COUNCIL OF THE EUROPEAN COMMUNITIES
GENERAL SECRETARIAT

PRESS RELEASE

7482/86 (Presse 89)

1086th meeting of the Council

- Research -

Luxembourg, 10 June 1986

President: Mr G.M.V. VAN AARDENNE,
Deputy Prime Minister,
Minister for Economic Affairs
of the Kingdom of the Netherlands

The Governments of the Member States and the Commission of the European Communities were represented as follows:

Belgium:	
Mr Guy VERHOFSTADT	Deputy Prime Minister, Minister for Science Policy and Planning
Denmark:	
Mr Bertel HAARDER	Minister for Education
Germany:	
Mr Hans-Hilger HAUNSCHILD	State Secretary, Federal Ministry of Research and Technology
Greece:	
Mrs Vasso PAPANDREOU	State Secretary for Industry, Energy and Technology
Spain:	
Mr Juan Manuel ROJO ALAMINO	State Secretary for the Universities and Research
France:	
Mr Alain DEVAQUET	Minister attached to the Minister for Education, with responsibility for Research and Higher Education
Ireland:	
Mr Edward COLLINS	Minister of State, Department of Industry, Commerce and Tourism
Italy:	
Mr Luigi GRANELLI	Minister for the Co-ordination of Scientific Research

Luxembourg:

Mr Fernand BODEN	Minister for Education

Netherlands:

Mr G.M.V. VAN AARDENNE	Deputy Prime Minister, Minister for Economic Affairs

Portugal:

Mr Eduardo R. de ARRANTES E OLIVEIRA	State Secretary for Scientific Research

United Kingdom:

Mr Geoffrey PATTIE	Minister of State for Industry and Information Technology

o

o o

Commission:

Mr Karl-Heinz NARJES	Vice-President

GUIDELINES FOR A NEW COMMUNITY FRAMEWORK PROGRAMME OF TECHNOLOGICAL RESEARCH AND DEVELOPMENT

Continuing the work of its last meeting on research on 8 April 1986, the Council held a second detailed discussion of the main guidelines for the new R & D framework programme in the light of which the Commission will prepare a proposal to be submitted to the Council very shortly with a view to creating a basic instrument for Community research over the next five years.

The Council noted that it had just received a Resolution, adopted by the European Parliament the previous day, setting out the Parliament's position on the new framework programme.

This further dialogue between the Council and the Commission enabled the Ministers for Research to look more closely at a number of issues, particularly:

- scientific and technical priorities in the framework programme, taking into account the repercussions of the Chernobyl accident for nuclear research;

- the financial aspects of the lines of action proposed by the Commission and the overall cost of the framework programme;

- the criteria for selecting lines of action, economic and social cohesion and the role of SMUs.

At the close of the discussion the Council, acknowledging the importance of Community research policy for future years, asked the Commission to take account of the comments made by the various Ministers so that its forthcoming proposal could be examined and adopted by the Council as quickly as possible.

RESEARCH PROGRAMMES IN THE FIELD OF THE ENVIRONMENT AND ON MATERIALS

The Council adopted two Decisions:

- a Decision adopting multiannual R & D programmes in the field of the environment (1986-1990);
- a Decision adopting a research programme on materials (raw materials and advanced materials) (1986-1989).

The first Decision relates to programmes covering the areas of protection of the environment, climatology and natural hazards and pilot projects on major technological hazards for a period of five years from 1 January 1986.

The amount estimated necessary to carry out the programmes is 75 MECU, including expenditure on a staff of 19, subdivided as follows:

- Protection of the environment	55 MECU
- Climatology and natural hazards	17 MECU
- Pilot projects on major technological hazards	3 MECU

The programmes will cover work carried out as shared-cost contract research, concerted actions and co-ordination and training activities, as described in Annex I.

The programmes will be reviewed at the end of the second year; this review may lead to a revision of the programmes effective at the beginning of the third year.

The second Decision covers the implementation, over a period of four years from 1 January 1986, of a research programme on raw materials and advanced materials, the amount estimated necessary to carry out the programme being 70 MECU, including expenditure for a staff of 23. The breakdown - by way of indication only - of this amount by the four subprogrammes is as follows:

- primary raw materials - minerals - 20 MECU

- secondary raw materials - 10 MECU

- wood, including cork, as a renewable raw material - 10 MECU

- advanced materials - Euram - 30 MECU.

The programme will be carried out as shared-costs contract research, co-ordination and training activities, and one concerted action, as described in Annex II.

The programme will be reviewed at the end of the second year. In the light of this review the Commission may, through the appropriate procedures, present to the Council a proposal for a new four-year programme which would supersede the current programme at the beginning of the third year.

