2212
13. DEFENCE	1300	-	:	443200	17755	2508905	339034	6647
TOTAL EXPENDITURE	9900	572536	:	29237000	3409165	21030752	11600000	104722
1986								
1. EXPLORATION AND EXPLOITATION OF THE EARTH	0100	5172	630941	892600	65350	437386	956218	6039
2. INFRASTRUCTURE AND GENERAL PLANNING OF LAND-USE	0200	8016	800231	222200	90547	401096	39342	3514
3. CONTROL OF ENVIRONMENTAL POLLUTION	0300	39740	560893	661100	40548	690057	361850	403
4. PROTECTION AND IMPROVEMENT OF HUMAN HEALTH	0400	27202	1280588	885300	243370	655153	1023568	3714
5. PRODUCTION, DISTRIBUTION AND RAT. UTILIZATION OF ENERGY	0500	371287	2965105	2907100	199717	2213820	821198	11726
6. AGRICULTURAL PRODUCTION AND TECHNOLOGY	0600	12735	1319243	2096400	312118	433128	3369272	5835
7. INDUSTRIAL PRODUCTION AND TECHNOLOGY	0700	175677	4883327	4087600	649566	3114243	1280083	19225
8. SOCIAL STRUCTURES AND RELATIONSHIPS	0800	5097	760471	209200	179524	489688	890650	957
9. EXPLORATION AND EXPLOITATION OF SPACE	0900	6904	1681189	2147200	110841	964491	47100	2347
10. RESEARCH FINANCED FROM GEN. UNIV. FUNDS (GUF)	1000	-	7951926	6506500	1353072	6749826	3611494	24385
11. NON-ORIENTED RESEARCH	1100	8898	3850076	6567800	774086	2611969	824768	24605
12. OTHER CIVIL RESEARCH	1200	-	318679	938900	-	30589	45969	2211
13. DEFENCE	1300	-	8489398	457500	17632	2590416	375221	5244
TOTAL EXPENDITURE	9900	660728	35492032	28579400	4036398	21381856	13646733	110203

FR	IR	IT	NL	PO	UK		
1000 FF	1000 £	MIO LIT	1000 FL	1000 ESC	1000 £	Code	Objectifs Nabs
1985							
990000	672	66597	24597	:	82039	0100	1. EXPLORATION ET EXPLOITATION DU MILIEU TERRESTRE
2100000	3025	58534	157503	:	55492	0200	2. INFRASTRUCTURES ET AMENAGEMENT DES ESPACES
320000	613	55200	126431	:	51684	0300	3. POLLUTION DE L'ENVIRONNEMENT (LUTTE ET PREVENTION)
2680000	3251	243776	104973	:	166801	0400	4. PROTECTION ET PROMOTION DE LA SANTE HUMAINE
5280000	978	1044476	178372	:	206233	0500	5. PRODUCT.,DISTRIBUT. ET UTILIS. RATIONNELLE DE L'ENERGIE
2390000	21497	202503	175317	:	212536	0600	6. PRODUCTIVITE ET TECHNOLOGIE DE L'AGRICULTURE
8190000	21643	1096501	598926	:	307588	0700	7. PRODUCTIVITE ET TECHNOLOGIE INDUSTRIELLES
1730000	5651	57470	99870	:	54966	0800	8. VIE EN SOCIETE (STRUCTURES ET RELATIONS)
3805000	1200	375767	35829	:	84486	0900	9. EXPLORATION ET EXPLOITATION DE L'ESPACE
8040000	14791	1151877	1679400	:	670012	1000	10. RECHERCHE FINANCEE PAR FONDS GENERAUX DES UNIVERSITES
9715000	1636	400936	397869	:	299379	1100	11. RECHERCHES NON ORIENTEES
1120000	-	32330	172837	:	11974	1200	12. RECHERCHES NON VENTILEES
21100000	-	527761	120423	:	2378877	1300	13. DEFENSE
67460000	74957	5313728	3872347	:	4582064	9900	TOTAL DES CREDITS
1986							
996000	548	85572	24489	1464200	80632	0100	1. EXPLORATION ET EXPLOITATION DU MILIEU TERRESTRE
2273000	3295	62930	173420	1567700	70360	0200	2. INFRASTRUCTURES ET AMENAGEMENT DES ESPACES
300000	806	60721	126670	392800	46111	0300	3. POLLUTION DE L'ENVIRONNEMENT (LUTTE ET PREVENTION)
2408000	3840	324241	111034	31200	174550	0400	4. PROTECTION ET PROMOTION DE LA SANTE HUMAINE
4920000	1023	980916	167452	615200	182750	0500	5. PRODUCT.,DISTRIBUT. ET UTILIS. RATIONNELLE DE L'ENERGIE
2430000	20184	252880	186036	2367300	208423	0600	6. PRODUCTIVITE ET TECHNOLOGIE DE L'AGRICULTURE
7850000	24502	1374230	707563	924100	447871	0700	7. PRODUCTIVITE ET TECHNOLOGIE INDUSTRIELLES
1967000	8283	79084	107644	154000	59778	0800	8. VIE EN SOCIETE (STRUCTURES ET RELATIONS)
4288000	1605	420878	128263	-	116510	0900	9. EXPLORATION ET EXPLOITATION DE L'ESPACE
8609000	18980	1747730	1679700	4350500	699000	1000	10. RECHERCHE FINANCEE PAR FONDS GENERAUX DES UNIVERSITES
10330000	1829	426573	406135	75000	139004	1100	11. RECHERCHES NON ORIENTEES
786000	-	80025	160255	1528400	12746	1200	12. RECHERCHES NON VENTILEES
22700000	-	548387	113800	-	2324030	1300	13. DEFENSE
69857000	84895	6444167	4092463	13470400	4561765	9900	TOTAL DES CREDITS

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Nabs Objectives	Code	EC/CE	EUR 12	BL	DK	DE	GR	ES
		1000 ECU	1000 ECU	1000 FB	1000 DKR	1000 DM	1000 DRA	MIO PTA
1987								
1. EXPLORATION AND EXPLOITATION OF THE EARTH	0100	5320	663605	881400	67602	428098	1227021	9971
2. INFRASTRUCTURE AND GENERAL PLANNING OF LAND-USE	0200	4740	800817	212000	103334	428937	43729	315
3. CONTROL OF ENVIRONMENTAL POLLUTION	0300	40837	646245	648900	59331	734513	362485	2535
4. PROTECTION AND IMPROVEMENT OF HUMAN HEALTH	0400	21487	1346058	860000	216994	719697	1268276	11182
5. PRODUCTION, DISTRIBUTION AND RAT. UTILIZATION OF ENERGY	0500	400539	2613003	2748600	196496	1938739	616280	4050
6. AGRICULTURAL PRODUCTION AND TECHNOLOGY	0600	11633	1350270	2188000	385321	442312	4465943	8728
7. INDUSTRIAL PRODUCTION AND TECHNOLOGY	0700	258129	5079711	3709200	731394	3425579	1931752	27894
8. SOCIAL STRUCTURES AND RELATIONSHIPS	0800	8294	769208	141000	166211	506038	1263041	1111
9. EXPLORATION AND EXPLOITATION OF SPACE	0900	11415	1988163	2845800	117526	1101178	71000	11390
10. RESEARCH FINANCED FROM GEN. UNIV. FUNDS (GUF)	1000	-	8522411	6441400	1450041	7046644	4345068	25689
11. NON-ORIENTED RESEARCH	1100	14240	3970746	6821800	1009143	2753769	1149317	11042
12. OTHER CIVIL RESEARCH	1200	70	389618	1093700	-	29435	40017	4456
13. DEFENCE	1300	-	8859097	305200	18224	2796907	402816	11563
TOTAL EXPENDITURE	9900	776702	36998912	2889700	4521617	22351840	17186736	129926

FR	IR	IT	NL	PO	UK		
1000 FF	1000 £	MIO LIT	1000 FL	1000 ESC	1000 £	Code	Objectifs Nabs
1987							
1039000	516	100336	23121	1659400	80244	0100	1. EXPLORATION ET EXPLOITATION DU MILIEU TERRESTRE
2315000	3661	54779	190149	1940800	73556	0200	2. INFRASTRUCTURES ET AMENAGEMENT DES ESPACES
317000	828	63288	127582	625500	72358	0300	3. POLLUTION DE L'ENVIRONNEMENT (LUTTE ET PREVENTION)
2645000	3413	314672	105190	33300	157669	0400	4. PROTECTION ET PROMOTION DE LA SANTE HUMAINE
4907000	928	778820	168414	857200	171752	0500	5. PRODUCT.,DISTRIBUT. ET UTILIS. RATIONNELLE DE L'ENERGIE
2621000	21043	245326	177682	2607900	202202	0600	6. PRODUCTIVITE ET TECHNOLOGIE DE L'AGRICULTURE
7796000	23654	1342500	737242	1141700	466733	0700	7. PRODUCTIVITE ET TECHNOLOGIE INDUSTRIELLES
1994000	8693	86505	100992	236100	58234	0800	8. VIE EN SOCIETE (STRUCTURES ET RELATIONS)
4333000	2025	655361	116061		124072	0900	9. EXPLORATION ET EXPLOITATION DE L'ESPACE
8755000	20011	2240000	1700000	5622200	723000	1000	10. RECHERCHE FINANCEE PAR FONDS GENERAUX DES UNIVERSITES
10729000	2088	460977	430161	94000	155595	1100	11. RECHERCHES NON ORIENTEES
757000	-	130981	183834	3598900	14172	1200	12. RECHERCHES NON VENTILEES
25000000	-	550000	116858	-	2415762	1300	13. DEFENSE
73208000	86860	7023545	4177286	18416992	4715349	9900	TOTAL DES CREDITS

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Nabs Objectives	Code	EC/CE	EUR 12	BL	DK	DE	GR	ES
1985								
1. EXPLORATION AND EXPLOITATION OF THE EARTH	0100	8831	:	20130	5541	199792	6018	54504
2. INFRASTRUCTURE AND GENERAL PLANNING OF LAND-USE	0200	3500	:	4676	10096	181331	532	34607
3. CONTROL OF ENVIRONMENTAL POLLUTION	0300	31114	:	15977	6346	297212	3773	3128
4. PROTECTION AND IMPROVEMENT OF HUMAN HEALTH	0400	23964	:	17373	13847	286157	8298	20176
5. PRODUCTION, DISTRIBUTION AND RAT. UTILIZATION OF ENERGY	0500	319736	:	74657	27488	1193572	2887	63880
6. AGRICULTURAL PRODUCTION AND TECHNOLOGY	0600	16117	:	45625	31669	187504	29751	59506
7. INDUSTRIAL PRODUCTION AND TECHNOLOGY	0700	152992	:	106868	89519	1335931	8480	150011
8. SOCIAL STRUCTURES AND RELATIONSHIPS	0800	3070	:	4551	17854	216616	6164	6225
9. EXPLORATION AND EXPLOITATION OF SPACE	0900	5492	:	43241	13662	368520	616	29815
10. RESEARCH FINANCED FROM GEN. UNIV. FUNDS (GUF)	1000	-	:	144277	131681	2969146	31032	172827
11. NON-ORIENTED RESEARCH	1100	7670	:	146105	75233	1076001	6710	147510
12. OTHER CIVIL RESEARCH	1200	-	:	17614	-	7711	2247	17126
13. DEFENCE	1300	-	:	9868	2214	1126929	3207	51462
TOTAL EXPENDITURE	9900	572536	:	650962	425150	9446424	109713	810768
1986								
1. EXPLORATION AND EXPLOITATION OF THE EARTH	0100	5172	630941	20383	8236	205569	6955	43930
2. INFRASTRUCTURE AND GENERAL PLANNING OF LAND-USE	0200	8016	800231	5074	11411	188513	286	25563
3. CONTROL OF ENVIRONMENTAL POLLUTION	0300	39740	560893	15096	5110	324323	2632	2935
4. PROTECTION AND IMPROVEMENT OF HUMAN HEALTH	0400	27202	1280588	20216	30671	307919	7444	27021
5. PRODUCTION, DISTRIBUTION AND RAT. UTILIZATION OF ENERGY	0500	371287	2965105	66384	25170	1040484	5973	85303
6. AGRICULTURAL PRODUCTION AND TECHNOLOGY	0600	12735	1319243	47871	39335	203568	24505	42446
7. INDUSTRIAL PRODUCTION AND TECHNOLOGY	0700	175677	4883327	93340	81862	1463678	9310	139860
8. SOCIAL STRUCTURES AND RELATIONSHIPS	0800	5097	760471	4777	22625	230151	6478	6963
9. EXPLORATION AND EXPLOITATION OF SPACE	0900	6904	1681189	49031	13969	453306	343	17075
10. RESEARCH FINANCED FROM GEN. UNIV. FUNDS (GUF)	1000	-	7951926	148576	170522	3172384	26266	177401
11. NON-ORIENTED RESEARCH	1100	8898	3850076	149976	97555	1227612	5999	179000
12. OTHER CIVIL RESEARCH	1200	-	318679	21440	-	14377	334	16084
13. DEFENCE	1300	-	8489398	10447	2222	1217482	2729	38149
TOTAL EXPENDITURE	9900	660728	35492032	652610	508691	10049364	99253	801730



FR	IR	IT	NL	PO	UK	Code	Objectifs Nabs
							1985
145695	940	46019	9796	:	139291	0100	1. EXPLORATION ET EXPLOITATION DU MILIEU TERRESTRE
309051	4230	40447	62725	:	94218	0200	2. INFRASTRUCTURES ET AMENAGEMENT DES ESPACES
47093	857	38143	50351	:	87752	0300	3. POLLUTION DE L'ENVIRONNEMENT (LUTTE ET PREVENTION)
394407	4546	168449	41805	:	283205	0400	4. PROTECTION ET PROMOTION DE LA SANTE HUMAINE
777042	1368	721733	71036	:	350155	0500	5. PRODUCT.,DISTRIBUT. ET UTILIS. RATIONNELLE DE L'ENERGIE
351729	30059	139930	69819	:	360856	0600	6. PRODUCTIVITE ET TECHNOLOGIE DE L'AGRICULTURE
1205297	30263	757682	238520	:	522241	0700	7. PRODUCTIVITE ET TECHNOLOGIE INDUSTRIELLES
254599	7902	39712	39773	:	93325	0800	8. VIE EN SOCIETE (STRUCTURES ET RELATIONS)
559970	1678	259655	14269	:	143445	0900	9. EXPLORATION ET EXPLOITATION DE L'ESPACE
1183222	20682	795947	668816	:	1137586	1000	10. RECHERCHE FINANCEE PAR FONDS GENERAUX DES UNIVERSITES
1429727	2288	277047	158450	:	508304	1100	11. RECHERCHES NON ORIENTEES
164827	-	22340	68832	:	20330	1200	12. RECHERCHES NON VENTILEES
3105223	-	364683	47958	:	4038999	1300	13. DEFENSE
9927883	104811	3671785	1542150	:	7779702	9900	TOTAL DES CREDITS
							1986
146471	747	58540	10202	9949	119960	0100	1. EXPLORATION ET EXPLOITATION DU MILIEU TERRESTRE
334265	4490	43050	72247	10653	104678	0200	2. INFRASTRUCTURES ET AMENAGEMENT DES ESPACES
44118	1098	41539	52771	2669	68602	0300	3. POLLUTION DE L'ENVIRONNEMENT (LUTTE ET PREVENTION)
354118	5232	221813	46257	212	259687	0400	4. PROTECTION ET PROMOTION DE LA SANTE HUMAINE
723530	1394	671045	69761	4180	271886	0500	5. PRODUCT.,DISTRIBUT. ET UTILIS. RATIONNELLE DE L'ENERGIE
357353	27502	172995	77503	16086	310081	0600	6. PRODUCTIVITE ET TECHNOLOGIE DE L'AGRICULTURE
1154412	33386	940111	294774	6279	666320	0700	7. PRODUCTIVITE ET TECHNOLOGIE INDUSTRIELLES
289265	11286	54101	44845	1046	88935	0800	8. VIE EN SOCIETE (STRUCTURES ET RELATIONS)
630589	2187	287923	53435	-	173338	0900	9. EXPLORATION ET EXPLOITATION DE L'ESPACE
1266030	25862	1195622	699770	29562	1039937	1000	10. RECHERCHE FINANCEE PAR FONDS GENERAUX DES UNIVERSITES
1519119	2492	291819	169197	510	206803	1100	11. RECHERCHES NON ORIENTEES
115588	-	54745	66763	10385	18963	1200	12. RECHERCHES NON VENTILEES
3338238	-	375152	47410	-	3457573	1300	13. DEFENSE
10273096	115676	4408454	1704936	91531	6786761	9900	TOTAL DES CREDITS

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Nabs Objectives	Code	EC/CE	EUR 12	BL	DK	DE	GR	ES
1987								
1. EXPLORATION AND EXPLOITATION OF THE EARTH	0100	5320	663605	20535	8633	206590	8052	68412
2. INFRASTRUCTURE AND GENERAL PLANNING OF LAND-USE	0200	4740	800817	4939	13196	206995	287	2158
3. CONTROL OF ENVIRONMENTAL POLLUTION	0300	40837	646245	15118	7577	354459	2379	17393
4. PROTECTION AND IMPROVEMENT OF HUMAN HEALTH	0400	21487	1346058	20036	27711	347309	8322	76724
5. PRODUCTION, DISTRIBUTION AND RAT. UTILIZATION OF ENERGY	0500	400539	2613003	64037	25093	935591	4044	27788
6. AGRICULTURAL PRODUCTION AND TECHNOLOGY	0600	11633	1350270	50976	49206	213450	29306	59885
7. INDUSTRIAL PRODUCTION AND TECHNOLOGY	0700	258129	5079711	86417	93400	1653105	12676	191393
8. SOCIAL STRUCTURES AND RELATIONSHIPS	0800	8294	769208	3285	21225	244202	8288	7626
9. EXPLORATION AND EXPLOITATION OF SPACE	0900	11415	1988163	66301	15008	531403	466	78154
10. RESEARCH FINANCED FROM GEN. UNIV. FUNDS (GUF)	1000		8522411	150072	185173	3400548	28512	176260
11. NON-ORIENTED RESEARCH	1100	14240	3970746	158934	128870	1328905	7542	75763
12. OTHER CIVIL RESEARCH	1200	70	389618	25481	-	14205	263	30577
13. DEFENCE	1300	-	8859097	7111	2327	1349722	2643	79341
TOTAL EXPENDITURE	9900	776702	36998912	673242	577420	10786483	112779	891473

FR	IR	IT	NL	PO	UK	Code	Objectifs Nabs
							1987
150511	665	67921	9883	10325	112079	0100	1. EXPLORATION ET EXPLOITATION DU MILIEU TERRESTRE
335353	4715	37082	81279	12076	102738	0200	2. INFRASTRUCTURES ET AMENAGEMENT DES ESPACES
45921	1066	42842	54535	3892	101065	0300	3. POLLUTION DE L'ENVIRONNEMENT (LUTTE ET PREVENTION)
383157	4395	213014	44963	207	220221	0400	4. PROTECTION ET PROMOTION DE LA SANTÉ HUMAINE
710833	1195	527214	71988	5333	239891	0500	5. PRODUCT.,DISTRIBUT. ET UTILIS. RATIONNELLE DE L'ENERGIE
379681	27100	166071	75950	16226	282421	0600	6. PRODUCTIVITE ET TECHNOLOGIE DE L'AGRICULTURE
1129336	30463	908792	315132	7104	651900	0700	7. PRODUCTIVITE ET TECHNOLOGIE INDUSTRIELLES
288853	11195	58559	43169	1469	81337	0800	8. VIE EN SOCIETE (STRUCTURES ET RELATIONS)
627683	2608	443640	49610	-	173295	0900	9. EXPLORATION ET EXPLOITATION DE L'ESPACE
1268257	25771	1516345	726660	34981	1009835	1000	10. RECHERCHE FINANCEE PAR FONDS GENERAUX DES UNIVERSITES
1554213	2689	312054	183871	585	217324	1100	11. RECHERCHES NON ORIENTEES
109660	-	88666	78579	22392	19794	1200	12. RECHERCHES NON VENTILEES
3621524	-	372317	49951	-	3374165	1300	13. DEFENSE
10604982	111863	4754518	1785568	114590	6586066	9900	TOTAL DES CREDITS

