

SUSTAINABLE PRODUCTION AND ENVIRONMENTAL TECHNOLOGIES

ECOTECH

2011 Edition

Call for proposals closing date
08/03/2011 at 13h00 Paris local time

Call for proposals publication address
<https://aap.agencerecherche.fr/layouts/ANR/SIMNouveauProjet.aspx?idaap=454>

The call is implemented by ADEME, which is mandated by the ANR to take care of the implementation of the evaluation and the management of the funding files.

KEYWORDS

Eco-industry, environmental technologies, life-cycle of products, eco-conception, substitution of dangerous substances, waste recycling, environmental monitoring technologies, water, air, soil, coastal environment, industrial, urban and agricultural pollutions, technology transfer from nanotechnologies, biotechnologies and ICT



IMPORTANT DATES

CLOSING OF THE CALL FOR PROPOSALS

The project proposals must be submitted on the ANR submission web site - see address in link on page 1 - before the call for proposals closing deadline:

ON 08/03/2011 AT 13H00 (1 P.M.) (PARIS TIME)

(see § 5 "Submission conditions")

SIGNED AND SCANNED DOCUMENT

Each partner must confirm participation in the proposal by signing its administrative and financial document (the "submission document"). This document is generated from the ANR submission site after closure of the call for proposals. Once scanned in PDF format, the coordinator must upload it to the submission web site no later than:

21/03/2011 at 13h00 (1 p.m.) (Paris time)

(see § 5 "Submission conditions")

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It is important to read carefully the present document in its entirety, and the regulations concerning the conditions of allocation of ANR funding (<http://www.agence-nationale-recherche.fr/documents/uploaded/2007/reglement-modalites-attribution-aide.pdf>) before submitting a research project proposal.

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I. CONTEXT AND OBJECTIVES FOR THE CALL FOR PROPOSALS

I.1. CONTEXT

The concept of ecotechnologies encompasses several approaches including reducing pollutant emission at the source, the conservation of natural resources and reducing environmental risks. The ecotechnology field covers new strategies aimed at environmental efficiency in both production and consumption patterns as well as environmental technologies focusing on reducing pollution in natural environments (water, soil, ocean and air).

France ranks 4th worldwide (and 2nd in Europe) by size of the eco-industry sector, and it owes this strong position especially to the activity of both large multinationals and a dense network of SMEs. The strengthening of environmental regulation both in Europe and the world is having a significant impact on economic activity, and henceforth those countries and those industries capable of generating eco-innovations will clearly reap benefits in the form of increased competitiveness¹.

In response to the recent French national environmental assizes (“Grenelle de l’Environnement”), the action plan Ecotech 2012 was implemented jointly in 2008 by the ministry of industry (MINEFE) and ecology (MEEDDM). This plan is intended to stimulate eco-industries. The ANR's ECOTECH program is aligned with this objective and aims at reinforcing French R&D capacity in the area of eco-innovation.

The ECOTECH program has been launched by the ANR in close coordination with the “ECO-INDUSTRIE” Call for Proposals² co-funded by the DGCIS, the ADEME and OSEO. The ECO-INDUSTRIE Call is intended to fund pilot projects and demonstration phases whose time-line to market is relatively short (2-5 years). The ANR ECOTECH program targets more academic research, of the sort that potentially can lead to technological breakthroughs.

ECOTECH's 2011 Call for Proposals is open to international consortiums (cf § 4.1). An agreement was reached in 2009 between ANR and the Ministry of Science and Technology (MOST) of China for the funding of Sino-Franco joint projects in the field of ecotechnologies. The collaborative framework of 2011 places particular emphasis in the areas of waste reuse, water, air quality, and ground contamination. Details are shown in Annex 1 (published in early January on the website of the Call for Proposals).

¹ http://www.minefe.gouv.fr/presse/dossiers_de_presse/081202ecotech2012/som_081202ecotech2012.php

² http://www.industrie.gouv.fr/portail/une/index_appe_cours.html

I.2. PROGRAMME OBJECTIVES

The overall goal of this program is to foster the emergence and spread of innovative technologies and services by a research effort focused on the various types of barriers whether technological, organizational, regulatory, economic, or social. The hoped-for impact should take the following forms:

- a significant reduction in polluted emissions through higher performance of treatment technologies;
- a reduction in the volume of industrial and urban waste as well as in the emission of toxic waste that ends up in ecosystems;
- an increase in the rate of raw material recycling and a reduction in the consumption of non-renewable resources;
- an improvement in monitoring of environmental quality by high-performance and cost-effective environmental measurement systems.

Program objectives specifically include:

- strengthening French research and innovation capacity in ecotechnologies in the face of international competition;
- developing sustainable processes, products and services for industry by encouraging socio-economic approaches to sustainable organization of industrial systems;
- focusing R&D efforts increasingly on technological solutions adapted to the needs of emerging nations as a way of reinforcing the international competitiveness of French firms.
- encouraging the emergence of breakthrough technologies in industrial processes or technology transfer from the fields of information technologies, nanotechnologies, and biotechnologies;
- ensuring a greater visibility for French activity in this area and strengthening partnerships between enterprises and laboratories.

I.3. OBJECTIVES OF THE CALL FOR PROPOSALS

This Call is open to:

- Public-private research projects involving public research organizations and private enterprises for either finalized or fundamental research around highly innovative concepts that are still a long time from market.
- Research projects potentially leading to either technological or organizational breakthroughs whether partnered with a private firm or not.

The ECOTECH program seeks to support creative partnerships that lead to the transfer of technologies developed in other, highly innovative, fields like ICTs, nanotechnologies or biotechnologies. The strategy is to attract new research teams not previously specialized in

the environmental field but whose know-how and technology base could contribute a large added scientific or technological value to an environmental project. By the same token, consortiums featuring social science teams are also favored by the ECOTECH program (especially under Theme 1).

