EUROPEAN COMMISSION
RESEARCH DIRECTORATES GENERAL
GRANTS FOR CO-OPERATING WITH THIRD COUNTRIES

A 1 FP5EGT

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For guidelines see relevant "Guide for Proposers"

Proposal submission form for financial support from EURATOM:

GRANTS FOR YOUNG RESEARCHERS FROM THIRD COUNTRIES

Applications for Grants can only be submitted in connection with proposals for:
Research, Demonstration and Combined Research and Demonstration projects
And proposals for
Concerted Actions

EACH APPLICANT MUST RETURN COMPLETED ADMINISTRATIVE SECTION A AND THE PROJECT DESCRIPTION SECTION B

If possible, these forms should be prepared using the Proposal Preparation Tool (ProTool), which is available via the Commission Internet site http://www.cordis.lu/fp5, by E-mail or on CD-ROM. Use of the Proposal Preparation Tool is preferred by the Commission. However applicants may also use the forms in the Guide for Proposers. Using the ProTool, forms may be submitted electronically, or printed out and returned on paper.

Information on the RTD or CA Proposal [1]

RTD/CA Proposal Full Name[2]				
RTD/CA Proposal Acronym [3]			RTD/CA Proposal No [4]	
Applicant Name [5]				
Call Identifier [6]				
Research Programme(s)[7]				
Thematic priorities [7]				

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POST STAMP : / / RECEPTION DATE : / /

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RTD/CA Proposal Acronym [3]		**RTD/CA Proposal No** [4]	
Applicant Name [5]			

A1. GENERAL INFORMATION ON THE APPLICANT (TO BE COMPLETED BY THE APPLICANT)

Applicant Identification

Title (Dr, Prof., ...)		**Gender** [8]	**F**		**M**
Current Family Name					
First Name					
Birth Family Name (if different)					
Country code [9] **of residence** [10]		**Date of birth** (DD/MM/YYYY)			
Nationality Code [11]		**Nationality Name** [11]			

Grant Application

Short summary of the grant application (3 lines maximum)					
Duration requested (in months)		**Planned start date** [12] (DD/MM/YYYY)			
Estimated Contribution requested (in euro) [13]		**Travel costs** (in euro) [14]		**Daily allowance** (in euro) [15]	

Qualifications [16]

University (pre-doctoral)	**Date of award** (DD/MM/YYYY)	
Doctorate	**Date or expected date of award** (DD/MM/YYYY)	
Other post-university qualifications	**Date or expected date of award** (DD/MM/YYYY)	
Specify		

Languages spoken [17]			
Level [18]			

Research experience [19]

Number of years of full-time research	

Previous contracts

Have you held a Community Grant before? (Put a cross)			**Y**	**N**

If yes, please give details of the grant:

Programme Name			**Contract No**	
Contract Period	**From** (DD/MM/YYYY)		**To** (DD/MM/YYYY)	

Declaration

I the undersigned, declare that I have read and accept the rules governing Grants for co-operating with third countries. I understand that if I am selected for a grant, my project details may be published by the Commission, including on its Internet sites. I certify that the information submitted for this proposal is accurate and complete. I understand that any false declaration or incomplete information may lead to the rejection of my proposal or termination of the grant.

DATE OF SIGNATURE		
SIGNATURE OF APPLICANT		

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RTD/CA Proposal Acronym [3]		RTD/CA Proposal No [4]	
Applicant Name [5]			

A2. INFORMATION CONCERNING THE HOME ORGANISATION
(TO BE COMPLETED BY THE HOME ORGANISATION)

Home Organisation (legal entity) [20]					
Registration No with the European Commission's Research Programmes [21]					
Organisation Legal Name [22]					
Short Name [23]			Legal Registration No [24]		
Activity Type [25]		Legal Status [26]			
Address of the department where the applicant is working					
Department/ Institute Name					
PO Box [27]					
Street Name and Number					
Post Code [28]			Cedex [29]		
Town/City					
Country Code [11]		Country Name [11]			
Internet homepage					
Applicant Information					
Telephone No [30]			Fax No [30]		
E-mail					
Authorised person					
Title (Dr, Prof., ...)			Gender [8]	F ☐	M ☐
Family Name					
First Name					
Position in institution					

I declare that the above mentioned applicant is currently working at our organisation and that the organisation supports his/her application for a grant. Should the application be successful, I confirm that the applicant will be allowed to participate in the training activity and that he/she will return to work in this institution at the end of the training period. I certify that the information in this application about my institution is accurate and complete.

STAMP OF HOME INSTITUTION	
DATE OF SIGNATURE	
SIGNATURE OF AUTHORISED PERSON [31]	

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RTD/CA Proposal Acronym [3]		**RTD/CA Proposal No** [4]	
Applicant Name [5]			

A3. INFORMATION CONCERNING THE HOST ORGANISATION

(TO BE COMPLETED BY THE HOST ORGANISATION)

Host Institution (legal entity) [32]					
Participant Role [33]		**Participant No** [34]		**Linked to Contractor No** [35]	
Organisation Legal Name [22]					
Short Name [23]					
Department/ Institute Name					
Working language(s) of the organisation [17]					

Authorised person						
Title (Dr, Prof., ...)		**Gender** [8]	**F**		**M**	
Family Name						
First Name						
Position in institution						
Telephone No [30]		**Fax No** [30]				
E-mail						

I declare our organisation agree to host the above mentioned applicant for a Grant for co-operating with third countries in connection with the above mentioned project proposal. Should the application be successful, I confirm that the applicant will be allowed to participate in the training activity described in the application at our institution.

STAMP OF HOST INSTITUTION	
DATE OF SIGNATURE	
SIGNATURE OF AUTHORISED PERSON [31]	

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RESEARCH DIRECTORATES GENERAL
GRANTS FOR CO-OPERATING WITH THIRD COUNTRIES

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RTD/CA Proposal Acronym [3]		**RTD/CA Proposal No** [4]	
Applicant Name [5]			

A4. DECLARATION FROM PROPOSAL CO-ORDINATOR

Co-ordinating organisation[36]			
Organisation Legal Name [22]			
Short Name [23]			
Department/ Institute Name			
Name of proposal co-ordinator			
I declare that the above mentioned application for a Grant for co-operating with third countries is in the interest of the above mentioned project, and has been agreed by the consortium.			
Stamp of institution			
DATE OF SIGNATURE			
SIGNATURE OF PERSON AUTHORISED TO SUBMIT A PROPOSAL IN THE CO-ORDINATING ORGANISATION			

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GRANTS FOR CO-OPERATING WITH THIRD COUNTRIES

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B. DETAILED PROPOSAL DESCRIPTION OF APPLICATIONS FOR GRANTS

The detailed proposal information described below must be provided in addition to the proposal form. All pages must be numbered in a single series and clearly marked with the name of the applicant and the proposal acronym.

1. DESCRIPTION OF THE GRANT

To be written by the applicant, including the following points (maximum 2 pages):

1. The scientific or training objectives of the grant
2. Expected benefit for the applicant and his/her home organisation
3. Relevance of grant to the project as a whole

2. CURRICULUM VITAE OF THE APPLICANT

To be written by the applicant. Provide detailed information including exact dates and places (maximum 2 pages):

1. University studies and diplomas obtained (mention the level: Honours, Cum Laude, etc.)
2. Dissertations / theses (subjects and names of supervisors)
3. Professional / research experience (indicate relevant scientific techniques and skills, and experience of European collaborative research projects)
4. List of publications and patents and other outcomes of research work (do not send any reports or copies except abstracts of most relevant publications; please indicate when first author)
5. Distinctions, prizes etc.

