COUNCIL DECISION

of 23 November 1994

adopting a specific programme for research and technological development, including demonstration, in the field of standards, measurements and testing (1994 to 1998)

(94/803/EC)

THE COUNCIL OF THE EUROPEAN UNION,

Having regard to the Treaty establishing the European Community, and in particular Article 130i (4) thereof,

Having regard to the proposal from the Commission (1),

Having regard to the opinion of the European Parliament (2),

Having regard to the opinion of the Economic and Social Committee (3)

Whereas, by Decision No 1110/94/EC (4), the European Parliament and the Council adopted a fourth framework programme for Community activities in the field of research, technological development and demonstration (RTD) for the period 1994 to 1998 specifying *inter alia* the activities to be carried out in the field of standards, measurements and testing; whereas this Decision takes account of the grounds set out in the preamble to that Decision;

Whereas Article 130i (3) of the Treaty stipulates that the framework programme shall be implemented through specific programmes developed within each activity under the framework programme and that each specific programme shall define the detailed rules for its implementation, fix its duration and provide for the means deemed necessary;

Whereas the amount deemed necessary for carrying out this programme is ECU 173 million; whereas the appropriations for each financial year shall be laid down by the budgetary authority, subject to the availability of resources within the financial perspectives and the conditions set out in Article 1 (3) of the fourth framework programme;

Whereas developments in the field of measurement and testing contribute to the growth of industrial competitivity by facilitating scientific research and technical innovation;

Whereas the operation and consolidation of the single market requires continuous development of harmonized measurement systems, test methods and written standards and the mutual recognition certificates of conformity;

Whereas the uniform application of the Community legislation in fields such as the common agricultural policy, health and safety, the environment, consumer protection and protection of the Community's external frontiers can be achieved only by using improved methods of measurement and testing;

Whereas this programme may make a signifcant contribution to the stimulation of growth, to the strengthening of competitiveness and to the development of employment in the Community, as indicated in the White Paper on 'Growth, competitiveness and employment';

Whereas the content of the fourth framework programme for Community RTD activities was established in accordance with the subsidiarity principle; whereas this specific programme specifies the content of the activities to be carried out in accordance with this principle in the field of standards, measurements and testing;

Whereas Decision No 1110/94/EC (fourth framework programme) lays down that a Community action is justified if, *inter alia*, research contributes to the strengthening of the economic and social cohesion of the Community and the promotion of its overall harmonious development, while being consistent with the pursuit of scientific and technical quality; whereas this programme is intended to help meet these objectives;

Whereas the Community should support only RTD activities of high quality;

Whereas research activities related to standardization, measurement and testing for the iron and steel industry can be taken into consideration in this specific programme, if they are of a pre-competitive and multi-sectoral nature;

Whereas the rules for the participation of undertakings, research centres (including the JRC) and universities and the rules governing the dissemination of research results

(1) OJ No C 228, 17. 8. 1994, p. 68 and OJ No C 262, 20. 9. 1994, p. 14.
(2) OJ No C 205, 25. 7. 1994.
(3) Opinion delivered on 14 and 15 September 1994 (not yet published in the Official Journal).
(4) OJ No L 126, 18. 5. 1994, p. 1.

specified in the measures provided for in Article 130j of the Treaty apply to this specific programme;

Whereas provision should be made for measures to encourage the involvement of small and medium-sized enterprises (SMEs) in this programme, in particular through technology stimulation measures;

Whereas the Commission's efforts to simplify and accelerate the candidature and selection procedures and make them more transparent must be continued in order to support the implementation of the programme and to facilitate the action which firms, and particularly SMEs, research centres and universities have to undertake in order to participate in a Community RTD activity;

Whereas this programme will help to strengthen synergy between the RTD activities carried out in the field of standards, measurement and testing by research centres, universities and enterprises, in particular SMEs, in the Member States and between these and the corresponding Community RTD activities; whereas coordination between research projects with a common theme should be improved; whereas the establishment of thematic networks will permit greater synergy between fundamental research and industrial research and coordination with other European initiatives and frameworks, in particular Eureka;

Whereas the nature of the activities to be undertaken in this programme requires close coordination with activities undertaken under other specific programmes.