The 2011 edition of the Call for Proposals is the final one in a cycle of calls launched in 2009. The Call for Proposals has been issued along the following four thematic lines:

- Theme 1: Paradigm change
- Theme 3: Transformation: developing secondary raw materials
- Theme 4: Reactivity: improved clean-up of polluted environments
- Theme 5: Monitor: more extensive and more accurate assessment of environmental quality

All environmental medias are under consideration by the ECOTECH program (water, air, soil, marine environments, etc.)

Theme 2 (sustainable industrial production) has not been re-opened in the current version of the Call. Initiators of projects in this thematic area are urged to look into two other Calls, “Sustainable Chemistry – Industry – Innovation – CD21” and Materials and Procedures for High-Performance Products”, which incorporate the sustainable production theme.

Projects centered around experimental development (prototypes, pilot projects, demonstrators, and the like) are excluded from this call and should be presented within the ECO-INDUSTRIE Call for Proposals, as launched by the DGCIS, ADEME, OSEO.

The ECOTECH Call for Proposals interfaces thematically with other ANR Calls and in particular with the cross-theme program “Contaminants and Environments: Measurement, Health, Adaptability, Behaviors and Uses (CESA).

The study of how dispersion of pollutants occurs and the impact of pollutants on various medias, as well as the development of bio-markers and bio-indicators, are topics for the program CESA. Technologies for monitoring and characterizing contaminants in ecosystems and specific analyses are however taken into account by the program ECOTECH.

II. THEMES

II.1. THEME 1: PARADIGM CHANGE

Eco-innovations are largely the result of developments in the area of industrial organization. This Theme is intended to encourage the implementation of sustainable production/consumption systems and develop operational decision-making tools for engineering and consulting firms.

The stakes involved in environmental issues would suggest a consideration of solutions arising from a systemic approach to the organization of production, and production systems. Research in these areas requires a particularly strong dose of interdisciplinarity (social and human sciences, environmental sciences, computer science, science for engineering, and life sciences). Proposals submitted under this program should be explicit concerning their response to various questions:

- What are the sources for technology breakthrough and paradigm change (goods, uses, services)?
- What is the impact of shifts in the regulatory framework in environmental fields on the organization of industrial systems?
- What are socio-economic models for sustainable production/consumption? How should they be characterized? Using what methods?

It would appear that many breakthroughs are the result of significant changes in the values of organizations, whether internal changes or ones that ripple through an entire system (examples could include functional economics or dematerialization). What are ways to foster cooperative interaction among the various actors in an industry (firms, sub-contractors, local and regional government, supra-national organizations, users, consumers, etc.) to arrive at common goals involving environmental impact reduction?

The ECOTECH program seeks mainly to support research on and development of tools and methods that will enable public and private strategies to integrate eco-innovations into urban and rural planning schemes and/or into innovative systems of industrial organization in the logic of the circular economy.

The objective is to generate new tools that will improve existing methodologies (ex: LCA) by integrating economic and social factors (ex: tools to assess the water footprint, material flows in industrial organization, and the like).

Proposals analyzing systems in France and abroad are welcomed.

II.2. THEME 2: TOWARDS SUSTAINABLE INDUSTRIAL PRODUCTION

This theme has not been re-opened in the current version of the Call. It is recommended that interested parties refer to two other Calls, “Sustainable Chemistry – Industry – Innovation – CD21” and Materials and Procedures for High-Performance Products”, which incorporate the sustainable production theme.

II.3. THEME 3: TRANSFORMATION AND THE USE OF SECONDARY RAW MATERIALS ?

Waste management and valorization is one the major themes to emerge from the French national assizes on the environment (“Grenelle de l’Environnement”) in 2008, and France plays a leading role internationally in this area. It is becoming a matter of strategic and economic importance to increase significantly the rate of waste recycling as an alternative to conventional treatment and elimination. Conventional approaches have reached a performance plateau, and it has become vital to foster the emergence of breakthrough technologies as well as to strengthen the academic content of research projects as a way of overcoming certain blockages in the recycling and transformation of waste.

This Theme is focused on industries characterized by high potential added-value (rare metals, plastics, nutrients recycling, etc.) and by large volumes of waste to be treated (sediments, muds, organic wastes, construction wastes, etc.) Eligible approaches under this Theme include treatment of industrial and urban waste matter and also waste from agriculture and forest management.

This call is intended to stimulate three types of projects:

- Systemic approaches that take into account the whole of an industry from ecoconception, production and recycling to waste re-use, in the goal of improving recycling rates. Economic analyses ought to go beyond cost-benefit to take into account the functioning of markets for raw materials, both primary and secondary, both in terms of the intended re-use as well as competing uses.
- Projects focused on the development of highly-innovative technological bricks that enable significant gains in technical or economic performance. The main barriers already identified are recycling potential evaluation, inefficiency in grinding, sorting and separating, and in short the need for deconstruction technologies.
- Projects that bear on technological breakthroughs are anticipated in the area of marking and traceability of materials or waste matter, in conjunction for example with ICT research. An example would be the application of innovations in ambient intelligence to achieve better controls for waste sorting through the use of specific sensors or networks of sensors.

II.4. THEME 4: REACT TO POLLUTION BY TREATMENT AND CLEANUP OF POLLUTED ENVIRONMENTS

Great advances have been achieved in technologies for treating water, gases, soil and marine environments in recent years, as measured in terms of performance, energy efficiency and cost optimization. Such technologies currently represent more than 60% of the European eco-industry market. This Theme covers all polluting emissions having an impact on either ecosystems or human health, with special attention paid to emissions identified in the National Public Health and Environment Plan 2009-2013 (PNSE2), including environmental disturbance, such as odours.