3. ATTACHMENT

1. Copy of passport or identity card

European Commission

Proposal submission forms for financial support from EURATOM:

Grants for young researchers from Third Countries

Including guidelines on how to complete the proposal submission form

How to complete the proposal submission forms

Introduction

This document provides guidance on how to complete the application forms for grants for young researchers from third countries (CEECs and NIS). The application has two parts, 'Part A' provides the necessary administrative and financial information, while 'Part B' is the content description of the application for a grant.

The forms may be submitted either electronically or on paper. You are strongly advised to submit the forms electronically.

Submitting electronically:

You must use the Proposal Preparation Tool, which can be downloaded free-of-charge from the Internet site:

http://www.cordis.lu/fp5

This tool provides on-line help facilities, and provides instructions for entering and submitting the required information electronically. **If you choose to submit electronically there is no need to read the remainder of these notes**.

Submitting on paper:

There is a front-page (A0) and four forms, numbered A1, A2, A3 and A4. You should detach and complete these forms or you may use photocopies of them providing the quality is good. Alternatively, you can download the forms from the World Wide Web at the address given above. When you have completed the form, please keep a photocopy for your own file.

The forms are designed to collect the administrative information on the applicant and the consortium making the proposal. This information is necessary for the Commission services to evaluate the proposal. A minimal amount of extra information is requested for statistical purposes only.

In addition to the administrative information provided in part A, a proposal must also contain part B describing the content of your application. Incomplete proposals will be ineligible and will not be evaluated.

How to complete the forms

The forms should be completed as follows:

- The applicant fills in form A1;
- The applicants home organisation fills in form A2.
- The host organisation fills in form A3.
- The co-ordinator of the research or concerted action proposal to which the grant is related fills in forms A0 and A4.

Explanatory notes are appended to each form.

Forms A0 to A4 may be machine-read at the Commission, so to minimise the possibilities of your proposal details being read incorrectly, we would kindly ask you to read and follow these notes carefully.

Please fill in the forms by typewriter. A photocopy of the original may be used if the quality is good.

Please keep Forms A0 to A4 as clean as possible and do not fold, staple or amend them with correction fluid.

Please enter your data only in the white space on the forms, do not type outside the boundaries or the data is likely to be truncated in the Commission's database. For questions requiring a choice between different boxes, please enter X in the appropriate space. You may find it easier to do this by hand in black ink, rather than try to line up a single typed character.

When appropriate when completing the form, please replace the characters listed below by the corresponding double characters:

Ø	OE	Ä	AE	Ö	OE
ø	oe	ä	ae	ö	oe
Æ	AE	Ü	UE	Å	AA
æ	ae	ü	ue	å	aa
ß	ss				

For numbers, (amount, durations, percentages, person-months), please round to the nearest whole number. Do not insert any character or space to separate the digits in a number.

Please remember to indicate the proposal short name (acronym), proposal number (if a number has been allocated before submission) and the name of the applicant at the top of the form where indicated, and on every page of the other parts, including any annexes.

All costs must be given in euro (and not kilo euro).

Where to send the form

The applicant should send the A1 form together with the A2 form from the home organisation to the proposal co-ordinator. The host organisation should send form A3 to the proposal co-ordinator. The applicant, the home and host organisations should confirm their agreement to the grant either by signing the forms, or by providing a commitment letter to the co-ordinator before the deadline.

The proposal co-ordinator should check that the forms have been filled in correctly and that there is consistency between the information in the various forms and the rest of the proposal. The co-ordinator should check that all parties have confirmed their agreement to the grant, and then sign form A4.

The co-ordinator should then send the original (with original signatures) and the required number of copies to the European Commission. The number of copies is specified in the Guide for Proposers and the address is specified in the Call for Proposals.

Additional information

The notes accompanying the forms are intended to help you complete them correctly. However, you should also read the other parts of the Guide for Proposers, and other documents provided in the information pack, where you will find more complete descriptions of the principles used to implement the programme. Specifically, the following documents are essential to submit a proposal:

- The call for proposals published in the Official Journal,
- The Guide for Proposers for the call,
- The proposal submission form for the type of action you apply for,
- The work programme for the relevant Community programme,
- The evaluation manual with its programme specific annexes.

Other sources of information which contain relevant information are:

- The model contracts for Community activities in the field of research and technological development and demonstration and concerted actions
- The rules for participation and dissemination of research results of the EURATOM fifth framework programme.

Copies of these documents can be requested from the information desk of the Commission services mentioned in the Guide for Proposers for the call or be downloaded from the WWW at the following address: http://www.cordis.lu/fp5.

How to complete the administrative forms (Part A - Forms A0 to A4).

Proposal Information forms (A0)

1. **Information on the RTD or CA proposal**
   In this section, please provide information on the research, demonstration, combined R&D or concerted action proposal to which your application for the grant is linked.

2. **Proposal Full Name**
   Write the name of the research, demonstration, combined or concerted action proposal or contract to which your application for the grant is linked.

3. **Proposal acronym**
   If applicable: Write the acronym chosen for the research, demonstration, combined or concerted action proposal or contract to which your application for the grant is linked.

4. **Proposal number**
   The proposal number you were given at pre-registration by the Commission services, where this service was applicable. If you have not received a proposal number, you should leave this field blank. In this case, the Commission services will allocate a proposal number after reception. This number will be communicated to you on the acknowledgement of receipt form.

5. **Name of applicant**
   Name and First Name will be used to identify the grant application together with the proposal number and acronym.

6. **Call Identifier**

   The call identifier is the reference number given in the call you are addressing, as indicated in the publication of the call in the Official Journal.

7. **Thematic Priorities of the Research Programmes**

   The thematic priorities addressed by your proposal as indicated in the list in Appendix 1 - Annex 1 of the RTD or Concerted Actions Forms: "Structure of the thematic priorities of the 5th Framework Programme 1998-2002 (indirect actions)". The list is organised so that the first three digits indicate the programme (in bold) and the two or three last digits indicate the thematic priorities. You should use all five or six digits as identifier of the thematic priorities. If more than one thematic priority is addressed, indicate them in priority order, so that the main priority addressed by the proposal is mentioned first.

General information on the applicant (A1)

8. Gender (F(emale) / M(ale))

This information is required for statistical purposes only. Please indicate with a cross as appropriate.

9. Country Code / Name

Use the relevant country code as indicated in the list in Annex 2 of Appendix 1, the proposal submission forms: “Country Codes”. For any country not included in the list please indicate the full name of the country in the "Country Name" and leave the "Country Code" blank.

10. Residence (Only applicable for non -nationals)

The country code from the annex mentioned in note 9 for the country in which the applicant is resident at the time of the application.

11. Nationality Code / Name

Use the relevant country code as indicated in note 9 for the nationality of the applicant. For any country not included in the list please indicate the full name of the country in the "Country Name" and leave the "Country Code" blank. Proof of nationality must be provided as described in section B.

12. Planned start date

Remember that the grant cannot start until the RTD contract has been signed, which will be 4 to 5 months after the deadline for submission. You will be allowed up to 12 months after the contract has been signed to start your grant. Failure to commence your grant within this period could lead to the loss of the grant.

13. Estimated Contribution requested

The total estimated contribution, which is requested for the grant in euro. The total should be the sum of travel and daily allowance costs.

14. Travel costs

The cost of one return Apex ticket from the place of residence (normally the place of the home organisation) to the host organisation.

15. Allowance

Please calculate the costs for a grant by multiplying the monthly allowances paid by the Commission for fellows under the Marie Curie fellowship scheme (see below) with the number of months that is foreseen for the grant. The maximum duration for a grant is 6 months.