R&D FINANCING  
BY CHAPTERS OF NABS  
IN % OF TOTAL FINANCING

Nabs Objectives	Code	EC/CE	EUR 12	BL	DK	DE	GR	ES
1985								
1. EXPLORATION AND EXPLOITATION OF THE EARTH	0100	1,5	:	3,1	1,3	2,1	5,5	6,7
2. INFRASTRUCTURE AND GENERAL PLANNING OF LAND-USE	0200	0,6	:	0,7	2,4	1,9	0,5	4,3
3. CONTROL OF ENVIRONMENTAL POLLUTION	0300	5,4	:	2,5	1,5	3,1	3,4	0,4
4. PROTECTION AND IMPROVEMENT OF HUMAN HEALTH	0400	4,2	:	2,7	3,3	3,0	7,6	2,5
5. PRODUCTION, DISTRIBUTION AND RAT. UTILIZATION OF ENERGY	0500	55,8	:	11,5	6,5	12,6	2,6	7,9
6. AGRICULTURAL PRODUCTION AND TECHNOLOGY	0600	2,8	:	7,0	7,4	2,0	27,1	7,3
7. INDUSTRIAL PRODUCTION AND TECHNOLOGY	0700	26,7	:	16,4	21,1	14,1	7,7	18,5
8. SOCIAL STRUCTURES AND RELATIONSHIPS	0800	0,5	:	0,7	4,2	2,3	5,6	0,8
9. EXPLORATION AND EXPLOITATION OF SPACE	0900	1,0	:	6,6	3,2	3,9	0,6	3,7
10. RESEARCH FINANCED FROM GEN. UNIV. FUNDS (GUF)	1000	-	:	22,2	31,0	31,4	28,3	21,3
11. NON-ORIENTED RESEARCH	1100	1,3	:	22,4	17,7	11,4	6,1	18,2
12. OTHER CIVIL RESEARCH	1200	-	:	2,7	-	0,1	2,0	2,1
13. DEFENCE	1300	-	:	1,5	0,5	11,9	2,9	6,3
TOTAL EXPENDITURE	9900	100,0	100,0	100,0	100,0	100,0	100,0	100,0
1986								
1. EXPLORATION AND EXPLOITATION OF THE EARTH	0100	0,8	1,8	3,1	1,6	2,0	7,0	5,5
2. INFRASTRUCTURE AND GENERAL PLANNING OF LAND-USE	0200	1,2	2,3	0,8	2,2	1,9	0,3	3,2
3. CONTROL OF ENVIRONMENTAL POLLUTION	0300	6,0	1,6	2,3	1,0	3,2	2,7	0,4
4. PROTECTION AND IMPROVEMENT OF HUMAN HEALTH	0400	4,1	3,6	3,1	6,0	3,1	7,5	3,4
5. PRODUCTION, DISTRIBUTION AND RAT. UTILIZATION OF ENERGY	0500	56,2	8,4	10,2	4,9	10,4	6,0	10,6
6. AGRICULTURAL PRODUCTION AND TECHNOLOGY	0600	1,9	3,7	7,3	7,7	2,0	24,7	5,3
7. INDUSTRIAL PRODUCTION AND TECHNOLOGY	0700	26,6	13,8	14,3	16,1	14,6	9,4	17,4
8. SOCIAL STRUCTURES AND RELATIONSHIPS	0800	0,8	2,1	0,7	4,4	2,3	6,5	0,9
9. EXPLORATION AND EXPLOITATION OF SPACE	0900	1,0	4,7	7,5	2,7	4,5	0,3	2,1
10. RESEARCH FINANCED FROM GEN. UNIV. FUNDS (GUF)	1000	-	22,4	22,8	33,5	31,6	26,5	22,1
11. NON-ORIENTED RESEARCH	1100	1,3	10,8	23,0	19,2	12,2	6,0	22,3
12. OTHER CIVIL RESEARCH	1200	-	0,9	3,3	-	0,1	0,3	2,0
13. DEFENCE	1300	-	23,9	1,6	0,4	12,1	2,7	4,8
TOTAL EXPENDITURE	9900	100,0	100,0	100,0	100,0	100,0	100,0	100,0

FR	IR	IT	NL	PO	UK	Code	Objectifs Nabs
							1985
1,5	0,9	1,3	0,6	:	1,8	0100	1. EXPLORATION ET EXPLOITATION DU MILIEU TERRESTRE
3,1	4,0	1,1	4,1	:	1,2	0200	2. INFRASTRUCTURES ET AMENAGEMENT DES ESPACES
0,5	0,8	1,0	3,3	:	1,1	0300	3. POLLUTION DE L'ENVIRONNEMENT (LUTTE ET PREVENTION)
4,0	4,3	4,6	2,7	:	3,6	0400	4. PROTECTION ET PROMOTION DE LA SANTE HUMAINE
7,8	1,3	19,7	4,6	:	4,5	0500	5. PRODUCT.,DISTRIBUT. ET UTILIS. RATIONNELLE DE L'ENERGIE
3,5	28,7	3,8	4,5	:	4,6	0600	6. PRDDUCTIVITE ET TECHNOLOGIE DE L'AGRICULTURE
12,1	28,9	20,6	15,5	:	6,7	0700	7. PRODUCTIVITE ET TECHNOLOGIE INDUSTRIELLES
2,6	7,5	1,1	2,6	:	1,2	0800	8. VIE EN SOCIETE (STRUCTURES ET RELATIONS)
5,6	1,6	7,1	0,9	:	1,8	0900	9. EXPLORATION ET EXPLOITATION DE L'ESPACE
11,9	19,7	21,7	43,4	:	14,6	1000	10. RECHERCHE FINANCEE PAR FONDS GENERAUX DES UNIVERSITES
14,4	2,2	7,5	10,1	:	6,5	1100	11. RECHERCHES NON ORIENTEES
1,7	-	0,6	4,5	:	0,3	1200	12. RECHERCHES NON VENTILEES
31,3	-	9,9	3,1	:	51,9	1300	13. DEFENSE
100,0	100,0	100,0	100,0	:	100,0	9900	TOTAL DES CREDITS
							1986
1,4	0,6	1,3	0,6	10,9	1,8	0100	1. EXPLORATION ET EXPLOITATION DU MILIEU TERRESTRE
3,3	3,9	1,0	4,2	11,6	1,5	0200	2. INFRASTRUCTURES ET AMENAGEMENT DES ESPACES
0,4	0,9	0,9	3,1	2,9	1,0	0300	3. POLLUTION DE L'ENVIRONNEMENT (LUTTE ET PREVENTION)
3,4	4,5	5,0	2,7	0,2	3,8	0400	4. PROTECTION ET PROMOTION DE LA SANTE HUMAINE
7,0	1,2	15,2	4,1	4,6	4,0	0500	5. PRODUCT.,DISTRIBUT. ET UTILIS. RATIONNELLE DE L'ENERGIE
3,5	23,8	3,9	4,5	17,6	4,6	0600	6. PRODUCTIVITE ET TECHNOLOGIE DE L'AGRICULTURE
11,2	28,9	21,3	17,3	6,9	9,8	0700	7. PRODUCTIVITE ET TECHNOLOGIE INDUSTRIELLES
2,8	9,8	1,2	2,6	1,1	1,3	0800	8. VIE EN SOCIETE (STRUCTURES ET RELATIONS)
6,1	1,9	6,5	3,1	-	2,6	0900	9. EXPLORATION ET EXPLOITATION DE L'ESPACE
12,3	22,4	27,1	41,0	32,3	15,3	1000	10. RECHERCHE FINANCEE PAR FONDS GENERAUX DES UNIVERSITES
14,8	2,2	6,6	9,9	0,6	3,0	1100	11. RECHERCHES NON ORIENTEES
1,1	-	1,2	3,9	11,3	0,3	1200	12. RECHERCHES NON VENTILEES
32,5	-	8,5	2,8	-	50,9	1300	13. DEFENSE
100,0	100,0	100,0	100,0	100,0	100,0	9900	TOTAL DES CREDITS

R&D FINANCING  
BY CHAPTERS OF NABS  
IN % OF TOTAL FINANCING

Nabs Objectives	Code	EC/CE	EUR 12	BL	DK	DE	GR	ES
1987								
1. EXPLORATION AND EXPLOITATION OF THE EARTH	0100	0,7	1,8	3,1	1,5	1,9	7,1	7,7
2. INFRASTRUCTURE AND GENERAL PLANNING OF LAND-USE	0200	0,6	2,2	0,7	2,3	1,9	0,3	0,2
3. CONTROL OF ENVIRONMENTAL POLLUTION	0300	5,3	1,7	2,2	1,3	3,3	2,1	2,0
4. PROTECTION AND IMPROVEMENT OF HUMAN HEALTH	0400	2,8	3,6	3,0	4,8	3,2	7,4	8,6
5. PRODUCTION, DISTRIBUTION AND RAT. UTILIZATION OF ENERGY	0500	51,6	7,1	9,5	4,3	8,7	3,6	3,1
6. AGRICULTURAL PRODUCTION AND TECHNOLOGY	0600	1,5	3,6	7,6	8,5	2,0	26,0	6,7
7. INDUSTRIAL PRODUCTION AND TECHNOLOGY	0700	33,2	13,7	12,8	16,2	15,3	11,2	21,5
8. SOCIAL STRUCTURES AND RELATIONSHIPS	0800	1,1	2,1	0,5	3,7	2,3	7,3	0,9
9. EXPLORATION AND EXPLOITATION OF SPACE	0900	1,5	5,4	9,8	2,6	4,9	0,4	8,8
10. RESEARCH FINANCED FROM GEN. UNIV. FUNDS (GUF)	1000	-	23,0	22,3	32,1	31,5	25,3	19,8
11. NON-ORIENTED RESEARCH	1100	1,8	10,7	23,6	22,3	12,3	6,7	8,5
12. OTHER CIVIL RESEARCH	1200	-	1,1	3,8	-	0,1	0,2	3,4
13. DEFENCE	1300	-	23,9	1,1	0,4	12,5	2,3	8,9
TOTAL EXPENDITURE	9900	100,0	100,0	100,0	100,0	100,0	100,0	100,0

FR	IR	IT	NL	PO	UK	Code	Objectifs Nabs
1987							
1,4	0,6	1,4	0,6	9,0	1,7	0100	1. EXPLORATION ET EXPLOITATION OU MILIEU TERRESTRE
3,2	4,2	0,8	4,6	10,5	1,6	0200	2. INFRASTRUCTURES ET AMENAGEMENT DES ESPACES
0,4	1,0	0,9	3,1	3,4	1,5	0300	3. POLLUTION DE L'ENVIRONNEMENT (LUTTE ET PREVENTION)
3,6	3,9	4,5	2,5	0,2	3,3	0400	4. PROTECTION ET PROMOTION DE LA SANTÉ HUMAINE
6,7	1,1	11,1	4,0	4,7	3,6	0500	5. PRODUCT.,DISTRIBUT. ET UTILIS. RATIONNELLE DE L'ÉNERGIE
3,6	24,2	3,5	4,3	14,2	4,3	0600	6. PRODUCTIVITÉ ET TECHNOLOGIE DE L'AGRICULTURE
10,6	27,2	19,1	17,6	6,2	9,9	0700	7. PRODUCTIVITÉ ET TECHNOLOGIE INDUSTRIELLES
2,7	10,0	1,2	2,4	1,3	1,2	0800	8. VIE EN SOCIÉTÉ (STRUCTURES ET RELATIONS)
5,9	2,3	9,3	2,8	-	2,6	0900	9. EXPLORATION ET EXPLOITATION DE L'ESPACE
12,0	23,0	31,9	40,7	30,5	15,3	1000	10. RECHERCHE FINANCÉE PAR FONDS GÉNÉRAUX DES UNIVERSITÉS
14,7	2,4	6,6	10,3	0,5	3,3	1100	11. RECHERCHES NON ORIENTÉES
1,0	-	1,9	4,4	19,5	0,3	1200	12. RECHERCHES NON VENTILÉES
34,1	-	7,8	2,8	-	51,2	1300	13. DÉFENSE
100,0	100,0	100,0	100,0	100,0	100,0	9900	TOTAL DES CRÉDITS

R&D FINANCING  
BY CHAPTERS OF NABS  
IN % OF FINANCING OF CIVIL R&D

Nabs Objectives	Code	EC/CE	EUR 12	BL	DK	DE	GR	ES
1985								
1. EXPLORATION AND EXPLOITATION OF THE EARTH	0100	1,5	:	3,1	1,3	2,4	5,7	7,2
2. INFRASTRUCTURE AND GENERAL PLANNING OF LAND-USE	0200	0,6	:	0,7	2,4	2,2	0,5	4,6
3. CONTROL OF ENVIRONMENTAL POLLUTION	0300	5,4	:	2,5	1,5	3,6	3,5	0,4
4. PROTECTION AND IMPROVEMENT OF HUMAN HEALTH	0400	4,2	:	2,7	3,3	3,4	7,8	2,7
5. PRODUCTION, DISTRIBUTION AND RAT. UTILIZATION OF ENERGY	0500	55,8	:	11,6	6,5	14,3	2,7	8,4
6. AGRICULTURAL PRODUCTION AND TECHNOLOGY	0600	2,8	:	7,1	7,5	2,3	27,9	7,8
7. INDUSTRIAL PRODUCTION AND TECHNOLOGY	0700	26,7	:	16,7	21,2	16,1	8,0	19,8
8. SOCIAL STRUCTURES AND RELATIONSHIPS	0800	0,5	:	0,7	4,2	2,6	5,8	0,8
9. EXPLORATION AND EXPLOITATION OF SPACE	0900	1,0	:	6,7	3,2	4,4	0,6	3,9
10. RESEARCH FINANCED FROM GEN. UNIV. FUNDS (GUF)	1000		:	22,5	31,1	35,7	29,1	22,8
11. NON-ORIENTED RESEARCH	1100	1,3		22,8	17,8	12,9	6,3	19,4
12. OTHER CIVIL RESEARCH	1200	-	:	2,7	-	0,1	2,1	2,3
TOTAL EXPENDITURE	9900	100,0	:	100,0	100,0	100,0	100,0	100,0
1986								
1. EXPLORATION AND EXPLOITATION OF THE EARTH	0100	0,8	2,3	3,2	1,6	2,3	7,2	5,8
2. INFRASTRUCTURE AND GENERAL PLANNING OF LAND-USE	0200	1,2	3,0	0,8	2,3	2,1	0,3	3,3
3. CONTROL OF ENVIRONMENTAL POLLUTION	0300	6,0	2,1	2,4	1,0	3,7	2,7	0,4
4. PROTECTION AND IMPROVEMENT OF HUMAN HEALTH	0400	4,1	4,7	3,1	6,1	3,5	7,7	3,5
5. PRODUCTION, DISTRIBUTION AND RAT. UTILIZATION OF ENERGY	0500	56,2	11,0	10,3	5,0	11,8	6,2	11,2
6. AGRICULTURAL PRODUCTION AND TECHNOLOGY	0600	1,9	4,9	7,5	7,8	2,3	25,4	5,6
7. INDUSTRIAL PRODUCTION AND TECHNOLOGY	0700	26,6	18,1	14,5	16,2	16,6	9,6	18,3
8. SOCIAL STRUCTURES AND RELATIONSHIPS	0800	0,8	2,8	0,7	4,5	2,6	6,7	0,9
9. EXPLORATION AND EXPLOITATION OF SPACE	0900	1,0	6,2	7,6	2,8	5,1	0,4	2,2
10. RESEARCH FINANCED FROM GEN. UNIV. FUNDS (GUF)	1000	-	29,4	23,1	33,7	35,9	27,2	23,2
11. NON-ORIENTED RESEARCH	1100	1,3	14,3	23,4	19,3	13,9	6,2	23,4
12. OTHER CIVIL RESEARCH	1200	-	1,2	3,3	-	0,2	0,3	2,1
TOTAL EXPENDITURE	9900	100,0	100,0	100,0	100,0	100,0	100,0	100,0



FINANCEMENT DU R&D  
PAR CHAPITRE DE NABS  
EN % DES CREDITS POUR LA R&D CIVILE

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FR	IR	IT	NL	PO	UK	Code	Objectifs Nabs
1985							
2,1	0,9	1,4	0,7	:	3,7	0100	1. EXPLORATION ET EXPLOITATION DU MILIEU TERRESTRE
4,5	4,0	1,2	4,2	:	2,5	0200	2. INFRASTRUCTURES ET AMENAGEMENT DES ESPACES
0,7	0,8	1,2	3,4	:	2,3	0300	3. POLLUTION DE L'ENVIRONNEMENT (LUTTE ET PREVENTION)
5,8	4,3	5,1	2,8	:	7,6	0400	4. PROTECTION ET PROMOTION DE LA SANTE HUMAINE
11,4	1,3	21,8	4,8	:	9,4	0500	5. PRODUCT.,DISTRIBUT. ET UTILIS. RATIONNELLE DE L'ENERGIE
5,2	28,7	4,2	4,7	:	9,6	0600	6. PRODUCTIVITE ET TECHNOLOGIE DE L'AGRICULTURE
17,7	28,9	22,9	16,0	:	14,0	0700	7. PRODUCTIVITE ET TECHNOLOGIE INDUSTRIELLES
3,7	7,5	1,2	2,7	:	2,5	0800	8. VIE EN SOCIETE (STRUCTURES ET RELATIONS)
8,2	1,6	7,9	1,0	:	3,8	0900	9. EXPLORATION ET EXPLOITATION DE L'ESPACE
17,3	19,7	24,1	44,8	:	30,4	1000	10. RECHERCHE FINANCEE PAR FONDS GENERAUX DES UNIVERSITES
21,0	2,2	8,4	10,6	:	13,6	1100	11. RECHERCHES NON ORIENTEES
2,-	-	0,7	4,6	:	0,5	1200	12. RECHERCHES NON VENTILEES
100,0	100,0	100,0	100,0	:	100,0	9900	TOTAL DES CREDITS
1986							
2,1	0,6	1,5	0,6	10,9	3,6	0100	1. EXPLORATION ET EXPLOITATION DU MILIEU TERRESTRE
4,8	3,9	1,1	4,4	11,6	3,1	0200	2. INFRASTRUCTURES ET AMENAGEMENT DES ESPACES
0,6	0,9	1,0	3,2	2,9	2,1	0300	3. POLLUTION DE L'ENVIRONNEMENT (LUTTE ET PREVENTION)
5,1	4,5	5,5	2,8	0,2	7,8	0400	4. PROTECTION ET PROMOTION DE LA SANTE HUMAINE
10,4	1,2	16,6	4,2	4,6	8,2	0500	5. PRODUCT.,DISTRIBUT. ET UTILIS. RATIONNELLE DE L'ENERGIE
5,2	23,8	4,3	4,7	17,6	9,3	0600	6. PRODUCTIVITE ET TECHNOLOGIE DE L'AGRICULTURE
16,6	28,9	23,3	17,8	6,9	20,0	0700	7. PRODUCTIVITE ET TECHNOLOGIE INDUSTRIELLES
4,2	9,8	1,3	2,7	1,1	2,7	0800	8. VIE EN SOCIETE (STRUCTURES ET RELATIONS)
9,1	1,9	7,1	3,2	-	5,2	0900	9. EXPLORATION ET EXPLOITATION DE L'ESPACE
18,3	22,4	29,6	42,2	32,3	31,2	1000	10. RECHERCHE FINANCEE PAR FONDS GENERAUX DES UNIVERSITES
21,9	2,2	7,2	10,2	0,6	6,2	1100	11. RECHERCHES NON ORIENTEES
1,7	-	1,4	4,0	11,3	0,6	1200	12. RECHERCHES NON VENTILEES
100,0	100,0	100,0	100,0	100,0	100,0	9900	TOTAL DES CREDITS

R&D FINANCING  
BY CHAPTERS OF NABS  
IN % OF FINANCING OF CIVIL R&D

Nabs Objectives	Code	EC/CE	EUR 12	BL	DK	DE	GR	ES
<b>1987</b>								
1. EXPLORATION AND EXPLOITATION OF THE EARTH	0100	0,7	2,4	3,1	1,5	2,2	7,3	8,4
2. INFRASTRUCTURE AND GENERAL PLANNING OF LAND-USE	0200	0,6	2,8	0,7	2,3	2,2	0,3	0,3
3. CONTROL OF ENVIRONMENTAL POLLUTION	0300	5,3	2,3	2,3	1,3	3,8	2,2	2,1
4. PROTECTION AND IMPROVEMENT OF HUMAN HEALTH	0400	2,8	4,8	3,0	4,8	3,7	7,6	9,4
5. PRODUCTION, DISTRIBUTION AND RAT. UTILIZATION OF ENERGY	0500	51,6	9,3	9,6	4,4	9,9	3,7	3,4
6. AGRICULTURAL PRODUCTION AND TECHNOLOGY	0600	1,5	4,8	7,7	8,6	2,3	26,6	7,4
7. INDUSTRIAL PRODUCTION AND TECHNOLOGY	0700	33,2	18,1	13,0	16,2	17,5	11,5	23,6
8. SOCIAL STRUCTURES AND RELATIONSHIPS	0800	1,1	2,7	0,5	3,7	2,6	7,5	0,9
9. EXPLORATION AND EXPLOITATION OF SPACE	0900	1,5	7,1	10,0	2,6	5,6	0,4	9,6
10. RESEARCH FINANCED FROM GEN. UNIV. FUNDS (GUF)	1000	-	30,3	22,5	32,2	36,0	25,9	21,7
11. NON-ORIENTED RESEARCH	1100	1,8	14,1	23,9	22,4	14,1	6,8	9,3
12. OTHER CIVIL RESEARCH	1200	-	1,4	3,8	-	0,2	0,2	3,8
TOTAL EXPENDITURE	9900	100,0	100,0	100,0	100,0	100,0	100,0	100,0

FR	IR	IT	NL	PO	UK	Code	Objectifs Nabs
							1987
2,2	0,6	1,5	0,6	9,0	3,5	0100	1. EXPLORATION ET EXPLOITATION DU MILIEU TERRESTRE
4,8	4,2	0,8	4,7	10,5	3,2	0200	2. INFRASTRUCTURES ET AMENAGEMENT DES ESPACES
0,7	1,0	1,0	3,1	3,4	3,1	0300	3. POLLUTION DE L'ENVIRONNEMENT (LUTTE ET PREVENTION)
5,5	3,9	4,9	2,6	0,2	6,9	0400	4. PROTECTION ET PROMOTION DE LA SANTÉ HUMAINE
10,2	1,1	12,0	4,1	4,7	7,5	0500	5. PRODUCT. DISTRIBUT. ET UTILIS. RATIONNELLE DE L'ÉNERGIE
5,4	24,2	3,8	4,4	14,2	8,8	0600	6. PRODUCTIVITÉ ET TECHNOLOGIE DE L'AGRICULTURE
16,2	27,2	20,7	18,2	6,2	20,3	0700	7. PRODUCTIVITÉ ET TECHNOLOGIE INDUSTRIELLES
4,1	10,0	1,3	2,5	1,3	2,5	0800	8. VIE EN SOCIÉTÉ (STRUCTURES ET RELATIONS)
9,0	2,3	10,1	2,9	-	5,4	0900	9. EXPLORATION ET EXPLOITATION DE L'ESPACE
18,2	23,0	34,6	41,9	30,5	31,4	1000	10. RECHERCHE FINANCÉE PAR FONDS GÉNÉRAUX DES UNIVERSITÉS
22,3	2,4	7,1	10,6	0,5	6,8	1100	11. RECHERCHES NON ORIENTÉES
1,6	-	2,0	4,5	19,5	0,6	1200	12. RECHERCHES NON VENTILÉES
100,0	100,0	100,0	100,0	100,0	100,0	9900	TOTAL DES CREDITS