Whereas fundamental research in the field of measurements must be encouraged with the objective of promoting a European metrology infrastructure;

Whereas it may be appropriate to engage in international cooperation activities with international organizations and third countries for the purpose of implementing this programme;

Whereas this programme should also comprise support activities and activities for the dissemination and exploitation of RTD results, in particular towards SMEs, notably those in the Member States or regions which participate least in the programme, and activities to stimulate the mobility and training of researchers within this programme to the extent necessary for proper implementation of the programme;

Whereas an analysis should be made of possible socio-economic consequences and technological risks associated with the programme;

Whereas progress with this programme should be continuously and systematically monitored with a view to adapting it, where appropriate, to scientific and technological developments in this area; whereas, in due course, there should be an independent evaluation of progress with the programme so as to provide all the background information needed in order to determine the objectives of the fifth RTD framework programme; whereas, at the end of this programme, there should be a final evaluation of the results obtained compared with the objectives set out in this Decision;

Whereas the JRC may participate in indirect actions covered by this programme;

Whereas the JRC will also contribute, through its own programme, to the attainment of the Community RTD objectives in the areas covered by this programme;

Whereas the Scientific and Technical Research Committee (CREST) has been consulted,

HAS ADOPTED THIS DECISION:

Article 1

A specific programme for research and technological development, including demonstration, in the field of standards, measurements and testing, as set out in Annex I, is hereby adopted for the period from the date of adoption of this Decision to 31 December 1998.

Article 2

1. The amount deemed necessary for carrying out the programme is ECU 173 million, including a maximum of 10,9 % for staff and administrative expenditure.

2. An indicative breakdown of this amount is given in Annex II.

3. The budgetary authority shall lay down the appropriations for each financial year, subject to the availability of resources within the financial perspectives and in accordance with the conditions set out in Article 1 (3) of Decision No 1110/94/EC on the fourth framework programme, taking into account the principles of sound management referred to in Article 2 of the Financial Regulation applicable to the general budget of the European Communities.

Article 3

1. The general rules for the Community's financial contribution are laid down in Annex IV to Decision No 1110/94/EC.

2. The rules for the participation of undertakings, research centres and universities, and for the dissemination of results are specified in the measures envisaged in Article 130j of the Treaty.

3. Annex III sets out the specific rules for implementing this programme, supplementary to those referred to in paragraphs 1 and 2.

Article 4

1. In order to help ensure, *inter alia*, the cost-effective implementation of this programme, the Commission shall continually and systematically monitor, with appropriate assistance from independent, external experts, progress within the programme in relation to the objectives set out in Annex I, as amplified in the work programme. It shall in particular examine whether the objectives, priorities and financial resources are still appropriate to the changing situation. It shall, if necessary, in the light of the results of this monitoring process, submit proposals to adapt or supplement this programme.

2. In order to contribute towards the evaluation of Community activities, as required by Article 4 (2) of Decision No 1110/94/EC and in compliance with the timetable laid down in that paragraph, the Commission shall have an external assessment conducted by independent experts of the activities carried out within the domains covered by this programme and their management during the five years preceding this assessment.

3. At the end of this programme, the Commission shall have an independent final evaluation carried out of the results achieved compared with the objectives set out in Annex III to the fourth framework programme and Annex I to this Decision. The final evaluation report shall be forwarded to the European Parliament, the Council, and the Economic and Social Committee.

Article 5

1. A work programme shall be drawn up by the Commission in accordance with the objectives set out in Annex I and the indicative financial breakdown set out in Annex II, and shall be updated where appropriate. It shall set out in detail:

— the scientific and technological objectives and research tasks,

— the implementation schedule, including dates for calls for proposals,

— the proposed financial and managerial arrangements, including specific modalities for implementing technology stimulation measures for SMEs and other measures, including preparatory, accompanying and support measures,

— arrangements for coordination with other RTD acitvities carried out in this area, in particular under the JRC programme and other specific programme, and, where appropriate, for ensuring improved interaction with activities carried out in other frameworks, such as Eureka,

— arrangements for the dissemination, protection and exploitation of the results of RTD activities carried out under the programme.