Reference Rates for Marie Curie Fellows

This table sets out the total monthly allowance paid in the Member or Associated State where the host organisation is established. These costs relate to the following fellowship schemes:

- Marie Curie Individual Fellowships;
- Marie Curie Industry Host Fellowships (Researchers with the necessary research experience only*)
- Marie Curie Development Host Fellowships
- And should also be used for the grants

COUNTRY**	TOTAL MONTHLY ALLOWANCES PAID BY THE COMMISSION (EURO)
AUSTRIA	4.280
BELGIUM	4.993
DENMARK	4.373
FINLAND	3.807
FRANCE	3.600
GERMANY	4.500
GREECE	2.400
ICELAND	3.752
IRELAND	3.062
ISRAEL	3.875
ITALY	3.813
LIECHTENSTEIN	4.243
LUXEMBOURG	3.955
NETHERLANDS	4.225
NORWAY	4.302
PORTUGAL	3.841/3.104***
SPAIN	3.342
SWEDEN	4.291
SWITZERLAND	4.243
UNITED KINGDOM	3.128

* Post-graduate researchers will be allocated 70% of the reference rate
** In the case of new Associated States the rates for Marie Curie Fellowships will be determined on a case by case basis pending the agreement of rates with each Associated State
*** Lower rate applicable for host institutions in the public sector

16. Qualifications

Full details of qualifications must be included in your Curriculum Vitae, as stated in the Detailed Proposal Information in the description of the application in part B. In this section you indicate the type of education and the time of the awards.

17. Languages spoken /working language

For the applicant: Please indicate the languages that you speak. Write the name of the language in English (e. g. English, German, French). The first language should be the mother tongue.
For the host organisation: Please indicate the language which is the working language of the host institute. If there are more than one, please provide a list in priority order.

18. Level of language command

For each language you have mentioned in row 16, please indicate the level to which you master the language according to the following codes:
Mother tongue.
Excellent: Full active command of the spoken and written language.
Good: Reasonable active command of the spoken and written language.

19. Research Experience

Full details of your experience must be included in your Curriculum Vitae, as stated in the Detailed Proposal Information in part B of the application.

Information concerning the home organisation (A2)

20. Home organisation

This section is to be filled by the home organisation.

21. Registration No with the European Commission's Research Programmes

In case the organisation has already received a registration under the fifth Framework Programme, please enter it here, and only give the organisation details if they have changed since the registration number is received.

22. Organisation Legal Name

If applicable, name under which the participant is registered in the official trade registers.

23. Short Name

The short name chosen by the participant for this research, demonstration, combined or concerted action proposal. This should normally not be more that 20 characters.

24. Legal Registration No

If applicable, please provide the legal national registration number or code in, i. e. Chambers of Commerce or the business register.

25. Activity Type

Indicate the habitual activity of your organisation. Please use one of the following codes:
REC: Research;
HES: Higher Education;
OTH: Others

26. Legal Status

Please use one of the following codes:

GOV: Governmental;
INO: International Organisation;
JRC: Joint Research Centre;
PUC: Public Commercial Organisation;
PRC: Private Commercial Organisation including Consultant;
EEI: European Economic Interest Group;
PNP: Private Organisation, Non Profit.

27. P. O. Box

If applicable, indicate number of Post Office Box for surface mail delivery.

28. Post Code

If applicable, enter numerical (alphanumeric for United Kingdom and The Netherlands) post code without being prefixed by the country identifier, e.g. 1000 and not B-1000 or SW1H 9AS and not UK-SW1H 9AS.

29. Cedex

If applicable, indicate Cedex for surface mail delivery.

30. Telephone No and Fax No

Please give the telephone and fax numbers in the following format, for example (a European Commission telephone number in Brussels, Belgium): (32-2) 2988888 (32 being the country code number; 2 the area code number for international calls; 2988888 the subscriber's number).

31. Authorised Person

This is a person with authority to commit the organisation to participate the project.

Information concerning the host organisation (A3)

32. Host organisation

This section is to be filled by the host organisation, which must be one of the organisations participating to the research, demonstration, combined R&D or concerted action proposal or contract to which this grant application is linked.

33. Participant Role

The role for the participant as defined by the consortium for the research, demonstration, combined R&D or concerted action proposal or contract to which the application is linked. The following codes should be used for role:

CO: scientific, administrative and financial co-ordinator;
CF: only financial and administrative co-ordinator (if different from co-ordinator);
CR: principal contractor (other than the co-ordinator);
AC: assistant contractor (in research, demonstration or combined R&D proposals)
MB: member (in concerted action proposals)

34. Participant No

The number allocated by the consortium to the participant as defined by the consortium for the research, demonstration, combined R&D or concerted action proposal to which the application is linked this proposal. The co-ordinator of a proposal is always number one. Assistant contractors (RTD proposals) and members (Concerted action proposals) should have numbers following the contractor whom they are working with. In case the assistant contractor or member is assisting more than one principal contractor, the assistant contractor or member should have a number following the first contractor listed.

35. Linked to Principal Contractor No (Participant No)

Only for assistant contractors and members: Indicate the number of the principal contractor, whom the assistant contractor or member is linked.

Declaration from proposal or contract co-ordinator Form (A4)

36. Co-ordination organisation

This form should be filled by the organisation co-ordinating the research, demonstration, combined or concerted action proposal or contract to which the application is linked.

Part B: Grant application description

The applicant must give a description of the grant according to the guidelines provided in the Part B Form.

Appendix 1

Annex 1

Structure of the research programmes of the fifth framework programme 1998-2002 (indirect actions) and their thematic priorities according to their workprogrammes

Structure of the research programmes of the fifth framework programme 1998-2002: (indirect actions):

1. 5th EC Framework programme

1.1. First activity
1.1.1. Quality of Life and Management of Living Resources
1.1.2. User-friendly Information society
1.1.3. Competitive and Sustainable Growth
1.1.4. Energy, Environment and Sustainable Development

1.2. Second activity
1.2.1. Confirming the International Role of Community Research

1.3. Third activity
1.3.1. Promotion of Innovation and Encouragement of SME participation

1.4. Fourth activity
1.4.1. Improving the Human Research Potential & the Socio-Economic Knowledge Base

2. Euratom Framework Programme

2.1 Nuclear Energy

Structure of the thematic priorities of the fifth framework programme 1998-2002: (indirect actions):

1. **EC Framework programme**

1.1. ***First activity***

1.1.1. **Quality of Life and Management of Living Resources**

1.1.1.-1. Key action Food, Nutrition and Health

1.1.1.-1.1 Development of safe and flexible and new and/or improved manufacturing processes and technologies

1.1.1.-1.1.1. Novel and improved biological raw materials for high quality food

1.1.1.-1.1.2. Advanced and optimised food technologies, packaging systems and process control

1.1.1.-1.1.3. Quality monitoring and traceability throughout the food chain

1.1.1.-1.2 Development of tests to detect and processes to eliminate infectious and toxic agents throughout the food chain

1.1.1.-1.2.1. Improved understanding and control of contamination conditions.

1.1.1.-1.2.2. Rapid detection tests for pathogens, xenobiotics and hormones.

1.1.1.-1.2.3. New and safer methods of food production and distribution.

1.1.1.-1.2.4. New methodologies for assessing microbial, chemical and allergenic risks and exposures.

1.1.1.-1.3. Research into the role of food in promoting and sustaining health

1.1.1.-1.3.1. Role and impact of food on physiological functions, physical and mental performance

1.1.1.-1.3.2. Particular nutritional needs of defined population groups.

1.1.1.-1.3.3. Links between diet and chronic diseases and disorders including the genetic factors involved.

1.1.1.-1.3.4. Consumer attitudes and reactions with regard to food products, food processing and labelling.

1.1.1.-2. Key action Control of Infectious Diseases

1.1.1.-2.1. Development of improved or novel mono-component, multi-component and combined vaccines

1.1.1.-2.1.1. Discovery phase and preclinical development of vaccines.

1.1.1.-2.1.2. Development of European networks for clinical and field trials of vaccines.

1.1.1.-2.1.3. Underlying mechanisms ("transdisease vaccinology")

1.1.1.-2.2. Strategies to identify and control infectious diseases

1.1.1.-2.2.1. Comprehensive approaches for the treatment of, and protection against, human and animal infectious diseases.