R&D FINANCING  
BY CHAPTERS OF NABS  
IN ECU PER HEAD  
AT CURRENT VALUES AND EXCHANGE RATES

Nabs Objectives	Code	EUR 12	BL	DK	DE	GR	ES	
1985								
1. EXPLORATION AND EXPLOITATION OF THE EARTH	0100	:	2,0	1,1	3,3	0,6	1,4	
2. INFRASTRUCTURE AND GENERAL PLANNING OF LAND-USE	0200	:	0,5	2,0	3,0	0,1	0,9	
3. CONTROL OF ENVIRONMENTAL POLLUTION	0300	:	1,6	1,2	4,9	0,4	0,1	
4. PROTECTION AND IMPROVEMENT OF HUMAN HEALTH	0400	:	1,8	2,7	4,7	0,8	0,5	
5. PRODUCTION, DISTRIBUTION AND RAT. UTILIZATION OF ENERGY	0500	:	7,6	5,4	19,6	0,3	1,7	
6. AGRICULTURAL PRODUCTION AND TECHNOLOGY	0600	:	4,6	6,2	3,1	3,0	1,5	
7. INDUSTRIAL PRODUCTION AND TECHNOLOGY	0700	:	10,8	17,5	21,9	0,9	3,9	
8. SOCIAL STRUCTURES AND RELATIONSHIPS	0800	:	0,5	3,5	3,5	0,6	0,2	
9. EXPLORATION AND EXPLOITATION OF SPACE	0900	:	4,4	2,7	6,0	0,1	0,8	
10. RESEARCH FINANCED FROM GEN. UNIV. FUNDS (GUF)	1000	:	14,6	25,7	48,7	3,1	4,5	
11. NON-ORIENTED RESEARCH	1100	:	14,8	14,7	17,6	0,7	3,8	
12. OTHER CIVIL RESEARCH	1200	:	1,8	-	0,1	0,2	0,4	
13. DEFENCE	1300	:	1,0	0,4	18,5	0,3	1,3	
TOTAL EXPENDITURE	9900	:	66,0	83,1	154,8	11,0	21,0	
1986								
1. EXPLORATION AND EXPLOITATION OF THE EARTH	0100		2,0	2,1	1,6	3,4	0,7	1,1
2. INFRASTRUCTURE AND GENERAL PLANNING OF LAND-USE	0200		2,5	0,5	2,2	3,1	0,0	0,7
3. CONTROL OF ENVIRONMENTAL POLLUTION	0300		1,7	1,5	1,0	5,3	0,3	0,1
4. PROTECTION AND IMPROVEMENT OF HUMAN HEALTH	0400		4,0	2,1	6,0	5,0	0,7	0,7
5. PRODUCTION, DISTRIBUTION AND RAT. UTILIZATION OF ENERGY	0500		9,2	6,7	4,9	17,0	0,6	2,2
6. AGRICULTURAL PRODUCTION AND TECHNOLOGY	0600		4,1	4,9	7,7	3,3	2,4	1,1
7. INDUSTRIAL PRODUCTION AND TECHNOLOGY	0700		15,2	9,5	16,0	24,0	0,9	3,6
8. SOCIAL STRUCTURES AND RELATIONSHIPS	0800		2,4	0,5	4,4	3,8	0,6	0,2
9. EXPLORATION AND EXPLOITATION OF SPACE	0900		5,2	5,0	2,7	7,4	0,0	0,4
10. RESEARCH FINANCED FROM GEN. UNIV. FUNDS (GUF)	1000		24,7	15,1	33,3	52,0	2,6	4,6
11. NON-ORIENTED RESEARCH	1100		12,0	15,2	19,1	20,1	0,6	4,6
12. OTHER CIVIL RESEARCH	1200		1,0	2,2	-	0,2	0,0	0,4
13. DEFENCE	1300		26,4	1,1	0,4	19,9	0,3	1,0
TOTAL EXPENDITURE	9900		110,2	66,2	99,4	164,6	9,9	20,7

FR	IR	IT	NL	PO	UK	Code	Objectifs Nabs
1985							
2,6	0,3	0,8	0,7	:	2,5	0100	1. EXPLORATION ET EXPLOITATION DU MILIEU TERRESTRE
5,6	1,2	0,7	4,3	:	1,7	0200	2. INFRASTRUCTURES ET AMENAGEMENT DES ESPACES
0,9	0,2	0,7	3,5	:	1,5	0300	3. POLLUTION DE L'ENVIRONNEMENT (LUTTE ET PREVENTION)
7,1	1,3	2,9	2,9	:	5,0	0400	4. PROTECTION ET PROMOTION DE LA SANTE HUMAINE
14,1	0,4	12,6	4,9	:	6,2	0500	5. PRODUCT.,DISTRIBUT. ET UTILIS. RATIONNELLE DE L'ENERGIE
6,4	8,5	2,4	4,8	:	6,4	0600	6. PRODUCTIVITE ET TECHNOLOGIE DE L'AGRICULTURE
21,8	8,5	13,3	16,5	:	9,2	0700	7. PRODUCTIVITE ET TECHNOLOGIE INDUSTRIELLES
4,6	2,2	0,7	2,7	:	1,6	0800	8. VIE EN SOCIETE (STRUCTURES ET RELATIONS)
10,1	0,5	4,5	1,0	:	2,5	0900	9. EXPLORATION ET EXPLOITATION DE L'ESPACE
21,4	5,8	13,9	46,2	:	20,1	1000	10. RECHERCHE FINANCEE PAR FONDS GENERAUX DES UNIVERSITES
25,9	0,6	4,8	10,9	:	9,0	1100	11. RECHERCHES NON ORIENTEES
3,0	-	0,4	4,7	:	0,4	1200	12. RECHERCHES NON VENTILEES
56,3	-	6,4	3,3	:	71,3	1300	13. DEFENSE
179,9	29,6	64,3	106,4	:	137,3	9900	TOTAL DES CREDITS
1986							
2,6	0,2	1,0	0,7	1,0	2,1	0100	1. EXPLORATION ET EXPLOITATION DU MILIEU TERRESTRE
6,0	1,3	0,8	5,0	1,1	1,8	0200	2. INFRASTRUCTURES ET AMENAGEMENT DES ESPACES
0,8	0,3	0,7	3,6	0,3	1,2	0300	3. POLLUTION DE L'ENVIRONNEMENT (LUTTE ET PREVENTION)
6,4	1,5	3,9	3,2	-	4,6	0400	4. PROTECTION ET PROMOTION DE LA SANTE HUMAINE
13,1	0,4	11,7	4,8	0,4	4,8	0500	5. PRODUCT.,DISTRIBUT. ET UTILIS. RATIONNELLE DE L'ENERGIE
6,5	7,8	3,0	5,3	1,7	5,5	0600	6. PRODUCTIVITE ET TECHNOLOGIE DE L'AGRICULTURE
20,8	9,4	16,4	20,2	0,6	11,8	0700	7. PRODUCTIVITE ET TECHNOLOGIE INDUSTRIELLES
5,2	3,2	0,9	3,1	0,1	1,6	0800	8. VIE EN SOCIETE (STRUCTURES ET RELATIONS)
11,4	0,6	5,0	3,7	-	3,1	0900	9. EXPLORATION ET EXPLOITATION DE L'ESPACE
22,9	7,3	20,9	48,0	3,0	18,3	1000	10. RECHERCHE FINANCEE PAR FONDS GENERAUX DES UNIVERSITES
27,4	0,7	5,1	11,6	0,1	3,6	1100	11. RECHERCHES NON ORIENTEES
2,1	-	1,0	4,6	1,1	0,3	1200	12. RECHERCHES NON VENTILEES
60,3	-	6,6	3,3	-	61,0	1300	13. DEFENSE
185,5	32,7	77,0	117,0	9,4	119,7	9900	TOTAL DES CREDITS

R&D FINANCING  
BY CHAPTERS OF NABS  
PER 10,000 UNITS OF GDP

Nabs Objectives	Code	EUR 12	BL	DK	DE	GR	ES
<b>1985</b>							
1. EXPLORATION AND EXPLOITATION OF THE EARTH	0100	:	1,9	0,7	2,4	1,4	2,5
2. INFRASTRUCTURE AND GENERAL PLANNING OF LAND-USE	0200	:	0,4	1,3	2,2	0,1	1,6
3. CONTROL OF ENVIRONMENTAL POLLUTION	0300	:	1,5	0,8	3,6	0,9	0,1
4. PROTECTION AND IMPROVEMENT OF HUMAN HEALTH	0400	:	1,7	1,8	3,5	1,9	0,9
5. PRODUCTION, DISTRIBUTION AND RAT. UTILIZATION OF ENERGY	0500	:	7,1	3,6	14,5	0,7	2,9
6. AGRICULTURAL PRODUCTION AND TECHNOLOGY	0600	:	4,4	4,2	2,3	6,8	2,7
7. INDUSTRIAL PRODUCTION AND TECHNOLOGY	0700	:	10,2	11,8	16,2	1,9	6,8
8. SOCIAL STRUCTURES AND RELATIONSHIPS	0800	:	0,4	2,3	2,6	1,4	0,3
9. EXPLORATION AND EXPLOITATION OF SPACE	0900	:	4,1	1,8	4,5	0,1	1,3
10. RESEARCH FINANCED FROM GEN. UNIV. FUNDS (GUF)	1000	:	13,8	17,3	36,1	7,1	7,8
11. NON-ORIENTED RESEARCH	1100	:	14,0	9,9	13,1	1,5	6,6
12. OTHER CIVIL RESEARCH	1200	:	1,7	-	0,1	0,5	0,8
13. DEFENCE	1300	:	0,9	0,3	13,7	0,7	2,3
TOTAL EXPENDITURE	9900	:	62,3	55,9	114,9	25,2	36,5
<b>1986</b>							
1. EXPLORATION AND EXPLOITATION OF THE EARTH	0100		1,9	1,8	1,0	2,3	1,7
2. INFRASTRUCTURE AND GENERAL PLANNING OF LAND-USE	0200		2,4	0,4	1,4	2,1	0,1
3. CONTROL OF ENVIRONMENTAL POLLUTION	0300		1,7	1,3	0,6	3,6	0,7
4. PROTECTION AND IMPROVEMENT OF HUMAN HEALTH	0400		3,8	1,8	3,8	3,4	1,1
5. PRODUCTION, DISTRIBUTION AND RAT. UTILIZATION OF ENERGY	0500		8,7	5,9	3,1	11,4	1,5
6. AGRICULTURAL PRODUCTION AND TECHNOLOGY	0600		3,9	4,2	4,8	2,2	6,1
7. INDUSTRIAL PRODUCTION AND TECHNOLOGY	0700		14,4	8,2	10,1	16,0	2,3
8. SOCIAL STRUCTURES AND RELATIONSHIPS	0800		2,2	0,4	2,8	2,5	1,6
9. EXPLORATION AND EXPLOITATION OF SPACE	0900		4,9	4,3	1,7	5,0	0,7
10. RESEARCH FINANCED FROM GEN. UNIV. FUNDS (GUF)	1000		23,4	13,1	21,0	34,8	6,5
11. NON-ORIENTED RESEARCH	1100		11,3	13,2	12,0	13,5	1,5
12. OTHER CIVIL RESEARCH	1200		0,9	1,9	-	0,2	0,7
13. DEFENCE	1300		25,0	0,9	0,3	13,3	0,7
TOTAL EXPENDITURE	9900		104,5	57,6	62,6	110,2	24,6

FINANCEMENT DU R&D  
PAR CHAPITRE DE NABS  
PAR 10,000 UNITES DE PIB

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FR	IR	IT	NL	PO	UK	Code	Objectifs Nabs
1985							
2,2	0,4	1,0	0,6	:	2,4	0100	1. EXPLORATION ET EXPLOITATION DU MILIEU TERRESTRE
4,6	1,7	0,9	3,8	:	1,6	0200	2. INFRASTRUCTURES ET AMENAGEMENT DES ESPACES
0,7	0,3	0,8	3,1	:	1,5	0300	3. POLLUTION DE L'ENVIRONNEMENT (LUTTE ET PREVENTION)
5,8	1,8	3,6	2,5	:	4,8	0400	4. PROTECTION ET PROMOTION DE LA SANTE HUMAINE
11,5	0,6	15,3	4,3	:	6,0	0500	5. PRODUCT.,DISTRIBUT. ET UTILIS. RATIONNELLE DE L'ENERGIE
5,2	12,1	3,0	4,3	:	6,1	0600	6. PRODUCTIVITE ET TECHNOLOGIE DE L'AGRICULTURE
17,9	12,2	16,0	14,5	:	8,9	0700	7. PRODUCTIVITE ET TECHNOLOGIE INDUSTRIELLES
3,8	3,2	0,8	2,4	:	1,6	0800	8. VIE EN SOCIETE (STRUCTURES ET RELATIONS)
8,3	0,7	5,5	0,9	:	2,4	0900	9. EXPLORATION ET EXPLOITATION DE L'ESPACE
17,5	8,4	16,8	40,8	:	19,3	1000	10. RECHERCHE FINANCEE PAR FONDS GENERAUX DES UNIVERSITES
21,2	0,9	5,9	9,7	:	8,6	1100	11. RECHERCHES NON ORIENTEES
2,4	-	0,5	4,2	:	0,3	1200	12. RECHERCHES NON VENTILEES
46,0	-	7,7	2,9	:	68,7	1300	13. DEFENSE
147,2	42,4	77,6	94,0	:	132,3	9900	TOTAL DES CREDITS
1986							
2,0	0,3	1,1	0,6	3,4	2,2	0100	1. EXPLORATION ET EXPLOITATION DU MILIEU TERRESTRE
4,7	1,7	0,8	4,1	3,7	1,9	0200	2. INFRASTRUCTURES ET AMENAGEMENT DES ESPACES
0,6	0,4	0,8	3,0	0,9	1,3	0300	3. POLLUTION DE L'ENVIRONNEMENT (LUTTE ET PREVENTION)
5,0	2,0	4,3	2,6	0,1	4,7	0400	4. PROTECTION ET PROMOTION DE LA SANTE HUMAINE
10,1	0,5	12,9	4,0	1,4	5,0	0500	5. PRODUCT.,DISTRIBUT. ET UTILIS. RATIONNELLE DE L'ENERGIE
5,0	10,4	3,3	4,4	5,6	5,7	0600	6. PRODUCTIVITE ET TECHNOLOGIE DE L'AGRICULTURE
16,1	12,7	18,1	16,8	2,2	12,2	0700	7. PRODUCTIVITE ET TECHNOLOGIE INDUSTRIELLES
4,0	4,3	1,0	2,6	0,4	1,6	0800	8. VIE EN SOCIETE (STRUCTURES ET RELATIONS)
8,8	0,8	5,5	3,0	-	3,2	0900	9. EXPLORATION ET EXPLOITATION DE L'ESPACE
17,7	9,8	23,0	39,9	10,2	19,0	1000	10. RECHERCHE FINANCEE PAR FONDS GENERAUX DES UNIVERSITES
21,2	0,9	5,6	9,6	0,2	3,8	1100	11. RECHERCHES NON ORIENTEES
1,6	-	1,1	3,8	3,6	0,3	1200	12. RECHERCHES NON VENTILEES
46,7	-	7,2	2,7	-	63,1	1300	13. DEFENSE
143,7	43,8	84,7	97,2	31,7	124,0	9900	TOTAL DES CREDITS

Nabs Objectives	Code	EC/CE	EUR 12	BL	DK	DE	GR	ES
		1000 ECU	1000 ECU	1000 FB	1000 DKR	1000 DM	1000 DRA	MIO PTA
1. EXPLORATION AND EXPLOITATION OF THE EARTH	0100	5172	630941	892600	65350	437386	956218	6039
1.0 GENERAL RESEARCH	0188	-	:	:	:	94911	80000	:
1.1 MINERAL, OIL AND NATURAL GAS PROSPECTING	0110	3509	:	:	:	52947	566935	:
1.2 EXPLORATION AND EXPLOITATION OF THE SEA-BED	0120	-	:	:	:	26275	-	:
1.3 EARTH'S CRUST AND MANTLE EXCLUDING SEA-BED	0130	-	:	:	:	7002	-	:
1.4 HYDROLOGY	0140	-	:	:	:	16497	240972	:
1.5 SEA AND OCEANS	0150	-	:	:	:	99364	64311	:
1.6 ATMOSPHERE	0160	1663	:	:	:	56118	-	:
1.9 OTHER RESEARCH ON THE EXPLOR. AND EXPLOITATION OF THE EARTH	0190	-	:	:	:	84272	4000	:
2. INFRASTRUCTURE AND GENERAL PLANNING OF LAND-USE	0200	8016	800231	222200	90547	401096	39342	3514
2.0 GENERAL RESEARCH	0288	-	:	:	:	16868	2890	:
2.1 GENERAL PLANNING OF LAND USE	0210	-	:	:	:	63839	-	:
2.2 CONSTRUCTION AND PLANNING OF BUILDINGS	0220	-	:	:	:	23122	-	:
2.3 CIVIL ENGINEERING	0230	-	:	:	:	68427	26560	:
2.4 TRANSPORT SYSTEMS	0240	416	:	:	:	164980	-	:
2.5 TELECOMMUNICATIONS SYSTEMS	0250	7600	:	:	:	40710	1850	:
2.6 WATER SUPPLY	0260	-	:	:	:	23150	6518	:
2.9 OTHER RESEARCH ON THE INFRASTR. AND GENERAL PLANNING LAND-USE	0290	-	:	:	:	-	1524	:
3. CONTROL OF ENVIRONMENTAL POLLUTION	0300	39740	560893	661100	40548	690057	361850	403
3.0 GENERAL RESEARCH	0388	21628	:	:	:	390471	135099	:
3.1 WATER POLLUTION	0310	-	:	:	:	75092	74806	:
3.2 ATMOSPHERIC POLLUTION	0320	-	:	:	:	54603	40950	:
3.3 SOIL AND SUBSTRATUM POLLUTION	0330	3952	:	:	:	25933	8983	:
3.4 NOISE AND VIBRATION	0340	-	:	:	:	19964	2600	:
3.5 RADIOACTIVE POLLUTION	0350	14160	:	:	:	79633	48230	:
3.6 THERMAL POLLUTION	0360	-	:	:	:	-	300	:
3.7 POLLUTION BY SOLID WASTE MAT.	0370	-	:	:	:	44366	1800	:
3.9 OTHER SCIENT. RESEARCH ON THE POLLUTION OF THE ENVIRONMENT	0390	-	:	:	:	-	49082	:
4. PROTECTION AND IMPROVEMENT OF HUMAN HEALTH	0400	27202	1280588	885300	243370	655153	1023568	3714
4.0 GENERAL RESEARCH	0488	-	:	:	:	139902	345169	:
4.1 MEDICAL RESEARCH, HOSPITAL TREATMENT, SURGERY	0410	12723	:	:	:	256705	78346	:
4.2 PREVENTIVE MEDICINE	0420	10241	:	:	:	8171	28281	:
4.3 BIOLOGICAL ENGINEERING AND MEDICINES	0430	2160	:	:	:	97212	370141	:
4.4 OCCUPATIONAL MEDICINE	0440	2078	:	:	:	37539	500	:
4.5 NUTRITION AND FOOD HYGIENE	0450	-	:	:	:	39508	24403	:
4.6 DRUG ABUSE AND ADDICTION	0460	-	:	:	:	7800	-	:
4.7 SOCIAL MEDICINE	0470	-	:	:	:	17790	70140	:
4.8 HOSPITAL STRUCTURE AND ORGANISATION OF MEDICAL CARE	0480	-	:	:	:	30490	1000	:
4.9 OTHER MEDICAL RESEARCH	0490	-	:	:	:	20036	105588	:
5. PRODUCTION, DISTRIBUTION AND RAT. UTILIZATION OF ENERGY	0500	371287	2965105	2907100	199717	2213820	821198	11726
5.0 GENERAL RESEARCH	0588	4262	:	:	:	191143	36166	:
5.1 FOSSIL FUELS AND THEIR DERIVATIVES	0510	25303	:	:	:	267323	19688	:
5.2 NUCLEAR FISSION	0520	135898	:	:	:	1282689	131461	:
5.3 NUCLEAR FUSION	0530	185450	:	:	:	180661	-	:
5.4 RENEWABLE ENERGY SOURCES	0540	19308	:	:	:	116425	366427	:
5.5 RATIONAL UTILIZAT. OF ENERGY	0550	1066	:	:	:	173079	250461	:
5.9 OTHER RES. ON PROD.,DISTRIB. AND RAT. UTILIZAT. OF ENERGY	0590	-	:	:	:	2500	16995	:
6. AGRICULTURAL PRODUCTION AND TECHNOLOGY	0600	12735	1319243	2096400	312118	433128	3369272	5835