This Theme is focused for the most part on breakthrough research (partnered or not) :

- By encouraging technology transfers especially in the areas of biotechnologies and nanotechnologies, in hopes of stimulating major gains in either technical or economic performance in the area of pollution treatment.
- By advancing beyond the concept of “curative treatment” toward more systemic conceptions of “sustainable remediation” that take into account all the components of sustainable development, especially environmental and economic factors, in the elaboration of strategies to improve recyclability of water or rehabilitation (de-pollution + redevelopment) of a territory, a watershed, a coastal zone, etc.
- By emphasizing, in the case of water, “safer water” concepts that take into account the entire continuum from source to utilization/re-utilization. By the same token, special attention will be paid to projects focusing on “the water treatment plant of the future” that cover at the same time large systems, dispersed pollution and small-volume waste water systems (small public systems, small industrial firms, individual water treatment) through an integrated approach including the integration of the notion of the valorization of raw materials issuing from water treatment (N,P, and others).

A particular focus is on research at the interface between remedial processes on one hand and nanosciences, nanotechnologies and biotechnologies on the other hand, for treatment of complex medias and persistent pollution (examples: POPs, chlordecones, etc.).

The issue of risks associated with these new technologies and Life Cycle Assessment approach must be included in these projects.

Innovative approaches could include:

- a combination of treatment and uses (possible tie-in with Theme 3), especially in the area of water, soil or contaminated sediments;
- a combination of treatment with some other function whereby an element retains its original purpose (for example, a construction material) while acquiring a treatment property (cleaning air for example);
- the integration of treatment functions with production functions (treatment at the source) in order to avoid a mix of emissions, which is often more difficult to treat, and to facilitate recycling;

- a conception of treatment systems that include ecological engineering for installation and management of systems that are sustainable, adaptive, multi-functional and based on mechanisms that regulate natural ecosystems (self-organization, diversity, heterogeneity, and the like). The issue at stake is to go beyond empiricism to inaugurate an engineering system of emerging practices around a theoretical corpus.

Projects may also bear on the topic of existing emissions for which a measure of improvement is sought as well as on potentially polluting emissions for which there is not yet a strict regulatory framework and which result from current technological developments (emerging substances, nanoparticles, new materials, substitution products, etc.).

II.5. THEME 5: BETTER MONITORING THROUGH INCREASED AND IMPROVED ENVIRONMENTAL QUALITY MEASUREMENT

Environmental assessment environment quality evaluation have become an important eco-industry market, and increasingly it is the first step in environmental management policies for chronic risks (cf. EC Framework Directives on Water, Soil, Air, etc.) and for accidental environmental risks. The health-and-environment sector is expanding rapidly, for example in oversight of living spaces, interior air quality, etc.). A regulatory framework for soil and ecosystem quality is emerging and will eventually expand the market for environmental measurement.

This development calls for an implementation of strategies for deploying low-cost instrumentation (in soils, oceans, space or urban networks), as well as for tools for validating, managing and interpreting the data masses these strategies will generate. We now have to develop highly innovative integrated instrument systems, where integration involves the entire chain including sensors, and data acquisition, validation, storage, treatment and interpretation. In particular, successful proposals will focus on innovations stemming from ICT research, and on linkages between spatial or airborne observation systems and ground-level measurement. As concerns instrumentation, biotechnological and nanotechnological linkages will likely yield technological leaps.

Proposals should include a precise check-list of technological objectives, including performance criteria, treatment of uncertainty, and the targeted market.

The ECOTECH program aims to support projects that will help anticipate changes and developments in regulatory and normative frameworks (for water, ground, air, etc.). European and export markets possess a strong potential for growth, which will bring about a normalization of protocols and instruments, which in turn will require strengthened knowledge bases and methodological references upstream. In the light of this coming development, successful proposals will bring concrete elements to bear on forecasting regulatory change, including working documents of various government ministries, of the European Commission, of seminars organized by public actors, etc.

Current technological or economic barriers include:

Networks of integrated measurements and systems:

- development of integrated measurement networks ; associated real-time treatment systems, at low cost, for early warning, even retroactive processes especially for diffused pollution (at an urban or regional scale, or for geographical zones); the integration of sensors into multi-parameter or even multi-environments measurement systems (ex: water, ground, sediments); predictive models linked to measurement systems;
- improvement of linkages between earthbound, coastline and satellite measurement toward the goal of 3D integrated environmental surveillance (ex: an entire aquifer, air quality for a city, etc.); development of drones for environmental applications;
- process command and control (treatment, surveillance, network management, etc.);
- solutions in the area of intra-network communication (machine-to-machine);
- systems of real-time treatment of multi-source (distributed) data to enable production of indicators for managers.