ANNEX I

PROTECTION OF THE ENVIRONMENT

Funding :	**total**	55.000.000 ECU
	- contract research	50.450.000 ECU
	- concerted actions	4.550.000 ECU

Scientific content of the programme

Reference to the subthemes contained under the following 11 research topics is of an indicative nature:

(1) **Health effects of pollutants**
- **Chronic and late effects at low exposure levels and early indicators of health effects**
- **Epidemiology and exposure trends**

(2) **Ecological effects of pollutants**
- **Effects on sensitive key species**
- **Effects on ecosystems**

(3) **Assessment of chemicals**
- **Development and assessment of testing procedures**
- **Replacement of vertebrates used for toxicity testing**
- **Structure/activity relationships (SAR)**
- **Evaluation of chemicals**

(4) **Air quality**
- **Analysis, sources, transport, transformation and deposition of pollutants**
- **Effects of air pollution on the natural environment**
- **Effects of air pollution on materials**
- **Stratospheric chemistry**
- **Remote sensing techniques**
- **Indoor air quality**

(5) **Water quality**
- **Analytical methods**
- **Biotic and abiotic degradation of pollutants**
- **Eutrophication**
- **Remote sensing techniques**

(6) **Soil quality**
- **Analytical methods**
- **Behaviour of pollutants in soil**
- **Effects of pollutants in soil**
- **Effects of agricultural and forestry practice on soil quality**

(7) **Noise research**
- **Effects of noise on the cardiovascular system**
- **Comparison between effects of impulse noises and those of continuous noises**
- **Synergism between noise and vibrations**

(8) **Ecosystem research**
- **Basic research on the functioning of ecosystems**
- **Effects of agricultural practice and urbanisation on ecosystems, loss of genetic diversity**
- **Environmental oceanography**
- **Bio-geochemical cycles**
- **Conservation of flora and fauna**

(9) **Waste research**
- **Waste management**
- **Organic wastes**
- **Toxic and dangerous waste**
- **Abandoned disposal sites**

(10) **Reduction of pollution**
- **Advanced abatement technologies**
- **Clean technologies**

(11) **Scientific basis of environmental legislation and management** including the development of scientific criteria for environmental impact assessment.

Concerted Actions

Concerted actions may be implemented in the following areas within the scientific programme:

(1) **Air pollution effects on terrestrial and aquatic ecosystems;**

(2) **Physico-chemical behaviour of atmospheric pollutants;**

(3) **Organic micropollutants in the aquatic environment;**

(4) **Treatment and use of** organic sludge and liquid agricultural waste;

(5) **Coastal benthic ecology;**

(6) **Indoor air quality and its impact on man;**

(7) Protection of species;

(8) New technologies and environmental protection
- environmental impact of new technlogical processes
- environmental impact of new technological products
- use of new technologies for environmental protection;

(9) Compatibility of fibres with the environment and health.

CLIMATOLOGY AND NATURAL HAZARDS

Funding : 17.000.000 ECU

Scientific content of the programme

A. CLIMATOLOGY

1. THE PHYSICAL BASIS OF CLIMATE

1.1 Past climates and climatic change.

1.2 Climatologically significant processes.

1.3 Modelling and predicting European climates within a global context.

1.4 Studies concerning the feasability of the seasonal (3-6 months) forecasting European climates.

2. CLIMATE SENSITIVITY

2.1 Changes in atmospheric composition.

2.1.1 The climatic effect of enhanced CO_2.

2.1.2 Aspects of the global carbon cycle important for climate prediction.

2.1.3 The climatic effect of other trace gases.

2.2 The climatic effect of changes in land-surface properties.

2.3 Early detection of climate change (identification and monitoring of parameters which could be used as early indicators of climate change. Improvement of techniques for detecting the signal above noise level).

3. CLIMATIC IMPACTS

3.1 Impact of climatic change or variability on land resources, including soil, and ecosystems, with special attention to desertification problems.

3.2 Impact of climatic variations on European water resources, including the development of climate-based models for their evaluation and forecasting.

3.3 The photosynthetic response of European vegetation to increasing atmospheric CO_2 in the context of a climate change.

3.4 Impact of climatic variations on sea resources and fisheries.

3.5 Application of climatic knowledge to a better management of land and water resources.

B. NATURAL HAZARDS

1. Causes, mechanisms and impacts of climatological anomalies and extreme or abrupt events, with the aim of reducing human and material losses.

2. Seismic risk evaluation:

2.1. establishment of a research team network, with emphasis on a system of portable stations for measurements in high-seismicity areas and on the capability of intervening rapidly after a destructive earthquake;

2.2. establishment of a network of data banks of seismological, earthquake damage and strong motion data;

2.3. related education and training.

Research under points B.2. will be implemented as a Community concerted action.

PILOT PROJECTS ON MAJOR TECHNOLOGICAL HAZARDS

Funding : 3.000.000 ECU

SCIENTIFIC CONTENT OF THE PROGRAMME

Pilot projects and studies may be undertaken in the following areas:

A. Physical and chemical phenomena and mitigation of consequences of accidents

B. Assessment and management of risk.

I. PRIMARY RAW MATERIALS (MINERALS)

A sum amounting to 20 million ECU shall be allocated to this subprogramme.