FR	IR	IT	NL	PO	UK		
1000 FF	1000 £	MIO LIT	1000 FL	1000 ESC	1000 £	Code	Objectifs Nabs
996000	548	85572	24489	1464200	80632	0100	1. EXPLORATION ET EXPLOITATION DU MILIEU TERRESTRE
:	-	17537	-	94300	68646	0188	1.0 RECHERCHES A CARACT. GENERAL
:	-	12175	833	361400	2115	0110	1.1 PROSPECTION MINIERE, PETROLIERE ET GAZIERE
:	-	1695	-	82400	202	0120	1.2 EXPLORATION ET EXPLOITATION DES PLATEAUX IMMERGES
:	-	15752	1352	74000	440	0130	1.3 CROUTE ET ENVELOPPE TERREST. HORMIS PLATEAUX IMMERGES
:	-	8177	735	210400	802	0140	1.4 HYDROLOGIE
:	-	17463	19366	312200	2645	0150	1.5 MERS ET OCEANS
:	548	4413	2204	69000	5669	0160	1.6 ATMOSPHERE
:	-	8360	-	260500	113	0190	1.9 AUTRES RECHER. CONC. EXPLORAT. ET EXPLOITAT. MILIEU TERREST.
2273000	3295	62930	173420	1567700	70360	0200	2. INFRASTRUCTURES ET AMENAGEMENT DES ESPACES
:	494	2410	-	31200	1446	0288	2.0 RECHERCHES A CARACT. GENERAL
:	1460	10738	29930	5800	9655	0210	2.1 AMENAGEMENT GENERAL DU TERRITOIRE
:	1033	10299	43109	362600	30407	0220	2.2 CONSTRUCTION ET AMENAGEMENT DE L'HABITAT
:	-	420	49872	943500	10470	0230	2.3 GENIE CIVIL
:	308	14577	33829	224600	14736	0240	2.4 SYSTEMES DE TRANSPORT
:	-	23320	249	:	1279	0250	2.5 SYST. DE TELECOMMUNICATIONS
:	-	420	16432	:	2367	0260	2.6 APPROVISIONNEMENT EN EAU
:	-	746	-	:	-	0290	2.9 AUTRES RECHER. CONC. INFRASTR. ET AMENAGEMENT DES ESPACES
300000	806	60721	126670	392800	46111	0300	3. POLLUTION DE L'ENVIRONNEMENT (LUTTE ET PREVENTION)
:	157	19403	48742	:	2631	0388	3.0 RECHERCHES A CARACT. GENERAL
:	394	11058	9743	197300	6259	0310	3.1 POLLUTION DE L'EAU
:	185	7263	34625	5000	12041	0320	3.2 POLLUTION DE L'ATMOSPHERE
:	-	3946	8843	:	96	0330	3.3 POLLUTION DU SOL ET DU SOUS-SOL
:	29	2304	7298	:	4263	0340	3.4 BRUIT ET VIBRATIONS
:	-	14640	2737	125800	18805	0350	3.5 NUISANCES RADIOACTIVES
:	-	-	-	:	-	0360	3.6 POLLUTION THERMIQUE
:	41	-	13671	:	2016	0370	3.7 POLLUTION PAR DECHETS SOLIDES
:	-	2107	1012	64700	-	0390	3.9 AUTRES RECHER. CONC. POLLUTION DE L'ENVIRONNEMENT
2408000	3840	324241	111034	31200	174550	0400	4. PROTECTION ET PROMOTION DE LA SANTE HUMAINE
:	-	141855	16951	:	148918	0488	4.0 RECHERCHES A CARACT. GENERAL
:	3310	39394	33248	:	1527	0410	4.1 RECHERCHES MED., TRAITEMENT HOSPITALIER, CHIRURGIE
:	530	24601	20870	:	298	0420	4.2 MEDECINE PREVENTIVE
:	-	95420	14511	:	3120	0430	4.3 GENIE BIOMED. ET MEDICAMENTS
:	-	2555	-	:	1107	0440	4.4 MEDECINE DU TRAVAIL
:	-	7947	17423	31200	8163	0450	4.5 HYGIENE ALIMENT. ET NUTRITION
:	-	5033	2006	:	158	0460	4.6 RISQUES DE TOXICOMANIE
:	-	420	398	:	726	0470	4.7 MEDECINE SOCIALE
:	-	1811	2609	:	5203	0480	4.8 STRUCTURES HOSPITALIERES ET ORGANISATION DES SOINS
:	-	5205	3018	:	5330	0490	4.9 AUTRES RECHERCHES MEDICALES
4920000	1023	980916	167452	615200	182750	0500	5. PRODUCT., DISTRIBUT. ET UTILIS. RATIONNELLE DE L'ENERGIE
:	-	30496	77447	258300	289	0588	5.0 RECHERCHES A CARACT. GENERAL
:	54	9397	17442	:	8122	0510	5.1 COMBUSTIBLES FOSSILES ET DERIVES
:	-	519168	47707	:	130215	0520	5.2 FISSION NUCLEAIRE
:	-	110858	7336	:	19280	0530	5.3 FUSION NUCLEAIRE
:	469	78635	6567	195700	13318	0540	5.4 SOURCES D'ENERGIE REHOUVELAB.
:	500	63537	8697	161200	3656	0550	5.5 UTILISATION RATIONNELLE DE L'ENERGIE
:	-	168825	2257	:	7870	0590	5.9 AUT. RECHER. CONC. PRODUCTION, DISTRIB. ET UTIL. RAT. ENERG.
2430000	20184	252880	186036	2367300	208423	0600	6. PRODUCTIVITE ET TECHNOLOGIE DE L'AGRICULTURE

Nabs Objectives	Code	EC/CE	EUR 12	BL	DK	DE	GR	ES
		1000 ECU	1000 ECU	1000 FB	1000 DKR	1000 DM	1000 DRA	MIO PTA
6.0 GENERAL RESEARCH	0688	1807	:	:	:	85120	415366	:
6.1 ANIMAL PRODUCTS	0610	173	:	:	:	37529	686130	:
6.2 FISHING AND FISH-FARMING	0620	350	:	:	:	41860	99556	:
6.3 VETERINARY MEDICINE	0630	412	:	:	:	8469	79395	:
6.4 CROPS	0640	370	:	:	:	128183	1731633	:
6.5 FORESTRY AND TIMBER PRODUCT.	0650	2824	:	:	:	49182	221000	:
6.6 FOOD TECHNOLOGY	0660	830	:	:	:	59855	53074	:
6.9 OTHER RES. ON AGRICULTURAL PRODUCTION AND TECHNOLOGY	0690	6469	:	:	:	22930	83119	:
7. INDUSTRIAL PRODUCTION AND TECHNOLOGY	0700	175677	4883327	4087600	649566	3114243	1280083	19225
7.0 GENERAL RESEARCH	0788	13178	:	:	:	390123	244135	:
7.1 INCREASING ECON. EFFICIENCY AND COMPETITIVENESS	0710	-	:	:	:	904791	123850	:
7.2 MANUFACT. AND PROCESSING TECH. AND MATERIALS RESEARCH	0720	19552	:	:	:	543800	643488	:
7.3 EXTRACT. AND PROCESSING OF NON ENERGY MIN. AND DERIVED PROD.	0730	19100	:	:	:	17382	32772	:
7.4 PRODUCTS OF CHEMICAL INDUSTRY	0740	540	:	:	:	8124	110673	:
7.4a PETROCHEMICAL AND COAL BY- PRODUCTS	0741	540	:	:	:	5325	34129	:
7.4b PHARMACEUTICAL PRODUCTS	0742	-	:	:	:	-	33592	:
7.5 MANUFACT. OF MOTOR VEHICLES A. OTHER MEANS OF TRANSPORT	0750	-	:	:	:	705091	16728	:
7.5a AEROSPACE EQUIPMENT MANUFACT. AND REPAIRING	0751	-	:	:	:	612610	10000	:
7.5b MANUFACTURE OF MOTOR VEHICLES AND PARTS	0752	-	:	:	:	-	4070	:
7.5c MANUFACTURE OF RAILWAY AND TRAMWAY EQUIPMENT	0753	-	:	:	:	-	-	:
7.5d SHIPBUILDING AND REPAIRING	0754	-	:	:	:	27781	1300	:
7.6 MANUF. OF OFFICE MACHINERY AND DATA-PROCESSING EQUIPMENT	0760	96000	:	:	:	212385	13900	:
7.7 ELECTRICAL AND ELECTRONIC ENGINEERING	0770	24912	:	:	:	307552	59655	:
7.7a ELECTRICAL ENGINEERING	0771	-	:	:	:	:	10600	:
7.7b TELECOMMUNICATIONS EQUIPMENT	0772	24912	:	:	:	303852	45100	:
7.8 MECHAN. A. INSTRUMENT ENGIN. AND OTHER METAL INDUSTRIES	0780	-	:	:	:	17550	12382	:
7.8a MECHANICAL ENGINEERING	0781	-	:	:	:	-	-	:
7.8b MANUF. MED. AND SURGICAL EQUIP AND ORTHOPAEDIC APPLIANCES	0782	-	:	:	:	-	12382	:
7.9 OTHER MANUFACTURING INDUST.	0790	2395	:	:	:	7445	22500	:
7.9a FOOD, DRINK AND TOBACCO IND.	0791	381	:	:	:	160	17000	:
7.9b TEXTILE INDUSTRY	0792	150	:	:	:	1255	5500	:
7.9c RECYCLING OF WASTE	0793	1864	:	:	:	6030	-	:
8. SOCIAL STRUCTURES AND RELATIONSHIPS	0800	5097	760471	209200	179524	489688	890650	957
8.0 GENERAL RESEARCH	0888	768	:	:	:	82730	39221	:
8.1 EDUC., TRAINING, RECURRENT EDUCATION AND RETRAINING	0810	-	:	:	:	174280	78340	:
8.2 CULTURAL ACTIVITIES	0820	1325	:	:	:	29809	25310	:
8.3 MANAGEMENT OF BUSINESSES AND INSTITUTIONS	0830	-	:	:	:	19845	25879	:
8.4 IMPROVEMENT OF WORKING COND.	0840	1577	:	:	:	59092	10550	:
8.5 SOCIAL SECURITY SYSTEM	0850	-	:	:	:	49202	35938	:
8.6 POLITICAL STRUCTURE OF SOC.	0860	-	:	:	:	43704	21929	:
8.7 SOCIAL CHANGE, SOC. PROCESSES AND SOCIAL CONFLICTS	0870	1427	:	:	:	30023	5505	:
8.9 OTHER RESEARCH WITH REGARD TO SOCIETY	0890	-	:	:	:	1003	647974	:
9. EXPLORATION AND EXPLOITATION OF SPACE	0900	6904	1681189	2147200	110841	964491	47100	2347
9.0 GENERAL RESEARCH	0908	-	:	:	:	133161	47100	:
9.1 SCIENTIFIC EXPLORATION OF SPACE	0910	6904	:	:	:	227130	-	:

FR	IR	IT	NL	PO	UK		
1000 FF	1000 £	MIO LIT	1000 FL	1000 ESC	1000 £	Code	Objectifs Nabs
:	1817	47983	149200	80000	16741	0688	6.0 RECHERCHES A CARACT. GENERAL
:	10304	18677	6875	269200	42812	0610	6.1 PRODUITS ANIMAUX
:	1192	5258	-	109800	15110	0620	6.2 PECHE ET PISCICULTURE
:	635	2596	-	379600	27851	0630	6.3 MEDECINE VETERINAIRE
:	4497	44330	29962	950200	89526	0640	6.4 PRODUITS VEGETAUX
:	1739	3636	-	170800	7338	0650	6.5 SYLVICULTURE ET INDUSTRIE DU BOIS
:	-	27797	-	163300	8699	0660	6.6 TECHNOLOGIE AGRO-ALIMENTAIRE
:	-	102603	-	244400	346	0690	6.9 AUT. RECHER. CONC. PRODUCTIV. ET TECHNOLOGIE DE L'AGRICUL.
7850000	24502	1374230	707563	924100	447871	0700	7. PRODUCTIVITE ET TECHNOLOGIE INDUSTRIELLES
:	1586	140692	12009	:	163965	0788	7.0 RECHERCHES A CARACT. GENERAL
:	15084	14684	465823	635900	4082	0710	7.1 ACCROISS. DE L'EFFICACITE ET COMPETITIVITE DE L'INDUSTRIE
:	1129	65817	27680	288200	32072	0720	7.2 TECHNIQ. FABRICAT., ENGINEERING ET RECHER. SUR LES MATERIAUX
:	4	55097	-	:	1864	0730	7.3 EXTRACT. ET TRANSFORM. MINER. NON ENERGET. ET PROD. DERIVES
:	-	160282	13349	:	5277	0740	7.4 PRODUITS DE L'INDUST. CHIMIQ.
:	-	47284	-	:	826	0741	7.4a PRODUITS DE LA PETROCHIMIE ET DE LA CARBOCHIMIE
:	-	102047	-	:	1812	0742	7.4b PRODUITS PHARMACEUTIQUES
:	4	90073	136773	:	140303	0750	7.5 CONSTRUCTION, MATERIEL DE TRANSPORT
:	-	70590	-	:	132613	0751	7.5a CONSTRUCTION AERONAUTIQUE
:	-	-	-	:	5370	0752	7.5b CONSTRUCTION DE MATERIEL DE TRANSPORT ROUTIER
:	-	20	-	:	-	0753	7.5c CONSTRUCTION DE MATERIEL FERROVIAIRE ROULANT
:	-	4000	-	:	2305	0754	7.5d CONSTRUCTION NAVALE
:	-	203541	-	:	5929	0760	7.6 CONSTR. MACH. BUR. ET DE MACH. ET INSTAL. TRAIT. INFORMAT.
:	2639	439721	746	:	65758	0770	7.7 MATERIEL ELECTRIQUE ET ELECTRONIQUE
:	7	37289	-	:	61311	0771	7.7a CONSTRUCTION ELECTRIQUE
:	2632	350692	-	:	4114	0772	7.7b MATERIEL DE TELECOMMUNICAT.
:	589	164724	6560	:	7162	0780	7.8 AUT. INDUS. TRANSFORM. METAUX ET MECANIQUE DE PRECISION
:	5	-	-	:	4054	0781	7.8a CONSTRUCTION DE MACHINES
:	12	-	-	:	2142	0782	7.8b FABRIC. MATER. MED.-CHIRURGIC. ET APPAREILS ORTHOPEDIQUES
:	3467	39599	44623	:	21459	0790	7.9 AUT. INDUSTRIES MANUFACTUR.
:	2993	10018	-	:	9554	0791	7.9a INDUSTRIE PRODUITS ALIMENT., BOISSONS ET DU TABAC
:	474	11617	-	:	676	0792	7.9b INDUSTRIE TEXTILE
:	-	200	-	:	768	0793	7.9c RECYCLAGE DES DECHETS
1967000	8283	79084	107644	154000	59778	0800	8. VIE EN SOCIETE (STRUCTURES ET RELATIONS)
:	1640	14020	40482	:	10556	0888	8.0 RECHERCHES A CARACT. GENERAL
:	1968	9890	24870	3800	34399	0810	8.1 ENSEIGNEMENT, FORMATION, PERFECTIONNEMENT ET RECYCLAGE
:	249	37345	17862	:	1024	0820	8.2 CULTURE
:	2795	6069	7320	:	1990	0830	8.3 GESTION D'ENTREPRISES ET D'ADMINISTRATIONS
:	63	722	-	:	430	0840	8.4 AMELIORATION DES CONDITIONS DE TRAVAIL
:	1368	4675	940	7700	1138	0850	8.5 ACTION SOCIALE
:	-	3480	7470		568	0860	8.6 STRUCTURE POLITIQUE DE LA SOCIETE
:	104	2571	698	5200	4082	0870	8.7 CHANGEMENT SOCIAL, PROCESSUS SOCIAUX, CONFLITS SOCIAUX
:	96	312	8003	137300	5591	0890	8.9 AUTRES RECHERCHES CONCERNANT LA VIE EN SOCIETE
4288000	1605	420878	128263	:	116510	0900	9. EXPLORATION ET EXPLOITATION DE L'ESPACE
:	1600	234954	3621	:	53800	0988	9.0 RECHERCHES A CARACT. GENERAL
:	-	64062	27706	:	714	0910	9.1 EXPLORATION SCIENTIFIQUE DE L'ESPACE

R&D FINANCING  
BY SECTION AND OUTSECTION OF NABS  
IN NATIONAL CURRENCIES  
AT CURRENT VALUES

1986

Nabs Objectives	Code	EC/CE	EUR 12	BL	DK	DE	GR	ES
		1000 ECU	1000 ECU	1000 FB	1000 DKR	1000 DM	1000 DRA	MIO PTA
9.2 APPLIED RESEARCH PROGRAMMES	0920	-	:	:	:	196550	-	:
9.3 LAUNCH SYSTEMS	0930	-	:	:	:	202000	-	:
9.4 SPACE LABORATORIES AND SPACE TRAVEL	0940	-	:	:	:	205650	-	:
9.9 OTHER RES. ON EXPLORATION AND EXPLOITATION OF SPACE	0990	-	:	:	:	-	-	:
10. RESEARCH FINANCED FROM GEN. UNIV. FUNDS (GUF)	1000	-	7951926	6506500	1353072	6749826	3611494	24385
10.0 MULTI-DISCIPLINARY RESEARCH	1088	-	:	:	-	-	-	:
10.1 MATHEMATICS AND NAT. SCIENCES	1010	-	:	:	431409	2127653	946009	:
10.2 ENGINEERING SCIENCES	1020	-	:	:	195408	1198494	913916	:
10.3 MEDICAL SCIENCES	1030	-	:	:	245414	1773469	1054475	:
10.4 AGRICULTURAL SCIENCES	1040	-	:	:	61253	331825	200507	:
10.5 SOCIAL SCIENCE AND HUMANITIES	1050	-	:	:	419588	1318385	496587	:
X10.1 EXPLORATION AND EXPLOITATION OF THE EARTH	1001	-	:	:	29975	:	-	:
X10.2 INFRASTRUCTURE AND GENERAL PLANNING OF LAND-USE	1002	-	:	:	58131	:	-	:
X10.3 CONTROL OF ENVIRONMENTAL POLLUTION	1003	-	:	:	36606	:	-	:
X10.4 PROTECTION AND IMPROVEMENT OF HUMAN HEALTH	1004	-	:	:	169129	:	-	:
X10.5 PRODUCTION, DISTRIBUTION AND RAT. UTILIZATION OF ENERGY	1005	-	:	:	43266	:	-	:
X10.6 AGRICULTURAL PRODUCTION AND TECHNOLOGY	1006	-	:	:	56563	:	-	:
X10.7 INDUSTRIAL PRODUCTION AND TECHNOLOGY	1007	-	:	:	99097	:	-	:
X10.8 SOCIAL STRUCTURES AND RELATIONSHIPS	1008	-	:	:	198955	:	-	:
X10.9 EXPLORATION AND EXPLOITATION OF SPACE	1009	-	:	:	13629	:	-	:
X10.0 OTHER CIVIL RESEARCH	1011	-	:	:	647739	:	-	:
11. NON-ORIENTED RESEARCH	1100	8898	3850076	6567800	774086	2611969	824768	24605
11.0 MULTI-DISCIPLINARY RESEARCH	1188	1774	:	:	:	448102	13691	:
11.1 MATHEMATICS AND NAT. SCIENCES	1110	3711	:	:	:	1854158	583811	:
11.2 ENGINEERING SCIENCES	1120	2437	:	:	:	74244	-	:
11.3 MEDICAL SCIENCES	1130	976	:	:	:	91923	-	:
11.4 AGRICULTURAL SCIENCES	1140	-	:	:	:	6486	-	:
11.5 SOC. SCIENCES AND HUMANITIES	1150	-	:	:	:	137056	227266	:
12. OTHER CIVIL RESEARCH	1200	-	318679	938900		30589	45969	2211
13. DEFENCE	1300	-	8489398	457500	17632	2590416	375221	5244
TOTAL EXPENDITURE	9900	660728	35492032	28579392	4036398	21381856	13646733	110203

FR	IR	IT	NL	PO	UK		
1000 FF	1000 £	MIO LIT	1000 FL	1000 ESC	1000 £	Code	Objectifs Nabs
:	5	104892	-	:	53736	0920	9.2 SYSTEMES D'APPLICATION
:	-	15848	-	:	4459	0930	9.3 SYSTEMES DE LANCEMENT
:	-	-	91119	:	3801	0940	9.4 STATIONS ORBITALES ET ASTRONAUTIQUES
:	-	1122	5817	:	-	0990	9.9 AUT. RECHER. CONC. EXPLORAT. ET EXPLOITATION DE L'ESPACE
8609000	18980	1747730	1679700	4350500	699000	1000	10. RECHERCHE FINANCEE PAR FONDS GENERAUX DES UNIVERSITES
:	120	-	92000	:	699000	1088	10.0 RECHERCHE INTERDISCIPLINAIRE
:	5968	514706	420000	:	-	1010	10.1 MATHÉMATIQUES ET SCIENC. NAT.
:	3599	265655	241600	:	-	1020	10.2 SCIENCES DE L'INGENIEUR
:	2972	401104	396000	:	-	1030	10.3 SCIENCES MÉDICALES
:	2095	164287	99000	:	-	1040	10.4 SCIENCES AGRICOLES
:	4226	401978	431100	:	-	1050	10.5 SCIENCES SOCIALES ET HUMAINES
:	:	:	:	-	:	1001	X10.1 EXPLORATION ET EXPLOITATION DU MILIEU TERRESTRE
:	:	:	:	-	:	1002	X10.2 INFRASTRUCTURES ET AMENAGEMENT DES ESPACES
:	:	:	:	-	:	1003	X10.3 POLLUTION DE L'ENVIRONNEMENT (LUTTE ET PREVENTION)
:	:	:	:	-	:	1004	X10.4 PROTECTION ET PROMOTION DE LA SANTÉ HUMAINE
:	:	:	:	-	:	1005	X10.5 PRODUCT., DISTRIBUT. ET UTILIS. RATIONNELLE DE L'ÉNERGIE
:	:	:	:	-	:	1006	X10.6 PRODUCTIVITÉ ET TECHNOLOGIE DE L'AGRICULTURE
:	:	:	:	-	:	1007	X10.7 PRODUCTIVITÉ ET TECHNOLOGIE INDUSTRIELLES
:	:	:	:	-	:	1008	X10.8 VIE EN SOCIÉTÉ (STRUCTURES ET RELATIONS)
:	:	:	:	-	:	1009	X10.9 EXPLORATION ET EXPLOITATION DE L'ESPACE
:	:	:	:	-	:	1011	X10.0 AUTRES RECHERCHES CIVILES
10330000	1829	426573	406135	75000	139004	1100	11. RECHERCHES NON ORIENTÉES
:		6262	38385		7283	1188	11.0 RECHERCHE MULTIDISCIPLINAIRE
:	1829	387909	282943	42200	115464	1110	11.1 SCIENCES MATHÉMATIQUES ET SCIENCES NATURELLES
:	-	8330	23726	32800	7209	1120	11.2 SCIENCES DE L'INGENIEUR
:	-	12360	21421	:	-	1130	11.3 SCIENCES MÉDICALES
:	-	-	-	:	-	1140	11.4 SCIENCES AGRICOLES
:	-	11712	39661	:	9048	1150	11.5 SCIENCES SOCIALES ET HUMAINES
786000	-	80025	160255	1528400	12746	1200	12. RECHERCHES NON VENTILÉES
22700000	-	548387	113800	-	2324030	1300	13. DÉFENSE
69857000	84895	6444167	4092463	13470400	4561765	9900	TOTAL DES CREDITS