2. The Commission shall issue calls for proposals for projects on the basis of the work programme.

Article 6

1. The Commission shall be responsible for the implementation of the programme.

2. In the cases provided for in Article 7 (1), the Commission shall be assisted by a committee composed of representatives of the Member States and chaired by the representative of the Commission.

3. The representative of the Commission shall submit to the Committee a draft of the measures to be taken. The Committee shall deliver its opinion within a time limit which the chairman may lay down according to the urgency of the matter. The opinion shall be delivered by the majority laid down in Article 148 (2) of the Treaty in the case of decisions which the Council is required to adopt on a proposal from the Commission. The votes of the representatives of the Member States within the committee shall be weighted in the manner set out in that Article. The chairman shall not vote.

4. The Commission shall adopt the measures envisaged if they are in accordance with the opinion of the Committee.

5. If the measures envisaged are not in accordance with the opinion of the Committee or if no opinion is delivered, the Commission shall, without delay, submit to the Council a proposal relating to the measures to be taken. The Council shall act by a qualified majority.

6. If, on the expiry of a period of three months from referral of the matter to the Council, the Council has not acted, the proposed measures shall be adopted by the Commission.

Article 7

1. The procedure laid down in Article 6 (2) to 6 (6) above shall apply to:

— the preparation and updating of the work programme referred to in Article 5 (1),

— the content of the calls for proposals,

— the assessment of the RTD acitivites proposed for Community funding and the estimated amount of the Community contribution for each activity where this is equal to or more than ECU 0,25 million,

— any adjustment to the indicative breakdown of the amount as set out in Annex II,

— specific modalities for the financial participation of the Community in the different activities envisaged,

— the measures and terms of reference for programme evaluation,

— any departure form the rules set out in Annex III,

— participation in any project by legal entities from third countries and international organizations.

2. Where, pursuant to the third indent of paragraph 1, the amount of the Community contribution is less than ECU 0,25 million, the Commission shall inform the Committee of the activities and of the outcome of their assessment.

3. The Commission shall regularly inform the Committee of progress with the implementation of the programme as a whole.

Article 8

Participation in this programme may be open on a project-by-project basis, without financial support from the Community, to legal entities established in third countries, where such participation contributes effectively to the implementation of the programme and taking into account the principle of mutual benefit.

Article 9

This Decision is addressed to the Member States.

Done at Brussels, 23 November 1994.

For the Council

The President

J. BORCHERT

ANNEX I

SCIENTIFIC AND TECHNOLOGICAL OBJECTIVES AND CONTENT

1. General

This specific programme fully reflects the orientations of the fourth framework programme, in applying the selection criteria and in specifying its scientific and technological objectives.

Section 2.D of Annex III (first activity) of the framework programme is an integral part of this programme.

2. Scientific and technological objectives of the research programme in the field of standards, measurements and testing

Sound, reliable measurements, be they physical, chemical or biological in nature, are essential to the functioning of modern society. Without them, industries, particularly high technology ones, cannot operate, trade is impaired by disputes, health care becomes empirical and legislation ranging from environmental and worker protection to the operation of the common agricultural policy and the single market, cannot be successfully implemented. For these reasons, advanced industrial nations spend up to 6 % of their gross national product on measurements and measurement-related operations. Community action directed towards the establishment of harmonized systems of measurements, reference materials and written standards is thus fully in line with the principles of subsidiarity and cohesion and supports the aims of the Comission's White Paper on Growth, competitivenes and employment. This need is particularly acute in Member States which have less well developed infrastructures for measurements and testing.