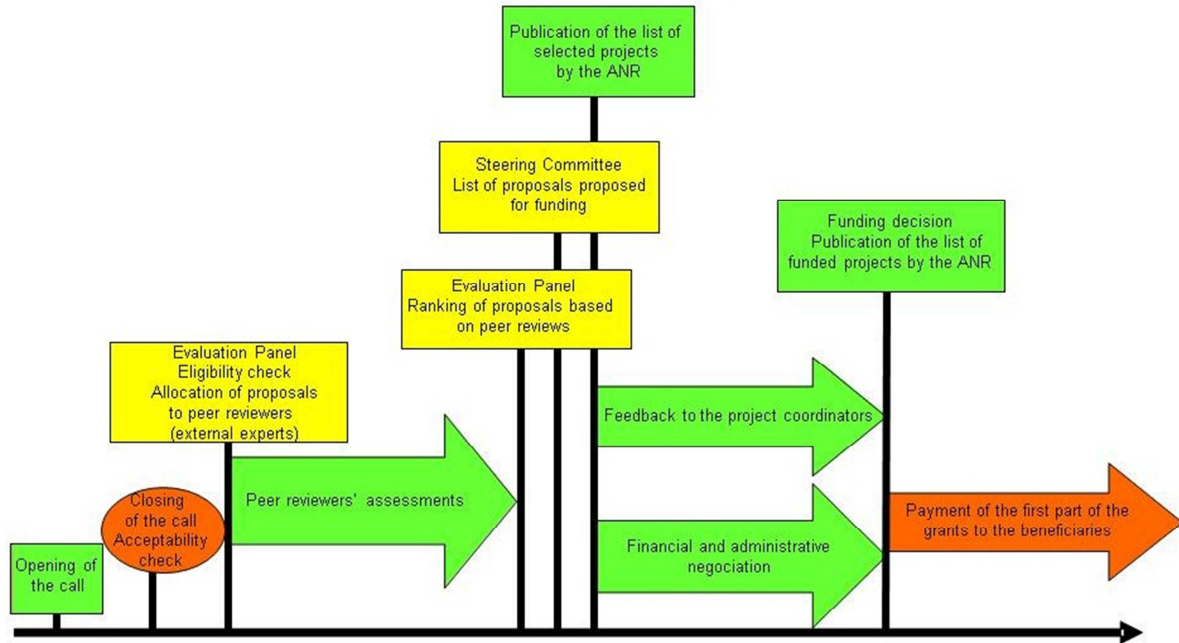
Sensors especially designed for on-site measurement:

- "smart" sensors that include other functions such as self-test and self-control functions, remote control, internal calculation, etc.;
- automatic tools and devices for detecting accidental pollution spills.
- solutions to breaks in continuous measurement, including anti-fouling, sensor cost reduction, etc.
- technologies for characterizing various types of exposure of populations, in conjunction especially with actions recommended within the framework of the PNSE2 for cases of known public health impact;
- tools and devices for obtaining representative samples of processes that vary fastly in time and in space and, in addition, technologies for detection and quantifying difficult-to-access pollution (aquifers, soil pollution, sunken ships, etc.);

Breakthrough concepts

- solutions in the field of health and quality of life (ex: atmospheric, olfactory and noise pollution) that are based on crowd sourcing (i.e. Individuals as nomadic sensor carriers) and upstream research on the acceptability of this notion.

III. EXAMINATION OF PROPOSALS



The selection procedure involves the following steps:

- Examination of the acceptability of the proposals by the ANR in accordance with the criteria stipulated in § 3.1.
- Examination of the eligibility of the project proposals by the evaluation panel in accordance with the criteria stipulated in § 3.2.
- Peer reviewers (external experts) are appointed by the evaluation panel.
- Peer reviewers issue their assessments based on the evaluation criteria specified in § 3.3.
- The evaluation panel reviews research proposals upon reception of the peer reviewers' assessments, and drafts a scientific evaluation report.
- Examination of the project proposals by the steering committee, which proposes a list of projects to be proposed for funding by the ANR (consult the steering committee grid on the web page dedicated to the call).
- Publication of the list of projects selected by the ANR (main list and possibly reserve list) on the ANR web site dedicated to the call for proposals.
- Sending the coordinators of non-selected projects a consolidated panel evaluation report.
- Finalising of the scientific, financial and administrative files for the selected projects.
- Publication of the list of projects selected for funding on the ANR web site dedicated to the call for proposals.
- First payments to the beneficiaries in accordance with the rules set in the regulations pertaining to the conditions of allocation of ANR funding (see link on ANR web site given on page 2).

The respective roles of the principal actors of the selection procedure are as follows:

- The peer reviewers (external experts) designated by the evaluation panel issue a written assessment for all proposed projects. Each project is reviewed by at least two experts.
- The evaluation panel comprising members of the research communities concerned, whether French or foreign, whose fields of expertise correspond to the requirements of the call and from the public or private sectors. The evaluation panel is mandated to evaluate the projects on the basis of the external experts' assessments, and to rank them into three categories: A (priority), B (non-priority), and C (rejected).
- The role of the steering committee, which comprises qualified prominent figures and institutional representatives, is to propose a list of projects to be funded by the ANR in accordance with the work of the evaluation panel.

The persons involved in project selection undertake to comply with the provisions of the ANR's code of ethics, and in particular the rules pertaining to the confidentiality and conflict of interest. The ANR code of ethics is available on the ANR web site³.

The operational and organisational procedures that apply to evaluation panels and steering committees are stated in documents available on the ANR web site².

Once the list of selected projects has been published, the compositions of the evaluation panels are available on the ANR web site⁴.

³ <http://www.agence-nationale-recherche.fr/DocumentsAgence>

⁴ <http://www.agence-nationale-recherche.fr/Comites>

III.1. ACCEPTABILITY CRITERIA

IMPORTANT

Project proposals that do not meet the acceptability criteria will not be submitted to the evaluation panel and will not be granted ANR funding under any circumstances.

- 1) The electronic and scanned **submission file** (see content in § 5.1) must be submitted **duly completed within the deadline**, and produced **in the format requested**.
- 2) **The scientific document** produced in the format provided **must not exceed 40 pages**, appendices excluded.
- 3) The project **coordinator** must not be a member of the evaluation panel or the programme steering committee.
- 4) The project **duration** must be between 24 months and 48 months.
- 5) **Minimum number of partners** (including the coordinating partner): 2
- 6) A project proposal **identical to a proposal already submitted to another ANR programme with the same year of edition** will not be acceptable.

III.2. ELIGIBILITY CRITERIA

IMPORTANT

Project proposals that do not meet the eligibility criteria after examination by the evaluation panel will not be granted ANR funding under any circumstances.