Nabs Objectives	Code	EC/CE	EUR12	BL	DK	DE	GR	ES
1. EXPLORATION AND EXPLOITATION OF THE EARTH	0100	5172	630941	20383	8236	205569	6955	43930
1.0 GENERAL RESEARCH	0188	-	:	:	:	44608	582	:
1.1 MINERAL, OIL AND NATURAL GAS PROSPECTING	0110	3509	:	:	:	24885	4123	:
1.2 EXPLORATION AND EXPLOITATION OF THE SEA-BED	0120	-	:	:	:	12349	-	:
1.3 EARTH'S CRUST AND MANTLE EXCLUDING SEA-BED	0130	-	:	:	:	3291	-	:
1.4 HYDROLOGY	0140	-	:	:	:	7754	1753	:
1.5 SEA AND OCEANS	0150	-	:	:	:	46701	468	:
1.6 ATMOSPHERE	0160	1663	:	:	:	26375	-	:
1.9 OTHER RESEARCH ON THE EXPLOR. AND EXPLOITATION OF THE EARTH	0190	-	:	:	:	39607	29	:
2. INFRASTRUCTURE AND GENERAL PLANNING OF LAND-USE	0200	8016	800231	5074	11411	188513	286	25563
2.0 GENERAL RESEARCH	0288	-	:	:	:	7928	21	:
2.1 GENERAL PLANNING OF LAND USE	0210	-	:	:	:	30004	-	:
2.2 CONSTRUCTION AND PLANNING OF BUILDINGS	0220	-	:	:	:	10867	-	:
2.3 CIVIL ENGINEERING	0230	-	:	:	:	32160	193	:
2.4 TRANSPORT SYSTEMS	0240	416	:	:	:	77540	-	:
2.5 TELECOMMUNICATIONS SYSTEMS	0250	7600	:	:	:	19133	13	:
2.6 WATER SUPPLY	0260	-	:	:	:	10880	47	:
2.9 OTHER RESEARCH ON THE INFRASTR. AND GENERAL PLANNING LAND-USE	0290	-	:	:	:	-	11	:
3. CONTROL OF ENVIRONMENTAL POLLUTION	0300	39740	560893	15096	5110	324323	2632	2935
3.0 GENERAL RESEARCH	0388	21628	:	:	:	183519	983	:
3.1 WATER POLLUTION	0310	-	:	:	:	35293	544	:
3.2 ATMOSPHERIC POLLUTION	0320	-	:	:	:	25663	298	:
3.3 SOIL AND SUBSTRATUM POLLUTION	0330	3952	:	:	:	12188	65	:
3.4 NOISE AND VIBRATION	0340	-	:	:	:	9383	19	:
3.5 RADIOACTIVE POLLUTION	0350	14160	:	:	:	37427	351	:
3.6 THERMAL POLLUTION	0360	-	:	:	:	-	2	:
3.7 POLLUTION BY SOLID WASTE MAT.	0370	-	:	:	:	20852	13	:
3.9 OTHER SCIENT. RESEARCH ON THE POLLUTION OF THE ENVIRONMENT	0390	-	:	:	:	-	357	:
4. PROTECTION AND IMPROVEMENT OF HUMAN HEALTH	0400	27202	1280588	20216	30671	307919	7444	27021
4.0 GENERAL RESEARCH	0488	-	:	:	:	65753	2510	:
4.1 MEDICAL RESEARCH, HOSPITAL TREATMENT, SURGERY	0410	12723	:	:	:	120650	570	:
4.2 PREVENTIVE MEDICINE	0420	10241	:	:	:	3840	206	:
4.3 BIOMEDICAL ENGINEERING AND MEDICINES	0430	2160	:	:	:	45689	2692	:
4.4 OCCUPATIONAL MEDICINE	0440	2078	:	:	:	17643	4	:
4.5 NUTRITION AND FOOD HYGIENE	0450	-	:	:	:	18569	177	:
4.6 DRUG ABUSE AND ADDICTION	0460	-	:	:	:	3666	-	:
4.7 SOCIAL MEDICINE	0470	-	:	:	:	8361	510	:
4.8 HOSPITAL STRUCTURE AND ORGANISATION OF MEDICAL CARE	0480	-	:	:	:	14330	7	:
4.9 OTHER MEDICAL RESEARCH	0490	-	:	:	:	9417	768	:
5. PRODUCTION, DISTRIBUTION AND RAT. UTILIZATION OF ENERGY	0500	371287	2965105	66384	25170	1040484	5973	85303
5.0 GENERAL RESEARCH	0588	4262	:	:	:	89836	263	:
5.1 FOSSIL FUELS AND THEIR DERIVATIVES	0510	25303	:	:	:	125640	143	:
5.2 NUCLEAR FISSION	0520	135898	:	:	:	602857	956	:
5.3 NUCLEAR FUSION	0530	185450	:	:	:	84910	-	:
5.4 RENEWABLE ENERGY SOURCES	0540	19308	:	:	:	54719	2665	:
5.5 RATIONAL UTILIZAT. OF ENERGY	0550	1066	:	:	:	81346	1822	:
5.9 OTHER RES. ON PROD.,DISTRIB. AND RAT. UTILIZAT. OF ENERGY	0590	-	:	:	:	1175	124	:
6. AGRICULTURAL PRODUCTION AND TECHNOLOGY	0600	12735	1319243	47871	39335	203568	24505	42446

FR	IR	IT	NL	PO	UK	Code	Objectifs Nabs
146471	747	58540	10202	9949	119960	0100	1. EXPLORATION ET EXPLOITATION DU MILIEU TERRESTRE
:	-	11997	-	641	102128	0188	1.0 RECHERCHES A CARACT. GENERAL
:	-	8329	347	2456	3147	0110	1.1 PROSPECTION MINIERE, PETROLIERE ET GAZIERE
:	-	1160	-	560	301	0120	1.2 EXPLORATION ET EXPLOITATION DES PLATEAUX IMMERSGES
:	-	10776	563	503	655	0130	1.3 CROUTE ET ENVELOPPE TERREST. HORMIS PLATEAUX IMMERSGES
:	-	5594	306	1430	1193	0140	1.4 HYDROLOGIE
:	-	11946	8068	2121	3935	0150	1.5 MERS ET OCEANS
:	747	3019	918	469	8434	0160	1.6 ATMOSPHERE
:	-	5719	-	1770	168	0190	1.9 AUTRES RECHER. CONC. EXPLORAT. ET EXPLOITAT. MILIEU TERREST.
334265	4490	43050	72247	10653	104678	0200	2. INFRASTRUCTURES ET AMENAGEMENT DES ESPACES
:	673	1649	-	212	2151	0288	2.0 RECHERCHES A CARACT. GENERAL
:	1989	7346	12469	39	14364	0210	2.1 AMENAGEMENT GENERAL DU TERRITOIRE
:	1408	7046	17959	2464	45238	0220	2.2 CONSTRUCTION ET AMENAGEMENT DE L'HABITAT
:	-	287	20777	6411	15577	0230	2.3 GENIE CIVIL
:	420	9972	14093	1526	21923	0240	2.4 SYSTEMES DE TRANSPORT
:	-	15953	104	-	1903	0250	2.5 SYST. DE TELECOMMUNICATIONS
:	-	287	6846	-	3522	0260	2.6 APPROVISIONNEMENT EN EAU
:	-	510	-	-	-	0290	2.9 AUTRES RECHER. CONC. INFRASTR. ET AMENAGEMENT DES ESPACES
44118	1098	41539	52771	2669	68602	0300	3. POLLUTION DE L'ENVIRONNEMENT (LUTTE ET PREVENTION)
:	214	13274	20306	-	3914	0388	3.0 RECHERCHES A CARACT. GENERAL
:	537	7565	4059	1341	9312	0310	3.1 POLLUTION DE L'EAU
:	252	4969	14425	34	17914	0320	3.2 POLLUTION DE L'ATMOSPHERE
:	-	2699	3684	-	143	0330	3.3 POLLUTION DU SOL ET DU SOUS-SOL
:	40	1576	3040	-	6342	0340	3.4 BRUIT ET VIBRATIONS
:	-	10015	1140	855	27977	0350	3.5 NUISANCES RADIOACTIVES
:	-	-	-	-	-	0360	3.6 POLLUTION THERMIQUE
:	56	-	5695	-	2999	0370	3.7 POLLUTION PAR DECHETS SOLIDES
:	-	1441	422	440	-	0390	3.9 AUTRES RECHER. CONC. POLLUTION DE L'ENVIRONNEMENT
354118	5232	221813	46257	212	259687	0400	4. PROTECTION ET PROMOTION DE LA SANTE HUMAINE
:	-	97043	7062	-	221553	0488	4.0 RECHERCHES A CARACT. GENERAL
:	4510	26949	13851	-	2272	0410	4.1 RECHERCHES MED., TRAITEMENT HOSPITALIER, CHIRURGIE
:	722	16830	8695	-	443	0420	4.2 MEDECINE PREVENTIVE
:	-	65277	6045	-	4642	0430	4.3 GENIE BIOMED. ET MEDICAMENTS
:	-	1748	-	-	1647	0440	4.4 MEDECINE DU TRAVAIL
:	-	5437	7258	212	12144	0450	4.5 HYGIENE ALIMENT. ET NUTRITION
:	-	3443	836	-	235	0460	4.6 RISQUES DE TOXICOMANIE
:	-	287	166	-	1080	0470	4.7 MEDECINE SOCIALE
:	-	1239	1087	-	7741	0480	4.8 STRUCTURES HOSPITALIERES ET ORGANISATION DES SOINS
:	-	3561	1257	-	7930	0490	4.9 AUTRES RECHERCHES MEDICALES
723530	1394	671045	69761	4180	271886	0500	5. PRODUCT., DISTRIBUT. ET UTILIS. RATIONNELLE DE L'ENERGIE
:	-	20862	32265	1755	430	0588	5.0 RECHERCHES A CARACT. GENERAL
:	74	6428	7266	-	12083	0510	5.1 COMBUSTIBLES FOSSILES ET DERIVES
:	-	355163	19875	-	193727	0520	5.2 FISSION NUCLEAIRE
:	-	75838	3056	-	28684	0530	5.3 FUSION NUCLEAIRE
:	639	53794	2736	1330	19814	0540	5.4 SOURCES D'ENERGIE RENOUVELAB.
:	681	43466	3623	1095	5439	0550	5.5 UTILISATION RATIONNELLE DE L'ENERGIE
:	-	115493	940	-	11709	0590	5.9 AUT. RECHER. CONC. PRODUCTION, DISTRIB. ET UTIL. RAT. ENERG.
357353	27502	172995	77503	16086	310081	0600	6. PRODUCTIVITE ET TECHNOLOGIE DE L'AGRICULTURE

Nabs Objectives	Code	EC/CE	EUR12	BL	DK	DE	GR	ES
6.0 GENERAL RESEARCH	0688	1807	:	:	:	40006	3021	:
6.1 ANIMAL PRODUCTS	0610	173	:	:	:	17638	4990	:
6.2 FISHING AND FISH-FARMING	0620	350	:	:	:	19674	724	:
6.3 VETERINARY MEDICINE	0630	412	:	:	:	3980	577	:
6.4 CROPS	0640	370	:	:	:	60245	12594	:
6.5 FORESTRY AND TIMBER PRODUCT.	0650	2824	:	:	:	23115	1607	:
6.6 FOOD TECHNOLOGY	0660	830	:	:	:	28132	386	:
6.9 OTHER RES. ON AGRICULTURAL PRODUCTION AND TECHNOLOGY	0690	6469	:	:	:	10777	605	:
7. INDUSTRIAL PRODUCTION AND TECHNOLOGY	0700	175677	4883327	93340	81862	1463678	9310	139860
7.0 GENERAL RESEARCH	0788	13178	:	:	:	183356	1776	:
7.1 INCREASING ECON. EFFICIENCY AND COMPETITIVENESS	0710	-	:	:	:	425247	901	:
7.2 MANUFACT. AND PROCESSING TECH. AND MATERIALS RESEARCH	0720	19552	:	:	:	255583	4680	:
7.3 EXTRACT. AND PROCESSING OF NON ENERGY MIN. AND DERIVED PROD.	0730	19100	:	:	:	8169	238	:
7.4 PRODUCTS OF CHEMICAL INDUSTRY	0740	540	:	:	:	3818	805	:
7.4a PETROCHEMICAL AND COAL BY- PRODUCTS	0741	540	:	:	:	2503	248	:
7.4b PHARMACEUTICAL PRODUCTS	0742	-	:	:	:	-	244	:
7.5 MANUFACT. OF MOTOR VEHICLES A. OTHER MEANS OF TRANSPORT	0750	-	:	:	:	331389	122	:
7.5a AEROSPACE EQUIPMENT MANUFACT. AND REPAIRING	0751	-	:	:	:	287924	73	:
7.5b MANUFACTURE OF MOTOR VEHICLES AND PARTS	0752	-	:	:	:	-	30	:
7.5c MANUFACTURE OF RAILWAY AND TRAMWAY EQUIPMENT	0753	-	:	:	:	-	-	:
7.5d SHIPBUILDING AND REPAIRING	0754	-	:	:	:	13057	9	:
7.6 MANUF. OF OFFICE MACHINERY AND DATA-PROCESSING EQUIPMENT	0760	96000	:	:	:	99820	101	:
7.7 ELECTRICAL AND ELECTRONIC ENGINEERING	0770	24912	:	:	:	144548	434	:
7.7a ELECTRICAL ENGINEERING	0771	-	:	:	:	:	77	:
7.7b TELECOMMUNICATIONS EQUIPMENT	0772	24912	:	:	:	142809	328	:
7.8 MECHAN. A. INSTRUMENT ENGIN. AND OTHER METAL INDUSTRIES	0780	-	:	:	:	8248	90	:
7.8a MECHANICAL ENGINEERING	0781	-	:	:	:	-	-	:
7.8b MANUF. MED. AND SURGICAL EQUIP AND ORTHOPAEDIC APPLIANCES	0782	-	:	:	:	-	90	:
7.9 OTHER MANUFACTURING INDUST. FOOD, DRINK AND TOBACCO IND.	0790	2395	:	:	:	3499	164	:
7.9a	0791	381	:	:	:	75	124	:
7.9b TEXTILE INDUSTRY	0792	150	:	:	:	590	40	:
7.9c RECYCLING OF WASTE	0793	1864	:	:	:	2834	-	:
8. SOCIAL STRUCTURES AND RELATIONSHIPS	0800	5097	760471	4777	22625	230151	6478	6963
8.0 GENERAL RESEARCH	0888	768	:	:	:	38883	285	:
8.1 EDUC., TRAINING, RECURRENT EDUCATION AND RETRAINING	0810	-	:	:	:	81911	570	:
8.2 CULTURAL ACTIVITIES	0820	1325	:	:	:	14010	184	:
8.3 MANAGEMENT OF BUSINESSES AND INSTITUTIONS	0830	-	:	:	:	9327	188	:
8.4 IMPROVEMENT OF WORKING COND.	0840	1577	:	:	:	27773	77	:
8.5 SOCIAL SECURITY SYSTEM	0850	-	:	:	:	23125	261	:
8.6 POLITICAL STRUCTURE OF SOC.	0860	-	:	:	:	20541	159	:
8.7 SOCIAL CHANGE, SOC. PROCESSES AND SOCIAL CONFLICTS	0870	1427	:	:	:	14111	40	:
8.9 OTHER RESEARCH WITH REGARD TO SOCIETY	0890	-	:	:	:	471	4713	:
9. EXPLOATION AND EXPLOITATION OF SPACE	0900	6904	1681189	49031	13969	453306	343	17075
9.0 GENERAL RESEARCH	0988	-	:	:	:	62585	343	:
9.1 SCIENTIFIC EXPLORATION OF SPACE	0910	6904	:	:	:	106750	-	:



FR	IR	IT	NL	PO	UK	Code	Objectifs Nabs
:	2476	32825	62157	544	24906	0688	6.0 RECHERCHES A CARACT. GENERAL
:	14040	12777	2864	1829	63694	0610	6.1 PRODUITS ANIMAUX
:	1624	3597	-	746	22480	0620	6.2 PECHE ET PISCICULTURE
:	865	1776	-	2579	41435	0630	6.3 MEDECINE VETERINAIRE
:	6128	30326	12482	6457	133192	0640	6.4 PRODUITS VEGETAUX
:	2370	2487	-	1161	10917	0650	6.5 SYLVICULTURE ET INDUSTRIE DU BOIS
:	-	19016	-	1110	12942	0660	6.6 TECHNOLOGIE AGRO-ALIMENTAIRE
:	-	70191	-	1661	515	0690	6.9 AUT. RECHER. COHC. PRODUCTIV. ET TECHNOLOGIE DE L'AGRICUL.
1154412	33386	940111	294774	6279	666320	0700	7. PRODUCTIVITE ET TECHNOLOGIE INDUSTRIELLES
:	2161	96247	5003	-	243939	0788	7.0 RECHERCHES A CARACT. GENERAL
:	20553	10045	194064	4321	6073	0710	7.1 ACCROISS. DE L'EFFICACITE ET COMPETITIVITE DE L'INDUSTRIE
:	1538	45025	11532	1958	47715	0720	7.2 TECHNIQ. FABRICAT.,ENGINEERING ET RECHER. SUR LES MATERIAUX
:	5	37692	-	-	2773	0730	7.3 EXTRACT. ET TRANSFORM. MIHER. NON ENERGET. ET PROD. DERIVES
:	-	109649	5561	-	7851	0740	7.4 PRODUITS DE L'INDUST. CHIMIQ.
:	-	32347	-	-	1229	0741	7.4a PRODUITS DE LA PETROCHIMIE ET DE LA CARBOCHIMIE
:	-	69810	-	-	2696	0742	7.4b PRODUITS PHARMACEUTIQUES
:	5	61619	56980	-	208736	0750	7.5 CONSTRUCTION, MATERIEL DE TRANSPORT
:	-	48291	-	-	197295	0751	7.5a CONSTRUCTION AERONAUTIQUE
:	-	-	-	-	7989	0752	7.5b CONSTRUCTION DE MATERIEL DE TRANSPORT ROUTIER
:	-	14	-	-	-	0753	7.5c CONSTRUCTION DE MATERIEL FERROVIAIRE ROULANT
:	-	2736	-	-	3429	0754	7.5d CONSTRUCTION NAVALE
:	-	139242	-	-	8821	0760	7.6 CONSTR. MACH. BUR. ET DE MACH. ET INSTAL. TRAIT. INFORMAT.
:	3596	300813	311	-	97831	0770	7.7 MATERIEL ELECTRIQUE ET ELECTRONIQUE
:	10	25509	-	-	91215	0771	7.7a CONSTRUCTION ELECTRIQUE
:	3586	239908	-	-	6121	0772	7.7b MATERIEL DE TELECOMMUNICAT.
:	803	112688	2733	-	10655	0780	7.8 AUT. INDUS. TRANSFORM. METAUX ET MECANIQUE DE PRECISION
:	7	-	-	-	6031	0781	7.8a CONSTRUCTION DE MACHINES
:	16	-	-	-	3187	0782	7.8b FABRIC. MATER. MED.-CHIRURGIC. ET APPAREILS ORTHOPEDIQUES
:	4724	27090	18590	-	31926	0790	7.9 AUT. INDUSTRIES MANUFACTUR.
:	4078	6853	-	-	14214	0791	7.9a INDUSTRIE PRODUITS ALIMENT., BOISSONS ET DU TABAC
:	646	7947	-	-	1006	0792	7.9b INDUSTRIE TEXTILE
:	-	137	-	-	1143	0793	7.9c RECYCLAGE DES DECHETS
289265	11286	54101	44845	1046	88935	0800	8. VIE EN SOCIETE (STRUCTURES ET RELATIONS)
:	2235	9591	16865	-	15705	0888	8.0 RECHERCHES A CARACT. GENERAL
:	2682	6766	10361	26	51177	0810	8.1 ENSEIGNEMENT, FORMATION, PERFECTIONNEMENT ET RECYCLAGE
:	339	25548	7441	-	1523	0820	8.2 CULTURE
:	3808	4152	3050	-	2961	0830	8.3 GESTION D'ENTREPRISES ET D'ADMINISTRATIONS
:	86	494	-	-	640	0840	8.4 AMELIORATION DES CONDITIONS DE TRAVAIL
:	1864	3198	3392	52	1693	0850	8.5 ACTION SOCIALE
:	-	2381	3112	-	845	0860	8.6 STRUCTURE POLITIQUE DE LA SOCIETE
:	142	1759	291	35	6073	0870	8.7 CHANGEMENT SOCIAL, PROCESSUS SOCIAUX, CONFLITS SOCIAUX
:	131	213	3334	933	8318	0890	8.9 AUTRES RECHERCHES CONCERNANT LA VIE EN SOCIETE
630589	2187	287923	53435	-	173338	0900	9. EXPLORATION ET EXPLOITATION DE L'ESPACE
:	2180	160732	1509	-	80041	0908	9.0 RECHERCHES A CARACT. GENERAL
:	-	43025	11542	-	1062	0910	9.1 EXPLORATION SCIENTIFIQUE DE L'ESPACE