With access to accurate measurements, and their associated uncertainty statements, industry, particularly in high technology fields, gains the tools it needs to develop new products and processes effectively or to implement the in-process controls and quality assurance procedures necessary for them to be competitive. As few products are assembled from components manufactured within a single company, the existence of a common measurement and testing infrastructure, backed by mutual recognition of results and technically sound written standards, is a pre-requisite for a growing industrial base.

Recognizing that disputes over measurement results, or their interpretation, affect trade, some directives are concerned with the harmonization of measurements within the Community. They specify in great detail both the techniques and procedures to be used in demonstrating conformity. The limitations of this approach, including unnecessary complexity, tend to stifle innovation. Directives used to establish the single market are therefore of the new approach type. These specify the essential requirements to be met and allow compliance to be demonstrated in a number of different ways, the most direct of which is by the use of written European standards. In support of this policy, short-and medium-term pre-normative Community research is required to develop the thousands of written standards to be prepared by CEN/Cenelec/ETSI under Commission mandates before the end of the decade. The urgency for such technical support and that to be given to accreditation bodies is highlighted by the 1993 survey on the operation of the single market, carried out by the Euro Info Centre (EIC) network.

Of the EICs who responded, 81 % had identified enterprises who found it necessary, for practical or marketing reasons, to have their goods certified in other Member States, whilst 47 % had encountered problems with recognition of national written standards and tests in other Member States.

The development of the single market and the entry into force of the Maastricht Treaty have also highlighted the need for harmonization of measurement and testing methods used by regulatory authorities themselves. For example, those used by customs laboratories in the protection of the external frontiers of the Community against the importation of illegal substances, sub-standard goods and counterfeits or fraudulently labelled materials. Similar actions are also required in support of the operation of the common agricultural policy.

Accurate measurements are, however, needed not only in manufacturing industries or for the purposes of trade. They are also vital in ensuring health care and the application of legislation on environmental and worker protection. Frequently such measurements require chemical or biological analyses whose traceability is far inferior to that developed over the last 100 years for the physical measurement field. Often, differences between the results of nominally identical analyses performed in different laboratories far exceed their estimated uncertainties, if indeed such estimates even exist. The consequences for human or animal health which could result, for example, from errors in bio-assays or the contamination of food by residues of toxic substances are self-evident. The development of measurements of known uncertainty must be backed up by a recognized reference system traceable to the basic measurement units defined by the Metre Convention. The importance of this activity to both the quality of life and the application of Community policies justifies coordinated action at the European level.

The objectives of the programme are, for all fields of measurement and testing:

— to improve the competitive position of all sectors of European industry (including in particular SMEs) by promoting better measurements at the research and development levels, better definiton and control of the quality of products, more efficient in-process measurements and technical assistance to the mutual recognition of certificates in accordance with the global approach to conformity assessment,

— to promote research and other technical support necessary for the development and implementation of other Community policies (e. g. single market, environment, agriculture and fisheries, health, transport and protection of the Community's external frontiers),

— to promote research in support of the activities of CEN, Cenelec, ETSI and other European bodies which seek to maintain or establish quality standards via either new and existing written standards or codes of practice,

— to support the further development of the European measurement infrastructure by facilitating the coordination of national activities, the development of measurement standards, of advanced methods and systems and the mutual recognition of results and accreditation systems,

— to promote the dissemination and application of good measurement practice throughout Europe, particularly in the less favoured regions (for example, by the organization of training courses and by the establishment of networks).

When attempting to meet the above objectives, the standardization, measurement and testing programme will carry out its activities in close collaboration with the other specific programmes. Similarly, activities aimed at strengthening the metrological infrastructure at the European level will be carried out in consultation with existing networks of national laboratories, such as Euromet, Eurachem, Eurolab, WECC and Welac. In view of the increased emphasis placed upon the resolution of unpredictable or short- to medium-term difficulties which arise during the development or implementation of a wide range of Community policies, it is also necessary to establish additional thematic networks of excellence. Such networks could serve not only to solve scientific and technical problems but also as reference points for enterprises (especially SMEs) producing goods and services, as centres for analysing national needs and disseminating and transferring information, and as advanced training centres.