- 1) The project must **enter into the scope** of the call for proposals described in § 2.
- 2) **Type of research**: this call for proposals is open to:
 - Fundamental research projects⁵,
 - Industrial research projects⁵,

The projects considered as “experimental development⁵” are not accepted in this call, as they are eligible in the call ECO-INDUSTRIES initiated by DGCIS, ADEME and OSEO on similar topics.

3) **Consortium composition :**

This call is open to research projects in collaboration composed at least of two different partners, whom one at least is a public research organisation (university, EPST, EPIC,...)

- 4) Sino-French proposals have to follow the procedure described in annex 1.

⁵ See definitions of research categories in § 6.4.

III.3. EVALUATION CRITERIA

IMPORTANT

The submission files, appendices excluded, must contain all the information necessary for the evaluation. Only project proposals that satisfy the acceptability and eligibility criteria will be evaluated according to the criteria specified below.

- 1) Relevance of the proposal with respect to the call for proposals orientations**
 - suitability with respect to the thematic lines of the call for proposals (cf. § I.3),
 - suitability with respect to the recommendations of the call for proposals (cf. § III.4).
- 2) Scientific and technical quality**
 - scientific excellence in terms of progress of knowledge with respect to the state of the art,
 - innovative character in terms of technological innovation or prospects of innovation with respect to the existing situation,
 - overcoming technological barriers,
 - integration of the different disciplinary fields.
- 3) Methodology, quality of project construction and coordination**
 - positioning with respect to the state of the art or technological innovation,
 - scientific and technical feasibility of the project, choice of methods,
 - structuring of the project, rigour in presenting the final results (deliverables), identification of milestones,
 - quality of the management plan (experience, project financial and legal management), involvement of the coordinator,
 - strategy for the exploitation of the potential project results.
- 4) Overall impact of the project**
 - Potential for utilization or integration of the project results by the scientific or industrial community or society, and impact of the project in terms of knowledge acquisition,
 - industrial or technological application prospects and economic and commercial potential, business plan, integration in the industrial activity. Credibility of the stated way of using the results,
 - the response to questions of environmental impact.
- 5) Quality of the consortium**
 - level of scientific excellence or expertise of the teams,
 - appropriateness of the partnership for the scientific and technical objectives,
 - complementarity of the partnership,
 - openness to new players,
 - active role of the private partners in the project.
- 6) Appropriateness of project resources / Project feasibility**
 - schedule feasibility,
 - appropriateness of the project management means implemented,
 - appropriateness and justification of the requested funding,

- appropriateness of the coordination costs,
- justification of the personnel resources,
- justification of the temporary personnel resources (trainees, PhD students, post-doctoral students),
- proper estimate of the sum for investments and equipment purchases,
- proper estimate of the other financial items (missions, subcontracting, consumables, etc.).

The steering committee will conduct the final ranking of proposals suggested by the scientific evaluation committee. The main discussion points from which the steering committee will develop its rankings are:

- Does the project participate to the program strategy? Does it meet the objectives of the ECOTECH agenda? Are the topics already been funded through previous calls?
- What is the importance of environmental issues addressed by the project (reducing pollution, sustainable development, etc.)?
- What are the direct or indirect medium-term business? How important is the potential market and to what end?
- Does the objectives of the project have a strategic character for France?

If the project is in public-private partnership: is the industrial participation significant in view of challenges of the project? (commitment in staff and funding from private partners)?

III.4. IMPORTANT RECOMMENDATIONS

Any divergence from these recommendations is not necessarily penalizing but must be clearly explained.

The evaluation panel will judge the appropriateness of the divergence from the recommendations.

RECOMMENDATION CONCERNING PERSONNEL INVOLVEMENT

- The project proposals shall ensure a balance between permanent personnel and temporary personnel, as indicated in §4.

RECOMMENDATION CONCERNING "FOLLOW-UP" PROJECTS

- Project proposals following on from previous project(s) financed by the ANR shall include a detailed report of the results obtained and clearly describe the new problems posed and the new objectives.

RECOMMENDATION CONCERNING PROJECTS INVOLVING FOREIGN PARTNERS WITHOUT A PRIOR BILATERAL AGREEMENT SIGNED BETWEEN THE ANR AND A FOREIGN FUNDING AGENCY

The foreign partner must ensure his/her own financing and explicit in the scientific and technical proposal:

- Whether the activities are carried out with already existing funds and justify
- Whether the foreign partner has already received national funding for its contribution to the proposed project

- If not, indicate whether he/she requested a national funding for his/her participation in the project by sending out the same scientific proposal to a funding organisation of his/her country. In that case provide the complete details of the funding organisation as well as the name, function, e-mail and phone number of the programme director in his/her country.

RECOMMENDATIONS ABOUT THE CONSORTIUM

- In public-private partnerships, one expect in general for private partners a the total manpower (in man.month) for both permanent and temporary staff allocated to the project to represent about :
 - 20 to 30% for basic research projects
 - 30 to 60% for industrial research projects
- Involvement in the project of one or more end-users should be explicit through their participation in the consortium as a partner, or as a member of a steering committee or project monitoring....

RECOMMANDATIONS ABOUT ABSTRACTS AND PROJECT SUMMARY

- It is recommended to prepare an abstract as complete as possible, and a project summary clear and well documented. This part of the proposal is examined carefully by all members of both the scientific evaluation committee and the steering committee. These elements contribute greatly to the understanding of content and originality of the project.

IV. PARTICULAR FUNDING PROVISIONS

This section complements the general provisions set forth in §6.1.