1.1.1.-2.2.2. Antimicrobial drug resistance and changes in virulence.

1.1.1.-2.2.3. Diagnostic tests for humans and animals.

1.1.1.-2.2.4. Risk assessment and transmission.

1.1.1.-2.3. Aspects of public health and care delivery systems

1.1.1.-2.3.1. Organisational and economic aspects of public health.

1.1.1.-2.3.2. Surveillance, monitoring and evaluation methodologies in prevention and cure.

1.1.1.-2.3.3. Methodologies for product safety surveillance in the market place.

1.1.1.-3. Key action The "Cell factory"

1.1.1.-3.1. New and innovative health-related processes and products

1.1.1.-3.1.1. Development of new diagnostics, therapeutic substances and strategies.

1.1.1.-3.1.2. New and improved technologies for biological productions.

1.1.1.-3.1.3. Novel in-vitro testing as alternatives to animal testing.

1.1.1.-3.2. Energy – efficient bioremediation and waste biotreatment processes

1.1.1.-3.2.1. New bioprocesses for preventing industrial pollution, treating, upgrading, and/or recycling bioaccumulable wastes and industrial by-products.

1.1.1.-3.2.2. Bioassays and biosensors.

1.1.1.-3.2.3. Biodegradation of recalcitrant chemicals.

1.1.1.-3.2.4. Biodiversity and ecological dynamics of natural and introduced populations.

1.1.1.-3.2.5. Development of methods and strategies to ensure the safety of new biomolecules or bioprocesses, and for the identification of recombinant organisms and their residues in the environment and their impact on human and animal health.

1.1.1.-3.3. New biological and biotechnological processes and products from cell factories

1.1.1.-3.3.1. Exploiting the cellular and molecular characteristics of organisms

1.1.1.-3.3.2. High value-added products and processes involving / derived from micro-organisms, plants and animals.

1.1.1.-3.3.3.	Functional biomolecules and biocatalysts.
1.1.1.-3.3.4.	Identification and sustainable use of metabolic and genetic diversity as a source of new valuable products.
1.1.1.-4.	Key action Environment and Health
1.1.1.-4.1.	Diseases and allergies related to or influenced by the environment, their prevention and treatment
1.1.1.-4.1.1.	Analysis and quantification of the impact of environmental factors on human health.
1.1.1.-4.1.2.	Assessment of the relative importance of, and the interactions between, factors impinging on health.
1.1.1.-4.1.3.	Development of an integrated approach to risk management - taking into account environmental and public health aspects
1.1.1.-4.2.	Diagnosis, risk assessment and risk management processes to reduce causes and harmful environmental health effects
1.1.1.-4.2.1.	Development of methods to assess environmental hazards including mixed exposures, cumulative and low dose effects
1.1.1..4-2.2.	Improvement of predictive toxicity testing and mechanism-based risk assessment consistent with the aim of the reduction and eventual replacement of animal testing.
1.1.1.-4.2.3.	Improved methods and technologies for long and short-term exposure and effects assessment including bio-markers (and bio-indicators) of environmental exposure, and susceptibility to environmental agents.
1.1.1.-5.	Key action Sustainable Agriculture, Fisheries and Forestry
1.1.1.-5.1.	New and sustainable systems of production, including breeding methods and exploitation in agriculture, fisheries and aquaculture
1.1.1.-5.1.1.	Sustainable agriculture
1.1.1.-5.1.2.	Sustainable fisheries and aquaculture
1.1.1.-5.2.	The integrated production and exploitation of biological materials for non-food users
1.1.1.-5.2.1	Bulk chemicals (lubricants, paints, detergents, solvents)
1.1.1.-5.2.2	Non-wood fibre composites
1.1.1.-5.2.3	Bioplastics and biopolymers
1.1.1.-5.2.4	Speciality chemicals (biological control products, cosmetics, food ingredients, drugs and vaccines)
1.1.1.-5.2.5	Biofuels
1.1.1.-5.3.	Sustainable and multi-purpose utilisation of forest resources; the integrated forestry-wood chain
1.1.1.-5.3.1	Multifunctional management of forests
1.1.1.-5.3.2	Strategies for the sustainable and multipurpose utilisation of forest resources; the forestry-wood chain
1.1.1.-5.4.	Support for common policies – development of methods of control, surveillance and protection including protection of land and prevention of soil erosion. Pre-legislative research designed to provide a scientific basis for Community legislation.
1.1.1.-5.4.1	Community agriculture and the international context
1.1.1.-5.4.2	CAP measures and related activities including socio-economic aspects
1.1.1.-5.4.3	Monitoring and enforcement of the CFP
1.1.1.-5.4.4	Social and economic basis of the CFP
1.1.1.-5.5.	New tools and models for the integrated and sustainable development of rural and other relevant areas
1.1.1.-5.5.1	Analysing rural situations, changes and trends
1.1.1.-5.5.2	Conceptualising integrated development of rural and other relevant areas
1.1.1.-5.5.3	Assessing rural and coastal development performance and policies
1.1.1.-6.	Key action The Ageing Population and Disabilities
1.1.1.-6.1.	Age-related illnesses and health problems
1.1.1.-6.2.	Determinants of health ageing
1.1.1.-6.3.	Democraphy and epidemiology of ageing
1.1.1.-6.4.	Coping with functional limitations in old age
1.1.1.-6.5.	Health and social care services to older people
1.1.1.-7	Chronic and degenerative diseases, cancer, diabetes, cardivascular diseases and rare diseases
1.1.1.-7.1.	Aetiology, pathophysiology, progress and outcome of diseases
1.1.1.-7.2.	Evaluation of therapies through multinational, large scale studies/trials
1.1.1.-7.3.	Optimised use of databases, registries, reagents and sample banks
1.1.1.-8.	Research into genomes and diseases of genetic origin

1.1.1.-8.1.	Interpretation of the meaning of genome information
1.1.1.-8.2.	Acquisition of, access to and interpretation of genomic and functional data
1.1.1.-8.3	Development of novel expression systems, model organisms, mutant, transgenic and hybrid organisms
1.1.1.-8.4.	Development and application of underpinning biochemistry, biophysical, statistical and computational approaches
1.1.1.-9.	Neurosciences
1.1.1.-9.1.	Cell communication including mechanisms of learning and memory
1.1.1.-9.2.	Brain theories, computational neuroscience and neuroinformatics
1.1.1.-9.3.	Brain development, disorders and repair and their clinical, epidemiological and social implications
1.1.1.-9.4.	Behaviour, cognition and functional mapping of the brain
1.1.1.-10.	Public health and health services research
1.1.1.-10.1.	Public health research, health services research and health and safety
1.1.1.-10.2.	Fighting drug related problems
1.1.1.-11.	Research relating to the persons with disabilities
1.1.1.-11.1.	Determinants of impairment, disability and handicap
1.1.1.-11.2.	Methodologies for the assessment of quality of life
1.1.1.-11.3.	Innovative technological research for the rehabilitation and assistance
1.1.1.-11.4.	Health and social care delivery
1.1.1.-12.	Biomedical ethics and bioethics in the context of respect for fundamental human values
1.1.1.-12.1.	Ethical aspects of scientific and technological developments
1.1.1.-12.2.	Ethical framework for life sciences
1.1.1.-12.3.	Public policies, law and bioethics
1.1.1.-12.4.	Bioethics infrastructures and methodologies
1.1.1.-13.	Socio-economic aspects of life sciences and technologies
1.1.1.-13.1.	Development of indicators and knowledge bases relevant to public policy decision making and regulation; technology evaluation and assessment, public perception and information
1.1.1.-13.2.	Analysis of the links between life sciences and technologies and policies in the field of industry, agriculture, fisheries, food, environment, sustainable development, public health
1.1.1.-13.3	Analysis of social and economic driving forces and of barriers to development and exploitation of new opportunities in the bioindustries
1.1.1.-14.	Support for research infrastructures
1.1.1.-14.1.	Biological collections
1.1.1.-14.2.	Biological information resources
1.1.1.-14.3.	Clinical research facilities
1.1.1.-14.4.	Pre-clinical research facilities
1.1.1.-14.5.	Facilities for aquaculture and fishery research
1.1.2.	**User-friendly Information society (IST)**
1.1.2.-1.	Key action Systems and services for the citizen
1.1.2.-1.1.	RTD spanning key action 1
1.1.2.-1.1.1	New models for providing services to citizens
1.1.2.-1.2.	Health
1.1.2.-1.2.1	Personal health systems
1.1.2.-1.2.2	Clinical, biological, managerial and imaging systems for health professionals
1.1.2.-1.2.3	New generation tele-medicine services
1.1.2.-1.3.	Persons with special needs, including the disabled and the elderly
1.1.2.-1.3.1.	Systems and services for independent living
1.1.2.-1.4.	Administrations
1.1.2.-1.4.1.	Systems enhancing the efficiency and user-friendliness of administrations
1.1.2.-1.4.2.	On-line support to democratic processes
1.1.2.-1.5.	Environment
1.1.2.-1.5.1.	Intelligent environmental monitoring and management systems
1.1.2.-1.5.2.	Environment risk and emergency management systems
1.1.2.-1.6.	Transport and tourism
1.1.2.-1.6.1.	Intelligent infrastructure and mobility management
1.1.2.-1.6.2.	Systems for intelligent vehicles
1.1.2.-1.6.3.	Systems and services for tourism