Nabs Objectives	Code	EC/CE	EUR12	BL	DK	DE	GR	ES
9.2 APPLIED RESEARCH PROGRAMMES	0920	-	:	:	:	92378	-	:
9.3 LAUNCH SYSTEMS	0930	-	:	:	:	94939	-	:
9.4 SPACE LABORATORIES AND SPACE TRAVEL	0940	-	:	:	:	96654	-	:
9.9 OTHER RES. ON EXPLORATION AND EXPLOITATION OF SPACE	0990	-	:	:	:	-	-	:
10. RESEARCH FINANCED FROM GEN. UNIV. FUNDS (GUF)	1000	-	7951926	148576	170522	3172384	26266	177401
10.0 MULTI-DISCIPLINARY RESEARCH	1088	-	:	:	-	-	-	:
10.1 MATHEMATICS AND NAT. SCIENCES	1010	-	:	:	54369	999986	6880	:
10.2 ENGINEERING SCIENCES	1020	-	:	:	24626	563286	6647	:
10.3 MEDICAL SCIENCES	1030	-	:	:	30929	833521	7669	:
10.4 AGRICULTURAL SCIENCES	1040	-	:	:	7719	155956	1458	:
10.5 SOCIAL SCIENCE AND HUMANITIES	1050	-	:	:	52879	619634	3612	:
X10.1 EXPLORATION AND EXPLOITATION OF THE EARTH	1001	-	:	:	3778	:	-	:
X10.2 INFRASTRUCTURE AND GENERAL PLANNING OF LAND-USE	1002	-	:	:	7326	:	-	:
X10.3 CONTROL OF ENVIRONMENTAL POLLUTION	1003	-	:	:	4613	:	-	:
X10.4 PROTECTION AND IMPROVEMENT OF HUMAN HEALTH	1004	-	:	:	21315	:	-	:
X10.5 PRODUCTION, DISTRIBUTION AND RAT. UTILIZATION OF ENERGY	1005	-	:	:	5453	:	-	:
X10.6 AGRICULTURAL PRODUCTION AND TECHNOLOGY	1006	-	:	:	7128	:	-	:
X10.7 INDUSTRIAL PRODUCTION AND TECHNOLOGY	1007	-	:	:	12489	:	-	:
X10.8 SOCIAL STRUCTURES AND RELATIONSHIPS	1008	-	:	:	25073	:	-	:
X10.9 EXPLORATION AND EXPLOITATION OF SPACE	1009	-	:	:	1718	:	-	:
X10.0 OTHER CIVIL RESEARCH	1011	-	:	:	81632	:	-	:
11. NON-ORIENTED RESEARCH	1100	8898	3850076	149976	97555	1227612	5999	179000
11.0 MULTI-DISCIPLINARY RESEARCH	1188	1774	:	:	:	210606	100	:
11.1 MATHEMATICS AND NAT. SCIENCES	1110	3711	:	:	:	871445	4246	:
11.2 ENGINEERING SCIENCES	1120	2437	:	:	:	34894	-	:
11.3 MEDICAL SCIENCES	1130	976	:	:	:	43203	-	:
11.4 AGRICULTURAL SCIENCES	1140	-	:	:	:	3048	-	:
11.5 SOC. SCIENCES AND HUMANITIES	1150	-	:	:	:	64416	1653	:
12. OTHER CIVIL RESEARCH	1200	-	318679	21440		14377	334	16084
13. DEFENCE	1300	-	8489398	10447	2222	1217482	2729	38149
TOTAL EXPENDITURE	9900	660728	35492032	652610	508691	10049364	99253	801730

FR	IR	IT	NL	PO	UK	Code	Objectifs Nabs
:	7	71757	-	-	79946	0920	9.2 SYSTEMES D'APPLICATION
:	-	10842	-	-	6634	0930	9.3 SYSTEMES DE LANCEMENT
:	-	-	37961	-	5655	0940	9.4 STATIONS ORBITALES ET ASTRONAUTIQUES
:	-	768	2423	-	-	0990	9.9 AUT. RECHER. CONC. EXPLORAT. ET EXPLOITATION DE L'ESPACE
1266030	25862	1195622	699770	29562	1039937	1000	10. RECHERCHE FINANCEE PAR FONDS GENERAUX DES UNIVERSITES
:	164	-	38328	-	1039937	1088	10.0 RECHERCHE INTERDISCIPLINAIRE
:	8132	352110	174974	-	-	1010	10.1 MATHÉMATIQUES ET SCIENC. NAT.
:	4904	181735	100652	-	-	1020	10.2 SCIENCES DE L'INGENIEUR
:	4050	274395	164975	-	-	1030	10.3 SCIENCES MEDICALES
:	2855	112389	41244	-	-	1040	10.4 SCIENCES AGRICOLES
:	5758	274993	179598	-	-	1050	10.5 SCIENCES SOCIALES ET HUMAINES
:	:	:	:	-	:	1001	X10.1 EXPLORATION ET EXPLOITATION DU MILIEU TERRESTRE
:	:	:	:	-	:	1002	X10.2 INFRASTRUCTURES ET AMENAGEMENT DES ESPACES
:	:	:	:	-	:	1003	X10.3 POLLUTION DE L'ENVIRONNEMENT (LUTTE ET PREVENTION)
:	:	:	:	-	:	1004	X10.4 PROTECTION ET PROMOTION DE LA SANTÉ HUMAINE
:	:	:	:	-	:	1005	X10.5 PRODUCT.,DISTRIBUT. ET UTILIS. RATIONNELLE DE L'ENERGIE
:	:	:	:	-	:	1006	X10.6 PRODUCTIVITE ET TECHNOLOGIE DE L'AGRICULTURE
:	:	:	:	-	:	1007	X10.7 PRODUCTIVITE ET TECHNOLOGIE INDUSTRIELLES
:	:	:	:	-	:	1008	X10.8 VIE EN SOCIETE (STRUCTURES ET RELATIONS)
:	:	:	:	-	:	1009	X10.9 EXPLORATION ET EXPLOITATION DE L'ESPACE
:	:	:	:	-	:	1011	X10.0 AUTRES RECHERCHES CIVILES
1519119	2492	291819	169197	510	206803	1100	11. RECHERCHES NON ORIENTEES
:	-	4284	15991	-	10835	1188	11.0 RECHERCHE MULTIDISCIPLINAIRE
:	2492	265369	117875	287	171781	1110	11.1 SCIENCES MATHÉMATIQUES ET SCIENCES NATURELLES
:	-	5699	9884	223	10725	1120	11.2 SCIENCES DE L'INGENIEUR
:	-	8455	8924	-	-	1130	11.3 SCIENCES MEDICALES
:	-	-	-	-	-	1140	11.4 SCIENCES AGRICOLES
:	-	8012	16523	-	13461	1150	11.5 SCIENCES SOCIALES ET HUMAINES
115588	-	54745	66763	10385	18963	1200	12. RECHERCHES NON VENTILEES
3338238	-	375152	47410	-	3457573	1300	13. DEFENSE
10273096	115676	4408454	1704936	91531	6786761	9900	TOTAL DES CREDITS

Nabs Objectives	Code	EC/CE	EUR 12	BL	DK	DE	GR	ES
1. EXPLORATION AND EXPLOITATION OF THE EARTH	0100	100,0	100,0	100,0	100,0	100,0	100,0	100,0
1.0 GENERAL RESEARCH	0188	-	:	:	:	21,7	8,4	:
1.1 MINERAL, OIL AND NATURAL GAS PROSPECTING	0110	67,8	:	:	:	12,1	59,3	:
1.2 EXPLORATION AND EXPLOITATION OF THE SEA-BED	0120	-	:	:	:	6,0	-	:
1.3 EARTH'S CRUST AND MANTLE EXCLUDING SEA-BED	0130	-	:	:	:	1,6	-	:
1.4 HYDROLOGY	0140	-	:	:	:	3,8	25,2	:
1.5 SEA AND OCEANS	0150	-	:	:	:	22,7	6,7	:
1.6 ATMOSPHERE	0160	32,2	:	:	:	12,8	-	:
1.9 OTHER RESEARCH ON THE EXPLOR. AND EXPLOITATION OF THE EARTH	0190	-	:	:	:	19,3	0,4	:
2. INFRASTRUCTURE AND GENERAL PLANNING OF LAND-USE	0200	100,0	100,0	100,0	100,0	100,0	100,0	100,0
2.0 GENERAL RESEARCH	0288	-	:	:	:	4,2	-	:
2.1 GENERAL PLANNING OF LAND USE	0210	-	:	:	:	15,9	-	:
2.2 CONSTRUCTION AND PLANNING OF BUILDINGS	0220	-	:	:	:	5,8	-	:
2.3 CIVIL ENGINEERING	0230	-	:	:	:	17,1	67,5	:
2.4 TRANSPORT SYSTEMS	0240	5,2	:	:	:	41,1	-	:
2.5 TELECOMMUNICATIONS SYSTEMS	0250	94,8	:	:	:	10,1	4,7	:
2.6 WATER SUPPLY	0260	-	:	:	:	5,8	16,6	:
2.9 OTHER RESEARCH ON THE INFRAST. AND GENERAL PLANNING LAND-USE	0290	-	:	:	:	0,0	3,9	:
3. CONTROL OF ENVIRONMENTAL POLLUTION	0300	100,0	100,0	100,0	100,0	100,0	100,0	100,0
3.0 GENERAL RESEARCH	0388	54,4	:	:	:	56,6	37,3	:
3.1 WATER POLLUTION	0310	-	:	:	:	10,9	20,7	:
3.2 ATMOSPHERIC POLLUTION	0320	-	:	:	:	7,9	11,3	:
3.3 SOIL AND SUBSTRATUM POLLUTION	0330	9,9	:	:	:	3,8	2,5	:
3.4 NOISE AND VIBRATION	0340	-	:	:	:	2,9	0,7	:
3.5 RADIOACTIVE POLLUTION	0350	35,6	:	:	:	11,5	13,3	:
3.6 THERMAL POLLUTION	0360	-	:	:	:	0,0	0,1	:
3.7 POLLUTION BY SOLID WASTE MAT.	0370	-	:	:	:	6,4	0,5	:
3.9 OTHER SCIENT. RESEARCH ON THE POLLUTION OF THE ENVIRONMENT	0390	-	:	:	:	0,0	13,6	:
4. PROTECTION AND IMPROVEMENT OF HUMAN HEALTH	0400	100,0	100,0	100,0	100,0	100,0	100,0	100,0
4.0 GENERAL RESEARCH	0488	-	:	:	:	21,4	33,7	:
4.1 MEDICAL RESEARCH, HOSPITAL TREATMENT, SURGERY	0410	46,8	:	:	:	39,2	7,7	:
4.2 PREVENTIVE MEDICINE	0420	37,6	:	:	:	1,2	2,8	:
4.3 BIOMEDICAL ENGINEERING AND MEDICINES	0430	7,9	:	:	:	14,8	36,2	:
4.4 OCCUPATIONAL MEDICINE	0440	7,6	:	:	:	5,7	-	:
4.5 NUTRITION AND FOOD HYGIENE	0450	-	:	:	:	6,0	2,4	:
4.6 DRUG ABUSE AND ADDICTION	0460	-	:	:	:	1,2	-	:
4.7 SOCIAL MEDICINE	0470	-	:	:	:	2,7	6,9	:
4.8 HOSPITAL STRUCTURE AND ORGANISATION OF MEDICAL CARE	0480	-	:	:	:	4,7	0,1	:
4.9 OTHER MEDICAL RESEARCH	0490	-	:	:	:	3,1	10,3	:
5. PRODUCTION, DISTRIBUTION AND RAT. UTILIZATION OF ENERGY	0500	100,0	100,0	100,0	100,0	100,0	100,0	100,0
5.0 GENERAL RESEARCH	0588	1,1	:	:	:	8,6	4,4	:
5.1 FOSSIL FUELS AND THEIR DERIVATIVES	0510	6,8	:	:	:	12,1	2,4	:
5.2 NUCLEAR FISSION	0520	36,6	:	:	:	57,9	16,0	:
5.3 NUCLEAR FUSION	0530	49,9	:	:	:	8,2	-	:
5.4 RENEWABLE ENERGY SOURCES	0540	5,2	:	:	:	5,3	44,6	:
5.5 RATIONAL UTILIZAT. OF ENERGY	0550	0,3	:	:	:	7,8	30,5	:
5.9 OTHER RES. ON PROD.,DISTRIB. AND RAT. UTILIZAT. OF ENERGY	0590	-	:	:	:	0,1	2,1	:
6. AGRICULTURAL PRODUCTION AND TECHNOLOGY	0600	100,0	100,0	100,0	100,0	100,0	100,0	100,0

FR	IR	IT	NL	PO	UK	Code	Objectifs Nabs
100,0	100,0	100,0	100,0	100,0	100,0	0100	1. EXPLORATION ET EXPLOITATION DU MILIEU TERRESTRE
:	-	20,5	-	6,4	85,1	0188	1.0 RECHERCHES A CARACT. GENERAL
:	-	14,2	3,4	24,7	2,6	0110	1.1 PROSPECTION MINIERE, PETROLIERE ET GAZIERE
:	-	2,0	-	5,6	0,3	0120	1.2 EXPLORATION ET EXPLOITATION DES PLATEAUX IMMERGES
:	-	18,4	5,5	5,1	0,5	0130	1.3 CROUTE ET ENVELOPPE TERREST. HORMIS PLATEAUX IMMERGES
:	-	9,6	3,0	14,4	1,0	0140	1.4 HYDROLOGIE
:	-	20,4	79,1	21,3	3,3	0150	1.5 MERS ET OCEANS
:	100,0	5,2	9,0	4,7	7,0	0160	1.6 ATMOSPHERE
:	-	9,8	-	17,8	0,1	0190	1.9 AUTRES RECHER. CONC. EXPLORAT. ET EXPLOITAT. MILIEU TERREST.
100,0	100,0	100,0	100,0	100,0	100,0	0200	2. INFRASTRUCTURES ET AMENAGEMENT DES ESPACES
:	15,0	3,8	-	2,0	2,1	0288	2.0 RECHERCHES A CARACT. GENERAL
:	44,3	17,1	17,3	0,4	13,7	0210	2.1 AMENAGEMENT GENERAL DU TERRITOIRE
:	31,4	16,4	24,9	23,1	43,2	0220	2.2 CONSTRUCTION ET AMENAGEMENT DE L'HABITAT
:	-	0,7	28,8	60,2	14,9	0230	2.3 GENIE CIVIL
:	9,3	23,2	19,5	14,3	20,9	0240	2.4 SYSTEMES DE TRANSPORT
:	-	37,1	0,1	-	1,8	0250	2.5 SYST. DE TELECOMMUNICATIONS
:	-	0,7	9,5	-	3,4	0260	2.6 APPROVISIONNEMENT EN EAU
:	-	1,2	-	-	-	0290	2.9 AUTRES RECHER. CONC. INFRASTR. ET AMENAGEMENT DES ESPACES
100,0	100,0	100,0	100,0	100,0	100,0	0300	3. POLLUTION DE L'ENVIRONNEMENT (LUTTE ET PREVENTION)
:	19,5	32,0	38,5	-	5,7	0388	3.0 RECHERCHES A CARACT. GENERAL
:	48,9	18,2	7,7	50,2	13,6	0310	3.1 POLLUTION DE L'EAU
:	23,0	12,0	27,3	1,3	26,1	0320	3.2 POLLUTION DE L'ATMOSPHERE
:	-	6,5	7,0	-	0,2	0330	3.3 POLLUTION DU SOL ET DU SOUS-SOL
:	3,6	3,8	5,8	-	9,2	0340	3.4 BRUIT ET VIBRATIONS
:	-	24,1	2,2	32,0	40,8	0350	3.5 NUISANCES RADIOACTIVES
:	-	-	-	-	-	0360	3.6 POLLUTION THERMIQUE
:	5,1	-	10,8	-	4,4	0370	3.7 POLLUTION PAR DECHETS SOLIDES
:	-	3,5	0,8	16,5	-	0390	3.9 AUTRES RECHER. CONC. POLLUTION DE L'ENVIRONNEMENT
100,0	100,0	100,0	100,0	100,0	100,0	0400	4. PROTECTION ET PROMOTION DE LA SANTE HUMAINE
:	-	43,7	15,3	-	85,3	0488	4.0 RECHERCHES A CARACT. GENERAL
:	86,2	12,1	29,9	-	0,9	0410	4.1 RECHERCHES MED., TRAITEMENT HOSPITALIER, CHIRURGIE
:	13,8	7,6	18,8	-	0,2	0420	4.2 MEDECINE PREVENTIVE
:	-	29,4	13,1	-	1,8	0430	4.3 GENIE BIOMED. ET MEDICAMENTS
:	-	0,8	-	-	0,6	0440	4.4 MEDECINE DU TRAVAIL
:	-	2,5	15,7	100,0	4,7	0450	4.5 HYGIENE ALIMENT. ET NUTRITION
:	-	1,6	1,8	-	0,1	0460	4.6 RISQUES DE TOXICOMANIE
:	-	0,1	0,4	-	0,4	0470	4.7 MEDECINE SOCIALE
:	-	0,6	2,3	-	3,0	0480	4.8 STRUCTURES HOSPITALIERES ET ORGANISATION DES SOINS
:	-	1,6	2,7	-	3,1	0490	4.9 AUTRES RECHERCHES MEDICALES
100,0	100,0	100,0	100,0	100,0	100,0	0500	5. PRODUCT., DISTRIBUT. ET UTILIS. RATIONNELLE DE L'ENERGIE
:	-	3,1	46,3	42,0	0,2	0588	5.0 RECHERCHES A CARACT. GENERAL
:	5,3	1,0	10,4	-	4,4	0510	5.1 COMBUSTIBLES FOSSILES ET DERIVES
:	-	52,9	28,5	-	71,3	0520	5.2 FISSION NUCLEAIRE
:	-	11,3	4,4	-	10,5	0530	5.3 FUSION NUCLEAIRE
:	45,8	8,0	3,9	31,8	7,3	0540	5.4 SOURCES D'ENERGIE RENOUVELAB.
:	48,9	6,5	5,2	26,2	2,0	0550	5.5 UTILISATION RATIONNELLE DE L'ENERGIE
:	-	17,2	1,3	-	4,3	0590	5.9 AUT. RECHER. CONC. PRODUCTION, DISTRIB. ET UTIL. RAT. ENERG.
100,0	100,0	100,0	100,0	100,0	100,0	0600	6. PRODUCTIVITE ET TECHNOLOGIE DE L'AGRICULTURE

Nabs Objectives	Code	EC/CE	EUR 12	BL	DK	DE	GR	ES
6.0 GENERAL RESEARCH	0688	14,2	:	:	:	19,7	12,3	:
6.1 ANIMAL PRODUCTS	0610	1,4	:	:	:	8,7	20,4	:
6.2 FISHING AND FISH-FARMING	0620	2,7	:	:	:	9,7	3,0	:
6.3 VETERINARY MEDICINE	0630	3,2	:	:	:	2,0	2,4	:
6.4 CROPS	0640	2,9	:	:	:	29,6	51,4	:
6.5 FORESTRY AND TIMBER PRODUCT.	0650	22,2	:	:	:	11,4	6,6	:
6.6 FOOD TECHNOLOGY	0660	6,5	:	:	:	13,8	1,6	:
6.9 OTHER RES. ON AGRICULTURAL PRODUCTION AND TECHNOLOGY	0690	50,8	:	:	:	5,3	2,5	:
7. INDUSTRIAL PRODUCTION AND TECHNOLOGY	0700	100,0	100,0	100,0	100,0	100,0	100,0	100,0
7.0 GENERAL RESEARCH	0788	7,5	:	:	:	12,5	19,1	:
7.1 INCREASING ECON. EFFICIENCY AND COMPETITIVENESS	0710	-	:	:	:	29,1	9,7	:
7.2 MANUFACT. AND PROCESSING TECH. AND MATERIALS RESEARCH	0720	11,1	:	:	:	17,5	50,3	:
7.3 EXTRACT. AND PROCESSING OF NON ENERGY MIN. AND DERIVED PROD.	0730	10,9	:	:	:	0,6	2,6	:
7.4 PRODUCTS OF CHEMICAL INDUSTRY	0740	0,3	:	:	:	0,3	8,6	:
7.4a PETROCHEMICAL AND COAL BY- PRODUCTS	0741	0,3	:	:	:	0,2	2,7	:
7.4b PHARMACEUTICAL PRODUCTS	0742	-	:	:	:	0,0	2,6	:
7.5 MANUFACT. OF MOTOR VEHICLES A. OTHER MEANS OF TRANSPORT	0750	-	:	:	:	22,6	1,3	:
7.5a AEROSPACE EQUIPMENT MANUFACT. AND REPAIRING	0751	-	:	:	:	19,7	0,8	:
7.5b MANUFACTURE OF MOTOR VEHICLES AND PARTS	0752	-	:	:	:	-	0,3	:
7.5c MANUFACTURE OF RAILWAY AND TRAMWAY EQUIPMENT	0753	-	:	:	:	-	-	:
7.5d SHIPBUILDING AND REPAIRING	0754	-	:	:	:	0,9	0,1	:
7.6 MANUF. OF OFFICE MACHINERY AND DATA-PROCESSING EQUIPMENT	0760	54,6	:	:	:	6,8	1,1	:
7.7 ELECTRICAL AND ELECTRONIC ENGINEERING	0770	14,2	:	:	:	9,9	4,7	:
7.7a ELECTRICAL ENGINEERING	0771	-	:	:	:	-	0,8	:
7.7b TELECOMMUNICATIONS EQUIPMENT	0772	14,2	:	:	:	9,8	3,5	:
7.8 MECHAN. A. INSTRUMENT ENGIN. AND OTHER METAL INDUSTRIES	0780	-	:	:	:	0,6	1,0	:
7.8a MECHANICAL ENGINEERING	0781	-	:	:	:	-	-	:
7.8b MANUF. MED. AND SURGICAL EQUIP AND ORTHOPAEDIC APPLIANCES	0782	-	:	:	:	-	1,0	:
7.9 OTHER MANUFACTURING INDUST. FOOD, DRINK AND TOBACCO IND.	0790	1,4	:	:	:	0,2	1,8	:
7.9a	0791	0,2	:	:	:	-	1,3	:
7.9b TEXTILE INDUSTRY	0792	0,1	:	:	:	-	0,4	:
7.9c RECYCLING OF WASTE	0793	1,1	:	:	:	0,2	-	:
8. SOCIAL STRUCTURES AND RELATIONSHIPS	0800	100,0	100,0	100,0	100,0	100,0	100,0	100,0
8.0 GENERAL RESEARCH	0888	15,1	:	:	:	16,9	4,4	:
8.1 EDUC., TRAINING, RECURRENT EDUCATION AND RETRAINING	0810	-	:	:	:	35,6	8,8	:
8.2 CULTURAL ACTIVITIES	0820	26,0	:	:	:	6,1	2,8	:
8.3 MANAGEMENT OF BUSINESSES AND INSTITUTIONS	0830	-	:	:	:	4,1	2,9	:
8.4 IMPROVEMENT OF WORKING COND.	0840	30,9	:	:	:	12,1	1,2	:
8.5 SOCIAL SECURITY SYSTEM	0850	-	:	:	:	10,0	4,0	:
8.6 POLITICAL STRUCTURE OF SOC.	0860	-	:	:	:	8,9	2,5	:
8.7 SOCIAL CHANGE, SOC. PROCESSES AND SOCIAL CONFLICTS	0870	28,0	:	:	:	6,1	0,6	:
8.9 OTHER RESEARCH WITH REGARD TO SOCIETY	0890	-	:	:	:	0,2	72,8	:
9. EXPLORATION AND EXPLOITATION OF SPACE	0900	100,0	100,0	100,0	100,0	100,0	100,0	100,0
9.0 GENERAL RESEARCH	0988	-	:	:	:	13,8	100,0	:
9.1 SCIENTIFIC EXPLORATION OF SPACE	0910	100,0	:	:	:	23,5	-	:

FR	IR	IT	NL	PO	UK	Code	Objectifs Nabs
:	9,0	19,0	80,2	3,4	8,0	0688	6.0 RECHERCHES A CARACT. GENERAL
:	51,1	7,4	3,7	11,4	20,5	0610	6.1 PRODUITS ANIMAUX
:	5,9	2,1	-	4,6	7,2	0620	6.2 PECHE ET PISCICULTURE
:	3,1	1,0	-	16,0	13,4	0630	6.3 MEDECINE VETERINAIRE
:	22,3	17,5	16,1	40,1	43,0	0640	6.4 PRODUITS VEGETAUX
:	8,6	1,4	0,0	7,2	3,5	0650	6.5 SYLVICULTURE ET INDOUSTRIE DU BOIS
:	-	11,0	-	6,9	4,2	0660	6.6 TECHNOLOGIE AGRO-ALIMENTAIRE
:	-	40,6	-	10,3	0,2	0690	6.9 AUT. RECHER. CONC. PRODUCTIV. ET TECHNOLOGIE DE L'AGRICUL.
100,0	100,0	100,0	100,0	100,0	100,0	0700	7. PRODUCTIVITE ET TECHNOLOGIE INDUSTRIELLES
:	6,5	10,2	-	-	36,6	0708	7.0 RECHERCHES A CARACT. GENERAL
:	61,6	1,1	-	68,8	0,9	0710	7.1 ACCROISS. DE L'EFFICACITE ET COMPETITIVITE DE L'INDUSTRIE
:	4,6	4,8	-	31,2	7,2	0720	7.2 TECHNIQ. FABRICAT.,ENGINEERING ET RECHER. SUR LES MATERIAUX
:	-	4,0	-	-	0,4	0730	7.3 EXTRACT. ET TRANSFORM. MINER. NON ENERGET. ET PROD. OERIVES
:	-	11,7	-	-	1,2	0740	7.4 PRODUITS DE L'INDUST. CHIMIQ.
:	-	3,4	-	-	0,2	0741	7.4a PRODUITS DE LA PETROCHIMIE ET DE LA CARBOCHIMIE
:	-	7,4	-	-	0,4	0742	7.4b PRODUITS PHARMACEUTIQUES
:	-	6,6	-	-	31,3	0750	7.5 CONSTRUCTION, MATERIEL DE TRANSPORT
:	-	5,1	-	-	29,6	0751	7.5a CONSTRUCTION AERONAUTIQUE
:	-	-	-	-	1,2	0752	7.5b CONSTRUCTION DE MATERIEL DE TRANSPORT ROUTIER
:	-	-	-	-	-	0753	7.5c CONSTRUCTION DE MATERIEL FERROVIAIRE ROULANT
:	-	0,3	-	-	0,5	0754	7.5d CONSTRUCTION NAVALE
:	-	14,8	-	-	1,3	0760	7.6 CONSTR. MACH. BUR. ET DE MACH. ET INSTAL. TRAIT. INFORMAT.
:	10,8	32,0	-	-	14,7	0770	7.7 MATERIEL ELECTRIQUE ET ELECTRONIQUE
:	-	2,7	-	-	13,7	0771	7.7a CONSTRUCTION ELECTRIQUE
:	10,7	25,5	-	-	0,9	0772	7.7b MATERIEL DE TELECOMMUNICAT.
:	2,4	12,0	-	-	1,6	0780	7.8 AUT. INDUS. TRANSFORM. METAUX ET MECANIQUE DE PRECISION
:	-	-	-	-	0,9	0781	7.8a CONSTRUCTION DE MACHINES
:	-	-	-	-	0,5	0782	7.8b FABRIC. MATER. MED.-CHIRURGIC. ET APPAREILS ORTHOPEDIQUES
:	14,1	2,9	-	-	4,8	0790	7.9 AUT. INDUSTRIES MANUFACTUR.
:	12,2	0,7	-	-	2,1	0791	7.9a INDUSTRIE PRODUITS ALIMENT., BOISSONS ET DU TABAC
:	1,9	0,8	-	-	0,2	0792	7.9b INDUSTRIE TEXTILE
:	-	0,0	-	-	0,2	0793	7.9c RECYCLAGE DES DECHETS
100,0	100,0	100,0	100,0	100,0	100,0	0800	8. VIE EN SOCIETE (STRUCTURES ET RELATIONS)
:	19,8	17,7	-	-	17,7	0888	8.0 RECHERCHES A CARACT. GENERAL
:	23,8	12,5	-	2,5	57,5	0810	8.1 ENSEIGNEMENT, FORMATION, PERFECTIONNEMENT ET RECYCLAGE
:	3,0	47,2	-	-	1,7	0820	8.2 CULTURE
:	33,7	7,7	-	-	3,3	0830	8.3 GESTION D'ENTREPRISES ET D'ADMINISTRATIONS
:	0,8	0,9	-	-	0,7	0840	8.4 AMELIORATION DES CONDITIONS DE TRAVAIL
:	16,5	5,9	-	5,0	1,9	0850	8.5 ACTION SOCIALE
:	-	4,4	-	-	1,0	0860	8.6 STRUCTURE POLITIQUE DE LA SOCIETE
:	1,3	3,3	-	3,4	6,8	0870	8.7 CHANGEMENT SOCIAL, PROCESSUS SOCIAUX, CONFLITS SOCIAUX
:	1,2	0,4	-	89,2	9,4	0890	8.9 AUTRES RECHERCHES CONCERNANT LA VIE EN SOCIETE
100,0	100,0	100,0	100,0	-	100,0	0900	9. EXPLORATION ET EXPLOITATION DE L'ESPACE
:	99,7	55,8	2,8	-	46,2	0908	9.0 RECHERCHES A CARACT. GENERAL
:	-	15,2	21,6	-	0,6	0910	9.1 EXPLORATION SCIENTIFIQUE DE L'ESPACE

Nabs Objectives	Code	EC/CE	EUR 12	BL	DK	DE	GR	ES
9.2 APPLIED RESEARCH PROGRAMMES	0920	-	:	:	:	20,4	-	:
9.3 LAUNCH SYSTEMS	0930	-	:	:	:	20,9	-	:
9.4 SPACE LABORATORIES AND SPACE TRAVEL	0940	-	:	:	:	21,3	-	:
9.9 OTHER RES. ON EXPLORATION AND EXPLOITATION OF SPACE	0990	-	:	:	:	-	-	:
10. RESEARCH FINANCED FROM GEN. UNIV. FUNDS (GUF)	1000	-	100,0	100,0	100,0	100,0	100,0	100,0
10.0 MULTI-DISCIPLINARY RESEARCH	1088	-	:	:	0,0	-	-	:
10.1 MATHEMATICS AND NAT. SCIENCES	1010	-	:	:	31,9	31,5	26,2	:
10.2 ENGINEERING SCIENCES	1020	-	:	:	14,4	17,8	25,3	:
10.3 MEDICAL SCIENCES	1030	-	:	:	18,1	26,3	29,2	:
10.4 AGRICULTURAL SCIENCES	1040	-	:	:	4,5	4,9	5,6	:
10.5 SOCIAL SCIENCE AND HUMANITIES	1050	-	:	:	31,0	19,5	13,8	:
X10.1 EXPLORATION AND EXPLOITATION OF THE EARTH	1001	-	:	:	2,2	:	-	:
X10.2 INFRASTRUCTURE AND GENERAL PLANNING OF LAND-USE	1002	-	:	:	4,3	:	-	:
X10.3 CONTROL OF ENVIRONMENTAL POLLUTION	1003	-	:	:	2,7	:	-	:
X10.4 PROTECTION AND IMPROVEMENT OF HUMAN HEALTH	1004	-	:	:	12,5	:	-	:
X10.5 PRODUCTION, DISTRIBUTION AND RAT. UTILIZATION OF ENERGY	1005	-	:	:	3,2	:	-	:
X10.6 AGRICULTURAL PRODUCTION AND TECHNOLOGY	1006	-	:	:	4,2	:	-	:
X10.7 INDUSTRIAL PRODUCTION AND TECHNOLOGY	1007	-	:	:	7,3	:	-	:
X10.8 SOCIAL STRUCTURES AND RELATIONSHIPS	1008	-	:	:	14,7	:	-	:
X10.9 EXPLORATION AND EXPLOITATION OF SPACE	1009	-	:	:	1,0	:	-	:
X10.0 OTHER CIVIL RESEARCH	1011	-	:	:	47,9	:	-	:
11. NON-ORIENTED RESEARCH	1100	100,0	100,0	100,0	100,0	100,0	100,0	100,0
11.0 MULTI-DISCIPLINARY RESEARCH	1188	19,9	:	:	:	17,2	1,7	:
11.1 MATHEMATICS AND NAT. SCIENCES	1110	41,7	:	:	:	71,0	70,8	:
11.2 ENGINEERING SCIENCES	1120	27,4	:	:	:	2,8	-	:
11.3 MEDICAL SCIENCES	1130	11,0	:	:	:	3,5	-	:
11.4 AGRICULTURAL SCIENCES	1140	-	:	:	:	0,2	-	:
11.5 SOC. SCIENCES AND HUMANITIES	1150	-	:	:	:	5,2	27,6	:
12. OTHER CIVIL RESEARCH	1200	-	100,0	100,0	0,0	100,0	100,0	100,0
13. DEFENCE	1300	-	100,0	100,0	100,0	100,0	100,0	100,0
TOTAL EXPENDITURE	9900	100,0	100,0	100,0	100,0	100,0	100,0	100,0



FR	IR	IT	NL	PO	UK	Code	Objectifs Nabs
:	0,3	24,9		-	46,1	0920	9.2 SYSTEMES D'APPLICATION
:	-	3,8		-	3,8	0930	9.3 SYSTEMES DE LANCEMENT
:	-	0,0	71,0	-	3,3	0940	9.4 STATIONS ORBITALES ET ASTRONAUTIQUES
:	-	0,3	4,5	-	-	0990	9.9 AUT. RECHER. CONC. EXPLORAT. ET EXPLOITATION DE L'ESPACE
100,0	100,0	100,0	100,0	100,0	100,0	1000	10. RECHERCHE FINANCEE PAR FONDS GENERAUX DES UNIVERSITES
:	0,6	0,0	5,5	-	100,0	1088	10.0 RECHERCHE INTERDISCIPLINAIRE
:	31,4	29,4	25,0	-	-	1010	10.1 MATHEMATIQUES ET SCIENC. NAT.
:	19,0	15,2	14,4	-	-	1020	10.2 SCIENCES DE L'INGENIEUR
:	15,7	22,9	23,6	-	-	1030	10.3 SCIENCES MEDICALES
:	11,0	9,4	5,9	-	-	1040	10.4 SCIENCES AGRICOLES
:	22,3	23,0	25,7	-	-	1050	10.5 SCIENCES SOCIALES ET HUMAINES
:	:	:	:	-	:	1001	X10.1 EXPLORATION ET EXPLOITATION DU MILIEU TERRESTRE
:	:	:	:	-	:	1002	X10.2 INFRASTRUCTURES ET AMENAGEMENT DES ESPACES
:	:	:	:	-	:	1003	X10.3 POLLUTION DE L'ENVIRONNEMENT (LUTTE ET PREVENTION)
:	:	:	:	-	:	1004	X10.4 PROTECTION ET PROMOTION DE LA SANTE HUMAINE
:	:	:	:	-	:	1005	X10.5 PRODUCT., DISTRIBUT. ET UTILIS. RATIONNELLE DE L'ENERGIE
:	:	:	:	-	:	1006	X10.6 PRODUCTIVITE ET TECHNOLOGIE DE L'AGRICULTURE
:	:	:	:	-	:	1007	X10.7 PRODUCTIVITE ET TECHNOLOGIE INDUSTRIELLES
:	:	:	:	-	:	1008	X10.8 VIE EN SOCIETE (STRUCTURES ET RELATIONS)
:	:	:	:	-	:	1009	X10.9 EXPLORATION ET EXPLOITATION DE L'ESPACE
:	:	:	:	-	:	1011	X10.0 AUTRES RECHERCHES CIVILES
100,0	100,0	100,0	100,0	100,0	100,0	1100	11. RECHERCHES NON ORIENTEES
:	-	1,5	9,5	-	5,2	1188	11.0 RECHERCHE MULTIDISCIPLINAIRE
:	100,0	90,9	69,7	56,3	83,1	1110	11.1 SCIENCES MATHEMATIQUES ET SCIENCES NATURELLES
:	-	2,0	5,8	43,7	5,2	1120	11.2 SCIENCES DE L'INGENIEUR
:	-	2,9	5,3	-	-	1130	11.3 SCIENCES MEDICALES
:	-	-	-	-	-	1140	11.4 SCIENCES AGRICOLES
:	-	2,7	9,8	-	6,5	1150	11.5 SCIENCES SOCIALES ET HUMAINES
100,0	-	100,0	100,0	100,0	100,0	1200	12. RECHERCHES NON VENTILEES
100,0	-	100,0	100,0	-	100,0	1300	13. DEFENSE
100,0	100,0	100,0	100,0	100,0	100,0	9900	TOTAL DES CREDITS

R&D FINANCING  
 BY CHAPTERS OF NABS  
 AS A CONTRIBUTION TO MULTILATERAL AND BILATERAL PROJECTS  
 IN NATIONAL CURRENCIES, AT CURRENT VALUES

Nabs Objectives	Code	EUR 12	BL	DK	DE	GR	ES
		1000 ECU	1000 FB	1000 DKR	1000 DM	1000 DRA	MIO PTA
<b>1985</b>							
1. EXPLORATION AND EXPLOITATION OF THE EARTH	0100	:	:	-	7100	:	:
2. INFRASTRUCTURE AND GENERAL PLANNING OF LAND-USE	0200	:	:	50	11700	:	:
3. CONTROL OF ENVIRONMENTAL POLLUTION	0300	:	:	-	5500	:	:
4. PROTECTION AND IMPROVEMENT OF HUMAN HEALTH	0400	:	:	-	4900	:	:
5. PRODUCTION, DISTRIBUTION AND RAT. UTILIZATION OF ENERGY	0500	:	:	2823	537500	:	:
6. AGRICULTURAL PRODUCTION AND TECHNOLOGY	0600	:	:	-	27300	:	:
7. INDUSTRIAL PRODUCTION AND TECHNOLOGY	0700	:	:	-	607700	:	:
8. SOCIAL STRUCTURES AND RELATIONSHIPS	0800	:	:	352	9300	:	:
9. EXPLORATION AND EXPLOITATION OF SPACE	0900	:	:	96836	602800	:	:
10. RESEARCH FINANCED FROM GEN. UNIV. FUNDS (GUF)	1000	:	:	771	-	:	:
11. NON-ORIENTED RESEARCH	1100	:	:	116107	335800	:	:
12. OTHER CIVIL RESEARCH	1200	:	:	-	-	:	:
13. DEFENCE	1300	:	:	-	507800	:	:
TOTAL EXPENDITURE	9900	:	:	216939	2657400	:	:
<b>1986</b>							
1. EXPLORATION AND EXPLOITATION OF THE EARTH	0100	:	:	-	5300	:	:
2. INFRASTRUCTURE AND GENERAL PLANNING OF LAND-USE	0200	:	:	50	9200	:	:
3. CONTROL OF ENVIRONMENTAL POLLUTION	0300	:	:	-	6500	:	:
4. PROTECTION AND IMPROVEMENT OF HUMAN HEALTH	0400	:	:	-	4500	:	:
5. PRODUCTION, DISTRIBUTION AND RAT. UTILIZATION OF ENERGY	0500	:	:	2713	427400	:	:
6. AGRICULTURAL PRODUCTION AND TECHNOLOGY	0600	:	:	-	28600	:	:
7. INDUSTRIAL PRODUCTION AND TECHNOLOGY	0700	:	:	-	433100	:	:
8. SOCIAL STRUCTURES AND RELATIONSHIPS	0800	:	:	356	11000	:	:
9. EXPLOATION AND EXPLOITATION OF SPACE	0900	:	:	96048	710500	:	:
10. RESEARCH FINANCED FROM GEN. UNIV. FUNDS (GUF)	1000	:	:	-	-	:	:
11. NON-ORIENTED RESEARCH	1100	:	:	146335	362700	:	:
12. OTHER CIVIL RESEARCH	1200	:	:	-	-	:	:
13. DEFENCE	1300	:	:	-	422700	:	:
TOTAL EXPENDITURE	9900	:	:	245502	2421500	:	:

FINANCEMENT DU R&D  
PAR CHAPITRE DE NABS  
A DES ACTIONS BI- ET MULTILATERALES  
EN MONNAIES NATIONALES, A PRIX COURANTS

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FR	IR	IT	NL	PO	UK	Code	Objectifs Nabs
1000 FF	1000 £	MIO LIT	1000 FL	1000 ESC	1000 £		
1985							
181000	-	367	-	:	140	0100	1. EXPLORATION ET EXPLOITATION DU MILIEU TERRESTRE
63000	80	-	-	:	127	0200	2. INFRASTRUCTURES ET AMENAGEMENT DES ESPACES
29000	23	162	-	:	65	0300	3. POLLUTION DE L'ENVIRONNEMENT (LUTTE ET PREVENTION)
137000	-	2937	1321	:	4936	0400	4. PROTECTION ET PROMOTION DE LA SANTE HUMAINE
868000	20	-	22950	:	22349	0500	5. PRODUCT.,DISTRIBUT. ET UTILIS. RATIONNELLE DE L'ENERGIE
372000	1134	7908	-	:	5050	0600	6. PRODUCTIVITE ET TECHNOLOGIE DE L'AGRICULTURE
745000	292	2314	-	:	79046	0700	7. PRODUCTIVITE ET TECHNOLOGIE INDUSTRIELLES
139000	417	1889	-	:	111	0800	8. VIE EN SOCIETE (STRUCTURES ET RELATIONS)
2142000	1200	160000	25150	:	71747	0900	9. EXPLORATION ET EXPLOITATION DE L'ESPACE
-	822	-	-	:	-	1000	10. RECHERCHE FINANCEE PAR FONDS GENERAUX DES UNIVERSITES
1613000	29	92444	63660	:	48970	1100	11. RECHERCHES NON ORIENTEES
65000	-	-	357	:	610	1200	12. RECHERCHES NON VENTILEES
-	-	-	99332	:	175296	1300	13. DEFENSE
6354000	4017	268021	212770	:	408441	9900	TOTAL DES CREDITS
1986							
:	-	333	-	:	1655	0100	1. EXPLORATION ET EXPLOITATION DU MILIEU TERRESTRE
:	593	8	-	:	173	0200	2. INFRASTRUCTURES ET AMENAGEMENT DES ESPACES
:	44	197	-	:	-	0300	3. POLLUTION DE L'ENVIRONNEMENT (LUTTE ET PREVENTION)
:	-	3469	880	:	6021	0400	4. PROTECTION ET PROMOTION DE LA SANTE HUMAINE
:	99	-	20250	:	19764	0500	5. PRODUCT.,DISTRIBUT. ET UTILIS. RATIONNELLE DE L'ENERGIE
:	1391	10528	-	:	5894	0600	6. PRODUCTIVITE ET TECHNOLOGIE DE L'AGRICULTURE
:	605	2429	-	:	95728	0700	7. PRODUCTIVITE ET TECHNOLOGIE INDUSTRIELLES
:	869	2259	-	:	171	0800	8. VIE EN SOCIETE (STRUCTURES ET RELATIONS)
:	1600	215000	27706	:	68434	0900	9. EXPLORATION ET EXPLOITATION DE L'ESPACE
:	957	-	-	:	-	1000	10. RECHERCHE FINANCEE PAR FONDS GENERAUX DES UNIVERSITES
:	21	92762	68555	:	62495	1100	11. RECHERCHES NON ORIENTEES
:	-	-	343	:	89	1200	12. RECHERCHES NON VENTILEES
:	-	-	1975	:	20638	1300	13. DEFENSE
:	6179	326985	119709	:	281062	9900	TOTAL DES CREDITS

R&D FINANCING  
 BY CHAPTERS OF NABS  
 AS A CONTRIBUTION TO MULTILATERAL AND BILATERAL PROJECTS  
 IN NATIONAL CURRENCIES, AT CURRENT VALUES