CONDITIONS FOR FINANCING TEMPORARY PERSONNEL

Temporary personnel (trainees, post-doctoral students, fixed-term contract employees, temporary employees, etc.) may be assigned to projects in this programme. Except for special cases, the manpower (in person months) funded by the ANR for the project as a whole should not exceed 50% of the total manpower engaged in the project.

RECRUITING PHD SCHOLARSHIPS...

For that call, PhD scholarships are authorized by ANR. The funding of a PhD scholarship does not prejudice of the agreement of the university PhD administration. PhD students has to be considered as temporary personnel in the project proposal (see the condition above).

V. SUBMISSION CONDITIONS

V.1. CONTENT OF THE SUBMISSION FILE

The submission file, appendices excluded, must include all the elements necessary for the scientific and technical evaluation of the project. It must be completed before the submission deadline, the date and time of which are indicated on p. 2 of this call for proposals.

IMPORTANT

No additional elements will be accepted after the submission deadline, the date and time of which are indicated on p. 2 of this call for proposals.

The submission file comprises two documents that must be entirely filled out:

- a) The project "administrative and financial document" (called submission document). It is generated by the submission site after entering the required information on line.
- b) The "scientific document" is the scientific and technical description of the project. The document template is available in Word format on the ANR web site on the page dedicated to the call for proposals. Once completed, this document is to be uploaded to the submission site in the "Scientific document" tab. This document must not exceed 40 pages in the proposed format, appendices excluded.

It is recommended to produce the scientific and technical description of the project proposal in English, except in cases where the use of the French language is necessary. For instance: project proposals in social sciences and humanities where the French language may be used in the framework of an international evaluation; project proposals with a strong potential of exploitation (industrial research) which, for specific economic reasons, should not be reviewed by a researcher residing abroad. In the case that the scientific and technical

description is drawn up in French, a translation in English may be requested within a deadline compatible with the evaluation process.

V.2. SUBMISSION PROCEDURE

1) SUBMISSION SHALL BE MADE ON LINE ON THE DEDICATED SITE ACCESSIBLE FROM THE ANR WEB SITE AT THE ADDRESS INDICATED ON PAGE 1:

- before the date indicated on page 1,

The project can be modified right up until the call for proposals is closed.

Only the information present on the submission web site at the time of the closure of the call for proposals will be taken into account.

ANY FILE CONTAINING A SCIENTIFIC DOCUMENT AND A POSITIVE FUNDING REQUEST WHEN THE CALL CLOSES WILL BE CONSIDERED SUBMITTED, AND IN THIS CASE AN ELECTRONIC ACKNOWLEDGEMENT OF RECEIPT WILL BE SENT TO THE COORDINATOR.

2) TRANSMISSION OF A SCAN (in PDF format) of the administrative and financial document (called submission document).

This document is generated by the submission site after entering the required information on line.

This document is to be downloaded from the submission site, printed, signed by all the French partners, then scanned (in PDF format) and uploaded to the ANR submission site by the French project coordinator no later than the date indicated on page 2.

Reminder: the scientific representative and the direction (or any person authorized to sign on behalf of the organisation) of each public organisation or research foundation that is partner in a project **must sign** the administrative and financial document (submission document).

V.3. SUBMISSION RECOMMENDATIONS

It is strongly recommended:

- Not to wait until the submission deadline to submit the project;
- To start on-line entry of the administrative and financial data at the latest one week before the closing date of the call for proposals;
- To register the information entered on the submission site before leaving each page;
- To download the full project summary in Excel format from the "Summary tables" tab to verify the information entered on line;
- To regularly consult the website dedicated to the programme at the address indicated on p. 2, which contains updated information concerning the applicable procedures (submission site user's guide, budget preparation guide, glossary, FAQs, etc.);

- To contact the project officers by electronic mail at the address(es) indicated on p. 2 of this call for proposals.

V.4. PARTICULAR SUBMISSION CONDITIONS FOR THE APPLICATION FOR LABELLING BY A COMPETITIVENESS CLUSTER⁶

The application for project labelling by one or more competitiveness clusters is made from the submission site using the following procedure:

- When submitting the project proposal, the partner can indicate the intention to request labelling by one or more competitiveness clusters in the clusters tab.
- The coordinating partner must then download a prefilled form certifying project labelling by a competitiveness cluster and forward it to the cluster's governance structure.

Project partners are strongly recommended to contact the cluster in parallel to the project submission procedure.

V.5. SPECIFIC REQUIREMENTS FOR FRANCO-CHINESE PROPOSALS SUBMISSION

The ANR and the Ministry of Science and Technology of the People's Republic of China (MOST) agreed for jointly-funded research projects in the area of environmental technologies. Details are shown in Annex 1 (published in early January on the website of the Call for Proposals). The French partner's contribution to the proposal has to fit all acceptability and eligibility criteria of this call, especially the number of partners and the submission deadline.

⁶ See additional provisions related to clusters in § 6.3.

VI. GENERAL PROVISIONS AND DEFINITIONS

VI.1. ANR FUNDING

TYPE OF FUNDING

The funds allocated by the ANR to each partner will be provided as a non-refundable grant in accordance with the provisions of the "Regulations relative to conditions of allocating ANR funds", which can be consulted on the ANR web site⁷.

ANR funding is limited to project partners residing in France, the associated international laboratories of French research organisations and higher education and research institutions, and French institutions established abroad. Foreign partners may nevertheless participate on condition that each foreign partner ensures its own financing in the project.

IMPORTANT

The ANR will not allocate funding of less than €15,000 to a project partner.

FUNDING RATES FOR PRIVATE ENTERPRISES

The maximum ANR funding rates for private enterprises⁸ for this call for proposals are as follows:

Type of research	Maximum funding rate for SMEs	Maximum funding rate for companies other than SMEs
Fundamental research ⁹	45% of eligible expenditure	30% of eligible expenditure
Industrial research ¹⁰	45 %* of eligible expenditure	30 % of eligible expenditure

(*)For projects that do not involve a true collaboration between a company and a research organisation, the maximum funding rate is 35%.