1.1.2.-2.	Key action New Methods of Work and Electronic Commerce
1.1.2.-2.1.	RTD spanning key action 2
1.1.2.-2.1.1	New perspectives for work and business
1.1.2.-2.1.2.	Corporate knowledge management
1.1.2.-2.2	Flexible, mobile and remote working methods and tools
1.1.2.-2.2.1	Workplace design
1.1.2.-2.2.2	Team work
1.1.2.-2.2.3	Dynamic networked organisations
1.1.2.-2.3	Management systems for suppliers and consumers
1.1.2.-2.3.1	Digital design and life-cycle management for products and services
1.1.2.-2.3.2	New market mediation systems
1.1.2.-2.3.3	Enhanced consumer-supplier relationships
1.1.2.-2.4	Information and network security and other confidence-building technologies
1.1.2.-2.4.1	Identification and authentication
1.1.2.-2.4.2	Secure electronic financial transactions
1.1.2.-2.4.3	Digital object transfer
1.1.2.-3	Key action Multimedia Content and Tools
1.1.2.-3.1	RTD spanning key action 3
1.1.2.-3.1.1	Social and business models for multimedia content
1.1.2.-3.2	Interactive publishing, digital content and cultural heritage
1.1.2.-3.2.1	Authoring and design systems
1.1.2.-3.2.2	Content management and personalisation
1.1.2.-3.2.3	Access to scientific and cultural heritage
1.1.2.-3.2.4	Digital preservation of cultural heritage
1.1.2.-3.3	Education and training
1.1.2.-3.3.1	Open platforms and tools for personalised learning
1.1.2.-3.3.2	The flexible university
1.1.2.-3.3.3	Advanced training systems
1.1.2.-3.4	Human language technologies
1.1.2.-3.4.1	Multilinguality in digital content and services
1.1.2.-3.4.2	Natural interactivity
1.1.2.-3.5	Information access, filtering, analysis and handling
1.1.2.-3.5.1	Multi-sensory forms of content
1.1.2.-3.5.2	Media representation and access: new models and standards
1.1.2.-4	Key action Essential Technologies and Infrastructures
1.1.2.-4.1	RTD spanning key action IV
1.1.2.-4.1.1	Convergence and integration: scenarios and analyses
1.1.2.-4.2	Technologies for management of information processing, communications and networks, including broad-band, together with their implementation, interoperability and application
1.1.2.-4.2.1	Concurrent systems
1.1.2.-4.2.2	Real-time systems
1.1.2.-4.2.3	Network integration, interoperability and interworking
1.1.2.-4.2.4	Technologies for network management and service-level interworking
1.1.2.-4.2.5	All-optical and terabit networks
1.1.2.-4.3	Technologies and engineering for software, systems and services, including high-quality statistics
1.1.2.-4.3.1	Component-based software engineering
1.1.2.-4.3.2	Engineering of intelligent services
1.1.2.-4.3.3	Methods and tools for intelligence and knowledge sharing
1.1.2.-4.3.4	Information management methods
1.1.2.-4.4	Real-time and large-scale simulation and visualisation technologies
1.1.2.-4.4.1	Real-time simulation and visualisation technologies
1.1.2.-4.4.2	Large scale shared virtual and augmented environments
1.1.2.-4.5	Mobile and personal communications and systems, including satellite-related systems and services
1.1.2.-4.5.1	Re-configurable radio systems and networks
1.1.2.-4.5.2	Terrestrial wireless systems and networks
1.1.2.-4.5.3	Integrated satellite systems and services
1.1.2.-4.5.4	Advanced tools and technologies for wireless communications
1.1.2.-4.6	Interfaces making use of the various senses
1.1.2.-4.6.1	Adaptable multi-sensory interfaces

1.1.2.-4.7	Peripherals, sub-systems and microsystems
1.1.2.-4.7.1	Peripherals technologies
1.1.2.-4.7.2	Subsystems technologies
1.1.2.-4.7.3	Microsystems
1.1.2.-4.8	Microelectronics
1.1.2.-4.8.1	Microelectronics and opto-electronics design
1.1.2.-4.8.2.	Application competencies
1.1.2.-4.8.3	Processes, equipment and materials
1.1.2.-4.8.4	Advanced opto-electronics and microelectronics
1.1.2.-5	Cross programme themes
1.1.2.-5.1	Cross programme actions
1.1.2.-5.1.1	CPA1: Integrated applications platforms and services
1.1.2.-5.1.2	CPA2: Dependability in services and technologies
1.1.2.-5.1.3	CPA3: Design-for-all for an inclusive information society
1.1.2.-5.1.4	CPA4: New indicators and statistical methods
1.1.2.-5.2	Cross-programme clusters
1.1.2.-5.2.1	CPCO: Open Cross-programme clusters
1.1.2.-6	Generic activities: Future and emerging technologies
1.1.2.-6.1	FET O: Open domain
1.1.2.-6.2	Proactive Initiatives
1.1.2.-6.2.1	FET P1: Quantum information processing and communications
1.1.2.-6.2.2	FET P2: Universal information ecosystems
1.1.2.-6.2.3	FET P3: Nanotechnology information devices
1.1.2.-7	Support for research infrastructures: research networking
1.1.2.-7.1	RN1: Broad-band interconnection of national research, education and training networks, and testbeds
1.1.2.-7.2	RN2: Testbeds for advanced networking and application experiments
1.1.2.-8	IST support measures
1.1.2.-8.1	Take-up Measures
1.1.2.-8.2	Concerted actions and thematic networks
1.1.2.-8.3	Accompanying measures
1.1.2.-8.4	Technology stimulation projects to encourage and facilitate SME participation
1.1.2.-8.5	Training Fellowships