In the domains which are within its competence, complementary actions will be performed by the JRD, in close collaboration with natinonal laboratories, especially on stanardization for the construction sector and the setting-up of new measurements and reference materials. The distribution of the reference materials produced by the standardization, measurement and testing programme will be assured by the JRC (IRMM).

SCIENTIFIC AND TECNOLOGICAL CONTENT

Activities under the programme can be classified under three objective based themes, namely:

Theme I — Measurements for quality European products

Theme II — Research related to written standards and technical support to trade

Theme III — Measurements related to the needs of society

In view of the diversity of the needs to be met, flexibility is essential and some topics may be dealt with under several headings. Measures for technology stimulation will be carried out to encourage and facilitate participation of SMEs, taking also into account the needs of those from less advanced regions.

Where necessary, all the following activities would include the development of new reference materials, the organization of scientific and technical intercomparison (round-robins) of different measurement or test methods and support to the establishment of laboratory networks.

Theme I — Measurements for quality european products

Background

When considering the conditions governing growth and competitiveness, the White Paper emphasized the importance of promoting the emergence of new generations of products by exploiting to the full all the technologies available and of encouraging the incorporation of innovation in manufacturing processes and products. The competitive position of industry depends upon its ability to undertake research, to develop the fruits of that research into products and to produce those products at the right time and price with the required quality. To discharge each of these functions requires the use of measurement and/or testing techniques with a known and appropriate resolution, repeatability and reproducibility combined with effective quality assurance procedures appropriate to the industry in question.

The proposed RTD activities are:

— the development of measurement methods and instrumentation required by researchers to investigate and utilize the physical, chemical and biological phenomena at the macro- and microscopic levels from which future products could be developed. Coordinated at the European level this activity would also include the production of the high quality reference data required to develop and validate scientific theories and model systems. Utilizing networks of laboratories with national responsibilities, improvements would be made in the realization and traceability of the measurement scales used throughout research laboratories, test houses, trade and industry. Research would also be undertaken to improve the analysis and utilization of data, including the development of expert systems for decision making,

— the development of generic measurement and test methods, reference materials and instrumentation required in the course of product development. Such measurements are needed in order to optimize the design and testing of products in respect of their functional, ergonomic, environmental, safety and other characteristics. By better characterization of raw materials, components and finished products, the waste associated with failure and poor design could be reduced. Similarly, improved measurements will contribute to a reduction of the environmental impact of industrial processes and product use or disposal (recycling, degradability). By giving technical support to the development of generic products, procedures or standards, the efficiency and hence competitive position of European industry will be enhanced,

— the development of generic measurement methods, standards and instrumentation required in production to improve product quality/production cost ratios. Emphasis will be placed upon the application of advanced methods of calibration, traceability, process control, quality assurance, etc. Activities will include measurements related to sensing, diagnostic monitoring, automated manufacturing and non-destructive testing under production conditions. Special efforts will be made to enable SMEs to adopt new measurement technologies and to establish measurement procedures appropriate to their needs. When necessary pre-normative research will be undertaken to enable industry to comply with Community legislation, particularly in terms of consumer safety and waste management for the protection of the environment.

Theme II — Research related to written standards and technical support to trade

Background

The White Papier states that it is essential to make the most of the benefits deriving from the single market. It also mentions that the Community should be an open and reliable partner, and recommends the establishment of more harmonious and stricter rules in the world economy. To this end, research and other technical activities in the field of measurements are necessary for the development and application of the common system of directives, regulations and written standards which, via the mutual recognition of results and certificates, form the basis of the trade in goods, products and services in the single market whilst at the same time affording protection to both consumers and the environment.