Nabs Objectives	Code	EUR 12	BL	DK	DE	GR	ES
		1000 ECU	1000 FB	1000 DKR	1000 DM	1000 DRA	MID PTA
<b>1987</b>							
1. EXPLORATION AND EXPLOITATION OF THE EARTH	0100	:	:	-	6000	:	1140
2. INFRASTRUCTURE AND GENERAL PLANNING OF LAND-USE	0200	:	:	50	8100	:	-
3. CONTROL OF ENVIRONMENTAL POLLUTION	0300	:	:	-	7300	:	-
4. PROTECTION AND IMPROVEMENT OF HUMAN HEALTH	0400	:	:	-	4500	:	-
5. PRODUCTION, DISTRIBUTION AND RAT. UTILIZATION OF ENERGY	0500	:	:	2703	220300	:	2497
6. AGRICULTURAL PRODUCTION AND TECHNOLOGY	0600	:	:	21960	33100	:	84
7. INDUSTRIAL PRODUCTION AND TECHNOLOGY	0700	:	:	-	570500	:	-
8. SOCIAL STRUCTURES AND RELATIONSHIPS	0800	:	:	249	12200	:	-
9. EXPLORATION AND EXPLOITATION OF SPACE	0900	:	:	101605	817900	:	5400
10. RESEARCH FINANCED FROM GEN. UNIV. FUNDS (GUF)	1000	:	:	-	-	:	-
11. NON-ORIENTED RESEARCH	1100	:	:	131786	372400	:	-
12. OTHER CIVIL RESEARCH	1200	:	:	-	-	:	1430
13. DEFENCE	1300	:	:	-	400800	:	-
TOTAL EXPENDITURE	9900	:	:	258853	2453100	:	10554

FINANCEMENT DU R&D  
PAR CHAPITRE DE NABS  
A DES ACTIONS BI- ET MULTILATERALES  
EN MONNAIES NATIONALES, A PRIX COURANTS

14

FR	IR	IT	NL	PO	UK		
1000 FF	1000 £	MIO LIT	1000 FL	1000 ESC	1000 £	Code	Objectifs Nabs
1987							
:	-	451	-	:	1522	0100	1. EXPLORATION ET EXPLOITATION DU MILIEU TERRESTRE
:	659	7	-	:	155	0200	2. INFRASTRUCTURES ET AMENAGEMENT DES ESPACES
:	45	159	-	:	-	0300	3. POLLUTION DE L'ENVIRONNEMENT (LUTTE ET PREVENTION)
:	-	8688	875	:	6657	0400	4. PROTECTION ET PROMOTION DE LA SANTÉ HUMAINE
:	379	-	20000	:	21265	0500	5. PRODUCT.,DISTRIBUT. ET UTILIS. RATIONNELLE DE L'ENERGIE
:	1450	8702	-	:	6615	0600	6. PRODUCTIVITE ET TECHNOLOGIE DE L'AGRICULTURE
:	584	2549	-	:	113258	0700	7. PRODUCTIVITE ET TECHNOLOGIE INDUSTRIELLES
:	912	2994	-	:	157	0800	8. VIE EN SOCIETE (STRUCTURES ET RELATIONS)
:	2000	232200	103972	:	72524	0900	9. EXPLORATION ET EXPLOITATION DE L'ESPACE
:	1009	-		:	-	1000	10. RECHERCHE FINANCEE PAR FONDS GENERAUX DES UNIVERSITES
:	24	94263	68796	:	69313	1100	11. RECHERCHES NON ORIENTEES
:	-	-	693	:	400	1200	12. RECHERCHES NON VENTILEES
:	-	-	2012	:	15376	1300	13. DEFENSE
:	7062	350013	196348	:	307242	9900	TOTAL DES CREDITS

R&D FINANCING  
BY CHAPTERS OF NABS  
AS A CONTRIBUTION TO MULTILATERAL AND BILATERAL PROJECTS  
IN 1000 ECU AT CURRENT VALUES AND EXCHANGE RATES

Nabs Objectives	Code	EUR 12	BL	DK	DE	GR	ES
<b>1985</b>							
1. EXPLORATION AND EXPLOITATION OF THE EARTH	0100	:	:	-	3189	:	:
2. INFRASTRUCTURE AND GENERAL PLANNING OF LAND-USE	0200	:	:	6	5255	:	:
3. CONTROL OF ENVIRONMENTAL POLLUTION	0300	:	:	-	2470	:	:
4. PROTECTION AND IMPROVEMENT OF HUMAN HEALTH	0400	:	:	-	2201	:	:
5. PRODUCTION, DISTRIBUTION AND RAT. UTILIZATION OF ENERGY	0500	:	:	352	241430	:	:
6. AGRICULTURAL PRODUCTION AND TECHNOLOGY	0600	:	:	-	12262	:	:
7. INDUSTRIAL PRODUCTION AND TECHNOLOGY	0700	:	:	-	272962	:	:
8. SOCIAL STRUCTURES AND RELATIONSHIPS	0800	:	:	44	4177	:	:
9. EXPLORATION AND EXPLOITATION OF SPACE	0900	:	:	12076	270761	:	:
10. RESEARCH FINANCED FROM GEN. UNIV. FUNDS (GUF)	1000	:	:	96	-	:	:
11. NON-ORIENTED RESEARCH	1100	:	:	14479	150832	:	:
12. OTHER CIVIL RESEARCH	1200	:	:	-	-	:	:
13. DEFENCE	1300	:	:	-	228090	:	:
TOTAL EXPENDITURE	9900	:	:	27054	1193629	:	:
<b>1986</b>							
1. EXPLORATION AND EXPLOITATION OF THE EARTH	0100	:	:	-	2491	:	:
2. INFRASTRUCTURE AND GENERAL PLANNING OF LAND-USE	0200	:	:	6	4324	:	:
3. CONTROL OF ENVIRONMENTAL POLLUTION	0300	:	:	-	3055	:	:
4. PROTECTION AND IMPROVEMENT OF HUMAN HEALTH	0400	:	:	-	2115	:	:
5. PRODUCTION, DISTRIBUTION AND RAT. UTILIZATION OF ENERGY	0500	:	:	342	200876	:	:
6. AGRICULTURAL PRODUCTION AND TECHNOLOGY	0600	:	:	-	13442	:	:
7. INDUSTRIAL PRODUCTION AND TECHNOLOGY	0700	:	:	-	203555	:	:
8. SOCIAL STRUCTURES AND RELATIONSHIPS	0800	:	:	45	5170	:	:
9. EXPLORATION AND EXPLOITATION OF SPACE	0900	:	:	12105	333931	:	:
10. RESEARCH FINANCED FROM GEN. UNIV. FUNDS (GUF)	1000	:	:	-	-	:	:
11. NON-ORIENTED RESEARCH	1100	:	:	18442	170467	:	:
12. OTHER CIVIL RESEARCH	1200	:	:	-	-	:	:
13. DEFENCE	1300	:	:	-	198667	:	:
TOTAL EXPENDITURE	9900	:	:	30940	1138092	:	:

FINANCEMENT DU R&D  
PAR CHAPITRE DE NABS  
A DES ACTIONS BI- ET MULTILATERALES  
EN 1000 ECU A PRIX ET TAUX DE CHANGE COURA

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FR	IR	IT	NL	PO	UK	Code	Objectifs Nabs
							1985
26637	-	254	-	:	238	0100	1. EXPLORATION ET EXPLOITATION DU MILIEU TERRESTRE
9272	112	-	-	:	216	0200	2. INFRASTRUCTURES ET AMENAGEMENT DES ESPACES
4268	32	112	-	:	110	0300	3. POLLUTION DE L'ENVIRONNEMENT (LUTTE ET PREVENTION)
20162	-	2029	526	:	8381	0400	4. PROTECTION ET PROMOTION DE LA SANTE HUMAINE
127741	28	-	9140	:	37945	0500	5. PRODUCT.,DISTRIBUT. ET UTILIS. RATIONNELLE DE L'ENERGIE
54746	1586	5464	-	:	8574	0600	6. PRODUCTIVITE ET TECHNOLOGIE DE L'AGRICULTURE
109639	408	1599	-	:	134209	0700	7. PRODUCTIVITE ET TECHNOLOGIE INDUSTRIELLES
20456	583	1305	-	:	188	0800	8. VIE EN SOCIETE (STRUCTURES ET RELATIONS)
315232	1678	110560	10016	:	121816	0900	9. EXPLORATION ET EXPLOITATION DE L'ESPACE
-	1149	-	-	:	-	1000	10. RECHERCHE FINANCEE PAR FONDS GENERAUX DES UNIVERSITES
237380	41	63879	25352	:	83144	1100	11. RECHERCHES NON ORIENTEES
9566	-	-	142	:	1036	1200	12. RECHERCHES NON VENTILEES
-	-	-	39558	:	297628	1300	13. DEFENSE
935099	5617	185203	84734	:	693476	9900	TOTAL DES CREDITS
							1986
:	-	228	-	:	2462	0100	1. EXPLORATION ET EXPLOITATION DU MILIEU TERRESTRE
:	808	5	-	:	257	0200	2. INFRASTRUCTURES ET AMENAGEMENT DES ESPACES
:	60	135	-	:	-	0300	3. POLLUTION DE L'ENVIRONNEMENT (LUTTE ET PREVENTION)
:	-	2373	367	:	8958	0400	4. PROTECTION ET PROMOTION DE LA SANTE HUMAINE
:	135	-	8436	:	29404	0500	5. PRODUCT.,DISTRIBUT. ET UTILIS. RATIONNELLE DE L'ENERGIE
:	1895	7202	-	:	8769	0600	6. PRODUCTIVITE ET TECHNOLOGIE DE L'AGRICULTURE
:	824	1662	-	:	142419	0700	7. PRODUCTIVITE ET TECHNOLOGIE INDUSTRIELLES
:	1184	1545	-	:	254	0800	8. VIE EN SOCIETE (STRUCTURES ET RELATIONS)
:	2180	147081	11542	:	101813	0900	9. EXPLORATION ET EXPLOITATION DE L'ESPACE
:	1304	-	-	:	-	1000	10. RECHERCHE FINANCEE PAR FONDS GENERAUX DES UNIVERSITES
:	29	63458	28560	:	92977	1100	11. RECHERCHES NON ORIENTEES
:	-	-	143	:	132	1200	12. RECHERCHES NON VENTILEES
:	-	-	823	:	30704	1300	13. DEFENSE
:	8419	223690	49871	:	418150	9900	TOTAL DES CREDITS

R&D FINANCING  
 BY CHAPTERS OF NABS  
 AS A CONTRIBUTION TO MULTILATERAL AND BILATERAL PROJECTS  
 IN 1000 ECU AT CURRENT VALUES AND EXCHANGE RATES

Nabs Objectives	Code	EUR 12	BL	DK	DE	GR	ES
<b>1987</b>							
1. EXPLORATION AND EXPLOITATION OF THE EARTH	0100	:	:	-	2895	:	7823
2. INFRASTRUCTURE AND GENERAL PLANNING OF LAND-USE	0200	:	:	6	3909	:	-
3. CONTROL OF ENVIRONMENTAL POLLUTION	0300	:	:	-	3523	:	-
4. PROTECTION AND IMPROVEMENT OF HUMAN HEALTH	0400	:	:	-	2172	:	-
5. PRODUCTION, DISTRIBUTION AND RAT. UTILIZATION OF ENERGY	0500	:	:	345	106312	:	17132
6. AGRICULTURAL PRODUCTION AND TECHNOLOGY	0600	:	:	2804	15973	:	577
7. INDUSTRIAL PRODUCTION AND TECHNOLOGY	0700	:	:	-	275310	:	-
8. SOCIAL STRUCTURES AND RELATIONSHIPS	0800	:	:	32	5887	:	-
9. EXPLORATION AND EXPLOITATION OF SPACE	0900	:	:	12975	394700	:	37052
10. RESEARCH FINANCED FROM GEN. UNIV. FUNDS (GUF)	1000	:	:	-	-	:	-
11. NON-ORIENTED RESEARCH	1100	:	:	16829	179712	:	-
12. OTHER CIVIL RESEARCH	1200	:	:	-	-	:	9812
13. DEFENCE	1300	:	:	-	193417	:	-
TOTAL EXPENDITURE	9900	:	:	33056	1183809	:	72416



FINANCEMENT DU R&D  
PAR CHAPITRE DE NABS  
A DES ACTIONS BI- ET MULTILATERALES  
EN 1000 ECU A PRIX ET TAUX DE CHANGE COURA

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FR	IR	IT	NL	PO	UK	Code	Objectifs Nabs
1987							
:	-	305	-	:	2126	0100	1. EXPLORATION ET EXPLOITATION DU MILIEU TERRESTRE
:	849	5	-	:	216	0200	2. INFRASTRUCTURES ET AMENAGEMENT DES ESPACES
:	58	108	-	:	-	0300	3. POLLUTION DE L'ENVIRONNEMENT (LUTTE ET PREVENTION)
:	-	5881	374	:	9298	0400	4. PROTECTION ET PROMOTION DE LA SANTÉ HUMAINE
:	488	-	8549	:	29701	0500	5. PRODUCT.,DISTRIBUT. ET UTILIS. RATIONNELLE DE L'ENERGIE
:	1867	5891	-	:	9239	0600	6. PRODUCTIVITE ET TECHNOLOGIE DE L'AGRICULTURE
:	752	1726	-	:	158191	0700	7. PRODUCTIVITE ET TECHNOLOGIE INDUSTRIELLES
:	1175	2027	-	:	219	0800	8. VIE EN SOCIETE (STRUCTURES ET RELATIONS)
:	2576	157185	44443	:	101296	0900	9. EXPLORATION ET EXPLOITATION DE L'ESPACE
:	1299	-	-	:	-	1000	10. RECHERCHE FINANCEE PAR FONDS GENERAUX DES UNIVERSITES
:	31	63810	29407	:	96812	1100	11. RECHERCHES NON ORIENTEES
:	-	-	296	:	559	1200	12. RECHERCHES NON VENTILEES
:	-	-	860	:	21476	1300	13. DEFENSE
:	9095	236938	83928	:	429134	9900	TOTAL DES CREDITS

## OTHER BASIC DATA

## DONNEES DE REFERENCE

EUR-12	BL	DK	DE	GR	ES	FR	IRL	IT	NL	PO	UK
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TOTAL BUDGETS  
IN NATIONAL CURRENCIES AT CURRENT VALUESENSEMBLE DU BUDGET  
EN MONNAIES NATIONALES A PRIX COURANTS

	MRD ECU	MIO FB	MIO DKR	MIO DM	MIO DRA	MRD PTA	MIO FF	MIO £	MRD LIT	MIO FL	MIO ESC	MIO £
1980	621,9	1354 400	124 800	409 700	411 900	:	590 800	4 824	123 973	110 200	:	95 081
1981	733,6	1583 600	145 900	436 600	651 800	:	726 300	5 919	162 948	139 500	:	104 400
1982	840,9	1735 200	169 900	455 100	838 500	:	843 700	7 100	227 395	151 000	:	119 000
1983	961,5	1809 900	222 100	463 600	1096 800	4012,00	929 300	8 431	291 114	154 700	646 100	126 600
1984	1031,6	1906 100	236 100	475 700	1389 800	5044,80	1005 800	9 256	328 365	162 700	791 800	134 500
1985	1125,2	1992 600	243 000	490 100	1709 800	5980,20	1072 500	10 005	366 245	166 400	1054 400	146 900
1986	1139,5	2151 000	259 800	508 500	2028 800	6851,90	1105 400	10 571	402 800	169 500	1294 500	150 100
MEAN TREND PER YEAR / TENDANCE ANNUELLE MOYENNE												
1980-1986	10,6	8,0	13,0	3,7	30,4	:	11,0	14,0	21,7	7,4	:	7,9

GROSS DOMESTIC PRODUCT  
IN NATIONAL CURRENCIES AT CURRENT VALUESPRODUIT INTERIEUR BRUT  
EN MONNAIES NATIONALES A PRIX COURANTS

	MRD ECU	MRD FB	MIO DKR	MRD DM	MIO DRA	MRD PTA	MRD FF	MIO £	MRD LIT	MIO FL	MIO ESC	MIO £
1980	2193,4	3434,17	373 785	1478,94	1710,90	15 185	2769,31	9 361	338 743	336 740	1255 000	229 463
1981	2407,6	3549,87	407 790	1540,93	2040,80	17 327	3110,61	11 348	401 579	352 850	1468 000	252 991
1982	2627,2	3859,07	466 637	1597,92	2547,85	19 870	3566,98	13 262	470 484	368 860	1851 000	275 930
1983	2790,4	4101,66	515 051	1670,94	3065,77	22 683	3935,01	14 636	538 998	378 440	2290 000	299 622
1984	3000,7	4381,53	565 838	1745,61	3772,29	25 870	4277,16	16 282	612 112	394 860	2827 000	312 355
1985	3219,0	4691,54	609 403	1830,31	4599,91	28 655	4584,26	17 695	684 564	411 890	3441 000	346 438
1986	3397,0	4961,12	644 497	1941,01	5538,00	32 430	4862,21	19 362	761 220	421 100	4250 000	368 029
MEAN TREND PER YEAR / TENDANCE ANNUELLE MOYENNE												
1980-1986	7,6	6,3	9,5	4,6	21,6	13,5	9,8	12,9	14,4	3,8	22,5	8,2

## POPULATION

\* 1000

## POPULATION

1980	317 644	9 859	5 123	61 566	9 599	37 386	53 714	3 401	57 070	14 150	9 766	56 010
1981	318 719	9 859	5 122	61 682	9 740	37 751	53 962	3 440	57 042	14 246	9 855	56 020
1982	319 491	9 856	5 118	61 638	9 790	37 961	54 430	3 483	56 640	14 310	9 930	56 335
1983	320 165	9 856	5 114	61 423	9 850	38 173	54 652	3 508	56 836	14 367	10 009	56 377
1984	319 800	9 849	5 112	61 181	9 910	38 391	54 713	3 533	56 344	14 422	10 089	56 256
1985	321 679	9 858	5 114	61 024	9 935	38 602	55 712	3 540	57 127	14 491	10 157	56 659
1986	321 987	9 852	5 120	61 047	10 021	38 818	55 381	3 537	57 240	14 568	9 716	56 687

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## INDEX OF R&amp;D PRICES

## INDICE DES PRIX R&amp;D

1980	100,00	100,00	100,00	100,00	100,00	100,00	100,00	100,00	100,00	100,00	100,00
1981	106,50	110,32	105,43	124,08	117,01	113,67	117,85	120,62	104,58	121,71	112,33
1982	114,93	122,53	109,93	154,16	133,16	128,22	135,07	140,98	110,32	150,32	121,70
1983	122,17	130,86	113,73	186,14	150,57	141,09	148,99	162,14	113,63	179,20	130,00
1984	129,86	137,82	117,03	226,62	169,40	151,63	162,77	179,92	115,35	201,43	136,75
1985	134,29	143,39	120,19	266,91	183,23	160,19	175,89	195,35	116,78	254,12	145,62
1986	137,17	151,51	123,12	313,21	198,03	166,09	185,80	207,85	120,15	293,64	153,84

## MEAN TREND PER YEAR / TENDANCE ANNUELLE MOYENNE

1980-1986

51,1	52,7	49,7	63,0		53,5	55,2	56,8	49,2		52,8
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## EXCHANGE RATES

## 1 EUA/UCE

## TAUX DE CHANGE

	FB	DKR	DM	DR	PTA	FF	£	LIT	FL	ESC	£
1980	40.5979	7.82736	2.52421	59.3228	99.7017	5.86895	0.675997	1189.205	2.76027	69.5521	0.598488
1981	41.2946	7.92255	2.51390	61.6241	102.6756	6.03992	0.691021	1263.180	2.77510	68.4947	0.553110
1982	44.7107	8.15687	2.37599	65.3424	107.5576	6.43116	0.689603	1323.784	2.61390	78.0066	0.560453
1983	45.4380	8.13188	2.27052	78.0883	127.5026	6.77078	0.714956	1349.920	2.53720	98.6886	0.587014
1984	45.4420	8.14647	2.23811	88.3370	126.5693	6.87165	0.725942	1381.381	2.52334	115.6801	0.590629
1985	44.9136	8.01886	2.22632	105.7390	129.1645	6.79502	0.715167	1447.987	2.51101	130.2515	0.588977
1986	43.7978	7.93565	2.12819	137.4246	137.4563	6.79976	0.733526	1461.874	2.40089	147.0884	0.672154
1986-3	44.4739	8.02081	2.17136	134.5900	136.3890	6.68034	0.718357	1477.470	2.44818	140.9790	0.632076
1987-3	42.9222	7.83076	2.07221	152.3900	145.7430	6.90315	0.776488	1477.240	2.33947	160.7270	0.715957

## GOVERNMENT FINANCING OF R&amp;D

## USA

## FINANCEMENT PUBLIC DE LA R&amp;D

	Mrd \$ (current)		Mrd \$ (1980)		Mrd ECU total	% total/GDP	Mrd \$ GDP	Implicit index prices	Exchange rates 1 EUA = ..... \$
	total	civil	total	civil					
1980	28.7	13.8	28.7	13.8	20.6	1.10	2606.6	100.0	1.392
1981	33.7	15.3	31.0	14.1	30.2	1.15	2934.9	108.9	1.116
1982	36.1	14.0	31.0	12.1	36.8	1.19	3045.3	116.4	0.980
1983	38.8	13.8	31.9	11.4	43.6	1.18	3275.7	121.7	0.890
1984	44.2	14.9	35.1	11.8	56.0	1.22	3634.6	126.0	0.789
1985*	50.5	16.1	38.8	12.4	66.2	1.32	3833.4	130.0	0.763
1986*	58.3	15.9	43.5	11.9	61.1	1.44	4047.1	133.9	0.954
MEAN TREND PER YEAR/TENDANCE ANNUELLE MOYENNE 1980-1985									
	12.5	2.4	7.2	- 2.3					

\* Estimate

\* Estimation

## GOVERNMENT FINANCING OF R&amp;D

## JAPAN/JAPON

## FINANCEMENT PUBLIC DE LA R&amp;D

	Total			% total/GDP	GDP Mrd Yen	Implicit index prices	Exchange rates 1 EUA = .... Yen
	Mrd Yen (current)	Mrd Yen (1980)	Mrd ECU				
1980	1464.7	1464.7	4.65	0.61	240.176	100.0	315.044
1981	1612.1	1560.6	6.57	0.63	257.363	103.3	245.379
1982	1665.5	1583.2	6.84	0.62	269.629	105.2	243.545
1983	1721.2	1623.8	8.14	0.61	280.094	106.0	211.354
1984	1777.3	1667.3	9.50	0.60	298.089	106.6	187.089
MEAN TREND PER YEAR/TENDANCE ANNUELLE MOYENNE 1980-1984							
	5.0	3.3					



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