1.1.3. Competitive and Sustainable Growth

1.1.3.-1	Key Action Innovative Products, Processes and Organisation
1.1.3.-1.1	Efficient production, including design, manufacturing and control
1.1.3.-1.1.1	Integrated « product –service » design
1.1.3.-1.1.2	Advanced production and construction technologies
1.1.3.-1.1.3	Safe and reliable extended life of products and industrial systems
1.1.3.-1.2	Intelligent production
1.1.3.-1.2.1	Design of products and production-service systems
1.1.3.-1.2.2	Intelligent manufacturing and processing
1.1.3.-1.2.3	Monitoring and optimal use of indistrial systems
1.1.3.-1.3	Eco-efficient processing and design
1.1.3.-1.3.1	Eco-efficient design of products and processes
1.1.3.-1.3.2	Cleaner processes products and eco-efficient technologies
1.1.3.-1.3.3	Product recovery and waste recycling
1.1.3.-1.4	Organisation of production and work
1.1.3.-1.4.1	New methods of organisation, work and human capital improvement
1.1.3.-1.4.2	Adaptation of enterprises and human oriented production
1.1.3.-1.4.3	Knowledge, learning and management of change
1.1.3.-2	Key Action Sustainable Mobility and Intermodality
1.1.3.-2.1	Socio-economic scenarios for mobility of people and goods
1.1.3.-2.1.1	Quantitative tools for decision-making
1.1.3.-2.1.2	Driving forces in transport
1.1.3.-2.1.3	Policies for sustainable mobility
1.1.3.-2.2	Infrastructures and their interfaces with transport means and systems
1.1.3.-2.2.1	Infrastructure development and maintenance
1.1.3.-2.2.2	Environment

1.1.3.-2.2.3 Safety
1.1.3.-2.2.4 Security
1.1.3.-2.2.5 Human factors
1.1.3.-2.3 Modal and intermodal transport management systems
1.1.3.-2.3.1 Traffic management systems
1.1.3.-2.3.2 Transport and mobility services
1.1.3.-2.3.3 Second generation satellite navigation and positioning systems
1.1.3.-3 Key Action Land Transport and Marine Technologies
1.1.3.-3.1 Critical technologies for road and rail transport
1.1.3.-3.1.1 Efficient, clean and intelligent road and rail transport vehicle technologies
1.1.3.-3.1.2 Innovative and safe road and rail transport vehicle concepts
1.1.3.-3.1.3 Human/vehicle interaction
1.1.3.-3.2 Critical marine technologies
1.1.3.-3.2.1 Efficient, safe and environmentally friendly ships and vessels
1.1.3.-3.2.2 Maximising interopearbility and vessel performances
1.1.3.-3.2.3 Innovative technologies for the monitoring, exploration and sustainable exploitation of the sea
1.1.3.-4 Key Action New Perspectives in Aeronautics
1.1.3.-4.1 Reducing aircraft development cost and time to market
1.1.3.-4.1.1 Advanced design systems and tools
1.1.3.-4.1.2 Manufacturing
1.1.3.-4.1.3 Product quality control
1.1.3.-4.2 Improving aircraft efficiency
1.1.3.-4.2.1 Aerodynamics
1.1.3.-4.2.2 Structures and materials application
1.1.3.-4.2.3 Propulsion
1.1.3.-4.2.4 Systems and equipment
1.1.3.-4.2.5 Configurational and interdisciplinary aspects
1.1.3.-4.3 Improving environmental friendliness of aircraft
1.1.3.-4.3.1 Low pollutant emissions
1.1.3.-4.3.2 External noise
1.1.3.-4.3.3 Cabin environment
1.1.3.-4.4 Improving operational capability and safety of aircraft
1.1.3.-4.4.1 Air traffic management (ATM) related air borne systems
1.1.3.-4.4.2 Operational Maintenance
1.1.3.-4.4.3 Accident prevention
1.1.3.-4.4.4 Accident survivability
1.1.3.-5 RTD Activities of a Generic Nature : materials and their technologies for production and transformation and new and improved materials and production technologies in the steel field
1.1.3.-5.1 Cross-cutting generic materials technologies
1.1.3.-5.2 Advanced functional materials
1.1.3.-5.3 Sustainable chemistry
1.1.3.-5.4 Expanding the limits and durability of structural materials
1.1.3.-5.5 Iron and steel production
1.1.3.-5.6 Steel casting, rolling and downstream treatment
1.1.3.-5.7 Steel utilisation
1.1.3.-6 RTD Activities of a Generic Nature : Measurements and Testing
1.1.3.-6.1 Instrumentation
1.1.3.-6.2 Methodologies for measurements and testing
1.1.3.-6.3 Support to the development of certified reference materials (CRMs)
1.1.3.-7 Support to Research Infrastructures
1.1.3.-7.1 Support activities to medium and large scale facilities
1.1.3.-7.2 Setting up of virtual institutes
1.1.3.-7.3 Reference databases
1.1.3.-7.4 Measurement and quality management infrastructures

1.1.4. Energy, Environment and Sustainable Development

Part A. Environment and Sustainable Development

1.1.4.-1. Key action Sustainable Management and Quality of Water
1.1.4.-1.1. Integrated management and sustainable use of water resources at catchment scale
1.1.4.-1.1.1. Strategic planning and integrated management methodologies and tools at catchment scale
1.1.4.-1.1.2. Socio-economic aspects of sustainable use of water
1.1.4.-1.1.3. Operational management schemes and decision support systems
1.1.4.-1.2. Ecological quality of freshwater ecosystems and wetlands
1.1.4.-1.2.1. Ecosystem functioning
1.1.4.-1.2.2. Ecological quality targets
1.1.4.-1.3. Treatment and purification technologies
1.1.4.-1.3.1. Management of water in the city
1.1.4.-1.3.2. Waste water treatment and re-use
1.1.4.-1.4. Pollution prevention
1.1.4.-1.4.1. Abatement of water pollution from contaminated land, landfills and sediments
1.1.4.-1.4.2. Combating diffuse pollution
1.1.4.-1.5. Surveillance, early warning and communication systems
1.1.4.-1.5.1. Pollution surveillance and control
1.1.4.-1.5.2. Improved flood and drought forecasting
1.1.4.-1.6. Regulation of stocks and technologies for arid and semi-arid regions and generally water-deficient regions
1.1.4.-1.6.1. Water resources use and management
1.1.4.-1.6.2. Prevention and mitigation of saline water intrusion
1.1.4.-1.6.3. Technological development and management tools
1.1.4.-.2 Key action Global Change, Climate and Biodiversity
1.1.4.-2.1 To understand, detect, assess and predict global change processes
1.1.4.-2.1.1. Atmospheric composition change
1.1.4.-2.1.2. Stratospheric ozone depletion
1.1.4.-2.1.3. Climate change prediction and scenarios
1.1.4.-2.1.4. Climate variability and abrupt climate changes
1.1.4.-2.2. To foster better understanding of terrestrial (including freshwater) and marine ecosystems and their interactions
1.1.4.-2.2.1. Ecosystem vulnerability
1.1.4.-2.2.2. Interactions between ecosystems and the carbon and nitrogen cycles
1.1.4.-2.2.3. Assessing and conserving biodiversity
1.1.4.-2.3. Scenarios and strategies for responding to global issues
1.1.4.-2.3.1 Mitigation and adaptation to global change
1.1.4.-2.3.2. Reconcilling the conservation of biodiversity with economic development
1.1.4.-2.3.3. Fighting land degradation and desertification
1.1.4.-2.3.4. Compatibility between EU and international environmental policies and links with trade
1.1.4.-2.4. European component of the global observing systems
1.1.4.-2.4.1. Better exploitation of existing data and adaptation of existing observing systems
1.1.4.-2.4.2. Development of new long-term observing capacity
1.1.4.-3. Key action Sustainable Marine Ecosystems
1.1.4.-3.1. Improved knowledge of marine processes, ecosystems and interactions
1.1.4.-3.1.1. Better assessment of naturally occuring mechanisms of ecosystem functioning
1.1.4.-3.1.2. Assessment of sedimentary systems for the sustainable management and use of the shelf, slope and deep-sea floor
1.1.4.-3.1.3. Transport pathways and impacts of pollutants, key elements and nutrients in the marine environment
1.1.4.-3.2. Reducing the anthropogenic impact on biodiversity and the sustainable functioning of marine ecosystems, and facilitating the development of safe, economic and sustainable exploitation technologies
1.1.4.-3.2.1. Reversing the trend in loss of marine biodiversity
1.1.4.-3.2.2. Reducing the effects of anthropogenic activities on the marine environment and recovering degraded marine systems
1.1.4.-3.2.3. Technologies for safe, sustainable and economic exploitation of marine resources
1.1.4.-3.3. Monitoring and managing coastal processes and the coastal zone
1.1.4.-3.3.1. Integrated studies on land-ocean interation
1.1.4.-3.3.2. Coastal zone changes
1.1.4.-3.3.3. Coastal protection against flooding and erosion
1.1.4.-3.3.4. Coastal processes monitoring