The proposed RTD activities are:

— support to legislation: research on measurement methods and instrumentation is required for legislative purposes when establishing the essential requirements of draft directives. In the case of 'New Approach' directives, pre-normative research will be necessary when no adequate scientific or technical base exists for the development of written standards. Support will also be needed to resolve problems which arise in the implementation and revision of directives or existing written standards, because current methods are either not sufficiently accurate or lead to conflicting results. Included in this category are measurements and standards necessary to detect fraud related to the application of Community policies, particularly in the agricultural sector, and pre-normative research to enable industry to comply with Community legislation,

— support to standards for industry: although not covered by Community legislation, a particular sector of European industry, in consultation with CEN, Cenelec and ETSI, may express the need to develop harmonized written standards to encourage innovation, integration, trade or the adoption of advanced manufacturing practices or materials. It is therefore important to develop the harmonized methods of measurement, analysis and testing necessary for the writing or implementation of such standards. In view of the dynamic nature of the international standardization scene, new priorities will continually emerge and therefore the situation will be reviewed periodically,

— promotion of a European measurement infrastructure: the full benefit of the single market can only be realized by the development of an efficient and reliable European measurement infrastructure based upon traceability to agreed physical, chemical and biological standards. This requires a coordinated approach to research and development of fundamental and derived measurements standards, reference materials and traceability in order to avoid unnecessary duplication of effort within the Member States. The creation of a structured system for metrology in chemistry via a coordinated European action, in association with Eurachem and Euromet, would enable such measurements to be traceable to internationally recognized standards, as is currently the case for physical measurements. The promotion of traceability between laboratories in Member States will be of particular benefit to the smaller ones whilst the provision of training in less-favoured regions will promote cohesion. Wider international collaboration, with bodies such as BIPM, WHO and NIST, could be undertaken where this would support European interests,

— technical support to mutual recognition and accreditation: technical support is required for the operation of the European calibration, testing and accreditation systems and networks (e. g. WECC, Welac and EOTC) which provide certification, conformity and proficiency testing and industrial quality assurance,

— measurements required by customs laboratories: the protection of the external frontiers of the Community against the importation of illegal substances, sub-standard goods, counterfeits or fraudulently labelled materials requires the development of new and improved harmonized methods of sampling and measurement. In particular, measurements will be promoted for checking that contents accord with labelling, for the general purposes of protecting consumers and the environment. In addition, measurements are required to determine duties to be levied or refunded.

Theme III — Measurements related to the needs of society

Background

The results of measurements and tests, other than for the purposes of trade and industry, have far-reaching effects on society. They are used to determine if substances, structures and situations are potentially hazardous or to follow subtle and dramatic changes in the environment. When tests are performed for medical diagnostic or criminal detection purposes errors can have profound consequences for the individual. There is a need both to improve the methods and instrumentation and to determine the uncertainties associated with the results via intercomparison between laboratories.

The proposed RTD activities are:

— health and safety: the implementation of Community legislation requires the measurement of the exposure of workers to certain physical, chemical and biological agents, together with the assessment of the associated hazards and the efficiency of measures taken to reduce them. Similarly, improvements are required in measurements and tests used to assess public and animal health, food hygiene, the safety of products and the safety of workers in the working place. When necessary, new or improved measurement methods and/or standards will be developed for the application of such legislation,

— monitoring of the environment: the implementation of environmental legislation and support to the activities of the European Environmental Agency require the development of new and improved measurement techniques for the determination of the quality of the environment (ambient air, fresh and sea water, soil and waste management, toxicity and microbiological action, etc.),

— justice system: coordinated activities are needed to develop and harmonize the specialist measurements used in forensic science and control, in particular, of narcotics in support of the newly established cooperation in the field of justice. Whilst relatively few laboratories are involved, the advanced nature of the measurements and the consequences of the results warrant coordinated action,

— support of Europe's cultural heritage: the preservation of Europe's cultural heritage depends upon the ability quantitatively to evaluate the conditions of physical objects, including the conservation state of buildings and other constructions, and the efficiency of the methods and of the products used to protect them against environmental pollution and the ravages of time.

ANNEX II

INDICATIVE BREAKDOWN OF THE AMOUNT DEEMED NECESSARY

(in ECU million)

Theme I — Measurements for quality European products	69
Theme II — Research related to written standards and technical support to trade	61
Theme III — Measurement related to the needs of society	43
Total	173 (1) (2)

(1) Of which:
- a maximum of 8,7 % for staff expenditure and 2,2 % for administrative expenditure,
- a maximum of 5 % for preparatory, accompanying and support measures, including ECU 2 million for the dissemination and utilization of results,
- up to 10 % for specific measures in respect of SMEs.