There is true collaboration between a company and a research organisation when the research organisation underwrites at least 10% of the costs on which the funding request is based and when it retains the right to publish the results of the research, whenever these results are obtained from the organisation's own research efforts.

⁷<http://www.agence-nationale-recherche.fr/documents/uploaded/2007/reglement-modalites-attribution-aide.pdf>

⁸ See definitions relative to structures in § VI.6.

⁹ See definitions of research categories in § VI.4.

¹⁰ See definitions of research categories in § VI.4.

IMPORTANT

The incentive effect¹¹ of allocating ANR funding to companies other than SMEs must be established. Consequently, non-SMEs selected for funding under this call will be asked to provide the information necessary to evaluate this aspect during the finalizing of the administrative and financial files.

VI.2. REGULATORY AND CONTRACTUAL OBLIGATIONS

CONSORTIUM AGREEMENTS

For public / private partnership projects involving a research organisation and a private enterprise the partners must conclude, under the supervision of the project coordinator, an agreement specifying:

- the distribution of the tasks, human and financial resources and deliverables;
- the sharing of the intellectual property rights linked to findings obtained within the framework of the project;
- the project start and end dates;
- the conditions of publication / dissemination of the results;
- the application and transfer of project findings.

These agreements shall enable the existence of any indirect financial support entering into the calculation of the maximum level of funding authorized under the European Community Framework for state aid for research and development and innovation (referred to hereinafter as the "EC Framework") to be determined.

It will be assumed that there is no indirect aid if at least one of the following conditions is satisfied:

- The beneficiary company, working within the EC Framework, underwrites all the project costs;
- where results cannot be protected by intellectual property rights, the beneficiary research organisation is free to use and disseminate its results;
- where results can be protected by intellectual property rights, the beneficiary research organisation retains ownership of these rights;
- the beneficiary company, working within the EC Framework, that benefits from a result developed by a beneficiary research organisation remunerates the latter in keeping with market conditions.

The project coordinator will send a copy of this agreement to the ANR or to its support unit along with a statement signed by the partners certifying the compatibility of the agreement

¹¹ See definition of the incentive effect in § **Erreur ! Source du renvoi introuvable.**

with the provisions of the EC Framework and the convention(s) defining the conditions of project performance and financing. **The documents shall be sent within twelve months after the grant agreements come into force.**

The statement must therefore certify either that the consortium agreement fulfils one of the conditions listed above, or that all the intellectual property rights concerning the results and the rights of access to these results are allocated to the various partners in a way that reflects their respective interests and their level of participation in the project, including financial and other contributions. Failing this, the consortium agreement may be considered as a form of indirect funding, leading to a reduction in the percentage of direct funding allocated by the ANR.

MORAL RESPONSIBILITY

The funding of a project by the ANR does not relieve the project partners of their obligations concerning the regulations and code of ethics applicable to their area of activity.

The coordinator undertakes in the name of all the partners to keep the ANR and its support unit informed of any change likely to modify the content, the partnership or the schedule of project performance between the time of project submission and publication of the list of selected projects.

VI.3. ADDITIONAL PROVISIONS

COMPETITIVENESS CLUSTERS¹²

The partners of a project can have their project labelled by one or more competitiveness clusters. The labelling of a project by a cluster reflects the acknowledgement of the interest of the project with respect to the strategic orientations of the cluster.

As the project labelling application requires the disclosure of strategic, scientific and financial information to the cluster, the partner behind the labelling initiative is asked to obtain the agreement of the other project partners beforehand. In the ANR selection process, the steering committee is informed if a project has a cluster label.

If the project is financed by the ANR, the partners undertake to communicate the project intermediate and final reports to the competitiveness cluster. The ANR reserves the option of inviting representatives of the competitiveness cluster to attend any project reviews or follow-up and assessment operations.

The ANR may allocate additional funding to the partners of a labelled project¹³ if they are situated in the region(s) of the cluster(s) concerned.

If the partner is a company, this additional funding complements the initial project grant.

If the partner is a public research laboratory or a legal entity that is not subject to the EC Framework rules, this additional funding must be allocated to expenses that relate to the

¹² See definition of competitiveness cluster in § 6.3.

¹³ A project can be labelled by several clusters; in this case the geographical perimeter considered will be that covered by all the clusters having labeled the project.

competitiveness cluster's activity (oversight and coordination, technological watch, project engineering, etc.)¹⁴.

RESEARCH TAX CREDIT

The expenses incurred by companies to finance research work may be eligible for the research tax credit - see article 244 quater B of the general tax code.

The tax credit for projects selected by the ANR may be allocated to companies as additional funding on the basis of the part of the research budget that is not covered by ANR funding.

A prior opinion on the eligibility of the operation for the French research tax credit (called CIR) can be obtained by filing a request with the ANR for an advance tax ruling (prior agreement) - see article L80B3 bis of the "Livre des procédures fiscales" (French fiscal procedures book). To benefit from this provision, companies must choose the system provided for by article 3bis of article L80B (see paragraph 1 of the application form which can be downloaded from the following address):

<http://www.agence-nationale-recherche.fr/CIR>

The completed and signed form is to be returned by registered mail with acknowledgement of receipt to the following address:

ANR, Département DPC/CIR, 212 Rue de Bercy, 75012 Paris cedex

The employees who examine the research tax credit (CIR) application files are held to professional secrecy, on the same account as the tax authority employees under the conditions provided for in article L103 of the "Livre des procédures fiscales" (French fiscal procedures book).