1.1.4.-3.4. Operational forecasting of environmental constraints of offshore activities
1.1.4.-4. Key action City of Tomorrow and Cultural Heritage
1.1.4.-4.1. Sustainable city planning and rational resource management
1.1.4.-4.1.1. Improving urban governance and decision making
1.1.4.-4.1.2. Improving the quality of urban life
1.1.4.-4.1.3. Waste reduction and its life cycle management
1.1.4.-4.1.4. Economic development, competitiveness and employment
1.1.4.-4.2. Protection, conservation and enhancement of European cultural heritage
1.1.4.-4.2.1. Improved damage assessment on cultural heritage
1.1.4.-4.2.2. Development of innovative conservation strategies
1.1.4.-4.2.3. Foster integration of cultural heritage in the urban setting
1.1.4.-4.3. Development and demonstration of technologies for safe, economic, clean, effective and sustainable preservation, recovery, renovation, construction, dismantling and demolition of the built environment, in particular for large groups of buildings
1.1.4.-4.3.1. Revitalisation of city centres and neighbourhoods
1.1.4.-4.4. Comparative assessment and cost effective implementation of strategies for sustainable transport systems in an urban environment
1.1.4.-4.4.1. Strategic approaches and methodologies in urban planning towards sustainable urban transport
1.1.4.-4.4.2. Comparative assessment and demonstration of new transport technologies and related infrastructure

Part B Energy

1.1.4.-5 Key action Cleaner Energy Systems, including Renewable Energies
1.1.4.-5.1 Large scale generation of electricity and/or heat with reduced CO_2 emissions from coal, biomass and other fuels, including combined heat and power
1.1.4.-5.1.1. Cleaner fuels by substitution and treatment
1.1.4.-5.1.2. More efficient energy conversion processes or cycles, including combution efficiency
1.1.4.-5.1.3. More efficient gas turbines
1.1.4.-5.1.4. Optimisation of CHP systems
1.1.4.-5.2 Development and demonstration, including for decentralised generation, of the main new and renewable energy sources, in particular, biomass, wind and solar technologies, and of fuel cells
1.1.4.-5.2.1. Biomass (including waste) conversion systems
1.1.4.-5.2.2. Wind energy optimisation
1.1.4.-5.2.3. Cost efficient photocoltaic
1.1.4.-5.2.4. Solar thermal concentrating systems
1.1.4.-5.2.5. Other renewable energies
1.1.4.-5.2.6. Efficient, reliable and cost effective fuel cell systems
1.1.4.-5.3. Integration of new and renewable energy sources into energy systems
1.1.4.-5.3.1. Integrating renewable energy sources into the grid and stand alone systems
1.1.4.-5.3.2. Hybrid systems
1.1.4.-5.3.3. Improving the acceptability of renewables
1.1.4.-5.4. Cost effective environmental abatement technologies for power production
1.1.4.-5.4.1. Reduction of local and global environment degrading emissions
1.1.4.-6 Key action Economic and Efficient Energy for a Competitive Europe
1.1.4.-6.1 Technologies for the rational and efficient end use of energy
1.1.4.-6.1.1. Spatial integration
1.1.4.-6.1.2. Building sustainability
1.1.4.-6.1.3. Efficient space heating, cooling, ventilation, lighting systems and domestic appliances, and integration of renewables into buildings
1.1.4.-6.1.4. Transport combustion optimisation with cleaner hydrocarbon and alternative transport fuels
1.1.4.-6.1.5. Hybrid and electric drivelines, and energy storage and conversion devices
1.1.4.-6.1.6. Proving innovative public and private transport means
1.1.4.-6.1.7. Efficient cross-sectoral technologies and better managed industrial processes
1.1.4.-6.2. Technologies for the transmission and distribution of energy
1.1.4.-6.2.1. Assuring electric power flow reliability and stability and increasing power line efficiency
1.1.4.-6.2.2. Interconnection and load shaping

1.1.4.-6.2.3. More efficient and safer transport of gas
1.1.4.-6.2.4. Cost effective heating and cooling distribution
1.1.4.-6.3 Technologies for the storage of energy on both macro and micro scale
1.1.4.-6.3.1. Optimising power quality, by means of energy storage, for stand-alone renewable and hybrid systems and for transport
1.1.4.-6.3.2. Stability related electrical energy storage
1.1.4.-6.3.3. Intermittent storage of energy, including heat and cold storage
1.1.4.-6.3.4. Safer, lighter and more energy-efficient gas storage
1.1.4.-6.3.5. Reliable high capacity microstorage
1.1.4.-6.4 More efficient exploration, extraction and production technologies for hydrocarbons
1.1.4.-6.4.1. Cost effective and more efficient exploration and production of hydrocarbons
1.1.4.-6.4.2. Deepwaters, marginal fields and new frontiers, including Arctic
1.1.4.-6.4.3. Reduced environmental impact and improved safety in exploration and production
1.1.4.-6.5. Improving the efficiency of new and renewable energy sources
1.1.4.-6.5.1. Cost effective wind turbine components
1.1.4.-6.5.2. Cost effective components for photovoltaic module systems and solar thermal concentrating systems
1.1.4.-6.5.3. Cost effective components for biomass and waste
1.1.4.-6.5.4. Other renewable energy sources
1.1.4.-6.6. The elaboration of scenarios on supply and demand technologies in economy/environment/energy (E3) systems and their interactions, and the analysis of the cost effectiveness (based on whole life costs) and efficiency of all energy sources
1.1.4.-6.6.1. Technological change anticipation
1.1.4.-6.6.2. Prospective and policy impact analysis
1.1.4.-6.6.3. Market changes and technology absorption
1.1.4.-7 RTD activities of a generic nature
1.1.4.-7.1. The fight against major natural and technological hazards
1.1.4.-7.2. The development of generic Earth observation satellite technologies
1.1.4.-7.3. Socio-economic aspects of environmental change in the perspective of sustainable development
1.1.4.-8 RTD activities of a generic nature
1.1.4.-8.1 Socio Economic aspects of energy within the perspective of sustainable development: Tools for technology assessment
1.1.4.-8.1.1. Acceptability and choices
1.1.4.-8.1.2. Innovation
1.1.4.-8.1.3. Externalities
1.1.4.-8.2 Socio Economic aspects of energy within the perspective of sustainable development: Methodologies for global systems analysis
1.1.4.-8.2.1. Economy-environment-energy modelling framework
1.1.4.-8.2.2. Matching technology implementing potentials
1.1.4.-9 Support for research infrastructures

1.2. ***Second activity***

1.2.1. **Confirming the International Role of Community Research**

1.2.1.-1. Co-operation with certain categories of third countries
1.2.1.-1.1. States in the pre-accession phase
1.2.1.-1.2. NIS and CEECs not in the pre-accession phase
1.2.1.-1.3. Mediterranean partner countries
1.2.1.-1.4. Research for development
1.2.1.-1.5. Emerging economies and industrialised countries