The subprogramme shall cover the following research areas:

1. EXPLORATION

1.1. Economic geology;

1.2. Methods of geochemical prospecting;

1.3. Methods of geophysical prospecting;

1.4. Remote sensing.

2. MINING TECHNOLOGY

2.1. Rock fracturing;

2.2. Rock mechanics and stability in underground and open-cast mines;

2.3. Application of robotics in mines;

2.4. Problems associated with depth;

2.5. Modelling of mining operations.

3. MINERAL PROCESSING

3.1. Development of processing routes for treating indigenous and non-indigenous resources: complex and low-grade ores;

3.2. Metallurgical processes (pyro and hydro);

3.3. Modelling and control in mineral processing;

3.4. Industrial minerals.

II. SECONDARY RAW MATERIALS

A sum amounting to 10 million ECU shall be allocated to this subprogramme.

This amount includes a sum of 250 000 ECU for the extension of the concerted action (COST 84a) under item 2.4. below.

The subprogramme shall cover the following research areas:

1. RECYCLING OF NON-FERROUS METALS

1.1. Physico-chemical characterization of metals and alloys in scraps and residues;

1.2. Improvement of physical separation processes;

1.3. Development of advanced technologies and improved pyrometallurgical and hydro-metallurgical processes;

1.4. Development of improved refining techniques for secondary metals and alloys;

1.5. Upgrading the characteristics of secondary alloys to the level of primary alloys;

1.6. Manufacturing semi-product alloys from waste materials containing titanium, tungsten, molybdenum, aluminium, etc.

2. RECYCLING AND UTILIZATION OF WASTE

2.1. Modelling of waste arisings, sampling and analysis (co-ordination activities);

2.2. Recycling technologies:

- recovery and separation processes;
- upgrading and use of reclaimed products;

2.3. Integrated technologies for the utilization of wastes:

- anaerobic digestion, composting and other aerobic treatments (co-ordination activities);
- production of chemicals - thermal treatment of waste (mostly co-ordination, with shared-cost contracts for special projects);

2.4. Use of lignocellulose-containing by-products and other plant residues for animal feeding (concerted action COST 84a).

III. WOOD, INCLUDING CORK, AS A RENEWABLE RAW MATERIAL

A sum amounting to 10 million ECU shall be allocated to this subprogramme. The subprogramme shall cover the following research areas:

1. WOOD PRODUCTION

1.1. Forest tree breeding and gene resource conservation;

1.2. Protection against damage from biotic and abiotic agents and fire;

1.3. Better use of land resources (co-ordination action only);

1.4. Forest inventory (co-ordination action only).

2. WOOD HARVEST, STORAGE AND TRANSPORT

2.1. Organization of harvesting operations and development of harvesting machinery;

2.2. Harvesting, treatment, storage and transport.

3. WOOD AS A MATERIAL

3.1. Properties, protection and improvement of wood and wood-based panels;

3.2. Development of testing and grading procedures.

4. MECHANICAL WOOD PROCESSING AND USE OF FINISHED WOOD PRODUCTS

4.1. Mechanical conversion and manufacturing processes;

4.2. Drying processes;

4.3. Use of wood and wood-based materials in construction;

4.4. Other uses of finished products made of wood.

5. PULP AND PAPER MANUFACTURING AND PROCESSING AND WOOD CHEMICALS

5.1. The physical and organic chemistry of wood defibring;

5.2. Chemi-mechanical pulping (high yield pulping);

5.3. Pulping processes with low grade wood;

5.4. Substitutes for wood fibres and material additives;

5.5. Fibre recycling;

5.6. The process of manufacture of paper and board;

5.7. Products derived from wood as a source of chemicals.

IV. ADVANCED MATERIALS (EURAM)

A sum amounting to 30 million ECU shall be allocated to this subprogramme.

The subprogramme shall cover the following research areas:

1. METALLIC MATERIALS

1.1. Light aluminium-based alloys;

1.2. Light magnesium-based alloys;

1.3. Light titanium-based alloys;

1.4. Electronic and electrical-contact materials;

1.5. High-performance magnetic materials;

1.6. Materials for surface coatings for machine-tool and cutting equipment;

1.7. Thin-walled castings.

2. ENGINEERING CERAMICS

2.1. Optimization of engineering ceramics;

2.2. Study of metal/ceramic interface: cermets;

2.3. Ceramic composites with fibres and whiskers;

2.4. High-temperature behaviour of engineering ceramics.

3. COMPOSITE MATERIALS

3.1. Organic-matrix composites;

3.2. Metallic-matrix composites;

3.3. Ceramic-matrix composites;

3.4. Other specific advanced materials.

The aim of research carried out under the subprogramme shall be to provide the basis for a Community policy for supporting research and development in the advanced materials sector and for co-ordinating national programmes.

To this end, every two years:

- an assessment shall be made of European research and development capacity in the advanced materials sector, by area, Member State and in the Community as a whole, by comparison with the technological capacity of Japan and the United States;

- a medium-term analysis and estimate shall be made of requirements in the various sectors of the European industry in relation, if necessary, with other Community programmes related to materials.