(2) A sum of ECU 115 million, the difference between the amount deemed necessary for this programme and the amount envisaged in the fourth framework programme for standardization, measurements and testing, is earmarked for the specific (RDT) programme to be carried out, on the one hand, by means of direct action (JRC) and, on the other, by means of activities within the framework of a competitive approach and intended for S&T support to Community policies (1995 to 1998).

This breakdown between different themes does not exclude the possibility that projects may come under several themes.

ANNEX III

SPECIFIC RULES FOR IMPLEMENTING THE PROGRAMME

The programme will be executed through indirect action, whereby the Community makes a financial contribution to RTD activities carried out by third parties or by JRC institutes in association with third parties:

1. Shared-cost actions of the following types:

   (a) RTD projects carried out by undertakings, research centres and universities.

   Community funding will normally not exceed 50 % of the cost of the project, with progressively lower participation the nearer the project is to the market place. Those universities and other institutions which do not have analytical budget accountancy will be reimbursed on the basis of 100 % of the additional costs.

   (b) Thematic networks, bringing together research carried out by manufacturers, end-users, universities and research centres in a particular field of measurement, analysis or testing, will be used to facilitate the transfer of technology or knowledge and the mobility of researchers and to ensure that greater account is taken of market needs. Community funding of networks will normally not exceed ECU 10 000, on average per partner and per year, covering up to 100 % of the additional costs for the coordination of the action. Members of a network could also apply for research projects under normal procedures.

   (c) Technology stimulation to encourage and facilitate participation of SMEs in RTD activities:

      (i) by granting awards for carrying out the exploratory phase of an RTD activity, including the search for partners, during a period of up to 12 months. The award will be granted following the selection of an outline proposal to be submitted normally by at least two non-affiliated SMEs from two different Member States. The award will cover up to 75 % of the cost of the exploratory phase, without exceeding ECU 45 000 or ECU 22 500 in the exceptional case of a single applicant SME; and

      (ii) by supporting cooperative research projects, whereby SMEs having similar technical problems but not having adequate own research facilities, engage other legal entities to carry out RTD on their behalf. Community funding for cooperative research projects, involving normally at least four non-affiliated SMEs from at least two different Member States, will normally cover 50 % of the cost of the research.

   Following an initial call, in both cases proposals may be submitted at any time during the period covered by the work programme being implemented.

   These activities will be complemented by specific preparatory, accompanying and support measures.

2. Preparatory, accompanying and support measures, such as:

   — studies in support of this programme and in preparation for future activities,

   — support for exchange of information, conferences, seminars, workshops or other scientific or technical meetings, including intersectoral or multidisciplinary coordination meetings,

   — use of external expertise, including access to scientific databases,

   — scientific publications and activities for the dissemination, promotion and exploitation of results, in coordination with the activities carried out under the third activity; the factors liable to encourage use of results will be taken into account from the outset and throughout the duration of RTD projects, the partners in which will constitute a key network for diffusion and exploitation of results,

   — analysis of possible socio-economic consequences and technological risks associated with the programme, which will also contribute to the programme 'targeted socio-economic research',

   — training actions related to research covered by this programme in order to enhance employment skills and to facilitate technology transfer to industry,

— independent evaluation of the management and execution of the programme and of the implementation of the activities,

— measures in support of the operation of networks for increasing awareness and providing decentralized assistance to SMEs, in coordination with the Euromanagement auditing activity of RTD.

Community funding may cover up to 100 % of the costs of these measures.

3. Concerted actions, consisting of the coordination of RTD projects already funded by public authorities or private bodies.

The concerted action option may also be used unter the programme as a way of establishing the feasibility and defining the content of proposals for shared-cost research activities.

Community funding will cover 100 % of the costs of the concertation.