1.2.1.-2. Training for researchers

1.2.1.-3. Co-ordination

1.3. ***Third activity***

1.3.1. **Promotion of Innovation and Encouragement of SME Participation**

1.3.1.-1. Promotion of Innovation
1.3.1.-1.1. Studies and Good Practices
1.3.1.-1.2. New approaches to technology transfer
1.3.1.-2. Encouraging SME participation
1.3.1.-2.1. A single complementary entry point
1.3.1.-2.2. Joint support and assistance instruments
1.3.1.-2.3. Economic and technological intelligence
1.3.1.-3. Joint Innovation/SME activities
1.3.1.-3.1. European support network for the promotion of research, technology transfer and innovation
1.3.1.-3.2. Electronic information services and other means of dissemination
1.3.1.-3.3. Intellectual property
1.3.1.-3.4. Access to private innovation financing
1.3.1.-3.5. Mechanisms to facilitate the setting-up and development of innovative firms
1.3.1.-4. Co-ordination and support activities
1.3.1.-4.1. Support activities relating to Innovation
1.3.1.-4.2. Support activities relating to SME Participation

1.4. Fourth activity

1.4.1. Improving the Human Research Potential & the Socio-Economic Knowledge Base
1.4.1.-1. Training and Mobility of Researchers
1.4.1.-1.1. Research Training Networks
1.4.1.-1.2. Marie Curie Fellowships
1.4.1.-2. Access to Research Infrastructures
1.4.1.-3. Promotion of S/T Excellence
1.4.1.-3.1. High-level Scientific Conferences
1.4.1.-3.2. Distinctions for high-level research work
1.4.1.-3.3. Raising Public Awareness
1.4.1.-4. Key action Socio-Economic Knowledge Base
1.4.1.-5. Development of S/T Policies
1.4.1.-5.1. Strategic Analysis of Specific Political Issues
1.4.1.-5.2. Common Basis of Science, Technology and Innovation
1.4.1.-6. Accompanying measures for the programme
1.4.1.-7. Indicative breakdown of funds for the programme
1.4.1.-8. Indicative timetable for the programme

2. Euratom Framework Programme

2.1 Nuclear Energy
2.1.1. Key action Controlled Thermonuclear Fusion
2.1.1.-1. Fusion physics (theoretical, modelling and experimental work), physics of production, fuelling, heating and confinement of fusion plasmas, and of particle and energy removal.
2.1.1.-2. Physics and technology of higher-power plasma heating systems (using high frequency waves or neutral particles, non-inductive plasma current drive methods, and plasma fuelling and exhaust systems.
2.1.1.-3. Advanced plasma diagnostics, data acquisition, exploitation and interpretation.
2.1.1.-4. Technologies for a future experimental reactor (including e.g. superconductors, remote handling).
2.1.1.-5. Long-term technology R&D (including e.g. low-activation materials, tritium breeding blankets, safety and environmental aspects, conceptual reactor reference design studies).
2.1.1.-6. Analysis of Socio-economic aspects of fusion
2.1.2. Key action Nuclear Fission
2.1.2.-1 Operational safety of existing installations
2.1.2.-2 Safety of the fuel cycle
2.1.2.-3 Safety and efficiency of future systems
2.1.2.-4 Radiation protection

2.1.3. RTD activities of a generic nature
2.1.3.-1 Radiation protection and health
2.1.3.-2 Environmental transfer of radioactive material
2.1.3.-3 Industrial and medical uses and natural sources of radiation
2.1.3.-4 Internal and external dosimetry
2.1.4. Support for research infrastructures

Appendix 1

Annex 2

Country Codes

CODE	COUNTRY
B	Belgium
DK	Denmark
D	Germany
EL	Greece
E	Spain
F	France
IRL	Ireland
I	Italy
L	Luxembourg
NL	Netherlands
A	Austria
P	Portugal
FIN	Finland
S	Sweden
UK	United Kingdom
AD	Andorra
AE	United Arab Emirates
AF	Afghanistan
AG	Antigua and Barbuda
AL	Albania
AM	Armenia
AO	Angola
AR	Argentina
AU	Australia
AZ	Azerbaijan
BA	Bosnia and Herzegovina
BB	Barbados
BD	Bangladesh
BF	Burkina Faso
BG	Bulgaria
BH	Bahrain
BI	Burundi
BJ	Benin
BN	Brunei
BO	Bolivia
BR	Brazil
BS	The Bahamas
BT	Bhutan
BW	Botswana
BY	Belarus
BZ	Belize
CA	Canada
CD	Democratic Republic of the Congo
CF	Central African Republic
CG	Congo
CH	Switzerland
CI	Côte d'Ivoire
CL	Chile
CM	Cameroon
CN	China
CO	Colombia
CR	Costa Rica
CU	Cuba
CV	Cape Verde
CY	Cyprus
CZ	Czech Republic
DJ	Djibouti
DM	Dominica
DO	Dominican Republic
DZ	Algeria
EC	Ecuador
EE	Estonia
EG	Egypt
ER	Eritrea
ET	Ethiopia
FJ	Fiji
FM	Micronesia
GA	Gabon

CODE	COUNTRY
GD	Grenada
GE	Georgia
GH	Ghana
GM	The Gambia
GN	Guinea
GQ	Equatorial Guinea
GT	Guatemala
GW	Guinea-Bissau
GY	Guyana
HN	Honduras
HR	Croatia
HT	Haiti
HU	Hungary
ID	Indonesia
IL	Israel
IN	India
IQ	Iraq
IR	Iran
IS	Iceland
JM	Jamaica
JO	Jordan
JP	Japan
KE	Kenya
KG	Kyrgyzstan
KH	Cambodia
KI	Kiribati
KM	The Comoros
KN	Saint Kitts and Nevis
KP	North Korea
KR	South Korea
KW	Kuwait
KZ	Kazakhstan
LA	Laos
LB	Lebanon
LC	Saint Lucia
LI	Liechtenstein
LK	Sri Lanka
LR	Liberia
LS	Lesotho
LT	Lithuania
LV	Latvia
LY	Libya
MA	Morocco
MC	Monaco
MD	Moldova
MG	Madagascar
MH	Marshall Islands
ML	Mali
MM	Myanmar
MN	Mongolia
MR	Mauritania
MT	Malta
MU	Mauritius
MV	Maldives
MW	Malawi
MX	Mexico
MY	Malaysia
MZ	Mozambique
NA	Namibia
NE	Niger
NG	Nigeria
NI	Nicaragua
NO	Norway
NP	Nepal
NR	Nauru
NZ	New Zealand
OM	Oman
PA	Panama

CODE	COUNTRY
PE	Peru
PG	Papua New Guinea
PH	Philippines
PK	Pakistan
PL	Poland
PS[1]	West Bank and Gaza Strip
PW	Palau
PY	Paraguay
QA	Qatar
RO	Romania
RU	Russia
RW	Rwanda
SA	Saudi Arabia
SB	Solomon Islands
SC	Seychelles
SD	Sudan
SG	Singapore
SI	Slovenia
SK	Slovakia
SL	Sierra Leone
SM	San Marino
SN	Senegal
SO	Somalia
SR	Suriname
ST	São Tomé and Príncipe
SV	El Salvador
SY	Syria
SZ	Swaziland
TD	Chad
TG	Togo
TH	Thailand
TJ	Tajikistan
TM	Turkmenistan
TN	Tunisia
TO	Tonga
TR	Turkey
TT	Trinidad and Tobago
TV	Tuvalu
TW	Taiwan
TZ	Tanzania
UA	Ukraine
UG	Uganda
US	United States
UY	Uruguay
UZ	Uzbekistan
VA	Vatican City
VC	Saint Vincent and the Grenadines
VE	Venezuela
VN	Vietnam
VU	Vanuatu
WS	Samoa
YE	Yemen
YU	Yugoslavia
ZA	South Africa
ZM	Zambia
ZW	Zimbabwe
807[1]	Former Yugoslav Republic of Macedonia

[1] Provisional code