VI.4. DEFINITIONS CONCERNING THE DIFFERENT RESEARCH CATEGORIES

These definitions figure in the EC Framework for state aids for research and development and innovation¹⁵. The following meanings apply:

Fundamental research: "experimental or theoretical work undertaken primarily to acquire new knowledge of the underlying foundations of phenomena or observable facts, without any direct practical application or use in view".

Industrial research: "the planned research or critical investigation aimed at the acquisition of new knowledge and skills for developing new products, processes or services or for bringing about a significant improvement in existing products, processes or services. It comprises the

¹⁴ To learn more about the conditions of use of the additional funding, see: <http://www.agence-nationale-recherche.fr/partenerariats-public-privé/poles-de-compétitivité/regles-de-calcul-et-d-utilisation-du-complément-lie-au-label/>

¹⁵ See JOUE 30/12/2006 C323/9-10

<http://www.agence-nationale-recherche.fr/documents/uploaded/2007/encadrement.pdf>

creation of components of complex systems, which is necessary for the industrial research, notably for generic technology validation, to the exclusion of prototypes covered [in the definition of experimental development] [...]".

Experimental development: “the acquiring, combining, shaping and using of existing scientific, technological, business and other relevant knowledge and skills for the purpose of producing plans and arrangements or designs for new, altered or improved products, processes or services. These may also include, for example, other activities aiming at the conceptual definition, planning and documentation of new products, processes and services. The activities may comprise producing drafts, drawings, plans and other documentation, provided that they are not intended for commercial use.

The development of commercially usable prototypes and pilot projects is also included where the prototype is necessarily the final commercial product and where it is too expensive to produce for it to be used only for demonstration and validation purposes. In case of a subsequent commercial use of demonstration or pilot projects, any revenue generated from such use must be deducted from the eligible costs.

The experimental production and testing of products, processes and services are also eligible, provided that these cannot be used or transformed to be used in industrial applications or commercially.

Experimental development does not include the routine or periodic changes made to products, production lines, manufacturing processes, existing services and other operations in progress, even if such changes may represent improvements.”

VI.5. DEFINITIONS CONCERNING PROJECT ORGANISATION

For each project, a single coordinating partner is designated, and each of the other partners designates a scientific representative.

Coordinating partner: research organisation or enterprise to which the coordinator belongs.

Coordinator: the person responsible for the scientific and technical coordination of the project, the setting up and formalizing of the collaboration between the partners, production of the project deliverables, holding of the progress meetings and communication of the results. The coordinator is the chief contact for the ANR and its support unit. The organisation to which the coordinator belongs is called the coordinating partner.

Partner: Unit of a research organisation or of an enterprise.

Scientific representative: each partner appoints a scientific representative who is the chief contact for the coordinator and is responsible for production of the partner’s deliverables.

Public private partnership project: research project for which at least one of the partners is a company and at least one of the partners belongs to a research organisation (see definitions in § 6.6 of this document).

VI.6. DEFINITIONS CONCERNING THE STRUCTURES

Research organisation: "an entity, such as a university or research institute, irrespective of its legal status (organized under public or private law) or way of financing, whose primary goal is to conduct fundamental research, industrial research or experimental development and to disseminate their results by way of teaching, publication or technology transfer; all profits are reinvested in these activities, the dissemination of their results or teaching; undertakings that can exert influence upon such an entity in the quality of for example, shareholders or members, shall enjoy no preferential access to the research capacities of such an entity or to the research results generated by it¹⁶ .

Technical centres, save duly justified exceptions, are considered to be research organisations.

Enterprise: An enterprise is considered to be any entity engaged in an economic activity, irrespective of its legal form. This includes, in particular, self-employed persons and family businesses engaged in craft or other activities, and partnerships or associations regularly engaged in an economic activity¹⁷.

Small and medium-sized enterprise (SME): an enterprise that meets the European Commission's definition of an SME¹⁷. More particularly, an SME is an independent company which employs fewer than 250 persons and which have an annual turnover not exceeding EUR 50 million, and/or an annual balance sheet total not exceeding EUR 43 million.

Microenterprise: Within the SME category, a Microenterprise is defined as an enterprise which employs fewer than 10 persons and whose annual turnover and/or annual balance sheet total does not exceed EUR 2 million.

Competitiveness cluster: A competitiveness cluster is an association of enterprises, research centres and training organisations, situated in a given geographical area and deploying a common development strategy with the aim of creating synergies around innovative projects conducted jointly and targeting one market or more¹⁸.

¹⁶ See Community framework for State aids for research, development and innovation, JOUE 30/12/2006 C323/9-11 (<http://www.agence-nationale-recherche.fr/documents/uploaded/2007/encadrement.pdf>)

¹⁷ See Recommendation of the European Commission of 6 May 2003 concerning the definition of small and medium-sized enterprises, JOUE 20/5/2003 L 124/39.

¹⁸ See <http://competitivite.gouv.fr/>

VI.7. OTHER DEFINITIONS

Incentive effect: Having an incentive effect means, under the terms of the community provisions, that the aid induces the aid recipient to increase its R&D activities, by increasing their size, scope, amount spent or speed. The incentive effect shall be analysed by comparing a situation without aid a situation with aid being granted, using the answers to a questionnaire sent to the company. Various criteria may be used for this purpose: total project costs, R&D personnel assigned to the project, scope of project, level of risk, increase in the risk of the work, increase in the company's R&D expenditure, etc.

Working time of researchers employed by a university: the percentage of working time of researchers employed by a university is based on the research time (considered at 100%). Thus a researcher employed by a university who devotes his/her entire research time to a project for one year will be considered to represent 12 person months. For the calculation of the full cost, however, the person's salary shall be counted at 50%.